

**Stantec**

**GRAND RENEWABLE ENERGY PARK**

NATURAL HERITAGE ASSESSMENT AND ENVIRONMENTAL IMPACT STUDY

# **Appendix C**

## **Bird Report**





Samsung C&T Corporation

2009/2010 Bird Baseline Monitoring  
Program and Results

Grand Renewable Energy Park

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September 23, 2010



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Project Report

September 23, 2010

**Samsung C&T Corporation**  
**Grand Renewable Energy Park**

**2009/2010 Bird Baseline Monitoring Program and Results**

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## 1. Introduction

Samsung C&T Corporation (Samsung) is proposing to construct a renewable power development, the Grand Renewable Energy Park Project (herein referred to as the “Project”), consisting of wind and solar power facilities on lands around South Cayuga within Haldimand County, Ontario.

In order to construct and operate the proposed project, Samsung must meet federal and provincial legislative requirements. In order to satisfy provincial and federal legislation relating to species at risk, and to meet the requirements of provincial and federal guidance documents relating to wind power projects, baseline information relating to the existing environment must be gathered. Hatch Ltd. (Hatch) was retained by Samsung to conduct baseline environmental monitoring for birds and bats associated with the proposed development.

This report provides the methodology used during the baseline monitoring program for birds, as well as the results and a discussion of their potential implications on the wind power portion of the proposed Project.

## 2. Survey Methodology

The baseline bird monitoring program was developed with respect to the following guidance documents:

- Guideline to Assist in the Review of Wind Power Proposals – Potential Impacts to Birds and Bird Habitats v. 1.0, August 2007 [Ministry of Natural Resources (MNR), 2007]
- Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds – Final, February 19, 2007 (Environment Canada and Canadian Wildlife Service, 2007a)
- Wind Turbines and Birds – A Guidance Document for Environmental Assessment – Final, February 2007 (Environment Canada and Canadian Wildlife Service, 2007b).

Though there is no guidance document with respect to solar power projects, the information gathered with respect to the wind power project provides sufficient baseline information on the existing environment of the area.

Prior to the start of baseline investigations, existing information from volunteer based monitoring programs (Ontario Breeding Bird Atlas, Breeding Bird Surveys, migration monitoring at Haldimand Bird Observatory), and documentation relating to Partners in Flight (PIF) Priority Species for North American Bird Conservation Region 13 (Great Lakes/St. Lawrence Plain) (Ontario PIF, 2005) was reviewed to establish bird use of the study area in order to determine the site sensitivity.

Based on (MNR 2007, EC 2007a or EC 2007b?), the proposed study area has a Site Sensitivity of ‘Very High’ based on the proximity to the Grand River, which is considered by Environment Canada to be an important area for migratory waterfowl, and the occurrence of species at risk (SAR) (such as Red-headed Woodpecker) and species with aerial flight displays (such as Horned Larks). Based on the assumed site sensitivity and the assumed size of the facility (large – 41 to 100 turbines), the study area is considered to be a Category 4 level of concern, which is the highest level.

Based on this level of concern, bird baseline monitoring was conducted for a single year across all four seasons (spring and fall migration, summer breeding, and over-wintering). The details of the monitoring program are outlined below by season.

The study area for the baseline monitoring program, as well as the survey locations for all seasons described below is shown in Figures 2.1 and 2.2. All raw field notes are provided within Appendix H.

## 2.1 Spring Migration

Four visits to the site were completed to characterize spring bird migration within the study area. Site visits occurred in 2009 on

- March 27
- April 8
- April 24
- May 11 – 12.

Work during this time focussed on the eastern half of the study area, as the area of interest was initially smaller. However, it is believed that adequate information of avian use of the study area during the spring has been gathered from this portion of the study area to discuss general trends across the entire area.

Starting in the morning, an observer drove slowly (20 to 30 km/h) along the roadsides of the study area with the windows open, while watching and listening for birds. All birds, including any SAR, observed were recorded and approximate locations of large flocks were noted, if observed. Flight heights and directions of any raptors or waterfowl observed were also noted. Weather conditions (precipitation, Beaufort wind speed, wind direction, air temperature, and cloud cover) were noted at the start of each survey and every hour following.

These surveys were repeated in the evening, on a subset of roadways within the study area, in order to detect different patterns of movements late in the day.

Following the morning observations, behavioural watches were completed for 1 hour at each of four proposed locations within the Project area. These survey locations were

- Dunnville-Haldimand Townline Rd., just north of Dover-Dunnville Rd. (Rainham Rd.), in the southeast of the study area
- River Rd. just west of Cayuga Sideroad South and River Rd. in the northeast of the study area
- Meadows Rd. in the northwest of the study area, between Mt. Olivet and Wilson (near the Fradenburg Tract Provincially Significant Wetland)
- Intersection of Bains Rd. and Sweets Corners Rd. in the southwestern portion of the study area (near the Wardell's Creek Woods Life Science Site).



Selkirk Provincial Park

**Legend**

Point Count Locations

- Grand River (GR01)
- Inland (IN01)
- Lake Erie (LA01)
- Woodlands (WO01)

- Roads
- +— Railway
- Topographic Contour (5m interval)
- Hydro Line
- Watercourse

- ▭ Study Area
- ▨ Wetlands
- ▭ Waterbody
- ▭ Parcels

- ▭ Provincial Park
- ▭ Wooded Area



Figure 2.1  
 Samsung C & T Corporation  
 Grand Renewable Energy Park

**2009 Bird Monitoring Point Count Locations**





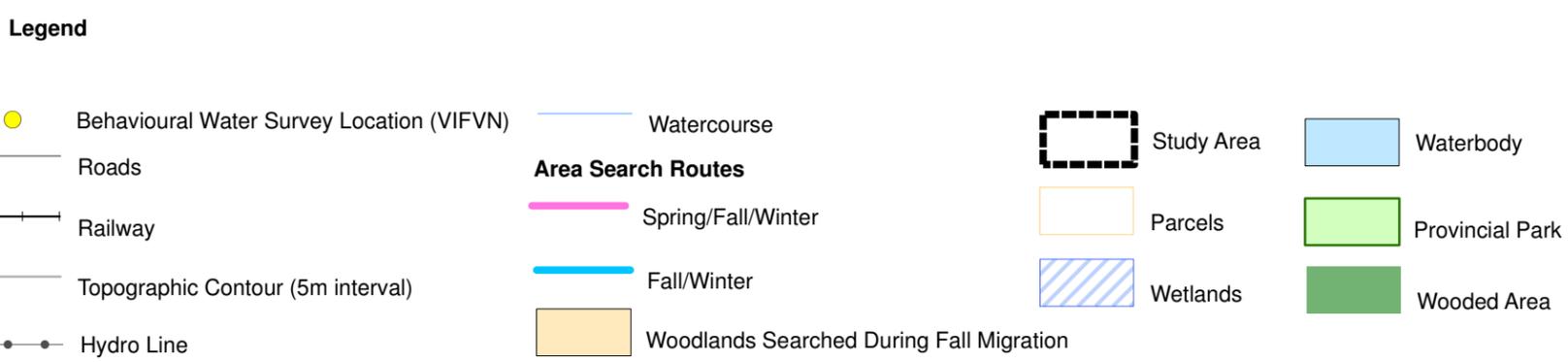
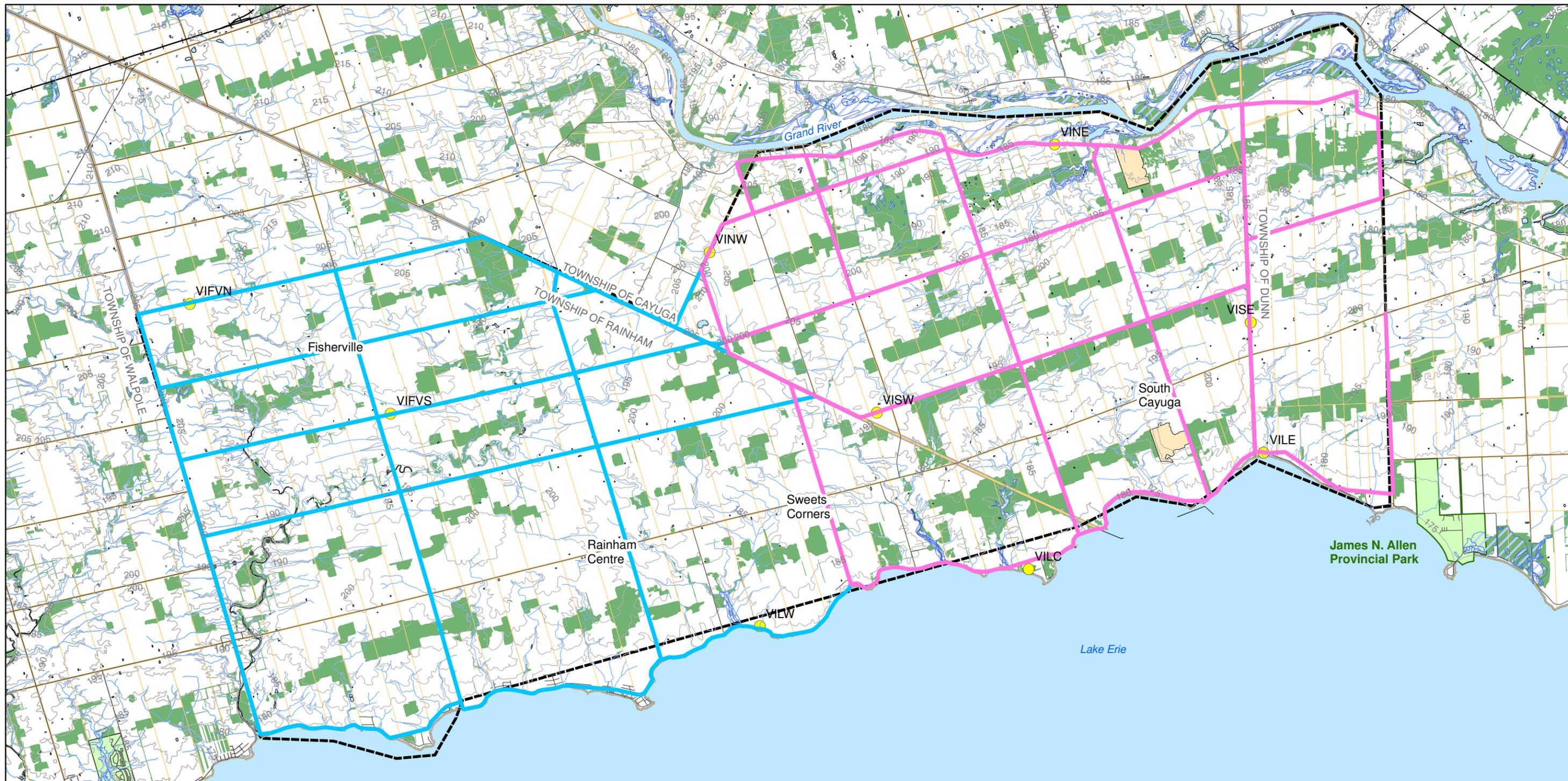


Figure 2.2  
 Samsung C & T Corporation  
 Grand Renewable Energy Park  
**2009 Bird Monitoring Area Search and Behavioural Watch Locations**



Weather conditions were noted prior to the surveys. The location at which the survey commenced was randomly determined, with the order being different for each visit. Notes on bird behaviour were recorded for the following values:

- bird species
- number of birds
- behaviour (such as flight patterns, notable actions, flight directions)
- height (Zone A – C): A = <40 m, B = 40 to 120 m (the risk zone of a standard wind turbine), C = >120 m. These values were estimated based on nearby landmarks (trees, transmission towers).
- distance from observer: 0 to 50, 50 to 100, 100 to 200, 200 to 500, 500 to 1000, > 1000 m
- compass direction from observer.

During the monitoring event in May (during the peak of passerine migration), an area search around the woodlots of the study area was conducted to determine if any were being heavily used by migrants. Area searches were conducted through the day, starting in the morning, and were completed within 5 hours of sunrise. As landowner permission for access to the woodlots was not obtained, the observer was restricted to working from the roadsides along the edges of woodlots that bordered the road.

## 2.2 Summer Breeding

Breeding bird surveys consisted of a combination of point counts, area searches, and behavioural watches. In addition, targeted surveys for SAR that may be present were conducted.

Summer breeding bird surveys were conducted during the first half of June (June 4, 5 and 10), with surveys repeated 20 days later during the second half of June (June 23, 24, and 26, and July 14 and 15). This provided replicate coverage of the site during the breeding bird period.

Seventy-one 10-minute, unlimited distance point counts were conducted from roadsides within the study area. These were distributed across the study area in the following manner:

- 20 point counts along the lakeshore
- 11 point counts along the Grand River (number limited by availability of suitable monitoring locations within the study area)
- 20 point counts from areas associated with woodlots – these point counts also involved broadcast calls for species at risk, discussed below
- 20 point counts in open areas (agricultural fields).

Point count locations along the river, lakeshore and associated with woodlots were chosen based on availability of suitable monitoring locations (i.e., proximity to shoreline, woodlot, etc). Point count locations in open areas were randomly selected.

Point counts commenced 0.5 hours prior to dawn and continued until a maximum of 5 hours after dawn. Spacing recommendations identified in EC guidance documents were maintained between point count locations.

Area searches were conducted within the study area while travelling between point count locations. Species were documented when not commonly observed during point count surveys.

Behavioural watches were conducted during the spring migration surveys, with two counts conducted per station across the breeding period. In addition to the four stations identified with respect to Spring Migration above, two additional stations in the western half of the study area, as well as three Lake Erie shoreline stations were monitored.

Targeted investigations were also conducted to detect the possible presence of the following SAR or species which may have otherwise not been detected during regular surveys based on behavioural traits or low densities:

- **Bald Eagle (*Haliaeetus leucocephalus*)** – Bald Eagles were targeted during behavioural watch surveys.
- **Common Nighthawk (*Chordeiles minor*)/Chimney Swift (*Chaetura pelagica*)** – Searches for these crepuscular species were conducted by driving slowly throughout the study area, as was conducted during spring migration monitoring, starting 1.5 hours prior to sunset, with the survey finishing once it is dark.
- **Acadian Flycatcher (*Empidonax virescens*)/Red-headed Woodpecker (*Melanerpes erythrocephalus*)/Canada Warbler (*Wilsonia canadensis*)/Hooded Warbler (*Wilsonia citrina*)** – As part of point counts associated with forest habitat, a broadcast survey of calls of these species was conducted. Protocols for the broadcast survey generally follow the guidelines of the Marsh Monitoring Program, with periods of passive observation and periods of broadcast calls.

## 2.3 Fall Migration

Surveys during the fall migration were conducted exactly as indicated during the spring migration, with the addition of the behavioural monitoring stations surveyed during the summer breeding bird period, and an additional survey period included. Surveys were conducted in 2009 and on the following dates:

- August 28, September 2 and 3
- September 25 and 30
- October 14 and 15
- November 3 and 4
- November 17 and 23.

Area searches of local woodlots were conducted during visits in September where landowner permission was provided. These two locations are shown in Figure 2.2.

## 2.4 Over-winter Resident

Surveys during the over-winter resident period were conducted by driving on roads within the study area, as was conducted for spring migration monitoring, to determine bird use of the area. The study area was visited three times:

- December 21, 2009
- February 4, 2010
- February 25, 2010.

## 2.5 Data Analysis

Results were analyzed to determine usage of the site across seasons. Averages are provided  $\pm$  Standard Deviations.

In order to determine the extent of community composition, the proportion of total observations was determined for species guilds (such as landbirds, waterfowl, etc).

In addition, utilization rates (expressed as # birds/minute/hectare), were calculated for point count surveys (for all observations within 100 m). Utilizations rates are useful for standardizing observations by the level of effort. Rates were averaged by site and by visit for comparative purposes.

## 2.6 Names and Qualifications of Observers

All site investigations were completed by Sean K. Male.

Sean K. Male, M.Sc. is a Terrestrial Ecologist specializing in assessments of terrestrial habitat, flora and fauna. Sean received his Bachelors of Science (Honours) in Biology from Queen's University, where he completed his Honour's thesis under Dr. Raleigh J. Robertson, studying the impacts of nestbox density in Tree Swallows (*Tachycineta bicolor*) on nest-building behaviour. He then completed a Master's of Science degree in the Watershed Ecosystem Graduate Program at Trent University under Dr. Erica Nol. Sean's thesis focussed on examining the impacts of a Canadian diamond mine on a population of breeding passerines. For his thesis, Sean spent two summers in the Canadian arctic studying populations of Lapland Longspurs (*Calcarius lapponicus*) around the Ekati Diamond Mine, located 300 km northeast of Yellowknife. While at Trent, Sean participated in the Northern Saw-whet Owl (*Aegolius acadicus*) Migration Banding Project at the Oliver Centre. Following his time at Trent, Sean participated in the Landscape Monitoring Program, participating in a study of the impacts of woodlot size on breeding birds.

Sean joined Hatch as a Terrestrial Ecologist in 2006. Since joining Hatch, Sean has participated in several environmental assessments for hydro and wind power developments. He has developed and implemented baseline monitoring and impact assessment programs for both terrestrial wildlife and plant communities, including detailed bird and bat studies for several wind power developments, including the proposed 10-MW Gesner Wind Energy Project, the proposed 100-MW Coldwell Wind Power Development near Marathon, Ontario, a proposed 20-MW facility near Port Dover, Ontario, and a proposed 110-MW wind facility in southwestern Ontario. Sean has also conducted terrestrial and wetland vegetation surveys for several proposed hydropower projects (totalling over 40 MW)

and solar projects (totalling over 130 MW) in southern and northern Ontario, and has participated in fisheries surveys for several of these projects.

### 3. Results and Discussion

All birds observed during the entire 2009/2010 monitoring season are identified in Table 3.1. Scientific nomenclature of bird species are provided in this table, and not in other tables throughout this report.

#### 3.1 Summer Breeding Period

##### 3.1.1 Point Counts

###### 3.1.1.1 Lakeshore Point Counts

Landbirds were the most commonly recorded guild of birds along the lakeshore, representing 47.7% of all observations, with American Robin (*Turdus migratorius*), Red-Winged Blackbird (*Agelaius phoeniceus*), and Common Grackle (*Quiscalus quiscula*) most commonly observed (Table 3.2). Waterbirds, such as gulls, and waterfowl, such as Canada Goose (*Branta canadensis*), were also commonly observed. These observations are consistent with agricultural/rural environments along the shorelines of the Great Lakes in southern Ontario.

Table 3.1 Birds Observed or Potentially Occurring Within the Study Area and Their Conservation Status<sup>1</sup>

Common Name	Scientific Name	Priority Species	Ontario		Canada			
			SRANK <sup>3</sup>	COSSARO <sup>4</sup>	ESA <sup>5</sup>	NRANK <sup>6</sup>	COSEWIC <sup>7</sup>	SARA <sup>8</sup>
			Partners In Flight	Conservation Status <sup>2</sup>				
				Spring	Summer	Fall	Winter	Observed 2009/2010 Site Visits
<b>Loons</b>								
Common Loon	<i>Cavia immer</i>		S4B		N5B, N5N	NAR	√	√
<b>Grebes</b>								
Horned Grebe	<i>Podiceps auritus</i>		S1B, S4N		N5		√	
<b>Cormorants</b>								
Double-crested Cormorant	<i>Phalacrocorax auritus</i>		S4B, SZN	NAR	N5B, N5N	NAR	√	√
<b>Hérons, Egrets and Bitterns</b>								
American Bittern	<i>Botaurus lentiginosus</i>		S4B, SZN		N4B, N3?N		√	
Great Blue Heron	<i>Ardea herodias</i>		S5B, SZN		N5B, NZN		√	√
Green Heron	<i>Butorides virescens</i>		S4B, SZN		N4B, NZN			
<b>Swans</b>								
Tundra Swan	<i>Cygnus columbianus</i>		N3N, N5B		S3B		√	√
<b>Geese</b>								
Snow Goose	<i>Chen caerulescens</i>		S5B		N5		√	
Canada Goose	<i>Branta canadensis</i>		S5B, SZN		N5B, N5N		√	√
<b>Ducks</b>								
Wood Duck	<i>Aix sponsa</i>		S5B, SZN		NZN, N5B		√	√
Gadwall	<i>Anas strepera</i>		S4B, SZN		N5B, N?N		√	
Northern Pintail	<i>Anas acuta</i>		S5		N5		√	√
American Wigeon	<i>Anas americana</i>		S4B, SZN		N5B, N?N			√
American Black Duck	<i>Anas rubripes</i>		S5B, SZN		N4B, N?N			√
Mallard	<i>Anas platyrhynchos</i>		S5B, SZN		N5B, N5N		√	√
Blue-winged Teal	<i>Anas discors</i>		S5B, SZN		N5B, NZN		√	
Green-winged Teal	<i>Anas crecca</i>		S4B, SZN		N5B, N5ZN		√	
Redhead	<i>Aythya americana</i>		S2B, SZN		N2N3N, N5B		√	√
Bufflehead	<i>Bucephala albeola</i>		S4		N5		√	√
Common Goldeneye	<i>Bucephala clangula</i>		S5		N5		√	√
Hooded Merganser	<i>Lophodytes cucullatus</i>		S5B, SZN		N5B, N5N			
Red-breasted Merganser	<i>Mergus serrator</i>		S4B, S5N		N5		√	√
Common Merganser	<i>Mergus merganser</i>		S5B, S5N		N5		√	√
Ring-necked Duck	<i>Aythya collaris</i>		S5		N5		√	
<b>Vultures</b>								
Turkey Vulture	<i>Cathartes aura</i>		S4B, SZN		N4N5B, NZN		√	√
<b>Hawks and Eagles</b>								
Osprey	<i>Pandion haliaetus</i>		S5B		N5		√	√
Sharp-shinned Hawk	<i>Accipiter striatus</i>		S5B, SZN	NAR	N5B, NZN	NAR	√	
Cooper's Hawk	<i>Accipiter cooperii</i>		S4B, SZN	NAR	N4B, N4N	NAR	√	√
Northern Harrier	<i>Circus cyaneus</i>	√	S4B, SZN	NAR	N5B, N4N	NAR	√	√
Broad-winged Hawk	<i>Buteo platyterus</i>		S5B, SZN		N5B, NZN		√	
Red-tailed Hawk	<i>Buteo jamaicensis</i>		S5B, SZN	NAR	N5B, NZN	NAR	√	√

Table 3.1 Birds Observed or Potentially Occurring Within the Study Area and Their Conservation Status<sup>1</sup>

Species		Conservation Status <sup>2</sup>							Observed 2009/2010 Site Visits			
Common Name	Scientific Name	Partners In Flight Priority Species	Ontario			Canada			Spring	Summer	Fall	Winter
			SRANK <sup>3</sup>	COSSARO <sup>4</sup>	ESA <sup>5</sup>	NRANK <sup>6</sup>	COSEWIC <sup>7</sup>	SARA <sup>8</sup>				
Rough-Legged Hawk	<i>Buteo lagopus</i>		S1B	NAR		N4N, N5B	NAR		√		√	√
Bald Eagle	<i>Haliaeetus leucocephalus</i>	√	S4B, SZN	SC	SC	N4B, N4N	NAR		√		√	
Golden Eagle	<i>Aquila chrysaetos</i>		S1B	END	END	N5B, N5N	NAR		√		√	
<b>Falcons</b>												
American Kestrel	<i>Falco sparverius</i>	√	S5B, SZN			N5B, N5N			√	√	√	√
<b>Upland Game Birds</b>												
Ring-necked Pheasant	<i>Phasianus colchicus</i>		SE			NE						
Ruffed Grouse	<i>Bonasa umbellus</i>		S5			N5						
Wild Turkey	<i>Melagris gallopavo</i>		S4			N3N4			√	√	√	√
<b>Gruiformes</b>												
American Coot	<i>Fulica americana</i>		S4B, SZN	NAR		N5B, NZN	NAR		√			
Virginia Rail	<i>Rallus limicola</i>		S4B, SZN			N5B, N?N						
Sora	<i>Porzana carolina</i>		S4B, SZN			N5B, N?N						
Sandhill Crane	<i>Grus canadensis</i>		S4B, SZN			N5B			√	√	√	
<b>Plovers</b>												
Semipalmated Plover	<i>Charadrius semipalmatus</i>		S4B, S4N			N5			√		√	
Killdeer	<i>Charadrius vociferus</i>		S5B, SZN			N5B, NZN			√	√	√	
<b>Sandpipers and Phalaropes</b>												
Spotted Sandpiper	<i>Actitis macularia</i>		S5B, SZN			N5B, NZN			√	√		
Upland Sandpiper	<i>Bartramia longicauda</i>		S4B, SZN			N5B			√	√		
Least Sandpiper	<i>Calidris minutilla</i>		S4B, S5N			N5					√	
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>		SNA			N5					√	
Lesser Yellowlegs	<i>Tringa flavipes</i>		S4B, S4N			N5			√		√	
Greater Yellowlegs	<i>Tringa melanoleuca</i>		S4B, S4N			N5			√		√	
Willet	<i>Tringa semipalmata</i>		SNA			N5					√	
Ruddy Turnstone	<i>Arenaria interpres</i>		SNA			N5				√		
American Woodcock	<i>Scolopax minor</i>		S5B, SZN			N5B, NZN						
Common Snipe	<i>Gallinago gallinago</i>		S5B, SZN			N5B, NZN						
<b>Gulls</b>												
Glaucous Gull	<i>Larus hyperboreus</i>		S4N			N5					√	
Great Black-backed Gull	<i>Larus marinus</i>		S2B			N5					√	√
Bonaparte's Gull	<i>Larus Philadelphia</i>		S4B, S4N			N5			√	√	√	√
Ring-billed Gull	<i>Larus delawarensis</i>		S5B, SZN			N5B, N5N			√	√	√	√
Herring Gull	<i>Larus argentatus</i>		S5B, SZN			N5B, N5N			√	√	√	
<b>Terns</b>												
Common Tern	<i>Sterna hirundo</i>		S4B, SZN	NAR		N5B, NZN	NAR			√	√	
Caspian Tern	<i>Hydroprogne caspia</i>		S3B			N5			√	√	√	
<b>Doves</b>												
Rock Pigeon	<i>Columba livia</i>		SE			NE			√	√	√	√
Mourning Dove	<i>Zenaida macroura</i>		S5B, SZN			N5			√	√	√	√

Table 3.1 Birds Observed or Potentially Occurring Within the Study Area and Their Conservation Status<sup>1</sup>

Common Name	Scientific Name	Partners In Flight Priority Species	Ontario				Canada				Observed 2009/2010 Site Visits	
			SRANK <sup>3</sup>	COSSARO <sup>4</sup>	ESA <sup>5</sup>	NRANK <sup>6</sup>	COSEWIC <sup>7</sup>	SARA <sup>8</sup>	Spring	Summer		Fall
<b>Cuckoos</b>												
Black-billed Cuckoo	<i>Coccyzus erythrophthalmus</i>	√	S4B, SZN			N5B					√	
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>		S4B, SZN			N4B					√	
<b>Owls</b>												
Great Horned Owl	<i>Bubo virginianus</i>		S5			N5						
Eastern Screech Owl	<i>Otus asio</i>		S5	NAR		N5	NAR					
<b>Coatsuckers and Swifts</b>												
Whip-poor-will	<i>Caprimulgus vociferus</i>	√	S4B, SZN	THR	THR	N5B, NZN	THR	THR				
Chimney Swift	<i>Chaetura pelagica</i>		S5B, SZN	THR	THR	N5B	THR	THR				
<b>Hummingbirds</b>												
Ruby-throated Hummingbird	<i>Archilochus colubris</i>		S5B, SZN			N5B					√	
<b>Kingfishers</b>												
Belted Kingfisher	<i>Ceryle alcyon</i>	√	S5B, SZN			N5B, N5N					√	
<b>Woodpeckers</b>												
Red-headed Woodpecker	<i>Merlanerpes erythrocephalus</i>	√	S3B, SZN	SC	SC	N3B	THR	THR				
Red-bellied Woodpecker	<i>Malanerpes carolinus</i>		S4			N3N4					√	
Downy Woodpecker	<i>Picoides pubescens</i>		S5			N5					√	
Hairy Woodpecker	<i>Picoides villosus</i>		S5			N5					√	
Northern Flicker	<i>Colaptes auratus</i>	√	S5B, SZN			N5B, N3N					√	
Yellow-bellied Sapsucker	<i>Sphyrapicus varius</i>		S5B			N5					√	
<b>Flycatchers</b>												
Eastern Wood-pewee	<i>Contopus virens</i>	√	S5B, SZN			N5B					√	
Alder Flycatcher	<i>Empidonax alnorum</i>		S5B, SZN			N5B						
Least Flycatcher	<i>Empidonax minimus</i>		S5B, SZN			N5B					√	
Willow Flycatcher	<i>Empidonax traillii</i>	√	S5B, SZN			N5B					√	
Great Crested Flycatcher	<i>Myiarchus crinitus</i>		S5B, SZN			N5B					√	
Eastern Phoebe	<i>Sayornis phoebe</i>		S5B, SZN			N5B					√	
Eastern Kingbird	<i>Tyrannus tyrannus</i>	√	S5B, SZN			N5B					√	
<b>Swallows</b>												
Purple Martin	<i>Progne subis</i>		S4B, SZN			N5B					√	
Tree Swallow	<i>Tachycineta bicolor</i>		S5B, SZN			N5B					√	
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	√	S5B, SZN			N5B					√	
Bank Swallow	<i>Riparia riparia</i>		S5B, SZN			N5B					√	
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>		S5B, SZN			N5B						
Barn Swallow	<i>Hirundo rustica</i>		S5B, SZN			N5B					√	
<b>Crows and Jays</b>												
Blue Jay	<i>Cyanocitta cristata</i>		S5			N5B, N5N					√	
American Crow	<i>Corvus brachyrhynchos</i>		S5B, SZN			N5B, N5N					√	
<b>Larks</b>												
Horned Lark	<i>Eremophila alpestris</i>		S5B, SZN			N5B, N5N					√	

Table 3.1 Birds Observed or Potentially Occurring Within the Study Area and Their Conservation Status<sup>1</sup>

Species		Conservation Status <sup>2</sup>							Observed 2009/2010 Site Visits			
Common Name	Scientific Name	Partners In Flight Priority Species	Ontario			Canada			Spring	Summer	Fall	Winter
			SRANK <sup>3</sup>	COSSARO <sup>4</sup>	ESA <sup>5</sup>	NRANK <sup>6</sup>	COSEWIC <sup>7</sup>	SARA <sup>8</sup>				
<b>Chickadees and Titmice</b>												
Black-capped Chickadee	<i>Poecile atricapillus</i>		S5			N5			√	√	√	√
Tufted Titmouse	<i>Baeolophus bicolor</i>		S2S3			N2						
<b>Nuthatches</b>												
Red-breasted Nuthatch	<i>Sitta canadensis</i>		S5			N5				√	√	
White-breasted Nuthatch	<i>Sitta carolinensis</i>		S5			N5				√	√	√
<b>Creepers</b>												
Brown Creeper	<i>Certhia americana</i>		S5B, SZN			N5			√			
<b>Wrens</b>												
Carolina Wren	<i>Thryothorus ludovicianus</i>		S3S4			N3					√	
House Wren	<i>Troglodytes aedon</i>		S5B, SZN			N5B			√	√	√	
Sedge Wren	<i>Cistothorus platensis</i>		S4B, SZN	NAR		N5B	NAR			√		
Marsh Wren	<i>Cistothorus palustris</i>		S5B, SZN			N5B, N?N				√		
<b>Kinglets and Gnatcatchers</b>												
Blue-gray Gnatcatcher	<i>Poliophtila caerulea</i>		S4B, SZN			N4B						
Ruby-crowned Kinglet	<i>Regulus calendula</i>		S5B, SZN			N5B			√			
Golden-crowned Kinglet	<i>Regulus satrapa</i>		S5B			N5			√	√	√	
<b>Thrushes</b>												
Eastern Bluebird	<i>Sialia sialis</i>		S4S5B, SZN	NAR		N5B, NZN	NAR			√		
Veery	<i>Catharus fuscescens</i>		S4B, SZN			N5B						
Wood Thrush	<i>Hylocichla mustelina</i>	√	S5B, SZN			N5B			√	√		
Hermit Thrush	<i>Catharus guttatus</i>		S5B			N5B, NZN					√	
American Robin	<i>Turdus migratorius</i>		S5B, SZN			N5B, N?N			√	√	√	
<b>Mimids</b>												
Gray Catbird	<i>Dumetella carolinensis</i>		S5B, SZN			N5B			√	√	√	
Northern Mockingbird	<i>Mimus polyglottos</i>		S4B, SZN			N3N4				√	√	
Brown Thrasher	<i>Toxostoma rufum</i>		S5B, SZN			N5B			√			
<b>Waxwings</b>												
Cedar Waxwing	<i>Bombycilla cedrorum</i>		S5B, SZN			N5				√	√	
<b>Starlings</b>												
European Starling	<i>Sturnus vulgaris</i>		SE			NE			√	√	√	√
<b>Shrikes and Vireos</b>												
Northern Shrike	<i>Lanius excubitor</i>		SNA			N5						
Warbling Vireo	<i>Vireo gilvus</i>		S5B, SZN			N5B			√	√	√	√
Yellow-throated Vireo	<i>Vireo flavifrons</i>		S4B, SZN			N4B						
Red-eyed Vireo	<i>Vireo olivaceus</i>		S5B, SZN			N5B				√		
<b>Wood Warblers</b>												
Blue-winged Warbler	<i>Vermivora pinus</i>	√	S4B, SZN			N4B						
Golden-winged Warbler	<i>Vermivora chrysoptera</i>	√	S4B, SZN	SC	SC	N4B	THR	THR				
Yellow Warbler	<i>Dendroica petechia</i>		S5B, SZN			N5B			√	√		
Chestnut-sided Warbler	<i>Dendroica pensylvanica</i>		S5B, SZN			N5B				√		

Table 3.1 Birds Observed or Potentially Occurring Within the Study Area and Their Conservation Status<sup>1</sup>

Common Name	Scientific Name	Partners In Flight Priority Species	Conservation Status <sup>2</sup>					Observed 2009/2010 Site Visits				
			Ontario	Canada				Spring	Summer	Fall	Winter	
			SRANK <sup>3</sup>	COSSARO <sup>4</sup>	ESA <sup>5</sup>	NRANK <sup>6</sup>	COSEWIC <sup>7</sup>	SARA <sup>8</sup>				
Pine Warbler	<i>Dendroica pinus</i>		S5B, SZN						√			
American Redstart	<i>Setophaga ruticilla</i>		S5B, SZN						√			
Ovenbird	<i>Seiurus aurocapillus</i>		S5B, SZN						√			
Common Yellowthroat	<i>Geothlypis trichas</i>		S5B, SZN						√			
Nashville Warbler	<i>Vermivora ruficapilla</i>		S5B						√			
Black & White Warbler	<i>Mniotilta varia</i>		S5B						√			
Black-throated Green Warbler	<i>Dendroica virens</i>		S5B						√			
Magnolia Warbler	<i>Dendroica magolia</i>		S5B						√			
Yellow Rumped Warbler	<i>Dendroica coronata</i>		S5B						√			
<b>Tanagers and Cardinals</b>												
Scarlet Tanager	<i>Piranga olivacea</i>		S5B, SZN									
Northern Cardinal	<i>Cardinalis cardinalis</i>		S5						√			
<b>Summer Finches</b>												
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	√	S5B, SZN						√			
Indigo Bunting	<i>Passerina cyanea</i>		S5B, SZN							√		
Dickcissel	<i>Spiza americana</i>		SNA								√	
<b>Towhees, Sparrows, and Allies</b>												
Eastern Towhee	<i>Pipilo erythrophthalmus</i>	√	S4B, SZN									
American Tree Sparrow	<i>Spizella arborea</i>		S4B							√		
Chipping Sparrow	<i>Spizella passerina</i>		S5B, SZN						√			
Field Sparrow	<i>Spizella pusilla</i>	√	S5B, SZN						√			
Vesper Sparrow	<i>Pooecetes gramineus</i>	√	S4B, SZN									
Savannah Sparrow	<i>Passerculus sandwichensis</i>	√	S5B, SZN						√			
Song Sparrow	<i>Melospiza melodia</i>		S5B, SZN						√			
Swamp Sparrow	<i>Melospiza georgiana</i>		S5B, SZN									
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>		S4B						√			
White-throated Sparrow	<i>Zonotrichia albicollis</i>		S5B						√			
Dark-eyed Junco	<i>Junco hyemalis</i>		S5B							√		
Snow Bunting	<i>Plectrophenax nivalis</i>		SNA								√	
Lapland Longspur	<i>Calcarius lapponicus</i>		S3B									√
<b>Icterids</b>												
Eastern Meadowlark	<i>Sturnella magna</i>	√	S5B, SZN						√			
Bobolink	<i>Dolichonyx oryzivorus</i>	√	S4B, SZN	THR <sup>9</sup>	THR <sup>9</sup>				√			
Red-winged Blackbird	<i>Agelaius phoeniceus</i>		S5B, SZN						√			
Common Grackle	<i>Quiscalus quiscula</i>		S5B, SZN						√			
Brown-headed Cowbird	<i>Molothrus ater</i>		S5B, SZN						√			
Orchard Oriole	<i>Icterus spurius</i>		SZB, SZN									
Baltimore Oriole	<i>Icterus galbula</i>	√	S5B, SZN									√

**Table 3.1 Birds Observed or Potentially Occurring Within the Study Area and Their Conservation Status<sup>1</sup>**

Species		Conservation Status <sup>2</sup>							Observed 2009/2010 Site Visits			
Common Name	Scientific Name	Partners In Flight Priority Species	Ontario			Canada			Spring	Summer	Fall	Winter
			SRANK <sup>3</sup>	COSSARO <sup>4</sup>	ESA <sup>5</sup>	NRANK <sup>6</sup>	COSEWIC <sup>7</sup>	SARA <sup>8</sup>				
<b>Winter Finches</b>												
House Finch	<i>Carpodacus mexicanus</i>		SE			N5			√	√		
Purple Finch	<i>Carpodacus purpureus</i>		S5B			N5B, N5N			√			
American Goldfinch	<i>Carduelis tristis</i>		S5B, SZN			N5B, N5N			√	√	√	√
<b>Old World Sparrows</b>												
House Sparrow	<i>Passer domesticus</i>		SE			NE5			√	√	√	√

**Notes:**

- <sup>1</sup> Based on those birds recorded during Ontario Breeding Bird Atlas Surveys in Region 2, which includes the study area (BSC et al., 2006).
- <sup>2</sup> Accessed from NHIC, 2008b, with the exception of Priority Species (Ontario Partners In Flight, 2005).
- <sup>3</sup> SRANK = Provincial Status (NHIC 2008b); S = Sub-national (i.e., Ontario), E = Exotic species; 1 = Critically Imperilled; 2 = Imperilled; 3 = Vulnerable; 4 = Apparently Secure; 5 = Secure; B = Breeding; ZN = Non-breeding migrant/vagrant.
- <sup>4</sup> COSSARO = Committee on the Status of Species at Risk in Ontario; NAR = Not at Risk, SC = Special Concern, THR = Threatened, END = Endangered.
- <sup>5</sup> ESA = Ontario Endangered Species Act, 2007; SC = Special Concern, THR = Threatened.
- <sup>6</sup> NRANK = National Status [NatureServe ([www.natureserve.org](http://www.natureserve.org)), in conjunction with Conservation Data Centres, such as NHIC]; N = National Rank (i.e., Canada), E = Exotic species; 1 = Critically Imperilled; 2 = Imperilled; 3 = Vulnerable; 4 = Apparently Secure; 5 = Secure; ? = Rank Uncertain, B = Breeding, ZN = non-breeding migrant/vagrant, N = non-breeding.
- <sup>7</sup> COSEWIC = Committee on the Status of Endangered Wildlife in Canada; NAR = Not at Risk, SC = Special Concern, THR = Threatened, END = Endangered.
- <sup>8</sup> SARA = Species at Risk Act – Canada; SC = Special Concern, THR = Threatened, END = Endangered (on Schedule 1); SC (3) = Special Concern (on Schedule 3).
- <sup>9</sup> Listed following completion of baseline surveys.

**Table 3.2 Species Composition of Birds Observed During Lakeshore Point Counts**

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Landbirds</b>			<b>745 (47.7%)</b>
Mourning Dove	34	27	61
Northern Flicker	1	2	3
Red-headed Woodpecker	0	1	1
Red-bellied Woodpecker	1	0	1
Downy Woodpecker	0	1	1
Red-breasted Nuthatch	1	0	1
White-breasted Nuthatch	0	1	1
Least Flycatcher	0	1	1
Willow Flycatcher	1	1	2
Eastern Kingbird	0	2	2
Tree Swallow	30	22	52
Barn Swallow	8	7	15
Northern Rough-winged Swallow	3	25	28
Purple Martin	9	17	26
Blue Jay	1	0	1
Black-billed Cuckoo	0	1	1
American Crow	4	3	7
Horned Lark	2	0	2
Black-capped Chickadee	2	2	4
House Wren	0	5	5
Marsh Wren	1	0	1
Sedge Wren	0	1	1
American Robin	55	44	99
Gray Catbird	1	2	3
European Starling	40	14	54
Cedar Waxwing	3	2	5
Red-eyed Vireo	1	0	1
Warbling Vireo	10	13	23
Yellow Warbler	6	10	16
Common Yellowthroat	1	1	2
Northern Cardinal	2	1	3
Savannah Sparrow	7	0	7
Chipping Sparrow	2	7	9
Song Sparrow	10	20	30
American Tree Sparrow	2	0	2
White-throated Sparrow	1	0	1
Common Grackle	67	41	108
Red-winged Blackbird	30	58	88
Brown-headed Cowbird	7	4	11
Baltimore Oriole	2	0	2
American Goldfinch	33	11	44
House Finch	6	2	8
House Sparrow	7	5	12
<b>Owls</b>			<b>0 (0%)</b>

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Raptors</b>			<b>0 (0%)</b>
<b>Shorebirds</b>			<b>36 (2.2%)</b>
Killdeer	22	9	31
Ruddy Turnstone	1	0	1
Spotted Sandpiper	0	4	4
<b>Waterbirds</b>			<b>515 (31.2%)</b>
Double-crested Cormorant	64	36	100
Bonaparte's Gull	74	1	75
Herring Gull	104	68	172
Ring-billed Gull	122	32	154
Caspian Tern	1	13	14
<b>Waterfowl</b>			<b>356 (21.6%)</b>
Mallard	14	22	36
Merganser sp.	20	0	20
Ring-necked Duck	1	0	1
Canada Goose	254	45	299
<b>Total</b>	<b>1068</b>	<b>584</b>	<b>1652 (100%)</b>

Species observed during lakeshore point counts are all common within southern Ontario during the breeding season. Red-headed Woodpeckers (*Melanerpes erythrocephalus*) were recorded foraging around a homestead located right along the shoreline of Lake Erie. Further, several PIF Priority Species were observed:

- Northern Flicker
- Eastern Kingbird
- Willow Flycatcher
- Baltimore Oriole
- Savannah Sparrow

Though identified as PIF Priority Species, these birds are all relatively common within the region during the breeding season, with all being recorded in at least 80% of OBBA survey squares within the Hamilton survey region (Region 15), which overlaps the study area (BSC et al., 2006).

Utilization rates for the lakeshore point count stations are provided in Table 3.3. The site with the greatest level of utilization was LA10. This is due to the presence of flocks of Ring-billed Gull, Bonaparte's Gull, and Canada Goose on the water of the lake.

Within the season, there was no difference between visits with respect to utilization rate. Overall, an average of  $0.56 \pm 0.45$  birds/ha/min were recorded within the study area during the summer breeding period.

**Table 3.3 Bird Utilization Rates for the Lakeshore Point Counts**

Station	Visit				Site Average
	1		2		
	# obs.	Utilization Rate	# obs.	Utilization Rate	
LA01	5	0.16	5	0.16	0.16 ± 0.00
LA02	21	0.67	10	0.32	0.49 ± 0.25
LA03	12	0.38	19	0.61	0.49 ± 0.16
LA04	15	0.48	34	1.08	0.78 ± 0.43
LA05	19	0.61	8	0.25	0.43 ± 0.25
LA06	16	0.51	5	0.16	0.33 ± 0.25
LA07	17	0.54	30	0.96	0.75 ± 0.30
LA08	21	0.67	14	0.45	0.56 ± 0.16
LA09	12	0.38	11	0.35	0.37 ± 0.03
LA10	88	2.80	50	1.59	2.20 ± 0.86
LA11	12	0.38	13	0.41	0.40 ± 0.03
LA12	12	0.38	17	0.54	0.46 ± 0.11
LA13	16	0.51	13	0.41	0.46 ± 0.07
LA14	12	0.38	19	0.61	0.49 ± 0.16
LA15	18	0.57	10	0.32	0.46 ± 0.18
LA16	15	0.48	10	0.32	0.40 ± 0.11
LA17	18	0.57	29	0.94	0.75 ± 0.25
LA18	9	0.29	17	0.54	0.41 ± 0.18
LA19	14	0.45	15	0.48	0.46 ± 0.02
LA20	15	0.48	12	0.38	0.43 ± 0.07
<b>Visit Average</b>	18.4 ± 16.9	0.58 ± 0.50	17.1 ± 11.1	0.54 ± 0.35	
<b>Lakeshore Average</b>					0.56 ± 0.45

3.1.1.2 Grand River Point Counts

Landbirds were the most commonly recorded guild of birds along the Grand River, representing 95.1% of all observations, with Red-Winged Blackbird, European Starling (*Sturnus vulgaris*), American Robin most commonly observed (Table 3.4). These observations are consistent with agricultural/rural environments, and reflect the fact that most point count locations were not directly on the shoreline of the Grand River.

**Table 3.4 Species Composition of Birds Observed During Grand River Point Counts**

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Landbirds</b>			<b>465 (95.1%)</b>
Mourning Dove	10	15	25
Rock Pigeon	2	4	6
Northern Flicker	1	2	3
Red-bellied Woodpecker	1	0	1
Downy Woodpecker	1	0	1
White-breasted Nuthatch	0	2	2

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
Least Flycatcher	0	1	1
Willow Flycatcher	2	3	5
Eastern Wood-Pewee	2	0	2
Eastern Kingbird	1	2	2
Tree Swallow	12	9	21
Barn Swallow	3	5	8
Purple Martin	0	1	1
Blue Jay	3	3	6
American Crow	6	9	15
Black-capped Chickadee	5	2	7
House Wren	0	3	3
American Robin	28	19	47
Gray Catbird	4	4	8
European Starling	6	53	59
Cedar Waxwing	2	0	2
Warbling Vireo	5	3	8
Chestnut-sided Warbler	1	2	3
Yellow Warbler	8	10	18
Common Yellowthroat	1	1	2
Northern Cardinal	5	8	13
Field Sparrow	0	1	1
Savannah Sparrow	1	7	8
Chipping Sparrow	11	9	20
Song Sparrow	13	21	34
Common Grackle	27	18	45
Red-winged Blackbird	24	37	61
Bobolink	1	2	3
Brown-headed Cowbird	4	3	7
Baltimore Oriole	3	1	4
American Goldfinch	9	0	9
House Sparrow	2	2	4
<b>Owls</b>			<b>0 (0%)</b>
<b>Raptors</b>			<b>1 (0.2%)</b>
Red-tailed Hawk	0	1	1
<b>Shorebirds</b>			<b>7 (1.4%)</b>
Killdeer	3	4	7
<b>Waterbirds</b>			<b>12 (2.5%)</b>
Great Blue Heron	0	1	1
Sandhill Crane	1	0	1
Ring-billed Gull	5	3	8
Caspian Tern	0	2	2

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Waterfowl</b>			<b>3 (0.6%)</b>
Wood Duck	1	0	1
Canada Goose	2	0	2
<b>Total</b>	<b>216</b>	<b>273</b>	<b>489</b>

Species observed during Grand River point counts are all common within Southern Ontario during the breeding season. Bobolink (*Dolichonyx oryzivorus*), which was listed as Threatened on the Endangered Species Act following completion of these surveys, were observed along the Grand River, as well as several PIF Priority Species. PIF Priority Species observed were

- Northern Flicker
- Eastern Kingbird
- Willow Flycatcher
- Field Sparrow
- Eastern Wood-Pewee
- Baltimore Oriole
- Savannah Sparrow

Again, though identified as PIF Priority Species, these birds are all relatively common within the region during the breeding season, with all except Chimney Swift being recorded in at least ~80% of OBBA survey squares within Region 15 (BSC et al., 2006).

Utilization rates for the Grand River point count stations are provided in Table 3.5. The site with the greatest level of utilization was GR05, through the difference was less significant than that noted at Lakeshore stations.

Within the season, there was no difference between visits with respect to utilization rate. Overall, an average of  $0.49 \pm 0.16$  birds/ha/min were recorded within the study area.

**Table 3.5 Bird Utilization Rates for the Grand River Point Counts**

Station	Visit				Site Average
	1		2		
	# obs.	Utilization Rate	# obs.	Utilization Rate	
GR01	11	0.35	14	0.45	$0.40 \pm 0.07$
GR02	13	0.41	15	0.48	$0.45 \pm 0.05$
GR03	18	0.57	22	0.70	$0.64 \pm 0.09$
GR04	13	0.41	16	0.51	$0.46 \pm 0.07$
GR05	27	0.86	23	0.73	$0.80 \pm 0.09$
GR06	15	0.48	20	0.64	$0.56 \pm 0.11$
GR07	19	0.61	17	0.54	$0.57 \pm 0.05$
GR08	7	0.22	15	0.48	$0.35 \pm 0.18$
GR09	9	0.29	10	0.32	$0.30 \pm 0.02$
GR10	18	0.57	13	0.41	$0.49 \pm 0.11$
GR11	13	0.41	8	0.23	$0.32 \pm 0.13$
Visit Average	$14.8 \pm 5.5$	$0.47 \pm 0.18$	$15.7 \pm 4.7$	$0.50 \pm 0.15$	
Grand River Average					$0.49 \pm 0.16$

### 3.1.1.3 Inland Point Counts

Landbirds were the most commonly recorded guild of birds at inland sites, representing 86% of all observations, with European Starling, Red-Winged Blackbird, and Savannah Sparrow (*Passerculus sandwichensis*) most commonly observed (Table 3.6). Other types of birds such as waterbirds and raptors were rarely observed inland. Species recorded are consistent with agricultural lands in southern Ontario.

**Table 3.6 Species Composition of Birds Observed During Inland Point Counts**

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Landbirds</b>			<b>818 (86.0%)</b>
Wild Turkey	1	0	1
Mourning Dove	21	26	47
Rock Pigeon	8	9	17
Northern Flicker	1	8	9
Red-bellied Woodpecker	3	0	3
Downy Woodpecker	0	3	3
White-breasted Nuthatch	0	2	2
Eastern Phoebe	1	0	1
Willow Flycatcher	1	6	7
Eastern Kingbird	3	1	4
Tree Swallow	4	1	5
Barn Swallow	16	18	32
Northern Rough-winged Swallow	1	0	1
Purple Martin	0	2	2
Blue Jay	2	1	3
American Crow	9	22	31
Horned Lark	7	2	9
Black-capped Chickadee	2	0	2
House Wren	3	6	9
Eastern Bluebird	1	0	1
American Robin	33	18	51
Gray Catbird	0	3	3
Wood Thrush	2	3	5
Northern Mockingbird	1	1	2
European Starling	70	66	136
Cedar Waxwing	2	1	3
Red-eyed Vireo	1	1	2
Warbling Vireo	7	2	9
Ovenbird	1	1	2
Yellow Warbler	11	5	16
Chestnut-sided Warbler	0	1	1
Common Yellowthroat	1	2	3
Indigo Bunting	0	1	1
Northern Cardinal	3	2	5
House Finch	1	0	1
Savannah Sparrow	21	55	76
Chipping Sparrow	9	18	27

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
Song Sparrow	10	24	34
Field Sparrow	1	5	6
Common Grackle	32	20	52
Red-winged Blackbird	72	32	104
Bobolink	5	3	8
Brown-headed Cowbird	7	8	15
Eastern Meadowlark	4	2	6
Baltimore Oriole	2	0	2
American Goldfinch	17	22	39
House Sparrow	8	12	20
<b>Owls</b>			<b>0 (0%)</b>
<b>Raptors</b>			<b>5 (0.5%)</b>
Northern Harrier	1	1	2
Red-tailed Hawk	3	0	3
<b>Shorebirds</b>			<b>37 (3.9%)</b>
Killdeer	12	24	36
Upland Sandpiper	1	0	1
<b>Waterbirds</b>			<b>57 (6.0%)</b>
Great Blue Heron	1	0	1
American Bittern	1	0	1
Ring-billed Gull	41	13	54
Caspian Tern	0	1	1
<b>Waterfowl</b>			<b>32 (3.4%)</b>
Mallard	0	25	25
Canada Goose	7	0	7
<b>Total</b>	<b>472</b>	<b>479</b>	<b>951</b>

Species observed during lakeshore point counts are all common within southern Ontario during the breeding season. Bobolink, recently listed as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), was observed during the inland point counts, as well as several PIF Priority Species. The PIF Priority Species observed are as follows:

- Northern Flicker
- Northern Harrier
- Baltimore Oriole
- Eastern Kingbird
- Wood Thrush
- Bobolink
- Willow Flycatcher
- Field Sparrow
- Savannah Sparrow

Again, though identified as PIF Priority Species, these birds are all relatively common within the region during the breeding season, with all except Northern Harrier being recorded in at least ~80% of OBBA survey squares (BSC et al., 2006).

Utilization rates for the summer breeding period are provided in Table 3.7. The site with the greatest level of utilization was IN13, due to flocks of European Starlings and Savannah Sparrows present near the point count station.

Within the inland stations, there was no difference between visits with respect to utilization rate. Overall, an average of  $0.53 \pm 0.28$  birds/ha/min were recorded within the study area.

**Table 3.7 Bird Utilization Rates for the Inland Point Counts**

Station	Visit				Site Average
	1		2		
	# obs.	Utilization Rate	# obs.	Utilization Rate	
IN01	13	0.41	22	0.71	$0.56 \pm 0.20$
IN02	14	0.45	15	0.48	$0.46 \pm 0.02$
IN03	18	0.57	18	0.57	$0.57 \pm 0.00$
IN04	10	0.32	11	0.35	$0.33 \pm 0.02$
IN05	15	0.48	38	1.21	$0.84 \pm 0.52$
IN06	21	0.67	7	0.22	$0.45 \pm 0.32$
IN07	16	0.51	15	0.48	$0.49 \pm 0.02$
IN08	16	0.51	15	0.48	$0.49 \pm 0.02$
IN09	14	0.45	20	0.64	$0.54 \pm 0.14$
IN10	19	0.61	12	0.38	$0.49 \pm 0.16$
IN11	12	0.38	7	0.22	$0.30 \pm 0.11$
IN12	20	0.64	17	0.54	$0.59 \pm 0.07$
IN13	51	1.62	38	1.21	$1.42 \pm 0.29$
IN14	21	0.67	19	0.61	$0.64 \pm 0.05$
IN15	14	0.45	21	0.67	$0.56 \pm 0.16$
IN16	9	0.29	11	0.35	$0.32 \pm 0.05$
IN17	15	0.48	22	0.70	$0.59 \pm 0.16$
IN18	10	0.32	7	0.22	$0.27 \pm 0.07$
IN19	10	0.32	9	0.29	$0.30 \pm 0.02$
IN20	15	0.48	11	0.35	$0.41 \pm 0.09$
<b>Visit Average</b>	$16.7 \pm 8.9$	$0.53 \pm 0.28$	$16.8 \pm 8.8$	$0.53 \pm 0.28$	
<b>Inland Average</b>	$0.53 \pm 0.28$				

#### 3.1.1.4 Woodland Point Counts

Landbirds were the most commonly recorded guild of birds within the woodlands sampled, representing 94.9% of all observations, with Common Grackle, European Starling, American Robin, and Song Sparrow (*Melospiza melodia*) most commonly observed (Table 3.8). Other types of birds such as waterbirds and raptors were rarely observed. These observations are consistent with woodlands fragments within agricultural lands in southern Ontario.

**Table 3.8 Species Composition of Birds Observed During Woodland Point Counts**

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Landbirds</b>			<b>620 (94.9%)</b>
Wild Turkey	2	1	3
Mourning Dove	18	12	30
Rock Pigeon	0	4	4
Northern Flicker	3	7	10
Red-bellied Woodpecker	2	1	3
Downy Woodpecker	3	10	13
White-breasted Nuthatch	3	3	6
Red-breasted Nuthatch	0	1	1
Northern Rough-winged Swallow	0	2	2
Barn Swallow	2	3	5
Purple Martin	1	0	1
Great Crested Flycatcher	5	0	5
Eastern Kingbird	1	0	1
Eastern Wood-Pewee	6	6	12
Blue Jay	4	3	7
Ruby-throated Hummingbird	1	1	2
Yellow-billed Cuckoo	1	0	1
American Crow	10	21	31
Black-capped Chickadee	4	3	7
Golden-crowned Kinglet	0	1	1
House Wren	9	11	20
American Robin	14	31	45
Gray Catbird	7	3	10
Wood Thrush	12	10	22
Eastern Bluebird	1	1	2
European Starling	21	44	65
Cedar Waxwing	0	4	4
Red-eyed Vireo	9	4	13
Warbling Vireo	1	0	1
Chestnut-sided Warbler	1	0	1
Ovenbird	1	1	2
Yellow Warbler	7	5	12
Common Yellowthroat	2	2	4
Rose-breasted Grosbeak	2	2	4
Indigo Bunting	2	1	3
Northern Cardinal	2	4	6
Savannah Sparrow	4	3	7
Field Sparrow	4	9	13
Chipping Sparrow	5	3	8
Song Sparrow	26	19	45
Common Grackle	10	120	130
Red-winged Blackbird	15	2	17
Brown-headed Cowbird	11	2	13
Eastern Meadowlark	1	0	1

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
Baltimore Oriole	6	4	10
American Goldfinch	7	5	12
<b>Owls</b>			<b>0 (0%)</b>
<b>Raptors</b>			<b>11 (1.7%)</b>
Turkey Vulture	2	3	5
Cooper's Hawk	1	0	1
Red-tailed Hawk	2	3	5
<b>Shorebirds</b>			<b>8 (1.2%)</b>
Spotted Sandpiper	0	1	1
Killdeer	4	3	7
<b>Waterbirds</b>			<b>6 (0.9%)</b>
Sandhill Crane	3	0	3
Ring-billed Gull	1	2	3
<b>Waterfowl</b>			<b>8 (1.2%)</b>
Canada Goose	1	0	1
Mallard	7	0	7
<b>Total</b>	<b>267</b>	<b>386</b>	<b>653</b>

Species observed during woodland point counts are all common within Southern Ontario during the breeding season. Several PIF Priority Species were observed, as detailed below:

- Northern Flicker
- Eastern Kingbird
- Willow Flycatcher
- Field Sparrow
- Eastern Wood-Pewee
- Savannah Sparrow
- Baltimore Oriole

Again, though identified as PIF Priority Species, these birds are all relatively common within the region during the breeding season, with all being recorded in at least ~80% of OBBA survey squares (BSC et al., 2006).

Utilization rates for the summer breeding period are provided in Table 3.9. The site with the greatest level of utilization was WO14, as a result of a flock of European Starling near the point count location.

Within the woodland stations, there was no difference between visits with respect to utilization rate. Overall, an average of  $0.35 \pm 0.17$  birds/ha/min were recorded within the study area during point counts.

**Table 3.9 Bird Utilization Rates for the Woodland Point Counts**

Station	Visit				Site Average
	1		2		
	# obs.	Utilization Rate	# obs.	Utilization Rate	
WO01	12	0.38	15	0.48	0.43 ± 0.07
WO02	15	0.48	5	0.16	0.32 ± 0.23
WO03	8	0.25	9	0.29	0.27 ± 0.02
WO04	17	0.54	16	0.51	0.53 ± 0.02
WO05	11	0.35	4	0.13	0.24 ± 0.16
WO06	13	0.41	18	0.57	0.49 ± 0.11
WO07	16	0.51	7	0.22	0.37 ± 0.20
WO08	11	0.35	13	0.41	0.38 ± 0.05
WO09	7	0.22	5	0.16	0.19 ± 0.05
WO10	9	0.29	5	0.16	0.22 ± 0.09
WO11	11	0.35	9	0.29	0.32 ± 0.05
WO12	11	0.35	8	0.25	0.30 ± 0.07
WO13	10	0.32	13	0.41	0.37 ± 0.07
WO14	15	0.48	34	1.08	0.78 ± 0.43
WO15	7	0.22	7	0.22	0.22 ± 0.00
WO16	13	0.41	5	0.16	0.29 ± 0.18
WO17	13	0.41	4	0.13	0.27 ± 0.20
WO18	10	0.32	11	0.35	0.33 ± 0.02
WO19	10	0.32	10	0.32	0.32 ± 0.00
WO20	12	0.38	6	0.19	0.29 ± 0.14
Visit Average	11.6 ± 2.8	0.37 ± 0.09	10.2 ± 7.0	0.32 ± 0.22	
Woodland Average					0.35 ± 0.17

### 3.1.2 Vista Surveys

Landbirds were the most commonly recorded guild of birds during vista surveys, representing 63% of all observations, with Red-Winged Blackbird, European Starling and Barn Swallow (*Hirundo rustica*). Turkey Vultures (*Cathartes aura*) were the most commonly observed species during vista surveys (Table 3.10). Species recorded are consistent with those found throughout this region in southern Ontario.

Species observed during lakeshore point counts are all common within southern Ontario during the breeding season. Bobolink was the lone species at risk noted during point count surveys, along with PIF Priority Species. The PIF Priority Species observed are as follows:

- Northern Flicker
- Eastern Kingbird
- Field Sparrow
- Northern Harrier
- Savannah Sparrow

Again, though identified as PIF Priority Species, these birds are all relatively common within the region during the breeding season, with all except Northern Harrier being recorded in at least ~80% of OBBA survey squares (BSC et al., 2006).

**Table 3.10 Species Composition of Birds Observed During Vista Surveys**

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Landbirds</b>			<b>497 (63.2%)</b>
Mourning Dove	8	9	17
Rock Pigeon	1		1
Northern Flicker	3	2	5
Red-bellied Woodpecker	2		2
Downy Woodpecker	1		1
Cuckoo sp.	1		1
Black-billed Cuckoo		1	1
Eastern Wood-pewee		1	1
Eastern Phoebe	1		1
Eastern Kingbird	3	1	4
Tree Swallow	6	2	8
Barn Swallow	19	16	35
Northern Rough-winged Swallow	5	2	7
Purple Martin	5	2	7
Blue Jay	3	8	11
American Crow	9	5	14
Horned Lark	18	6	24
Black-capped Chickadee		2	2
House Wren	2		2
American Robin	11	5	16
Northern Mockingbird		3	3
European Starling	53	32	85
Cedar Waxwing	2		2
Warbling Vireo	5	2	7
American Redstart		1	1
Yellow Warbler	2	2	4
Chestnut-sided Warbler	1		1
Common Yellowthroat	1	1	2
Northern Cardinal	2	1	3
House Finch	1		1
Savannah Sparrow	12	18	30
Chipping Sparrow	3		3
Song Sparrow	6	14	20
Field Sparrow	1	1	2
Common Grackle	4	2	6
Red-winged Blackbird	55	60	115
Bobolink	4	1	5
Brown-headed Cowbird	11	1	12
Eastern Meadowlark	1	1	2
American Goldfinch	9	11	20
House Sparrow	2	11	13
<b>Owls</b>			<b>0 (0.0%)</b>

Species	Number by Visit		Total # (% of Total)
	Visit 1	Visit 2	
<b>Raptors</b>			<b>183 (23.3%)</b>
Turkey Vulture	92	56	148
Northern Harrier	4	2	6
Red-tailed Hawk	16	10	26
American Kestrel	2	1	3
<b>Shorebirds</b>			<b>16 (2.0%)</b>
Killdeer	10	4	14
Upland Sandpiper	1	1	2
<b>Waterbirds</b>			<b>85 (10.8%)</b>
Great Blue Heron	6		6
Sandhill Crane		4	4
Double-crested Cormorant	3	12	15
Gull Sp.	20		20
Bonaparte's Gull		1	1
Herring Gull	2		2
Ring-billed Gull	7	23	30
Common Tern		4	4
Caspian Tern	1	2	3
<b>Waterfowl</b>			<b>5 (0.6%)</b>
Mallard	2	1	3
Canada Goose	2		2
<b>Total</b>	<b>441</b>	<b>345</b>	<b>786</b>

### 3.1.3 Area Searches

During area searches conducted while moving between point count locations, Osprey (*Pandion haliaetus*) was the lone species detected that was not regularly recorded during point count surveys. The osprey was observed along the Grand River, where there is a known nest support pole installed on the North side of the river, opposite the northern boundary of the study area.

Area searches in the evening failed to detect Common Nighthawk or Chimney Swift within the study area. As a result, it is not expected that these species are common within the study area.

### 3.1.4 Conclusion

Overall, the breeding bird community of the study area was found to be consistent with what would be expected for the region. No natural breeding bird colonies were detected during baseline surveys within the study area.

Species at risk recorded during the breeding bird period included Bald Eagle, Red-headed Woodpecker and Bobolink.

Bald Eagle are expected to remain near the shoreline of Lake Erie. A nest location for Bald Eagle was never identified, though nest locations are known from the vicinity of the Grand River east of the study area.

The location of the Red-headed Woodpecker nest was never identified given its likely occurrence on private property. Other Red-headed Woodpeckers may be present within the study area, though undetected during baseline surveys.

Bobolink are a fairly common breeder within grasslands, both natural and agricultural, in southern Ontario. It is expected that there are several Bobolink nests found within these habitats of the study area.

## 3.2 Spring Migration Period

### 3.2.1 Vista Surveys

Landbirds were the most commonly recorded guild of birds during vista surveys, representing 41.6% of all observations, with Horned Lark, European Starling, and American Goldfinch most commonly observed (Table 3.11). Waterfowl represented approximately 30 % of all observations, though this is the result of a large number of waterfowl observed moving along the Grand River during the survey of April 8. Of all species, Turkey Vultures were most commonly observed, with raptors representing about 18% of all birds observed.

Observations are consistent with regional expectations for spring migration. Golden Eagle (*Aquila chrysaetos*) and Bald Eagle were the only species at risk observed during the surveys. The Golden Eagle represents a migrant bird transiting through the study area, while the Bald Eagle may be a migrant or a resident bird.

**Table 3.11 Species Composition of Birds Observed During Spring Migration Vista Surveys**

Species	Number by Visit				Total # (% of Total)
	Visit 1	Visit 2	Visit 3	Visit 4	
<b>Landbirds</b>					<b>514 (41.6%)</b>
Mourning Dove				2	2
Rock Pigeon		9		9	18
Northern Flicker			2		2
Red-bellied Woodpecker	1			1	2
Tree Swallow		2	1	5	8
Barn Swallow			2	4	6
Purple Martin				1	1
Blue Jay		2	1	2	5
American Crow	6	9	13	25	53
Horned Lark		53	23	13	89
American Robin	1	1	1	2	5
European Starling	21	10	1	51	83
Northern Cardinal		1		2	3
Savannah Sparrow			4	3	7
Song Sparrow	1			1	2
Lapland Longspur		30			30
Blackbird sp.		70			70
Common Grackle	10				10
Red-winged Blackbird	4	15		25	44
Brown-headed Cowbird	6		1		7
Bobolink				1	1

Species	Number by Visit				Total # (% of Total)
	Visit 1	Visit 2	Visit 3	Visit 4	
Eastern Meadowlark			3	1	4
American Goldfinch		50	1	10	61
House Sparrow	1				1
<b>Owls</b>					<b>0 (0.0%)</b>
<b>Raptors</b>					<b>224 (18.1%)</b>
Unidentified Raptor			1		1
Turkey Vulture	18	45	57	32	152
Northern Harrier		3	3	1	7
Cooper's Hawk				1	1
Red-tailed Hawk	7	4	16	20	47
Rough-legged Hawk			2		2
Osprey			1		1
Bald Eagle	2		1		3
Golden Eagle		1			1
American Kestrel	4	2	3		9
<b>Shorebirds</b>					<b>19 (1.5%)</b>
Killdeer	7	5	4	2	18
Upland Sandpiper				1	1
<b>Waterbirds</b>					<b>103 (8.3%)</b>
Great Blue Heron	1		1	1	3
Double-crested Cormorant			1	1	2
Gulls	1				1
Ring-billed Gull	47	40	9	1	97
<b>Waterfowl</b>					<b>376 (30.4%)</b>
Mallard		3			3
Unknown Waterfowl		350			350
Canada Goose	10	6	3	4	23
<b>Total</b>	<b>148</b>	<b>711</b>	<b>155</b>	<b>222</b>	<b>1236</b>

### 3.2.2 Area Searches

Species observed during area searches of the study area during the spring migration period are recorded in Table 3.12.

Generally, evidence of migration through the study area was noted, with northerly breeding species, such as White-crowned Sparrow (*Zonotrichia leucophrys*), recorded during surveys. However, no significant concentrations of birds were noted inland of Lake Erie, suggesting that migration over the study area is passive and not concentrated. Observations during spring migration also noted an increase in the number of landbird species recorded from visit to visit, indicative of the return of breeding passerines to the study area.

Large numbers of waterfowl and gulls continued to be noted along the lake, often within 120 m of the shoreline. The shoreline of Lake Erie is known as a waterfowl concentration area during spring

migration, and this was confirmed during area searches. Areas where concentrations were noted are shown within Figure 3.1.

Of the species recorded during the spring migration period, Bald Eagle were the only species at risk recorded. This observation may represent either a migrating individual or a resident breeder.

**Table 3.12 Species Composition of Birds Observed During Spring Migration Area Searches**

Species	Number by Visit			
	Visit 1	Visit 2	Visit 3	Visit 4
<b>Landbirds</b>				
Wild Turkey	X		X	X
Mourning Dove	X	X	X	X
Rock Pigeon	X	X	X	
Northern Flicker		X	X	X
Red-bellied Woodpecker		X		X
Downy Woodpecker				X
Brown Creeper	X		X	
Barn Swallow				X
Tree Swallow			X	X
Northern Rough-winged Swallow				X
Eastern Phoebe				X
Eastern Kingbird				X
Eastern Wood-Pewee				X
Blue Jay	X		X	X
American Crow	X	X	X	X
Black-capped Chickadee			X	X
Golden-crowned Kinglet				X
Ruby-crowned Kinglet			X	
House Wren				X
Horned Lark	X	X	X	X
American Robin	X	X	X	X
Gray Catbird				X
Wood Thrush				X
Brown Thrasher			X	X
European Starling	X	X	X	X
Warbling Vireo				X
Pine Warbler				X
Black-throated Green Warbler				X
Yellow-rumped Warbler			X	X
Yellow Warbler				X
Black-and-white Warbler				X
Nashville Warbler				X
Ovenbird				X
Common Yellowthroat				X
Rose-breasted Grosbeak				X
Northern Cardinal	X	X	X	X
Dark-eyed Junco		X		
Savannah Sparrow	X		X	X
Field Sparrow			X	X

Species	Number by Visit			
	Visit 1	Visit 2	Visit 3	Visit 4
Chipping Sparrow			X	X
Song Sparrow	X	X	X	X
White-throated Sparrow		X	X	X
White-crowned Sparrow				X
Blackbird Sp.	X	X		
Common Grackle	X	X	X	X
Bobolink				X
Red-winged Blackbird	X	X	X	X
Brown-headed Cowbird		X	X	X
Eastern Meadowlark			X	X
Baltimore Oriole				X
House Finch	X		X	
Purple Finch				X
American Goldfinch			X	X
House Sparrow	X		X	
<b>Owls</b>				
<b>Raptors</b>				
Turkey Vulture	X	X	X	X
Northern Harrier	X	X	X	
Broad-winged Hawk	X			
Rough-legged Hawk		X		
Red-tailed Hawk	X	X	X	X
Osprey			X	
Bald Eagle		X		
American Kestrel		X	X	
<b>Shorebirds</b>				
Semi-palmated Plover				X
Lesser Yellowlegs				X
Greater Yellowlegs				X
Spotted Sandpiper				X
Killdeer	X	X	X	X
<b>Waterbirds</b>				
Double-crested Cormorant			X	X
Great Blue Heron		X	X	X
Sandhill Crane	X	X		
Gulls	X			
Herring Gull		X	X	X
Bonaparte's Gull		X	X	X
Ring-billed Gull	X	X	X	X
Caspian Tern			X	X
<b>Waterfowl</b>				
Common Loon			X	
Unknown Waterfowl		X		

Species	Number by Visit			
	Visit 1	Visit 2	Visit 3	Visit 4
Tundra Swan	X	X		
Canada Goose	X	X	X	X
Wood Duck		X		
Bufflehead	X	X		X
Common Goldeneye	X	X	X	
Gadwall		X		
Ring-necked Duck		X	X	
Northern Pintail			X	
American Coot			X	
Merganser sp.			X	X
Red-breasted Merganser	X	X	X	X
Common Merganser	X	X	X	X
Teal sp.			X	
Green-winged Teal				X
Mallard	X		X	X

### 3.2.3 Conclusion

The results of spring migration monitoring recorded many species of birds throughout the study area. However, observations were generally consistent with an area of passive migration, consistent with birds moving across a broad-front, than would be found in a concentrated bird migration corridor, such as is found at Long Point or along the Niagara Escarpment.

The exception to these observations is the near shore environment of Lake Erie, where large numbers of waterfowl can be found, residual from winter concentrations or staging prior to making movement further north.

SAR observed during the spring migration period included both species of eagle that breed in Ontario, Bald Eagle and Golden Eagle, though only Bald Eagle may breed within the study area.

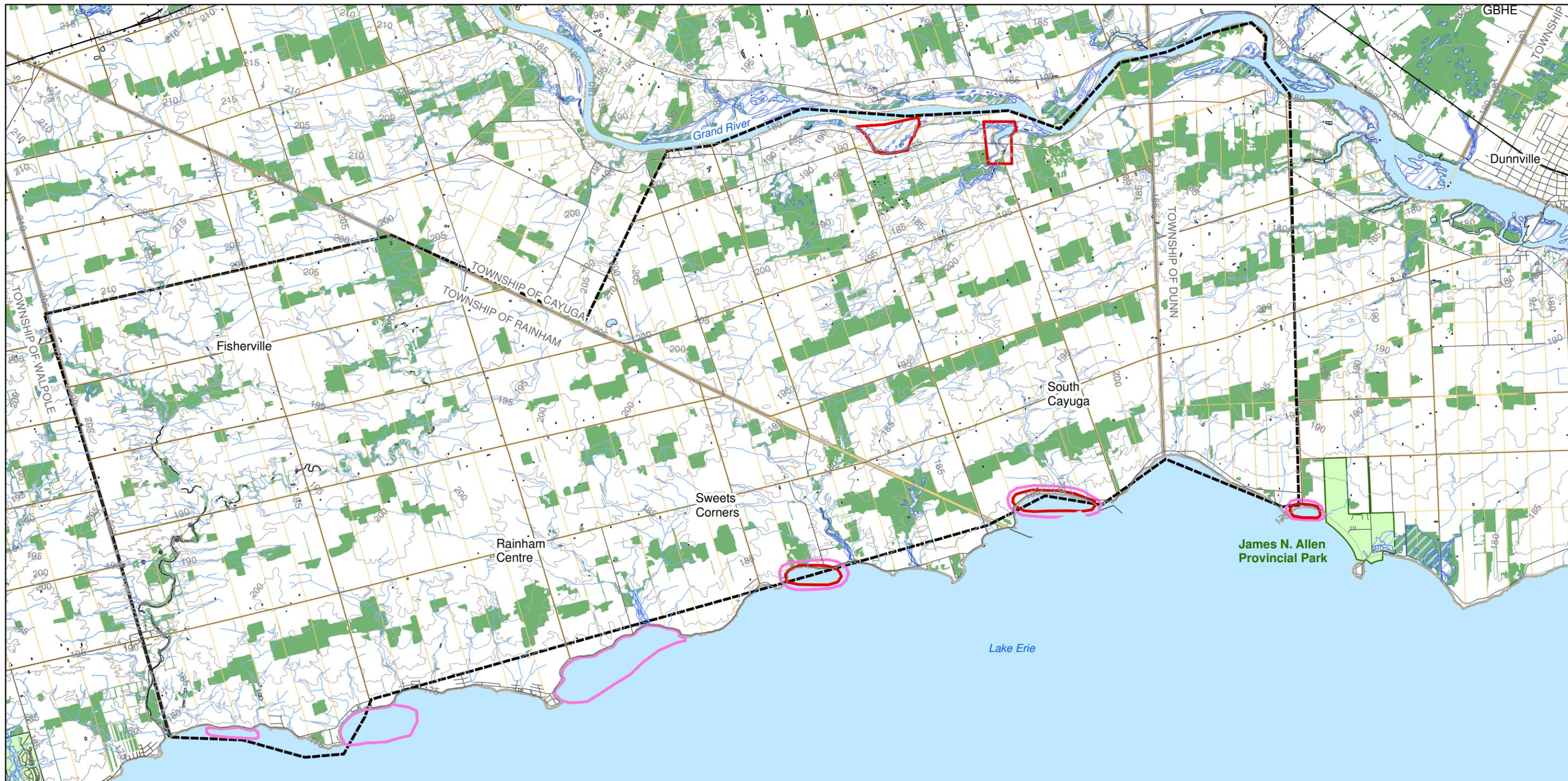
## 3.3 Fall Migration Period

### 3.3.1 Vista Surveys

Landbirds were the most commonly recorded guild of birds during vista surveys, representing 62% of all observations, with blackbird species (Red-winged Blackbird, Common Grackle) most commonly observed (Table 3.13). Blackbird species represented more than two-thirds of all landbirds observed. This is a common phenomenon in the late summer/fall as blackbirds form large flocks often numbering in the hundreds to thousands of birds. These flocks are commonly observed within southwestern Ontario in areas near the shoreline of Lake Erie.

Waterfowl and waterbird observations were predominated by large flocks of gulls and Canada Goose (*Branta canadensis*) observed during surveys near Lake Erie.

Generally, resident breeding migratory species were not recorded later in the fall survey period, and more northerly breeding species, such as Rough-legged Hawk and Snow Goose (*Chen caerulescens*), being recorded in the later stages.



<b>Legend</b>		
Roads	Study Area	Provincial Park
Railway	Parcels	Wooded Area
Topographic Contour (5m interval)	Wetlands	<b>Concentration Areas</b>
Hydro Line	Waterbody	Spring
Watercourse		Fall/Winter

1:70,000

Figure 3.1  
 Samsung C & T Corporation  
 Grand Renewable Energy Park  
**Waterfowl/Gull Concentration Areas**



Observations are consistent with regional expectations for fall migration. As during spring migration, Golden Eagle and Bald Eagle were the only species at risk observed during the surveys.

**Table 3.13 Species Composition of Birds Observed During Fall Migration Vista Surveys**

Species	Number by Visit					Total # (% of Total)
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	
<b>Landbirds</b>						<b>3115 (61.9%)</b>
Mourning Dove	8	5	3		20	36
Rock Pigeon		12	6	10	26	54
Northern Flicker	1					1
White-breasted Nuthatch					1	1
Red-bellied Woodpecker					1	1
Tree Swallow	9		16			25
Barn Swallow	22					22
Bank Swallow	4					4
Purple Martin	2					2
Blue Jay	3	9	2	2	7	23
American Crow	23	35	24	60	39	181
Ruby-throated Hummingbird	1					1
Passerine sp.	13		30			43
Horned Lark	7	102	50	5		164
American Robin	3	1	2			6
Gray Catbird	1	2				3
European Starling	56	4	27	65	2	154
Black-capped Chickadee	1		1	1	4	7
American Redstart	1				2	3
Northern Cardinal	1			1		2
Chipping Sparrow		1				1
Savannah Sparrow	2	4				6
Dickcissel	1					1
Blackbird sp.	185	373	740	976	11	2285
Common Grackle		2				2
Red-winged Blackbird	33	1				34
American Goldfinch	20	9	6		7	42
House Sparrow	1		6	4		11
<b>Owls</b>						<b>0 (0.0%)</b>
<b>Raptors</b>						<b>362 (7.2%)</b>
Unidentified Raptor				1		1
Turkey Vulture	93	71	27	12		203
Northern Harrier	4	7	19	11	8	49
Cooper's Hawk				1	1	2
Red-tailed Hawk	6	11	30	20	27	94
Rough-legged Hawk				1	3	4
Bald Eagle	1	1				2
Golden Eagle					2	2
American Kestrel	1	3	1			5

Species	Number by Visit					Total # (% of Total)
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	
<b>Shorebirds</b>						<b>3 (0.1%)</b>
Killdeer		3				3
<b>Waterbirds</b>						<b>800 (15.9%)</b>
Great Blue Heron	1					1
Sandhill Crane	1	9	3		2	15
Double-crested Cormorant	1	2	16			19
Gulls	40		20	40		100
Bonaparte's Gull				100		100
Herring Gull	1	1				2
Ring-billed Gull	11	15	195	2	337	560
Caspian Tern	1					1
Common Tern	2					2
<b>Waterfowl</b>						<b>755 (15.0%)</b>
Common Loon				8		8
Horned Grebe				4		4
Mallard	12				2	14
Bufflehead					2	2
Merganser Sp.				40	1	41
Unknown Waterfowl			2	30	100	132
Snow Goose					5	5
Canada Goose	38	148	123		240	549
<b>Total</b>	<b>611</b>	<b>831</b>	<b>1349</b>	<b>1394</b>	<b>850</b>	<b>5035</b>

### 3.3.2 Area Searches

Species observed during area searches of the study area during the fall migration period are recorded in Table 3.14.

Generally, evidence of migration through the study area was noted, with northerly breeding species, such as Dark-eyed Juncos (*Junco hyemalis*), recorded during surveys. However, no significant concentrations of birds were noted inland of Lake Erie, suggesting that like spring migration, bird migration over the study area is passive and not concentrated. Several large flocks of blackbirds were noted in the study area during the fall migration period. These flocks are common along the shoreline of Lake Erie in the fall as blackbird species congregated for the winter/migration.

Observations during fall migration also noted a reduction in the number of landbird species recorded from visit to visit, indicative of the departure of breeding passerines to wintering grounds further south.

Large numbers of waterfowl and gulls were noted along the lake, often within 120 m of the shoreline, with numbers of species increasing as the season went on. The shoreline of Lake Erie is known as a waterfowl concentration area during winter, which is indicative of the waterfowl congregating in this area late in the fall migration period. Areas where concentrations were noted are shown within Figure 3.1. Northerly breeding shorebirds, such as Greater Yellowlegs (*Tringa melanoleuca*), were also regularly observed along the shoreline; however, numbers were generally restricted to a few scattered individuals and therefore no significant concentrations are evident.

The only species at risk recorded during the fall migration area searches was Bald Eagle; this observation may represent that of either a migratory or resident individual.

**Table 3.14 Species Composition of Birds Observed During Fall Migration Area Searches**

Species	Number by Visit				
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
<b>Landbirds</b>					
Wild Turkey	X	X	X	X	
Mourning Dove	X	X	X	X	X
Rock Pigeon	X		X	X	X
Northern Flicker	X	X			
Red-bellied Woodpecker				X	X
Yellow-bellied Sapsucker		X			
Hairy Woodpecker		X			
Downy Woodpecker	X	X		X	
White-breasted Nuthatch			X		X
Red-breasted Nuthatch	X				
Belted Kingfisher	X				
Swallow Sp.		X	X		
Barn Swallow					
Tree Swallow	X	X			
Northern Rough-winged Swallow					
Purple Martin	X				
Ruby-throated Hummingbird	X				
Belted Kingfisher		X			
Eastern Kingbird		X			
Blue Jay	X	X	X	X	X
American Crow	X	X	X	X	X
Black-capped Chickadee	X	X	X		
Golden-crowned Kinglet		X			
House Wren	X				
Carolina Wren				X	
Horned Lark	X		X		
American Robin	X	X	X		
Gray Catbird	X	X			
Hermit Thrush			X		
Northern Mockingbird	X				
Cedar Waxwing	X	X			
European Starling	X	X	X	X	X
Warbling Vireo	X	X			
Warbler sp.	X				
Magnolia Warbler	X				
American Redstart	X				
Yellow-rumped Warbler		X		X	
Northern Cardinal	X	X		X	
Sparrow Sp.		X			
Dark-eyed Junco			X	X	X
Savannah Sparrow	X	X		X	
Field Sparrow		X			

Species	Number by Visit				
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Chipping Sparrow				X	
Song Sparrow		X			X
White-throated Sparrow		X			
Blackbird Sp.	X	X	X	X	X
Eastern Meadowlark		X	X		
Baltimore Oriole		X			
American Goldfinch	X	X	X	X	X
House Sparrow	X	X		X	X
<b>Owls</b>					
<b>Raptors</b>					
Turkey Vulture	X	X	X		
Northern Harrier	X	X	X	X	X
Cooper's Hawk	X	X		X	X
Sharp-shinned Hawk		X		X	
Rough-legged Hawk					X
Red-tailed Hawk	X	X	X	X	X
Bald Eagle			X		
American Kestrel	X	X	X	X	X
<b>Shorebirds</b>					
Semi-palmated Plover	X		X		
Willet			X		
Lesser Yellowlegs	X				
Greater Yellowlegs		X	X	X	
Long-billed Dowitcher	X				
Sandpiper sp.	X				
Least Sandpiper	X				
Killdeer	X	X	X		
<b>Waterbirds</b>					
Double-crested Cormorant	X	X	X		
Great Blue Heron	X	X	X	X	
Sandhill Crane		X			
Gulls	X	X	X	X	
Glaucous Gull					X
Herring Gull	X				X
Bonaparte's Gull	X	X	X	X	X
Ring-billed Gull	X	X	X	X	X
Great Black-backed Gull		X			
Caspian Tern		X			
<b>Waterfowl</b>					
Common Loon			X	X	
Horned Grebe			X	X	
Unknown Waterfowl		X		X	
Tundra Swan				X	X

Species	Number by Visit				
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Canada Goose	X	X	X	X	X
Wood Duck	X				
Bufflehead				X	X
Common Goldeneye		X		X	
Redhead				X	
Scaup sp.				X	X
Ring-necked Duck			X	X	
Merganser sp.			X	X	X
Red-breasted Merganser				X	
Common Merganser		X		X	X
Blue-winged Teal			X		
Mallard	X	X		X	X

### 3.3.3 Conclusion

Surveys during the fall migration period resulted in similar conclusions to those for the spring migration period. Generally, though many species were recorded throughout the study area, observations were generally consistent with an area of passive migration, consistent with birds moving across a broad-front, than would be found in a concentrated bird migration corridor.

Again, the exception to these observations is the near shore environment of Lake Erie, where large numbers of waterfowl started to form into large flocks for the over-wintering period.

Species at risk observed during the fall migration period included Bald Eagle and Golden Eagle.

### 3.4 Over-wintering Period

Monitoring during the over-wintering period was restricted to area searches. Those species recorded during the area searches are documented in Table 3.15.

Generally, species recorded are common within agricultural landscapes during the over-wintering period. No significant concentrations of birds were noted inland of Lake Erie. Flocks of European Starling, sparrow, and Horned Larks (*Eremophila alpestris*) were regularly noted; however, this is a common occurrence during the winter. Species that do not breed within this area of the province, and are therefore known to be migrants over-wintering within the study area, include Northern Shrike (*Lanius excubitor*), American Tree Sparrow (*Spizella arborea*), Dark-eyed Junco (*Junco hyemalis*), Snow Bunting (*Plectrophenax nivalis*) and Rough-legged Hawk (*Buteo lagopus*).

Large numbers of waterfowl and gulls were noted along the lake, often within 120 m of the shoreline. The shoreline of Lake Erie is known as a waterfowl concentration area during the winter period, and this was confirmed during area searches. Areas where concentrations were noted are shown within Figure 3.1. Several northern breeding waterfowl and gulls, such as Tundra Swans (*Cygnus columbianus*) and Greater Black-backed Gulls (*Larus marinus*), were recorded during the surveys.

No species at risk were recorded during the over-wintering period.

**Table 3.15 Species Composition of Birds Observed During Over-wintering Area Searches**

Species	Observed		
	Visit 1	Visit 2	Visit 3
<b>Landbirds</b>			
Wild Turkey		X	
Mourning Dove	X	X	
Rock Pigeon	X	X	X
Northern Shrike	X	X	X
Red-bellied Woodpecker			X
Downy Woodpecker		X	X
White-breasted Nuthatch		X	
Blue Jay	X	X	X
American Crow	X	X	X
Horned Lark		X	X
Black-capped Chickadee		X	
European Starling	X	X	
Snow Bunting			X
Northern Cardinal		X	X
Dark-eyed Junco		X	X
Sparrow sp.			X
American Tree Sparrow		X	X
Blackbird sp.		X	
American Goldfinch	X	X	X
House Sparrow	X	X	
<b>Owls</b>			
<b>Raptors</b>			
Unknown Raptor		X	
Northern Harrier	X	X	X
Cooper's Hawk	X	X	
Rough-legged Hawk	X	X	X
Red-tailed Hawk	X	X	X
American Kestrel	X	X	X
<b>Shorebirds</b>			
<b>Waterbirds</b>			
Ring-billed Gull		X	X
Greater Black-backed Gull			X
Bonaparte's Gull	X		X
<b>Waterfowl</b>			
Tundra Swan		X	X
Mallard	X	X	X
American Black Duck			X
American Wigeon	X		
Bufflehead	X	X	X
Common Goldeneye	X		X

Species	Observed		
	Visit 1	Visit 2	Visit 3
Northern Pintail	X		
Redhead	X		X
Scaup sp.	X	X	X
Merganser sp.	X		X
Common Merganser			X
Red-breasted Merganser			X
Canada Goose	X	X	X

### 3.4.1 Conclusion

Over-wintering birds within the study area are consistent with those found throughout the region. Northern breeding landbirds and raptors were generally uncommon within the study area, with concentrations generally restricted to waterfowl and gulls observed along the shoreline of Lake Erie.

## 4. Conclusions

The results of the 2009/2010 bird baseline monitoring program for the Grand Renewable Energy Park have successfully documented the bird communities within the study area across all four seasons.

Generally, bird communities were found to be typical of what would be expected for the region. Significant concentrations of birds were restricted to the near shore environment of Lake Erie, where waterfowl and gulls are known to concentrate during the spring, fall, and over-wintering periods.

Species at risk observed included Bald Eagle (spring, summer, fall), Golden Eagle (spring and fall), Red-headed Woodpecker (summer) and Bobolink (summer).

Post-construction monitoring should be completed according to provincial and federal guidance documents.

## 5. References

- Environment Canada and Canadian Wildlife Service. 2007a. Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds – Final – February 19, 2007. 33 pp.
- Environment Canada and Canadian Wildlife Service. 2007b. Wind Turbines and Birds – A Guidance Document for Environmental Assessment – Final – February 2007. 51 pp.
- Ministry of Natural Resources. 2007. Guideline to Assist in the Review of Wind Power Proposals – Potential Impacts to Birds and Bird Habitats – August 2007, V1.0. Wildlife Section and Renewable Energy Section, Peterborough, Ontario. 17 pp.
- Ontario Partners in Flight (PIF). 2005. Ontario Landbird Conservation Plan: Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Region 13), *Priorities, Objectives and Recommended Actions*. Environment Canada/Ontario Ministry of Natural Resources. Available on-line at <http://www.bsc-eoc.org/PIF/PIFOBCR13PlanFeb2006.pdf>.



# Appendix A

## 2009 Breeding Bird Monitoring – Point Count Results



## 2009 Breeding Bird Monitoring

NOTE: See Figures 2.1 and 2.2 for survey locations.

### LEGEND:

*Beaufort Wind Scale:*

- 0 – 0 km/h
- 1 – 1-6 km/h
- 2 – 7-11 km/h
- 3 – 12-19 km/h
- 4 – 20-29 km/h
- 5 – 30-39 km/h
- 6 – 40-50 km/h
- 7 – 51-62 km/h

### 1. Point Count Station Information, Weather Conditions, and Results

Station	Visit 1						Visit 2					
	Date (MM/DD/YY)	Time	Beaufort Wind	Cloud Cover (%)	Precipitation	Temperature (°C)	Date (MM/DD/YY)	Time	Beaufort Wind	Cloud Cover (%)	Precipitation	Temperature (°C)
LA01	06/04/09	04:57	3	30	None	7	06/24/09	09:15	1	0	None	20
LA02	06/04/09	05:09	3	30	None	7	06/24/09	09:03	1	0	None	20
LA03	06/04/09	05:21	3	30	None	8	06/24/09	08:52	1	0	None	19
LA04	06/04/09	05:34	3	30	None	8	06/24/09	08:49	1	0	None	19
LA05	06/04/09	05:47	2	20	None	8	06/24/09	08:29	1	0	None	19
LA06	06/04/09	06:00	2	20	None	8	06/24/09	08:16	1	0	None	19
LA07	06/04/09	06:14	1	20	None	8	06/24/09	08:03	1	0	None	19
LA08	06/04/09	06:28	1	20	None	8	06/24/09	07:51	1	0	None	19
LA09	06/04/09	06:42	1	20	None	9	06/24/09	07:37	1	0	None	19
LA10	06/04/09	07:01	1	20	None	9	06/24/09	07:23	1	0	None	19
LA11	06/04/09	07:15	1	40	None	10	06/24/09	07:08	0	0	None	19
LA12	06/04/09	07:33	1	40	None	10	06/24/09	06:55	0	0	None	19
LA13	06/04/09	07:45	1	50	None	10	06/24/09	06:42	0	0	None	18
LA14	06/04/09	07:59	1	50	None	10	06/24/09	06:29	0	0	None	18
LA15	06/04/09	08:12	1	50	None	10	06/24/09	06:15	0	0	None	18
LA16	06/04/09	08:24	1	50	None	10	06/24/09	06:03	0	0	None	18
LA17	06/04/09	08:39	1	40	None	10	06/24/09	05:50	0	10	None	18
LA18	06/04/09	08:54	1	40	None	10	06/24/09	05:36	0	10	None	18
LA19	06/04/09	09:07	1	40	None	11	06/24/09	05:21	0	20	None	18
LA20	06/04/09	09:21	1	40	None	11	06/24/09	05:06	0	20	None	18
GR01	06/05/09	04:56	0	10	None	10	06/26/09	07:20	1	30	None	20
GR02	06/05/09	05:08	0	10	None	10	06/26/09	07:08	1	20	None	20
GR03	06/05/09	05:21	1	10	None	10	06/26/09	06:56	1	20	None	20

Station	Visit 1						Visit 2					
	Date (MM/DD/YY)	Time	Beaufort Wind	Cloud Cover (%)	Precipitation	Temperature (°C)	Date (MM/DD/YY)	Time	Beaufort Wind	Cloud Cover (%)	Precipitation	Temperature (°C)
GR04	06/05/09	05:34	1	10	None	10	06/26/09	06:42	1	40	None	20
GR05	06/05/09	05:49	1	10	None	10	06/26/09	06:28	1	40	None	20
GR06	06/05/09	06:07	1	10	None	10	06/26/09	06:15	1	30	None	19
GR07	06/05/09	06:20	1	10	None	10	06/26/09	06:03	1	30	None	19
GR08	06/05/09	06:34	1	10	None	10	06/26/09	05:56	1	30	None	19
GR09	06/05/09	06:48	0	0	None	11	06/26/09	05:34	1	30	None	19
GR10	06/05/09	07:04	0	0	None	11	06/26/09	05:19	1	50	None	19
GR11	06/05/09	07:21	0	0	None	12	06/26/09	05:08	1	50	None	19
IN01	06/05/09	07:37	0	0	None	12	06/26/09	09:04	1	30	None	23
IN02	06/05/09	07:56	1	0	None	13	06/26/09	07:42	1	30	None	20
IN03	06/05/09	08:11	1	0	None	13	06/26/09	07:56	1	25	None	20
IN04	06/05/09	08:27	1	0	None	14	06/26/09	08:23	2W	50	Spitting	21
IN05	06/05/09	08:43	1	0	None	14	06/26/09	08:10	1	25	None	20
IN06	06/10/09	05:05	1	100	None	13	07/14/09	05:14	2-3	0	None	12
IN07	06/10/09	05:20	1	100	None	13	07/14/09	06:55	2	0	None	12
IN08	06/10/09	05:33	1	100	None	13	07/14/09	05:53	2-3	0	None	12
IN09	06/10/09	05:49	1	100	None	13	07/14/09	05:38	2-3	0	None	12
IN10	06/10/09	06:08	1	100	None	13	07/14/09	05:21	2-3	0	None	12
IN11	06/10/09	06:26	1	100	None	13	07/14/09	05:00	2-3	0	None	12
IN12	06/10/09	06:48	1	100	None	13	07/14/09	07:25	2	0	None	13
IN13	06/10/09	07:07	1	100	None	13	07/14/09	07:09	2	0	None	12
IN14	06/10/09	07:24	1	100	None	13	07/14/09	06:08	2-3	0	None	12
IN15	06/10/09	07:39	1	100	None	13	07/14/09	06:22	2	0	None	12
IN16	06/10/09	07:56	1	100	None	13	07/14/09	06:55	2	0	None	12
IN17	06/10/09	08:35	1	50	None	15	07/14/09	08:23	2-3	0	None	15
IN18	06/10/09	08:49	1	50	None	14	07/14/09	08:11	2-3	0	None	14
IN19	06/10/09	09:03	1	30	None	14	07/14/09	07:57	2-3	0	None	14
IN20	06/10/09	09:18	1	30	None	15	07/14/09	07:42	2	0	None	13
WO01	06/23/09	05:19	0	0	None	15	07/15/09	05:17	0	0	None	13
WO02	06/23/09	05:31	0	0	None	15	07/15/09	05:05	0	0	None	13
WO03	06/23/09	05:54	0	0	None	15	07/15/09	05:36	0	10	None	13
WO04	06/23/09	06:14	0	0	None	15	07/15/09	05:58	0	10	None	13
WO05	06/23/09	06:33	0	10	None	15	07/15/09	06:13	1	20	None	14
WO06	06/23/09	06:50	0	10	None	15	07/15/09	06:23	1	30	None	14
WO07	06/23/09	07:07	0	0	None	18	07/15/09	07:33	1	40	None	15
WO08	06/23/09	07:24	0	0	None	18	07/14/09	08:35	2-3	0	None	15
WO09	06/23/09	07:41	0	0	None	18	07/15/09	08:00	1	30	None	16
WO10	06/23/09	07:53	0	0	None	18	07/15/09	07:54	1	30	None	16
WO11	06/23/09	08:12	0	0	None	18	07/15/09	07:14	1	40	None	15
WO12	06/23/09	08:25	0	0	None	18	07/15/09	06:47	1	20	None	14
WO13	06/23/09	08:42	0	0	None	20	07/15/09	07:00	1	20	None	14
WO14	06/23/09	09:00	0	0	None	20	07/15/09	08:18	1	10	None	16
WO15	06/23/09	09:13	0	0	None	20	07/15/09	08:29	1	10	None	16

Station	Visit 1						Visit 2					
	Date (MM/DD/YY)	Time	Beaufort Wind	Cloud Cover (%)	Precipitation	Temperature (°C)	Date (MM/DD/YY)	Time	Beaufort Wind	Cloud Cover (%)	Precipitation	Temperature (°C)
WO16	06/23/09	09:26	1	0	None	20	07/15/09	08:42	2	10	None	17
WO17	06/23/09	09:40	1	0	None	20	07/14/09	08:54	2-3	0	None	16
WO18	06/23/09	09:59	1	0	None	20	07/14/09	09:08	2-3	0	None	16
WO19	06/26/09	08:38	1	30	Light Spitting	21	07/15/09	08:42	2	17	None	17
WO20	06/26/09	08:52		20	None	21	07/15/09	09:10	2	17	None	17

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
LA01	Killdeer			11	1		
	Canada Goose			2			
	House Sparrow	1			2		
	American Robin	1	1	1	1		
	Northern Cardinal			1			
	Song Sparrow		1		1		
	Savannah Sparrow	1					
	LA02	Red-winged Blackbird	4	2	1	2	
	Barn Swallow			1			
	Purple Martin						2
	Double-crested Cormorant						10
	Canada Goose						20
	Song Sparrow				1		
	European Starling					1	
	Common Grackle				2		
	Herring Gull						20
	Killdeer				1		
	Mallard		1			2	
	Gray Catbird	1					
	American Robin		11	1	1		
	Ring-billed Gull		1				
	Savannah Sparrow	1					
LA03	Ring-billed Gull			8			
	American Crow			1			
	Herring Gull			15			3
	European Starling	1					
	Double-crested Cormorant						4
	Caspian Tern						3
	Mourning Dove				2	1	

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Song Sparrow				3		
	House Sparrow				2		
	Cedar Waxwing				2		
	European Starling				2		
	Killdeer				1		
	Northern Rough-winged Swallow				3		
	Mallard		2				
	American Robin	3			1		
	Tree Swallow			1			1
	Red-winged Blackbird	1	1		2	1	
	Common Grackle	3			1		
	Savannah Sparrow	1					
LA04	Ring-billed Gull			14			
	Mourning Dove	3		2			
	Double-crested Cormorant						5
	Caspian Tern					4	
	Brown-headed Cowbird					1	
	Herring Gull					10	
	Song Sparrow				1		
	Mourning Dove				1		
	Canada Goose					8	
	American Robin	2		2	4		
	Warbling Vireo	1	1			1	
	European Starling			13			
	Red-winged Blackbird		2		1		
	Common Grackle	4	1	13			2
	American Goldfinch			2	2		
	House Sparrow	1			1		
LA05	Canada Goose			1			
	European Starling	6		3			
	Mourning Dove	4	2				
	White-throated Sparrow	1					
	American Goldfinch						2
	Caspian Tern						1
	Chipping Sparrow				1		
	American Robin	1				1	2
	Red-winged Blackbird	1			4	2	1
	Common Grackle	1					1
	Ring-billed Gull	2		2			
	European Starling						1
	American Crow	1					
	Bonaparte's Gull			10			
	Herring Gull			35			7
LA06	Canada Goose			20			
	Mourning Dove	1					
	Double-crested Cormorant						9
	Ring-billed Gull						3

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Northern Rough-winged Swallow				1		
	Tree Swallow				1		
	Warbling Vireo	1					
	Herring Gull			20-30			4
	American Robin	4			1	2	
	Mallard			10			
	Black-capped Chickadee	1					
	Red-winged Blackbird	1			1		1
	Common Grackle	3			1		2
	Brown-headed Cowbird	1					
	American Goldfinch	3					3
	Savannah Sparrow	1					
LA07	Canada Goose			Flock			
	Savannah Sparrow	2					
	American Goldfinch	1		1			2
	American Robin	2				2	
	Ring-billed Gull			3			2
	Red-winged Blackbird	4	1		2		
	Common Grackle	2	1	2			
	Herring Gull			10			
	Warbling Vireo	1			1		
	Mallard				18		
	European Starling				2		
	Northern Flicker				1		
	House Wren				2		
	Mourning Dove	2					
	Willow Flycatcher		1			1	
	Killdeer			1	1		
	Double-crested Cormorant			25			2
LA08	Ring-billed Gull			2			1
	House Finch			1			
	Mourning Dove		1		1		
	American Robin	2					
	Common Grackle					1	
	American Robin					2	
	Sedge Wren				1		
	Northern Rough-winged Swallow				1		
	Barn Swallow				1		
	Tree Swallow				4		
	Blue Jay			1			
	European Starling			1			
	Double-crested Cormorant		2	15			
	Canada Goose	8					
	Red-winged Blackbird	4	2		1	2	
	American Goldfinch			12			
	Yellow Warbler	1					

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Marsh Wren	1					
LA09	Canada Goose			1			
	Ring-billed Gull		5	15-20			2
	Double-crested Cormorant			14			2
	Caspian Tern						1
	Red-winged Blackbird					2	
	Yellow Warbler					1	
	Warbling Vireo					1	
	Mourning Dove				1	1	
	Song Sparrow	1			2		
	Chipping Sparrow				1		
	Bonaparte's Gull		1				
	Herring Gull			7			
	European Starling	1					
	Purple Martin	1					
	Tree Swallow			5			
	American Robin	1				1	1
	Red-eyed Vireo	1					
	Common Grackle			2	1		2
	House Sparrow	1					
LA10	Tree Swallow			6			1
	Killdeer	2					
	Mourning Dove	2				2	
	European Starling	5					
	American Robin	1			2		
	House Finch						1
	Northern Rough-winged Swallow						1
	Canada Goose				17		
	Chipping Sparrow					1	
	Herring Gull				21		
	Purple Martin		1			6	
	Bonaparte's Gull	10	50				
	Ring-billed Gull	5	5				
	Warbling Vireo	1			1		
	Common Grackle	5		2			
	Savannah Sparrow	1					
LA11	Ring-billed Gull			10			1
	Double-crested Cormorant			1			
	Red-headed Woodpecker				1		
	Cedar Waxwing	1					
	Spotted Sandpiper						1
	Black-capped Chickadee					1	
	Mourning Dove				2		
	Red-winged Blackbird				2		
	Warbling Vireo	1			1		
	European Starling	1					
	Barn Swallow			2			2

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	American Robin		1			1	
	Tree Swallow			2			3
	Purple Martin			2			
	Common Grackle	3		3	4		
	Yellow Warbler	2			1		
	Chipping Sparrow	2					
	Northern Cardinal	1			1		
LA12	Ring-billed Gull			25			1
	Mallard			1		1	
	Mourning Dove	2					
	Tree Swallow			4			
	Herring Gull						1
	American Goldfinch						1
	House Wren				1	1	
	Chipping Sparrow					1	
	Least Flycatcher				1		
	Yellow Warbler	1			4		
	Gray Catbird				1		
	American Robin		1		5		
	Barn Swallow	1		2			
	Warbling Vireo	1					
	Song Sparrow	1			2		
	Common Grackle	1					
	Red-bellied Woodpecker		1				
	House Finch	1					
	Brown-headed Cowbird	1					
	Killdeer	1					
LA13	Mourning Dove	3					2
	European Starling	5		1			
	American Robin	3			1	1	
	Warbling Vireo					1	
	Eastern Kingbird						1
	Herring Gull						1
	Black-capped Chickadee					1	
	Downy Woodpecker					1	
	Chipping Sparrow				1		
	Common Yellowthroat					1	
	Yellow Warbler				1		
	Barn Swallow						1
	Northern Rough-winged Swallow						4
	Tree Swallow			4		2	2
	Red-winged Blackbird	2					
	Common Grackle	1					3
	Brown-headed Cowbird				1	1	
	American Goldfinch	1		1			1
	Red-breasted Nuthatch	1					
	Ring-billed Gull			1			2
	Purple Martin			3		1	1
LA14	American Crow			1			1

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Warbling Vireo	1			1		
	Canada Goose		2				
	Red-winged Blackbird	3			10		
	Common Grackle	3					
	Tree Swallow						4
	Ring-billed Gull			1			1
	Double-crested Cormorant						4
	Northern Rough-winged Swallow						3
	Barn Swallow						3
	Song Sparrow				1	1	
	Mourning Dove	1				2	
	Gray Catbird				1		
	American Robin					2	
	American Goldfinch			10			
	Killdeer			1			
	Yellow Warbler	1			1		
	Common Yellowthroat	1					
LA15	Caspian Tern			1			3
	Mourning Dove	2	2			2	
	Common Grackle	2					
	American Robin	4			2		
	Tree Swallow			2			4
	Yellow Warbler		1				
	Baltimore Oriole	1					
	Red-winged Blackbird				1		15
	Northern Rough-winged Swallow						3
	Killdeer					1	
	Spotted Sandpiper				1		
	Brown-headed Cowbird					1	
	Ring-billed Gull	1	1	1			
	Barn Swallow			1			
	Herring Gull			1			
	Double-crested Cormorant			1			
	Bonaparte's Gull		1				
	Canada Goose			100-200			
	Song Sparrow	3			2		
LA16	Killdeer	1			1		
	Purple Martin			1	1		
	European Starling	2					
	Ring-necked Duck		1				
	Mourning Dove		1				
	American Robin	2					
	Bonaparte's Gull			2	1		
	Red-winged Blackbird				2	2	
	Mallard				1		
	Warbling Vireo				1		

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	House Finch	1			1		
	Common Grackle	4					
	Ring-billed Gull		2	15			1
	Barn Swallow			1			
	Song Sparrow	1					
	American Tree Sparrow			2			
LA17	Tree Swallow			5			
	Mourning Dove	2			3	1	
	Cedar Waxwing			1			
	Killdeer	3				1	
	American Robin			2	3		
	Northern Rough-winged Swallow			2	9		
	Ring-billed Gull						1
	Chipping Sparrow				1		
	European Starling				1	4	
	Warbling Vireo					1	
	Horned Lark			2			
	Red-winged Blackbird				3		
	Common Grackle	6	1		2		17
	Brown-headed Cowbird	5					
	House Finch	1					
LA18	American Robin	2			4	1	
	Double-crested Cormorant			5			
	Common Grackle	2			1		
	Killdeer	2			1		
	Canada Goose			20			
	Red-winged Blackbird					1	
	White-breasted Nuthatch					1	
	Eastern Kingbird				1		
	Yellow Warbler				1		
	Spotted Sandpiper				2		
	Mourning Dove					1	
	Caspian Tern						1
	Northern Flicker						1
	Warbling Vireo					1	1
	Song Sparrow	2			2		
	House Finch			1			
	Ruddy Turnstone	1					
	Ring-billed Gull			1			7
	Herring Gull			10			1
LA19	Killdeer		1			1	
	Double-crested Cormorant			1			
	Mourning Dove		1	1	1	1	1
	Herring Gull			1			
	American Crow			1	2		
	American Robin	4					
	House Finch	1					

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Ring-billed Gull					2	6
	Purple Marten						6
	Warbling Vireo				1	1	
	Song Sparrow				3		
	House Wren				1		
	Yellow Warbler				1		
	European Starling				1		
	House Sparrow	4					
	American Goldfinch		2				
	Northern Flicker		1				
LA20	Mourning Dove	2			1	1	
	European Starling		1			2	
	American Robin	1	2		3		
	Cedar Waxwing	1					
	House Sparrow						1
	Chipping Sparrow				1		
	Ring-billed Gull					1	1
	Black-billed Cuckoo					1	
	Merganser sp.			20			
	Purple Martin			1			
	Tree Swallow			1			
	Northern Rough-winged Swallow			1			
	Black-capped Chickadee		1				
	Baltimore Oriole	1					
	Red-winged Blackbird	1					
	Warbling Vireo	2					
	Common Grackle	2			1		
	Song Sparrow	1			1		
GR01	Canada Goose			1			
	American Robin	5	1	1			
	Northern Cardinal	1		1	1		
	Mourning Dove		2		1	1	
	Chipping Sparrow		1				
	Barn Swallow				2		
	Red-winged Blackbird				3	1	
	European Starling				1		
	Tree Swallow				2		2
	Song Sparrow				1		
	Eastern Kingbird					1	
	Rock Pigeon						4
	Common Grackle						1
	Baltimore Oriole						1
	House Sparrow	1					
GR02	American Robin	4	1		1	3	
	Mourning Dove		2		1	3	
	Song Sparrow	1	1		1		
	Chipping Sparrow		1				
	House Wren				1		
	Brown-headed Cowbird				1		

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	House Sparrow				1		
	Northern Cardinal				1		
	White-breasted Nuthatch					1	
	Gray Catbird					1	
	American Crow						1
	Blue Jay						1
	European Starling						2
	Black-capped Chickadee	2	1				
GR03	American Crow			2			2
	Mourning Dove	1	1				1
	Red-winged Blackbird		1		9	4	
	Chipping Sparrow	1	1			1	
	Killdeer					1	
	Blue Jay					1	
	Song Sparrow					2	
	Northern Cardinal					1	
	Warbling Vireo					1	
	Purple Martin						1
	European Starling						1
	White-breasted Nuthatch						1
	American Robin	5	1			2	
	Common Grackle	7		2			1
GR04	European Starling	1		3		1	
	American Crow			1			
	Canada Goose			1			
	Red-winged Blackbird		2			2	
	American Robin		1		1		
	Warbling Vireo		1				
	American Goldfinch	3					
	Willow Flycatcher				1	1	
	House Wren				1		
	Savannah Sparrow				1		
	Mourning Dove					1	
	Northern Flicker					1	
	Barn Swallow						2
	Red-tailed Hawk					1	
	Yellow Warbler	1			2		
	Song Sparrow	2			1		
	Chipping Sparrow	1			1		
	Northern Cardinal	1				1	
GR05	Red-winged Blackbird	5	2	1	3	3	
	Tree Swallow			5	1		
	American Crow			1			
	Ring-billed Gull			4			
	Mourning Dove		1			1	
	Yellow Warbler	1	1				
	Common Grackle	12			1		
	Brown-headed Cowbird	1					
	Warbling Vireo	1			1		
	Downy Woodpecker	1					

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Gray Catbird				1		
	Eastern Kingbird					1	
	Northern Cardinal					1	
	Killdeer					1	
	Blue Jay					1	
	House Wren				1		
	Song Sparrow				2	3	
	American Robin				2		
	Common Yellowthroat	1					
	Cedar Waxwing	1					
GR06	American Crow			2	3		
	Common Grackle			1			3
	Red-winged Blackbird	1	2	2	3	3	
	Chipping Sparrow	1					
	Song Sparrow	3			4		
	Willow Flycatcher	2					
	Brown-headed Cowbird	1			1		
	Willow Flycatcher				1		
	Savannah Sparrow				1		
	Bobolink				2		
	Killdeer	2				1	
	Northern Cardinal						1
	European Starling						1
	Yellow Warbler	1			1		
	Eastern Kingbird	1					
	American Robin	1					2
GR07	Eastern Wood-Pewee			1			
	Barn Swallow			3			
	Tree Swallow	3		4	3		
	American Robin		2				
	Bobolink		1				
	Yellow Warbler				4	1	
	European Starling						20
	Great Blue Heron						1
	Caspian Tern						2
	Northern Flicker					1	
	Chipping Sparrow				1		
	Black-Capped Chickadee				2		
	Red-winged Blackbird	2	1			2	
	Northern Cardinal		1				
	Wood Duck		1				
	Gray Catbird		2		1		
	Song Sparrow	1			1		
	Cedar Waxwing	1					
	Warbling Vireo	1					
	Common Grackle	1	1				
	Mourning Dove	1				1	
GR08	European Starling			2			2
	Ring-billed Gull			1			3
	American Goldfinch			2			

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Brown-headed Cowbird			1		1	
	Gray Catbird		1			1	
	Yellow Warbler		1		1		1
	Song Sparrow		3			1	
	Savannah Sparrow				1	1	
	American Crow						1
	Tree Swallow						1
	Field Sparrow					1	
	Warbling Vireo					1	
	Red-winged Blackbird				2	1	
	Chestnut-sided Warbler				1		
	Chipping Sparrow		1			1	
	American Robin		1				
GR09	House Sparrow			1		1	
	Killdeer			1	1		
	Sandhill Crane			1			
	Rock Pigeon			2			
	Blue Jay		1				
	Mourning Dove		1			2	
	Red-winged Blackbird		3			1	
	Yellow Warbler		1				
	Song Sparrow					1	
	Northern Cardinal						1
	Common Grackle						10
	European Starling						25
	Chipping Sparrow		1		1		
	American Robin		1		2		
	Savannah Sparrow		1		1		
GR10	Blue Jay			2			
	Song Sparrow	1		1	3		
	Yellow Warbler		1				
	Red-winged Blackbird		1				
	Warbling Vireo		1				
	Gray Catbird		1				
	Chestnut-sided Warbler		1				
	American Goldfinch	2					
	Northern Flicker	1					
	American Robin	3			2		
	Brown-headed Cowbird	1					
	Savannah Sparrow				2		
	Common Grackle				1		1
	Mourning Dove					1	2
	American Crow						2
	Chestnut-sided Warbler					1	
	Baltimore Oriole	2					
	Chipping Sparrow	2			1	1	
GR11	Red-winged Blackbird			1			
	American Robin			1	1	3	
	Eastern Wood-Pewee			1			
	American Goldfinch	1		1			

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Chipping Sparrow		1		1		1
	Black-capped Chickadee	1	1				
	Warbling Vireo	1					
	Northern Cardinal	1					1
	Yellow Warbler	1					
	Common Grackle	3					
	Mourning Dove	1					
	Song Sparrow					1	
	Least Flycatcher					1	
	Common Yellowthroat					1	
	Red-bellied Woodpecker	1					
	Baltimore Oriole	1					
IN01	Wood Thrush			1		2	
	Ovenbird			1			
	Brown-headed Cowbird			1	3		
	Mourning Dove		1	1		1	
	Killdeer			1			
	Tree Swallow			1			
	Northern Flicker		1		1	2	
	Warbling Vireo	1	1				
	Common Yellowthroat		1				
	Field Sparrow				1	1	
	Chipping Sparrow					1	
	Willow Flycatcher					1	
	Mallard						25
	American Goldfinch				1		
	Yellow Warbler				1	1	
	Song Sparrow				1		
	Savannah Sparrow				1		
	Red-winged Blackbird					2	
	Eastern Phoebe		1				
	Common Grackle	6			1		
	American Robin	1			1		
	Eastern Kingbird	2					
IN02	Northern Harrier			1			
	Common Grackle		3				3
	European Starling		2				
	Red-winged Blackbird	2	3			3	
	Brown-headed Cowbird				1		
	Willow Flycatcher				1	1	
	American Robin				1		
	Field Sparrow				1		
	Northern Cardinal					1	
	American Crow					3	1
	Chimney Swift					1	
	Song Sparrow	2					
	Yellow Warbler	1			1		
	Chipping Sparrow	1				1	
	American Goldfinch	2					
IN03	American Bittern			1			

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	American Robin		1				
	Red-bellied Woodpecker		1				
	Bobolink		1				
	Red-winged Blackbird	9	2			2	
	Savannah Sparrow				3	1	
	Song Sparrow				1		
	Common Yellowthroat				1	1	
	Downy Woodpecker					1	
	Northern Flicker					5	
	White-breasted Nuthatch					1	
	Ovenbird					1	
	American Crow					1	
	Common Grackle						1
	Blue Jay						1
	Savannah Sparrow	3					
	Yellow Warbler	1					
IN04	Horned Lark	2		1	1		
	Common Grackle			3			
	American Goldfinch			2			1
	Red-winged Blackbird	1		1	1		
	Rock Pigeon			1			
	Savannah Sparrow	2	1				
	Mourning Dove		1				
	Northern Cardinal		1				
	House Sparrow				2		1
	Brown-headed Cowbird				1		
	Chipping Sparrow				2		
	European Starling					2	10
	Song Sparrow					2	
	Barn Swallow						1
	American Crow						4
	Northern Harrier						1
	American Robin	2					
IN05	Canada Goose			4			
	Blue Jay			1			
	Red-winged Blackbird	2		1			
	Common Grackle			3			
	Killdeer			1		5	1
	Yellow Warbler			1			
	European Starling		3	1		20	
	Northern Mockingbird			1			
	Northern Rough-winged Swallow			1			
	Horned Lark	2				1	
	Warbling Vireo					1	
	American Goldfinch						4
	Song Sparrow				5		
	Mourning Dove						1
	American Robin		2			1	
	Savannah Sparrow	2	4		5		

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
IN06	Killdeer	1	1	1		1	
	Barn Swallow			2			3
	Northern Cardinal		1				
	Chipping Sparrow	1	1		1	2	
	Mourning Dove	1	1				
	American Robin	3	2		1		
	Red-winged Blackbird		2				
	Savannah Sparrow	3	1			2	
	House Sparrow	3					
	IN07	American Crow			3		
European Starling				1	1		
Canada Goose				1			
House Finch			1				
American Robin		2	1		1		
Mourning Dove			2			1	1
Song Sparrow		1	1				
Brown-headed Cowbird			1		2		
Red-winged Blackbird		5					
Chipping Sparrow		1			1		
Song Sparrow					1		
Downy Woodpecker					2		
Killdeer					6		
Barn Swallow							1
American Goldfinch							1
Eastern Kingbird		1					
IN08	American Crow			1			1
	Tree Swallow			3			
	Barn Swallow			1			
	Mourning Dove		1			2	
	Common Grackle		1				
	Warbling Vireo	1	1				
	Killdeer				1		1
	Gray Catbird				1		
	Field Sparrow					1	
	American Robin					1	
	Barn Swallow						1
	American Goldfinch						1
	Ring-billed Gull						11
	Red-winged Blackbird	6	6		5	4	
IN09	American Crow			1			2
	Canada Goose			2			
	Red-tailed Hawk			1			
	Rock Pigeon			3			
	European Starling	2	4			2	
	Mourning Dove		1		1	2	
	Red-winged Blackbird	2	2				
	Northern Cardinal		1				
	Eastern Meadowlark		1				
	House Wren					3	
	American Robin				2		

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Song Sparrow				1		
	Chipping Sparrow				1		
	House Sparrow				5		
	Savannah Sparrow				1	1	
	Common Grackle	1			1		
IN10	European Starling	3		1	1		
	American Crow			1			1
	Common Grackle			1			
	Killdeer		1				
	American Goldfinch	4	1				
	Mourning Dove		2			3	
	American Robin	1	1		1	1	
	Red-winged Blackbird	2			1		
	Eastern Meadowlark	1					
	Warbling Vireo	2					
	Song Sparrow				2	1	
	Chipping Sparrow				1		
	Savannah Sparrow					1	
	Wood Thrush						1
	Baltimore Oriole	1					
	Brown-headed Cowbird						
	IN11	Upland Sandpiper			1		
American Crow				1			
American Goldfinch				2			
Common Grackle			4				
Killdeer			1			1	
Barn Swallow				1			
Red-winged Blackbird		1	1		1		
House Wren					1		
Willow Flycatcher						3	
Barn Swallow							4
American Robin		2					
Savannah Sparrow		1				1	
Song Sparrow		2					
IN12	American Robin	1		1	1	1	
	Common Grackle		6		4		4
	Yellow Warbler	2	1		2		
	Red-winged Blackbird	6	2		2	1	
	Baltimore Oriole	1					
	Brown-headed Cowbird				1		
	Northern Mockingbird				1		
	American Goldfinch				1		
	Killdeer				1		
	Chipping Sparrow					1	
	Mourning Dove					1	
	Song Sparrow	1					
	IN13	Mourning Dove		1	1	8	
Red-winged Blackbird				1	3		
Red-tailed Hawk				1			

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Barn Swallow			2			
	European Starling		38				
	Killdeer	1	3				
	American Robin	1	2			1	
	Savannah Sparrow		1		23		
	House Sparrow		1				
	Horned Lark	1	1				
	Bobolink				2		
	Eastern Meadowlark	1			1		
IN14	Barn Swallow			1			2
	Ring-billed Gull			15			
	American Robin		1		2		
	Bobolink	1	1				
	Mourning Dove		1				
	Red-winged Blackbird	7	2				
	European Starling	2			1	5	
	Eastern Meadowlark	1					
	Savannah Sparrow	2			5		
	Chipping Sparrow				2		
	Killdeer					1	
	Gray Catbird					1	
	Warbling Vireo					1	
	Purple Martin						1
	American Goldfinch						1
	House Sparrow	3			1		
IN15	Red-bellied Woodpecker			1			
	American Crow			1			
	Mourning Dove	1	1	1	1		
	Chipping Sparrow		2				
	Bobolink		1		1		
	Rock Pigeon		4				6
	Killdeer	1				2	
	American Goldfinch	1			1		
	Red-winged Blackbird	1				3	1
	European Starling	1				5	1
	Song Sparrow				3		
	Eastern Meadowlark				1		
	Savannah Sparrow				3		
	House Wren					1	
	Barn Swallow						3
	Red-tailed Hawk						
	Caspian Tern						1
	Ring-billed Gull						1
	Common Grackle	1					
IN16	American Robin	2	1	1	1		
	Barn Swallow	1		2			
	European Starling	1					5
	Savannah Sparrow	1			2		
	Brown-headed Cowbird	1					
	Song Sparrow				3		

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Common Grackle				1		4
	Mourning Dove				1		1
	Chipping Sparrow					2	
	Barn Swallow						1
	American Goldfinch						5
	Red-winged Blackbird	2				1	
IN17	Barn Swallow			1			
	Red-winged Blackbird		2	1	1		1
	European Starling	1	4	2		10	
	Red-tailed Hawk			1			
	Blue Jay			1			
	Ring-billed Gull			2			1
	Common Grackle			3			
	Yellow Warbler		2				
	American Goldfinch		1		1		
	Mourning Dove		1			1	
	Warbling Vireo		1				
	Savannah Sparrow				3	1	
	Song Sparrow				1		
	American Crow				2	1	1
	Killdeer					1	
	American Robin	2	1				1
IN18	American Crow			1			1
	House Sparrow			1			
	Red-bellied Woodpecker		1				
	Mourning Dove	1	1				
	Wild Turkey		1				
	Red-eyed Vireo	1			1		
	Song Sparrow	1					
	House Wren	1					
	Brown-headed Cowbird	1					
	American Goldfinch				1		
	Indigo Bunting				1		
	Chipping Sparrow				1	1	
	Cedar Waxwing				1		
	Eastern Kingbird				1		
	Purple Martin						1
	Field Sparrow						1
	Common Grackle						1
	Rock Pigeon						2
	Black-capped Chickadee	2					
IN19	Ring-billed Gull			24			
	American Goldfinch			4			3
	American Robin	1		1			
	Barn Swallow			5			
	European Starling		4				
	Chipping Sparrow	1	2		1		
	Brown-headed Cowbird		1				
	Song Sparrow				2		
	Savannah Sparrow				2		

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Killdeer					1	1
	House Sparrow					3	
	Barn Swallow						2
	Tree Swallow						1
	American Crow						1
	Rock Pigeon						1
	Eastern Bluebird	1					
IN20	Wood Thrush			1			
	Great Blue Heron			1			
	Mourning Dove		1			1	
	Cedar Waxwing		2				
	Field Sparrow		1				
	Bobolink	1					
	Yellow Warbler	3					
	Willow Flycatcher	1					
	Brown-headed Cowbird	2					
	Song Sparrow	2			1		
	Gray Catbird				1		
	White-breasted Nuthatch				1		
	American Robin				1		
	Killdeer					1	
	Northern Cardinal					1	
	European Starling					3	
	American Goldfinch						1
	American Crow						2
	House Wren	2			1		
WO01	Mourning Dove		1		2		
	Song Sparrow	1	1		1		
	Field Sparrow	1	1			1	1
	Wild Turkey		1				
	Northern Cardinal				1		
	Wood Thrush				2	2	
	House Wren	1	2		1		
	Indigo Bunting				1		
	Savannah Sparrow				1		
	Chipping Sparrow					1	
	Gray Catbird	1					
	Black-capped Chickadee	1					
	American Robin	1			2		
WO02	Wood Thrush		2			2	
	Red-winged Blackbird	2	1				
	Mourning Dove		1				
	Wild Turkey		1				
	Killdeer		1				
	Savannah Sparrow		1				
	Field Sparrow						2
	Eastern Wood-Pewee					2	
	Golden-crowned Kinglet					1	
	Eastern Meadowlark		1				
	American Goldfinch	1					

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Red-eyed Vireo	1					
	American Robin	1					
	Song Sparrow	2					
WO03	Brown-headed Cowbird			3			
	Purple Martin			1			
	American Goldfinch			1			
	American Crow			2		1	3
	Song Sparrow	1	1		1	3	
	Chipping Sparrow		1				
	American Robin	1	1		1		
	Downy Woodpecker				1		
	House Wren					1	
	Gray Catbird	1				1	
	Red-eyed Vireo	2					
WO04	Canada Goose			1			
	American Crow			1			3
	Blue Jay			1			
	Killdeer			1			
	Wood Thrush			1			
	European Starling		6				
	Red-winged Blackbird	2					
	Song Sparrow	1				1	
	Common Grackle	1				2	
	Mourning Dove	2			1	1	
	Warbling Vireo	1					
	Eastern Wood-Pewee					1	
	White-breasted Nuthatch					1	
	House Wren	2			3	2	
	American Goldfinch						1
	American Robin				3		1
	Field Sparrow				1		
	Northern Rough-winged Swallow						2
	Black-capped Chickadee	1					
	Chipping Sparrow	1					
WO05	Mourning Dove			1			
	Barn Swallow			2			3
	American Robin	1	1		1		
	European Starling		2			1	15
	Mourning Dove		1				
	Red-winged Blackbird		1				
	Baltimore Oriole	2					
	Chipping Sparrow	1			1		
	Downy Woodpecker				1		
	Killdeer						1
	Rock Pigeon						4
	Wild Turkey						1
	Great Crested Flycatcher	1					
	Black-capped Chickadee	1					
WO06	Red-bellied Woodpecker		1				

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	American Robin		1		2	2	
	European Starling	1	1				5
	Wood Thrush		1				
	Red-winged Blackbird		1				
	Song Sparrow	1	1				
	Black-capped Chickadee				1		
	Eastern Wood-Pewee				1		
	Northern Cardinal				1		
	Field Sparrow				1		
	House Wren	1	1		1		
	Red-eyed Vireo				2		
	Pine Warbler				2		
	White-breasted Nuthatch				1		
	Brown-headed Cowbird					1	
	Turkey Vulture					2	
	American Crow						1
	Mourning Dove						1
	Great Crested Flycatcher	2					
	Common Yellowthroat	1				1	
WO07	Ring-billed Gull			1	1		
	Mourning Dove		2			1	
	Northern Flicker	2			1		
	Mallard	7					
	Song Sparrow	1			1		
	American Robin				1		1
	Baltimore Oriole				1		
	Black-capped Chickadee				1		
	Spotted Sandpiper					1	
	Yellow Warbler	2					
	Brown-headed Cowbird	2					
WO08	American Goldfinch			1	2		
	European Starling			1			
	Brown-headed Cowbird			1			
	Baltimore Oriole			1			
	American Robin		2		1		
	Yellow Warbler	1	1		2		
	Chimney Swift		1				
	Savannah Sparrow	1					
	Red-winged Blackbird	2					
	Song Sparrow	2			2		
	Cedar Waxwing				1		
	Black-capped Chickadee				2		
	Gray Catbird				1		
	Rose-breasted Grosbeak				2		
	Mourning Dove					1	1
	Ruby-throated Hummingbird	1					
WO09	American Crow			2			
	Killdeer			1			
	Wood Thrush	1	1				

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	American Goldfinch		2				
	Mourning Dove		1			1	
	American Robin				1		1
	Red-bellied Woodpecker				1		
	Northern Flicker					1	
	Red-tailed Hawk						1
	European Starling						1
	Downy Woodpecker	1					
	Song Sparrow	1			1		
WO10	American Goldfinch			1			
	Killdeer			1			
	Sandhill Crane			1			
	Downy Woodpecker		1				
	Mourning Dove	1	1				
	Field Sparrow	1				1	
	Song Sparrow	2			1		
	Chipping Sparrow	1					
	Red-eyed Vireo				1		
	European Starling				1		
	Blue Jay				1		
	Northern Flicker	1					
	Baltimore Oriole	1					
WO11	American Goldfinch			1			1
	Red-winged Blackbird	1		1		1	
	Wood Thrush		1				
	Northern Cardinal		1			2	
	Common Grackle		6				
	Northern Flicker				1	1	
	American Robin				1		
	Field Sparrow					1	
	Downy Woodpecker					1	
	European Starling					1	
	American Crow						4
	House Wren	1					
	Black-capped chickadee	1					
WO12	American Crow			1			2
	Eastern Wood-pewee		2				
	Red-tailed Hawk		2			1	
	Red-eyed Vireo	1					
	Great Crested Flycatcher	1					
	Red-winged Blackbird	1					
	Savannah Sparrow	1			1		
	American Robin				1		
	House Wren		1		1		
	Downy Woodpecker				1		
	Eastern Bluebird	1			1		
	Mourning Dove					1	
	Chipping Sparrow	1				1	
WO13	Mourning Dove	1	1				

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Yellow Warbler	3			3		
	Song Sparrow	1			1	1	
	Field Sparrow	1			1		
	Common Grackle				1		
	American Robin				1		
	Common Yellowthroat				1		
	House Wren	1			1		
	Baltimore Oriole				1		
	Red-winged Blackbird				1		
	American Crow						1
	Ring-billed Gull						1
	Northern Cardinal	1					
	Gray Catbird	1			1		
WO14	Mourning Dove		1	2	1		
	American Crow		1	1			
	European Starling	1	8			20	
	Song Sparrow	1	1		1	1	
	Cedar Waxwing				3		
	American Robin				1		
	Downy Woodpecker				1		
	House Wren				1		
	Northern Flicker				1		
	Baltimore Oriole				2		
	Killdeer					1	
	Ruby-throated Hummingbird				1		
	Common Grackle	1					40 +20
	Cooper's Hawk	1					
WO15	Turkey Vulture			1			
	Brown-headed Cowbird		1		1		
	Red-eyed Vireo	2					
	House Wren	1					
	Song Sparrow	1				1	
	Northern Flicker				1		
	American Robin				1		
	Downy Woodpecker				1		
	Black-capped Chickadee				1		
	Eastern Wood-Pewee					1	
	Common Grackle						-2 +50
	American Crow						1
	American Goldfinch						1
	Yellow-billed Cuckoo	1					
	White-breasted Nuthatch	1					
WO16	American Crow			1			
	Red-bellied Woodpecker		1				
	Sandhill Crane		2				
	Common Yellowthroat		1				
	Brown-headed Cowbird	4					
	Downy Woodpecker				1	1	
	Eastern Wood-Pewee	1				1	

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Song Sparrow	2			1	1	
	Wood Thrush	2					
WO17	Turkey Vulture			1			1
	American Crow			1			
	Mourning Dove		1				
	Eastern Wood-pewee		1				
	Gray Catbird		2				
	Song Sparrow		1		1		
	Blue Jay		1			1	
	Red-eyed Vireo		1				
	Rose-breasted Grosbeak		2				
	House Wren		1				
	Common Grackle	1					
	Downy Woodpecker				1		
	White-breasted Nuthatch				1		
	American Robin	1					
	Indigo Bunting	1					
WO18	European Starling			1			
	Eastern Kingbird		1				
	Red-eyed Vireo	1					
	Blue Jay	1					
	American Robin	2			7		
	Baltimore Oriole	2					
	Red-tailed Hawk						1
	Killdeer						1
	American Crow						5
	Wood Thrush					1	
	Downy Woodpecker				1		
	Red-breasted Nuthatch				1		
	White-breasted Nuthatch	2					
	Savannah Sparrow	1			1		
WO19	Song Sparrow	1	1				
	Indigo Bunting		1				
	Eastern Wood-Pewee		2				
	Red-winged Blackbird	2					
	Downy Woodpecker	1					
	Red-eyed Vireo	1			1		
	Great Crested Flycatcher	1					
	Pine Warbler				1		
	Common Grackle					5	
	Northern Flicker					1	
	Ovenbird					1	
	Mourning Dove					1	
WO20	Song Sparrow	2					
	Common Grackle			1			
	Blue Jay	1			1		
	American Robin	1		1	2		
	Gray Catbird	2					
	Mourning Dove	1					

Station	Species	Visit 1			Visit 2		
		0-50	51-100	>100 or Fly-thru	0-50	51-100	>100 or Fly-thru
	Red-winged Blackbird	1					
	Ovenbird	1					
	Wood Thrush	2	1		3		

# Appendix B

## 2009 Breeding Bird Vista Surveys



## 2009 Breeding Bird Monitoring

NOTE: See Figures 2.1 and 2.2 for survey locations.

### LEGEND:

*Beaufort Wind Scale:*

- 0 – 0 km/h
- 1 – 1-6 km/h
- 2 – 7-11 km/h
- 3 – 12-19 km/h
- 4 – 20-29 km/h
- 5 – 30-39 km/h
- 6 – 40-50 km/h
- 7 – 51-62 km/h

## Vista Survey Results

### 1.1 Summer Breeding Bird Period

#### 1.1 Vista Station VINE

*Visit 1:* Date: June 5, 2009, Start Time = 09:40, End Time = 10:38

Conditions: 16°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
09:41	Northern Cardinal	1	Calling from treeline	A	100-200	NE
09:41	Chestnut-sided Warbler	1	Calling from treeline	A	100-200	NE
09:45	Red-bellied Woodpecker	1	Calling from woodlot	A	200-500	S
09:45	Blue Jay	1	Calling	A	200-500	S
09:46	Red-winged Blackbird	3	Calling around creek bed	A	100-200	N
09:47	American Robin	1	Calling from hedgerow	A	100-200	E
09:48	Turkey Vulture	1	Soaring over river	C	500-1000	N
09:49	Barn Swallow	1	Flying E	A	0-50	N
09:49	Song Sparrow	1	Calling	A	100-200	E
09:50	Red-winged Blackbird	1	Calling	A	100-200	ESE
09:54	Mourning Dove	1	Calling	A	200-500	N
09:55	Killdeer	1	Landing in field	A	0-50	SE
09:55	Canada Goose	2	Calling from river	A	200-500	N
09:59	Brown-headed Cowbird	1	In field, foraging	A	100-200	ENE
10:04	Great Blue Heron	1	Flying W along river	C	500-1000	N
10:04	Turkey Vulture	9	Soaring over river	B-C	500-1000	N
10:06	Turkey Vulture	2	Soaring W over field	A-B-C	200-500	N
10:08	Tree Swallow	1	Foraging over field	A-B	100-200	E
10:10	Northern Flicker	1	Calling from woodlot	A	200-500	S
10:12	Killdeer	1	Landing in field (from N)	A	0-50	SE
10:12	Eastern Kingbird	1	Flying S	A	0-50	OH
10:13	American Crow	1	calling	A	200-500	NE

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:16	Turkey Vulture	1	Flying N, joining 4 over river	C	0-50	W
10:17	Turkey Vulture	4	Over river	B-C	200-500	N
10:20	Red-tailed Hawk	2	Soaring on far side of river	A	500-1000	W
10:21	Turkey Vulture	1	Mobbed by Red-winged Blackbird	B	100-200	W
10:21	Red-winged Blackbird	1	MobbinTurkey Vulture	B	100-200	W
10:31	Great Blue Heron	1	Flying N to river	A	100-200	E
10:33	Turkey Vulture	1	Flying W	B	200-500	S
10:36	American Goldfinch	1	Flying E	A	0-50	W
10:36	Turkey Vulture	1	Flying W	B	200-500	S
10:37	Bobolink	1	Singing	A	100-200	N
10:38	Great Blue Heron	1	Flying ENE	B	200-500	E
10:38	Eastern Phoebe	1	Singing from woods	A	100-200	S

Visit 2: Date: July 14, 2009, Start Time = 09:50, End Time = 10:51

Conditions: 18°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 3, north-west

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
09:55	Sandhill Crane	4	2 adults + 2 fledglings in field	A	50-100	N
09:55	Song Sparrow	1	singing	A	50-100	W
10:00	Common Yellowthroat	1	Singing	A	100-200	N
10:00	Red-winged Blackbird	10	In field	A	0-50	All directions
10:01	Eastern Wood-Pewee	1	Singing	A	200-500	N
10:05	Turkey Vulture	2	Soaring over field	B	500-1000	SE
10:10	Song Sparrow	7	Singing from hedgerow	A	100-200	ENE
10:10	Savannah Sparrow	5	Singing all around	A	0-200	All directions
10:15	American Goldfinch	1	Flying S	A	0-50	W
10:15	Turkey Vulture	2	Soaring N and S	B	0-50	OH
10:19	Turkey Vulture	1	Flying N	B	0-50	OH
10:23	American Goldfinch	2	Flying N	A	0-50	E
10:24	Turkey Vulture	10	Over river	A	> 1000	N
10:25	Blue Jay	7	Calling	A	200-500	NE
10:29	American Crow	1	Perched on tree	A	500-1000	NE
10:30	Barn Swallow	2	Foraging over field	A	0-50	S
10:33	Common Grackle	1	Carrying food, flying S	A	0-50	E
10:35	Mourning Dove	1	Flying over field	A	50-100	N
10:38	Red-tailed Hawk	1	Searching	B	200-500	SE
10:44	Northern Rough-winged Swallow	1	Flying W, foraging	A	0-50	S
10:51	Turkey Vulture	1	Soaring over woodlot	B	500-1000	S

## 1.2 Vista Station VINW

Visit 1: Date: June 4, 2009, Start Time = 11:15, End Time = 12:12

Conditions: 18°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 2, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:15	Upland Sandpiper	1	Singing	A	100-200	N
11:15	Song Sparrow	1	Singing	A	50-100	NE
11:17	Savannah Sparrow	1	Singing	A	0-50	N
11:18	Red-tailed Hawk	1	Soaring and rising	A-B	200-500	NW
11:18	Bobolink	1	Singing	A	0-50	N
11:18	Yellow Warbler	1	Singing	A	50-100	N
11:21	Horned Lark	1	On road	A	100-200	SSW
11:21	Killdeer	1	In field	A	50-100	N
11:21	Savannah Sparrow	1	Singing	A	50-100	SSW
11:23	Turkey Vulture	1	Soaring	B	200-500	NE
11:23	Turkey Vulture	2	Soaring over woodlot	A-B	500-1000	SE
11:27	Turkey Vulture	4	Soaring over woodlot, then E	B-C	200-500	N
11:28	Red-tailed Hawk	1	Soaring over field	B	200-500	SE
11:31	Great Blue Heron	1	Flying E	C	200-500	SSE
11:34	American Goldfinch	1	Flying N	A	0-50	W
11:34	Horned Lark	2	Flying N	A	0-50	W
11:39	Turkey Vulture	1	Soaring NW	B-C	200-500	NE
11:41	Turkey Vulture	1	Soaring NW	A-B	100-200	N
11:41	Turkey Vulture	1	Soaring SW	C	> 1000	E
11:42	Red-tailed Hawk	1	Soaring over field	B	> 1000	W
11:44	Killdeer	2	Flying around field	A	0-50	E
11:45	Turkey Vulture	3	Soaring over field	B-C	200-500	E
11:48	Northern Harrier	2	Soaring high, then lower over field; back at 11:56, landed in field, nearby nest?	A-C	0-50	E
11:56	Horned Lark	1	Flight display	B	0-50	S
12:04	Red-tailed Hawk	1	Carrying food back to woodlot to N, location of nest?	A	200-500	W
12:07	Northern Harrier	1	Back over field	A	200-500	NW
12:09	Horned Lark	1	Flight display	B	0-50	S
12:12	Turkey Vulture	1	Flying S	B-C	500-1000	W

Visit 2: Date: June 24, 2009, Start Time = 11:14, End Time = 12:12

Conditions: 26°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2-3, north-north-west

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:14	American Kestrel	1	Perched on wire	A	50-100	NNE
11:14	Eastern Meadowlark	1	Perched on electric fence	A	0-50	W
11:14	Red-tailed Hawk	1	Soaring N	B	200-500	W
11:14	Turkey Vulture	2	Soaring W	B	500-1000	W
11:20	Mourning Dove	1	Perched on wire	A	50-100	NNE
11:24	Turkey Vulture	1	Soaring over woodlot	B	> 1000	NNW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:24	Red-tailed Hawk	1	Soaring, mobbed by Red-winged Blackbird	B	200-500	SW
11:24	Red-winged Blackbird	3	Mobbing Red-tailed Hawk	B	200-500	SW
11:24	American Crow	1	Calling	A	200-500	SW
11:25	Savannah Sparrow	5	Perched on wire, calling in field	A	50-100	All directions
11:25	Barn Swallow	2	Foraging in field	A	0-50	E
11:26	Bobolink	1	Singing in field	A	50-100	NW
11:32	Horned Lark	2	Aggressive interaction	A	0-50	NE
11:32	Yellow Warbler	1	Perched on wire, then flew to shrub line	A	100-200	NNE
11:38	Red-tailed Hawk	1	Soaring over woods	B	500-1000	W
11:40	Horned Lark	1	Flight display	B	0-50	E
11:42	Turkey Vulture	3	Soaring	B	> 1000	N
11:47	American Crow	1	Flying E	A-B	200-500	S
11:56	Red-tailed Hawk	1	Perched on snag	A	500-1000	NW
12:02	Killdeer	1	Calling in field	A	100-200	S
12:06	Turkey Vulture	1	Soaring S	B	> 1000	NW
12:12	Turkey Vulture	11	Soaring S	B	> 1000	NW
12:12	Turkey Vulture	1	Soaring	B	> 1000	E

### 1.3 Vista Station VISE

Visit 1: Date: June 4, 2009, Start Time = 10:00, End Time = 10:52

Conditions: 13°C, no precipitation, cloud cover = 20%, visibility = clear, wind = 1, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:03	Red-winged Blackbird	1	Calling	A	0-50	N
10:03	Cuckoo	1	Calling from woodlot	A	200-500	W
10:06	Northern Cardinal	1	Calling from woodlot	A	100-200	NNE
10:06	Purple Martin	1	foraging over field	A	0-50	E
10:08	Red-winged Blackbird	15-20	In field	A	0-200	W
10:08	Savannah Sparrow	1	Calling	A	0-50	W
10:10	Horned Lark	1	Flight display	B	0-50	SE
10:11	Barn Swallow	1	Over field, foraging	A	0-50	NNW
10:11	Horned Lark	2	On field	A	0-50	NE
10:12	Purple Martin	1	Flying high above field	B	50-100	N
10:17	Field Sparrow	1	Singing	A	100-200	W
10:22	American Goldfinch	1	Flying overhead	A	0-50	OH
10:25	Barn Swallow	1	Foraging along road	A	0-50	W
10:31	American Crow	1	Calling from woodlot	A	100-200	NNE
10:31	Mourning Dove	1	Calling	A	200-500	S
10:35	Red-tailed Hawk	1	Soaring over field, mobbed by American Kestrel	A-B	100-200	E
10:35	European Starling	1	Flying S	A	0-50	E
10:36	American Kestrel	1	Mobbing Red-tailed Hawk	B	100-200	E
10:40	Great Blue Heron	1	Flying N	A	> 1000	E
10:43	Barn Swallow	1	Foraging over field	A	200-500	S
10:51	Turkey Vulture	1	Soaring NE	C	0-50	OH
10:52	Ring-billed Gull	1	Soaring NE	C	0-50	OH

Visit 2: Date: June 24, 2009, Start Time = 10:05, End Time = 11:02

Conditions: 26°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2-3, north-north-west

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:05	Ring-billed Gull	1	Calling	A	200-500	E
10:05	Red-winged Blackbird	10	In field, moving around	A	0-100	All directions
10:12	Horned Lark	1	Flight display	B	0-50	W
10:12	Savannah Sparrow	1	Singing	A	0-50	NW
10:14	Turkey Vulture	1	Soaring W	B	100-200	E
10:14	Turkey Vulture	1	Soaring E	B	50-100	W
10:17	Barn Swallow	3	Foraging over field	A	0-50	W
10:22	Horned Lark	1	Flight display	B	0-50	W
10:24	European Starling	5	In field, moving around	A	100-200	W
10:27	Red-tailed Hawk	1	Soaring S	B-C	200-500	W
10:36	Red-tailed Hawk	1	Soaring SE	B	100-200	N
10:36	Turkey Vulture	1	Soaring SE	B	100-200	N
10:40	Horned Lark	1	Flight display	B	0-50	W
10:43	Red-tailed Hawk	1	Flying W, mobbed by Red-winged Blackbird	B	50-100	S
10:43	Turkey Vulture	1	Over woods	B	200-500	NNE
10:43	Red-winged Blackbird	5	Mobbing Red-tailed Hawk	B	50-100	S
10:49	American Robin	1	In field	A	50-100	W
10:51	Song Sparrow	1	Singing from hedgerow	A	50-100	NNW
11:02	American Crow	1	calling	A	100-200	N

#### 1.4 Vista Station VISW

Visit 1: Date: June 5, 2009, Start Time = 10:50, End Time = 11:46

Conditions: 18°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:51	Turkey Vulture	1	Soaring SE	B	200-500	S
10:51	Savannah Sparrow	1	Perched on wire, calling	A	0-50	W
10:51	Red-winged Blackbird	10-20	In field	A	0-50	W
10:51	Mourning Dove	1	Calling	A	100-200	W
10:53	European Starling	5	Family perched on snags	A	50-100	N
10:53	American Robin	1	Singing	A	100-200	E
10:53	Chipping Sparrow	1	Singing	A	100-200	E
10:55	American Crow	2	Calling	A	200-500	S
10:57	Turkey Vulture	2	Soaring E	B-C	200-500	E
10:58	Turkey Vulture	1	Soaring S	C	500-1000	W
11:00	Blue Jay	1		A	0-50	OH
11:00	Northern Rough-winged Swallow	3	Foraging over house	A	0-50	N
11:03	Turkey Vulture	2	Soaring over woods	A-B	200-500	W
11:10	Turkey Vulture	1	Mobbed	B	200-500	NW
11:10	Red-winged Blackbird	1	Mobbing	B	200-500	NW
11:11	Red-bellied Woodpecker	1	Calling from woods	A	200-500	SW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:20	Bobolink	1	Singing in field	A	50-100	SSW
11:20	Turkey Vulture	3	Soaring over field / woodlot	A	200-500	W
11:22	Barn Swallow	4	Over field	A	0-50	N
11:27	Bobolink	1	Calling in field	A	50-100	SSE
11:29	Brown-headed Cowbird	3	On road	A	50-100	E
11:30	Rock Pigeon	1	Flying S	A	100-200	S
11:30	Turkey Vulture	4	Soaring	B-C	> 1000	S
11:35	Turkey Vulture	1	Soaring NW	B	200-500	WNW
11:46	Turkey Vulture	1+2	Soaring over field	B	200-500	N -> W
11:46	American Crow	3	calling	A	200-500	E

Visit 2: Date: July 14, 2009, Start Time = 11:00, End Time = 11:50

Conditions: 20°C, no precipitation, cloud cover =none, visibility = clear, wind = 2-3

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:04	Song Sparrow	1	Singing	A	200-500	S
11:04	Northern Mockingbird	1	Perched on wire	A	0-50	S
11:04	Savannah Sparrow	1	Perched on wire	A	0-50	S
11:04	American Goldfinch	1	Perched on wire	A	0-50	S
11:12	Northern Harrier	1	Flying E over field, being mobbed	A-B	200-500	N
11:12	Red-winged Blackbird	15	Mobbing Northern Harrier	A-B	200-500	N
11:15	Turkey Vulture	1	Flying over field	A-B	200-500	N
11:16	Ring-billed Gull	1	Over field	A	200-500	NNW
11:20	Mourning Dove	2	Flying W	A	0-50	S
11:35	House Sparrow	1	Perched on wire	A	0-50	S
11:41	Northern Rough-winged Swallow	1	Flying W, foraging	A	0-50	N
11:50	American Goldfinch	2	Flying W	A	0-50	N
	Very quiet session!					

## 1.5 Vista Station VIFVN

Visit 1: Date: June 10, 2009, Start Time = 11:49, End Time = 12:37

Conditions: 18°C, cloud cover = 30%, wind = 1, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:49	American Robin	1	Singing in field	A	50-100	S
11:52	Red-winged Blackbird	1	Perched on T/L	A	0-50	E
11:55	Turkey Vulture	1	Mobbed	A-B	200-500	SSE
11:55	Red-winged Blackbird	1	Mobbing	A-B	200-500	SSE
11:57	European Starling	2	Flying SE	A	100-200	SW
11:59	American Goldfinch	1	Flying E	A	0-50	OH
12:00	Horned Lark	1	Flight display	B	50-100	N
12:01	Savannah Sparrow	1	Singing from fence line	A	0-50	E
12:01	Savannah Sparrow	2	Perched on T/L	A	50-100	W
12:01	Red-winged Blackbird	1	Perched on T/L	A	0-50	W

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:07	Turkey Vulture	1	Soaring NNE	C	> 1000	SE
12:09	Horned Lark	1	On road	A	50-100	W
12:10	Turkey Vulture	1	Soaring gradually S over field, then back N over woods	B	100-200	E
12:13	Turkey Vulture	1	Soaring over woodlot	A	200-500	NNE
12:15	Brown-headed Cowbird	4	On field, 2 P	A	100-200	ESE
12:16	Turkey Vulture	6	Soaring	A-C	200-500	SE
12:25	Turkey Vulture	1	Flying along hedgerow	A	100-200	ENE
12:29	Song Sparrow	1	Singing from T/L	A	0-50	W
12:31	Turkey Vulture	2	Soaring over woodlot	A-B	200-500	NE
12:31	Red-tailed Hawk	1	Soaring	B	> 1000	SE
12:37	Turkey Vulture	6	Soaring over woodlot	A-C	200-500	NE

Visit 2: Date: July 15, 2009, Start Time = 13:15, End Time = 14:01

Conditions: 23°C, no precipitation, cloud cover = 50%, visibility = clear, wind = 2, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:15	Song Sparrow	1	Singing	A	0-50	S
13:22	Savannah Sparrow	1	Singing	A	0-50	S
13:28	Turkey Vulture	3	Soaring over woodlot	B	200-500	S
13:29	Eastern Kingbird	1	In hedgerow	A	100-200	S
13:30	Field Sparrow	1	Calling in field	A	100-200	SE
13:33	American Crow	1	Calling	A	500-1000	SE
13:40	Northern Flicker	1	Calling	A	100-200	E
13:41	Turkey Vulture	1	Soaring over woodlot	B	500-1000	S
13:41	Turkey Vulture	1	Soaring	B	> 1000	NE
13:49	Killdeer	1	Flying around field	A	0-50	S
13:51	Turkey Vulture	1	Soaring over woodlot	A-B	200-500	S
13:51	Red-tailed Hawk	1	Soaring over woodlot	A-B	200-500	S
13:58	Northern Mockingbird	2	1-singing from T/L	A	0-50	S
13:58	Northern Harrier	1	Foraging over field	A	500-1000	S
14:01	American Redstart	1	Perched on T/L	A	0-50	W

## 1.6 Vista Station VIFVS

Visit 1: Date: June 10, 2009, Start Time = 10:35, End Time = 11:21

Conditions: 14°C, cloud cover = 100%, wind = 2, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:35	Red-winged Blackbird	3	calling from field	A	0-50	S
10:44	Eastern Kingbird	2	1 on fence, 1 on field	A	0-50	E
10:44	Eastern Meadowlark	1	Singing on T/Line	A	50-100	E
10:44	Savannah Sparrow	1	Singing on T/Line	A	0-50	w
10:46	Warbling Vireo	2	Singing	A	100-200	N
10:46	Savannah Sparrow	2	Pair in scrub	A	0-50	W
10:52	Barn Swallow	4	Foraging around field	A	0-50	S
10:54	Common Yellowthroat	1	Singing	A	100-200	N
10:54	European Starling	30	Flying S	A	100-200	w

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:55	Horned Lark	1	In field	A	0-50	NNW
11:00	Common Grackle	1	Flying W	A	100-200	S
11:00	Horned Lark	2	Flight display	B	0-50	S
11:08	Northern Flicker	1	Flying to woodlot to SE	a	0-50	W
11:08	American Kestrel	1	Soaring	B	500-1000	SSE
11:13	Turkey Vulture	3	Soaring	B	500-1000	ENE
11:13	Tree Swallow	2	Foraging	A	200-500	ENE
11:19	Killdeer	1	Calling from field	A	100-200	E
11:20	Mallard	1	Flying W	A	100-200	N
11:21	Turkey Vulture	1	Soaring over woodlot	C	500-1000	ENE
11:21	Horned Lark	2	Flight display	B	0-50	N

Visit 2: Date: July 14, 2009, Start Time = 12:10, End Time = 12:56

Conditions: 21°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 2

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:10	American Goldfinch	1	Calling	A	0-50	N
12:16	Common Grackle	1	Perched	A	0-50	N
12:19	Song Sparrow	2	Singing	A	100-200	N
12:20	Savannah Sparrow	1	Perched on fence	A	0-50	W
12:23	Savannah Sparrow	2	Flying around field	A	200-500	NE
12:25	Black-billed Cuckoo	1	Calling	A	200-500	W
12:25	Northern Flicker	1	Calling	A	100-200	NW
12:26	Killdeer	1	In field	A	0-50	S
12:30	Barn Swallow	1	Foraging over field	A	0-50	W
12:37	Red-winged Blackbird	1	Calling from hedgerow	A	100-200	N
12:46	Savannah Sparrow	1	Calling in field	A	0-50	SW
12:48	Upland Sandpiper	1	Calling in field	A	0-50	S
12:56	European Starling	5	Calling from trees in hedgerow	A	200-500	SW

## 1.7 Vista Station VILW

Visit 1: Date: June 23, 2009, Start Time = 13:26, End Time = 14:16

Conditions: 27°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2-3, South

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:27	Red-winged Blackbird	2	In fields, moving around	A	0-50	All directions
13:29	Song Sparrow	1	Singing from wire	A	50-100	NW
13:29	Warbling Vireo	1	Singing	A	0-50	S
13:31	Mourning Dove	2	Perched on wire	A	50-100	NW
13:31	Purple Martin	1	Flying S	A	0-50	N
13:32	European Starling	2	Flying W	A	0-50	All directions
13:33	Red-tailed Hawk	1	Soaring over woods	B	500-1000	N
13:34	Gull Sp.	20	On shoreline	A	200-500	E
13:35	Tree Swallow	2	Foraging over field	A	50-100	N
13:35	Killdeer	1	Calling from field	A	200-500	N
13:35	Ring-billed Gull	1	Flying W along shore	A	100-200	WSW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:38	Song Sparrow	1	Singing	A	50-100	NE
13:39	Turkey Vulture	1	On shore	A	200-500	WSW
13:40	Ring-billed Gull	2	Flying W along shore	A	0-50	W
13:40	Chipping Sparrow	1	Perched on wire, then into field	A	0-50	N
13:42	European Starling	2	Flying W	A	50-100	N
13:44	Black-crested Coquette	1	On lake	A	200-500	SW
13:45	Ring-billed Gull	1	Flying W along shore	A	0-50	SE
13:47	Great Blue Heron	1	Flying E	A	200-500	N
13:49	Cedar Waxwing	2	Perched on wire, then tree	A	0-50	N
13:49	Horned Lark	1	Flight display	C	200-500	N
13:53	Barn Swallow	2	Foraging over field	A	0-50	N
13:57	Turkey Vulture	1	Soaring in distance	B	> 1000	N
14:00	American Goldfinch	1	Flying E	A	0-50	N
14:03	Red-tailed Hawk	1	Soaring over woodlot	B	> 1000	N
14:03	Turkey Vulture	1	Soaring in distance	B	> 1000	NW
14:04	Ring-billed Gull	1	Flying W along shoreline	A	0-50	SW
14:05	American Goldfinch	1	Perched in grass at side of road, then flew into field	A	0-50	ESE
14:10	Mallard	1	On lake	A	200-500	ESE
14:14	American Robin	1	Perched on wire	A	0-50	N
14:15	Caspian Tern	1	Foraging along shoreline	A	0-50	S
14:16	Ring-billed Gull	1	Flying W	A	0-50	OH

Visit 2: Date: July 15, 2009, Start Time = 12:00, End Time = 12:55

Conditions: 23°C, no precipitation, cloud cover = 50%, visibility = clear, wind = 2, South

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:00	Mourning Dove	2	Perched on wire	A	0-50	NW
12:00	Song Sparrow	1	Calling	A	0-50	N
12:08	Ring-billed Gull	1	Flying W along shoreline, remaining present around area	A	0-50	S
12:08	European Starling	5	Flying W along shoreline, remaining present around area	A	0-50	All directions
12:12	Common Tern	1	Flying along shoreline	A	0-50	S
12:13	Barn Swallow	5	Foraging over field and water	A-B	0-50	OH
12:13	Purple Martin	2	Flying W along shoreline	A	0-50	S
12:18	Mallard	1	On lake	A	100-200	SE
12:19	American Goldfinch	1	Calling	A	0-50	N
12:19	Double-crested Cormorant	12	On lake	A	200-500	S
12:20	Red-winged Blackbird	1	Flying W	A	0-50	N
12:23	Ring-billed Gull	1	Flying along shoreline	A	0-50	S
12:26	Mourning Dove	1	Flying E along shoreline	A	0-50	S
12:27	Killdeer	1	Calling	A	100-200	E
12:29	Caspian Tern	1	Flying E along shoreline	A	0-50	S
12:29	Black-capped Chickadee	2	In tree	A	0-50	E
12:30	Ring-billed Gull	1	Flying W + E along shoreline	A	0-50	S
12:44	Caspian Tern	1	Flying E along shoreline	A	0-50	S

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:45	Ring-billed Gull	2	Flying E + W along shoreline	A	0-50	S
12:48	Common Tern	3	Flying E along shoreline	A	0-50	S
12:55	Bonaparte's Gull	1	Flying W along shoreline	A	0-50	S

## 1.8 Vista Station VILC

Visit 1: Date: June 23, 2009, Start Time = 12:17, End Time = 13:12

Conditions: 26°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 1 south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:19	Red-winged Blackbird	3	In field	A	0-50	N
12:21	Turkey Vulture	1	Soaring over woods	A-B	200-500	N
12:21	Red-winged Blackbird	4	In surrounding area	A	0-50	All directions
12:21	Chipping Sparrow	1	Calling	A	0-50	SW
12:21	Double-crested Cormorant	2	Flying W	B	200-500	N
12:23	American Robin	6	Singing and in the field	A	50-100	S
12:23	House Sparrow	2	Perched on fence	A	0-50	SE
12:23	Killdeer	1	Calling	A	50-100	S
12:23	Mourning Dove	1	Calling	A	0-50	ESE
12:23	European Starling	10	In surrounding area	A	0-50	All directions
12:26	Barn Swallow	5	Foraging over field	A-B	0-50	N
12:26	Tree Swallow	1	Foraging over field	A-B	100-200	NW
12:27	Common Grackle	2	Flying W	A	0-50	OH
12:28	House Finch	1	On road	A	0-50	W
12:28	Downy Woodpecker	1	Calling	A	0-50	S
12:29	Purple Martin	1	Flying overhead	A-B	0-50	OH
12:29	Brown-headed Cowbird	3	In field	A	0-50	N
12:32	Northern Rough-winged Swallow	1	Foraging overhead	A	0-50	OH
12:33	American Crow	1	Flying W	A	500-1000	N
12:33	Horned Lark	1	Flight display	B	100-200	N
12:41	Killdeer	1	In field flying overhead	A	100-200	N
12:46	American Goldfinch	1	Flying overhead	A	0-50	OH
12:51	Warbling Vireo	1	Singing	A	0-50	SSW
12:55	Herring Gull	2	Flying S	B	50-100	SW
12:59	Mourning Dove	1	On road	A	0-50	W
13:07	Turkey Vulture	1	Over woodlot	B	500-1000	N
13:11	American Crow	1	Perched in tree	A	200-500	NNE
13:12	Turkey Vulture	1	Coming down in woodlot, then continuing SE	A-B	500-1000	NNE

Visit 2: Date: July 15, 2009, Start Time = 10:53, End Time = 11:18

Conditions: 22°C, no precipitation, cloud cover = 30%, visibility = clear, wind = 2

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:53	Warbling Vireo	1	Singing	A	0-50	S
10:53	House Sparrow	10	On road	A	0-50	E

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:55	European Starling	10-20	In fields	A	0-50	All directions
11:07	Red-winged Blackbird + Common Grackle	10-20	In fields	A	0-50	All directions
11:07	Mourning Dove	1	Calling	A	0-50	S
11:11	Blue Jay	1	Calling	A	0-50	S
11:12	American Robin	1	On road	A	0-50	W
11:16	Turkey Vulture	1	Soaring over woodlot	A	500-1000	N
11:28	Turkey Vulture	1	Soaring over woodlot	A	> 1000	N
11:30	Barn Swallow	2	Foraging over field	A	0-50	W
11:30	Ring-billed Gull	10-20	Flying around farmers field	A	500-1000	NE
11:36	Tree Swallow	2	Foraging over field	A	0-50	N
11:36	Turkey Vulture	2	Soaring over woods	A-B	500-1000	N
11:39	American Goldfinch	1	Flying SE	A	0-50	S
11:46	Red-tailed Hawk	1	Soaring W	A	> 1000	N
11:48	Turkey Vulture	1	Soaring over woodlot	B	200-500	N

## 1.9 Vista Station VILE

Visit 1: Date: June 23, 2009, Start Time = 11:02, End Time = 12:00

Conditions: 23°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 1, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:02	Killdeer	1	In field	A	0-50	N
11:02	Savannah Sparrow	1	Calling	A	0-50	S
11:09	Warbling Vireo	1	Calling	A	0-50	S
11:12	House Wren	1	Singing	A	0-50	E
11:19	Red-tailed Hawk	1	Soaring over woods	B	500-1000	N
11:21	Horned Lark	1	Flight display	B	50-100	N
11:21	Red-winged Blackbird	1	Calling	A	50-100	S
11:22	Savannah Sparrow	1	Calling	A	50-100	WNW
11:22	Common Grackle	1	Flying W	A	50-100	N
11:24	American Goldfinch	2	Flying S	A	0-50	W
11:26	Turkey Vulture	1	Soaring	B	> 1000	N
11:26	Yellow Warbler	1	Singing	A	0-50	SE
11:26	Mourning Dove	1	Singing	A	50-100	W
11:28	American Robin	1	In field	A	0-50	S
11:30	Red-tailed Hawk	1	Entering woods	A	500-1000	N
11:30	Northern Harrier	1	Flying E	A-B	500-1000	N
11:38	Turkey Vulture	4	Soaring W	B-C	> 1000	N
11:38	European Starling	1	In field	A	0-50	S
11:41	Song Sparrow	1	Calling, perched on wire	A	0-50	E
11:42	Northern Rough-winged Swallow	1	Foraging over field	A	100-200	NNE
11:44	Blue Jay	1	Flying W	A	0-50	W
11:50	Red-tailed Hawk	1	Mobbed over woodlot	C	> 1000	N
11:52	Turkey Vulture	4	Soaring	B-C	> 1000	NNW
11:52	Red-tailed Hawk	2	Soaring	B-C	> 1000	NNW
11:54	House Wren	1	Flight display	B	0-50	N
11:58	Red-tailed Hawk	1	Soaring along edge of woodlot	A	500-1000	N

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:58	Northern Flicker	1	Flying W	A	200-500	N
12:00	Purple Martin	1	Foraging overhead	A	0-50	OH
12:00	Turkey Vulture	1	Flying S	C	> 1000	E

Visit 2: Date: July 15, 2009, Start Time = 09:47, End Time = 10:42

Conditions: 20°C, no precipitation, cloud cover = 20%, visibility = clear, wind = 2

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
09:47	American Robin	3	In grass	A	0-50	S
09:47	Northern Cardinal	1	Singing	A	0-50	S
09:47	American Goldfinch	1	Perched on wire	A	0-50	S
09:49	Yellow Warbler	1	Singing	A	0-50	S
09:50	European Starling	1	In field	A	0-50	S
09:53	Barn Swallow	1	Foraging over field	A	0-50	N
09:53	Turkey Vulture	2	Soaring over woodlot	B	500-1000	NE
10:00	Brown-headed Cowbird	1	In field	A	0-50	S
10:00	Savannah Sparrow	1	Perched on wire	A	0-50	S
10:01	Mourning Dove	1	Flying S	A	0-50	OH
10:04	Warbling Vireo	1	Singing along creek	A	0-50	SE
10:24	Ring-billed Gull	1	Flying SW along shoreline	A	50-100	W
10:24	American Goldfinch	1	Calling	A	0-50	SW
10:27	Turkey Vulture	1	Soaring over woodlot	A-B	500-1000	N
10:32	Turkey Vulture	1	Soaring	A-B	200-500	N
10:38	European Starling	1	Nest-building	A	0-50	S
10:42	Turkey Vulture	1	Soaring over woodlot	A	500-1000	N
	Very little in terms of soaring bird movement through the area					

# Appendix C

## 2009 Spring Vista Surveys



## 2009 Spring Bird Monitoring

NOTE: See Figures 2.1 and 2.2 for survey locations.

### LEGEND:

*Beaufort Wind Scale:*

- 0 – 0 km/h
- 1 – 1-6 km/h
- 2 – 7-11 km/h
- 3 – 12-19 km/h
- 4 – 20-29 km/h
- 5 – 30-39 km/h
- 6 – 40-50 km/h
- 7 – 51-62 km/h

## 1. Vista Survey Results

### 1.1 VISE – Nad 83, Zone 17 434686E, 4705759N

*Visit 1:* Date: March 27, 2009, Start Time = 10:30, End Time = 11:30

Conditions: 5°C, no precipitation, cloud cover = 20% (light wispy), visibility = clear, wind = 1, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:30	Turkey Vulture	1	At raccoon carcass on road	A	100-200	N
10:30	American Robin	1	In woods	A	100-200	E
10:30	Killdeer	1	In field	A	100-200	E
10:30	Red-breasted Woodpecker	1	In woods	A	100-200	E
10:30	Red-winged Blackbird	1	In field	A	0-50	E
10:30	Red-winged Blackbird	2	In field	A	100-200	WNW
10:46	Brown-headed Cowbird	6	Flying NE	A	0-50	OH
10:54	Turkey Vulture	1	Same as before, flew from truck, W	A to B	100-200	NW
10:56	American Crow	2	Flying SE	A to B	200-500	SSE
10:57	Ring-billed Gull	1	Flying S	B	500-1000	E
11:00	European Starling	1	Flying S	A	200-500	W
11:00	Song Sparrow	1	Singing	A	50-100	NNE
11:02	Killdeer	2	Calling	A	100-200	SSE
11:07	Ring-billed Gull	2	Flying SE	B	200-500	E
11:09	European Starling	10	Flying SE	A	0-50	ENE
11:17	Ring-billed Gull	2	Flying WSW	A	200-500	S
11:24	American Crow	3	Flying from woodlot; mobbing each other	A	100-200	NE
11:26	Red-tailed Hawk	1	Flying W	A	100-200	N
11:26	American Kestrel	1	Mobbing RTHA	A	100-200	N
11:27	Ring-billed Gull	2	Flying SSE	A	0-50	E

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:27	Turkey Vulture	1	Soaring over woodlot	B	200-500	NW
11:28	Red-tailed Hawk	1	Flying W (same as before?)	A	50-100	N
11:28	American Crow	1	Over woodlot	A	200-500	NNW

Visit 2: Date: April 8, 2009, Start Time = 10:20, End Time = 11:20

Conditions: 3°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 4-5, west

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:23	Turkey Vulture	3	Flying SW	B	500-1000	SW
10:23	Red-winged Blackbird	3	Calling	A	500-1000	NNW
10:23	Killdeer	1	Alarm calling	A	0-50	N
10:25	Red-winged Blackbird	1	Flying E	A	0-50	OH
10:25	American Crow	3	On Road	A	200-500	N
10:25	Ring-billed Gull	1	Flying around field, landed N, then S ~ 50m on road	A	0-50	N
10:36	Red-tailed Hawk	1	Flying WSW	A	200-500	N
10:36	Ring-billed Gull	1	Flying N, then back S	B	0-50	NE
10:39	American Crow	1	Flying W	A	200-500	NW
10:43	Turkey Vulture	2	Soaring over woodlot; still circling @ 10:52	B	200-500	WNW
10:46	Red-winged Blackbird	6	Moving around field	A to B	0-50	ENE
10:48	European Starling	10	Flying SE	A	0-50	OH
10:52	Ring-billed Gull	1	Flying over field	A	200-500	S
10:56	Golden Eagle	1	Rising from woodlot and soaring N	B to C	200-500	WNW
11:00	American Kestrel	1	Foraging over field	A	200-500	NNE
11:01	Blackbird sp.	50	Moving on field	A	200-500	N
11:06	Rock Pigeon	2	Over barn	A	200-500	S
11:06	Horned Lark	1	Flying E	A	0-50	S
11:09	Ring-billed Gull	1	Flying W	C	500-1000	N
11:09	Killdeer	2	Calling	A	0-50	N
11:10	Turkey Vulture	1	Flying W	A to B	200-500	N
11:16	Turkey Vulture	1	Flying S	A	500-1000	E
11:17	Ring-billed Gull	1	Flying W	A	200-500	S
11:18	Ring-billed Gull	1	Flying WNW	B	100-200	N

Visit 3: Date: Apr. 24, 2009, Start Time = 12:07, End Time = 13:07

Conditions: 18°C, no precipitation, cloud cover = None, visibility = clear, wind = 3, southeast

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:16	American Kestrel	1	Foraging over field	A to B	100-200	ESE
13:16	Savannah Sparrow	1	Calling	A	0-50	W
13:25	American Crow	1	Flying SSE	A	200-500	SW
13:26	Eastern Meadowlark	2	Flying NW	A	50-100	N
13:29	Red-tailed hawk	1	Flying SSW	B	200-500	W

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:29	Canada Goose	1	Flying N	B	500-1000	E
13:30	Turkey Vulture	1	Flying over woodlot, gradually SE, over hedgerows	A to B	100-200	NE
13:32	Ring-billed Gull	1	Flying WSW	A	0-50	S
13:35	Barn Swallow	1	Flying E	A	0-50	OH
13:37	Horned lark	1	Flying W	A	0-50	OH
13:47	Turkey Vulture	2	Soaring over woodlot	A to C	200-500	NNW
13:53	Turkey Vulture	1	Soaring E	A to B	100-200	N
13:53	Ring-billed Gull	6	Flying W	A to B	500-1000	N
13:56	American Crow	1	Flying E	B to C	100-200	N
14:03	American Crow	1	Flying S	A	500-1000	W
14:07	Rough-legged Hawk	1	Flying W	A to B	100-200	N
14:07	Red-tailed hawk	1	Mobbed over woodlot	A to B	200-500	NNE
14:07	American Crow	1	Mobbing RTHA	A to B	200-500	NNE
14:08	Turkey Vulture	1	Soaring gradually WSW	B	>1000	SSE
14:10	Red-tailed Hawk	1	Soaring gradually WSW with TUVU	B	>1000	SSE
14:10	Turkey Vulture	2	Soaring over woodlot	A to B	100-200	E
14:13	Red-tailed hawk	1	Flying E	A	100-200	N
14:13	American Crow	1	Flying W	A	100-200	N
14:13	American Crow	1	Flying E	A	100-200	N

Visit 4: Date: May 11, 2009, Start Time = 12:04, End Time = 13:04

Conditions: 11°C, no precipitation, cloud cover = None, visibility = clear wind = 2-3 south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:04	Turkey Vulture	1	Soaring over woodlot	B	100-200	W
12:06	Red-tailed Hawk	1	Soaring over woodlot	B	100-200	E
12:07	Canada Goose	2	Flying W	A	100-200	S
12:07	Red-winged Blackbird	~5	In field	A	0-100	All Dir
12:08	Rock Pigeon	1	On road	A	100-200	S
12:11	American Crow	1	Flying to road	A	0-50	SW
12:14	American Crow	2	Mobbing Red-tailed Hawk from earlier; down in woodlot by 12:16	B	100-200	E
12:17	Red-tailed Hawk	1	Flying to woodlot	A	0-50	W
12:18	American Crow	1	Flying S	A	200-500	W
12:20	American Crow	1	Flying N back to woodlot	A	100-200	W
12:21	American Crow	1	Flying N back to woodlot	A	100-200	W
12:23	Bobolink	1	Calling	A	50-100	SSW
12:25	American Crow	2	Flying W	A	0-50	OH
12:31	Red-tailed Hawk	1	Rising over woods	A-B	100-200	N
12:31	Red-tailed Hawk	2	Soaring	B	500-1000	SSW
12:34	American Crow	2	Mobbing Red-tailed Hawk; chased W, flew back	B	100-200	NW
12:34	Savannah Sparrow	1	Calling	A	0-50	N
12:39	American Crow	1	Flying ESE	A	>1000	SSW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:39	Red-tailed Hawk	1	Back over woodlot	N	200-500	WNW
12:45	Red-tailed Hawk	2	Perched in the woodlot	A	200-500	E
12:45	American Crow	1	Mobbing above	A	200-500	E
12:49	Turkey Vulture	3	Soaring gradually in thermal	B-C	>1000	SE
12:52	Red-tailed Hawk	1	Soaring over field	B	100-200	W
12:52	Cooper's Hawk		Chased W by American Crow	A	200-500	N
12:52	American Crow	1	Chasing W	A	200-500	N
12:52	Turkey Vulture	1	Soaring W	A	200-500	W
12:56	Turkey Vulture	4	Soaring over woodlot; then S	A-B	200-500	WNW
12:57	Red-tailed Hawk	1	Soaring W; then soaring over field	A-B	50-100	N
12:58	American Crow	1	Flying W then back towards lot	A to B	100-200	N

## 1.2 VINE

Visit 1: Date: March 27, 2009, Start Time = 11:40, End Time = 12:40

Conditions: 6°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 1, south; 3 @ 12:30

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:45	Ring-billed Gull	20-30	Heard calling, some moving along river	?	200-500	N
11:45	Ring-billed Gull	2	Flying W	C	0-50	OH
11:47	Red-winged Blackbird	1	Calling	A	100-200	SW
11:47	Killdeer	4	Calling in field	A	0-50	S
11:49	Ring-billed Gull	1	Flying over creek	A	50-100	W
11:50	Turkey Vulture	1	Soaring gradually N	B	200-500	E
11:52	House Sparrow	1	In shrubs	A	0-50	E
11:52	Gull species	2	Flying SSE	B	200-500	E
11:55	Tundra Swan	15	Flying down into Grand River valley	B	>1000	NW
11:56	Ring-billed Gull	5	Flying S	B	0-50	OH
11:58	Ring-billed Gull	4	Flying SW	C	100-200	W
12:01	Turkey Vulture	2	Over woodlot	B-C	500-1000	SW
12:01	Ring-billed Gull	2	Flying N to river	A	0-50	OH
12:04	Common Grackle	2	Flying S	B	0-50	W
12:05	Red-tailed Hawk	1	Soaring over woodlot	B-C	500-1000	SW
12:08	Turkey Vulture	1	Soaring gradually W	B	200-500	E
12:09	American Kestrel	1	Flying E	B	50-100	S
12:11	Ring-billed Gull	1	Flying S	B	0-50	OH
12:11	Red-tailed Hawk	1	Soaring over field; still over wood lot at 12:16	B	100-200	SE
12:11	Turkey Vulture	1	Flying N	B	100-200	SE
12:14	American Kestrel	1	Flying S	B	100-200	SE
12:14	Great Blue Heron	1	Flying W along river	B	500-1000	N
12:15	Turkey Vulture	2	Flying S	B-C	500-1000	E
12:15	European Starling	~10	Around house	A	100-200	ESE

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:18	Canada Goose	10	Flying E along river	B	500-1000	W
12:23	Red-tailed Hawk	1	Flying over woodlot	B	200-500	S
12:24	Turkey Vulture	1	Soaring S	B-C	100-200	W
12:25	Common Grackle	2	At house	A	100-200	E
12:26	Bald Eagle	1	Over river	A-B	200-500	N
12:28	Turkey Vulture	1	Soaring to river	C	500-1000	NE
12:29	Red-tailed Hawk	2	Rising with thermal; soaring towards S	B-C	0-50	S
12:29	Turkey Vulture	3	Rising with thermal; soaring towards S	B-C	0-50	S
12:34	Turkey Vulture	2	Soaring S	B-C	500-1000	E
12:35	Common Grackle	6	Flying N	A	100-200	NE
12:38	Bald Eagle	1	Soaring over	B-C	200-500	N
12:39	America Kestrel	1	Flying S	B	5-50	OH

**NOTE: en route ~5 flocks of 30-50 Canadian Goose observed flying E along river**

Visit 2: Date: April 8, 2009, Start Time = 12:35, End Time = 13:35

Conditions: 4°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 5, southwest

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:41	Northern Cardinal	1	Calling	A	100-200	SW
12:43	Mallard	1	Flying N to river	A	0-50	E
12:47	Canada Goose	2	Flying N to river	A	0-50	SE
12:48	Blackbird species	10	Flying N	A	0-50	E
12:52	Turkey Vulture	3	Rising	B-C	>1000	ENE
12:54	Canada Goose	2	Foraging in field	A	200-500	NW
12:56	Tree Swallow	1	Flying over field	A	200-500	NW
12:58	Red-tailed Hawk	1	Flying rapidly E	A	100-200	SE
13:00	Turkey Vulture	4	Flying inland (S)	A,B-C	500-1000	E
13:03	Turkey Vulture	1	Soaring N	A-B	0-50	E
13:04	Turkey Vulture	3	Soaring inland	B-C	>1000	WNW
13:05	Killdeer	1	In field	A	0-50	S
13:06	Ring-billed Gull	2	Flying inland	A	0-50	OH
13:06	American Kestrel	1	Flying about	A	500-1000	NE
13:08	Turkey Vulture	3	Soaring over field	B	200-500	W
13:13	Ring-billed Gull	3	Flying S	A-B	0-50	W
13:15	Canada Goose	2	Flying over river	A-B	>1000	NW
13:19	Ring-billed Gull	8	About field	A-B	500-1000	NW
13:20	Turkey Vulture	3	Soaring over woodlot	A-B	>1000	SW
13:22	Blackbird species	10	Flying N	A	0-50	E
13:24	Turkey Vulture	3	Soaring over field	B	500-1000	NW
13:26	Ring-billed Gull	1	Flying ENE to river	A	0-50	OH
13:27	Tree Swallow	1	Over field; constant	A	0-50	OH
13:29	Turkey Vulture	2	Soaring over field	B	100-200	W
13:29	Ring-billed Gull	1	Over woodlot	B	100-200	S
13:32	Turkey Vulture	2	Along river	B	200-500	N

Visit 3: Date: April 24, 2009, Start Time = 12:07, End Time = 13:07

Conditions: 18°C, no precipitation, cloud cover = None, visibility = clear, wind = 3, southeast

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:09	American Goldfinch	1	Flying SW	A	0-50	OH
12:11	American Crow	2	Perched calling	A	200-500	NNW
12:11	Red-tailed Hawk	1	Soaring over field	C	200-500	NNW
12:11	Red-railed Hawk	1	Soaring over field	C	200-500	NNW
12:14	Horned Lark	1	Flight display	A-B	0-50	N
12:15	Turkey Vulture	4	Soaring over river	B	500-1000	N
12:16	American Robin	1	Perched in tree; singing	A	100-200	ENE
12:18	Raptor species	1	Flying S	A	>1000	W
12:20	Turkey Vulture	2	Flying S	A	0-50	E
12:20	Double-crested Cormorant	1	Flying S	A	>1000	W
12:22	Turkey Vulture	2	Flying N; same as 12:20?	B	>1000	W
12:27	Turkey Vulture	4	Rising in thermal	C	>1000	SE
12:27	Killdeer	1	Flying N	A	0-50	W
12:29	Horned Lark	1	Flight display, several minutes, regular occurrence	B	0-50	OH
12:30	American Crow	1	Perched in tree; calling	A	50-100	S
12:32	Blue Jay	1	In woodlot	A	50-100	S
12:32	Northern Flicker		In woodlot	A	50-100	S
12:35	Red-tailed Hawk	1	Soaring S	B	200-500	S
12:38	Red-tailed Hawk	1	Flying S	A	500-1000	W
12:39	Turkey Vulture	1	Soaring N	B	>1000	W
12:41	Barn Swallow	1	Foraging in field	A	0-50	OH
12:46	Ring-billed Gull	1	Flying N to river	B	0-50	OH
12:47	Red-tailed Hawk	1	Soaring over woodlot	B	500-1000	S
12:48	Osprey	1	Soaring over river	B	500-1000	NW
12:55	Brown-headed Cowbird	1	Flying E	A	200-500	S
12:55	American Crow	1	Flying SW	A	500-1000	N
12:59	Turkey Vulture	1	Flying N	B	200-500	W

Visit 4: Date: May 11, 2009, Start Time = 13:13, End Time = 14:14

Conditions: 13°C, no precipitation, cloud cover = 15%, visibility = clear, wind = 2-3, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:13	Turkey Vulture	1	Flying W	A	0-50	OH
13:13	Northern Cardinal	1	Singing	A	0-50	SE
13:16	American Robin	1	Perched on wire	A	0-50	E
13:17	Turkey Vulture	2	Soaring W	A-B	200-500	S
13:18	Red-tailed Hawk	1	Soaring W	B	200-500	S
13:19	Savannah Sparrow	1	Singing	A	0-50	W
13:21	Turkey Vulture	1	Soaring N	B	100-200	W
13:21	American Goldfinch	4	Flying W	A	100-200	E

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:24	Red-bellied Woodpecker	1	In woodlot	A	100-200	S
13:24	Turkey Vulture	2	Soaring over river	B	200-500	N
13:25	Red-winged Blackbird	4	In hedgerow	A	50-100	NE
13:26	Turkey Vulture	2	Soaring N to river	B	50-100	E
13:30	Red-tailed Hawk	1	Flying N	A	200-500	W
13:31	Blue Jay	1	Calling from woodlot	A	100-200	S
13:31	Horned Lark	1	Calling from field	A	0-50	E
13:35	Turkey Vulture	4	Flying S	B	0-50	E
13:36	Tree Swallow	1	Foraging over field	A	0-50	E
13:40	Barn Swallow	1	Foraging over field	A	0-50	S
13:46	Red-tailed Hawk	1	Soaring gradually N	B	200-500	SE
13:48	Turkey Vulture	3	Flying S	B	100-200	S
13:49	Northern Harrier (F)	1	Soaring over field	A-B	50-100	S
13:51	Mourning Dove	1	Calling	A	100-200	E
13:52	American Goldfinch	2	Flying E	A	0-50	N
14:01	Red-tailed Hawk	1	Kiting	B	200-500	S
14:01	American Crow	1	Flying W along river	B	500-1000	N
14:05	Double-crested Cormorant	1	Flying E along river	B	500-1000	N
14:09	Horned Lark	1	Flight Display	B	0-50	SE
14:10	Killdeer	1	Flying over field	A	50-100	S

### 1.3 VINW

*Visit 1:* Not surveyed

*Visit 2:* Date: April 8, 2009, Start Time = 13:45, End Time = 14:45

Conditions: 5°C, no precipitation, cloud cover = 30%, visibility = clear, wind = 5, southeast

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:45	American Crow	1	Flying around field	A	0-50	N
13:58	American Crow	1	Flying ESE	B	200-500	SW
14:01	Horned Lark	2	Fighting in field	A	0-50	S
14:09	American Crow	1	Flying ESE	A	100-200	SW
14:09	Turkey Vulture	1	Soaring over woodlot	B	500-1000	NW
14:12	Killdeer	1	In field	A	0-50	NE
14:16	Rock Pigeon	1	Flying WSW	A	0-50	NE
14:17	Ring-billed Gull	2	Flying NW over field	A	200-500	N
14:20	Rock Pigeon	2	Flying W	B	200-500	E
14:20	Rock Pigeon	2	Flying SW	A	50-100	NE
14:21	Red-winged Blackbird	5	Flying S	A	0-50	E
14:22	American Goldfinch	50	Flying around, gradually ENE	B	0-50	OH
14:25	Northern Harrier (F)	1	Foraging over field (kiting)	A	500-1000	NW
14:31	Waterfowl species	200-500	Flying E along river	B-C	>1000	NE
14:36	Ring-billed Gull	2	Flying SSE	A	100-200	SE

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:37	Ring-billed Gull	2	Moving about field	A	200-500	N
14:38	Turkey Vulture	1	Flying N	A-B	100-200	W
14:39	Turkey Vulture	1	Flying S over field	A	200-500	E
14:39	Ring-billed Gull	1	Flying about field	A	200-500	S
14:42	Ring-billed Gull	3	Flying W	A	0-50	NE
14:44	Mallard	2	Flying NW	B	0-50	SE
14:44	Turkey Vulture	1	Soaring over woodlot	B	500-1000	E

Visit 3: Date: April 24, 2008, Start Time = 09:54, End Time = 10:54

Conditions: 13°C, no precipitation, cloud cover = 40%, visibility = clear, wind = 3-4, southeast

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
09:54	Savannah Sparrow	1	In field	A	0-50	W
09:54	Savannah Sparrow	1	In field	A	0-50	SW
09:55	Horned Lark	1	In field	A	0-50	E
09:58	Killdeer	1	In field	A	SW	E
10:00	Turkey Vulture	3	Soaring over woodlot, flew SE	A-B	200-500	W
10:03	Horned Lark	~15	In field, moving all over	A	0-50	All dir
10:08	American Crow	1	Mobbing Rough-legged Hawk	A	100-200	SW
10:08	Rough-legged Hawk	1	Being mobbed	A	100-200	SW
10:12	Turkey Vulture	6	Soaring N	A-B	500-1000	NW
10:15	Great Blue Heron	2	Flying W	B-C	200-500	N
10:17	Horned Lark	1	Flight display	B	0-50	E
10:17	Turkey Vulture	1	Flying ENE	A	200-500	S
10:21	Red-tailed Hawk	2	Soaring NE	A-B	500-1000	WNW
10:21	Turkey Vulture	3	Soaring NE	A-B	500-1000	WNW
10:21	Bald Eagle	1	Soaring NE	A-B	>1000	WNW
10:32	Turkey Vulture	2	Soaring over woodlot	A	200-500	SE
10:32	Northern Harrier	2	Flying S	A	200-500	W
10:34	Turkey Vulture	1	Flying S	B-C	500-1000	E
10:34	Turkey Vulture	4	Circling Mt. Olivet	A-B	200-500	S
10:34	Turkey Vulture	1	Flying S to Mt. Olivet	B	200-500	W
10:38	Red-tailed Hawk	1	Foraging high over field (hovering)	B	500-1000	S
10:40	Ring-billed Gull	1	Rising in thermal over Mt. Olivet	C	200-500	S
10:43	Northern Flicker	1	Flying W	A	0-50	S
10:45	Soaring Bird	1	Soaring ESE	A	>1000	E
10:46	Canada Goose	2	Flying W	A	50-100	N
10:46	Horned Lark	1	Flight display	B	0-50	W
10:53	Northern Harrier	1	Foraging S over fields	A-B	200-500	W

Visit 4: Date: May 11, 2009, Start Time = 14:21, End Time = 15:21

Conditions: 13°C, no precipitation, cloud cover = 50%, visibility = clear, wind = 2-3, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:21	Song Sparrow	1	Singing	A	100-200	SE
14:23	Horned Lark	1	Singing from field	A	0-50	W
14:24	Red-tailed Hawk	1	Soaring over field	A-B	200-500	WNW
14:25	Red-winged Blackbird	6	Scattered in field	A	0-200	All dir
14:27	Horned Lark	1	Flight display	A-B	0-50	W
14:30	American Goldfinch	3	Flying overhead	A	0-50	OH
14:31	Rock Pigeon	6	In field	A	200-500	S
14:31	American Crow	1	In field	A	200-500	S
14:38	Horned Lark	1	Flight display	B	0-50	W
14:38	Horned Lark	1	Flight display	B	0-50	E
14:45	Horned Lark	1	Flight display	B	0-50	NNE
14:47	Horned Lark	2	Copulating	A	0-50	N
14:53	Upland Sandpiper	1	Calling	A	100-200	N
14:54	Horned Lark	1	Flight display	B	0-50	OH
14:58	Horned Lark	2	Dueling flight display	B	0-50	OH
15:01	Turley Vulture	1	Flying S; then back N over woodlot	B	200-500	NNW
15:05	Great Blue Heron	1	Flying SSW	B	0-50	W
15:10	Passerine species	1	Flying SSW	B	0-50	W
15:13	Rock Pigeon	2	Flying W	B	500-1000	W
15:16	Barn Swallow	1	Foraging around barn	A	200-500	S
15:16	Horned Lark	1	Flight display	B	0-50	SW

NOTE: 3 Sandhill Cranes on field; passed while driving

## 1.4 VISW

Visit 1: Not surveyed

Visit 2: Date: April 8, 2009, Start Time = 14:53, End Time = 15:53

Conditions: 4°C, no precipitation, cloud cover = 50%, visibility = clear, wind = 5, southwest

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:53	Northern Harrier (F)	1	Kiting over field	A	200-500	N
14:53	Turkey Vulture	1	Flying S	B	100-200	E
14:57	Ring-billed Gull	1	Flying S	A	200-500	ENE
15:03	Horned Lark	50	Flying W	B-C	100-200	NNW
15:06	Ring-billed Gull	3	Flying S	A-B	0-50	NW
15:14	Northern Harrier	1	Foraging over field	A	100-200	N
15:15	Ring-billed Gull	2	Flying W	A	0-50	OH
15:21	Rock Pigeon	1	Flying W	A	100-200	S
15:21	American Robin	1	In field	A	50-100	S
15:21	Lapland Longspur	30	In field	A	50-100	S
15:23	Ring-billed Gull	1	Flying W	A	0-50	W

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
15:25	Turkey Vulture	3	Flying WNW	A-B	200-500	WSW
15:25	American Crow	1	Flying N	A	200-500	WSW
15:32	Turley Vulture	2	Soaring over fields	A-B	200-500	E
15:32	Red-tailed Hawk	1	Mobbed by American Crow	B	500-1000	E
15:32	American Crow	1	Mobbing Red-tailed Hawk	B	500-1000	E
15:35	Rock Pigeon	1	Flying N	A	500-1000	E
15:38	Turkey Vulture	1	Soaring W	B	500-1000	W
15:38	Ring-billed Gull	1	Soaring NE	B	50-100	S
15:43	Turkey Vulture	1	Soaring ESE	B	100-200	S
15:44	Turley Vulture	1	Soaring W	B	500-1000	N
15:44	Red-tailed Hawk	1	Soaring over woodlot	B	500-1000	N
15:46	Blue Jay	2	Moving along woodlot edge	A	200-500	W
15:48	Turkey Vulture	1	Soaring N	B	200-500	WNW
15:52	Ring-billed Gull	1	Flying S	B	50-100	NW

Visit 3: Date: April 24, 2009, Start Time = 10:59, End Time = 11:59

Conditions: 15°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 4-5, southeast

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:59	Turkey Vulture	2	Soaring SW	A-B	0-50	OH
10:59	Savannah Sparrow	1	In field	A	0-50	S
10:59	American Robin	1	Singing	A	100-200	E
11:04	Eastern Meadowlark	1	Singing in field	A	0-50	SW
11:07	Turkey Vulture	2	Soaring ESE	B	100-200	S
11:07	American Kestrel	1	Soaring ESE	B	100-200	S
11:11	Red-tailed Hawk	2	Soaring in thermal	B-C	500-1000	SSE
11:11	American Crow	1	Mobbing Turkey Vulture	A-B	500-1000	SSE
11:11	Turkey Vulture	1	Being mobbed	A-B	500-1000	SSE
11:13	Red-tailed Hawk	2	Over woodlot	A	100-200	S
11:14	American Kestrel	1	Flying WNW	A	0-50	E
11:14	Tree Swallow	1	Flying to barn	A	0-50	E
11:21	European Starling	1	Flying S	A	0-50	E
11:29	Turley Vulture	1	Flying S	B	200-500	W
11:29	Killdeer	2	In field	A	0-50	WNW
11:30	Horned Lark	2	Aggressive Interaction	A	0-50	WNW
11:36	Turkey Vulture	1	Soaring	B	200-500	N
11:41	Turkey Vulture	1	Soaring over woodlot	B	200-500	N
11:42	Turkey Vulture	1	Flying S	B	100-200	ESE
11:50	Turkey Vulture	4	Flying S	B	200-500	SE
11:53	American Crow	1	Flying N	B	500-1000	N
11:57	Turkey Vulture	2	Flying S	A	500-1000	NW

Visit 4: Date: May 11, 2009, Start Time = 09:50, End Time = 10:50

Conditions: 8°C, no precipitation, cloud cover = none, visibility = clear, wind = 1, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
09:50	Red-winged Blackbird	~10	All around field	A	0-100	All dir
09:50	Eastern Meadowlark	1	Singing	A	0-50	E
09:50	Northern Cardinal	1	Singing	A	50-100	S
09:50	Savannah Sparrow	1	Singing	B	0-50	E
09:50	European Starling	1	Calling	A	0-50	E
09:51	American Robin	1	Singing	A	0-50	W
10:01	Turkey Vulture	1	Soaring N	C	200-500	E
10:03	Tree Swallow	4	Foraging over field	A	0-50	N
10:04	Ring-billed Gull	1	Flying W	A	200-500	S
10:05	Barn Swallow	2	Foraging with Tree Swallow	A	0-50	E
10:11	American Crow	1	Mobbing Red-tailed Hawk; eventually flew SSE	B-C	100-200	E
10:11	Red-tailed Hawk	1	Mobbed; eventually flew SSE	B-C	100-200	E
10:14	American Crow	4	Mobbing Red-tailed Hawk over woodlot	A-B	200-500	SSW
10:14	Red-tailed Hawk	1	Mobbed over woodlot	A-B	200-500	SSW
10:18	Turkey Vulture	1	Soaring E	B	0-50	OH
10:19	Canada Goose	1-2	Calling behind woods	A	200-500	S
10:21	Red-tailed Hawk	1	Rising over woodlot	B	200-500	SSW
10:23	American Crow	1	Flying NNW	A	200-500	W
10:23	European Starling	~50	Flock flying S	B	200-500	W
10:23	Mourning Dove	1	Calling	A	0-50	E
10:30	Red-tailed Hawk	1	Back soaring over woodlot	B	200-500	SW
10:30	American Crow	1	Aggregated in woods	A-B	200-500	SW
10:32	American Crow	2	Flying S to woods	A	200-500	ESE
10:32	Turkey Vulture	2	Flying SSE	B	200-500	SSW
10:35	American Goldfinch	1	Flying W	A	0-50	N
10:37	Turley Vulture	2	Soaring over woodlot; moving W	A-B	200-500	W
10:37	Killdeer	1	Flying N	A	0-50	OH
10:39	Blue Jay	1	Flying WSW	A	100-200	S
10:42	Purple Martin	1	Foraging over field	A	50-100	WNW
10:45	Red-tailed Hawk	1	Soaring	B	500-1000	W
10:49	Turkey Vulture	1	Soaring N	A-B	500-1000	NW



# Appendix D

## Samsung Area Searches – Spring 2009



## Spring Migration 2009

### 1. Site Visit 1 – March 27, 2009

Morning – Start at 6:45, 0% cloud cover, ~0°C, Beaufort Wind – 1

#### 1. River Road (from Yaremy to Dunville Haldimand Townline)

Several dozen waterfowl flying along Grand River

Sandhill Crane, American Robin (abundant), Song Sparrow (abundant), Horned Lark (abundant), Savannah Sparrow (abundant), Ring-billed Gull (audible over river; 2 observed), Canada Goose, American Crow (4)

#### 2. Dunnville-Haldimand Townline

American Robin, Mallard (3), European Starling, Red-winged Blackbird, Common Grackle, Gulls (individuals to flocks of 20-30 flying North from lake across the site), Red-tailed Hawk

#### 3. Lakeshore (to Sweets Corners Rd.)

Bufflehead (flock of 20), Canada Goose, Common Merganser, Common Goldeneye, Mallard, Red-breasted Merganser, Killdeer, Tundra Swan (~100 on ice edge), Blue Jay

#### 4. Sweets Corners Rd.

European Starling, Red-winged Blackbird (abundant), House Finch, Brown Creeper, Ring-billed Gull (20 on field), Horned Lark, American Robin, Killdeer, Song Sparrow

#### 5. Bains Rd./ Mt. Olivet/ Richert

Turkey Vulture, Mourning Dove, European Starling, Red-winged Blackbird, American Robin (a), American Crow (2), House Sparrow, Killdeer (3), Rock Pigeon

#### 6. River Rd. (to Yaremy)

Red-tailed Hawk, Ring-billed Gull, Red-winged Blackbird (abundant), Song Sparrow, American Robin, Horned Lark

#### 7. Yaremy

Red-winged Blackbird (abundant), American Robin, Song Sparrow, Turkey Vulture (3), Canada Goose (4), Broad-winged Hawk, Horned lark, Killdeer (abundant), Common Grackle (abundant), Wild Turkey (2), Red-tailed Hawk, European Starling

#### 8. S. Cayuga Rd.

Killdeer (abundant), Common Grackle (abundant), Song Sparrow, Ring-billed Gull (15 on field), European Starling, Red-winged Blackbird (abundant), Canada Goose (3), Red-tailed Hawk (2)

9. Cayuga Side Road (20)  
Sandhill Crane (2), American Robin (abundant), Red-winged Blackbird (abundant),  
Common Grackle (abundant), Song Sparrow (abundant)

10. Aikens/Lakeshore Rd.  
Northern Harrier, Horned Lark, American Crow, Savannah Sparrow, Wild Turkey  
(20), Northern Cardinal, Red-tailed Hawk

11. Bains Rd.  
European Starling, American Robin, Song Sparrow, Common Grackle, Mourning  
Dove, Turkey Vulture (5), Red-winged Blackbird, Red-tailed Hawk

12. Fisherville Rd.  
Red-winged Blackbird, Ring-billed Gull, Song Sparrow, American Robin, Blackbird,  
American Crow (2)

13. Sutor Rd.  
American Robin, Song Sparrow, European Starling (41), House Sparrow

## 2. Site Visit 2 – April 8, 2009

Morning – Start at 6:35, 10% cloud cover, ~1°C, Beaufort Wind – 1

1. River Road (to Yaremy)  
Red-tailed Hawk, American Crow (5), Mourning Dove, American Robin (abundant),  
American Kestrel, Unidentified Waterfowl, Song Sparrow (abundant), Northern  
Cardinal, European Starling, White-throated Sparrow, Canada Goose (4 flying over  
river)

2. River Road (from Yaremy to end)  
Canada Goose (6; 2 flying low over field, 3 flying over river), Ring-necked Duck (40  
in inlet/wetland of Grand River); Red-winged Blackbird (abundant), American Robin  
(abundant), Common Grackle (abundant), Blackbirds (abundant), Ring-billed Gull  
(9), Dark-eyed Junco, Red-tailed Hawk, Northern Cardinal (pair), American Crow  
(2), American Kestrel

3. Dunnville-Haldimand Townline to 20  
American Crow, Red-bellied Woodpecker, Ring-billed Gull (15), Song Sparrow,  
Horned Lark, American Robin, European Starling, Common Grackle (15)

4. CR-20  
European Starling (15), American Crow (4), Ring-billed Gull (8), Song Sparrow,  
Red-winged blackbird (abundant), Common Grackle (abundant), Rock Pigeon,  
Northern Harrier

5. Bains Rd.

Ring-billed Gull (~100 on field + 15), Red-winged Blackbird (abundant), European Starling (abundant), American Robin (abundant), Killdeer, Canada Goose (8), Northern Cardinal, American Crow (3), Red-tailed Hawk (2), Rough-legged Hawk

6. Dover-Dunnville, Aikens, N Lakeshore Rd.

European Starling (40), Ring-billed Gull (6), Red-winged Blackbird (abundant), Wood Duck (Pair), Northern Flicker, Horned Lark, American Robin (abundant), American Kestrel, Herring Gull, Mourning Dove

7. Lakeshore

Note: water is choppy

Flocks of Red-breasted Mergansers flying along shore

Scattered Bufflehead and Common Mergansers, Common Goldeneye, Gadwall;

Herring Gulls foraging

Large flocks of 200-300 ducks common in bays where water is calm; comprised of Common Mergansers, Red-breasted Mergansers, Bufflehead, and Bonaparte's Gulls  
Bald Eagle, Mallard (Pair), Great Blue Heron, Canada Goose (2)

8. Sweets Corners Rd.

Ring-billed Gull (15), European Starling (abundant), Red-winged Blackbird, (abundant), Canada Goose (2), Song Sparrow, American Robin (abundant), Killdeer, Red-tailed Hawk

9. Mt. Olivet/Richert

European Starling (abundant), American Robin (abundant), American Crow, Turkey Vulture (2), Red-winged Blackbird (abundant), Killdeer (2), Rough-legged Hawk

10. Sutor Rd.

Red-winged Blackbird (abundant), Dark-eyed Junco, American Crow, European Starling

11. Meadows Rd.

Brown-headed Cowbird, Rough-legged Hawk, American Robin (abundant), Turkey Vulture (2), Killdeer (4), Ring-billed Gull, Blue Jay, American Crow (5), Canada Goose (4)

12. Yaremy Rd.

Canada Goose (4), Song Sparrow, Mallard, Horned Lark (abundant), Red-winged Blackbird, Killdeer (3), European Starling, American Robin (abundant), Mourning Dove, Blackbird (abundant)

13. S. Cayuga Rd.

American Robin (abundant), European Starling (abundant), Killdeer (3), Common Grackle (abundant), Canada Goose, Red-winged Blackbird, Horned Lark (abundant), American Crow, Ring-necked Duck (10 on inlet from Grand River), Turkey Vulture

14. Dunnville-Haldimand Townline

Turkey Vulture (3), American Robin (2), Red-tailed Hawk

Evening – 20% cloud cover, 0°C, Beaufort Wind – 3

1. Lakeshore Road

Bufflehead, Red-breasted Merganser, Common Merganser still common along shoreline in bays

Mallard, American Crow, Canada Goose

20 Bonaparte's Gulls observed flying S low over fields

Several flocks of 30-50 blackbirds observed on fields

2. Bains Road

Blackbird flocks, Canada Goose (10 on field), Ring-billed Gull (30 in field), American Robin, Blackbird

3. 20

Great Blue Heron flying S

4. River Road

Tundra Swan (4 on field just South of road)

Ring-billed Gull (10 with swans, several also present on other fields)

Several swallows over river

Ring-necked Duck on inlet of Grand River and many within wetland along the Grand River

Tundra Swans also present within this wetland

Canada Goose (~20) present on small drainage ditch with 3 Blue-winged Teal and 2 Sandhill Cranes

2 Sandhill Cranes also observed flying along Grand River

Red-tailed Hawk (perched on wire)

3. Site Visit 3 – April 23/24, 2009

Evening – Start at 18:25, 0% cloud cover, 8°C, Beaufort Wind – 2

1. Lakeshore Rd.

Ring-necked Duck,

Red-breasted Merganser (abundant), some mergansers still present on lake, Bonaparte's Gull still present, Ring-billed Gull and Herring Gull on water

Mallard, Canada Goose occasional, scattered along waterfront

American Robin (abundant), Mourning Dove, European Starling (abundant), Red-winged Blackbird (abundant), Great Blue Heron, Song Sparrow, House Sparrow  
Tree Swallows (~60 foraging over field)

2. Bains Rd. (18:52)

American Robin, Turkey Vulture, Blue Jay, European Starling (abundant), Killdeer (Pair)

3. Fisherville Rd. (19:24)

Canada Goose (10 in corn field), Wild Turkey, Red-winged Blackbird (abundant), European Starling (abundant), Common Grackle (abundant), House Sparrow, Red-tailed Hawk (2)

4. River Rd. (19:50)

European Starling (abundant), Red-winged Blackbird (abundant), Common Grackle (abundant), Mallard, Red-tailed Hawk, Osprey nest on opposite side of river, Canada Goose (20 on field), Northern Pintail in marsh with other waterfowl, Ring-necked Duck

Morning – Start at 06:00, 20% cloud cover, 5°C, Beaufort Wind – 3

1. River Rd.

American Robin (abundant), Horned Lark, Blue Jay, Black-capped Chickadee (abundant), Northern Cardinal (abundant), Field Sparrow, Chipping Sparrow (abundant), American Goldfinch, Red-winged Blackbird (abundant), Common Grackle (abundant), Red-tailed Hawk, Mallard, European Starling (abundant), Savannah Sparrow, Eastern Meadowlark, American Crow, Ring-billed Gull (~20 in field)

In marsh – Canada Goose, Ring-necked Duck, American Coot, Common Grackle, Teal

2. Haldimand-Dunnville Townline (06:33)

Savannah Sparrow, Field Sparrow, Song Sparrow, Red-winged Blackbird (abundant), Common Grackle, Mourning Dove (abundant), European Starling, American Goldfinch, Killdeer, Great Blue Heron (2), Red-tailed Hawk (2), White-throated Sparrow, American Crow, American Kestrel, House Sparrow, Red-tailed Hawk, Wild Turkey (6)

3. Lakeshore (07:10)

Red-breasted Merganser (abundant), Common Goldeneye (7), Common Loon, Bonaparte's Gull (abundant), Ring-billed Gull, Herring Gull (abundant), Bufflehead, Canada Goose, Mallard, Double-crested Cormorant (57 in 3 flocks flying along shoreline), Common Merganser, Great Blue Heron (2), Caspian Tern  
American Robin (abundant), European Starling (abundant), Common Grackle (abundant), Killdeer, Northern Flicker (7), Tree Swallow, House Finch

4. CR-8 (07:40)

European Starling (abundant), American Robin (abundant), Common Grackle (abundant), Brown-headed Cowbird, Ring-billed Gull (10 on field), Rock Pigeon, Song Sparrow, Savannah Sparrow (abundant), Canada Goose, Red-tailed Hawk, Wild Turkey, Northern Harrier (2), American Crow, Brown Thrasher

5. Meadows Rd. (08:07)

Brown-headed Cowbird, American Robin (abundant), Northern Flicker, Common Grackle (abundant), Field Sparrow, Canada Goose (2), European Starling (abundant)

6. Fisherville Rd. (08:20)

Red-winged Blackbird, European Starling (abundant), Common Grackle (abundant), Horned Lark, Blue Jay, Northern Flicker, House Sparrow, Song Sparrow, Savannah Sparrow

7. Bains Rd. (08:35)

American Robin (abundant), Common Grackle (abundant), Ruby-crowned Kinglet (2), European Starling, Northern Flicker, Brown Creeper, Song Sparrow (abundant), Yellow-rumped Warbler

8. CR-50 (08:37)

Common Loon, Common Grackle (abundant), European Starling (abundant), Mallard, American Robin, Red-winged Blackbird (abundant)

9. S. Cayuga Rd. (09:20)

Mallard, American Robin, Ring-necked Duck (2), European Starling (abundant), Brown-headed Cowbird (abundant), Canada Goose (Pair), Northern Cardinal, Common Grackle (abundant), Field Sparrow, Red-tailed Hawk, American Crow, Turkey Vulture

10. Sutor Rd (09:42)

Red-tailed Hawk (2), Common Grackle (abundant), European Starling (abundant), Song Sparrow, Red-winged Blackbird, American Crow (3)

4. Site Visit 4 – May 11/12, 2009

Morning – Start at 5:33, 0% cloud cover, ~1°C, Beaufort Wind – 1

1. Richert Rd.

Horned Lark (abundant), Black-capped Chickadee, House Wren, Savannah Sparrow (abundant), Downy Woodpecker, Red-winged Blackbird (abundant), American Robin, Mourning Dove, Song Sparrow (abundant), Chipping Sparrow, Tree Swallow, White-throated Sparrow, Killdeer, Brown Thrasher, Red-tailed Hawk, Yellow Warbler, Eastern Meadowlark, Canada Goose, American Goldfinch, European Starling

2. Lakeshore (05:51)

American Robin, Tree Swallow, Yellow Warbler, Red-breasted Merganser, Common Merganser (scattered pairs), Common Grackle, House Wren, Northern Cardinal, Mourning Dove (abundant), Mallard, European Starling, Ring-billed Gull, Northern Flicker, Song Sparrow

3. CR-50 (06:07)

Common Grackle, European Starling, Red-winged Blackbird (abundant), Mourning Dove, American Crow, Yellow Warbler, Wood Thrush, Red-tailed Hawk, Killdeer, Baltimore Oriole, Song Sparrow, European Starling, Tree Swallow, Spotted Sandpiper, Red-tailed Hawk, Horned Lark, Savannah Sparrow, American Robin (nest-building), Horned Lark

4. Meadows Rd. (06:31)

Bobolink, Yellow Warbler, Tree Swallow, Brown-headed Cowbird, Red-winged Blackbird, Northern Flicker, Eastern Kingbird, Blue Jay, American Robin, American Crow, Eastern Meadowlark, House Wren, American Goldfinch, Canada Goose, European Starling, Lesser Yellowlegs, Greater Yellowlegs, Ring-billed Gull, Rock Pigeon, Wild Turkey

5. CR-20 (06:58)

Eastern Meadowlark, American Robin, Red-winged Blackbird, Canada Goose, Common Grackle, European Starling, American Goldfinch, Song Sparrow

6. Sutor (07:05)

European Starling, Savannah Sparrow, Eastern Meadowlark, Black-capped Chickadee, Yellow Warbler, American Robin, Bobolink

7. Aikens (07:28)

European Starling, Red-winged Blackbird, Rock Pigeon, Baltimore Oriole, American Robin, Horned Lark, Savannah Sparrow, Black-capped Chickadee, Blue Jay, Brown-headed Cowbird, Killdeer, Mallard, Mourning Dove, Rose-breasted Grosbeak, Common Grackle, Song Sparrow, Chipping Sparrow

8. S. Cayuga Rd. (07:56)

Tree Swallow, Killdeer, Song Sparrow, Red-winged Blackbird, European Starling, American Robin, Yellow Warbler, Gray Catbird, Wild Turkey, Savannah Sparrow

9. River Rd. (08:12)

Horned Lark, American Robin, Northern Cardinal, Red-winged Blackbird, Mallard, Song Sparrow, Mourning Dove, Common Grackle, Killdeer, Bobolink, Gray Catbird, American Goldfinch, Field Sparrow, House Wren, White-crowned Sparrow, Warbling Vireo, Green-winged Teal, Brown Thrasher, Barn Swallow

10. Bains Rd. (08:47)

Song Sparrow, White-Crowned Sparrow, Red-tailed Hawk, Chipping Sparrow, Red-winged Blackbird, Turkey Vulture, European Starling, American Robin, Mourning Dove, Killdeer, Northern Flicker, Purple Finch

11. Lakeshore Rd. (09:20)

Mergansers, Herring Gull, Double-crested Cormorants, Red-winged Blackbird, Chipping Sparrow, Song Sparrow, Mallard, American Robin, Common Grackle, Bufflehead (3), Canada Goose, Great Blue Heron, Barn Swallow, Caspian Tern, Bonaparte's Gull, Herring Gull, Semipalmated Plover.

Evening – Start at 18:10, 40% cloud cover, 14°C, Beaufort Wind – 2

1. Bains Rd.

Horned Lark, Red-winged Blackbird, Northern Cardinal, Blue Jay, Turkey Vulture, American Robin, Song Sparrow, Downy Woodpecker, Mourning Dove, Killdeer, Northern Flicker, Savannah Sparrow

2. CR-20 (18:49)

American Crow, Song Sparrow, Red-winged Blackbird, American Robin, Northern Cardinal, European Starling, Eastern Meadowlark, Mourning Dove, Barn Swallow, Chipping Sparrow, Canada Goose, American Goldfinch

3. River Rd. (19:15)

Yellow Warbler, American Robin, Common Grackle, Red-winged Blackbird, American Goldfinch, Golden-crowned Kinglet, Song Sparrow, Mallard, Eastern Kingbird, Chipping Sparrow, Mourning Dove, Wood Thrush, Pine Warbler, American Goldfinch, Bobolink, European Starling, Canada Goose, Killdeer, Savannah Sparrow, House Wren, Northern Rough-winged Swallow, Barn Swallow

4. Lakeshore Rd. (19:54)

European Starling, Mourning Dove, Red-winged Blackbird, American Robin, Herring Gull, Caspian Tern, American Goldfinch, Great Blue Heron (2), Common Grackle, Gray Catbird, Red-breasted Merganser, Tree Swallow, Yellow Warbler, Canada Goose, Mallard, Chipping Sparrow, Ring-billed Gull

Woodlot Search – May 12, 2009, 0% cloud cover, 3°C, Beaufort Wind – 0

1. Woodlot on north portion of Dunnville-Haldimand Townline (05:37 to 05:53)

Song Sparrow, Wood Thrush, American Robin, Black-capped Chickadee, Northern Cardinal, House Wren, Gray Catbird, Common Yellowthroat

2. Woodlot on north portion of Sutor Rd. (06:03 to 06:21)

Red-bellied Woodpecker, Black-capped Chickadee, House Wren (2), American Robin

3. Sutor and Meadows Rd (06:22 to 07:12)  
Red-bellied Woodpecker, Chipping Sparrow, Gray Catbird (2), Song Sparrow,  
American Crow, Red-tailed Hawk, Brown-headed Cowbird, American Goldfinch
4. Richert Rd. Woodland (07:31 to 07:56)  
Purple Finch, House Wren, Red-bellied Woodpecker (2), Yellow-rumped Warbler,  
Yellow Warbler, Black and white Warbler, American Robin (2), Chipping Sparrow,  
Wood Thrush, Eastern Phoebe, Blue Jay, Rose-breasted Grosbeak
5. Bains Rd. – West end (08:16 to 08:48)  
Rose-breasted Grosbeak (2), Baltimore Oriole (Pair), Song Sparrow, House Wren (2),  
American Goldfinch
6. CR-50 and Bains Rd. (08:54 to 09:10)  
Common Yellowthroat, Yellow Warbler, Common Grackle (4), Brown-headed  
Cowbird (2), Nashville Warbler, Baltimore Oriole (Pair), House Wren
7. CR-50 Woodland (09:13 to 09:25)  
Song Sparrow, American Goldfinch, American Robin, Gray Catbird, Yellow  
Warbler, Black-capped Chickadee, Wood Thrush
8. S. Cayuga and Bains (09:34 to ?)  
Ovenbird, Rose-breasted Grosbeak, Eastern Wood-Pewee, Black-capped Chickadee,  
Black-throated Green Warbler, Nashville Warbler, American Goldfinch



# Appendix E

## 2009 Fall Vista Surveys



## 2009 Fall Bird Monitoring

NOTE: See Figures 2.1 and 2.2 for survey locations.

### LEGEND:

*Beaufort Wind Scale:*

- 0 – 0 km/h
- 1 – 1-6 km/h
- 2 – 7-11 km/h
- 3 – 12-19 km/h
- 4 – 20-29 km/h
- 5 – 30-39 km/h
- 6 – 40-50 km/h
- 7 – 51-62 km/h

## 1. Vista Survey Results

### 1.1 Vista Station VINE

*Visit 1:* Date: September 3, 2009, Start Time = 13:03, End Time = 14:01

Conditions: 22C, no precipitation, cloud cover = 20%, visibility = clear, wind = 1

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:04	European Starling	3	Perched in snag	A	200-500	N
13:12	American Crow	4	Calling, flying W along river	A-B	500-1000	NE
13:17	American Crow	3	Perched in snags	A	100-200	NE
13:27	Turkey Vulture	1	Soaring over river	B	> 1000	N
13:27	Turkey Vulture	1	Soaring gradually S over field	B	100-200	E
13:31	Ring-billed Gull	1	Flying N to river	B	50-100	NE
13:35	Ring-billed Gull	1	Flying along river	B	500-1000	N
13:35	Turkey Vulture	4	Soaring over river	B-C	> 1000	N
13:39	Ring-billed Gull	1	Flying over field	A	50-100	ENE
13:40	Mourning Dove	1	Flying SE	A	200-500	NE
13:47	Ring-billed Gull	1	Flying W along river	A	100-200	S
13:50	American Crow	5	Perched on snag, mobbed Red-tailed Hawk	A	100-200	NE
13:50	Red-tailed Hawk	1	Flew, perched on snag, then flew away	A	100-200	NE
13:51	Sandhill Crane	1	Flying N to river	B	100-200	W
13:52	Turkey Vulture	1	Soaring over field	B	> 1000	W
13:53	Blackbirds	20	In snag	A	200-500	N
13:54	Turkey Vulture	1	Along river	B	500-1000	N
13:56	Red-tailed Hawk	1	Soaring over woodlot	B	> 1000	S
13:59	Turkey Vulture	1	Flying over field	A	0-50	S
14:01	Red-tailed Hawk	1	Perched on snag	A	200-500	N

Visit 2: Date: September 30, 2009, Start Time = 11:30

Conditions: 11°C, no precipitation, cloud cover = 40%, visibility = clear, wind = 14

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:30	Turkey Vulture	1	Soaring along river	C	500-100	ENE
11:39	Canada Goose	50	Flying E along river	A	500-100	N
11:39	Sandhill Crane	3	Flying E along river	A	500-100	N
11:41	Sandhill Crane	2	Alighting in wetland	A	500-100	N
11:42	Blackbird	5	Perched in tree	A	100-200	N
11:44	Turkey Vulture	1	Soaring w along river	A	200-500	NE
11:44	Turkey Vulture	2	Soaring over field	A-B	200-500	S
11:44	Blackbird	30	Flying W	B	200-500	S
11:46	Turkey Vulture	2	Soaring w along woodlot	A-B	>1000	SW
11:49	Turkey Vulture	1	Over woods	A	100-200	S
11:54	Turkey Vulture	2	Still over field	A-B	0-50	S
12:01	horned Lark	2	Flying about field	A	0-50	W
12:04	Blue Jay	4	Flying along hedgerow	A	50-100	E
12:05	Blue Jay	1	Flying S	A	100-200	E
12:07	Blackbird	9	Flying S	A	0-50	OH
12:08	Turkey Vulture	1	Flying E	A-B	50-100	SE
12:11	Sandhill Crane	4	Flying SSE	A	0-50	W
12:14	Turkey Vulture	1	Soaring over woodlot	A	200-500	S
12:16	Blackbird	20	Flying W along river	A	500-100	N
12:19	Blackbird	19	Flying SW	B	200-500	SSW
12:24	Savannah Sparrow	1	In field	A	0-50	S
12:25	Blackbird	50	Flying N	A	500-100	W
12:27	American Godfinch	2	Flying S	A	200-500	W

Visit 3: Date: October 14, 2009, Start Time = 11:50, End Time = 12:36

Conditions: 6°C, no precipitation, cloud cover = 90%, visibility = clear, wind = 3, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:51	Turkey Vulture	1	Soaring over field, N	A-B	0-50	W
11:51	Red-tailed Hawk	1	Soaring over woodlot	B-C	500-1000	SSW
11:52	American Crow	2	Flying ESE	A	0-50	OH
12:04	Sandhill Crane	2-3	Audible	A	100-200	ENE
12:06	Blackbird	40	Flying SSE	A	100-200	ENE
12:06	Blackbird	40	Flying SSE (now 400 in field)	A	100-200	ENE
12:06	Red-tailed Hawk	1	Soaring over woodlot	B	500-1000	SSW
12:12	Turkey Vulture	1	Soaring along river	B	100-200	ENE
12:12	American Robin	2	Perched in hedgerow	A	50-100	E
12:20	Blackbird	200	Flying S	B	0-50	OH
12:22	Red-tailed Hawk	2	Working field	B	100-200	W
12:36	Red-tailed Hawk	1	Soaring S	A	500-1000	E

Visit 4: Date: November 23, 2009, Start Time = 13:55, End Time = 14:52

Conditions: 8°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 3, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:56	Mourning Dove	20	Perched in tree	A	50-100	E
14:01	White-breasted Nuthatch	1	Calling from woodlot	A	100-200	S
14:03	American Crow	2	Calling	A	200-500	E
14:05	American Goldfinch	5	Flying N	A	0-50	OH
14:10	Sandhill Crane	2+	Calling	A	200-500	NE
14:20	Red-bellied Woodpecker	1	Flying S, perching in tree	A	50-100	E
14:21	American Crow	1	Flying W	C	0-50	OH
14:21	Ring-billed Gull	1	Flying S	C	100-200	W
14:25	Ring-billed Gull	15	Flying over field near river	C	100-200	NE
14:25	Blue Jay	1	Calling	A	100-200	S
14:27	Black-capped Chickadee	2	Calling from hedgerow	A	50-100	NE
14:33	Ring-billed Gull	4	Flying NNW	C	100-200	N
14:49	American Crow	1	Flying W	C	200-500	N
14:52	Northern Harrier	1	Foraging over field	A	0-50	S

## 1.2 Vista Station VINW

Visit 1: Date: August 28, 2009, Start Time = 13:01

Conditions: 17°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 2, (3 @ 13:50), very light rain for first 5 minutes

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from eObserver
13:01	American Crow	2	In field	A	0-50	E
13:01	Turkey Vulture	2	Over field	A	100-200	S
13:02	Northern Harrier	1	Foraging over field	A	100-200	ENE
13:10	Barn Swallow	1	Foraging over field	B	0-50	S
13:12	Canada Goose	8	Flying N	A	>1000	E
13:13	Turkey Vulture	1	Flying N	A-B	9059	E
13:21	Turkey Vulture	3	Over field	A	100-200	SW
13:27	Northern Harrier	1	Still present, perched on snag	A	100-200	ENE
13:27	Turkey Vulture	3	Perched on snag	A	100-200	NE
13:35	American Crow	1	Perched on trees	A	100-200	NE
13:38	American Crow	1	In field	A	0-50	SW
13:43	American Goldfinch	2	Flying N	A	0-50	W
13:44	Turkey Vulture	1	Soaring NE	C	500-1000	E
13:46	Red-tailed AHwk	1	Soaring over field	A-B	200-500	W
13:52	Horned Lark	6	On road	A	0-50	S
13:55	Blackbirds	50	Flying S	A	500-1000	NE
13:55	Barn Swallow	2	Foraging over field	A	0-50	S

Visit 2: Date: September 30, 2009, Start Time = 12:36

Conditions: 11°C, no precipitation, cloud cover = 40%, visibility = clear, wind = 14

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:36	Northern harrier	1	Foraging over field	A	0-50	S
12:39	Blackbird	200	Flying around corn field	A	500-1000	W
12:45	Northern Harrier	2	Over corn field	A-B	500-1000	W
12:45	Red-tailed Hawk	1	Over corn field	B	500-1000	W
12:45	American Kestrel	1	Over corn field	B	500-1000	W
12:51	Red-tailed Hawk	1	Perched in hedgerow	A	500-1000	E
12:53	Red-tailed Hawk	1	Soaring over woodlot	B	>1000	E
12:53	American Kestrel	1	Soaring over woodlot	B	>1000	E
12:55	American Crow	2	Flying NE	A	50-100	SE
12:57	American Goldfinch	1	Flying N	A	100-200	E
13:13	Red-tailed Hawk	2	Soaring over field	B	500-1000	WNW
13:23	American Crow	6	Flying over cornfield	A	>1000	ENE
13:28	Turkey Vulture	1	Foring E over field	A	500-1000	NNE
13:29	Savannah Sparrow	2	In field	A	0-50	SW
13:31	Rock Pigeon	12	In field	A	0-50	N
13:32	Turkey Vulture	1	Soaring over woodlot	B	500-1000	SSE
13:33	Turkey Vulture	1	Soaring over Mt. olivet	B	>1000	SW

Visit 3: Date: October 14, 2009, Start Time = 12:55, End Time = 13:52

Conditions: 7°C, no precipitation, cloud cover = 60%, visibility = clear, wind = 3, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:55	Northern Harrier	1	Working field	A	200-500	SW
13:06	Northern Harrier	11	Working field	A	100-200	S
13:09	American Kestrel	1	Perched on T/L	A	100-200	NNE
13:15	Northern Harrier	1	Flying S	A	500-1000	W
13:24	Rock Pigeon	4	Flying N	A	200-500	SW
13:24	American Goldfinch	1	Flying E	A	0-50	OH
13:30	American Crow	1	Flying W	A	100-200	S
13:30	Blackbird	50	Flying W	A	500-1000	SSW
13:31	American Crow	1	Flying SSW, fle back N, perched in hedgerow	A	0-50	N
13:33	American Crow	1	Flying around field (diff. from above)	A	0-50	N
13:35	Red-tailed Hawk	1	Perched in tree	A	500-1000	S
13:35	Blackbird	30	Flying SE	B	500-1000	SSW
13:39	Red-tailed Hawk	1	Soaring over area	B	200-500	SW
13:41	Horned Lark / sans	Ca. 10	In fields	A	0-50	All directions
13:44	Northern Harrier	1	Working field – N	B	200-500	W
13:44	Rock Pigeon	1	Flying NNE	A	200-500	W
13:46	European Starling	2	Flying N	A	0-50	E
13:52	Blackbird	20	Flying NNE	A	100-200	E

*Visit 4:* Date: November 4, 2009, Start Time = 12:37, End Time = 13:25

Conditions: 4°C, light rain at 12:57, spitting at 13:09, rain at 13:28, cloud cover = 100%,  
visibility = clear, wind = 3

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:38	Red-tailed Hawk	1	Perched in tree	A	100-200	NE
12:45	Northern Harrier	1	In woodlot	A	200-500	W
12:45	American Crow	2	In woodlot	A	200-500	W
12:47	European Starling	4	Flying NNE	A	0-50	W
12:48	Rock Pigeon	10	On silo	A	500-1000	W
12:48	European Starling	20	In field and on hedgerows	A	0-50	W
12:57	Rough-legged Hawk	1	In field	A	100-200	N
12:58	European Starling	40	Flying about car pasture	A	200-500	W
13:15	Northern Harrier	1	Working field	A	100-200	NE
13:21	European Starling	1	Perched on T/L	A	0-50	NNE
13:25	Northern Harrier	1	Flying SSW	A	200-500	W

*Visit 5:* Date: November 23, 2009, Start Time = 12:48

Conditions: 8°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 3, south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:48	Red-tailed Hawk	3	Soaring in thermal	C	500-1000	W
12:48	American Crow	1	Flying W	A	0-50	OH
12:48	American Crow	1	Perched in tree	A	100-200	S
13:00	Red-tailed Hawk	1	Perching in tree	A	200-500	N
13:02	Northern Harrier	2	Flying along hedgerow, foraging on field	A	200-500	E
13:05	Red-tailed Hawk	1	Soaring over field	A-B	500-1000	E
13:25	Rough-legged Hawk	1	Soaring over Mt. Olivet, perching in tree	A-B	200-500	SSW
13:42	Northern Harrier	1	Foraging over field	A	50-100	S

### 1.3 Vista Station VISE

*Visit 1:* Date: August 28, 2009, Start Time = 10:48

Conditions: 16°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 2-3, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:50	Purple Martin	2	Flying over cornfield	A	0-50	E
10:55	Barn Swallow	3	Flying over field	A	0-50	W
10:55	American Goldfinch	4	Flying N	A	100-200	E
11:05	American Crow	3	Calling from snag	A	200-500	SW
11:05	Horned ALrk	1	Flying S	A	0-50	W
11:14	American Goldfinch	2	Flying S	A	0-50	W
11:14	Unidentified Passerine	2	Flying NW	A	200-500	N

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:19	Red-winged Blackbird	3	Flying S	A	100-200	E
11:22	Blue Jay	1	Calling	A	200-500	NW
11:25	Dickcissel	6	Into field	A	0-50	N
11:30	American Crow	1	Flying into woods	A	200-500	W
11:33	Turkey Vulture	2	FLYing W; gradually	A- B	100-200	N
11:38	Northern Flicker	1	Flying E to woodlot	A	100-200	N
11:40	Ring-billed Gull	1	Flying S	A	0-50	OH
11:43	European Starling	12	Flying SE	A	0-50	NE
11:44	Common Tern	2	Flying NNE	B	200-500	W
11:46	Great Blue Heron	1	Rising; flying WSW	B	100-200	N

Visit 2: Date: September 25, 2009, Start Time = 11:24

Conditions: 14°C, no precipitation, cloud cover = 90%, visibility = clear, wind = 2-3, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:24	American Crow	1	Perched on tree, flew E	A	100-200	N
11:26	Common Grackle	2	Flying E	A	100-200	N
11:30	Blue Jay	1	Calling from woodlot	A	200-500	W
11:31	Blackbird	20	Perched on tree, remaining in area throughout	A	100-200	N
11:34	Savannah Sparrow	1	Perched on weeds on roadside	A	0-50	N
11:37	American Crow	2	In field	A	100-200	NW
11:44	American Crow	2	Flying around field	A	0-50	W
11:46	American Crow	5	Flying E	A-B	100-200	N
11:46	Blackbird	10	Flying E	B	100-200	N
11:46	American Crow	3	Flying around woodlot, perched on thin tree, flew E	A	200-500	NW
12:02	American Crow	2	Perched on trees	A	100-200	S
12:11	Canada Goose	45	Flying W	C	50-100	S
12:14	American Crow	6	Perched in tree	A	100-200	N
12:14	Blue Jay	1	Calling from woodlot	A	200-500	NNE
	Approx. 70 % cloud coverage					
12:16	Red-winged Blackbird	1	Flying SSE	A	0-50	NNE
12:16	American Goldfinch	1	Flying NW	a	0-50	OH

Visit 3: Date: October 14, 2009, Start Time = 10:43, End Time = 11:39

Conditions: 3°C, no precipitation, cloud cover = 90%, visibility = clear, wind = 2

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:43	American Crow	8	Calling in woodlot	A	200-500	NW
10:44	Passerines	30	Flying WNW	A	0-50	OH
10:46	Red-tailed Hawk	1	Flying E	A	100-200	N
10:47	Blue Jay	1	Calling in woodlot	A	200-500	NW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:54	Blackbird	10	Flying ESE	A	0-50	N
11:01	Blackbird	Ca. 300	Moving about field	A	100-200	N
11:07	Ring-billed Gull	1	Flying N	A	0-50	W
11:16	Blackbird	50	Flying N to join others	A	0-50	W
11:21	Northern Harrier	1	Watching field, moving N	A	0-50	W
11:22	Red-tailed Hawk	1	Soaring over woodlot	A	100-200	NNE
11:27	Turkey Vulture	6	Soaring gradually S	B	100-200	N
11:34	Northern Harrier	1	Watching field, moving E	A	100-200	N
11:39	Red-tailed Hawk	2	Soaring over woodlot	B	200-500	NW

*Visit 4:* Date: November 3, 2009, Start Time = 09:45, End Time = 10:40

Conditions: 6°C, no precipitation, cloud cover = 30-60%, visibility = -, wind = 2, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
09:46	American Crow	4	Flying W	A-B	0-50	OH
09:49	Red-tailed Hawk	1	Perched in hedgerow	A	100-200	N
09:51	American Crow	1	Flying to hedgerow, then flew E	A-B	200-500	N
10:00	Red-tailed Hawk	2	Flying over field	A-B	50-100	W
10:08	American Crow	3	In field	A	100-200	W
10:13	Red-tailed Hawk	1	Calling from woodlot	A	200-500	W
10:19	Horned Lark	1	Flying into cornfield	A	0-50	N
10:20	Blackbird	1	Flying E	A	50-100	N
10:21	American Crow	8	Flying into woodlot	A	200-500	W
10:28	Horned Lark	2	Flying W form cornfield	A	0-50	E
10:40	Blue Jay	1	Flying E	A	50-100	N

*Visit 5:* Date: November 17, 2009, Start Time = 11:08, End Time = 11:54

Conditions: 5°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 3, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:11	Red-tailed Hawk	1	Soaring over woodlot	B	200-500	W
11:14	Blue Jay	2	Flying W	A	50-100	N
11:21	Red-tailed Hawk	1	Soaring over woodlot	B	500-1000	WNW
11:22	American Crow	2	Flying E	A	50-100	N
11:43	Blue Jay	1	Flying E, alighted in hedgerow	A	50-100	N
11:47	Blue Jay	1	Flying W (poss. Same as above)	A	100-200	N
11:54	Red-tailed Hawk	1	Flying over field	B-C	100-200	W

## 1.4 Vista Station VIFVN

*Visit 1:* Date: September 3, 2009, Start Time = 11:50, End Time = 12:38

Conditions: 22°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 1

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:55	Turkey Vulture	1	Soaring over field	B	> 1000	S
11:57	Barn Swallow	1	Flying E across field	A	500-1000	N
12:03	Turkey Vulture	6	Soaring over woodlot, moving W	C	> 1000	N
12:10	Tree Swallow	4	Foraging over field	A	0-50	N
12:18	American Crow	2	Calling	A	500-1000	W
12:25	Turkey Vulture	1	Soaring over woodlot	B	> 1000	SSE
12:29	Mourning Dove	1	Flying E	A	0-50	S
12:36	Tree Swallow	5	Still foraging overhead	A	0-50	OH
12:37	Turkey Vulture	1	Soaring E	B	500-1000	N
12:38	Turkey Vulture	1	Soaring S	B	> 1000	SE
12:38	American Crow	1	On road	A	500-1000	W

*Visit 2:* Date: September 30, 2009, Start Time = 14:56

Conditions: 12°C, no precipitation, cloud cover = 80%, visibility = clear, wind = 4

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:56	Turkey Vulture	2	Flying NNW	A-B	200-500	E
15:07	Northern Harrier	2	Over field	A	500-1000	E
15:07	Turkey Vulture	4	Soaring gradually nw	A-B	>1000	ESE
15:09	Horned Lark	50	Moving about field	A	200-500	SSW
15:12	Red-tailed Hawk	1	Perched in hedgerow	A	200-500	S
15:12	Turkey Vulture	1	Soaring w across field	A-B	500-1000	S
15:14	Turkey Vulture	3	Soaring over woodlot	B-C	500-1000	S
15:16	Red-tailed Hawk	3	Soaring over field	B-C	>1000	SE
15:18	Turkey Vulture	1	Soaring over woodlot	A	500-1000	N
15:19	Turkey Vulture	1	Flying E	A	200-500	S
15:28	Horned Lark	50	Still present in field	A	200-500	SSW
15:30	Mourning Dove	2	Flying W	A	0-50	S
15:36	Turkey Vulture	1	Soaring over woodlot	A	500-1000	SSW
15:41	American Goldfinch	1	Flying NNW	A	100-200	SW
15:42	Northern Harrier	1	Flying e	A	200-500	S
15:44	Turkey Vulture	1	Soaring W	A	500-1000	S
15:44	Turkey Vulture	2	Soaring over field	B	>1000	S
15:47	Turkey Vulture	1	Soaring over woodlot	B	500-1000	S
15:53	Turkey Vulture	1	Soaring over woodlot	A	>1000	S

Visit 3: Date: October 15, 2009, Start Time = 13:53, End Time = 14:40

Conditions: 6°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 4, north-east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:59	Northern Harrier	1	Foraging over field	A	200-500	E
14:02	Northern Harrier	1	Sitting on field	A	200-500	S
14:04	Turkey Vulture	1	Over woodlot	B	500-1000	N
14:04	Turkey Vulture	1	Over woodlot	B	500-1000	NE
14:07	Turkey Vulture	2	Soaring over woodlot	B	500-1000	WNW
14:10	Ring-billed Gull	1	Flying SE	A-B	500-1000	SSW
14:11	Turkey Vulture	1	Over woodlot	B	500-1000	N
14:19	Mourning Dove	1	Perched on T/L	A	0-50	S
14:29	Turkey Vulture	1	Over woodlot	A-B	500-1000	N
14:38	Turkey Vulture	1	Over woodlot	A-B	500-1000	NNE
14:39	Northern Harrier	1	Foraging over field	A-B	500-1000	S
14:40	Horned Lark	40	In field	A	200-500	S

Visit 4: Date: November 4, 2009, Start Time = 11:25, End Time = 12:21

Conditions: 3°C, light spitting at 12:18 and at 12:21, cloud cover = 100%, visibility = clear, wind = 3, ESE

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:27	American Crow	2	In field	A	100-200	S
11:42	Northern Harrier	1	Foraging over field	A	100-200	S
11:54	American Crow	2	Flying NW	B	100-200	SW
11:55	Turkey Vulture	4	Soaring gradually WSW	B-C	500-1000	S
11:55	Red-tailed Hawk	5	Soaring gradually WSW	C	500-1000	S
12:01	Cooper's Hawk	1	Flying W	C	200-500	N
12:06	Turkey Vulture	7	Soaring gradually W	C	200-500	N
12:06	Red-tailed Hawk	6	Soaring gradually W	C	200-500	N
12:10	American Crow	1	Flying SE	A	0-50	W
12:12	Unknown Raptor	1	Flying WNW	C	200-500	N
12:12	Turkey Vulture	1	Soaring W	B	200-500	N
12:17	Ring-billed Gull	2	Soaring SSE	C	200-500	NNE
12:21	American Crow	2	Flying W	A-B	100-200	N

Visit 5: Date: November 17, 2009, Start Time = 14:30, End Time = 15:12

Conditions: 7°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 3-4, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:31	Blackbird	11	Flying E	A	0-50	S
14:45	Red-tailed Hawk	1	Alighting in tree	A	500-1000	SE
14:51	Red-tailed Hawk	1	Soaring over field	B-C	> 1000	S
14:56	Red-tailed Hawk	2	Soaring over woodlot, then moving N	B-C	500-1000	SE

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
15:12	Red-tailed Hawk	1	Soaring over field, moving W	B-C	500-1000	S
15:12	American Crow	3	Flying W	A	200-500	S

## 1.5 Vista Station VILW

Visit 1: Date: September 2, 2009, Start Time = 10:01, End Time = 10:57

Conditions: 19°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 1

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:01	Canada Goose	7	Flying S	B	100-200	W
10:04	Gray Catbird	1	Calling	A	0-50	S
10:09	Canada Goose	4	Flying S	A	0-50	OH
10:17	Mourning Dove	1	Perched on wire	A	0-50	SW
10:21	European Starling	12	Flying W	A	0-50	N
10:24	Blue Jay	2	Calling from trees	A	50-100	W
10:26	American Goldfinch	1	Flying S	A	0-50	OH
10:29	Caspian Tern	1	Flying along shoreline	B	50-100	S
10:29	Northern Cardinal	1	Calling	A	0-50	ESE
10:38	Black-capped Chickadee	1	Calling from woods	A	0-50	E
10:39	American Goldfinch	3	Flying SE	A	100-200	E
10:43	Turkey Vulture	2	Soaring over woodlot	B	> 1000	NE
10:43	American Goldfinch	2	Flying S	A	0-50	OH
10:49	Bank Swallow	4	foraging	A	0-50	OH
10:51	Red-tailed Hawk	1	Flying E along pond	A	0-50	S
10:57	Herring Gull	1	Flying E along shoreline	A	50-100	S

Visit 2: Date: September 30, 2009, Start Time = 13:46

Conditions: 12°C, no precipitation, cloud cover = 80%, visibility = clear, wind = 4

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:51	Herring Gull	1	In water	A	50-100	SE
13:51	Canada Goose	30	On island	A	200-500	ESE
13:51	Killdeer	2	Flaying w along shoreline	A	0-50	S
13:56	Blue Jay	1	Flying W	A	0-50	N
13:56	Double-crested Cormorant		>1000 km E along lakeshore	A	>1000	E
13:56	Gulls		>1000 km E along lakeshore	A	>1000	E
13:56	Canada Goose		>1000 km E along lakeshore	A	>1000	E
13:58	American Goldfinch	1	Flying E	A	0-50	N
14:02	Ring-billed Gull	1	Flying w along shoreline	A	0-50	S
14:12	American kestrel	1	Flying w along shoreline	A	50-100	WSW
14:16	Ring-billed Gull	1	Flying w along shoreline	A	100-200	S
14:23	Ring-billed Gull	2	Flying along shoreline	A	100-200	SW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:23	Doube-crested Cormorant	1	Flying w along shoreline	A	50-100	S
14:26	Ring-billed Gull	1	Flying w along shoreline	A	100-200	S
14:27	Canada Goose	2	Flying w	A	0-50	S
14:33	Ring-billed Gull	1	Flying E along shoreline	A	0-50	S
14:35	Double-crested Cormorant	1	Flying E	A	100-200	S
14:36	Ring-billed Gull	2	Flying W	A	200-500	S
14:38	Ring-billed Gull	3	Flying w along shoreline	A	100-200	S
14:43	Northern Harrier	1	Foraging over field	A	500-1000	N

Visit 3: Date: October 15, 2009, Start Time = 11:41, End Time = 12:37

Conditions: 4°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 4-5, north-east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:42	Canada Goose	50	Landing on lake	A	500-1000	W
11:44	Gulls	20	On lake	A	500-1000	W
11:44	Double-crested Cormorant	1	On lake	A	500-1000	W
11:44	Ring-billed Gull	2+2	Flying W along lake	A	100-200	S
11:51	Ring-billed Gull	1	Flying W along lake	A	0-50	S
11:53	Canada Goose	36	Relocating to near bay	A	100-200	W
11:55	Ring-billed Gull	19+2	Flying E over lake	A	100-200	S
12:04	Canada Goose	4	Joining others	A	100-200	W
12:11	Double-crested Cormorant	15	Flying W over lake	A	200-500	S
12:12	Canada Goose	11	On lake, floating W	A	100-200	S
12:13	Ring-billed Gull	6	Moving over lake	A	100-200	S
12:15	Canada Goose	3	Flying E over lake	A	0-50	S
12:17	Canada Goose	3	Flying E over lake	A	0-50	S
12:21	Ring-billed Gull	1	Flying E along shoreline	A	0-50	S
12:21	Canada Goose	8	Landing in water	A	100-200	S
12:27	Turkey Vulture	2	Soaring over woodlot	A	> 1000	N
12:29	Ring-billed Gull	2+2	Flying E along shoreline	A	0-50	S
12:34	Canada Goose	8	Landing in water	A	100-200	W
12:37	Ring-billed Gull	30-40	Coming to lake	A	100-200	W
	NOTE: Bird movement generally restricted by wind					

Visit 4: Date: November 3, 2009, Start Time = 12:08, End Time = 13:04

Conditions: 6°C, light spitting, end at 12:29, cloud cover = 100%, visibility = clear, wind = 3-4, north-west

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:08	Common Loon	8	On lake	A	100-200	S
12:08	Bonaparte's Gull	100	On lake	A	500-1000	W
12:15	Waterfowl	30	Grebes, Merganser, BUCG, RNDU	A	500-1000	W

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:19	Gulls	10	Flying around shoreline	A-B	50-100	S
12:25	Mergansers	40	On lake	A	200-500	S
12:26	Horned Grebe	4	On lake	A	50-100	S
12:34	Gulls	30	Flying over lake	B	100-200	S
13:04	Northern Harrier	1	Over field, foraging low	A	100-200	N

*Visit 5:* Date: November 17, 2009, Start Time = 13:21, End Time = 14:00

Conditions: 7°C, no precipitation, cloud cover = -, visibility = clear, wind = 3-4, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:22	Mallard	2	Flying E	A	0-50	S
13:33	Canada Goose	Approx. 140	Resting on a pit of land	A	0-50	ESE
13:33	Snow Goose	5	Resting on a pit of land; 3 white adult, 1 dark adult, 1 white juv.	A	0-50	ESE
13:38	Ring-billed Gull	5	Flying W along shoreline	A	0-50	S
13:46	Bufflehead	2	In with CANADA GOOSE (now rafting to E)	A	100-200	ESE
13:47	Ring-billed Gull	1	Flying E	A	0-50	S
13:48	Ring-billed Gull	1	Flying W over lake	A	100-200	S
13:57	Mergansers	1	On lake	A	50-100	SSE
14:00	Ring-billed Gull	2+3	Flying E along lakeshore	A	0-50	S

## 1.6 Vista Station VISW

*Visit 1:* Date: August 28, 2009, Start Time = 11:56

Conditions: 17°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 2, north-northwest

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from eObserver
11:58	Red-winged Blackbird	30	Flying SE	A	0-50	E
11:58	Barn Swallow	15	Perched on distribution line, foraging over fields	A	0-50	E
11:59	Turkey Vulture	1	Soaring over woodlot	A	200-500	W
12:00	European Starling	1	Flying W	A	0-50	S
12:05	Ruby-throated Hummingbird	1	Flying N	A	0-50	W
12:06	Mourning Dove	1	Sying S	A	0-50	W
12:11	Unidentified Passerine	11	Flying S	A	0-50	OH
12:15	Mourning Dove	2	Perched on distribution line	A	0-50	E
12:15	European Starling	2	Flying W	A	0-50	S
12:19	Ring-billed Gull	2	Flying N	A	0-50	W
12:21	American Goldfinch	5	Flying S	A	0-50	S
12:22	Turkey Vulture	1	Soaring over woodlot	A	100-200	S
12:24	Red-tailed Hawk	1	Soaring over woodlot	B	100-200	S
12:26	Mallard	12	Flying N	B	0-50	W

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from eObserver
12:37	American Kestrel	1	Flying N	A	0-50	OH
12:53	Turkey Vulture	1	Soaring over field	A	200-500	W

*Visit 2:* Date: September 25, 2009, Start Time = 12:32, End Time = 13:14

Conditions: 15°C, no precipitation, cloud cover = 80%, visibility = clear, wind = 2-3, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:39	Canada Goose	14	Flying W	C	100-200	S
12:43	Turkey Vulture	1	Soaring SE	B	100-200	S
12:48	Turkey Vulture	5	Flying E+W over field	B-C	200-500	S
12:58	Mourning Dove	1	Flying S	A	100-200	W
13:04	American Crow	5	Perched in tree	A	200-500	NW
13:12	Turkey Vulture	1	Flying E	B	> 1000	NNE
13:14	Chipping Sparrow	1	Perched in hedgerow	A	0-50	S
13:14	American Goldfinch	1	calling	A	0-50	OH

*Visit 3:* Date: October 14, 2009, Start Time = 14:00, End Time = 14:52

Conditions: 7°C, no precipitation, cloud cover = 60%, visibility = clear, wind = 3 north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:10	Red-tailed Hawk	1	Flying E	A	100-200	N
14:16	Blue Jay	1	Flying S	A	0-50	E
14:19	Turkey Vulture	1	Flying N	A-B	0-50	OH
14:22	American Crow	3	Flying E	A	200-500	SE
14:22	Rock Pigeon	1	Flying to silo	A	200-500	SE
14:22	Mourning Dove	1	Perched on T/L	A	0-50	E
14:22	Red-tailed Hawk	2	Soaring N	B	100-200	E
14:25	European Starling	3	Flying E	A	50-100	N
14:32	Red-tailed Hawk	1	Kiting over field	A	200-500	N
14:42	European Starling	1	Perched on T/L	A	0-50	E
14:46	Red-tailed Hawk	1	Soaring over field	A-B	100-200	N
14:52	European Starling	15	Perched on T/L and on roadside	A	0-50	W

*Visit 4:* Date: November 4, 2009, Start Time = 13:42, End Time = 14:23

Conditions: 5°C, light rain, spitting at 14:07, rain at 14:36, cloud cover = 100%, visibility = clear, wind = 2-3 east-north-east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
14:16	Horned Lark	2	Flying around field	A	0-50	N
14:23	American Crow	1	Calling from field	A	500-1000	N
	VILAE: dropped due to construction at location					

Visit 5: Date: November 23, 2009, Start Time = 11:43, End Time = 12:42

Conditions: 7°C, no precipitation, cloud cover = 10%, visibility = clear, wind = 3 south

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:43	Cooper's Hawk	1	Perched in tree	A	100-200	NNW
11:49	American Goldfinch	1	Flying SW	A	0-50	OH
11:50	Blue Jay	2	Flying W to woodlot	A	100-200	S
11:55	American Crow	10	Flying over woodlot	B	> 1000	SE
11:55	Rough-legged Hawk	1	Soaring over field	A	200-500	E
12:04	Northern Harrier	1	Soaring above field	A	500-1000	NE
12:05	Rock Pigeon	20	Flying W	A-B	500-1000	S
12:07	Red-tailed Hawk	1	Soaring over woods, calling, then moving N	A-B-C	200-500	S
12:07	American Crow	2	Flying N, playing	A	200-500	SW
12:11	Golden Eagle	1	Flying E	B	0-50	OH
12:11	Northern Harrier	1	Soaring over field	B	100-200	E
12:14	Red-tailed Hawk	2	Over field (1 likely from before)	C	200-500	ESE
12:20	Red-tailed Hawk	3	Still visible soaring in distance	C	> 1000	E
12:20	Golden Eagle	1				
12:31	Ring-billed Gull	300	Flying over field	B	> 1000	SE
12:34	Red-tailed Hawk	1	Over field	A-B	100-200	N
12:41	Rock Pigeon	6	Flying W	B	200-500	WSW
12:42	American Crow	4	Flying W	B	200-500	S
12:42	Red-tailed Hawk	2	Soaring over woods	B	200-500	S

## 1.7 Vista Station VILC

Visit 1: Date: September 2, 2009, Start Time = 11:14, End Time = 12:09

Conditions: 21°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:15	Mourning Dove	1	Perched on T/L	A	50-100	W
11:17	Turkey Vulture	3	Soaring over field and woods	A-C	500-1000	N
11:19	European Starling	4	In shrubs	A	0-50	W
11:22	Turkey Vulture	1	Soaring SW	A	> 1000	NW
11:22	Turkey Vulture	1	Over field	A	50-100	NW
11:27	Turkey Vulture	4	Soaring along shoreline	A	200-500	W
11:32	Turkey Vulture	1	Over woods	A-B	500-1000	N
11:37	Turkey Vulture	1	Soaring SSW	B	500-1000	NW
11:39	House Sparrow	1	In shrubs	A	0-50	W
11:39	American Robin	1	On T/L	A	0-50	E
11:39	Turkey Vulture	4	Soaring along shoreline, then flew W over field	A-B	200-500	W
11:39	Turkey Vulture	1	Soaring SW to join above	A	100-200	N
11:39	Turkey Vulture	2	Soaring E along woodlot	A-B	> 1000	NE

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:50	European Starling	2	Perched on T/L	A	0-50	W
12:01	Turkey Vulture	5	Soaring over field, then flew S towards lake, then back over field	A-B	> 1000	NE
12:05	American Robin	2	On lawn of Knight's Beach	A	0-50	S
12:07	Turkey Vulture	1	Soaring W	A	> 1000	N
12:09	American Redstart	1	Soaring over field	B-C	500-1000	N

*Visit 2:* Date: October 1, 2009, Start Time = 12:23

Conditions: 11°C, no precipitation, cloud cover = 70%, visibility = clear, wind = 3, NW

Time of Observation	Species	Number	Behaviour	Height AZone	Distance from Observer	Direction from Observer
12:34	Gray Catbird	1	Calling from hedgerow	A	50-100	NNW
12:36	Turkey Vulture	1	Soaring W in distance; gradual	B-C	>1000	NNE
12:48	Area quiet – typical fall levels of activity, cool day so movements somewhat muted					

*Visit 3:* Date: October 14, 2009, Start Time = 15:07, End Time = 15:35

Conditions: 8°C, no precipitation, cloud cover = 50%, visibility = clear, wind = 3, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
15:17	American Crow	1	Calling	A	500-1000	N
15:25	Ring-billed Gull	1	Moving along lakeshore	A	100-200	SW
15:27	Turkey Vulture	1	Soaring over woods	B	> 1000	N
15:27	American Goldfinch	5	Flying S	A	0-50	W
15:27	Ring-billed Gull	40	Flying SW to lake	B	500-1000	NW
15:35	House Sparrow	6	In hedgerow	A	0-50	W

*Visit 4:* Date: November 3, 2009, Start Time = 10:53, End Time = 11:47

Conditions: 6°C, no precipitation, cloud cover = 40%, visibility = clear, wind = 3, north-west

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:57	American Crow	2	Flying over woodlot	A	500-1000	N
11:09	Northern Cardinal	1	In hedgerow	A	0-50	W
11:10	American Crow	2	Perched in hedgerow, flew NW	A	0-50	NNW
11:16	Red-tailed Hawk	1	Flying along shoreline, roused by people in field	A	50-100	WSW
11:18	NOTE: clouding 100% over, rain in distance, staying cool					
11:19	BLACK-CAPPED CHICKADEE	1	Calling from trees in Knight's Beach	A	0-50	S
11:24	American Crow	2	Flying E over woodlot	A	500-1000	N
11:27	Northern Harrier	1	Foraging over field	A	200-500	NNW
11:28	House Sparrow	4	In hedgerow	A	50-100	NNW

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
11:34	Light spitting -> ended at 11:40					
11:35	Red-tailed Hawk	1	Flying to hedgerow	A	100-200	NW
11:47	Light rain					

*Visit 5:* Date: November 17, 2009, Start Time = 12:14, End Time = 12:59

Conditions: 6°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 3-4, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:26	Northern Harrier	1	Flying W along shoreline	A	50-100	W
12:27	American Crow	3+1	In field	A	200-500	W
12:35	Red-tailed Hawk	3	Over woodlot	A-B	500-1000	N
12:52	Red-tailed Hawk	1	Over field	A	500-1000	NW
12:59	American Crow	1	In hedgerow	A	100-200	N

## 1.8 Vista Station VILE

*Visit 1:* Date: September 2, 2009, Start Time = 12:27, End Time = 13:23

Conditions: 21°C, no precipitation, cloud cover = 0%, wind = 2

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:28	Gulls	30	Flying W over lake	A	200-500	S
12:28	Bald Eagle	1	Foraging over water, caught fish, then flew to land	A	200-500	W
12:38	Ring-billed Gull	1	Flying W	A	500-1000	S
12:38	American Goldfinch	1	Flying along shoreline	A	0-50	S
12:49	Canada Goose	4	Flying W over water	A	200-500	S
12:49	Gulls and Double-crested Cormorant	Several	On water	A	> 1000	W
12:55	Ring-billed Gull	2	Flying E along shoreline	A	0-50	S
13:01	Turkey Vulture	2	Soaring along shoreline	A	> 1000	W
13:01	Canada Goose	15	Flying W over water	A	500-1000	SE
13:02	Ring-billed Gull	1	Flying along shoreline	A	0-50	S
13:04	Northern Harrier	2	Soaring over field	B	200-500	N
13:12	Turkey Vulture	2	Soaring over field	B	500-1000	N
13:23	Double-crested Cormorant	1	Flying W along shoreline	A	0-50	OH

*Visit 2:* Date: October 1, 2009, Start Time = 11:17

Conditions: 11°C, no precipitation, cloud cover = 70%, visibility = clear, wind = 3, NW

Time of Observation	Species	Number	Behaviour	Height AZone	Distance from Observer	Direction from Observer
11:20	Ring-billed Gull	1	Flying W along shoreline	A	100-200	S
11:26	Blackbird	10	Perched on distribution line	A	50-100	W
11:30	Ring-billed Gull	2	Flying w along shoreline	B	200-500	S
11:38	Red-tailed Hawk	1	Soaring along shoreline,	A-B	0-50	S

Time of Observation	Species	Number	Behaviour	Height AZone	Distance from Observer	Direction from Observer
			then ne over field			
11:47	Blue jay	1	Flying W along shoreline in trees	A	50-100	S
11:51	American Robin	1	On distruction line; calling	A	0-50	E
11:52	European Starling	4	On distribution line	A	50-100	SW
11:53	Turkey Vulture	3	Soaring in distance	B-C	>1000	NE
11:54	Mourning Dove	2	Ondistribution	A	0-50	E
11:59	Ring-billed Gull	1	Flying W along shoreline	A	50-100	SW
12:05	Gray Catbird	1	Calling from trees	A	50-100	S
12:05	American Goldfinch	1	Flying N	A	0-50	S
12:06	Bald Eagle	1	Soaring along shoreline back and forth (~ 1min.)	A	100-200	SW
12:09	Canada GOose	5-10	Audible on lake	A	UNKNOWN	SSW

*Visit 3:* Date: October 15, 2009, Start Time = 10:26, End Time = 11:22

Conditions: 4°C, no precipitation, cloud cover = 100%, wind = 3-4, north-east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:26	Ring-billed Gull	6	Flying N	B	0-50	W
10:28	Ring-billed Gull	8	Moving along lakeshore and over field	B	200-500	W-NW
10:31	Ring-billed Gull	2	Moving W along lakeshore	B	100-200	W
10:33	Ring-billed Gull	8	Flying N	B	100-200	W
10:51	Ring-billed Gull	4	Flying E along lakeshore	A	50-100	S
10:54	Ring-billed Gull	6	Flying N	A-B	200-500	W
10:57	Ring-billed Gull	7	Flying N	A-B	200-500	W
11:00	Ring-billed Gull	7	Flying over field	B	500-1000	NW
11:04	Ring-billed Gull	8+4	Flying over field	B	500-1000	NW
11:07	Ring-billed Gull	9	Flying N over field	B	200-500	NW
11:09	American Crow	2	Flying W along lake	B	100-200	S
11:12	Unknown Waterfowl	2	Flying NW	B	500-1000	W
11:14	Ring-billed Gull	4	Flying N over field	B	200-500	W
11:18	Black-capped Chickadee	1	Calling from hedgerow	A	0-50	S
11:22	Ring-billed Gull	6	Flying S to lake	B	200-500	W

*Visit 4:* Skipped due to construction activity at survey location

*Visit 5:* Date: November 23, 2009, Start Time = 15:05, End Time = 15:58

Conditions: 6°C, cloud cover = 30%, wind = 3-4, north-east

Note: Cooling down, less activity; cool temperatures, hawks settling in forests moving out

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
15:18	American Goldfinch	1	Moving in trees	A	0-50	S
15:23	Ring-billed Gull	1	Flying W along shoreline	B	50-100	S

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
15:23	Note: approx. 100 Canada Goose and 100 waterfowl rafting on lake					
15:25	Ring-billed Gull	2	Flying NE	B-c	200-500	NW
15:29	Black-capped Chickadee	2	Calling from hedgerow	A	0-50	E
15:34	Ring-billed Gull	1	Flying NNW	B	0-50	E
15:52	Ring-billed Gull	1	Flying E along shoreline	A	50-100	S
15:58	Rough-legged Hawk	1	Flying S to lake	A	100-200	N

## 1.9 Vista Station VIFVS

*Visit 1:* Date: September 3, 2009, Start Time = 10:24, End Time = 11:14

Conditions: 21°C, no precipitation, cloud cover = 0%, visibility = clear, wind = 2, north

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:24	Turkey Vulture	6	Soaring over field	A-C	200-500	N
10:24	Turkey Vulture	1	Soaring over field	B	500-1000	S
10:36	Blackbird	40	Perched on T/L and in field	A	200-500	E
10:43	Turkey Vulture	3	Soaring over field	A-B	500-1000	N
10:44	Savannah Sparrow	1	Perched on fence	A	0-50	W
10:44	Savannah Sparrow	1	Perched on T/L	A	0-50	E
10:47	Turkey Vulture	5	Soaring over woodlot	B	> 1000	SE
10:52	European Starling	20	Flying S, foraging, remaining in air over field	A	0-50	OH
10:54	Blackbird	50-100	Generally constant movement around area	A-B	0-500	All directions
11:11	Turkey Vulture	14	Flying W	A-B-C	200-500	N
11:14	Mourning Dove	1	Perched on snag	A	50-100	N

*Visit 2:* Date: September 25, 2009, Start Time = 13:38, End Time = 14:36

Conditions: 17°C, no precipitation, cloud cover = 40%, visibility = clear, wind = 2-3, east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:58	American Crow	1	Calling	A	Unknown	N
13:58	American Goldfinch	1	Calling overhead	A	0-50	OH
14:01	Turkey Vulture	1	Soaring NE	B	0-50	N
14:05	Turkey Vulture	11	Soaring E	A-B	500-1000	N
14:07	Turkey Vulture	2	1 soaring over field, rising, moving slowly S, joining second	A-B	50-100	NW
14:09	Turkey Vulture	1	Soaring over field, moving S	B-C	200-500	NW
14:18	Killdeer	1	Calling	A	200-500	WNW
14:20	Turkey Vulture	1	Soaring over field	A	500-1000	ESE
14:21	Turkey Vulture	11	Soaring SE	B	> 1000	WSW
14:33	Red-tailed Hawk	1	Soaring over field	B-C	100-200	WSW
14:36	Turkey Vulture	1	Soaring over field	B-C	> 1000	SSW

*Visit 3: Date: October 15, 2009, Start Time = 12:47, End Time = 13:42*

Conditions: 6°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 4-5, north-east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
12:47	Turkey Vulture	3	Soaring over fields	A	100-200	W
12:50	Red-tailed Hawk	1	Soaring over fields	A-B	100-200	W
12:52	American Crow	1	Flying W	A	0-50	W
12:53	American Crow	1	Flying S	A	100-200	W
12:55	American Crow	1	Flying SSW	A	200-500	E
13:25	Red-tailed Hawk	1	Soaring over woodlot	B	500-1000	SSW
13:25	Red-tailed Hawk	11	Soaring over field	A	500-1000	SSW
13:27	Tree Swallow	10	Flying W among plants	A	0-50	S
13:29	European Starling	6	Flying W	A	0-50	S
13:30	Mourning Dove	1	Flying NNE	A	0-50	OH
13:32	Turkey Vulture	1	Flying W	A	50-100	S
13:33	Tree Swallow	6	Flying W along plants	A	0-50	S
13:33	Ring-billed Gull	1	Flying NNE	B	100-200	SSE
13:35	Turkey Vulture	1	Soaring over woodlot	A-B	500-1000	SSW
13:37	Turkey Vulture	2	Flying E	A	500-1000	SSW
13:37	Red-tailed Hawk	1	Perched on tree	A	500-1000	SSW
13:41	American Crow	2	Flying SE	A	200-500	S
13:42	Turkey Vulture	1	Flying S	B	0-50	OH

*Visit 4: Date: November 3, 2009, Start Time = 13:19, End Time = 14:15*

Conditions: 6°C, no precipitation, cloud cover = 100%, visibility = clear, wind = 3-4, north-east

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
13:31	American Crow	2	Flying SE	A	200-500	SW
13:32	Red-tailed Hawk	1	Flying NNW	B	200-500	WSW
13:38	Blackbird	200	Flying E	A	500-1000	S
13:38	Northern Harrier	1	Foraging over field	A	200-500	N
13:40	Blue Jay	1	Flying to hedgerow	A	100-200	NE
13:40	Northern Harrier	2	Foraging over field	A	100-200	S
13:42	Northern Harrier	1	flying NW (now 4 in total)	A-B	200-500	S
13:43	American Crow	4	Perched in tree	A	200-500	S
13:47	American Crow	17+4	Flying around field, moving NW	A	0-50	W
13:49	Blackbird	75	Flying NNW	A	50-100	W
13:50	Blackbird	100	Flying W	B	500-1000	S
13:55	American Crow	1	Perched in tree	A	50-100	E
14:04	Blackbird	200	Flying ESE	A	200-500	S
14:13	Blackbird	400	In cornfield	A	100-200	SE
14:15	Red-tailed Hawk	1	Harassing BLACKBIRD	A	500-1000	SE

Visit 5: Date: November 23, 2009, Start Time = 10:34, End Time = 11:33

Conditions: 6°C, no precipitation, cloud cover = none, visibility = clear, slight haze, wind = 2, south

Note: new met tower on north side of road

Time of Observation	Species	Number	Behaviour	Height Zone	Distance from Observer	Direction from Observer
10:59	American Crow	4	Flying S	A	0-50	E
11:01	Red-tailed Hawk	1	Soaring over field	A-B	500-1000	SE
11:07	Northern Harrier	1	Soaring E	C	200-500	E
11:07	American Crow	3	Flying back N	A	0-50	E
11:12	European Starling	1	Calling around house	A	50-100	W
11:14	European Starling	1	Flying N	A	100-200	W
11:33	American Redstart	2	Flying SSW	A	0-50	W

# Appendix F

## Samsung Area Searches – Fall 2009



## Fall Migration 2009

### 1. Site Visit 1 – August 27 to September 3, 2009

#### Evening (Aug. 27)

##### 1. Fisherville Road

American Crow, American Kestrel, Mourning Dove, Canada Goose (20)

##### 2. Lakeshore Road

Flocks on lake - Double-crested Cormorants, Herring Gull, Ring-billed Gull, Canada Goose

Bonaparte's Gull – scattered individual birds

Killdeer, Belted Kingfisher, 5 sandpipers

Morning (Aug. 28) – Start at 06:30, ~13°C, 100% cloud cover, Beaufort wind – 1, very light precipitation

##### 1. CR-20 (06:30)

American Crow (4), Mourning Dove (2), Horned Lark (15 in flock on field), Red-tailed Hawk

##### 2. Con. 5 Rd (07:04)

American Goldfinch (5), American Kestrel, Mourning Dove, European Starling (15)

##### 3. Con. 4 Rd.

Canada Goose (2), American Robin, Mourning Dove (15-20), American Crow (2), Killdeer (~10 in flock on lawn), Tree Swallow, Northern Mockingbird, Northern Flicker, Belted Kingfisher, American Godfinch

##### 4. Con. 3 Rd. (07:41)

Mourning Dove (50-100 on distribution line), Great Blue Heron (in creek), Purple Martin, European Starling (15), Northern Harrier (female), Turkey Vulture (2), Ring-billed Gull, American Crow (3)

##### 5. Bains Rd. (08:02)

Blackbirds (several in corn field), American Crow (7), American Kestrel, Cooper's Hawk (2), Mourning Dove (3), Northern Flicker, American Robin, Blue Jay (flock of 15), Wild Turkey (7; 3 adult, 4 juvenile)

##### 6. Meadows Rd. (08:31)

Gray Catbird, Red-tailed Hawk (3), Turkey Vulture, Blue Jay (4), Killdeer (15 on lawn), Northern Harrier, Cooper's Hawk

##### 7. River Rd. (08:46)

American Kestrel, American Crow (5), Wood Duck, Turkey Vulture

8. Lakeshore Rd. (09:20)

Northern Flicker, Killdeer (5), Double-crested Cormorant (2), Herring Gull/Ring-billed Gulls in scattered flocks, Bonaparte's Gull, Canada Goose (2)

Morning (con't. – Sept. 2) – Start @ 06:42, 9°C, 0% cloud cover, Beaufort wind - 0

9. CR-53

American Crow, Mourning Dove (10), Northern Harrier, Canada Goose

10. Fisherville Rd.

American Kestrel, Mallard (10 flying in circles over field), American Crow (10), Great Blue Heron, European Starling (15), Killdeer, Blackbirds (flock of 40)

11. Kohler Rd. (07:27)

Northern Harrier (Juv.), American Crow, Savannah Sparrow, Red-tailed Hawk

On lake – Killdeer, Gulls, Swallows, Northern Cardinal, Belted Kingfisher, Least Sandpiper, Long-billed Dowitcher

12. Sweets Corners Rd. (08:03)

Gulls (~12 flying N), Rock Pigeon, European Starling, House Sparrow

13. Richert Rd. (08:13)

Northern Harrier, Swallows, American Kestrel, European Starling (20), Mourning Dove (3)

14. CR-50 (08:25)

European Starling (10), American Robin (3), Red-tailed Hawk (2), Northern Harrier (2), European Starling (20), Canada Goose (flock of 70 flying SW), American Crow (3)

On lake – Killdeer, sandpipers (peeps), gulls, double-crested cormorants

15. S. Cayuga Rd. (08:49)

Wild Turkey (6), Red-tailed Hawk, American Crow (6)  
~200 Blackbirds in fields around Grand River

16. Haldimand Dunnville Townline (09:13)

Red-tailed Hawk (2)

17. CR-49 (09:25)

American Crow (3)

Woodlot search – Sept. 3, 10°C, 0% cloud cover, Beaufort Wind - 1

1. Woodlot at Meadows and Sutor (06:40 to 07:06)

Red-tailed Hawk, American Crow, Downy Woodpecker, Blue Jay, Black-capped Chickadee, American Goldfinch, Blackbirds

2. Meadows Wetland Woods (07:10 to 07:20)

Blue Jay (3), Red-breasted Nuthatch, American Robin, Ruby-throated Hummingbird, American Goldfinch (2), Gray Catbird

3. River Rd. (07:24 to 07:40)

Several flocks of ~20 blackbirds moving along river

American Goldfinch, American Robin, Blue Jay

4. Woodlot at South Cayuga and River Road (07:43)

Magnolia Warbler, Gray Catbird, House Wren, Cedar Waxwing, Downy Woodpecker, Warbler sp., Warbling Vireo, American Redstart

5. Bains Rd (Eastern End) (08:38)

Red-tailed Hawk, American Crow

Observed on lake – Lesser Yellowlegs, Least Sandpiper, Semipalmated Plover

2. Site Visit 2 – September 25 to October 1, 2009

Morning (Sept. 25) – Start at 07:10, 12°C, 10% cloud cover, Beaufort wind – 1

1. CR-49

American Crow (5), Blue Jay

2. Lakeshore Rd. (07:15)

Mourning Dove, Northern Cardinal, Black-capped Chickadee, European Starling (21), Bonaparte's Gulls (30), Canada Goose (230), Gulls (200), Killdeer (25), American Robin, Great Blue Heron (3), Caspian Tern, Common Merganser (10), Belted Kingfisher (2), Greater Yellowlegs (2), Mallard (20)

3. Con. 3 Rd. (08:36)

Mourning Dove (18), Blackbird (220 in several flocks), Blue Jay, Killdeer, American Robin, American Crow (3), Red-tailed Hawk, Eastern Meadowlark, Turkey Vulture (7), Killdeer (3)

4. Bains Rd. (08:51)

Blackbird (70 in 2 flocks), American Crow (3), Turkey Vulture (2)

5. CR-20 (09:11) – weather now 60% cloud cover and Beaufort Wind – 3  
Blackbird (199 in several flocks), Mourning Dove (8), American Crow (4), Turkey  
Vulture (3), Cooper’s Hawk, Red-tailed Hawk

6. Con. 6 Rd. (09:30)  
American Kestrel (2), Turkey Vulture (9), Blackbirds (68 in several flocks),  
American Crow (2), Mourning Dove (3), Northern Harrier

7. Con. 5 Rd. (09:40)  
Mourning Dove (3), Blackbird (20), Turkey Vulture (2), Red-tailed Hawk (2)

8. Con. 4 Rd. (09:55)  
Blackbirds (66), Sparrows (4), Red-tailed Hawk, American Crow (2), Turkey Vulture  
(2), American Kestrel, Blackbirds (60)

9. Meadows Rd. (10:20)  
American Crow (3), Cooper’s Hawk, American Goldfinch, Blue Jay, American Robin  
(10), Savannah Sparrow, Mourning Dove

10. River Rd. (10:30)  
American Crow, Mourning Dove (3), European Starling (108), Blackbird (100),  
American Goldfinch, Field Sparrow, Downy Woodpecker, Northern Harrier (2),  
American Crow (4)

Morning (con’t., Sept. 30) – Start at 06:54, 7°C, 90% cloud cover, Beaufort Wind – 2/3

11. CR-49  
Savannah Sparrow, Blackbird (3)

12. Haldimand-Dunnville Townline (07:06)  
Canada Goose (14), American Crow (7), Mourning Dove (2), Canada Goose (3)

13. S. Cayuga Rd. (07:26)  
Blackbirds (125 in several flocks), Northern Cardinal, Mourning Dove (15), Canada  
Goose (62), Savannah Sparrow, House Sparrow, Double-crested Cormorant, Great  
Blue Heron, American Kestrel, Greater Black-backed Gull, Ring-billed Gull,  
Common Goldeneye (8)

14. CR-50 (07:58)  
Mourning Dove (3), Blackbirds (19), American Crow (2), American Kestrel, Sandhill  
Crane (3), Canada Goose (10), Red-tailed Hawk

15. Sutor Rd. (08:17)  
Mourning Dove (2), American Crow (2), Blackbirds (80 in 2 flocks)

16. Richert Rd. (08:25)

Ring-billed Gull, Northern Harrier, Eastern kingbird, Red-tailed Hawk (2), Swallows (60 over field)

17. Wilson Rd. (08:35)

Canada Goose (42), Northern Harrier, Blackbird (50, then 200 flying from tree to tree)

18. Sweets Corners Rd. (08:44)

Northern Harrier, American Kestrel, Tree Swallow, Mourning Dove (3), Blackbirds (42 in several small flocks)

On lake – Double-crested Cormorant (40), Killdeer (5), Canada Goose (27), Greater Yellowlegs, Bonaparte's Gull (50), Mallard (15), Common Merganser

19. Kohler Rd. (09:02)

Blackbirds (88 in several small flocks), Mourning Dove (18), Swallows (40), Canada Goose (2)

20. Fisherville Rd (09:20)

Blackbirds (45), American Crow (4), Mourning Dove (2), American Kestrel

On lakeshore – Blue Jay (8), Gulls (10), Northern Flicker (2), American Kestrel

21. CR-53 (09:37)

Blackbirds (15), Swallows (60), Mourning Dove (2), Turkey Vulture (7)

Evening (Sept. 30) – start at 17:13, 12°C, 80% cloud cover, Beaufort Wind – 3/4

1. Con. 6 Rd

Northern Harrier, Canada Goose (~200 in field), Blackbirds (14), Mourning Dove (3), American Robin (2), American Kestrel, Red-tailed Hawk

2. CR-20 (17:28)

Red-tailed Hawk (2), Northern Harrier (3), Turkey Vulture, American Kestrel, Mourning Dove, Blackbirds (~1000 near Reicheld, plus 265 elsewhere), Barred Owl

3. River Rd. (17:58)

House Sparrow, American Crow (3), Blackbirds (~1500; ~1000 of those around marsh on Grand River), Blue Jay, Horned Lark (20), Mourning Dove (8)

4. Con. 4 Rd. (18:27)

Mourning Dove (58), Sparrows (15)

5. Lakeshore Rd.

Ring-billed Gull, several flocks of gulls rafting on lake (~100), U? waterfowl, Mallard (3), Common Goldeneye (Pair), Mourning Dove, Canada Goose

Woodland Search (Oct. 1) – Start at 07:00, 5°C, 70% cloud cover, Beaufort Wind – 1

1. Disciples Conference Ground

Blue Jay, Canada Goose

2. Woodland on South Cayuga Rd

Sharp-shinned Hawk, Blue Jay

3. Woodland on Bains and Haldimand-Dunnville Townline

Canada Goose (50), Yellow-rumped Warbler (2), Song Sparrow, Black-capped Chickadee (4), White-throated Sparrow (3), Blue Jay (2), Downy Woodpecker

4. Woodland between S. Cayuga and CR-50 (08:26 to 08:59)

Northern Flicker (3), Blue Jay, Cooper's Hawk

5. Woodland at Meadows and Wilson (09:20)

Blue Jay (3), American Goldfinch

6. Woods around wetland on Meadows (09:40)

American Robin, Red-tailed Hawk, White-throated sparrow (10-15), Warbling Vireo (Pair), American Crow, Wild Turkey (4)

7. Woods at S. Cayuga and River Rd. (10:06)

Mixed flock of 10-15 American Robin, Blue Jay, and Gray Catbird  
Song Sparrow, Yellow-bellied Sapsucker, Northern Flicker, Hairy Woodpecker,  
Golden-crowned Kinglet, Yellow-rumped Warbler, Cedar Waxwing

3. Site Visit 3 –October 14 to 17, 2009

Morning (Oct. 14) – Start at 07:17, 0°C, 40% cloud cover, Beaufort wind – 1

1. Bains Rd.

Dark-eyed Junco (2), American Crow, European Starling (12), Red-tailed Hawk (2),  
Canada Goose (12)

2. Con. 3 Rd. (07:40)

Red-tailed Hawk (3), Horned Lark, Mourning Dove (28), European Starling (157 in  
several flocks), Canada Goose (4), American Crow (4), Eastern Meadowlark,  
Blackbirds (50), Rock Pigeon (2)

3. Lakeshore Rd. (08:09)

American Kestrel, Ring-billed Gull (11), Great Blue Heron, Bonaparte's Gull (flocks  
of 100, 30, 40, 70), Horned Grebe (4), Canada Goose (flocks of 100, 100, 44, 20, 20,  
100, 20), Double-crested Cormorant (17), Ring-necked Duck (104), Mergansers –  
55, Bald Eagle, Gulls (flocks of 60, 40, 100, 50, 60, 50, and 40), Willet,  
Semipalmated Plover (2), Blue-winged Teal, Common Loon (3), Killdeer (4)

4. CR-20 (09:20)

European Starling (145), Mourning Dove (16), American Crow (10), American Goldfinch (10), Blue Jay, Northern Harrier, American Robin, Turkey Vulture (10)

5. Con. 6 Rd. (09:38)

Turkey Vulture (10), American Robin, American Goldfinch (10), American Crow (3), American Kestrel (2), Northern Harrier, European Starling (2), Mourning Dove (2)

6. Con. 5 Rd (09:48)

American Kestrel, Northern Harrier

7. River Rd. (10:01)

Ring-billed Gull (2), Blackbird (10), Mourning Dove (2), American Crow (3), American Kestrel, Blue Jay, Red-tailed Hawk (2)

Evening (Oct. 14) – Start at 16:45, 6°C, 70% cloud cover, Beaufort wind – 3

1. Bains Rd.

American Crow, White-breasted Nuthatch, Dark-eyed Junco, European Starling (50), American Robin (10)

2. Con. 3 Rd. (17:04)

Killdeer, Blackbird (50), European Starling (6), Mourning Dove (11), American Crow (10), Northern Harrier, Wild Turkey (2), Red-tailed Hawk (2), American kestrel (2), American Goldfinch (6), Ring-billed Gull (6)

3. Con. 4 Rd. (17:28)

Mourning Dove (19), American Goldfinch (2), Northern Harrier, Blackbirds (27)

4. River Rd. (17:47)

American Kestrel, Mourning Dove (16), Blackbird (322), American Robin (21), Blue Jay

5. Lakeshore Rd. (18:14)

Canada Goose (50 flying N, 115 on lake), American Robin, Gulls (flocks of 200, 40, 50, 50, 100), Mallard (4), Great Blue Heron

Morning con't. (Oct. 15) – Start at 07:07, 3°C, 100% cloud cover

1. CR-53

Killdeer, American Robin (2)

2. Fisherville Rd. (07:25)

Blackbird (10), Red-tailed Hawk (2), American Crow (5), European Starling, Northern Harrier

3. Kohler Rd. (07:45)

Red-tailed Hawk, European Starling (18), Ring-billed Gull (2), American Kestrel, Swallows (20), American Crow (5), Northern Harrier

On lake – Gulls (30), Ring-billed Gull, Hermit Thrush, Greater Yellowlegs

4. Sweets Corners Rd. (08:11)

Northern Harrier (3), Mourning Dove, European Starling (5), American Crow

5. Mt. Olivet/Richert (08:20)

Ring-billed Gull (7), European Starling (12), Rock Pigeon (10), Northern Harrier (2)

6. Wilson Rd. (08:33)

Wild Turkey (20), American Kestrel, Ring-billed Gull (9), American Crow, European Starling (5)

7. Sutor (08:36)

European Starling (15), Mourning Dove (3), American Crow, Blue Jay

8. CR-50 (08:48)

American Crow (6), American Robin, Black-capped Chickadee (3), American Goldfinch (2), Mourning Dove, Turkey Vulture (2), European Starling (4)

9. S. Cayuga Rd. (09:07)

Turkey Vulture (2), Blue Jay, European Starling (22), Eastern Meadowlark, Mourning Dove (2), Blackbird (20), American Kestrel, American Crow (7), American Goldfinch (40)

10. Haldimand-Dunnville Townline (09:24)

Canada Goose (50), Ring-billed Gull (220), Horned Lark (5), Blackbird (300), Mourning Dove (2)

11. CR-49 (09:40)

Black-capped Chickadee (4)

4. Site Visit 4 – November 3-4, 2009

Morning (Nov. 3) – Start at 06:33, 6°C, 0% cloud cover, Beaufort wind – 0

1. CR-53

Red-tailed Hawk, House Sparrow,

On lake – Bufflehead (50), Ring-necked Duck (30), Gulls, Mallard (10), Canada Goose (6), American Crow (15)

2. CR-12 (06:59)

Blackbird (320 moving about corn fields), Mourning Dove (3), Gulls (100 flying N), Red-tailed Hawk, American Kestrel, Mourning Dove, Canada Goose (33), Mallard (30), Blue Jay

3. Kohler Rd. (07:24)

European Starling (26), American Kestrel (2), Dark-eyed Junco (5)

On lake – Blackbird (103), Mixed flock of 60 Ring-necked Duck/Bufflehead, Red-breasted Merganser (2), Canada Goose (21), Mergansers (12), Horned Grebes (6), Bonaparte's Gull (10), Common Merganser (3)

4. Sweets Corners Rd. (07:53)

Northern Harrier, Wild Turkey (4), Blackbirds (50), Gulls (50), Rock Pigeon (15)

5. Richert Rd. (08:05)

Rock Pigeon (20), Blackbird (5)

6. Wilson Rd. (08:10)

Red-tailed Hawk, Red-bellied Woodpecker, European Starling (5), American Robin

7. Sutor Rd. (08:17)

Red-tailed Hawk, American Crow (5)

8. CR-50 (08:26)

Red-tailed Hawk, American Crow (3), Northern Harrier

On lake – Common Goldeneye, Mergansers, Bufflehead, Canada Goose in bay  
Great Blue Heron

9. S. Cayuga Rd. (08:45)

American Crow (8), Dark-eyed Junco, European Starling (6), Rock Pigeon (6), Blackbird (7), Blue Jay (2), Northern Cardinal

10. Haldimand-Dunnville Townline Rd. (09:02)

Red-tailed Hawk, Northern Harrier (2), Blue Jay, Gulls (50 following tractor ploughing field)

11. CR-49 (09:15)

Gulls (200 over field), American Crow (2), Red-tailed Hawk

Morning (Nov. 4) – Start at 06:38, 2°C, 70% cloud cover

1. CR-20

Red-tailed Hawk (6), American Crow (2), Blackbird (14 + ~1000 flying W), European Starling (62 in small flocks; 200 in one flock at Mt. Olivet), Canada Goose, Wild Turkey (25)

2. Con. 6 Rd. (07:11)

Red-tailed Hawk (4), Blackbird (57), American Crow (6), Mallard (5), American Goldfinch (2), European Starling (2), Dark-eyed Junco, Mourning Dove (2)

3. Con. 5 Rd. (07:27)

American Crow (4), Blackbird (20), Gulls (30), European Starling (5), Mourning Dove

4. Con. 4 Rd. (07:41)

European Starling (30), Rock Pigeon (15), Gulls (50), Red-tailed Hawk (3), American Kestrel, American Crow (3), Chipping Sparrow (4), Dark-eyed Junco (3), Mourning Dove, Blue Jay (2)

5. Con. 3 Rd. (08:03)

European Starling (28), Gulls (180 in fields, 3 flying overhead), American Crow (7), Rock Pigeon (2), American Goldfinch (2), Mourning Dove (2)

6. Bains Rd. (08:20)

Red-tailed Hawk (5), Blue Jay (2), Northern Harrier, American Goldfinch (2), Mourning Dove (4), Dark-eyed Junco (6), American Crow, Savannah Sparrow (4), Blackbird (5)

7. Lakeshore Rd. (08:43)

@ 2837 - Canada Goose (100)

Mergansers and Bufflehead – scattered along lakeshore  
Blue Jay

@2537 – in bay – Bonaparte's Gull (10), Ring-billed Gull, Bufflehead (6)  
Greater Yellowlegs, Carolina Wren

@Austin's Park – Bufflehead (20), Horned Grebe (5), Common Loon

@2069 - ~100 waterfowl, primarily Ring-necked Duck with Bufflehead and mergansers

@Disciples Conference Ground – 30 Bonaparte's Gull

@Sweets Corners Rd. – 7 Bufflehead

Bald Eagle

@1445 – 100 Canada Goose, 5 Mallard, 3 Horned Grebe, 20 Bufflehead

@1357 to 1273– 90 Bonaparte's Gull

@1219 – 500 unidentified waterfowl in lake

@885 – 200 Bonaparte's Gulls and 50 Mergansers. Mixed flock of 300 waterfowl; primarily Ring-necked Duck, Redhead, Bufflehead, and scaup. Plus 22 Tundra Swans

@171 – Horned Grebe (3), flock of 60 Ring-necked duck/scaup/Bufflehead

8. Meadows Rd. (10:08)

American Crow (7), Sharp-shinned Hawk, Red-tailed Hawk (3), Blue Jay, American Goldfinch (3), Dark-eyed Junco (4)

9. River Rd. (10:22)

Red-tailed Hawk (2), American Kestrel, Downy Woodpecker, Yellow-rumped Warbler, Chipping Sparrow, Dark-eyed Junco, Blue Jay, Blackbird (15), Northern Harrier, American Crow (2), Rock Pigeon, Mourning Dove (2), Cooper's Hawk

#### 5. Site Visit 5 – November 17-24, 2009

Morning (Nov. 17) – Start at 06:55, 2°C, 0% cloud cover, frost on ground, Beaufort Wind - 3

1. Bains Rd. (06:55)

Song Sparrow (2), European Starling (3), Northern Harrier, Blackbird (100), Red-tailed Hawk, European Starling (9)

2. Con. 3 Rd. (07:16)

American Crow (2), Red-tailed Hawk (3), European Starling (52 in several small flocks), Ring-billed Gull (30 flying N), American Kestrel

3. Con. 6 Rd. (07:40)

Red-tailed Hawk (3), Northern Harrier, American Kestrel (2), American Crow, Ring-billed Gull (5), European Starling (26), Blue Jay

4. CR-20 (07:54)

American Crow (2), Ring-billed Gull (8), Canada Goose, European Starling (34), Mourning Dove (3), Cooper's Hawk (2), Northern Harrier, Blackbird (30), American Crow (2), Red-tailed Hawk

5. Lakeshore Rd. (08:24)

Between CR-49 and S. Cayuga Rd. - Ring-billed Gull (20), Bonaparte's Gull (30), Bufflehead (2)

Between S. Cayuga and Yaremy – Glaucous Gull, Ring-billed Gull (37), Canada Goose (15)

Between Yaremy and Sweets Corners Rd.

Bufflehead (16), Ring-billed Gull (6), Mallard (31), Gulls (40 – mixed flock of Ring-billed and Bonaparte's Gull), Common Merganser

Between Sweets Corners Rd. and Kohler Rd.

House Sparrow (2), Ring-billed Gull (12), Canada Goose (140 in 3 flocks on water), Bufflehead (2), Herring Gull (6), Mergansers (3), Bufflehead (2), Ring-billed Gull (6)

Between Kohler Rd. and Fisherville Rd.

Blue Jay, European Starling (10), Ring-billed Gull (15), Tundra Swan (28), Bufflehead (15), Scaup (10), Canada Goose (30)

Between Fisherville Rd. and CR-53

Bonaparte's Gull (20), Bufflehead (2), scaup (150), Canada Goose (30)

6. Con. 4 Rd. (09:34)

American Crow (4), Blue Jay (2), European Starling (24), Red-tailed Hawk, Blackbirds (20), Rock Pigeon (2)

7. Con. 5 Rd. (09:53)

Rough-legged Hawk, European Starling (7), Mourning Dove (3)

8. Meadows Rd. (10:16)

American Crow, Red-tailed Hawk, Northern Harrier (2)

9. River Rd. (10:23)

American Goldfinch (6), American Kestrel, American Crow (7), Blue Jay, Ring-billed Gull (3)

Morning con't. (Nov. 24) – Start at 07:01, 2°C, 0% cloud cover, Beaufort Wind - 2

1. CR-49

No sightings

2. Haldimand-Dunnville Townline Rd. (07:13)

Red-tailed Hawk (3), Cooper's Hawk, American Crow, European Starling, Blue Jay

3. S. Cayuga Rd. (07:35)

Canada Goose (15), European Starling (19), Mourning Dove (6), American Crow (7), Dark-eyed Junco, Red-tailed Hawk (3), Red-bellied Woodpecker, Blue Jay (2), Ring-billed Gull (3)

On lakeshore – Mergansers (30), Bufflehead (15), Ring-billed Gull (15), Bonaparte's Gull (20)

4. CR-50 (08:00)

European Starling (4), American Crow (4), Red-tailed Hawk (5), Ring-billed Gull (100), Blackbird (30),

5. Sutor Rd. (08:19)

American Crow (4), Song Sparrow

6. Wilson Rd. (08:27)

No sightings

7. Richert Rd. (08:31)

Red-tailed Hawk (3), American Kestrel (2), Blackbird (80), Rough-legged Hawk, Rock Pigeon (2)

8. Sweets Corners Rd. (08:41)

Rock Pigeon (15), Song Sparrow, Ring-billed Gulls (250), European Starling (6), Northern Harrier, White-breasted Nuthatch

9. Kohler Rd. (08:59)

European Starling (2), Red-tailed Hawk (3), American Crow (7)

10. Fisherville Rd. (09:19)

American Goldfinch, European Starling, Blue Jay, American Crow

On lake – raft of ~100 scaup on lake

11. CR-53

American Crow (3), Red-tailed Hawk, European Starling (30), Cooper's Hawk



## **Appendix G**

### **Samsung Area Searches – Winter 2009 and 2010**



Over-Winter Monitoring 2009/2010

1. Site Visit 1 – December 21, 2009

Start at 9:25, 100% cloud cover, -2°C

1. CR-53

American Crow, European Starling (3), American Kestrel, Mourning Dove (3), House Sparrow (30), American Goldfinch

On lake

Mallard (20), American Wigeon, Bufflehead (7), Common Goldeneye (3), Northern Pintail, Merganser (10), Canada Goose (30)

2. Fisherville Rd. (09:48)

American Kestrel (2), American Crow (2), Red-tailed Hawk, European Starling (13), Rock Pigeon (7)

3. Kohler Rd. (10:07)

Red-tailed Hawk, Rough-legged Hawk, European Starling (3), American Crow (3)

On lake – Canada Goose (130), Bonaparte`s Gull (10)

4. Sweets Corners Rd. (10:36)

European Starling (30), House Sparrow (10), Red-tailed Hawk

5. Richert Rd. (10:48)

American Kestrel, American Crow (5 in field)

6. Wilson Rd. (10:51)

Red-tailed Hawk (2), American Crow (2)

7. Sutor Rd. (10:58)

Red-tailed Hawk (2)

8. Yaremy Rd. (11:05)

American Crow (8), Northern Harrier

On lake – 350 Canada Goose, Cooper`s Hawk

9. S. Cayuga Rd. (11:23)

Red-tailed Hawk (eating rodent), Mourning Dove (3), Northern Shrike, Red-tailed Hawk, Canada Goose (14, flying S), Red-tailed Hawk, Blue Jay, American Goldfinch

10. Haldimand-Dunnville Townline (11:41)

Rock Pigeon (18), American Crow (5), European Starling (10), American Crow,  
American Goldfinch, Red-tailed Hawk

11. CR-49 (11:55)

No sightings

After noon – 100% cloud cover, B2-3, 1°C

12. Sand Bay Rd. (12:41)

Red-tailed Hawk

13. Lakeshore Rd. (12:54)

~300 waterfowl scaup and redhead @ 2807 Lakeshore

Bufflehead (7), Canada Goose (4)

@2533 – Flock of ~50 Mallards and ~100 Canada Goose

@2383 – Flock of ~200 Canada Goose, Mallard (10), Bufflehead (2)

RTHA (3), European Starling (20), Blue Jay, American Crow (3)

@Baker St. – Flock of 350 Canada Goose and Mallard (10)

14. Con. 3 Rd. (13:49)

Northern Harrier, American Kestrel, Rock Pigeon (4), Mourning Dove, European  
Starling (72), Red-tailed Hawk

15. Bains Rd. (14:03)

Red-tailed Hawk (3), American Crow (6), Rough-legged Hawk

16. CR-20 (14:19)

Mourning Dove (3), American Crow

17. Con. 6 Rd. (14:41)

No sightings

18. Con. 5 Rd. (14:51)

No sightings

19. Meadows Road (15:04)

Red-tailed Hawk (4)

20. River Rd. (15:16)

Red-tailed Hawk, Cooper's Hawk

## 2. Site Visit 2 – February 4, 2010

Start at 8:30, 10% cloud cover, -5°C, B1, light snow cover on fields

### 1. Con. 6 Rd.

American Crow (5; 4 perched in hedgerow), Mourning Dove (4), European Starling (27), Red-tailed Hawk, Unknown raptor, Blue Jay

### 2. CR-20 (08:49)

Rock Pigeon (4 on barn), European Starling (11), American Crow (flying low over field), Red-tailed Hawk (2), Mourning Dove (5)

### 3. Bains Rd. (09:17)

Northern Cardinal in hedgerow, American Crow, European Starling

### 4. Con. 3 Rd. (09:35)

European Starling (32), Cooper's Hawk, Red-tailed Hawk, American Crow (1 flying East), White-breasted Nuthatch

### 5. Con. 4 Rd (10:05)

American Crow (5), European Starling (17), American Goldfinch (15), Red-tailed Hawk (2), Blackbird (20), Mourning Dove (2), American Crow (10), Horned Lark (2)

### 6. Con. 5 Rd. (10:33)

Red-tailed Hawk (2), American Crow, European Starling (20), Mourning Dove, Black-capped Chickadee

### 7. Lakeshore Rd. (10:58)

Large ice floe on lake with some channelling present; waterfowl in these open areas.

@171 Lakeshore - ~60 gees @ edge of ice; flock of 20-30 scaup

MODO

@857 - ~100 Canada Goose, 10 Tundra Swans, 10-20 diving ducks

@1100 - ~200-300 waterfowl in bay, Canada Goose, 3 Tundra Swans

@1633 – 4 Canada Goose, 4 Mallard, Bufflehead on watercourse

@1684 – Bufflehead on water, 200 Canada Goose

House Sparrow (3), Red-tailed Hawk

@Austin's Park - ~200 Canada Goose, 2 Tundra Swans, 2 scaup

@2441 – 75 Canada Goose

American Crow (4), Red-tailed Hawk, Blue Jay (2)

### 8. CR-49 (12:00)

American Crow (6), American Kestrel

9. River Rd. (12:12)

Red-tailed Hawk, House Sparrow (7), European Starling, American Crow (4), Black-capped Chickadee, American Crow (4), European Starling (3), American Kestrel

10. Richert Rd. (12:39)

American Crow (3), European Starling (24), American Kestrel

11. Mt. Olivet/Meadows Rd. (12:43)

Red-tailed Hawk, American Crow (6), Rough-legged Hawk, European Starling (30), Rock Pigeon (27), Mourning Dove (4)

Morning over at 12:55; Afternoon survey begins at 13:58 – Beaufort Wind -2 to 3, ~-2°C, ~50-100% cloud cover

12. Kings Row Road (13:58)

~50 European Starling in field S of road

13. Haldimand-Dunnville Townline (14:15)

European Starling (45), Red-tailed Hawk (5), Dark-eyed Junco, American Tree Sparrow, American Crow (4), Northern Harrier, American Crow (2)

14. S. Cayuga Rd. (14:43)

American Crow (5), European Starling, Northern Shrike

15. CR-50/Yaremy (15:09)

American Kestrel, Red-tailed Hawk, Wild Turkey (35 on field)

16. Sutor Rd. (15:35)

Red-tailed Hawk, American Crow (6), House Sparrow (7), American Tree Sparrow (3)

17. Wilson Rd. (15:49)

Red-tailed Hawk

18. Sweets Corners Rd. (16:00)

European Starling (215), 30-40 Bufflehead observed along lakeshore

19. Kohler Rd. (16:23)

Northern Harrier, Red-tailed Hawk (2), Horned Lark (2), Wild Turkey (10)

20. CR-12 (16:46)

European Starling (30) – in trees in Fisherville

21. CR-53 (17:06)

Red-tailed Hawk (4), Downy Woodpecker, Ring-billed Gull, Rock Pigeon (6), European Starling (50), American Kestrel (with vole)

### 3. Site Visit 3 – February 25, 2010

Start at 7:54, 100% cloud cover, -5°C, B2, light snow

#### 1. CR-49

Horned Lark (21), American Crow, American Kestrel, Northern Harrier, American Tree Sparrow (3)

#### 2. Lakeshore (08:02)

Blue Jay, American Kestrel

@2894 - ~120 Canada Goose in field, with more arriving; ~100 along ice edge on the lake

Mallard (6), scaup (10), Common Merganser (11), Greater Black-backed Gull (3), Ring-billed Gull (3), Bonaparte's Gull, Common Goldeneye (2), Bufflehead (3)  
@2500 - ~60 Canada Goose

@Austin's Park – 14 Red-breasted mergansers, 8 Common Mergansers, 15 Canada Goose

@2069 – 29 Common Merganser, 2 Common Goldeneye, 20 Canada Goose

@ Baker St. – 70 Canada Goose

@ Sweets Corner Rd – 10 Redhead, 70 Canada Goose

Horned Lark, Mallard (5)

@1485 – Merganser (20)

@1437 – Scaup (60), Canada Goose (30)

@Reicheld – 20 Common Merganser

#### 3. CR-20 (09:26)

American Crow (16), Canada Goose (38), Horned Lark (24), Downy Woodpecker, American Tree Sparrow, Red-bellied Woodpecker, Red-tailed Hawk

#### 4. Con. 6 Rd. (10:01)

American Crow (5), Horned Lark (5), Dark-eyed Junco, Canada Goose (2)

#### 5. Con 5 Rd. (10:16)

American Tree Sparrow (5), Horned Lark (5), American Crow, European Starling (30)

#### 6. Con 4 Rd. (10:35)

American Crow (2), Rough-legged Hawk (2), American Tree Sparrow (4), Horned Lark (18), American Crow (8)

7. Richert Rd. (11:08)

Horned Lark (3), Snow Bunting (15), Rough-legged Hawk, Red-tailed Hawk (2)

8. River Rd. (11:16)

Northern Shrike, American Crow (3), Rough-legged Hawk, Red-tailed Hawk

9. Meadows Road (11:49)

American Crow (5), European Starling (30), Horned Lark

10. Mt. Olivet Road (11:59)

Red-tailed Hawk

11. Bains Rd. (12:02)

European Starling (15), American Crow (2), American Tree Sparrow (8), Red-tailed Hawk, Rough-legged Hawk (2), Horned Lark (6)

End morning session at 12:25; Afternoon session starts at 12:43

12. Con. 3 Rd.

American Crow (9), Horned Lark (55), Rock Pigeon (6), Red-tailed Hawk (3), European Starling (2), Dark-eyed Junco (2)

13. Lakeshore Rd to Kohler (13:07)

Bufflehead (30), Mallard (25), Canada Goose (300), American Crow (4), Rough-legged Hawk, American Black Duck, American Goldfinch (10), Redhead (5), Ring-billed Gull (3), Tundra Swan (3), Mergansers (6), Common Goldeneye (9), Common Merganser (4), American Tree Sparrow

@643 – 12 Tundra Swan

@827 – 20 Canada Goose

@2441 – 2<sup>nd</sup> yr. Bald Eagle

@Haldimand-Dunnville Townline - ~500 Canada Goose in field

14. Haldimand-Dunnville Townline (13:52)

European Starling (20), Horned Lark (18), Rough-legged Hawk, Red-tailed Hawk

15. S. Cayuga Rd. (14:13)

American Crow (9), Horned Lark (7), Snow Bunting, Red-tailed Hawk, European Starling (20)

16. CR-50 (14:31)

American Kestrel, Red-tailed Hawk (2), Horned lark (15), American Crow (2), Red-tailed Hawk (2)

17. Sutor Rd. (14:52)

Red-tailed Hawk (2), American Crow (7), Sparrows (3), Northern Cardinal, American Tree Sparrow (4), Horned Lark (20), American Goldfinch (10)

18. Wilson Rd. (15:04)

Rock Pigeon (15)

19. Sweets Corners Rd.

Red-tailed Hawk, Rock Pigeon, Horned Lark (25), Snow Bunting (12)

20. Kohler Rd. (15:25)

European Starling (13), Horned lark (33), American Kestrel, Red-tailed Hawk, Northern Harrier

21. CR-12 (15:45)

European Starling (3), Rock Pigeon (6), Snow Bunting/Horned Lark (mixed flock of 40), Horned Lark (32), Dark-eyed Junco, American Crow (2)

22. Selkirk Line (16:06)

No sightings, end at 16:30/



# Appendix H

## Field Notes



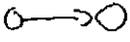
## H1 – Point Count Raw Data



## Point Count Data Form

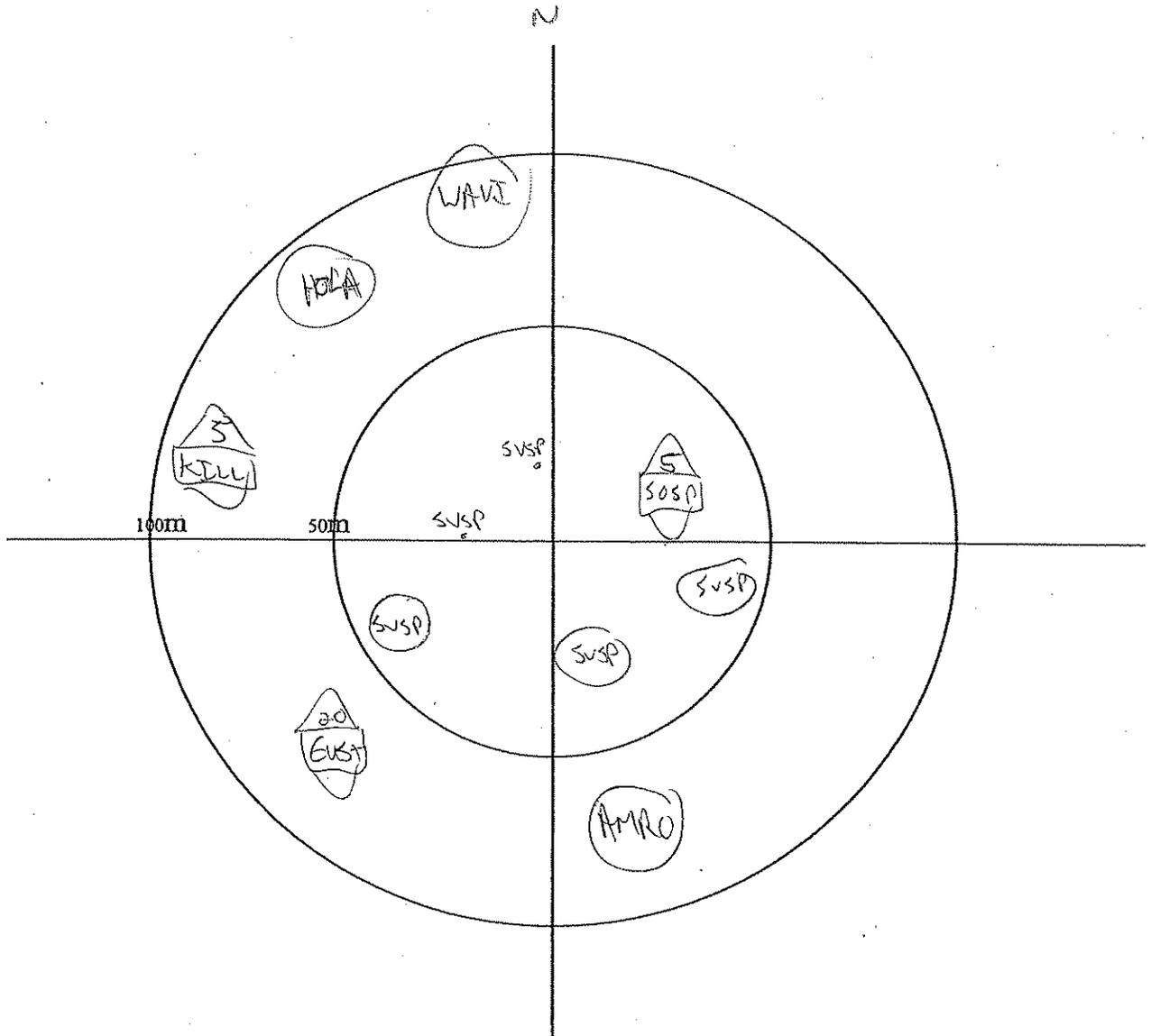
Observer:	Site:	Date:
Station ID: <u>IN05</u>	Visit #:	Start Time (HH:MM): <u>08:10</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
-  Single bird, singing/calling
  -  →  Diff. birds of same sp.
  -  Pair together
  -  Family group
  -  Obs., but not calling/singing
  -  known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
KILL
MOBO
AMGO - 4



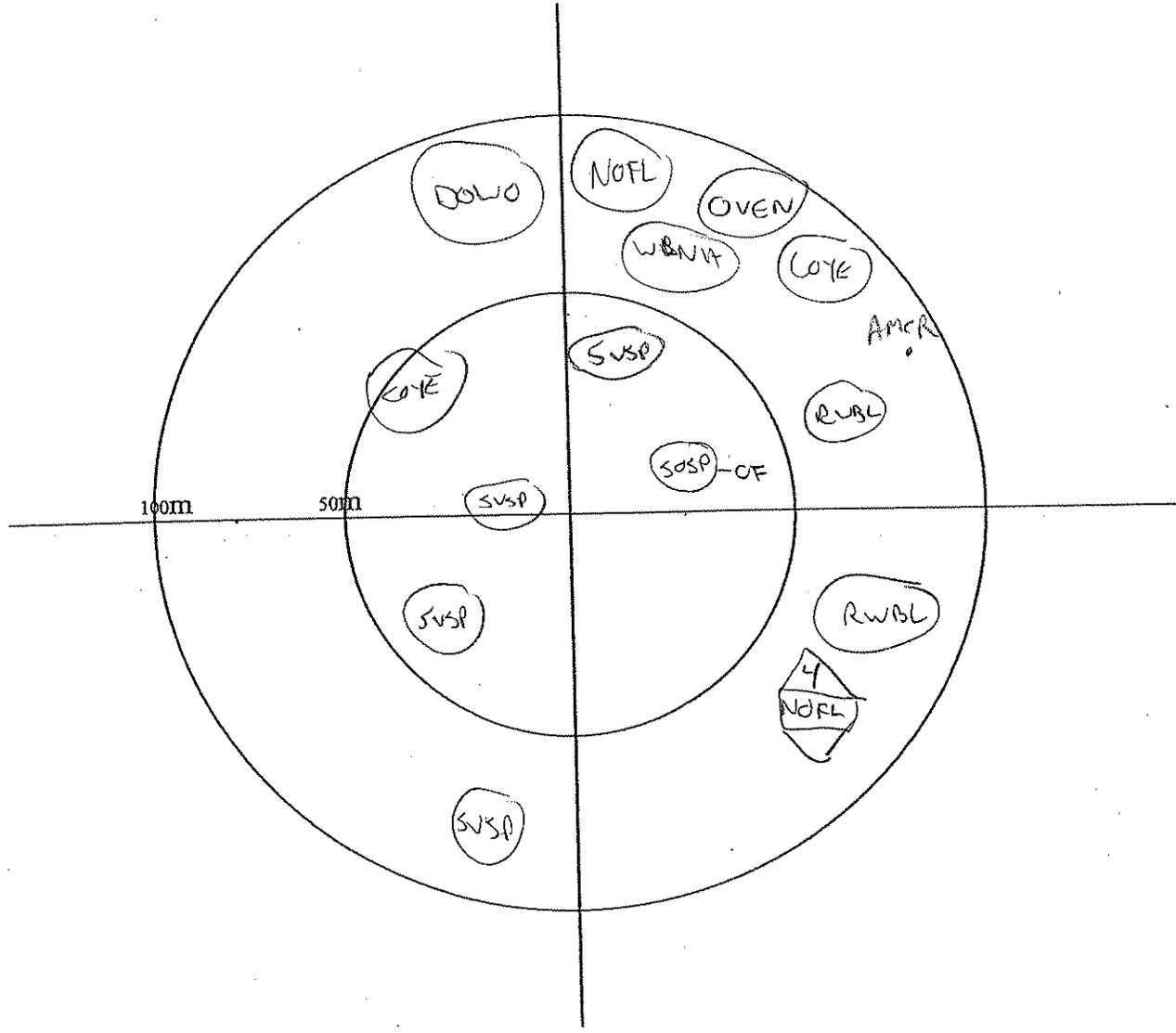
**Point Count Data Form**

Observer: <u>SKM</u>	Site: <u>SAMSUNG</u>	Date: <u>Jun 26/09</u>
Station ID: <u>FNO3</u>	Visit #: <u>SUM02</u>	Start Time (HH:MM): <u>07:56</u>
Beaufort Wind Scale: <u>B1</u>	Cloud Cover (%): <u>25</u>	Temperature (°C): <u>20</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position
- Height**
- 1- BTH
  - 2- close to TH
  - 3- VBS
  - 4- WABS

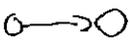
Outside/Flythru
<u>BLJA</u>
<u>COGR</u>



**Point Count Data Form**

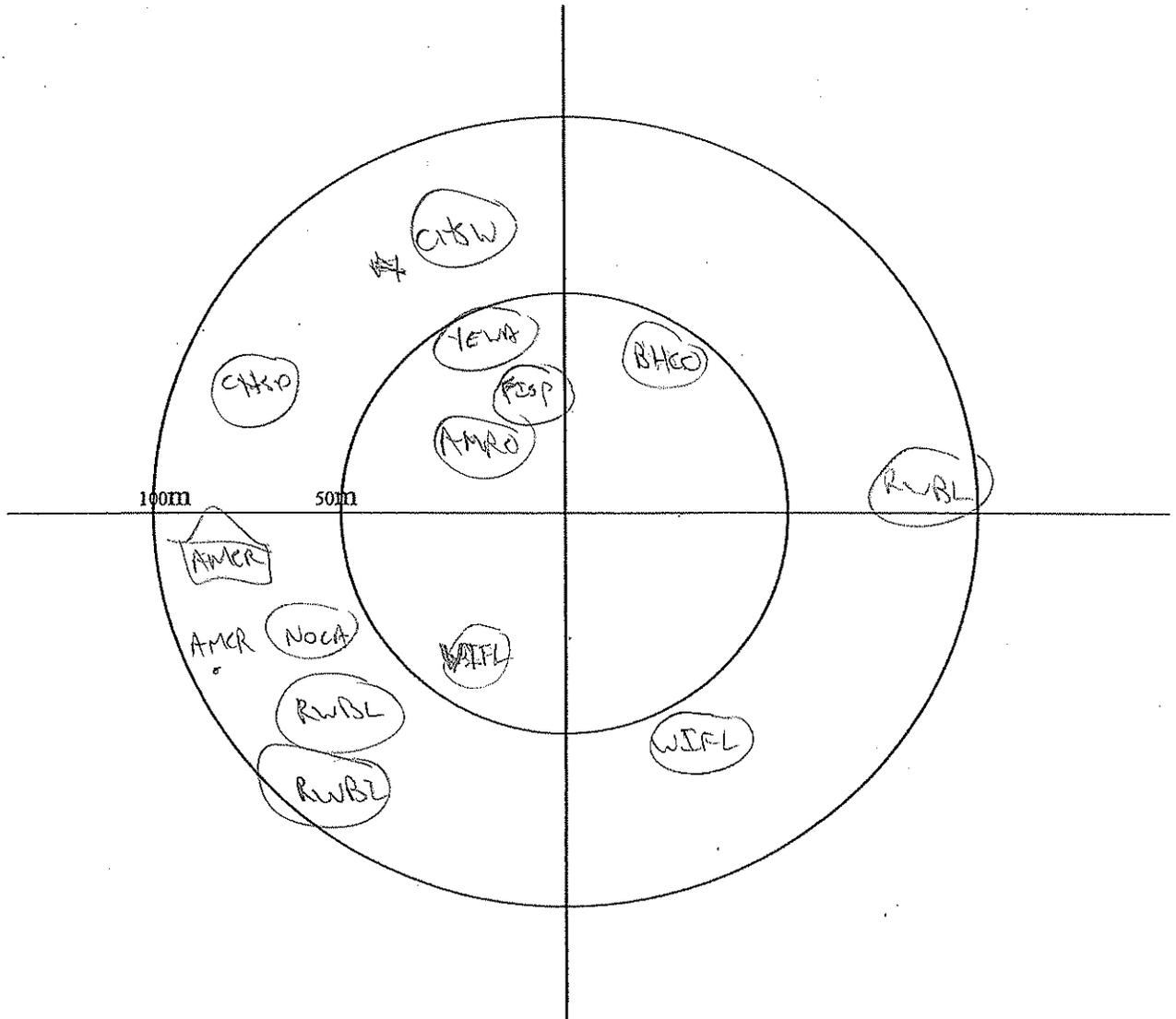
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Station ID: <i>JN02</i>	Visit #:	Start Time (HH:MM): <i>07:42</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
-  Single bird, singing/calling
  -  -  Diff. birds of same sp.
  -  Pair together
  -  Family group
  -  Obs., but not calling/singing
  -  Known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
<i>AMCR</i>
<i>COGR III</i>



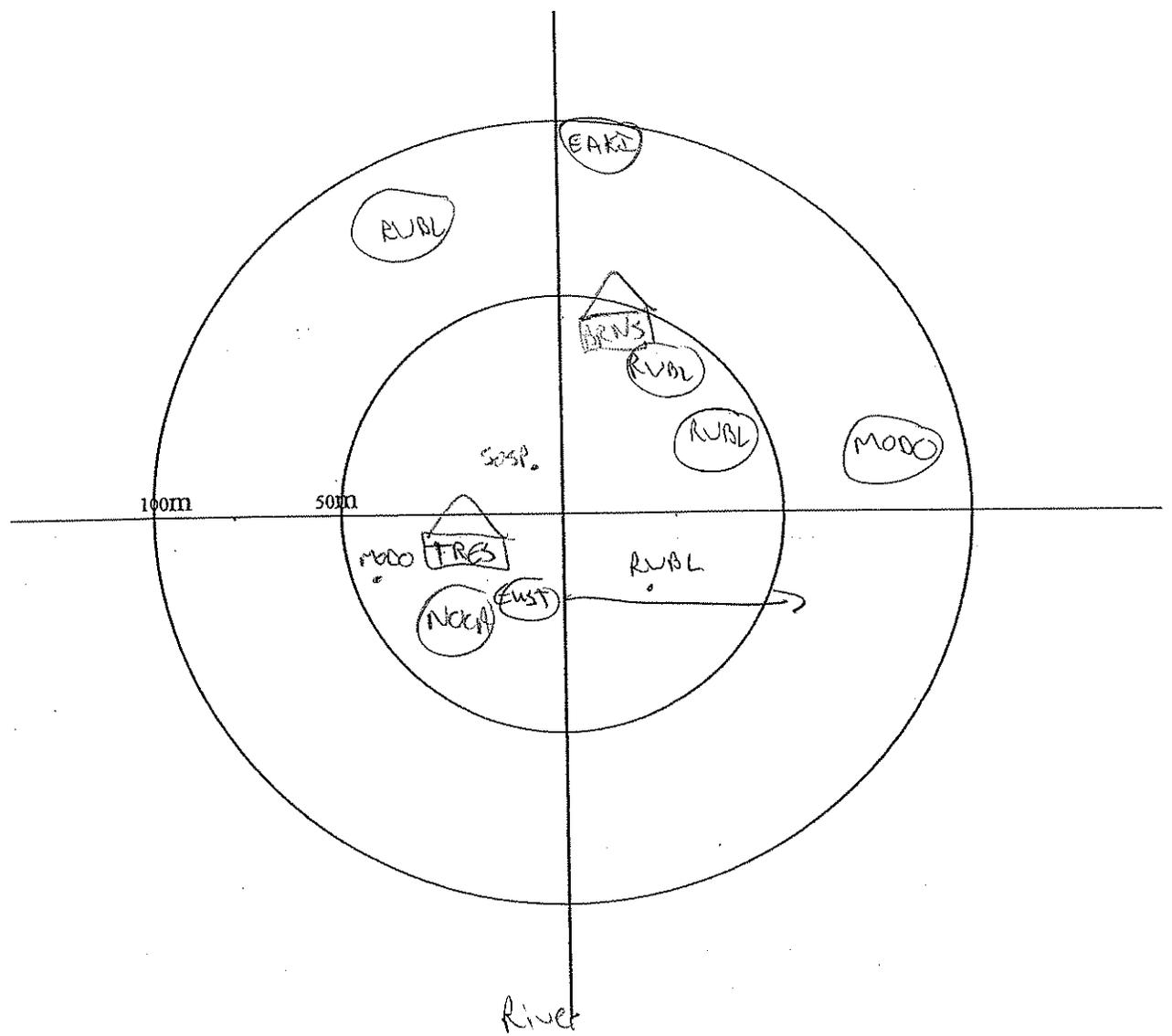
## Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: Jun 26
Station ID: RT01	Visit #: SUM-02	Start Time (HH:MM): 07:20
Beaufort Wind Scale: B1	Cloud Cover (%): 30	Temperature (°C): 20
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
TRES	11

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
ROPI III
COGR
BAOR



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>R202</i>	Visit #:	Start Time (HH:MM): <i>07:09</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

### Symbols

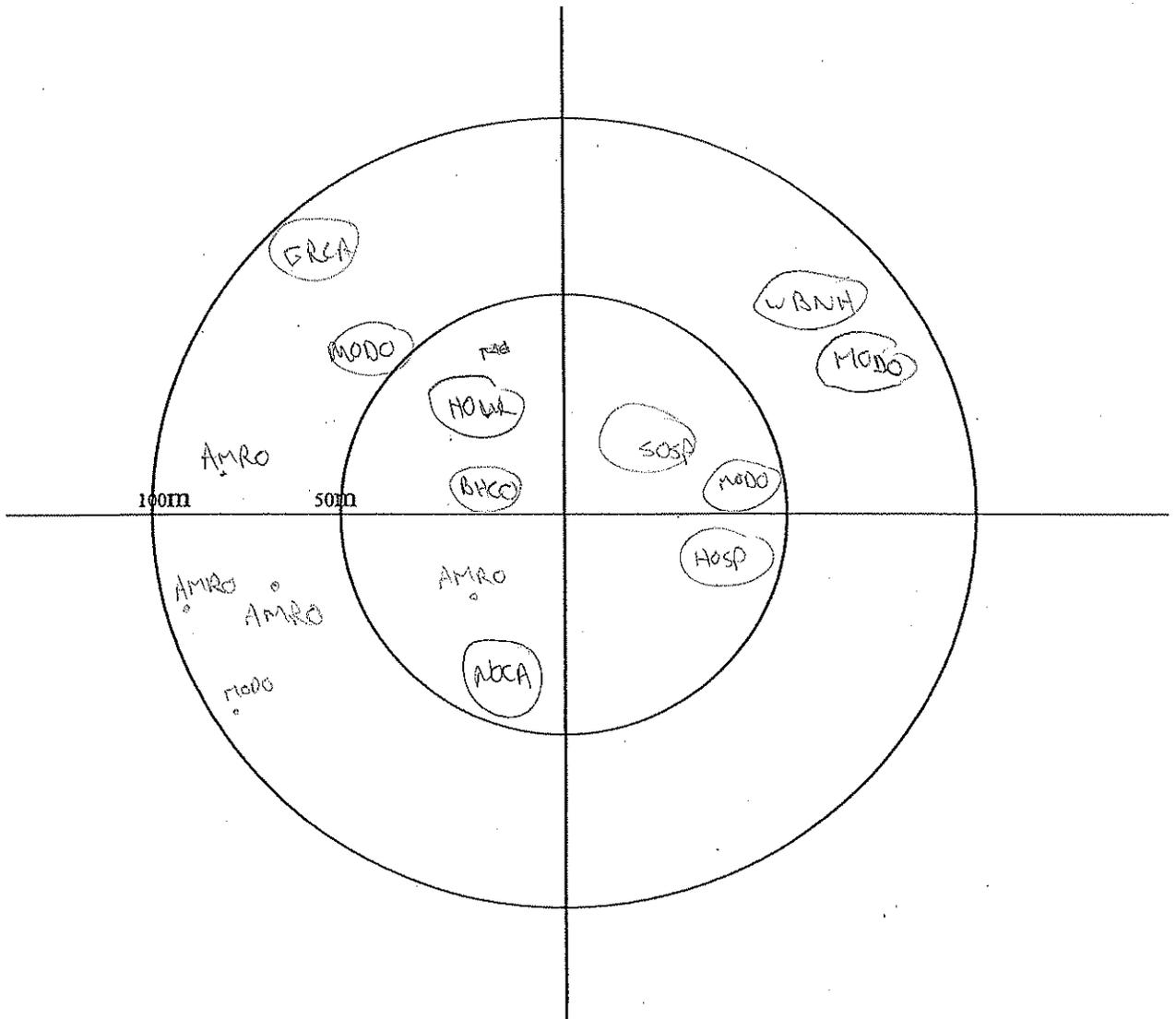
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

### Height

- 1 - BT H
- 2 - close to TH
- 3 - V B S
- 4 - W A B S

Outside/Flythru
AMCR
BLJA
EUST-♂
SI

Aerial Foragers	
Species	Tally



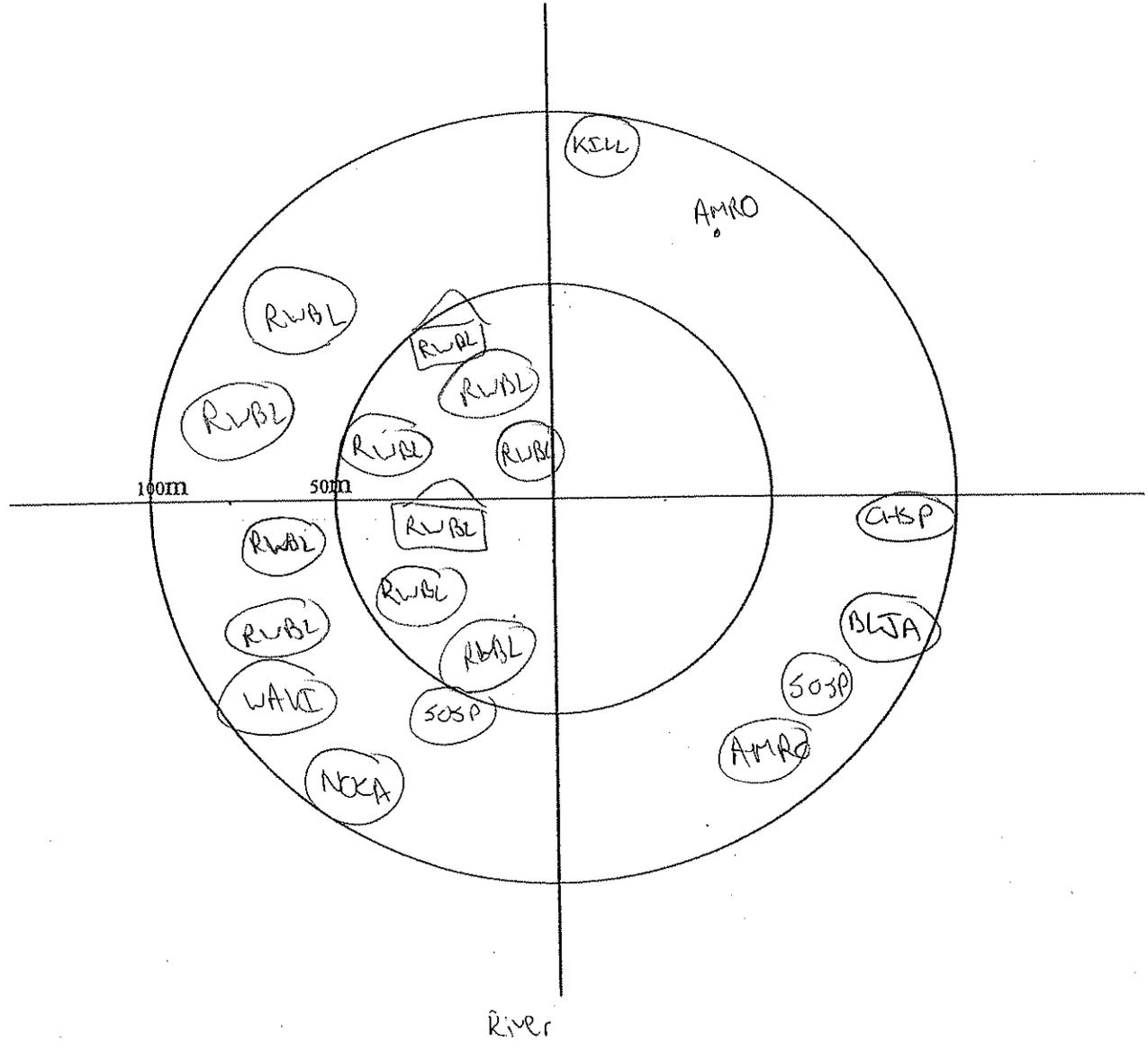
### Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: June 26/09
Station ID: REOB	Visit #: 54002	Start Time (HH:MM): 06:56
Beaufort Wind Scale: 81	Cloud Cover (%): 20	Temperature (°C): 20
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
PUMA	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
AMRO II.
MODO
EUST
COGR
WBVA



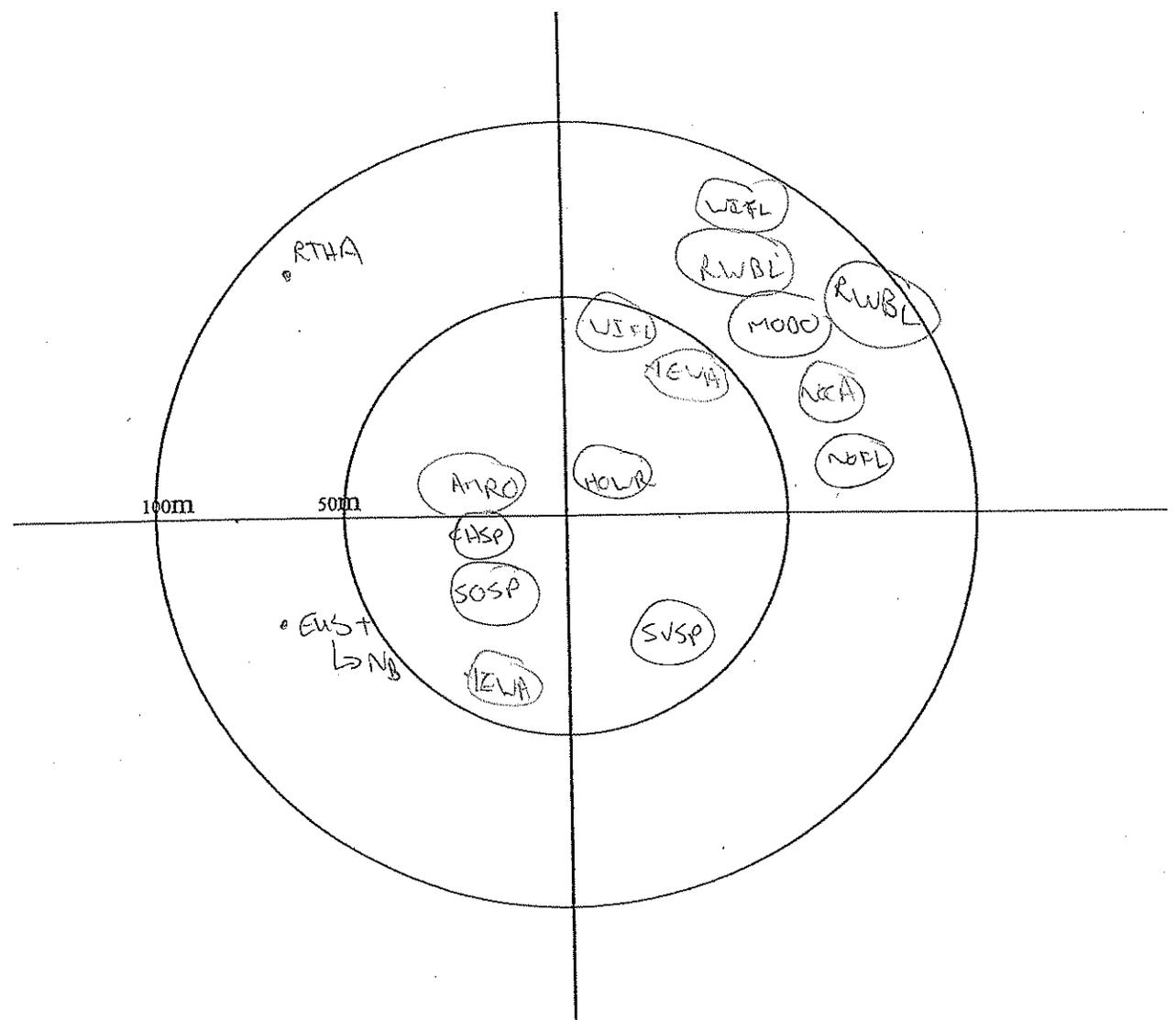
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>RJ04</i>	Visit #:	Start Time (HH:MM): <i>05:42</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
BRNS	11

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru



### Point Count Data Form

Observer: <i>SKM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 26/07</i>
Station ID: <i>R205</i>	Visit #: <i>SUM-02</i>	Start Time (HH:MM): <i>06:28</i>
Beaufort Wind Scale: <i>B1</i>	Cloud Cover (%): <i>40</i>	Temperature (°C): <i>20</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

#### Symbols

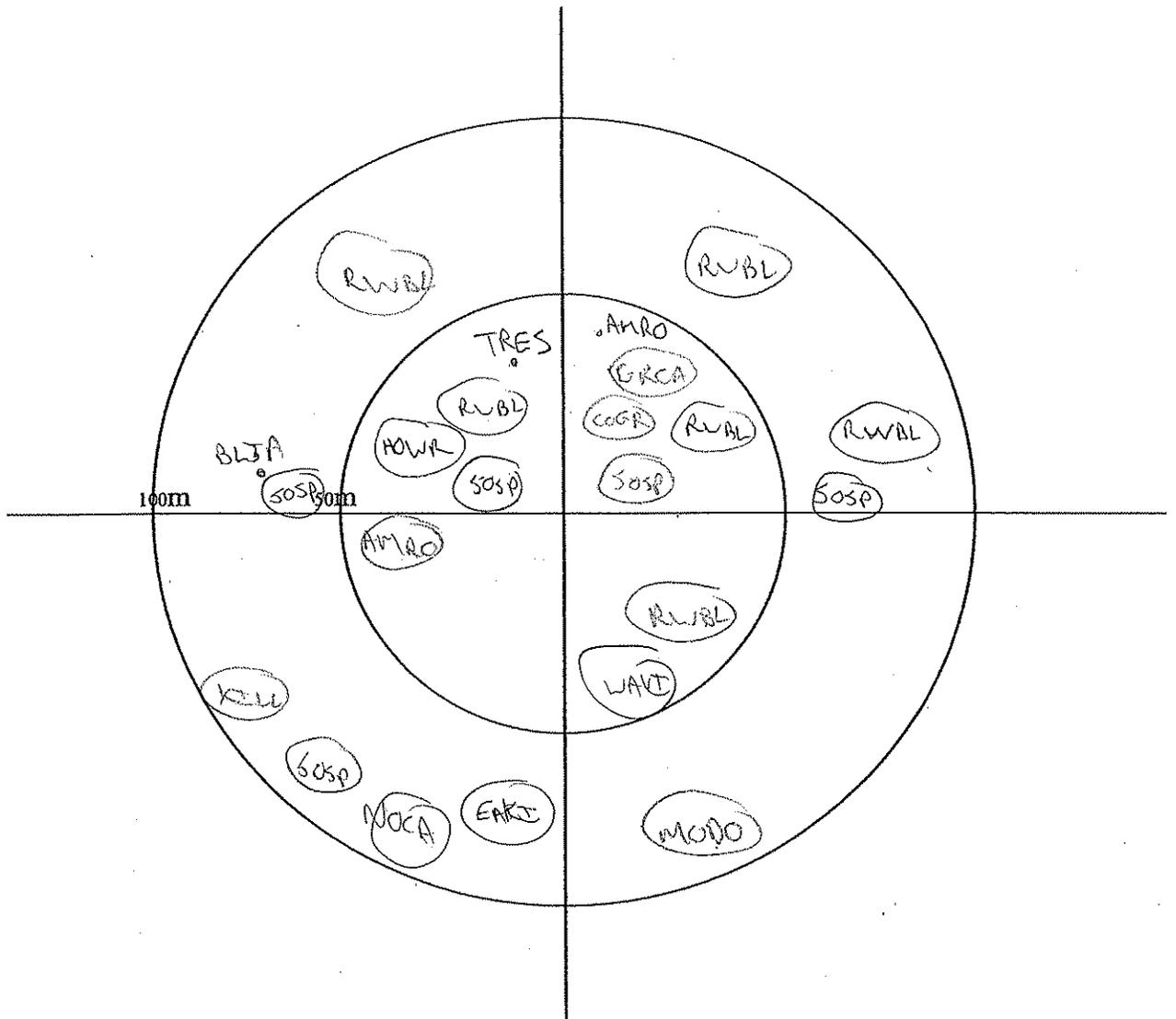
- RWBL Single bird, singing/calling
- RWBL — RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

#### Height

- 1 - BT H
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Aerial Foragers	
Species	Tally
<i>TRES</i>	<i>TAL</i>

Outside/Flythru



## Point Count Data Form

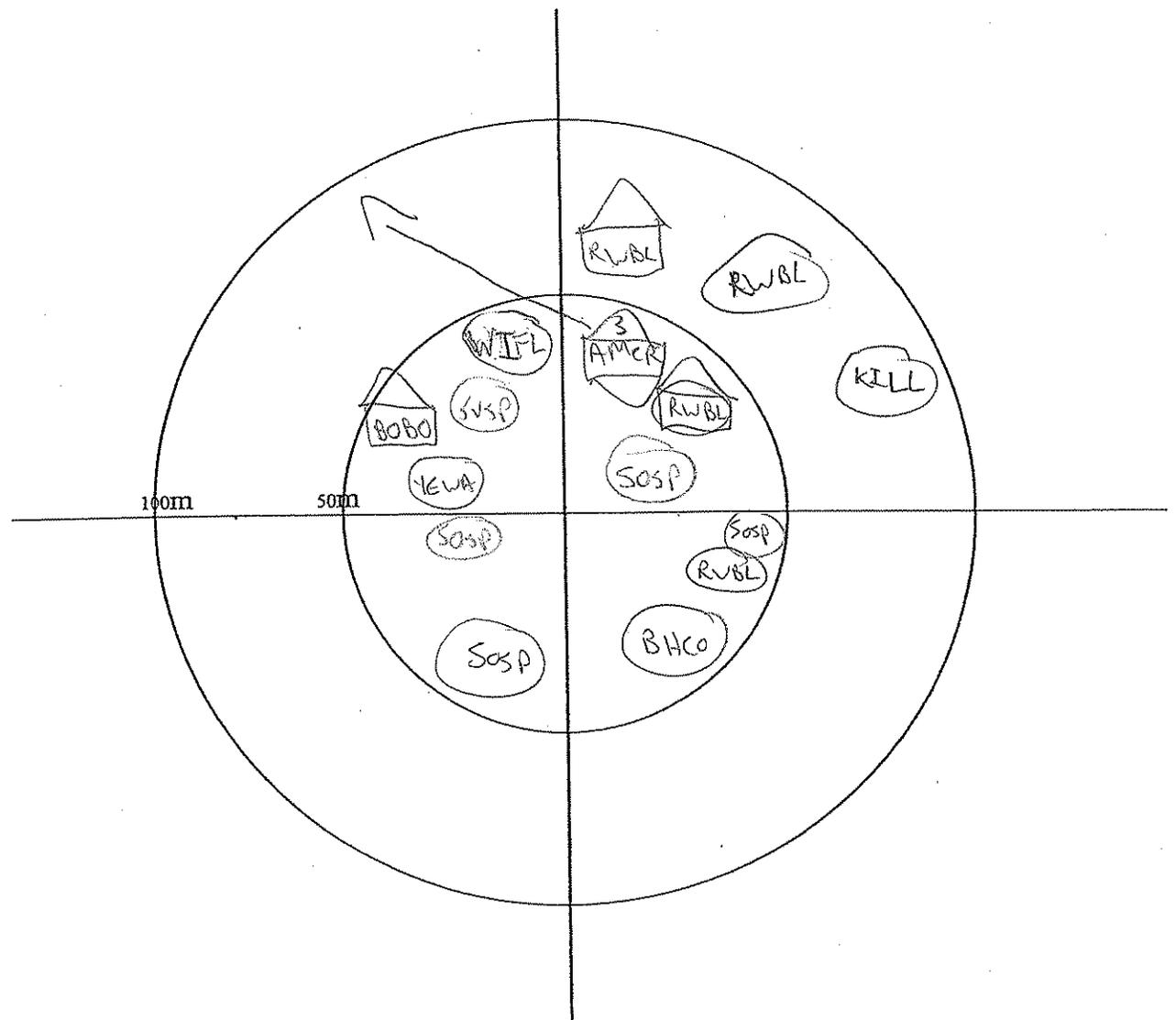
Observer:	Site:	Date:
Station ID: <b>RJ06</b>	Visit #:	Start Time (HH:MM): <b>06:15</b>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - WBS
  - 4 - WABS

Outside/Flythru
NOCA
AMRO
COGR-3
EUST

Cottontail



**Point Count Data Form**

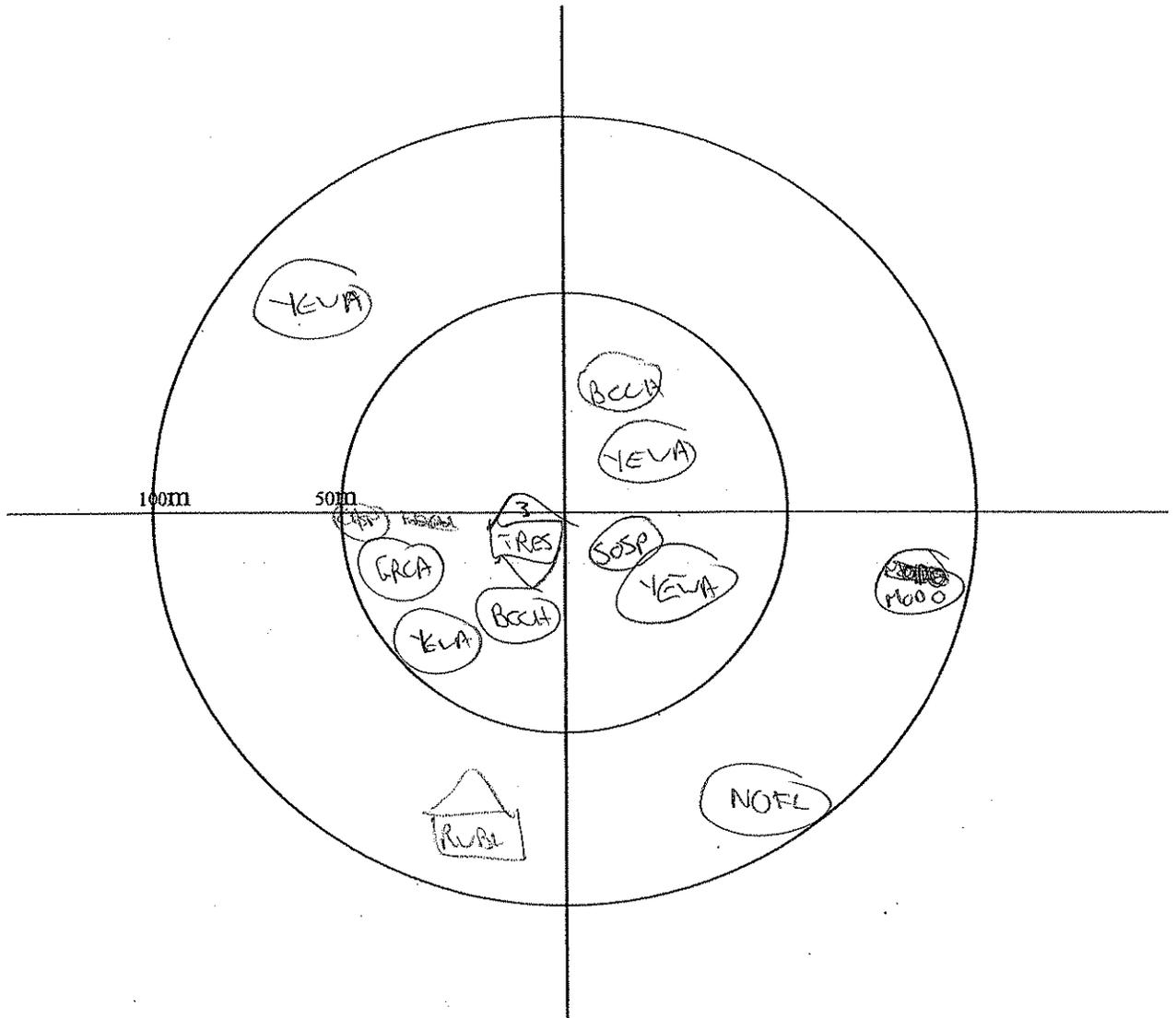
Observer: <u>SKM</u>	Site: <u>SAMSUNG</u>	Date: <u>June 26/09</u>
Station ID: <u>RJ07</u>	Visit #: <u>SUM-02</u>	Start Time (HH:MM): <u>06:03</u>
Beaufort Wind Scale: <u>B1</u>	Cloud Cover (%): <u>30</u>	Temperature (°C): <u>19</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position
- Height**
- 1 - BTM
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<del>WABS</del> CATE →
GBHE
EUST →

Green Jay  
Bullfinch



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>R508</i>	Visit #:	Start Time (HH:MM) <i>05:50</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
<i>TRES</i>	1

**Symbols**

*(RWBL)* Single bird, singing/calling

*(RWBL) → (RWBL)* Diff. birds of same sp.

*△* Pair together

*◇* Family group

*•* Obs., but not calling/singing

*○ → ○* known change in position

**Height**

1 - BTH

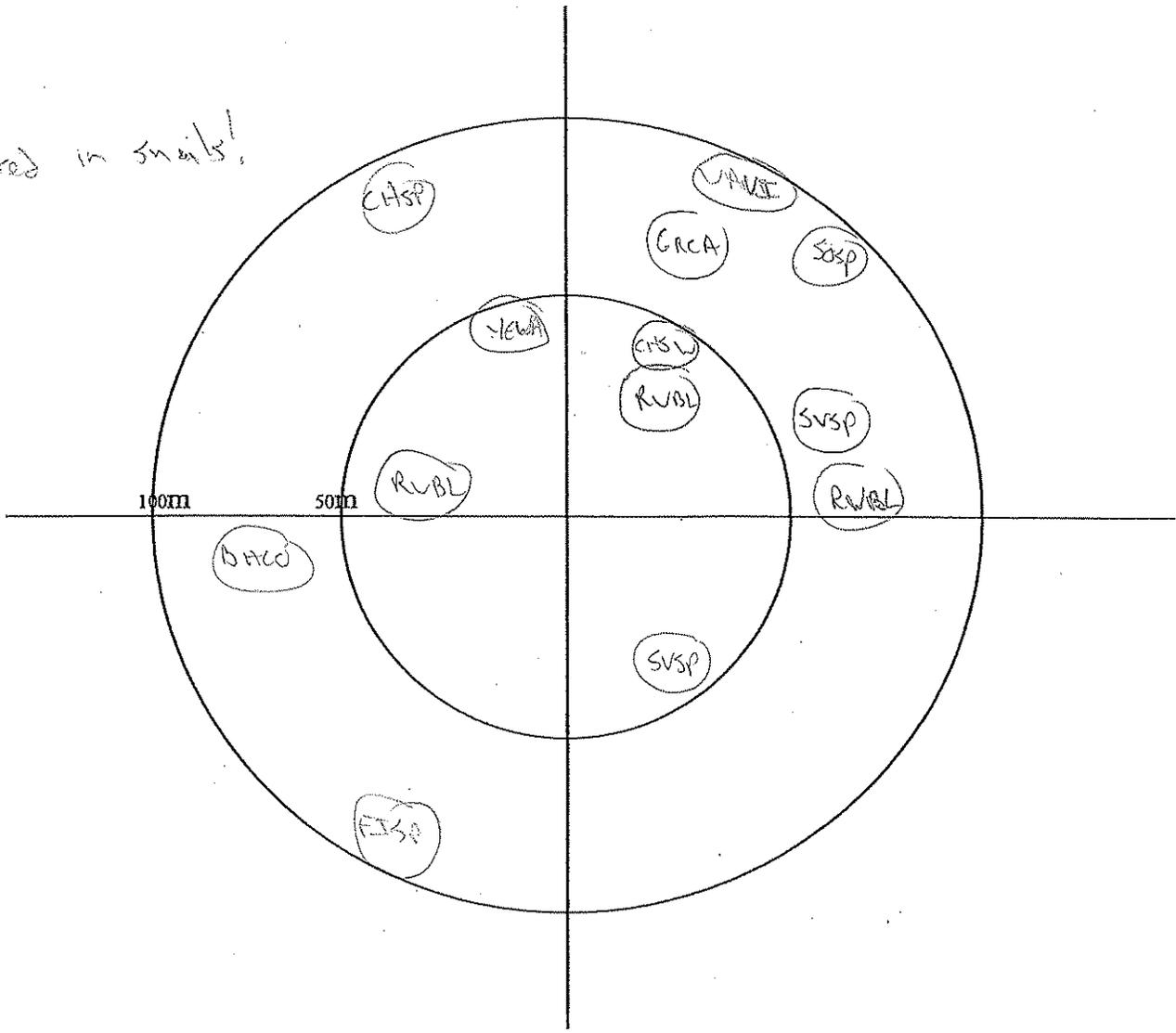
2 - close to TH

3 - VBS

4 - WABS

Outside/Flythru
<i>ROGU II</i>
<i>AMCR</i>
<i>YELWA</i>
<i>EUST-2</i>

*\* Red is covered in snails!*



## Point Count Data Form

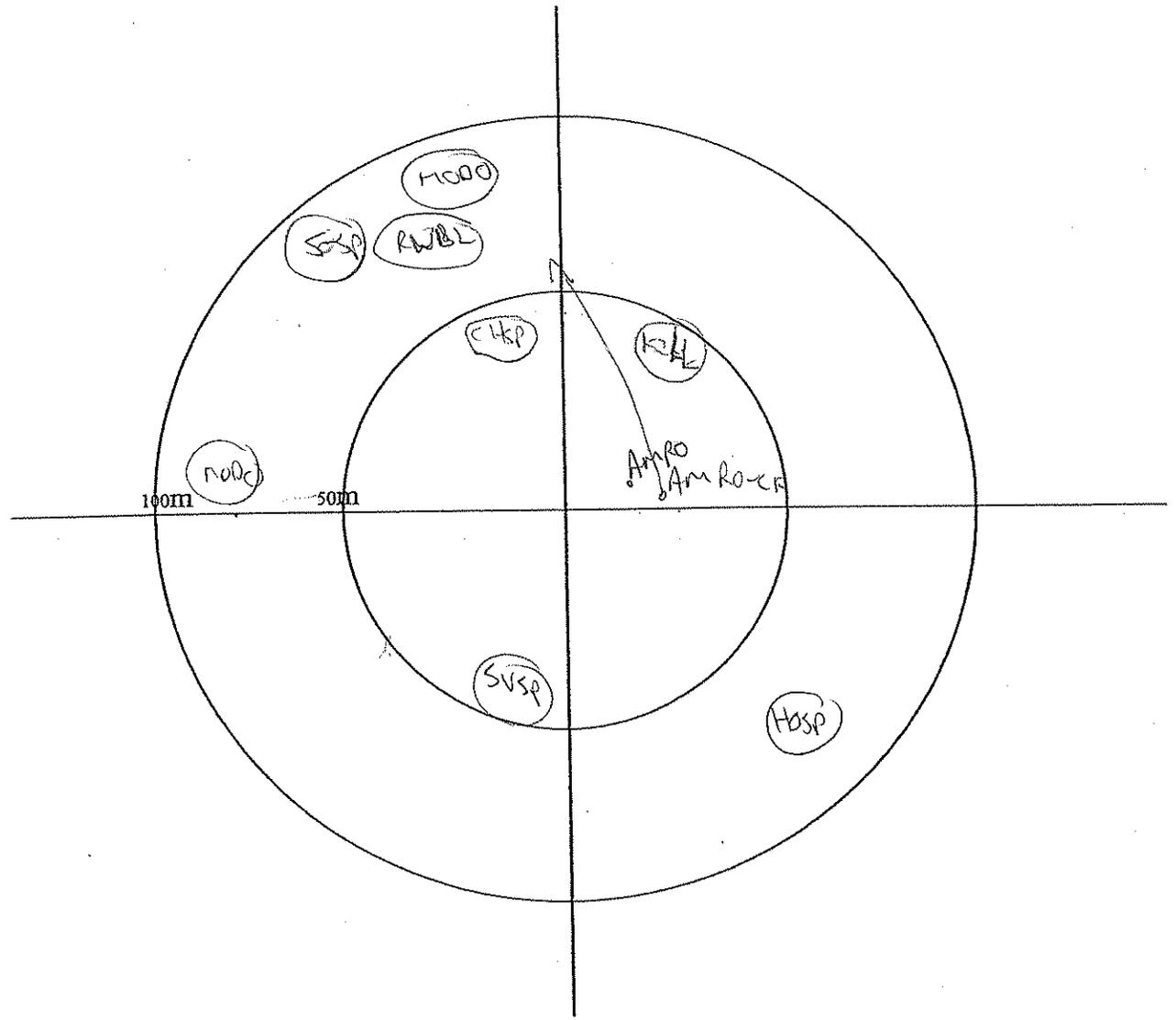
Observer: <u>SMM</u>	Site: <u>SAMSUNG</u>	Date: <u>June 26/09</u>
Station ID: <u>RT 001</u>	Visit #: <u>SMM-02</u>	Start Time (HH:MM): <u>05:24</u>
Beaufort Wind Scale: <u>B1</u>	Cloud Cover (%): <u>30</u>	Temperature (°C): <u>19</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<u>AMCR</u>
<u>COGR</u>
<u>NOCA</u>
<u>EWST-25</u>

Raccoon  
Deer



## Point Count Data Form

Observer:	Site:	Date:
Station ID: R210	Visit #:	Start Time (HH:MM): 08:19
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

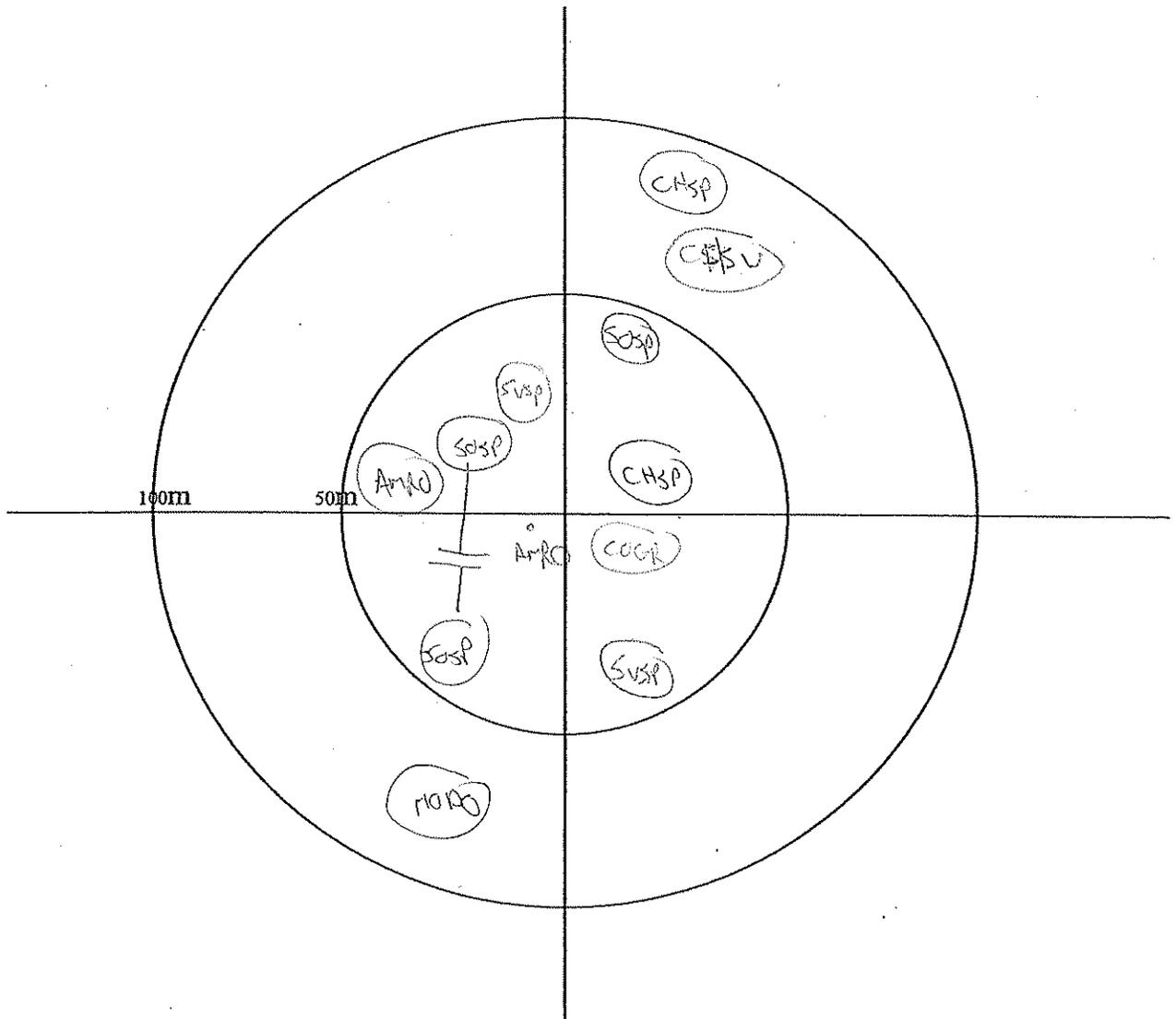
Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
ANCR II
MOOG II
COGR

American bad



### Point Count Data Form

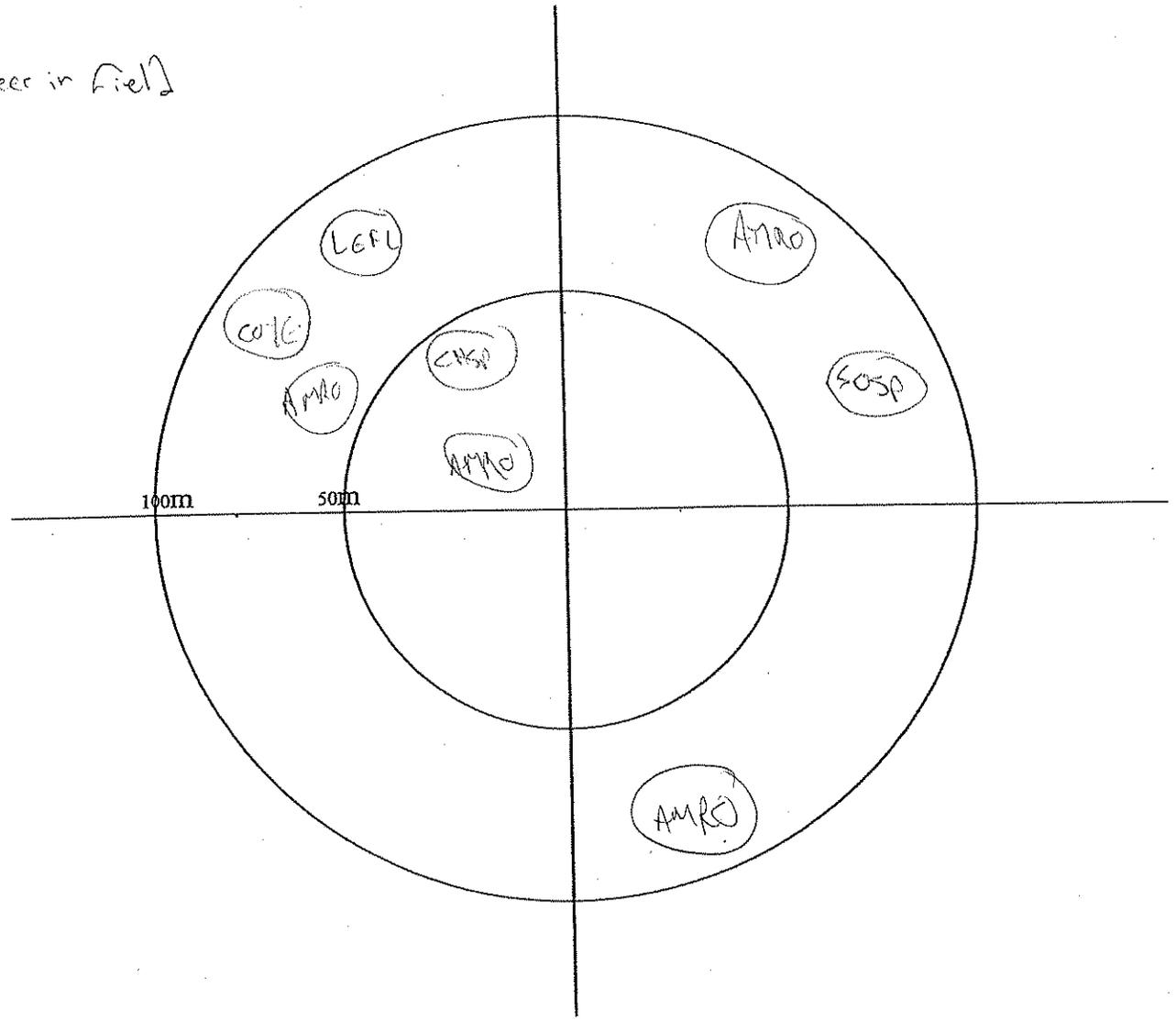
Observer: <i>SKM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 26/05</i>
Station ID: <i>R211</i>	Visit #: <i>SKM02</i>	Start Time (HH:MM): <i>05:08</i>
Beaufort Wind Scale: <i>01 S</i>	Cloud Cover (%): <i>50</i>	Temperature (°C): <i>19°</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
Noct
CHSP

*White-billed deer in field*



## Point Count Data Form

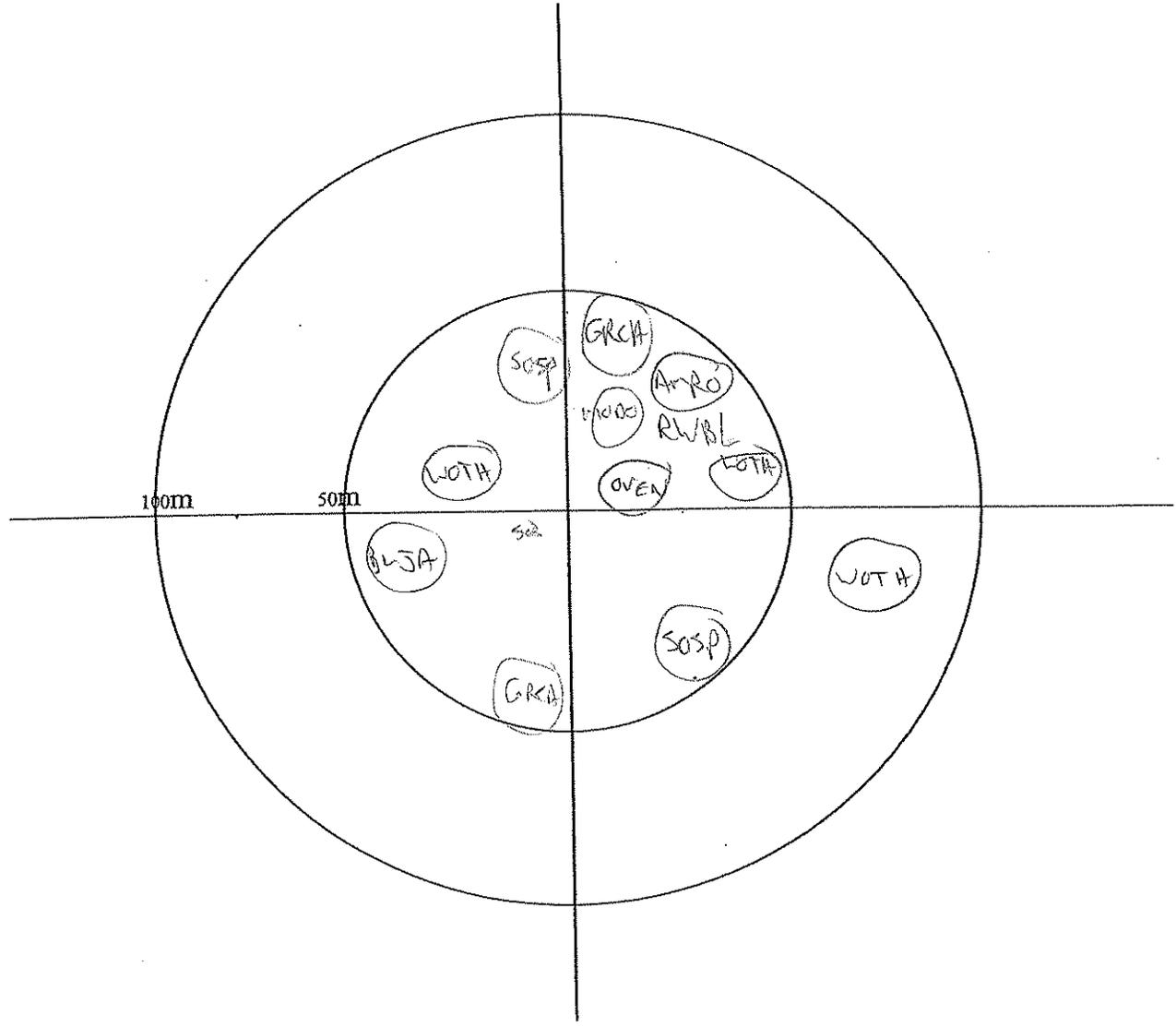
Observer:	Site:	Date:
Station ID: <u>W000</u>	Visit #: <u>Sur 01</u>	Start Time (HH:MM): <u>08:52</u>
Beaufort Wind Scale:	Cloud Cover (%): <u>20</u>	Temperature (°C):
Precipitation: <u>—</u>	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<u>COGR</u>
<u>AMRO</u>



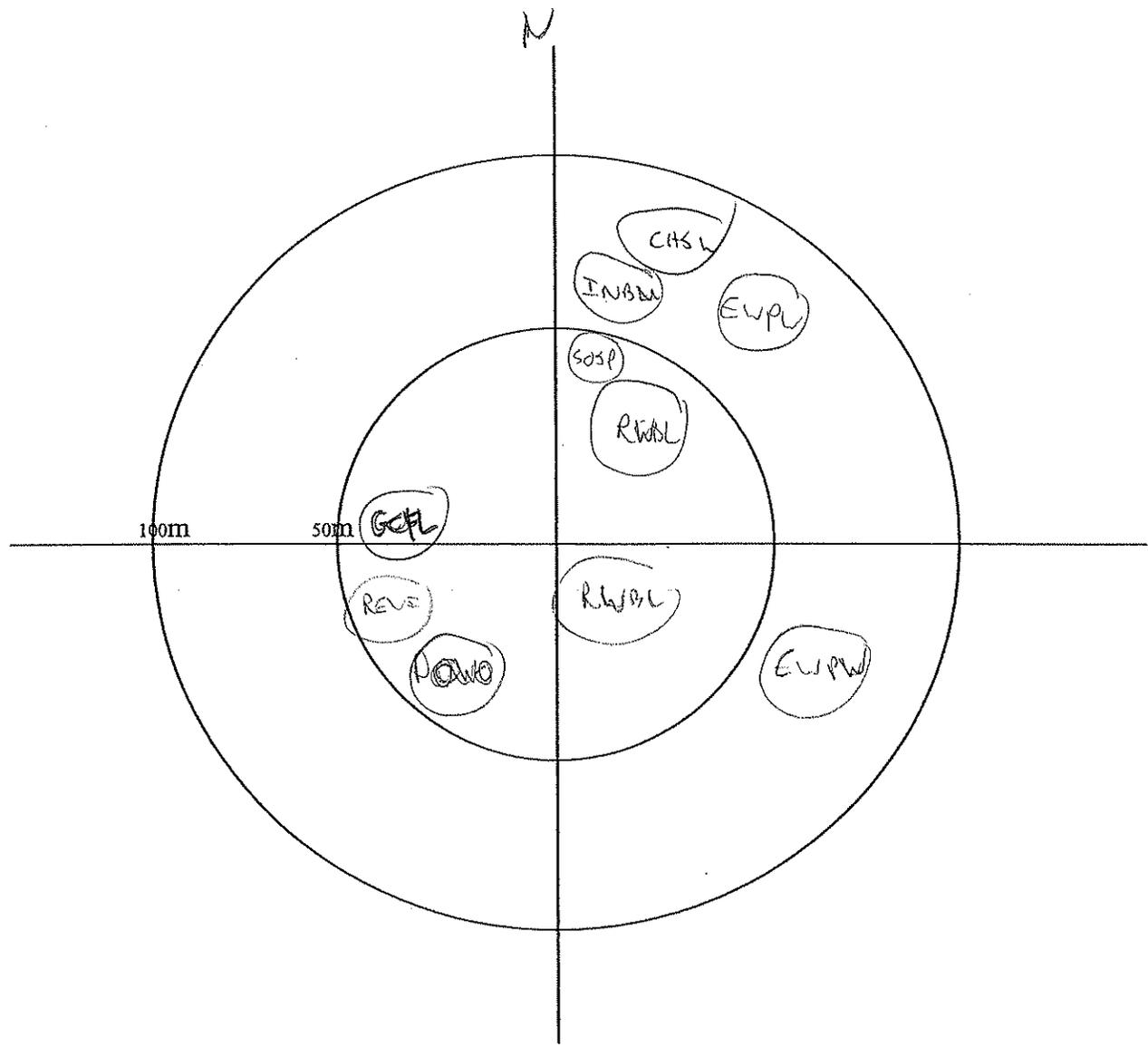
## Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: Jun 26 / 09
Station ID: W019	Visit #: SUM 001	Start Time (HH:MM): 08:38
Beaufort Wind Scale: B1	Cloud Cover (%): 30	Temperature (°C): 21
Precipitation: light spitting	Visibility: clear	
Remarks: <del>brief</del> brief		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru



## Point Count Data Form

Observer: <u>SKV</u>	Site: <u>SAMSUNG</u>	Date: <u>Jun 26/09</u>
Station ID: <u>JW01</u>	Visit #: <u>SUM02</u>	Start Time (HH:MM): <u>09:04</u>
Beaufort Wind Scale: <u>B1</u>	Cloud Cover (%): <u>30</u>	Temperature (°C): <u>23</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

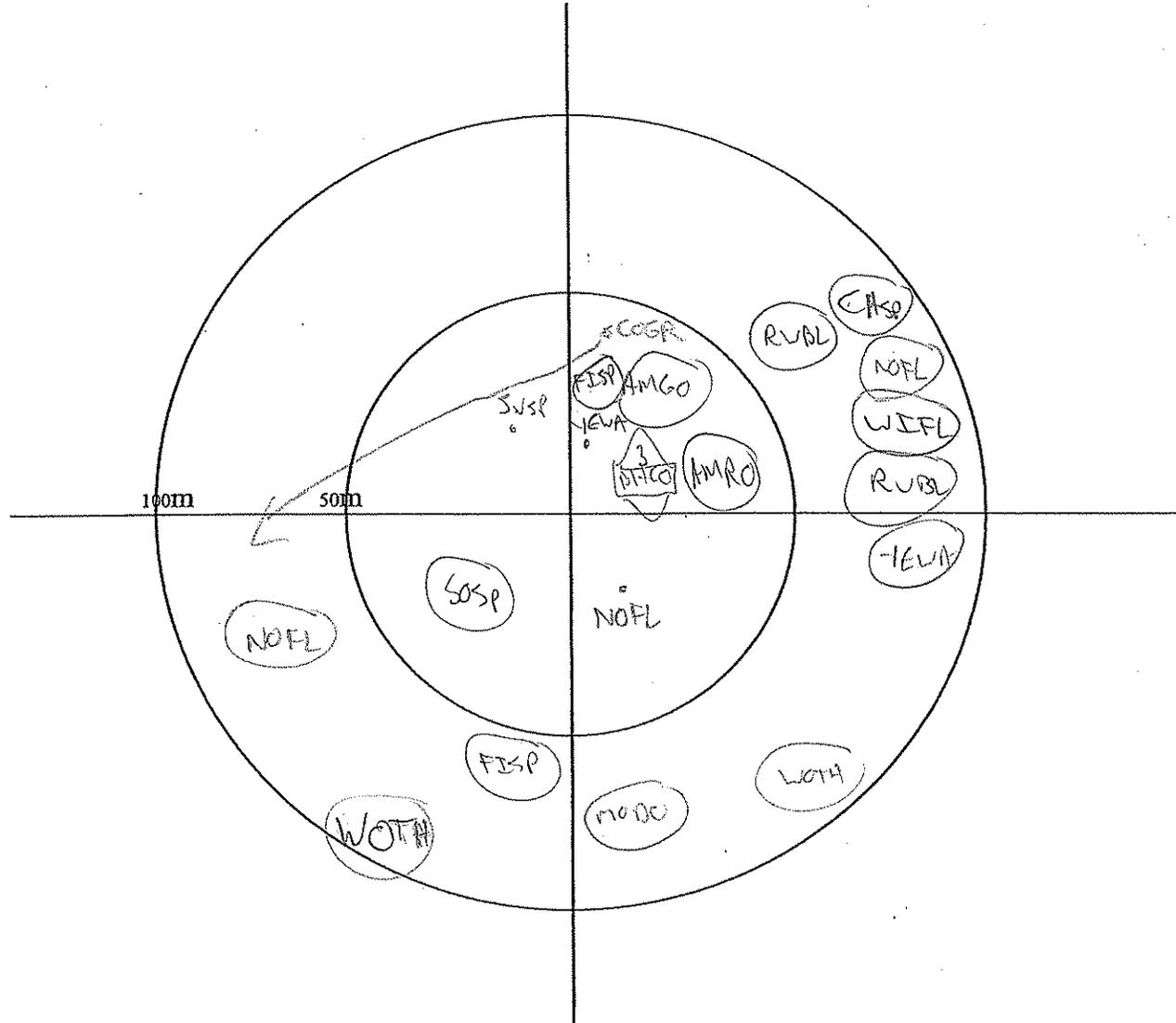
Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BTB
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
MALL-25

Derf



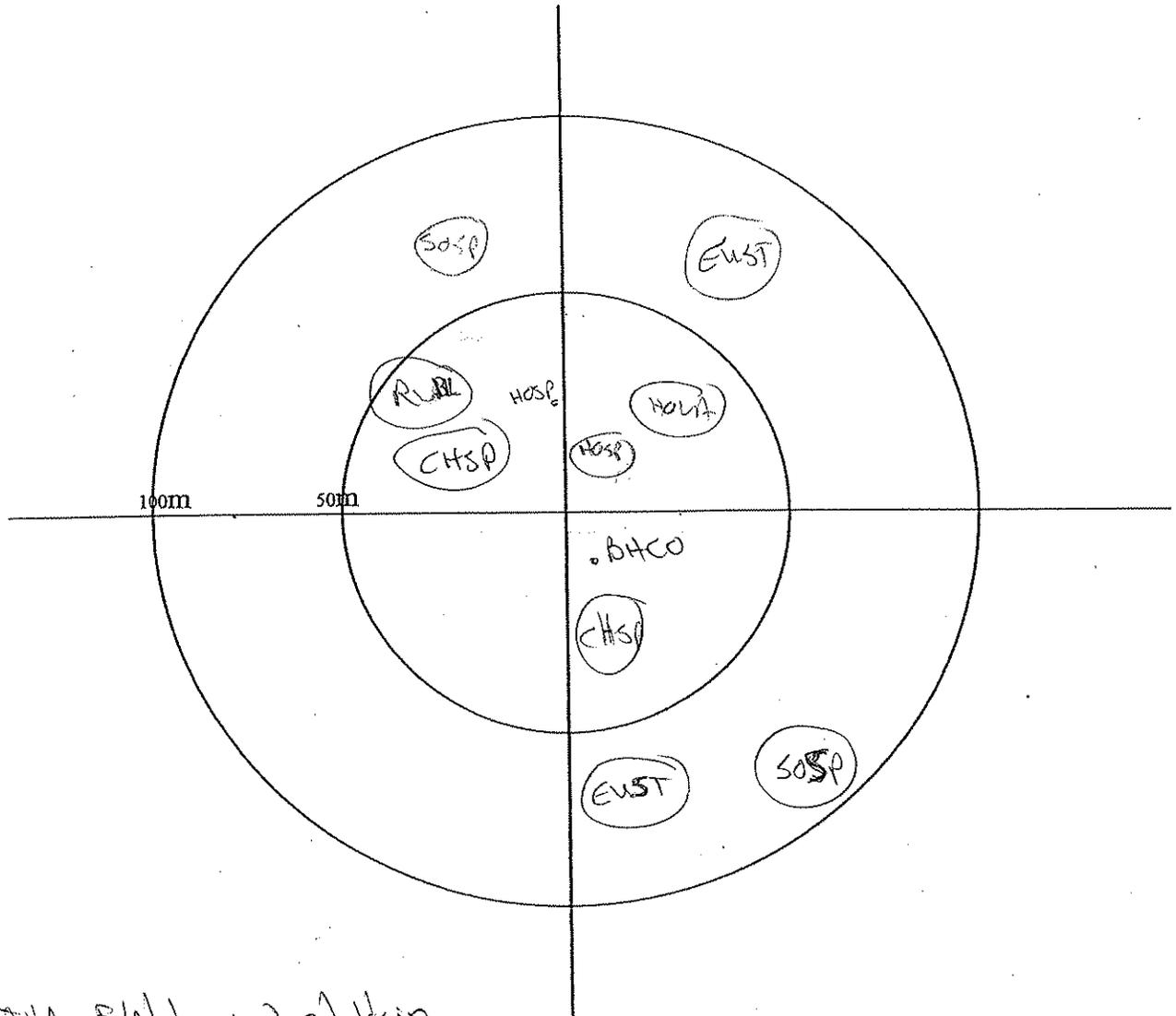
**Point Count Data Form**

Observer: SKM	Site: SAMSUNG	Date: JUN 26/09
Station ID: EN04	Visit #: SUM02	Start Time (HH:MM): 08:23
Beaufort Wind Scale: B2W	Cloud Cover (%): 30	Temperature (°C): 21°
Precipitation: <del>W</del> spitting	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
BRNS	1

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
AMCR 9
AMCO
HOSP
EUST-10
NOHA



NOTE: RWBL Flycatcher + 2 adults in woodlot to west of VISE → nest was there

### Point Count Data Form

Observer: <u>SKM</u>	Site: <u>SAMSUNG</u>	Date: <u>July 17/10</u>
Station ID: <u>IN11</u>	Visit #: <u>SUM 02</u>	Start Time (HH:MM): <u>05:00</u>
Beaufort Wind Scale: <u>2-3</u>	Cloud Cover (%): <u>0</u>	Temperature (°C): <u>12</u>
Precipitation: <u>✓</u>	Visibility: <u>clear</u>	
Remarks:		

#### Symbols

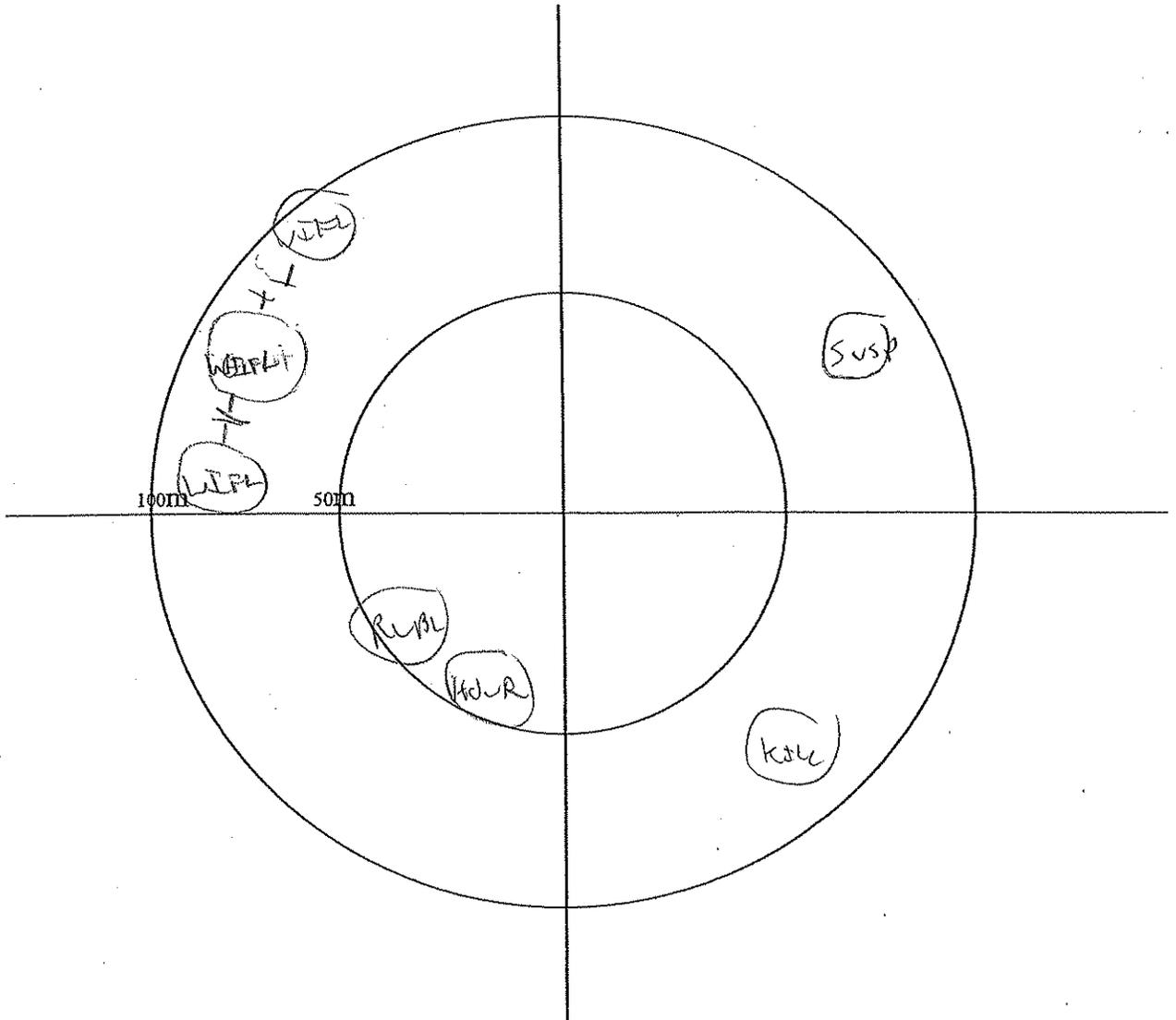
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- known change in position

#### Height

- 1- BTH
- 2- close to TH
- 3- VBS
- 4- WABS

Aerial Foragers	
Species	Tally
<u>DRNS</u>	

Outside/Flythru



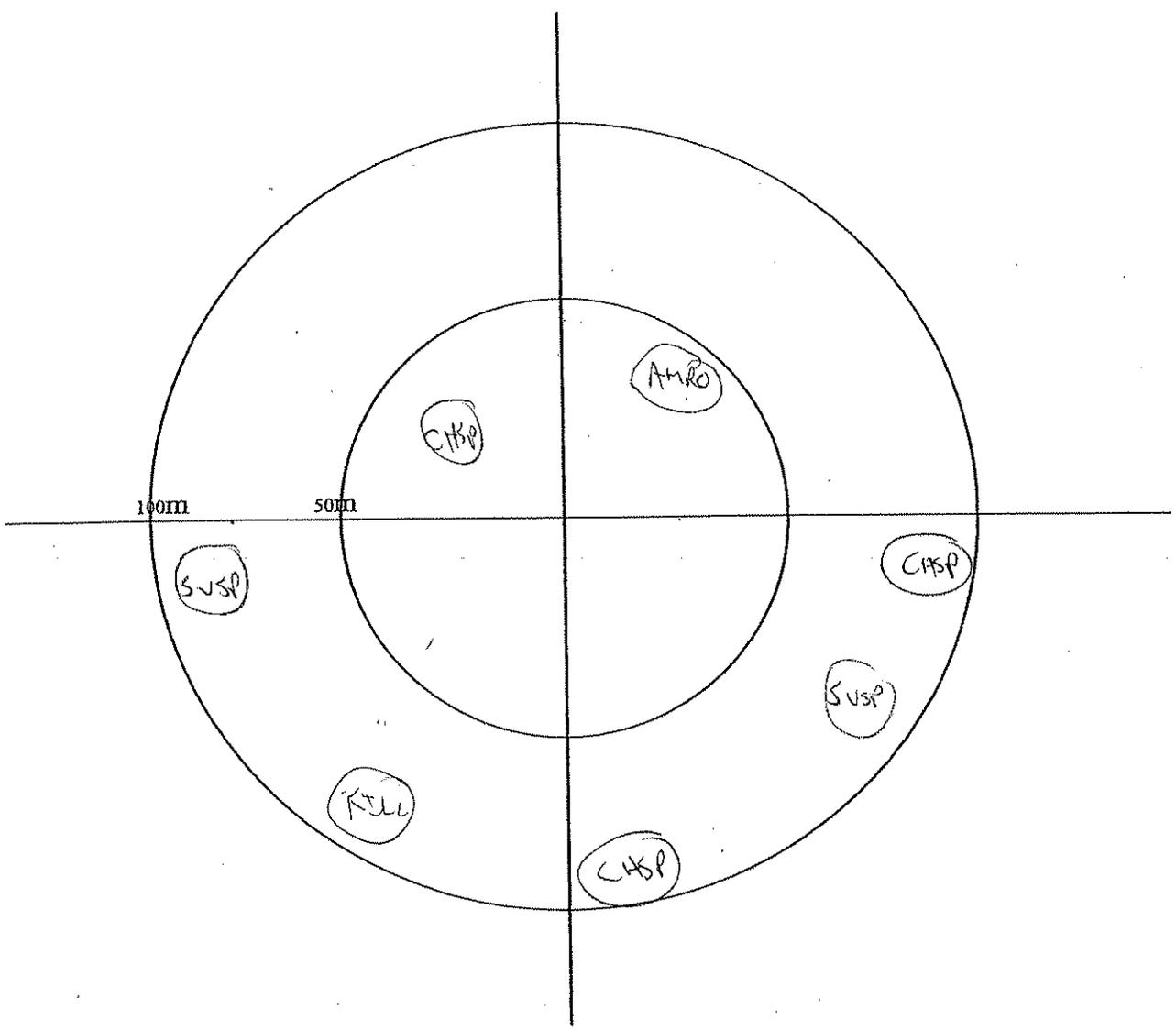
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>IW08</u>	Visit #:	Start Time (HH:MM): <u>05:14</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks: <u>survey ended early - large yaffle log</u>		

Aerial Foragers	
Species	Tally
<u>BRWS</u>	<u>11</u>

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WA BS

Outside/Flythru



### Point Count Data Form

Observer: SKM	Site: SAMBUNG	Date: JULY 17/10
Station ID: EN110	Visit #: SUM02	Start Time (HH:MM): 05:21
Beaufort Wind Scale: B2-3	Cloud Cover (%): 0	Temperature (°C): 12
Precipitation: —	Visibility: clear	
Remarks:		

#### Symbols

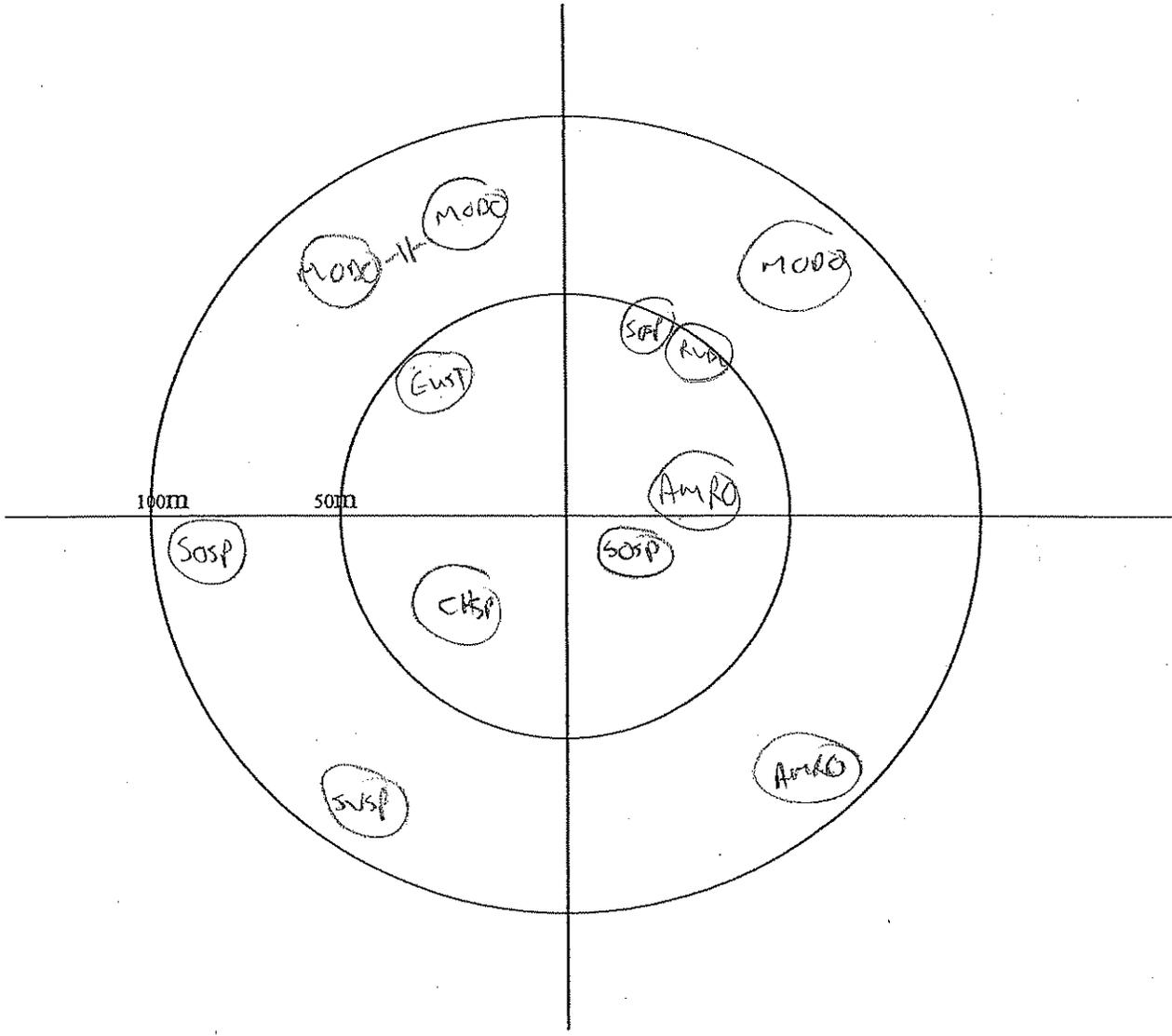
- RWBL Single bird, singing/calling
- RWBL — RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

#### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
WOTH
AMCR

Aerial Foragers	
Species	Tally



## Point Count Data Form

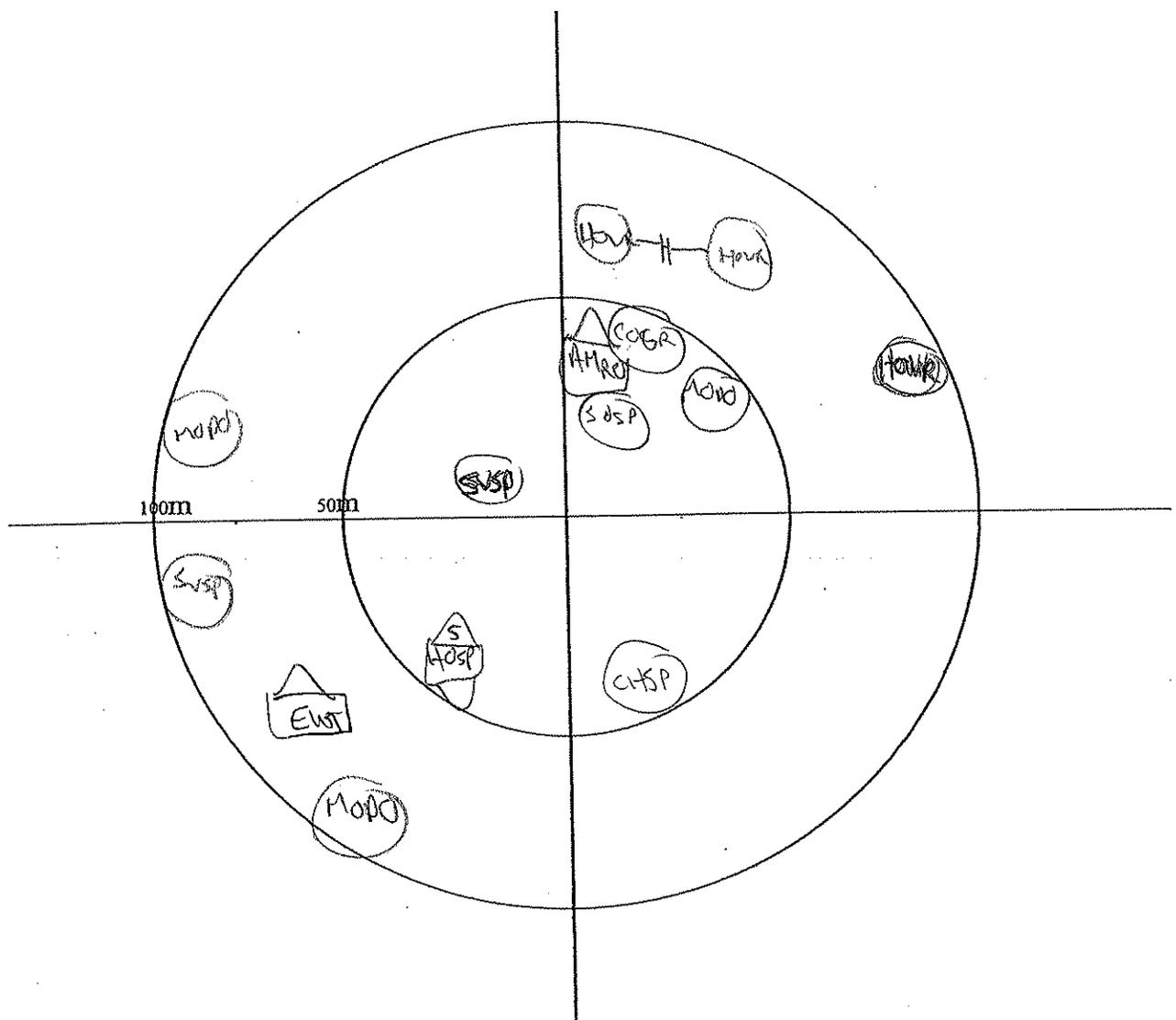
Observer:	Site:	Date:
Station ID: DW09	Visit #:	Start Time (HH:MM): 05:38
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
Amcr "



### Point Count Data Form

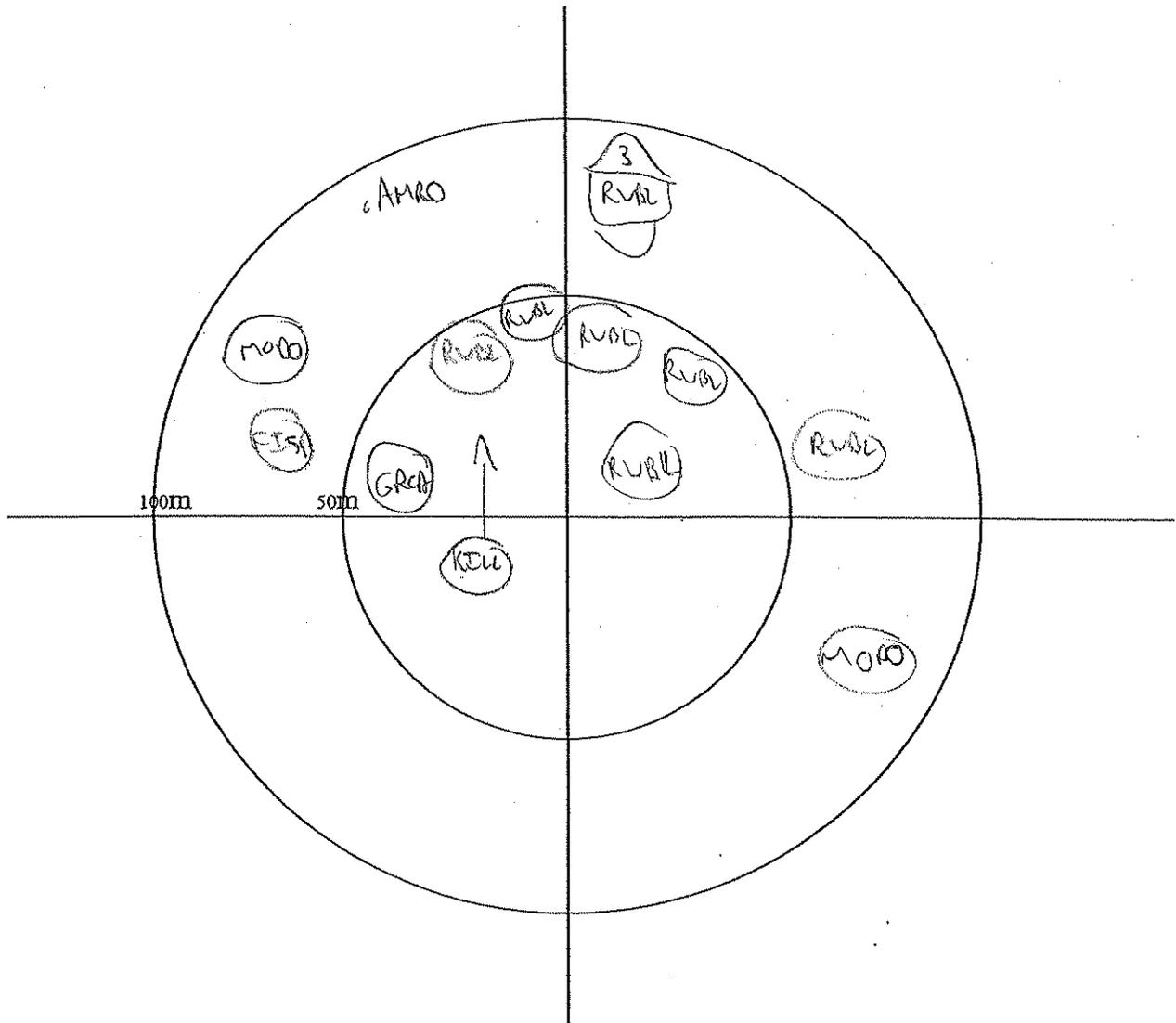
Observer: <i>SM</i>	Site: <i>SAMSUNG</i>	Date: <i>July 14/16</i>
Station ID: <i>ENJ08</i>	Visit #: <i>5/11/12</i>	Start Time (HH:MM): <i>05:53</i>
Beaufort Wind Scale: <i>0-3</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>12</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally
<i>PRNS</i>	<i>1</i>

- Symbols**
- (RWBL)* Single bird, singing/calling
  - (RWBL) → (RWBL)* Diff. birds of same sp.
  - ◻* Pair together
  - ◻◻* Family group
  - Obs., but not calling/singing
  - → ○* known change in position

- Height**
- 1* - BTH
  - 2* - close to TH
  - 3* - VBS
  - 4* - WABS

Outside/Flythru
<i>AMRO</i>
<i>KEL</i>
<i>ROG</i>
<i>AMGO</i>



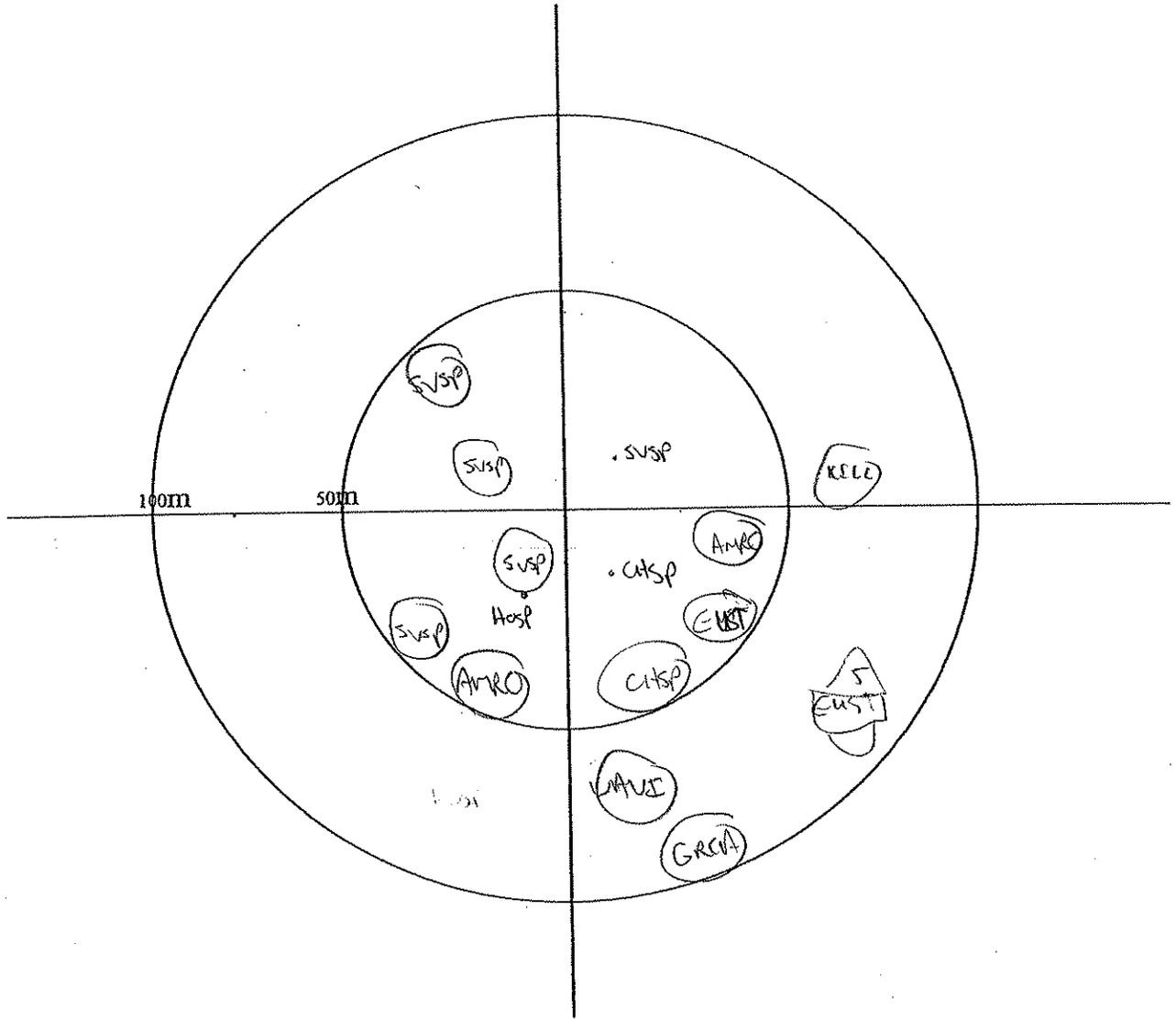
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>JW14</i>	Visit #:	Start Time (HH:MM): <i>06:08</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
BRBK	11
PWMA	

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - WBS
  - 4 - WAB S

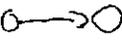
Outside/Flythru
Am 60



### Point Count Data Form

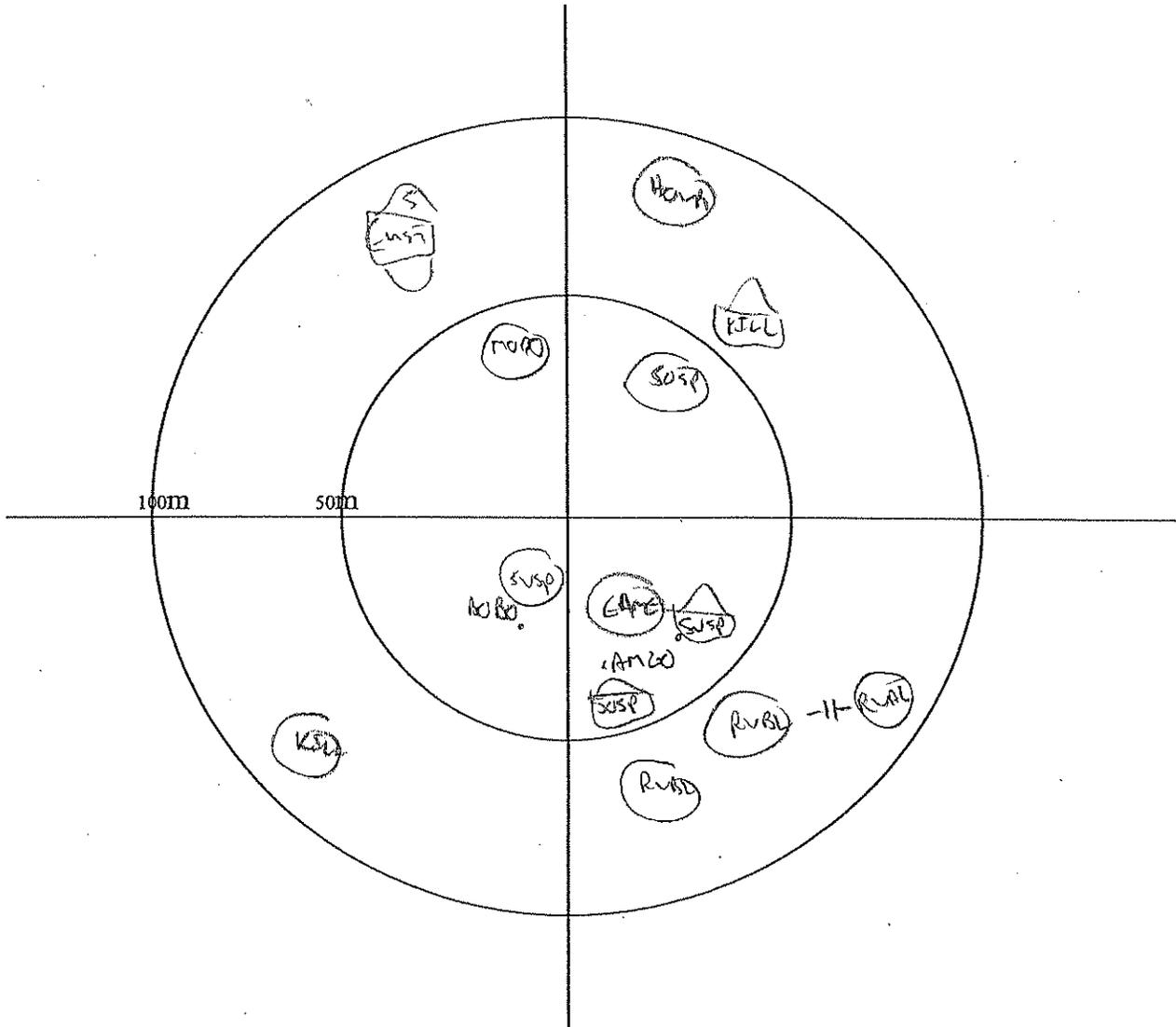
Observer: <u>SYM</u>	Site: <u>SAMSON</u>	Date: <u>JUL 14/09</u>
Station ID: <u>DN15</u>	Visit #: <u>Sum 2</u>	Start Time (HH:MM): <u>06:22</u>
Beaufort Wind Scale: <u>3</u>	Cloud Cover (%): <u>0</u>	Temperature (°C): <u>12</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally
BRWS	

- Symbols**
-  Single bird, singing/calling
  -  →  Diff. birds of same sp.
  -  Pair together
  -  Family group
  - Obs., but not calling/singing
  -  known change in position

- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RnA-CF
RopI-TH 1
RnGU
EUSF
CATE
RnBI



# Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>JW16</u>	Visit #:	Start Time (HH:MM): <u>06:39</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
BNKS	1

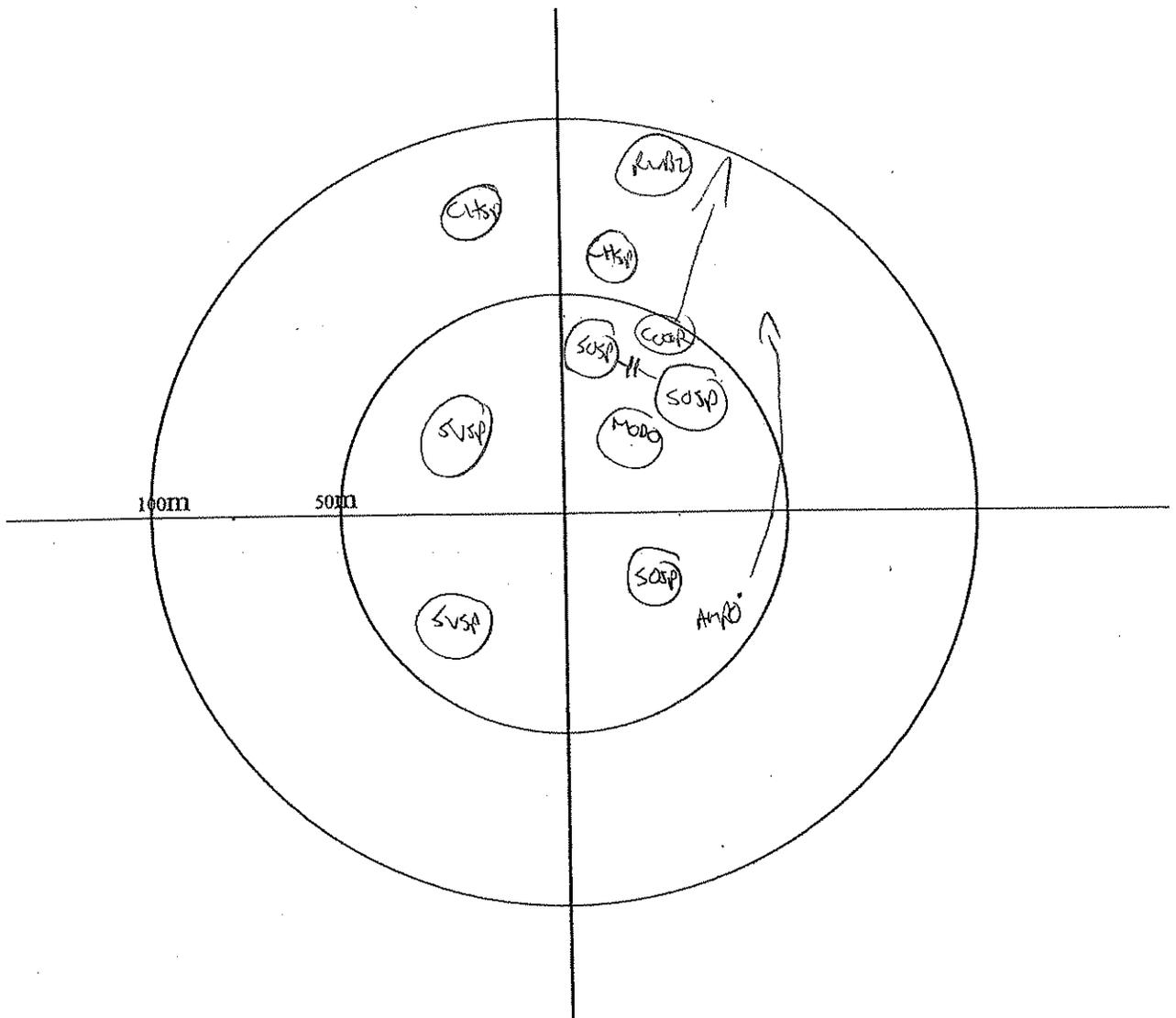
### Symbols

- RWBL Single bird, singing/calling
- RWBL ← RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1 - BT H
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
<del>GUST-TH</del>
<del>AMGO-TH</del>
COGR-III
MODO



## Point Count Data Form

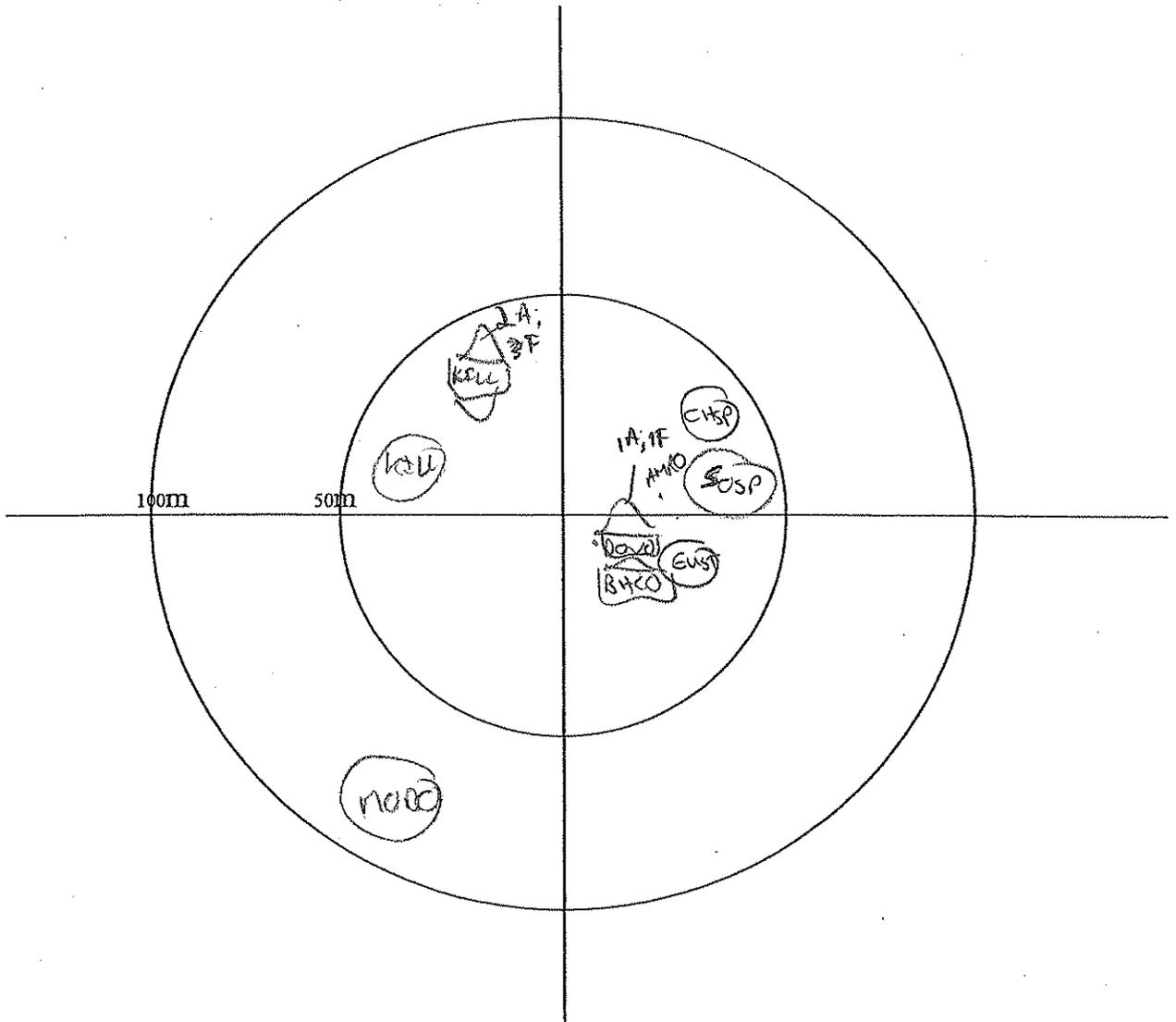
Observer: SKM	Site: SAMSUNG	Date: July 17/09
Station ID: FN07	Visit #: SUM02	Start Time (HH:MM): 06:55
Beaufort Wind Scale: B2	Cloud Cover (%): 0	Temperature (°C): 12
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
BRNS	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
AMCR
MOOO
AMGO



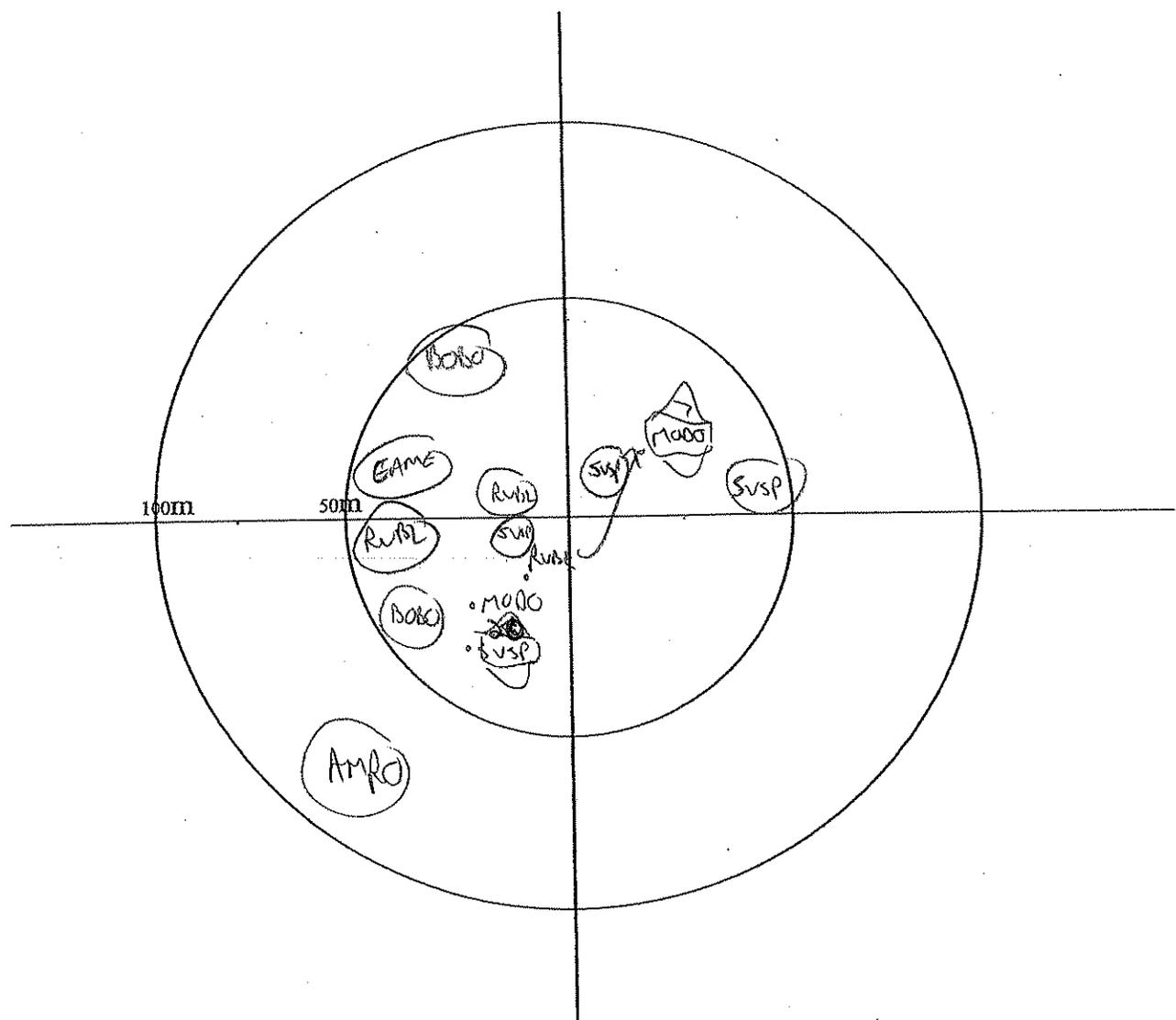
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>PW13</u>	Visit #:	Start Time (HH:MM): <u>07:09</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WA BS

Outside/Flythru



**Point Count Data Form**

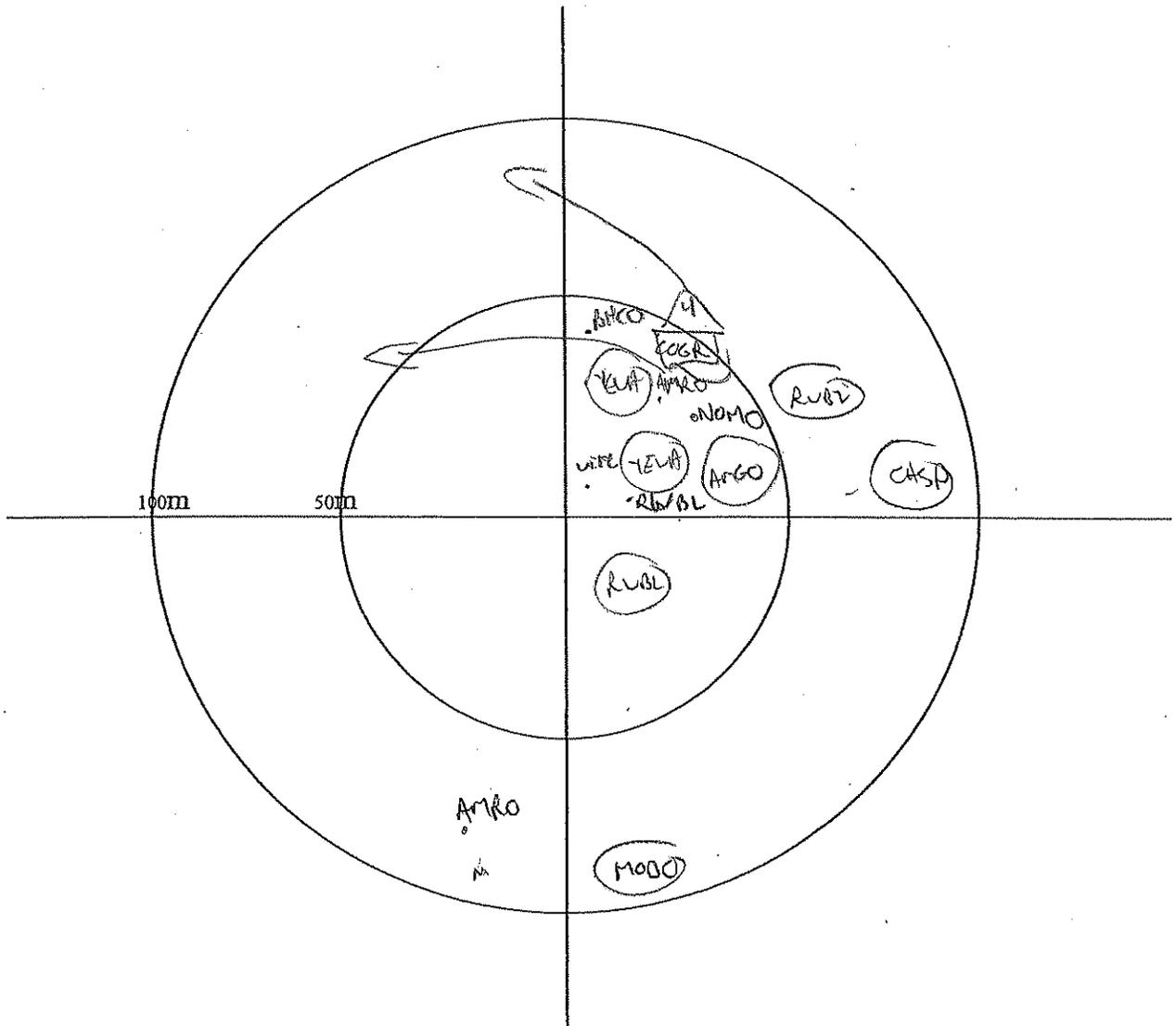
Observer: SKM	Site: SAMSUNG	Date: July 14/09
Station ID: ZN12	Visit #: SW102	Start Time (HH:MM): 07:25
Beaufort Wind Scale: 2	Cloud Cover (%): 0	Temperature (°C): 13
Precipitation: -	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - ⬆ Pair together
  - ⬆⬆ Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
COGR III



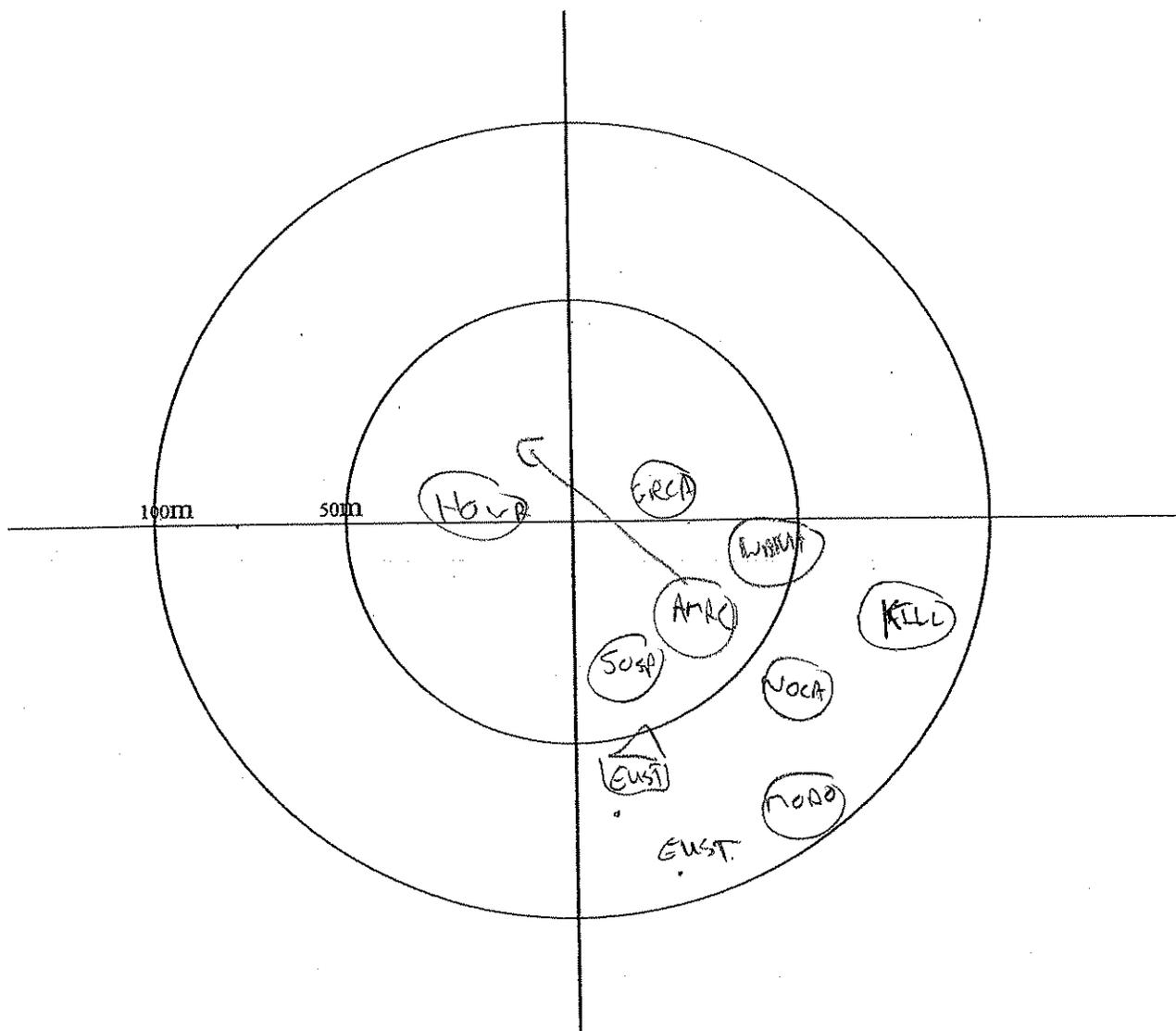
## Point Count Data Form

Observer:	Site:	Date:
Station ID: RW20	Visit #:	Start Time (HH:MM): 07:42
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - Known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

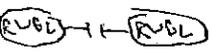
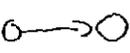
Outside/Flythru
AMCR II
AMGO



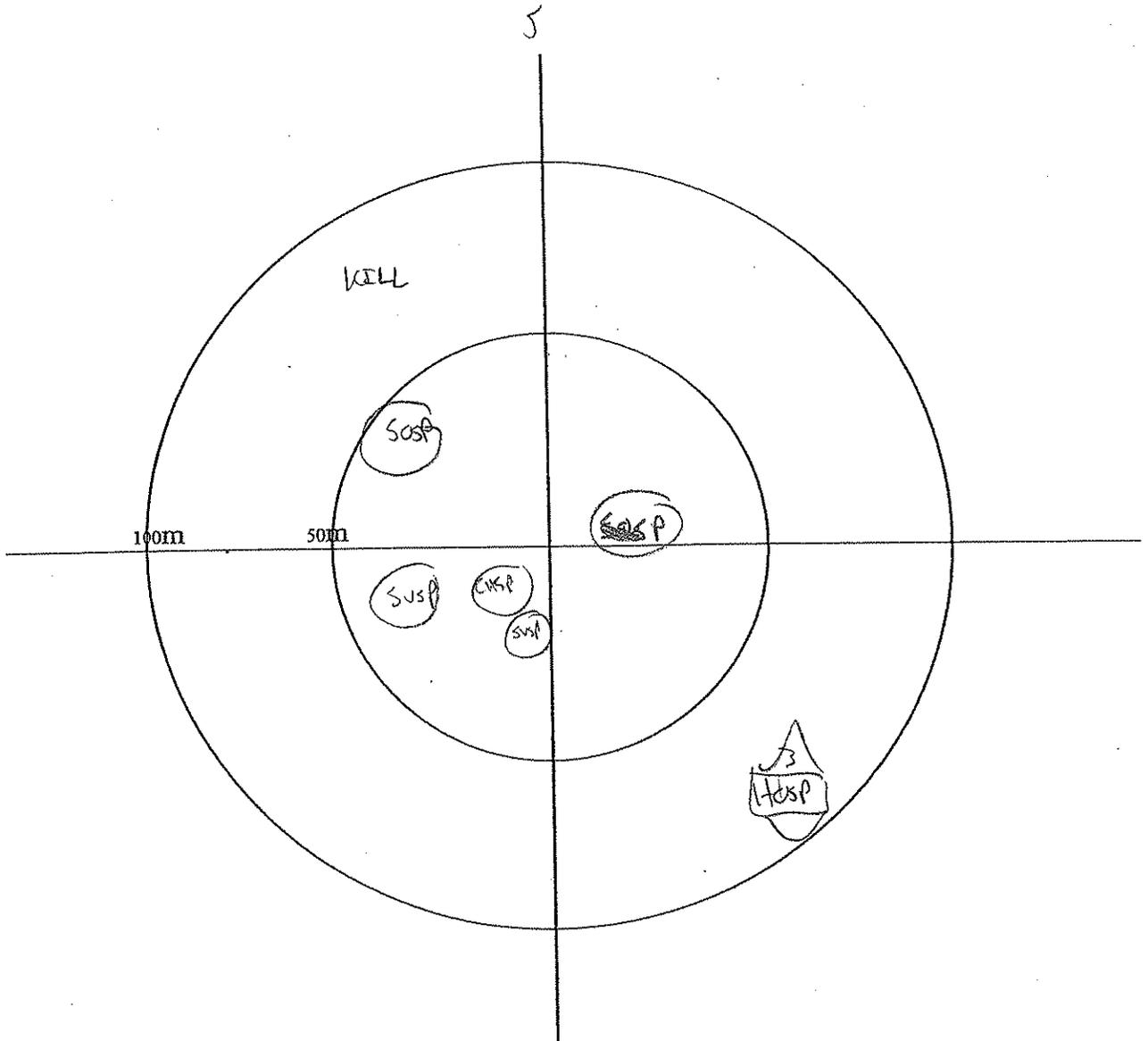
**Point Count Data Form**

Observer: <i>Shw</i>	Site: <i>SAMSUNG</i>	Date: <i>July 14 109</i>
Station ID: <i>JW19</i>	Visit #: <i>50702</i>	Start Time (HH:MM): <i>07:57</i>
Beaufort Wind Scale: <i>B2-3</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>14</i>
Precipitation: <i>/</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally
<i>ARNS</i>	<i>11</i>
<i>TRES</i>	<i>1</i>

- Symbols**
-  Single bird, singing/calling
  -  Diff. birds of same sp.
  -  Pair together
  -  Family group
  -  Obs., but not calling/singing
  -  known change in position
- Height**
- 1* - BT H
  - 2* - close to TH
  - 3* - VBS
  - 4* - WABS

Outside/Flythru
<i>AMGO 111</i>
<i>ANCH</i>
<i>KILL</i>
<i>ROPE</i>



## Point Count Data Form

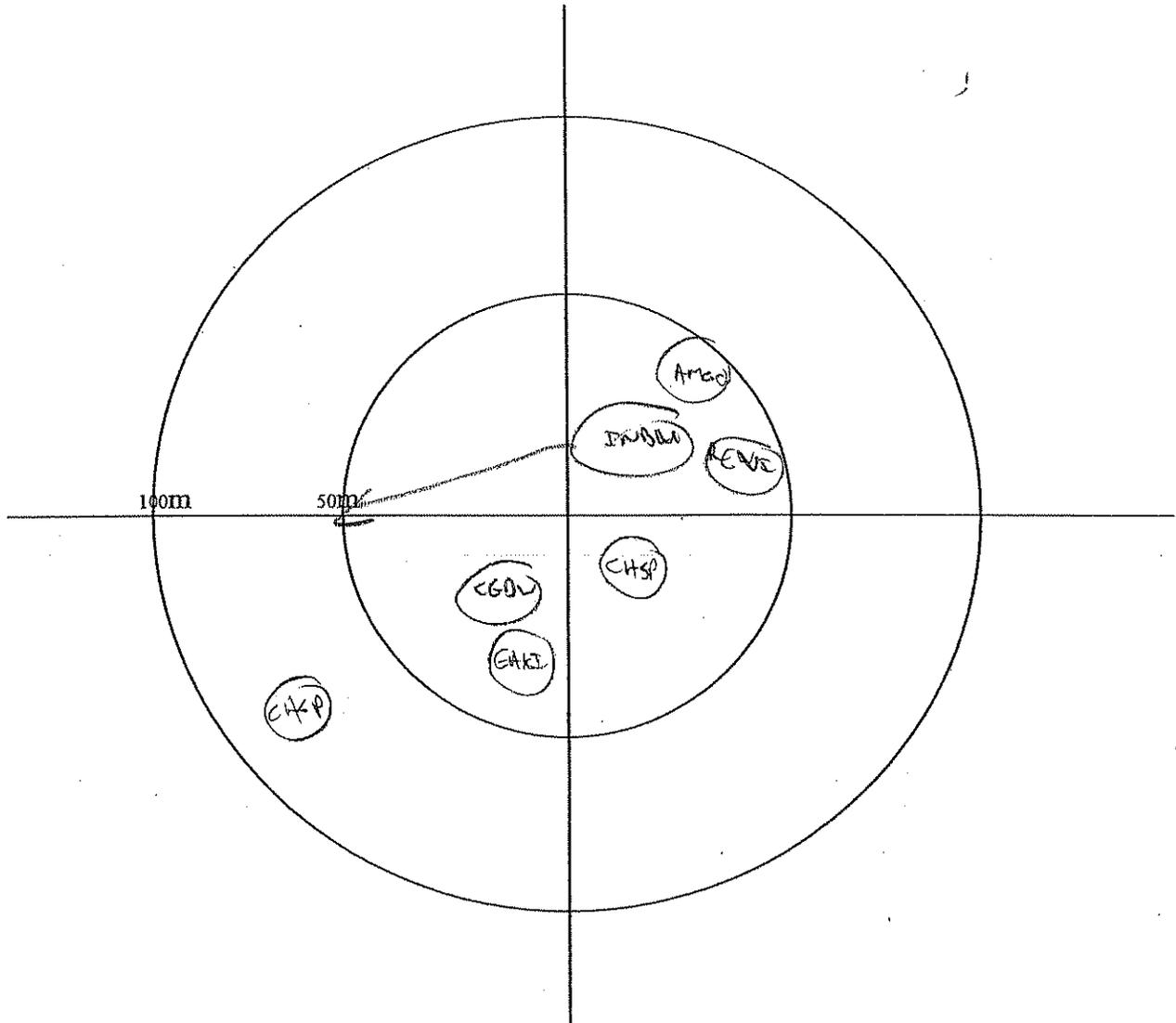
Observer:	Site:	Date:
Station ID: <u>IN18</u>	Visit #:	Start Time (HH:MM): <u>08:11</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
<u>Pumpkin</u>	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<u>AMCK</u>
<u>FEST</u>
<u>COCK</u>
<u>ROPE-11</u>





## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>W008</u>	Visit #:	Start Time (HH:MM): <u>08:35</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

### Symbols

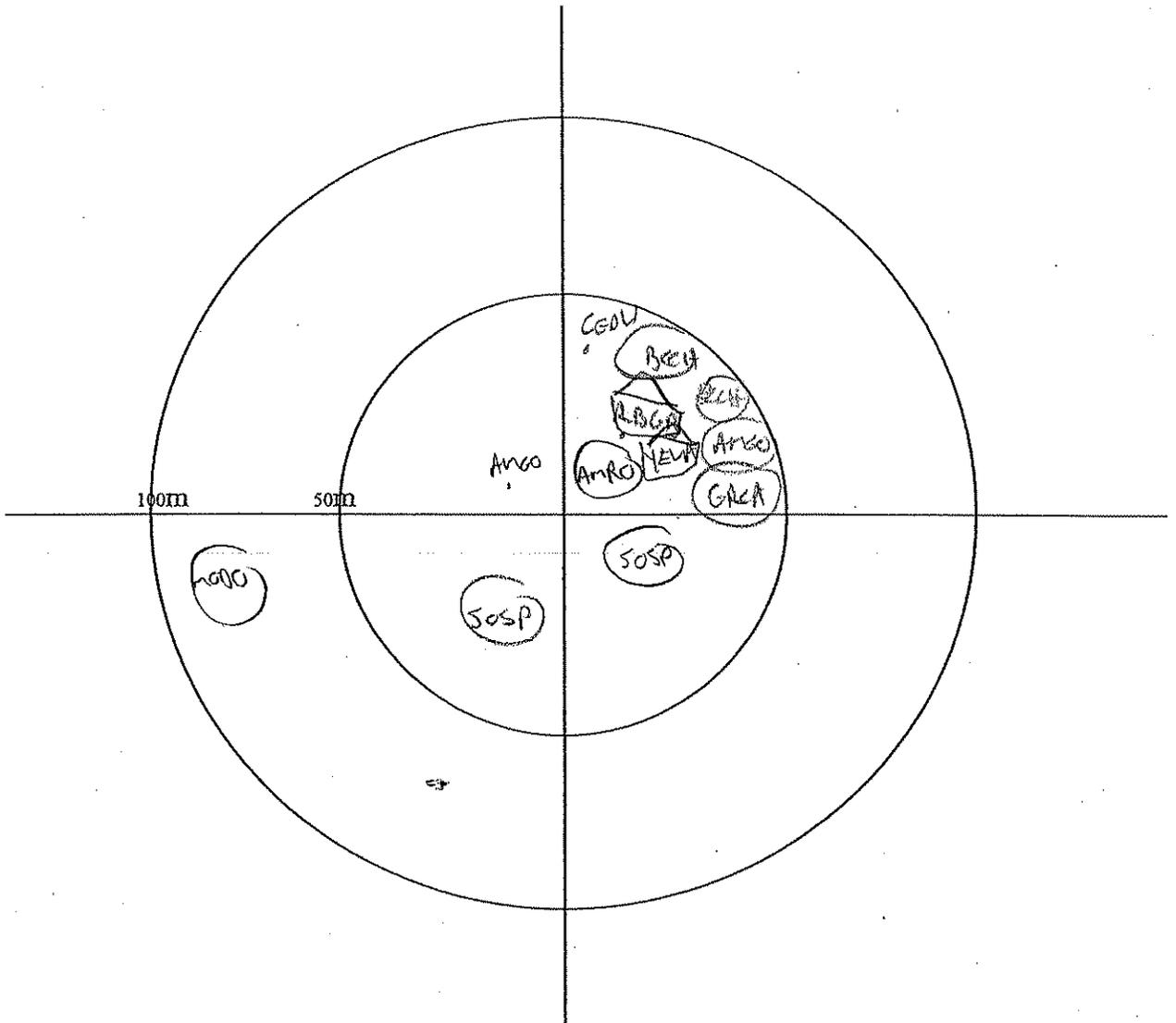
- RWBL Single bird, singing/calling
- RWBL ← RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1- BTH
- 2- close to TH
- 3- WBS
- 4- WABS

Aerial Foragers	
Species	Tally

Outside/Flythru
11/10/00



### Point Count Data Form

Observer: <u>SKW</u>	Site: <u>SAMSUNG</u>	Date: <u>July 14 109</u>
Station ID: <u>WJ017</u>	Visit #: <u>50102</u>	Start Time (HH:MM): <u>0854</u>
Beaufort Wind Scale: <u>B2-3</u>	Cloud Cover (%): <u>0</u>	Temperature (°C): <u>16</u>
Precipitation: <u>—</u>	Visibility: <u>—</u>	
Remarks:		

#### Symbols

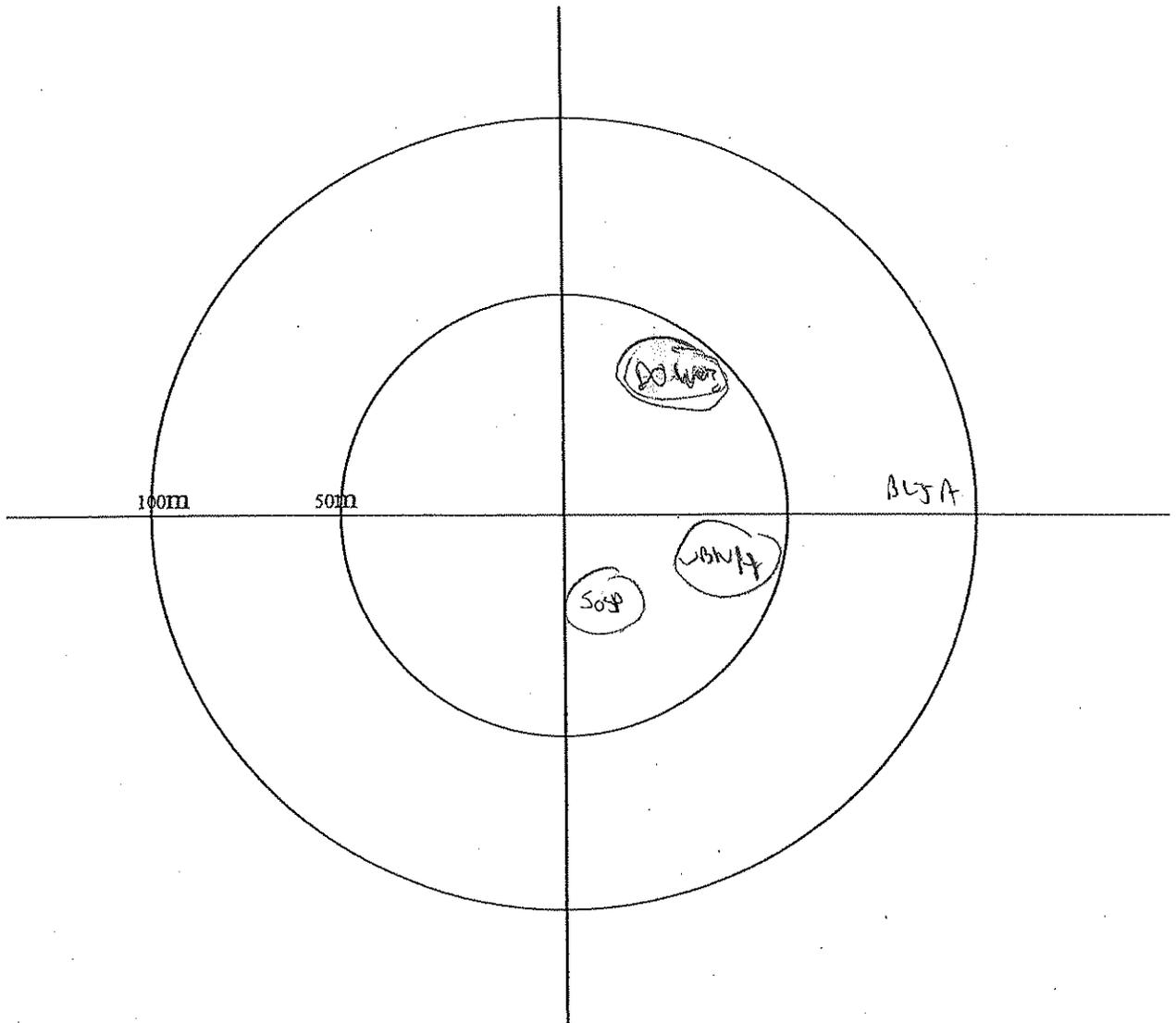
- WBL Single bird, singing/calling
- RUBL → RUBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

#### Height

- 1 - BTM
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
<u>TUVU</u>

Aerial Foragers	
Species	Tally



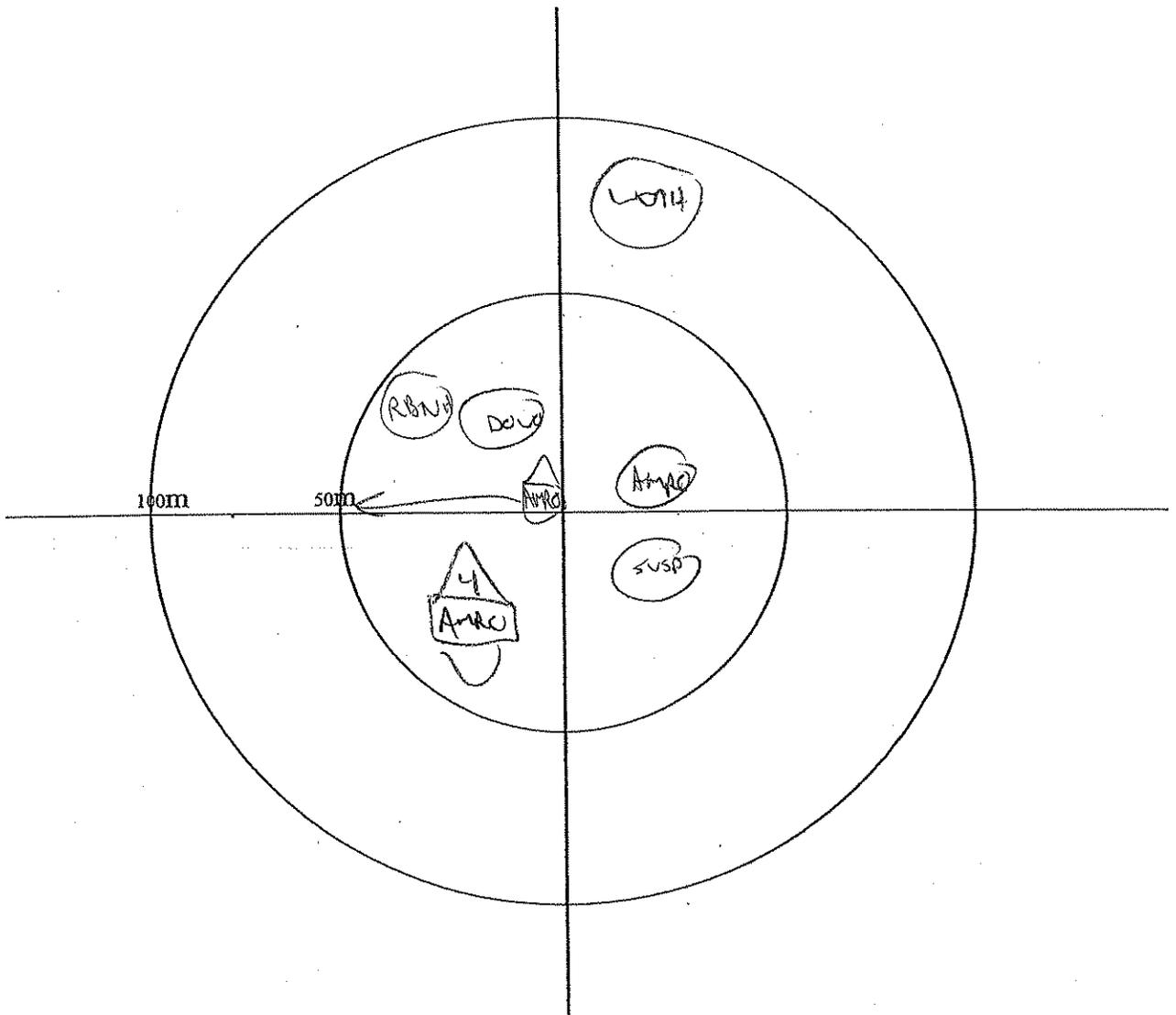
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>NO 16</u>	Visit #:	Start Time (HH:MM): <u>09:08</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<del>RTH</del>
KIL
Amcr-5



### Point Count Data Form

Observer: <u>SKM</u>	Site: <u>SAMSUNG</u>	Date: <u>July 15/07</u>
Station ID: <u>W002</u>	Visit #: <u>Sum 02</u>	Start Time (HH:MM): <u>05:05</u>
Beaufort Wind Scale: <u>0</u>	Cloud Cover (%): <u>0</u>	Temperature (°C): <u>17</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks: <u>passing cars influencing audio slightly</u>		

#### Symbols

- (RWBL) Single bird, singing/calling
- (RWBL) → (RWBL) Diff. birds of same sp.
- △ Pair together
- ⬆ Family group
- Obs., but not calling/singing
- → ○ known change in position

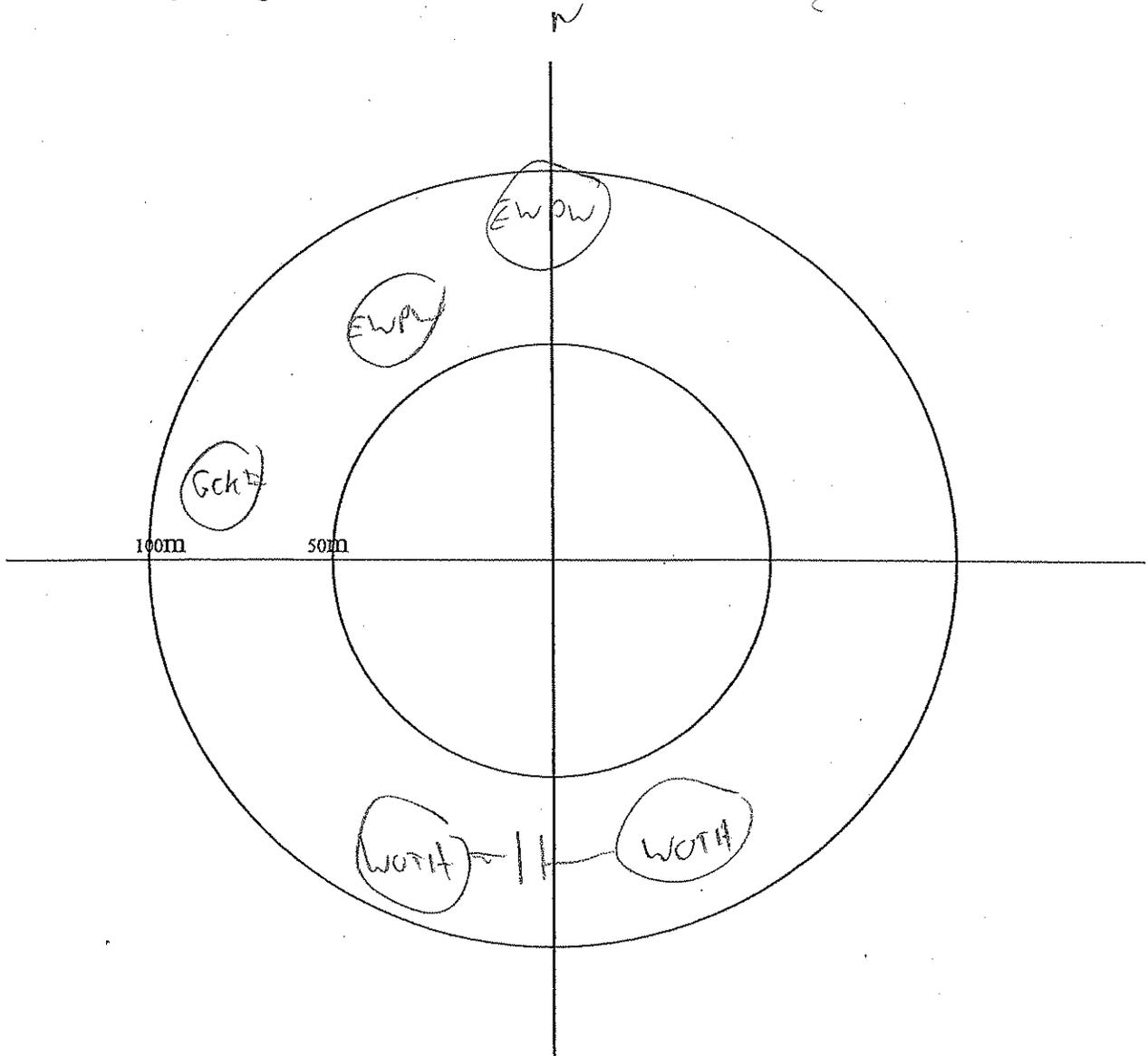
#### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

#### Outside/Flythru

<del>BTB</del>
FISP

Aerial Foragers	
Species	Tally



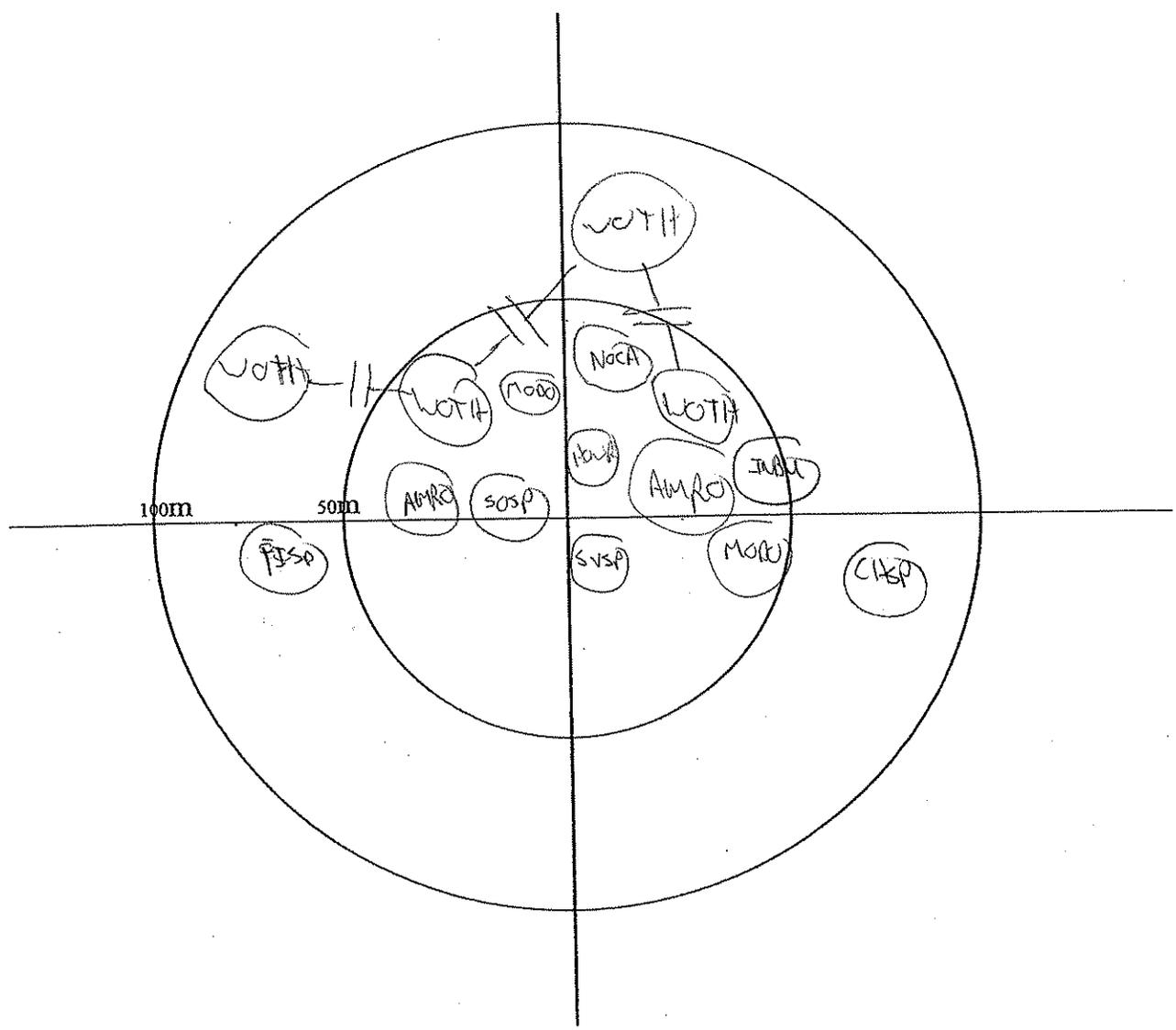
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>W001</u>	Visit #:	Start Time (HH:MM) <u>05:17</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL - RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WA BS

Outside/Flythru
PISP



## Point Count Data Form

Observer: SKOM	Site: SFRMSUNG	Date: Jul, 15/09
Station ID: W003	Visit #: SUM03	Start Time (HH:MM): 05:36
Beaufort Wind Scale: B0	Cloud Cover (%): 10	Temperature (°C): 13
Precipitation: —	Visibility: clear	
Remarks:		

### Symbols

- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

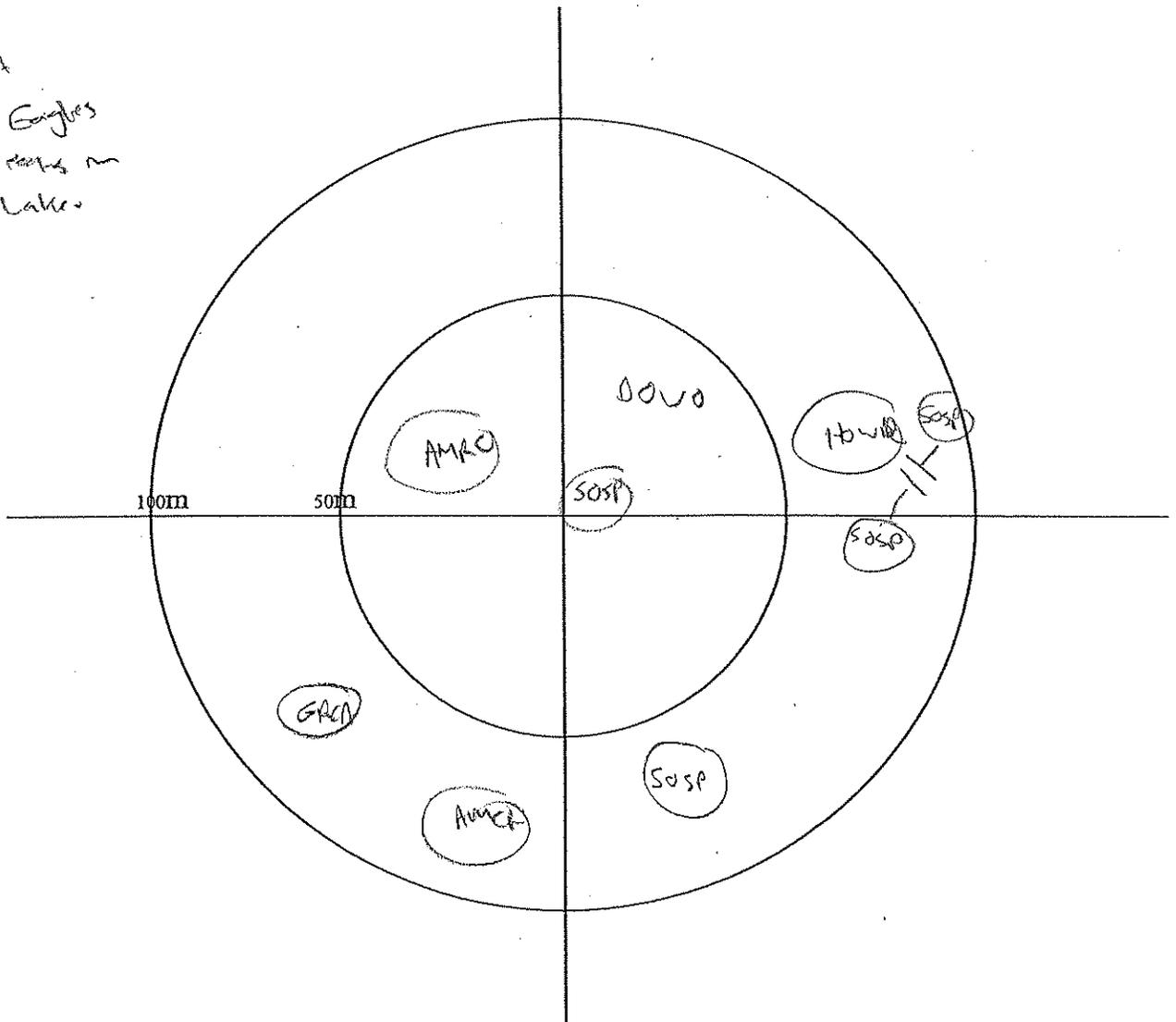
### Height

- 1 - BT H
- 2 - close to TH
- 3 - VBS
- 4 - WA BS

Outside/Flythru
AMER - 2+1

Aerial Foragers	
Species	Tally

Note: 2 adult  
Bald Eagles  
on rocks in  
Lakes.



## Point Count Data Form

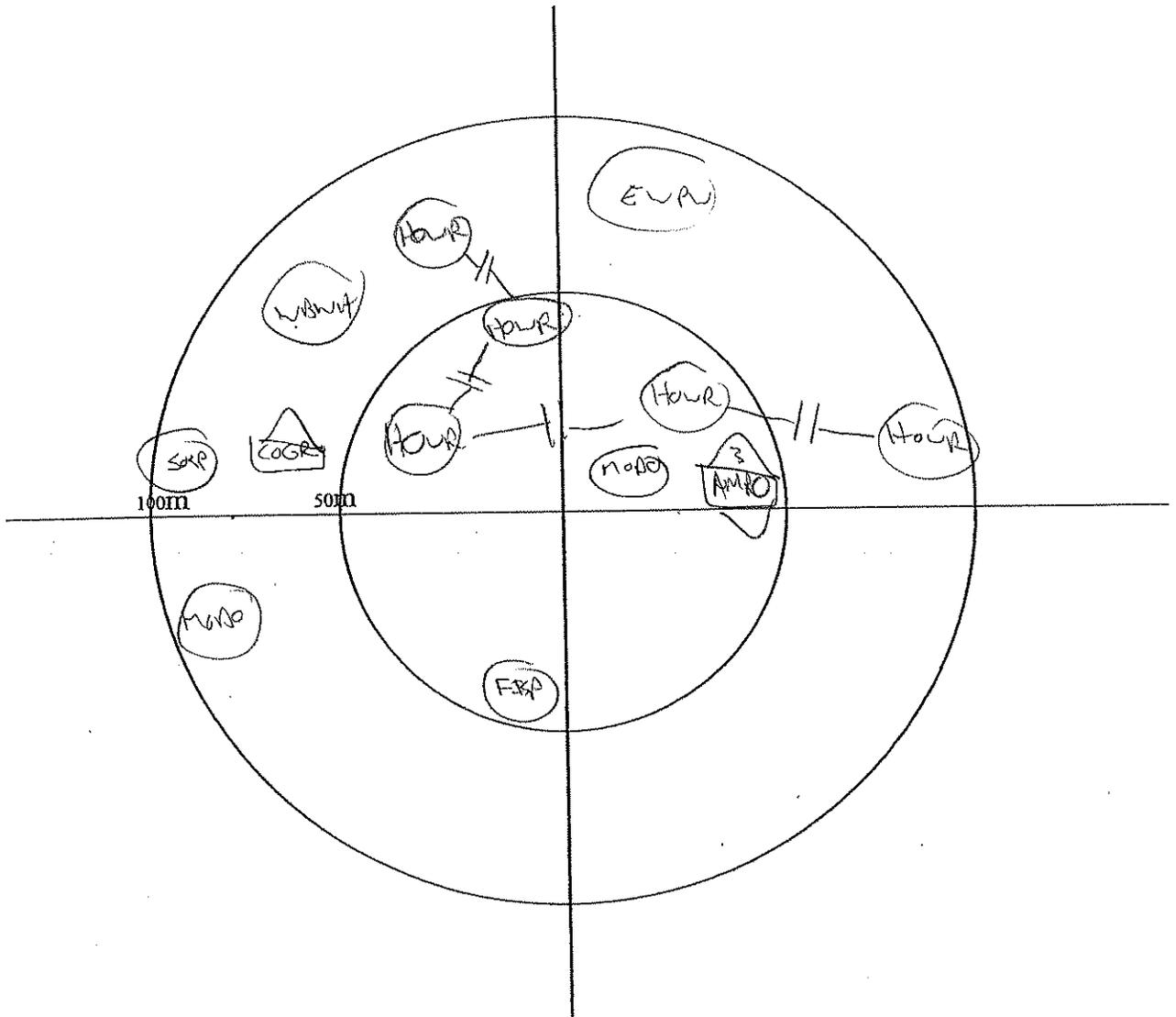
Observer:	Site:	Date:
Station ID: <u>V004</u>	Visit #:	Start Time (HH:MM): <u>05:58</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
NRVS	11

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
ANCR III
ANCO
ANCO



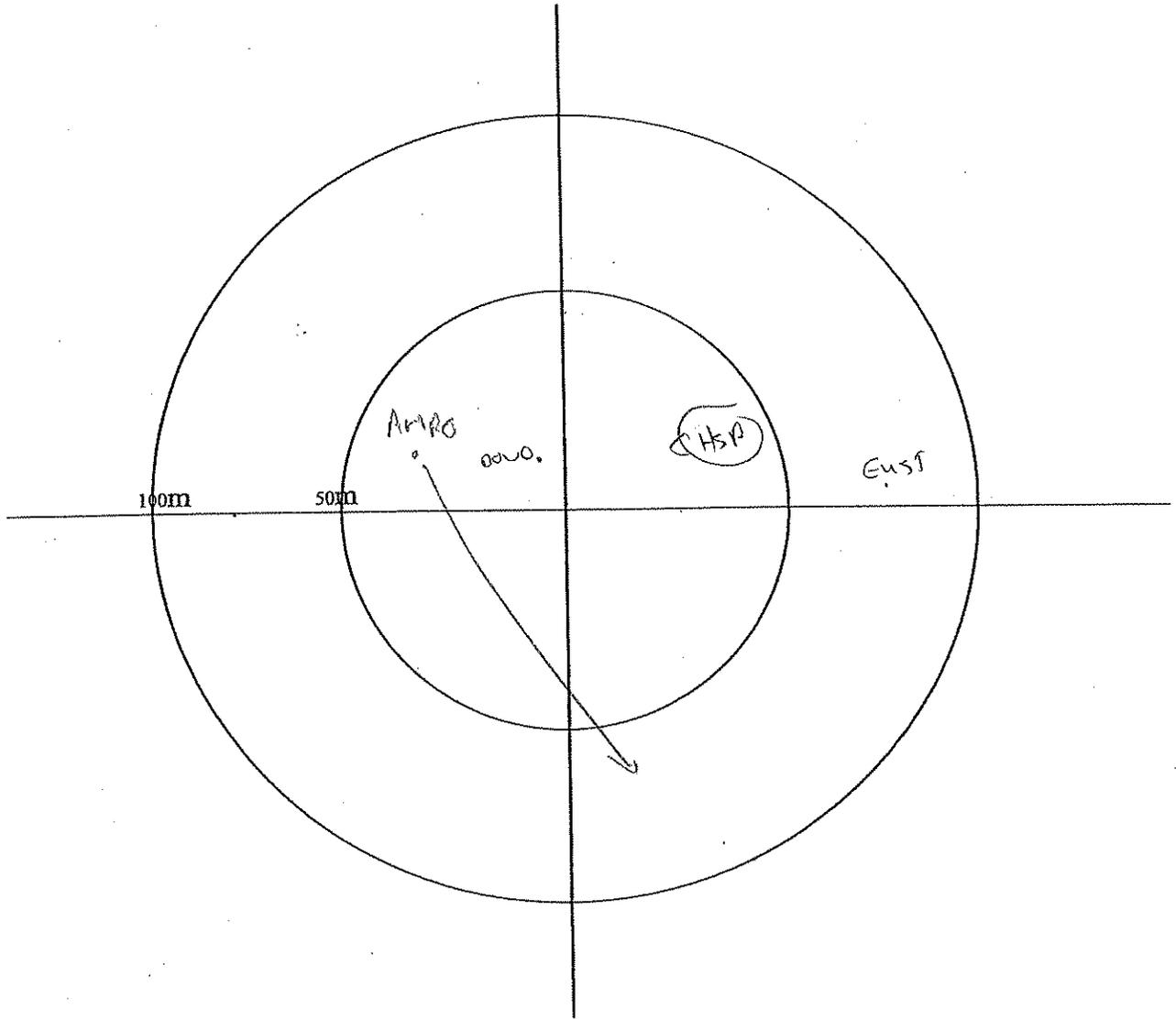
## Point Count Data Form

Observer: <u>SKW</u>	Site: <u>SAMS-VE</u>	Date: <u>July 15 / 09</u>
Station ID: <u>W005</u>	Visit #: <u>SWR02</u>	Start Time (HH:MM): <u>06:13</u>
Beaufort Wind Scale: <u>B1</u>	Cloud Cover (%): <u>20</u>	Temperature (°C): <u>14</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks: <u>hard to tell because of large persistently hovering dog.</u>		

Aerial Foragers	
Species	Tally
BKWS	III

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height ✓
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WRBS

Outside/Flythru
Kall
WTH
POPI-4
EUST-15

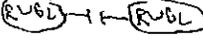
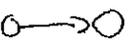


**Point Count Data Form**

Observer: <i>Skor</i>	Site: <i>SAMSUNG</i>	Date: <i>July 15/09</i>
Station ID: <i>W006</i>	Visit #: <i>50002</i>	Start Time (HH:MM): <i>06:23</i>
Beaufort Wind Scale: <i>B1</i>	Cloud Cover (%): <i>30</i>	Temperature (°C): <i>14°</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

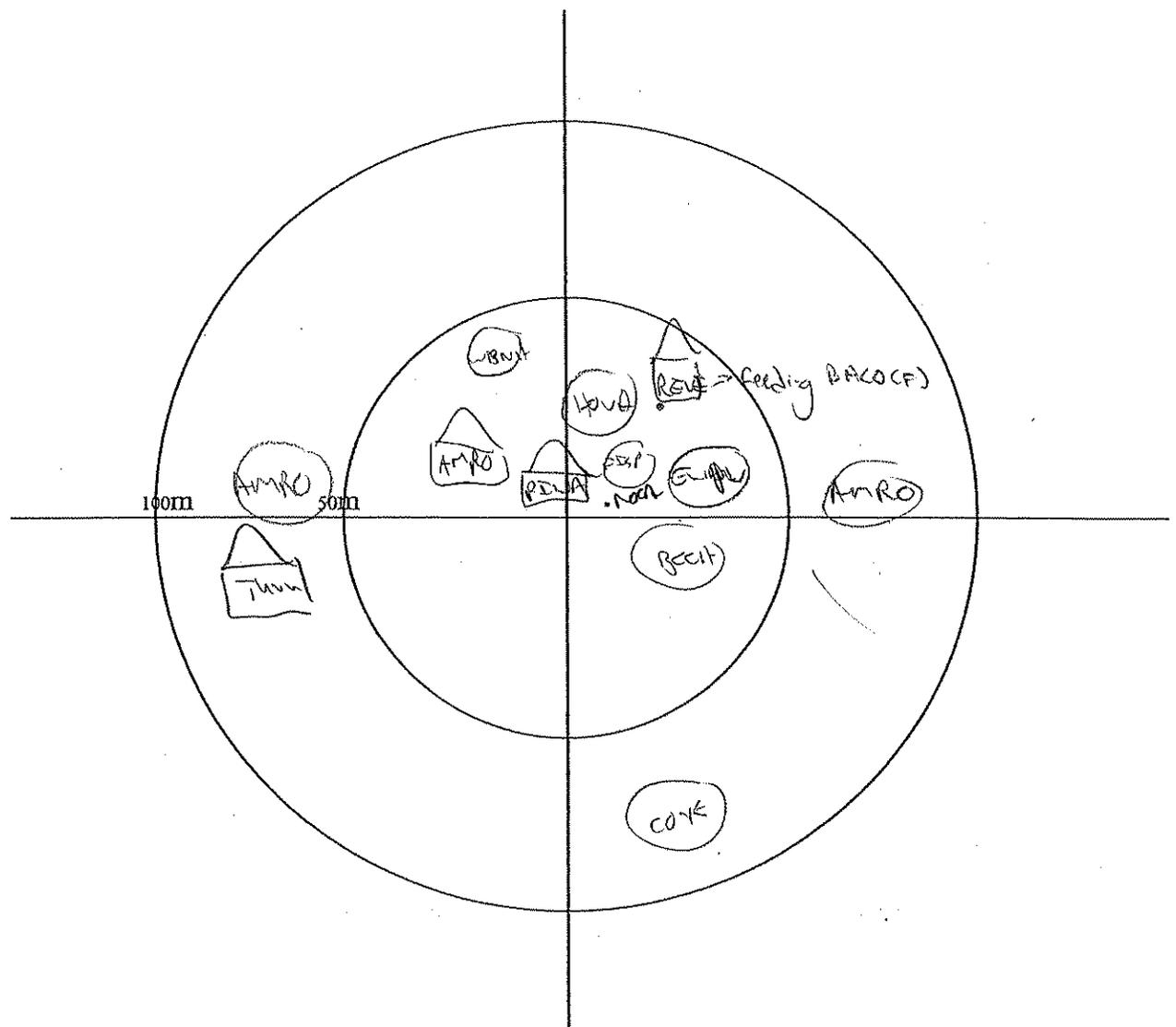
**Symbols**

 Single bird, singing/calling  
 Diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 known change in position

**Height**

1 - BTH  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
<i>AMCR</i>
<i>M000</i>
<i>CST-5</i>



**Point Count Data Form**

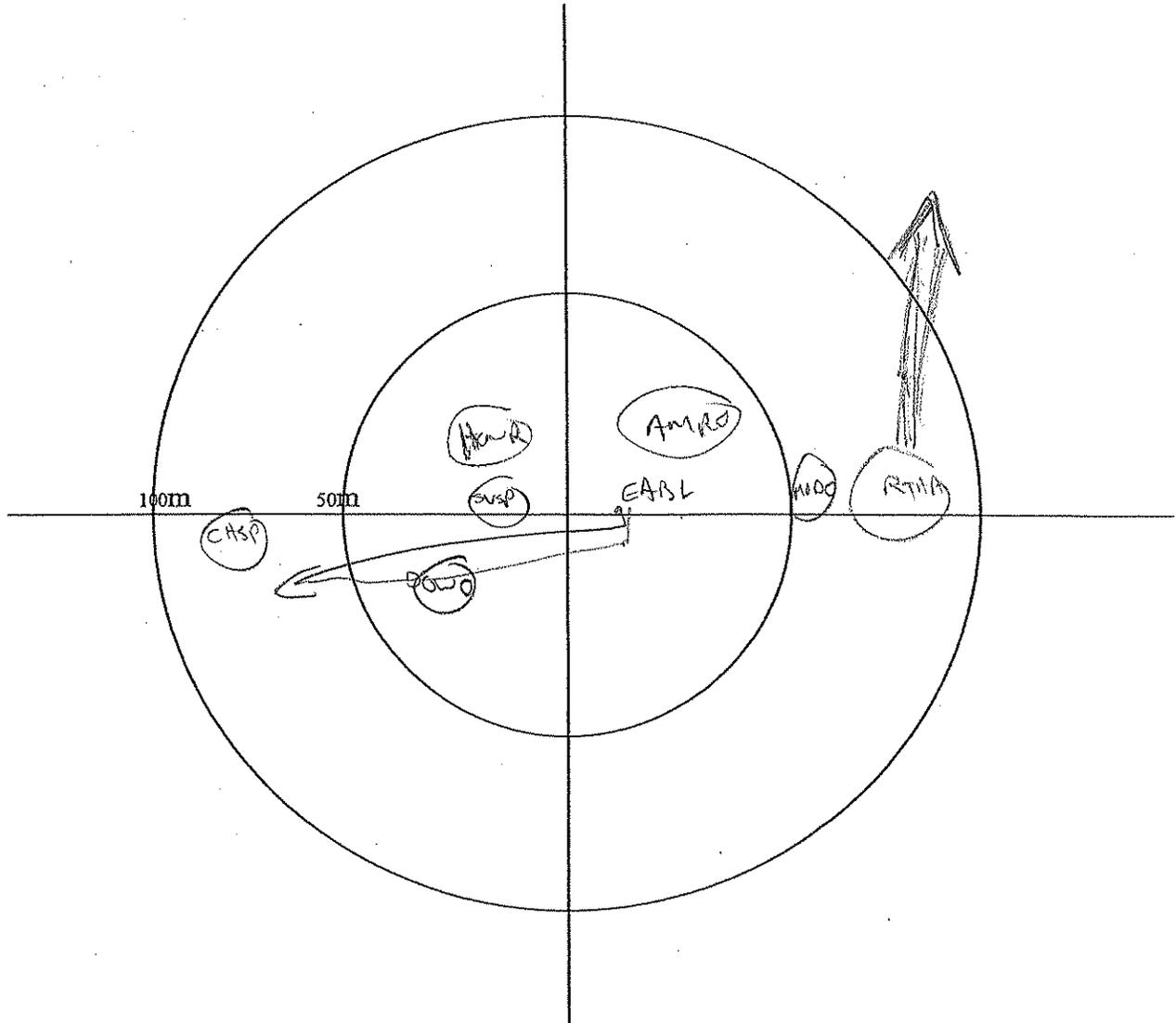
Observer: <i>Shm</i>	Site: <i>SAMSUNG</i>	Date: <i>Jul 15/09</i>
Station ID: <i>NOV2</i>	Visit #: <i>summ 02</i>	Start Time (HH:MM): <i>06:47</i>
Beaufort Wind Scale: <i>1</i>	Cloud Cover (%): <i>00</i>	Temperature (°C): <i>14</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- (RWBL)* Single bird, singing/calling
  - (RWBL) — (RWBL)* diff. birds of same sp.
  - Pair together
  - ◻* Family group
  - Obs., but not calling/singing
  - → ○* known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WABS

Outside/Flythru
<i>AmC2 II</i>



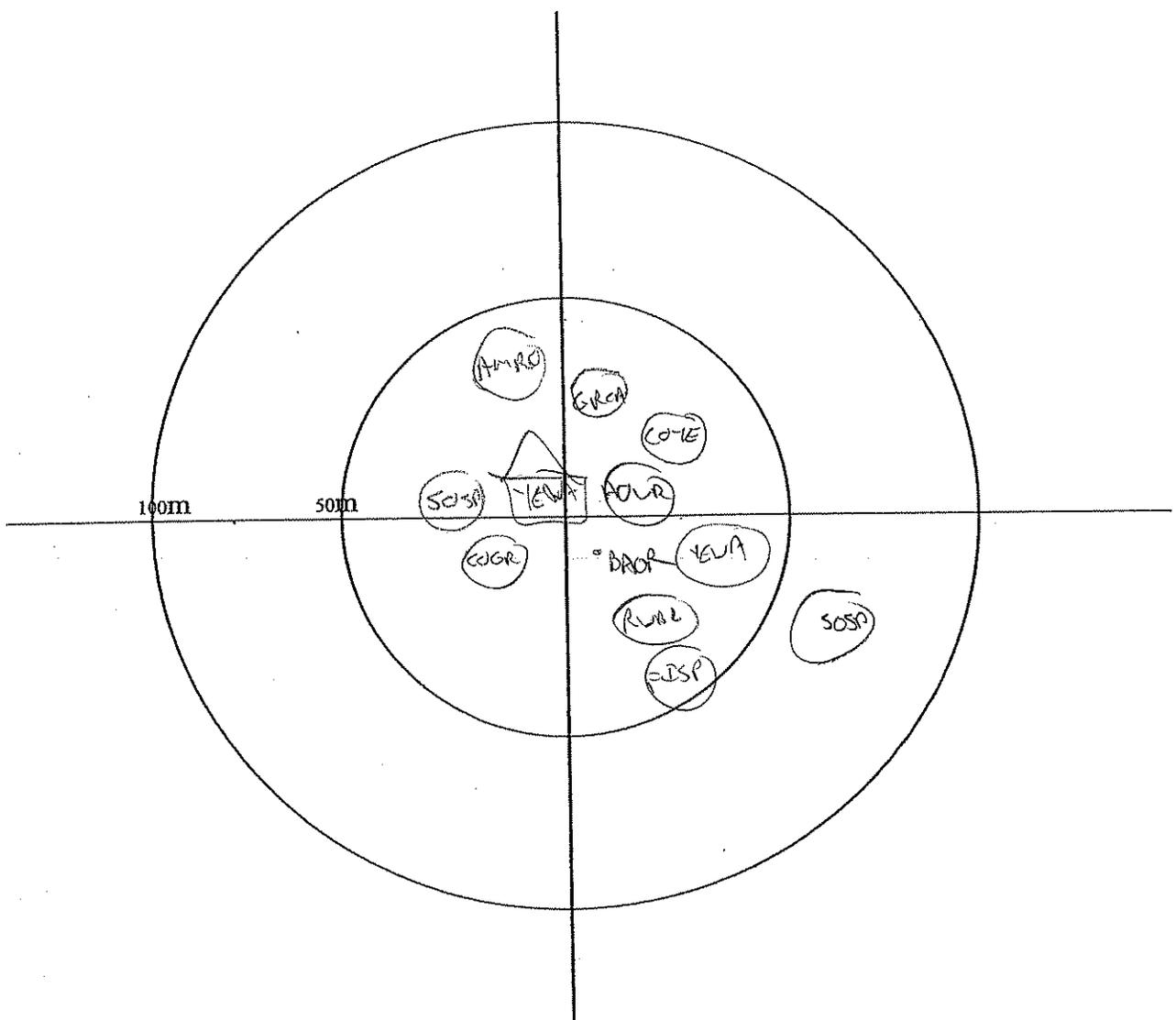
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>W013</u>	Visit #:	Start Time (HH:MM): <u>07:00</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL + RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
Aner
RBLW



## Point Count Data Form

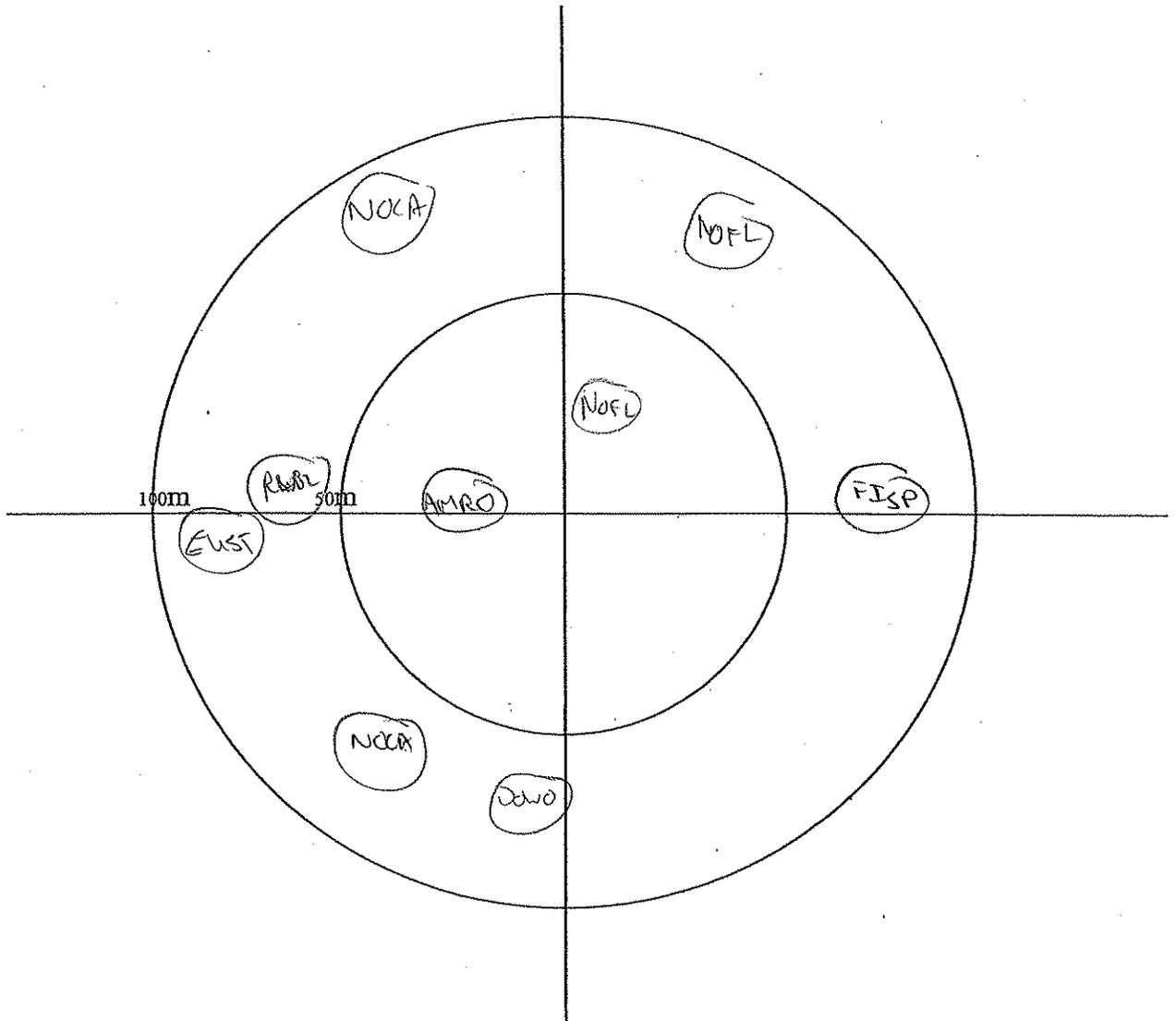
Observer: SKM	Site: SAMUNGA	Date: Jul, 15/09
Station ID: V011	Visit #: Summer	Start Time (HH:MM): 07:14
Beaufort Wind Scale: 01	Cloud Cover (%): 40	Temperature (°C): 15
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- WBL Single bird, singing/calling.
  - RUBL → RUBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position.

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
AMGO
AMCR - III



## Point Count Data Form

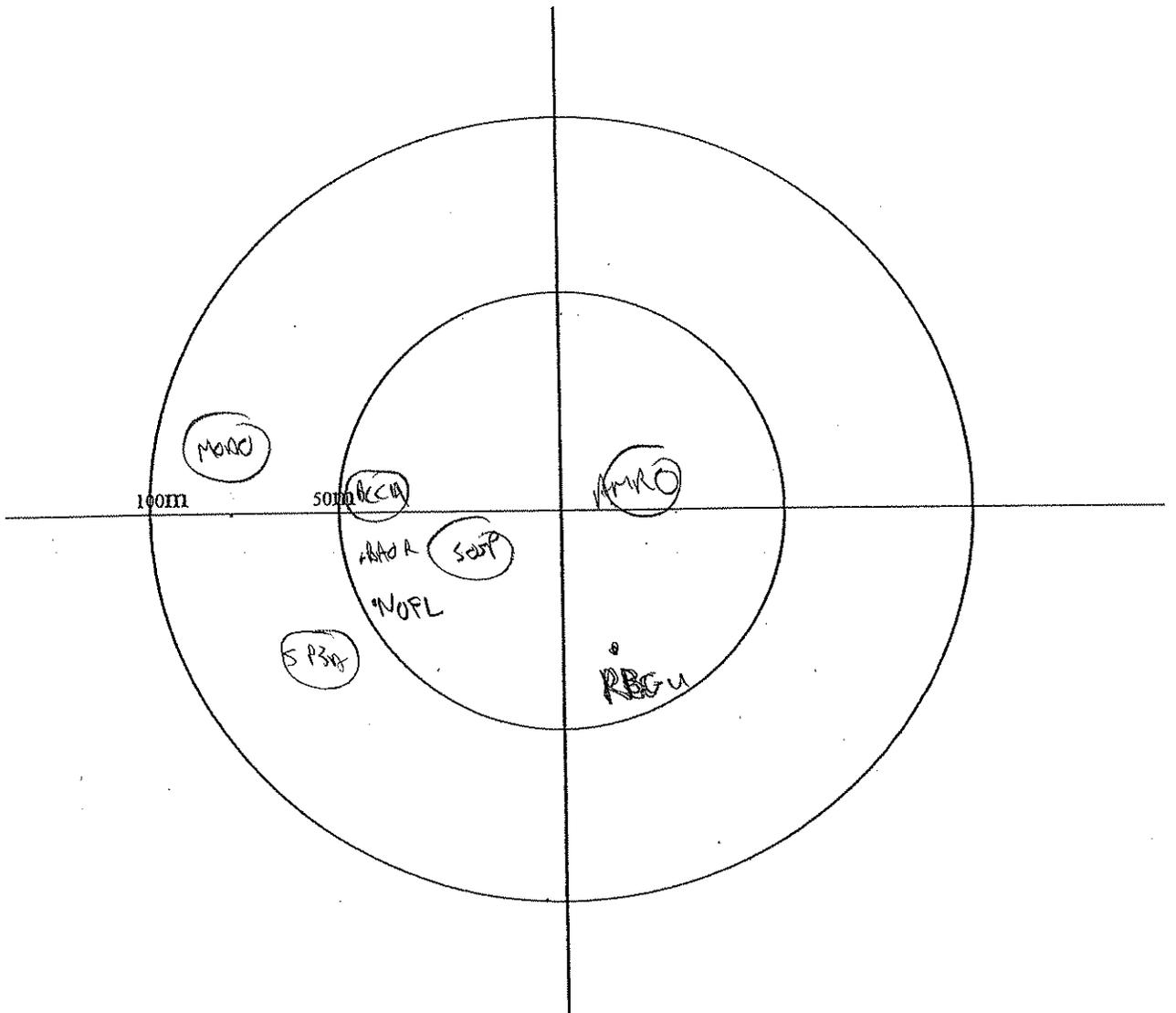
Observer:	Site:	Date:
Station ID: <u>U007</u>	Visit #:	Start Time (HH:MM): <u>07:33</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
AMRO



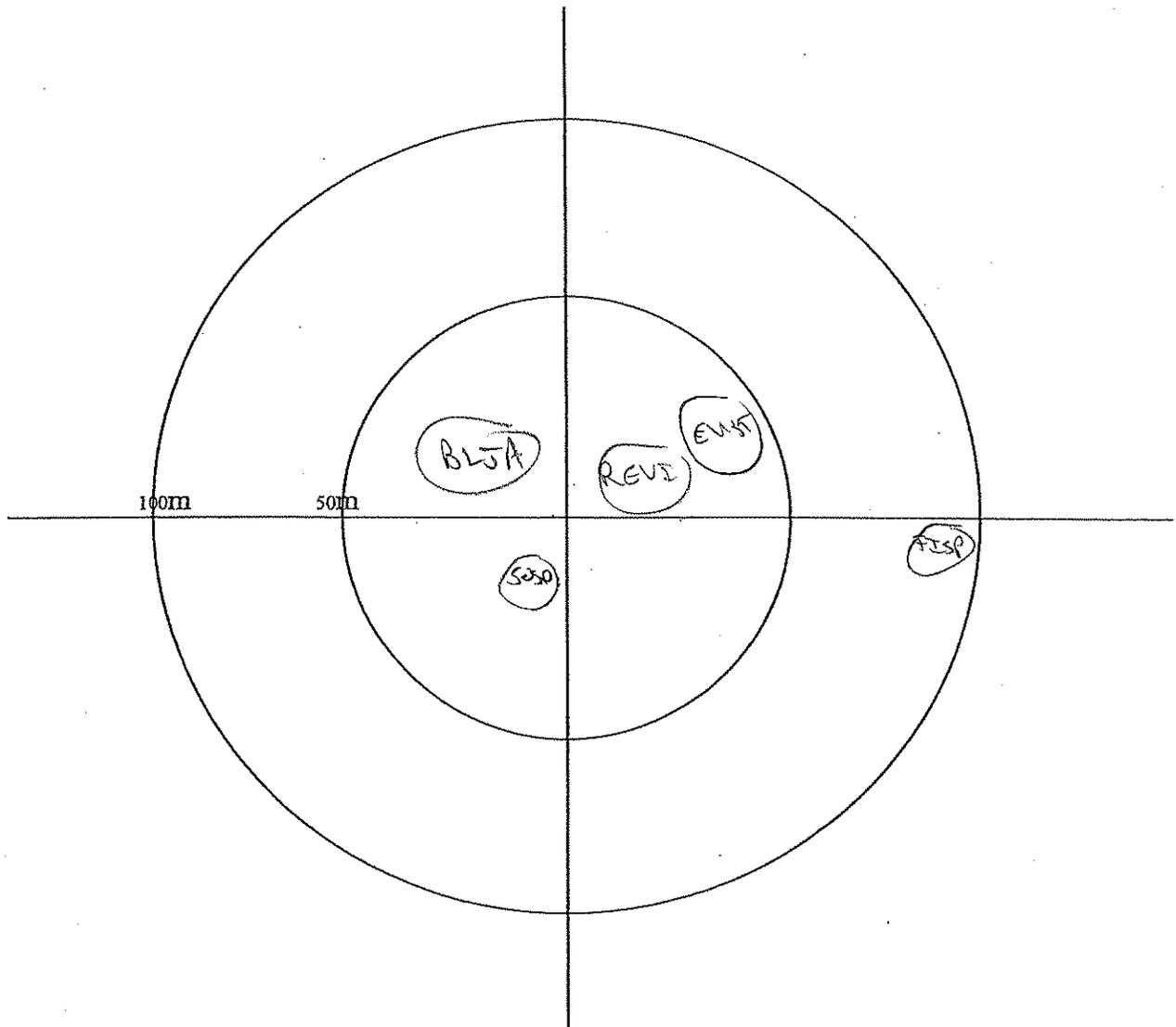
### Point Count Data Form

Observer: <u>SKM</u>	Site: <u>SAMSUNG</u>	Date: <u>July 15/09</u>
Station ID: <u>V010</u>	Visit #: <u>54102</u>	Start Time (HH:MM): <u>07:54</u>
Beaufort Wind Scale: <u>01</u>	Cloud Cover (%): <u>30</u>	Temperature (°C): <u>15</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru



# Point Count Data Form

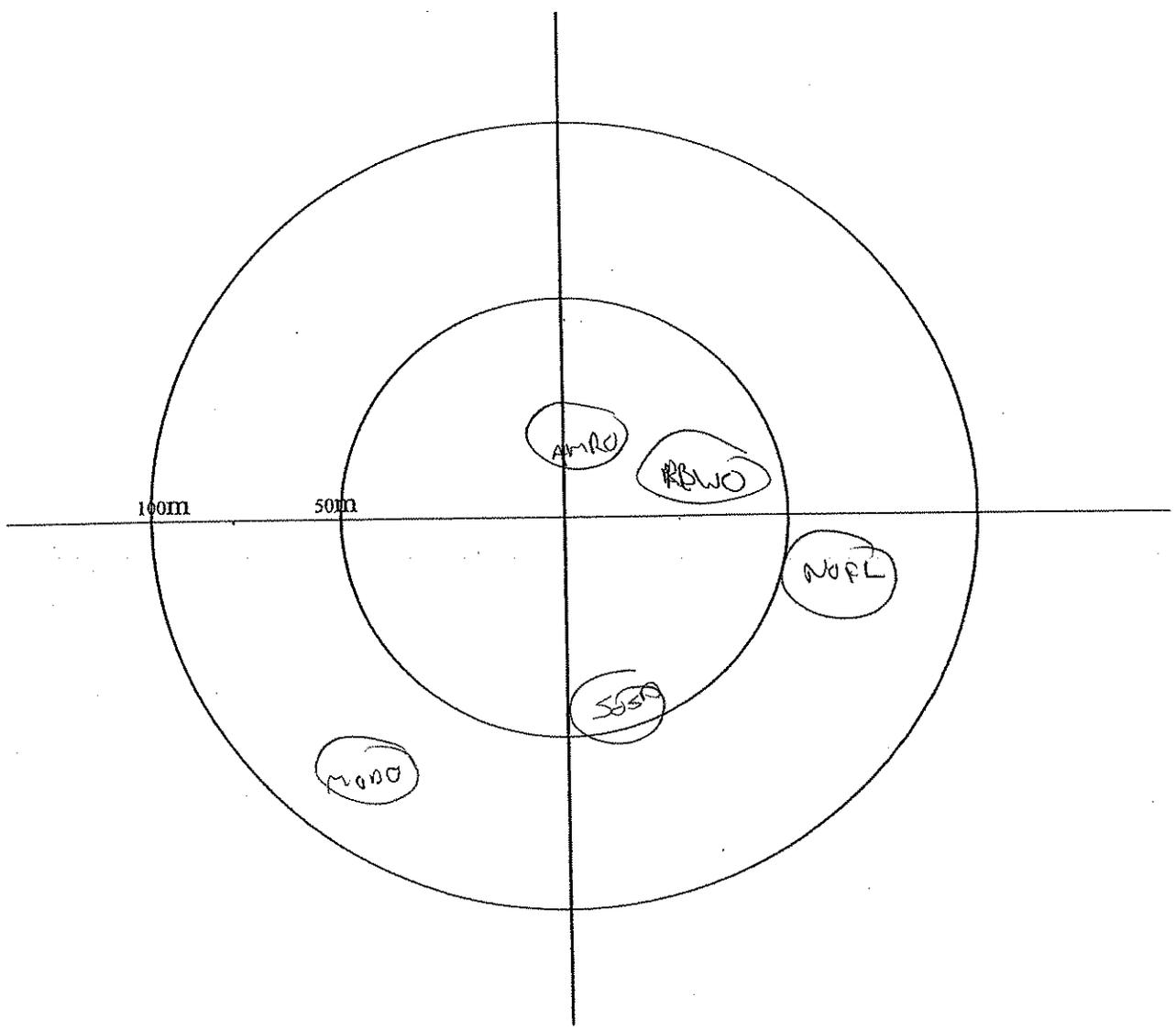
Observer:	Site:	Date:
Station ID: <u>U009</u>	Visit #:	Start Time (HH:MM): <u>08:00</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
ORNS	
NWS	

- ### Symbols
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - Known change in position

- ### Height
- 1 - BTM
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RTTH
EUST
AMRO





## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>W015</u>	Visit #:	Start Time (HH:MM): <u>08:29</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

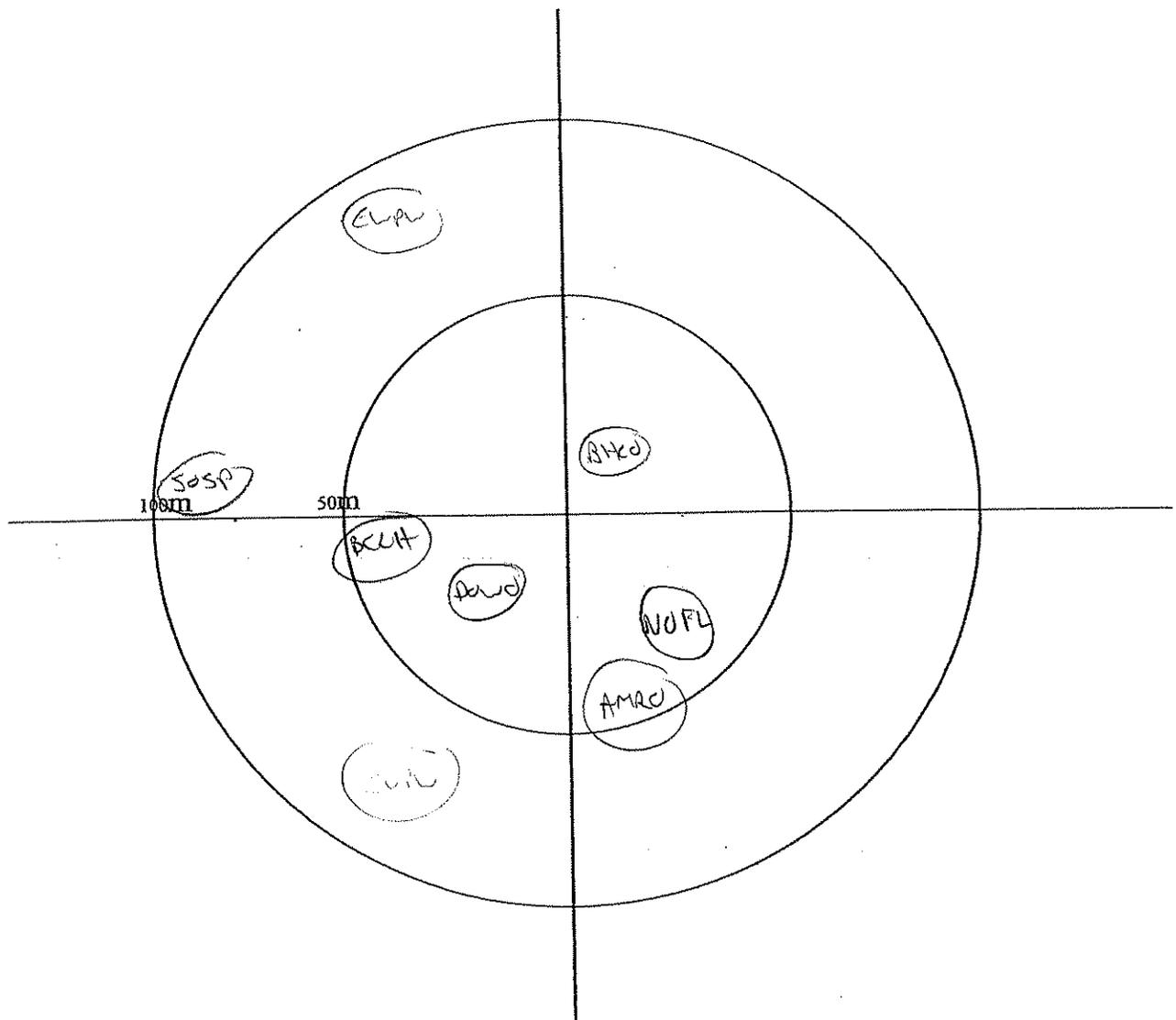
Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, ringing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WA BS

Outside/Flythru
<u>COGA - 2 → 50</u> <small>→ 200m</small>
<u>AMGO</u>
<u>AMCR</u>

vole



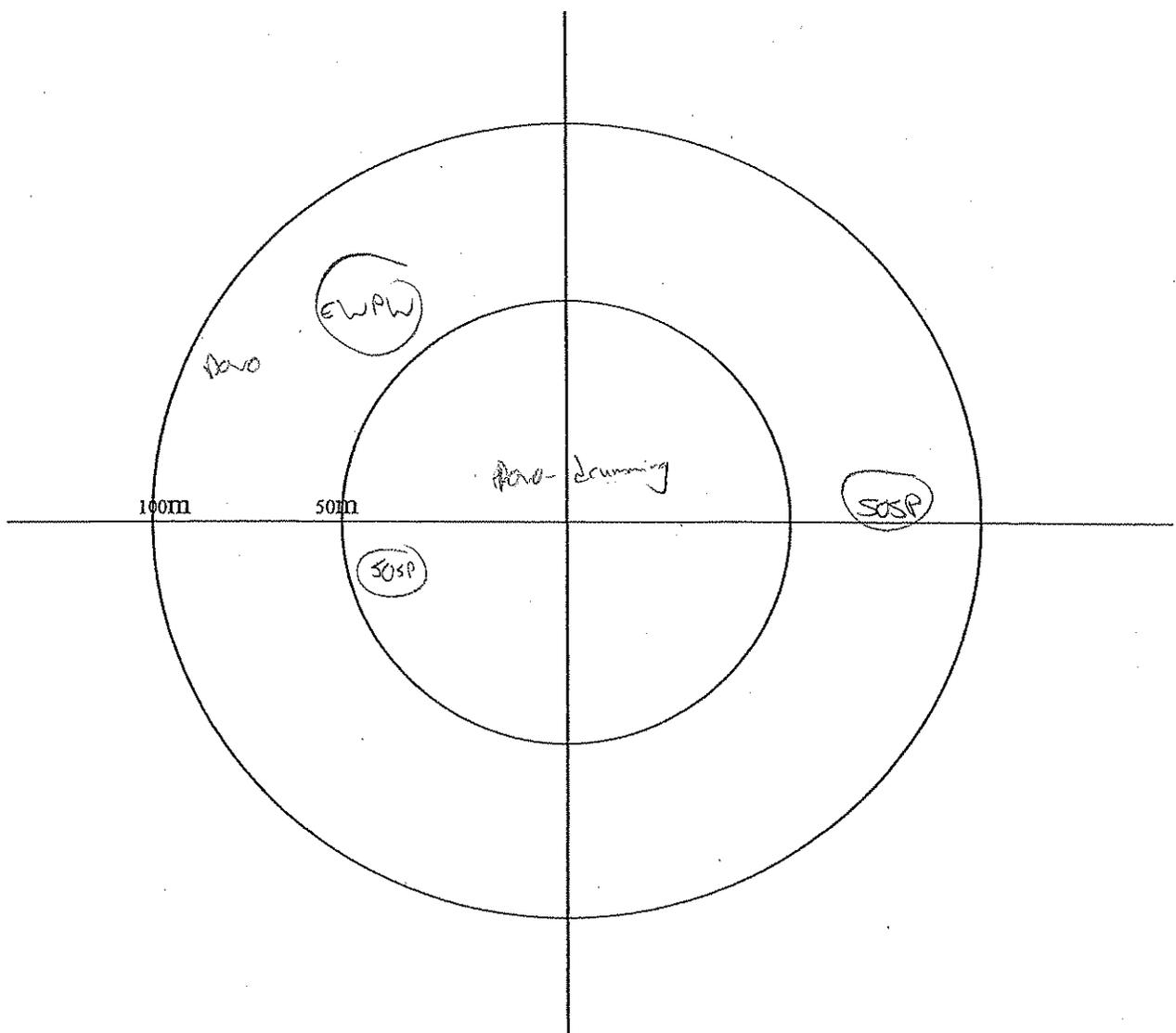
## Point Count Data Form

Observer: <u>LRM</u>	Site: <u>SAMSUNG</u>	Date: <u>July 15/09</u>
Station ID: <u>W016</u>	Visit #: <u>SUMOR</u>	Start Time (HH:MM): <u>08:42</u>
Beaufort Wind Scale: <u>82</u>	Cloud Cover (%): <u>10</u>	Temperature (°C): <u>17</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - WBS
  - 4 - WABS

Outside/Flythru



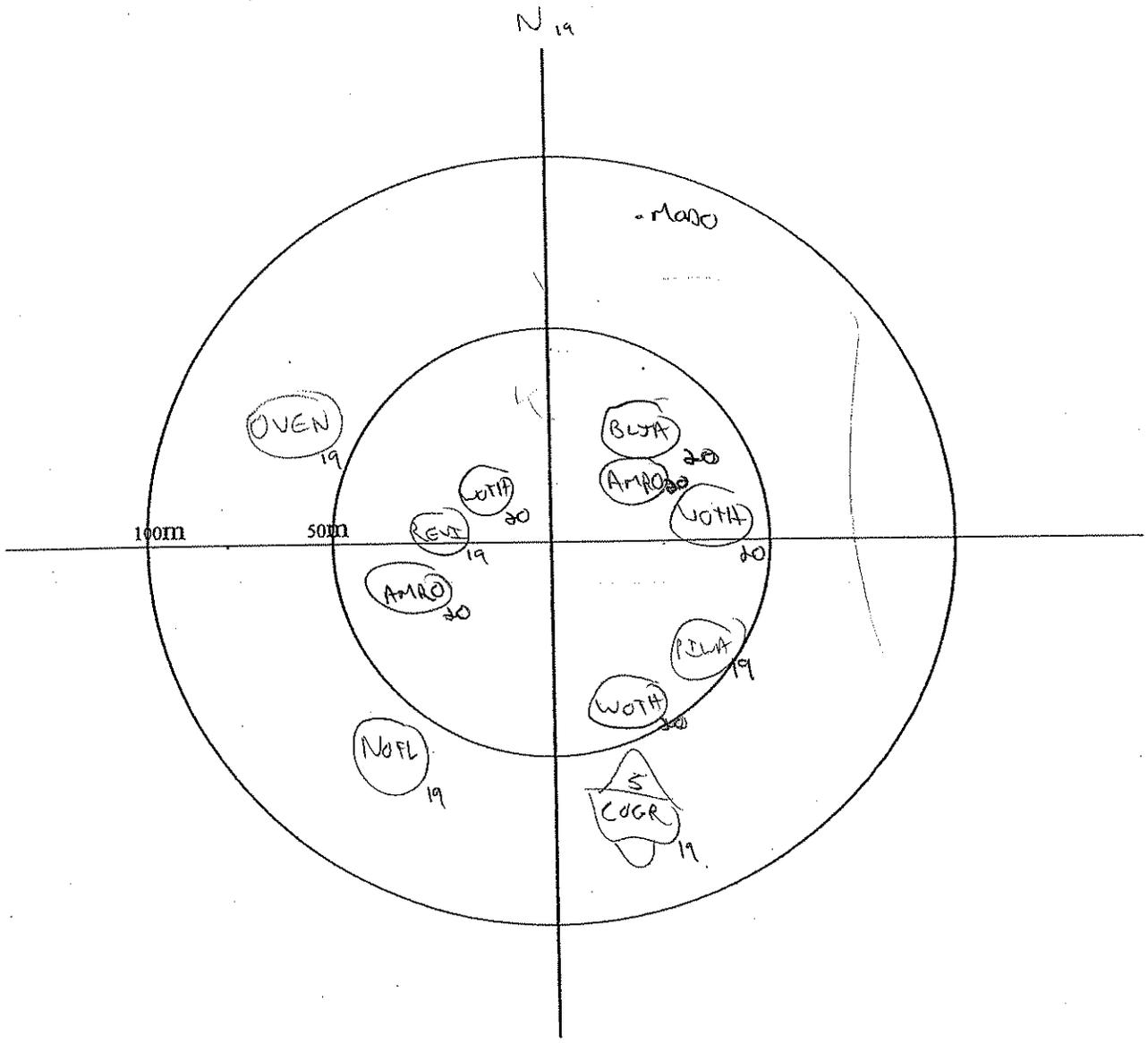
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>0019</u>	Visit #:	Start Time (HH:MM): <u>08:56</u>
Beaufort Wind Scale: <u>W020</u>	Cloud Cover (%):	Temperature (°C):
Precipitation: <u>509:10</u>	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL + RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru



## Point Count Data Form

Observer: <i>Shw</i>	Site: <i>S Am Shw G</i>	Date: <i>Jun 24/09</i>
Station ID: <i>LE20</i>	Visit #: <i>sum 02</i>	Start Time (HH:MM): <i>05:46</i>
Beaufort Wind Scale: <i>0</i>	Cloud Cover (%): <i>20</i>	Temperature (°C): <i>18</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

### Symbols

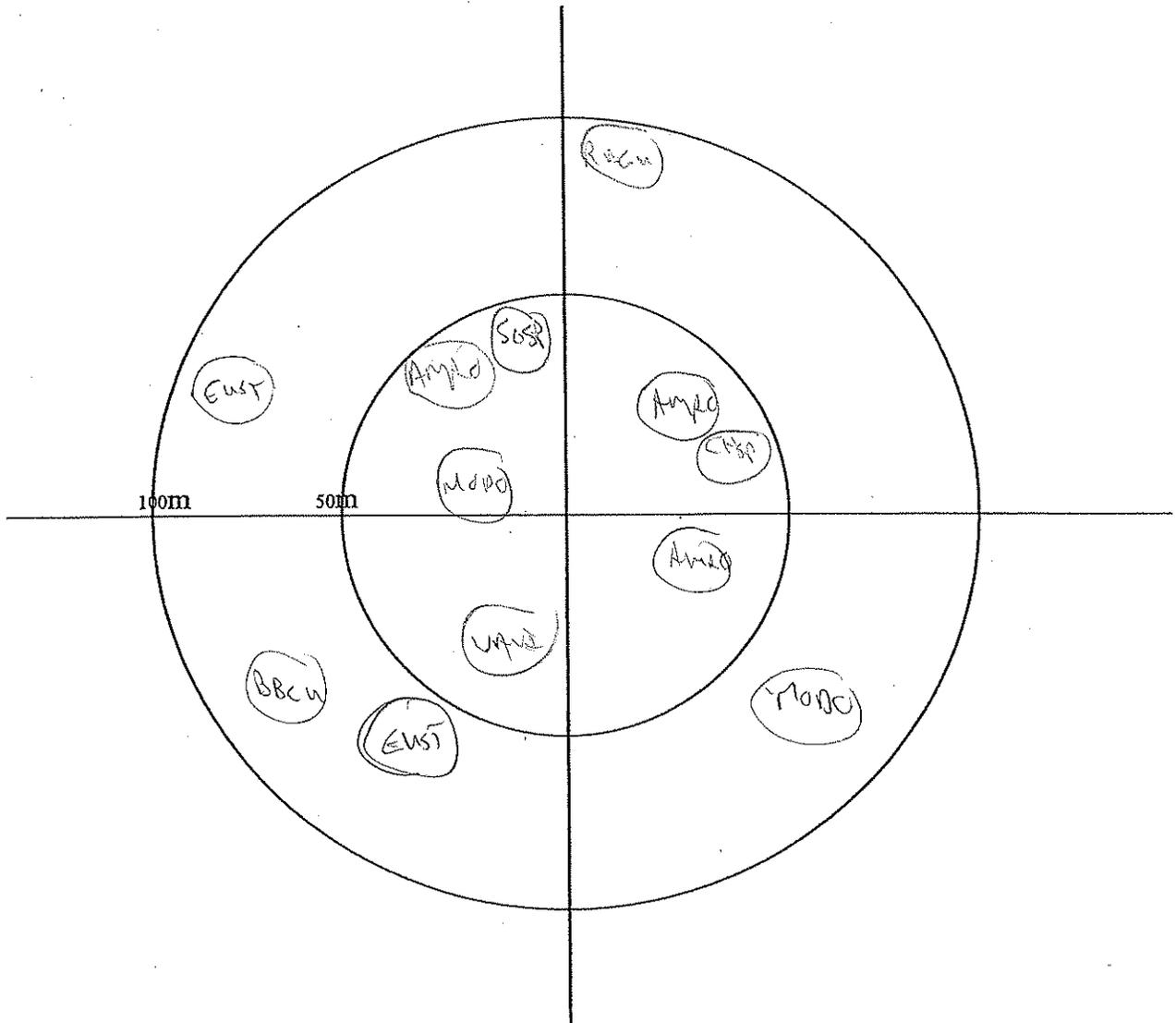
- RWBL Single bird, singing/calling
- RWBL — RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

### Height

- 1 - BT H
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
<i>HOSP</i>
<i>RBCU</i>

Aerial Foragers	
Species	Tally



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>LE19</u>	Visit #:	Start Time (HH:MM): <u>05:21</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
<u>PurFA</u>	<u>    </u>

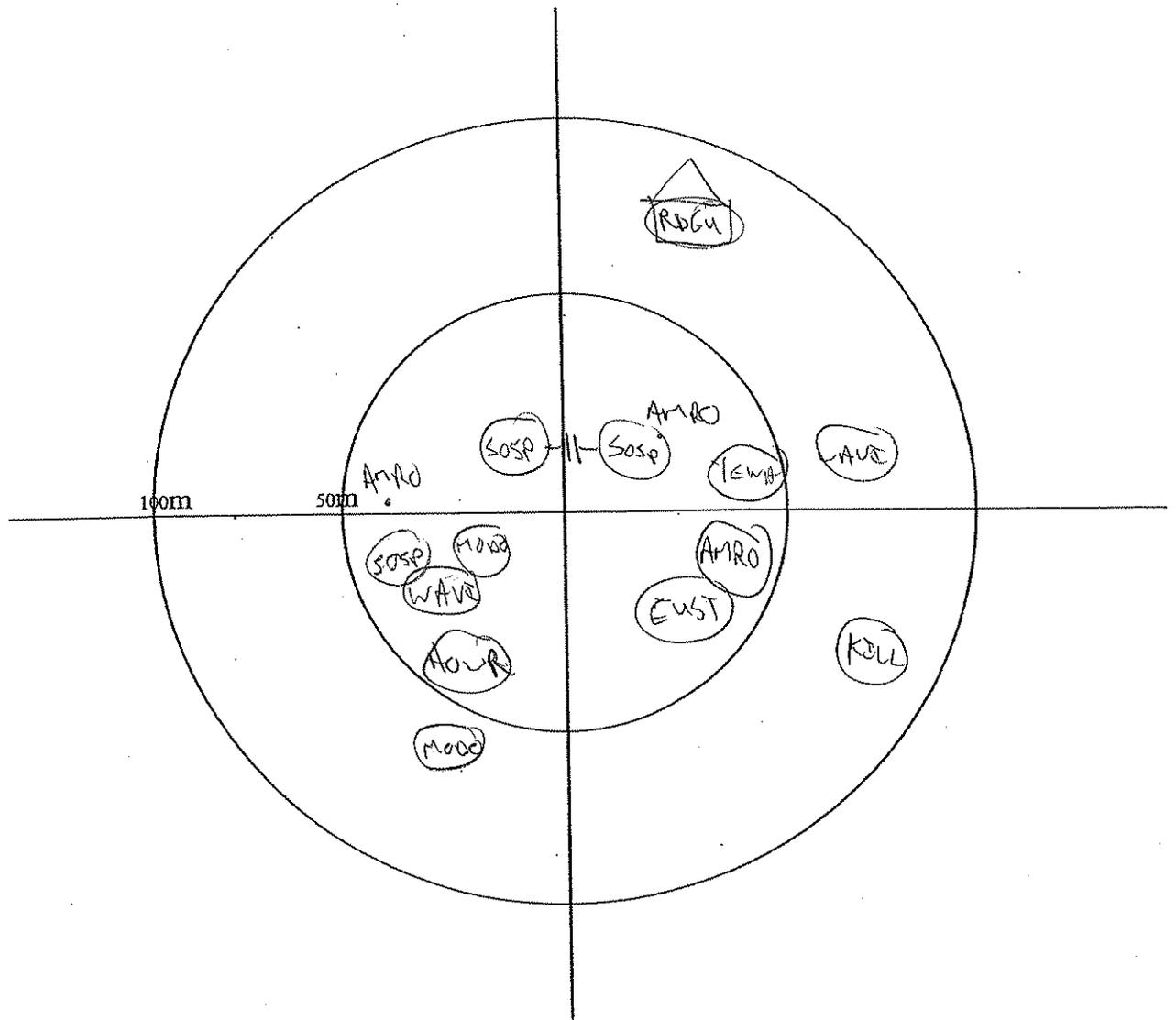
**Symbols**

RWBL Single bird, singing/calling  
RWBL — RWBL Diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 →  known change in position

**Height**

1 - BT H  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
<u>ROGU</u> <u>    </u>
<u>FLUG</u> <u> </u>



## Point Count Data Form

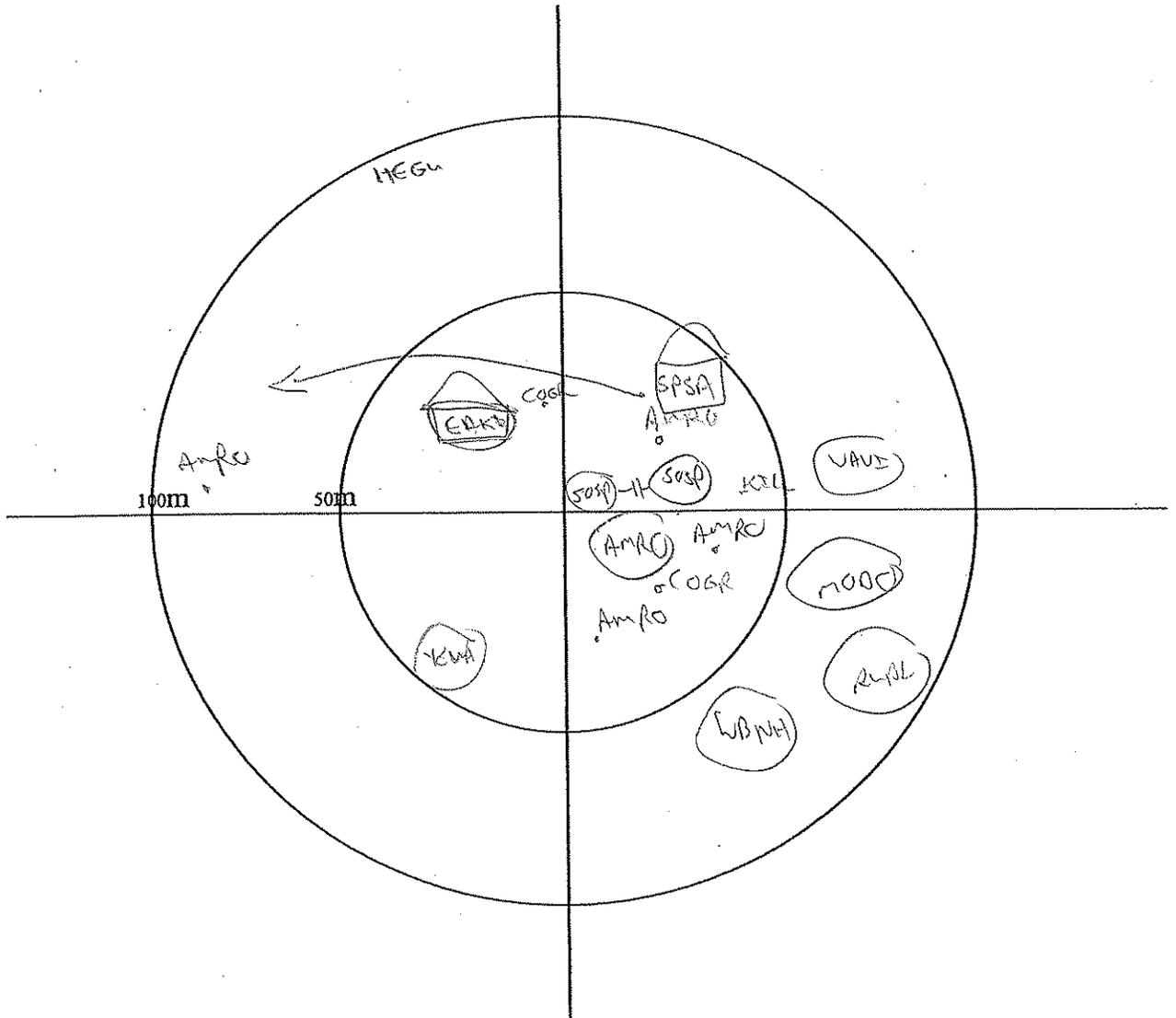
Observer: <i>SKW</i>	Site: <i>SAM SWNG</i>	Date: <i>Jun 24/09</i>
Station ID: <i>LE18</i>	Visit #: <i>30002</i>	Start Time (HH:MM): <i>05:36</i>
Beaufort Wind Scale: <i>30</i>	Cloud Cover (%): <i>10</i>	Temperature (°C): <i>18</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>WAW</i>
<i>RBGU-HL II</i>
<i>NOPL</i>
<i>CATE</i>



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>LE 17</u>	Visit #:	Start Time (HH:MM): <u>05:50</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks: <u>1 vacant lot</u>		

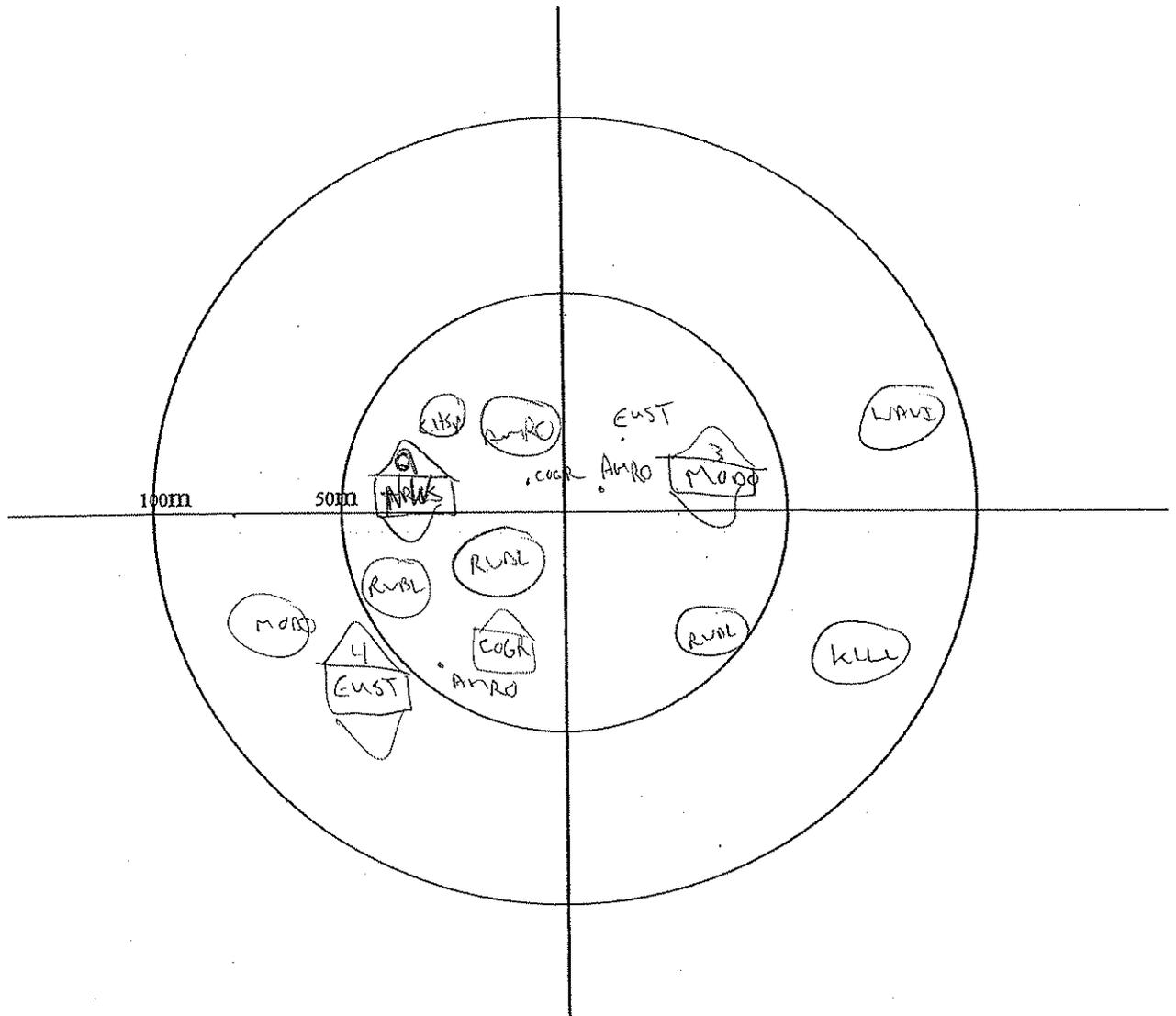
Aerial Foragers	
Species	Tally
<u>RUMF</u>	1

- Symbols**
- RWB Single bird, singing/calling
  - RWB → RWB Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
<u>RUM</u>
<u>COGR - 17</u>



## Point Count Data Form

Observer: SKM	Site: S. Av. SW 1/4	Date: Jun 21/09
Station ID: LE16	Visit #: SW002	Start Time (HH:MM): 06:03
Beaufort Wind Scale: 00	Cloud Cover (%): 0	Temperature (°C): 18
Precipitation: —	Visibility: clear	
Remarks:		

### Symbols

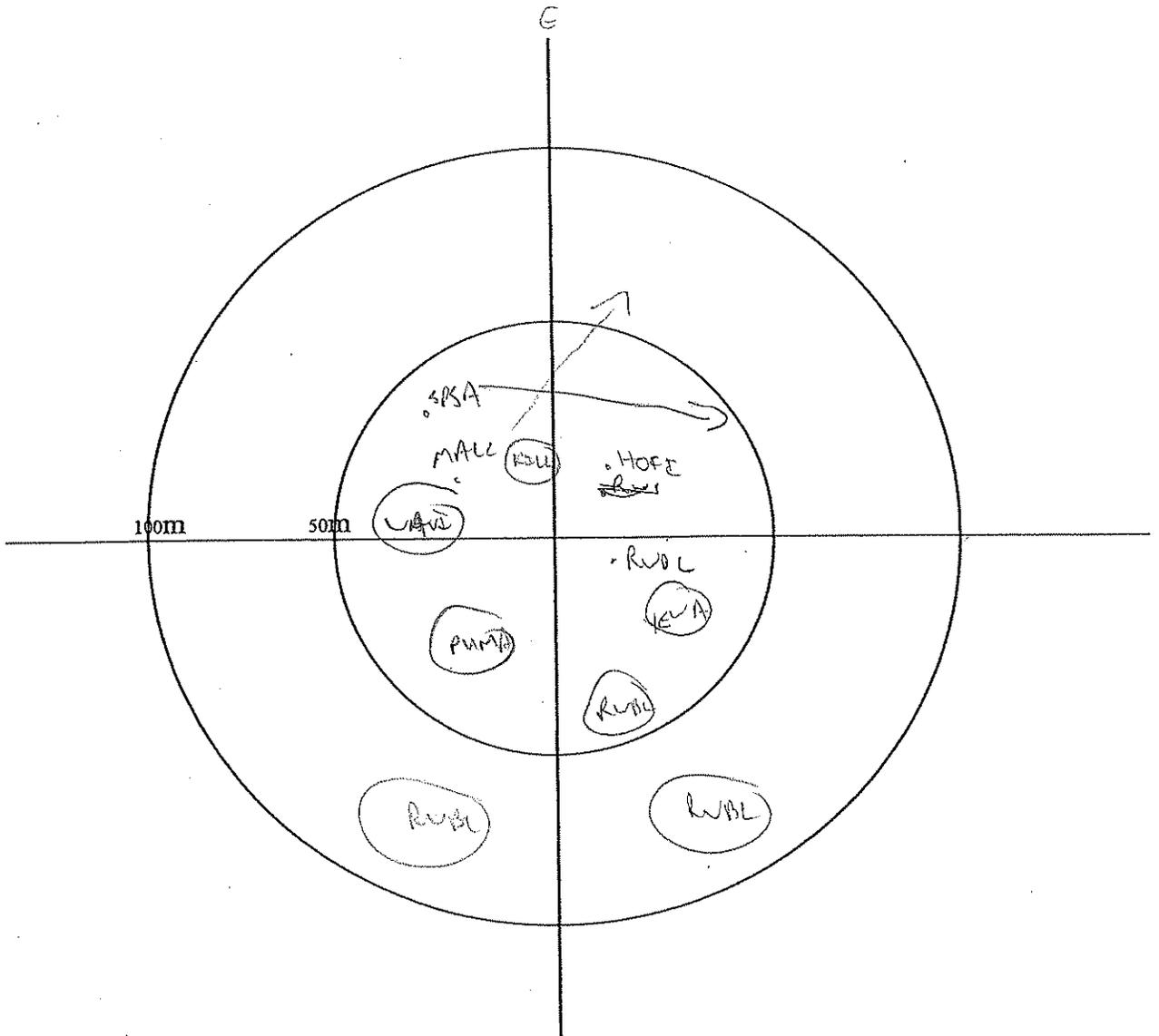
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1 - BT H
- 2 - close to TH
- 3 - V BS
- 4 - WA BS

Outside/Flythru
RBG

Aerial Foragers	
Species	Tally
Pump	1



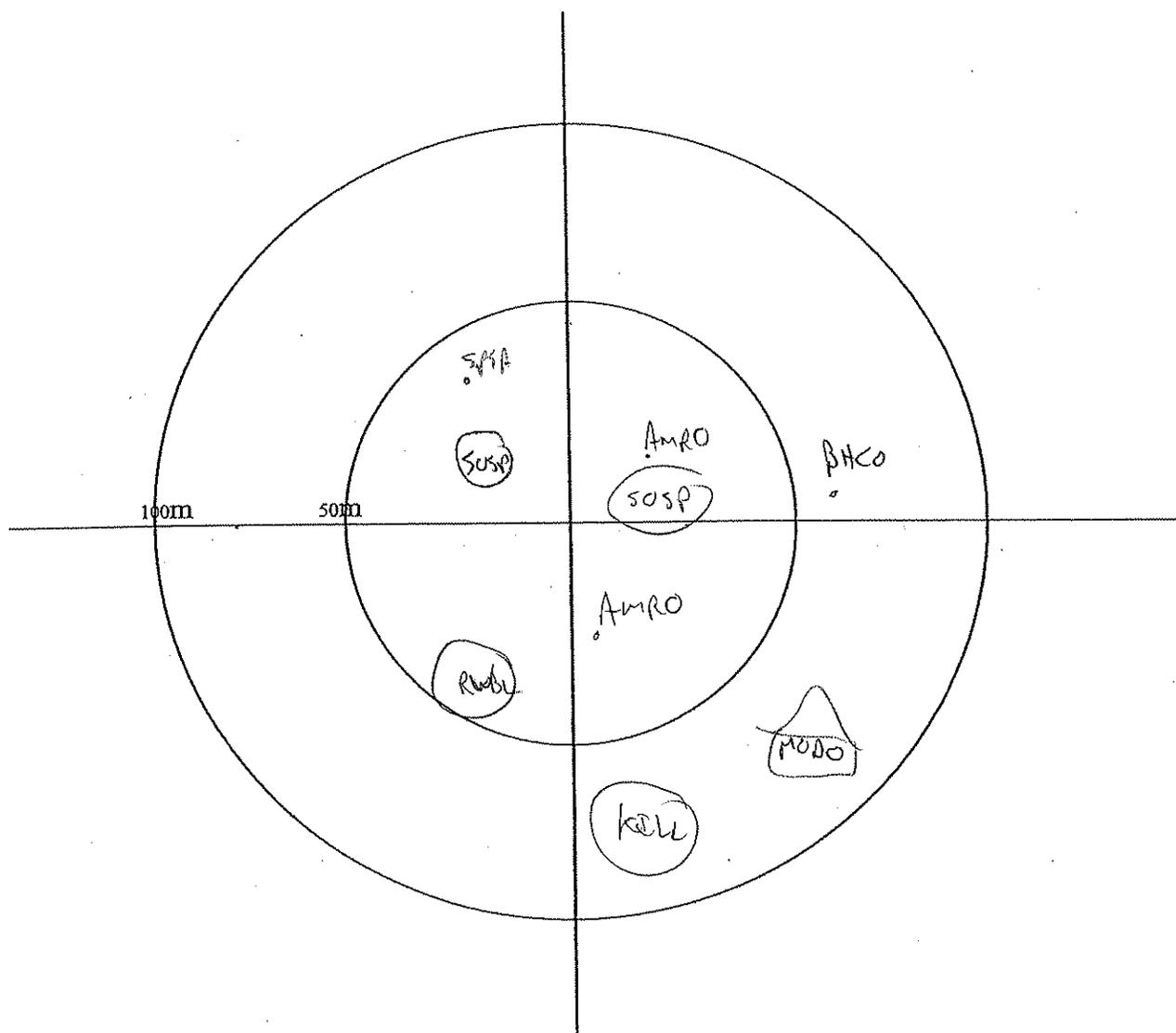
### Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>LEIS</u>	Visit #:	Start Time (HH:MM): <u>06:15</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
NWS	
TRES	

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
CATE III
RBCu      + 10



### Point Count Data Form

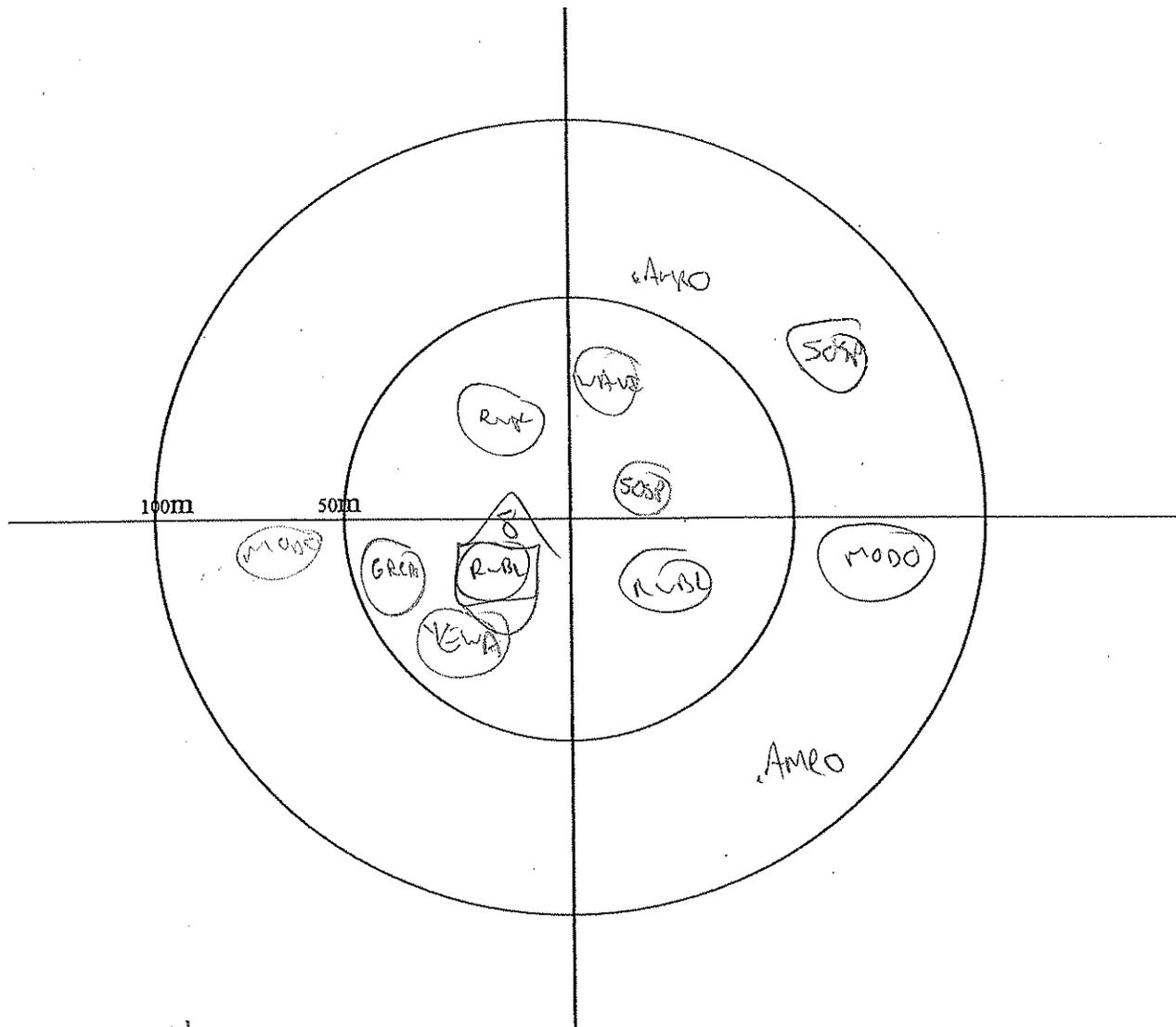
Observer: SKM	Site: SAMUNG	Date: Jun 24/09
Station ID: LG14	Visit #: SUMO2	Start Time (HH:MM): 05:29
Beaufort Wind Scale: R0	Cloud Cover (%): 0	Temperature (°C): 18
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
TRES	
NLVS	
BRNS	

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WRBS

Outside/Flythru
AMCR
RBCN
OCCO III



Snapping turtle

### Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>LER</u>	Visit #:	Start Time (HH:MM): <u>06:42</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
<u>NLS</u>	11
<u>BRNS</u>	1
<u>PUMA</u>	11
<u>TRES</u>	11

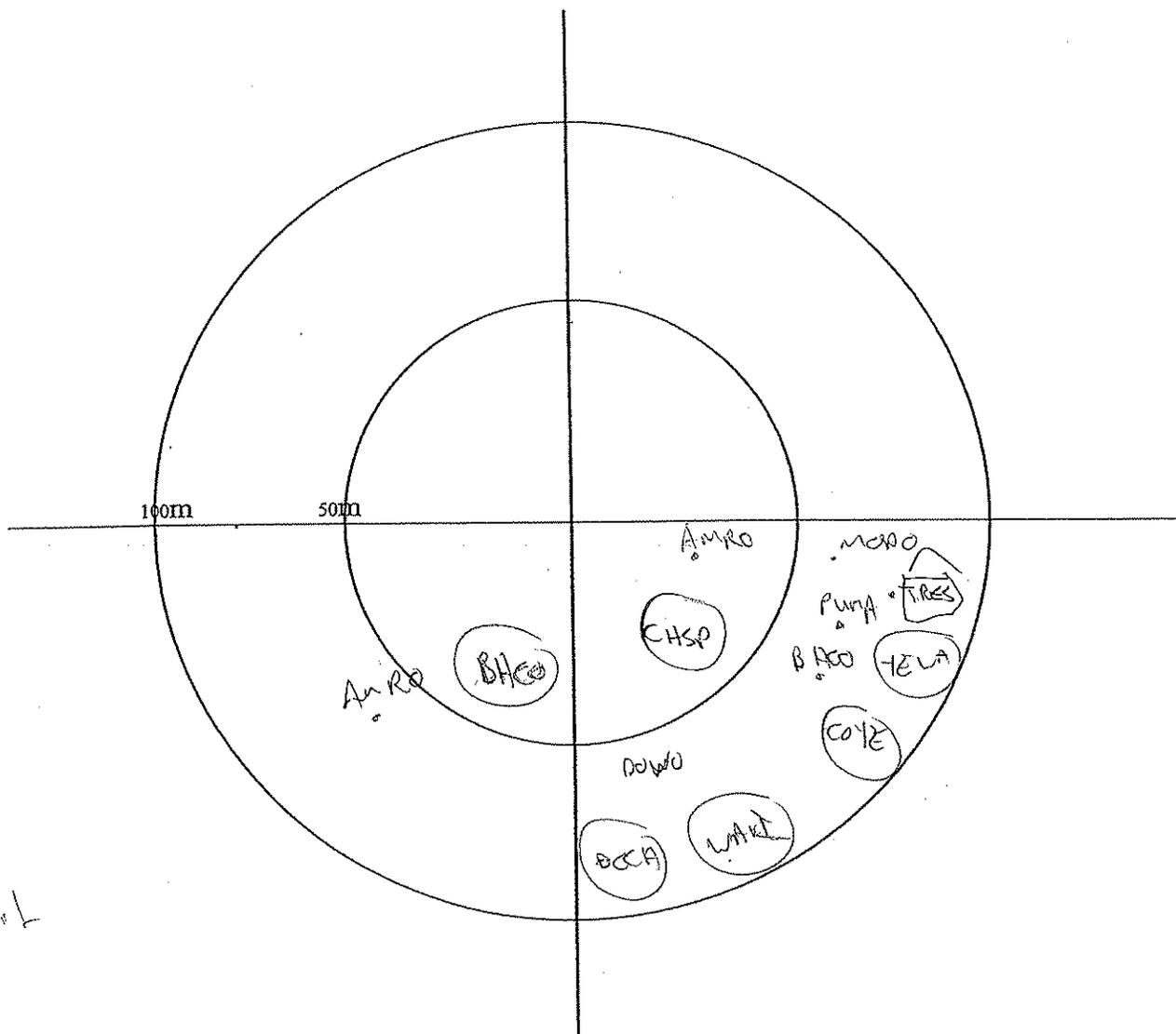
**Symbols**

(WBL) Single bird, singing/calling  
(WBL) → (WBL) Diff. birds of same sp.  
 Pair together  
 Family group  
• Obs., but not calling/singing  
○ → ○ Known change in position

**Height**

1 - BTH  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
<u>RBN</u> 11
<u>EARL</u>
<u>ARGO</u>
<u>MOG</u> 11
<u>HEGU</u> 11
<u>CAEP</u> 111



Rabbit

## Point Count Data Form

Observer: SKM	Site: SAMUNG	Date: June 24/01
Station ID: L612	Visit #: SUM02	Start Time (HH:MM): 06:55
Beaufort Wind Scale: 00	Cloud Cover (%): 0	Temperature (°C): 19
Precipitation: —	Visibility: Clear	
Remarks:		

### Symbols

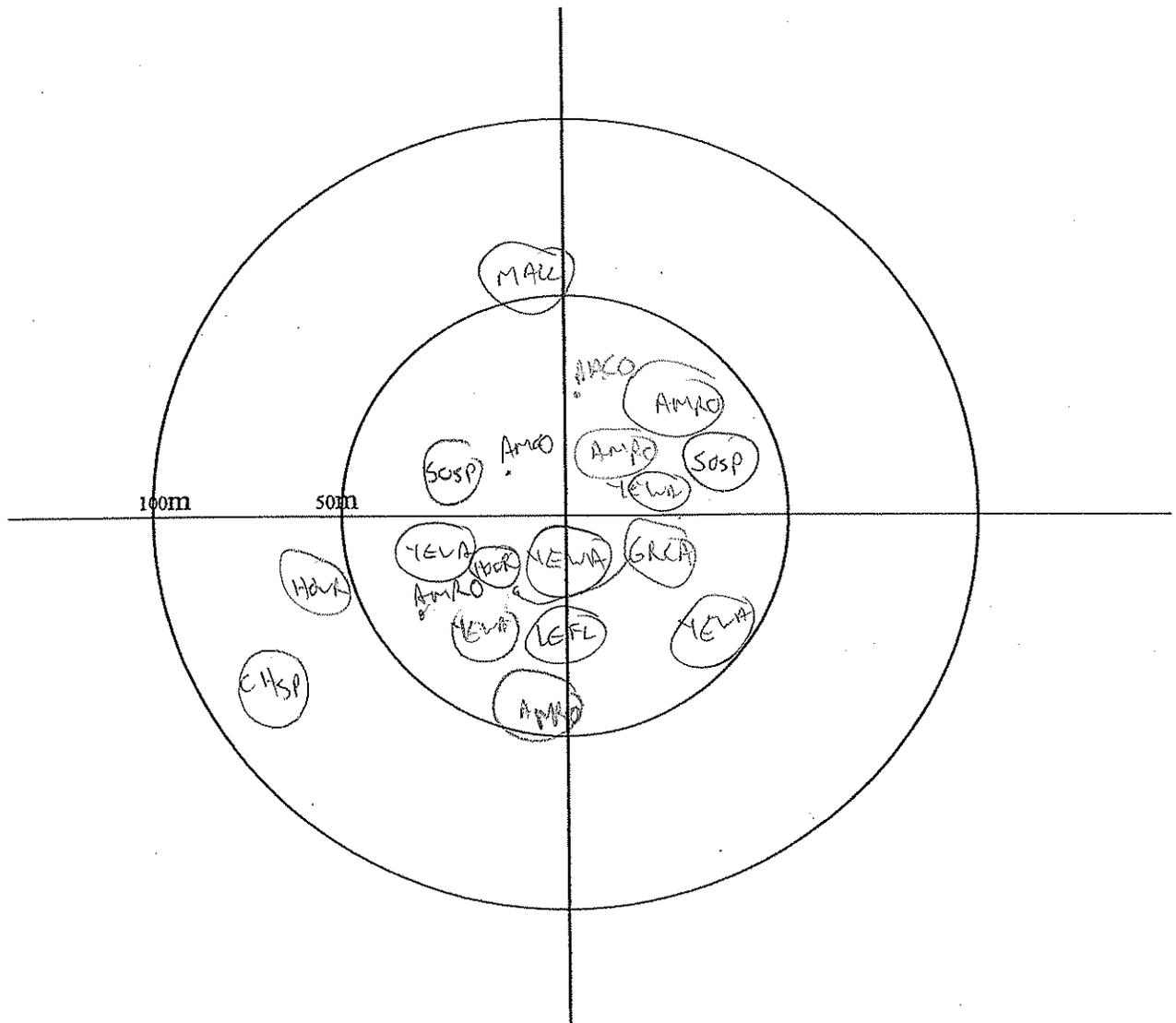
- RWBL Single bird, singing/calling
- RWBL — RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1- BTH
- 2- close to TH
- 3- VBS
- 4- WABS

Outside/Flythru
RBLU
HEGU
AMGO

Aerial Foragers	
Species	Tally



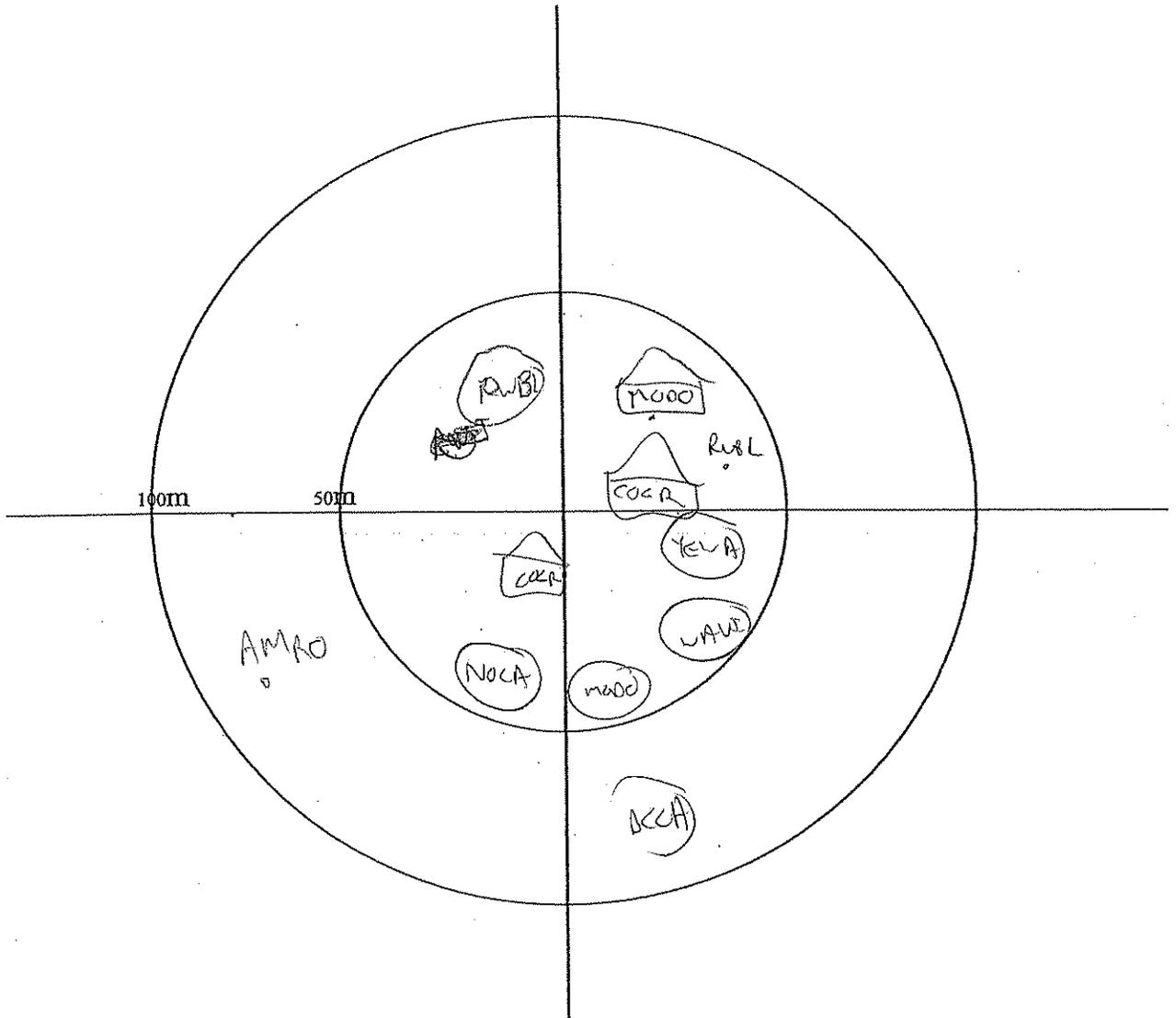
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>LE11</u>	Visit #:	Start Time (HH:MM): <u>07:08</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
TRES	
ARRNS	

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RDBL
SPSA



## Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: Jun 24/09
Station ID: LE10	Visit #: SUMO	Start Time (HH:MM): 07:23
Beaufort Wind Scale: B15	Cloud Cover (%): 0	Temperature (°C): 19
Precipitation: —	Visibility: clear	
Remarks:		

### Symbols

- RWBL Single bird, singing/calling
- RWBL — RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

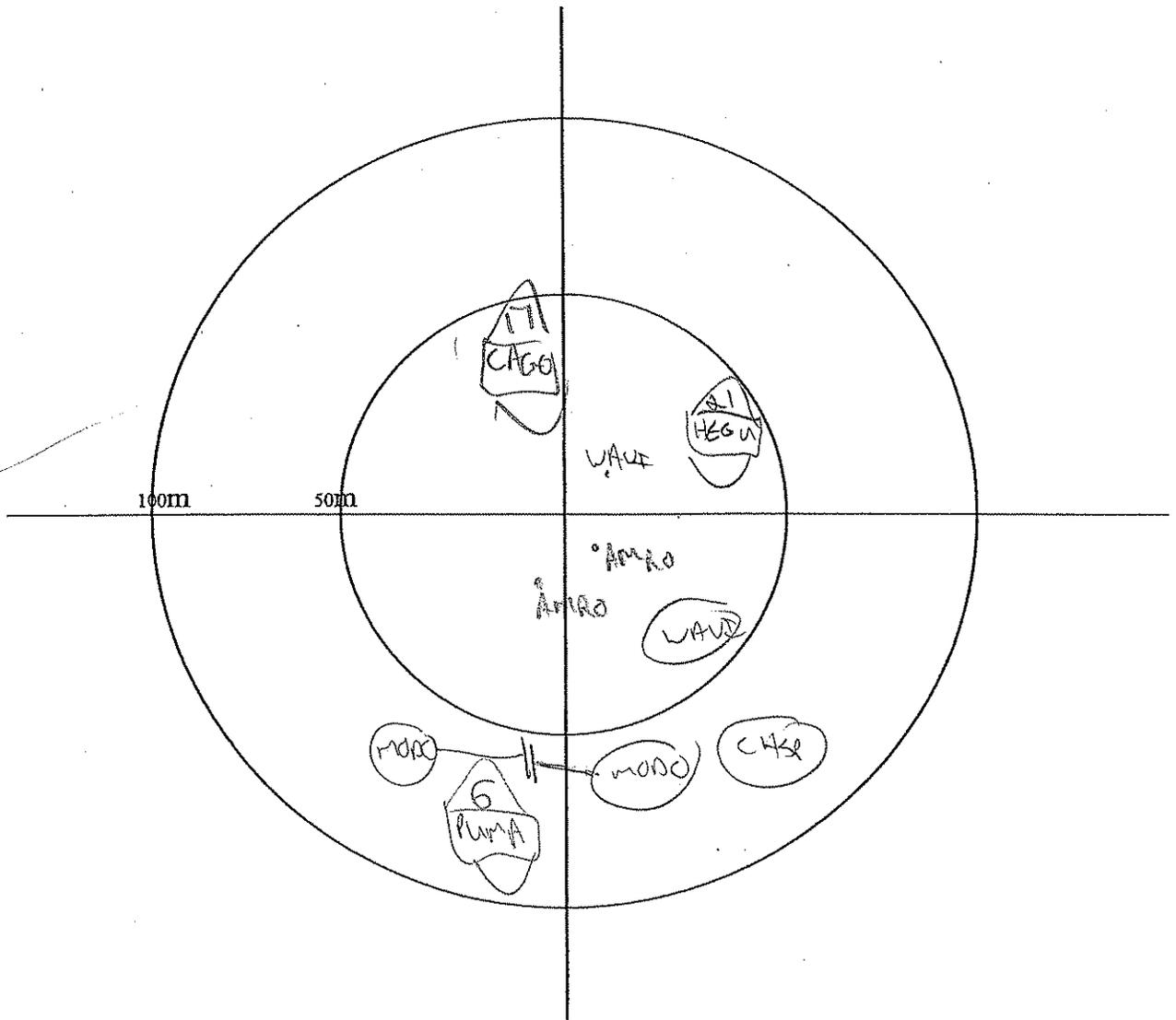
### Height

- 1 - BTH
- 2 - close to TH
- 3 - WBS
- 4 - WABS

### Outside/Flythru

HORE

Aerial Foragers	
Species	Tally
TRES	1
NRWS	1



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <b>LE09</b>	Visit #:	Start Time (HH:MM): <b>07:37</b>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
IRGS	1
BRNS	11

### Symbols

**RWBL** Single bird, ringing/calling

**RWBL** ← **RWBL** Diff. birds of same sp.

Pair together

Family group

• Obs., but not calling/singing

Known change in position

### Height

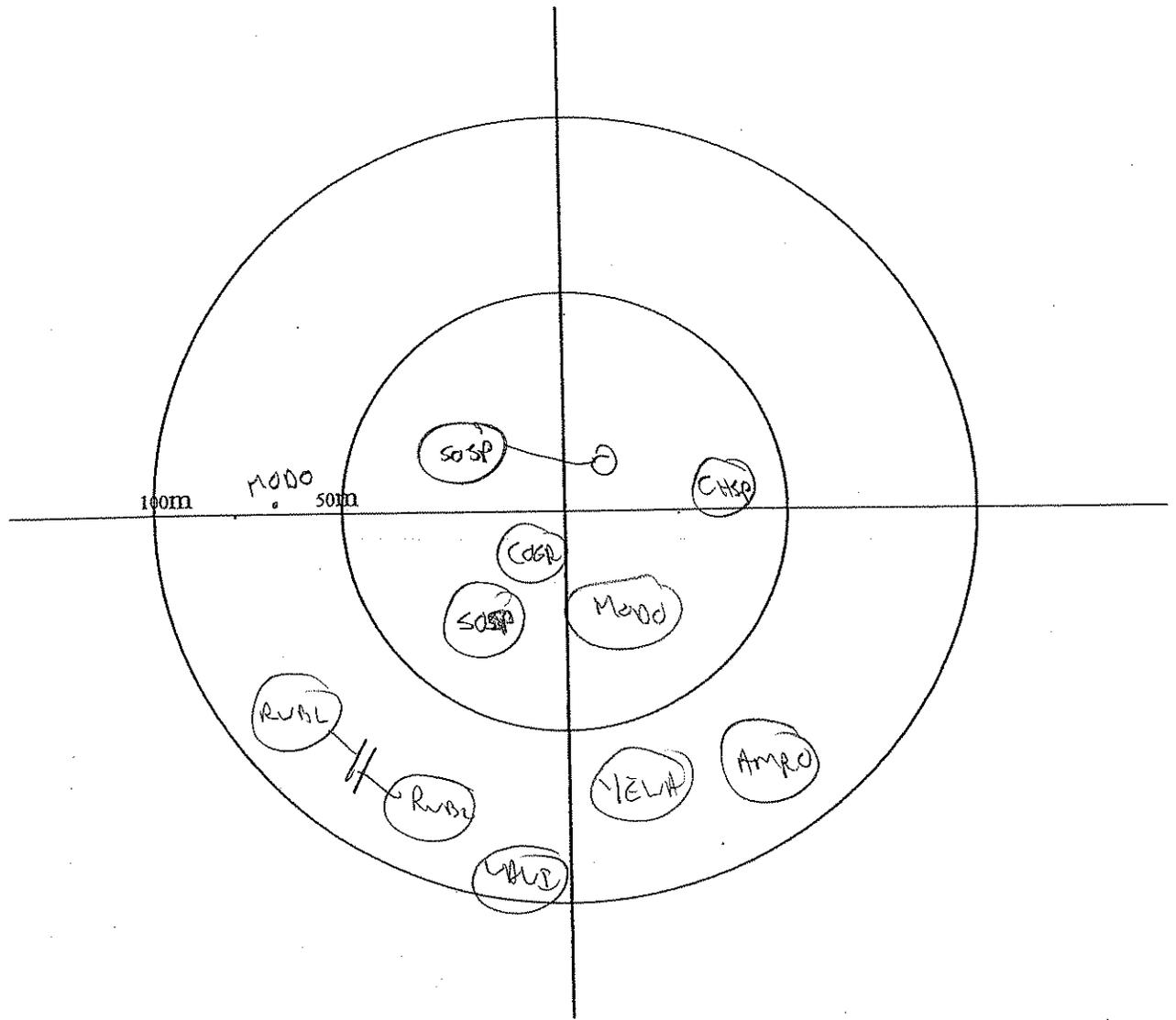
1 - BTB

2 - close to TH

3 - VBS

4 - WABS

Outside/Flythru
CATE 1
RBGU 11
COGR 11
DCCO
AMRO 1



### Point Count Data Form

Observer: <i>Shon</i>	Site: <i>SAMSUNG</i>	Date: <i>Jun 24 109</i>
Station ID: <i>LE08</i>	Visit #: <i>Sum 02</i>	Start Time (HH:MM): <i>07:51</i>
Beaufort Wind Scale: <i>B1</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>19</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

#### Symbols

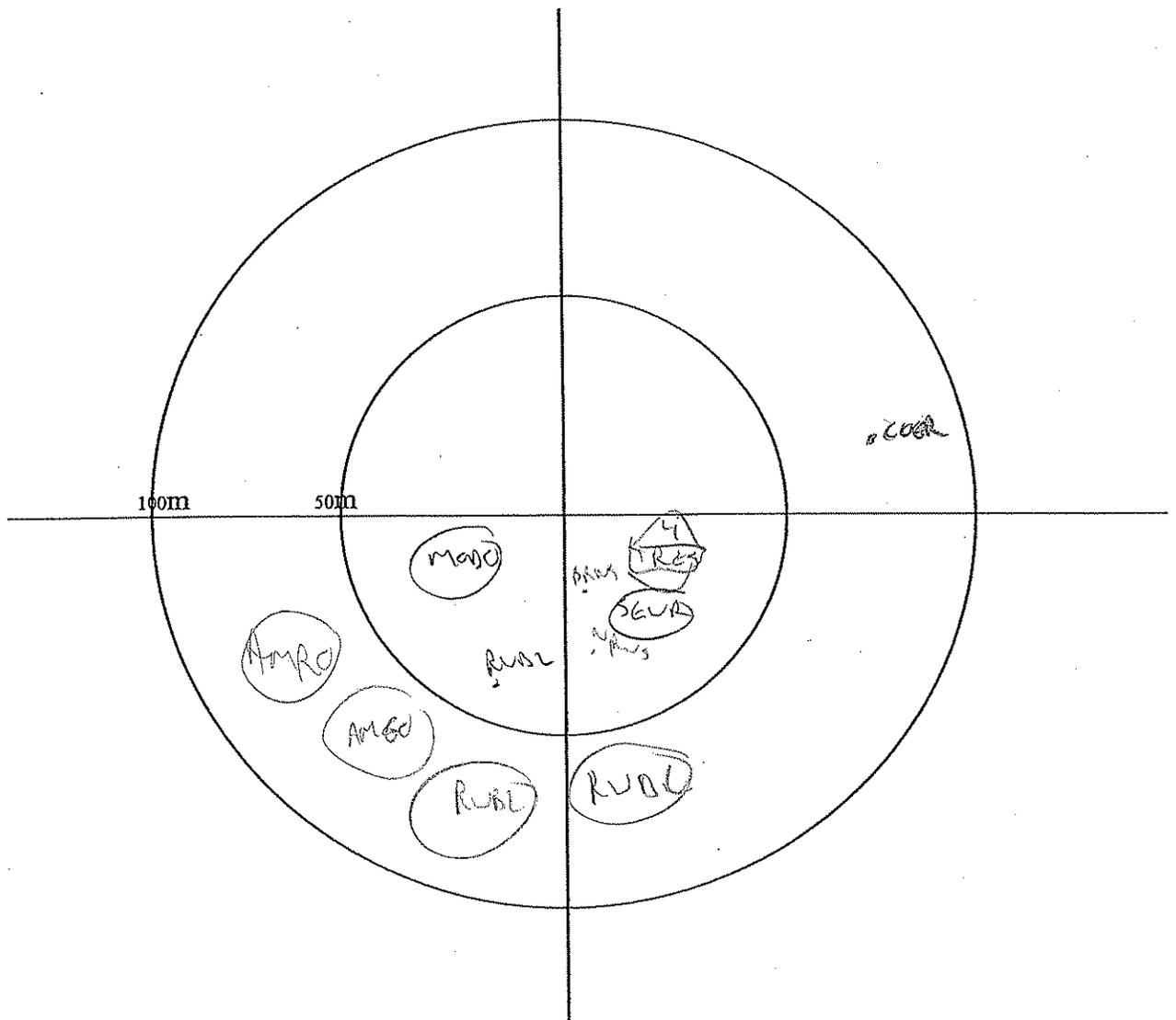
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

#### Height

- 1 - BTB
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
<i>RBEU</i>

Aerial Foragers	
Species	Tally



### Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>LE07</u>	Visit #:	Start Time (HH:MM): <u>08:03</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
BRNS	1

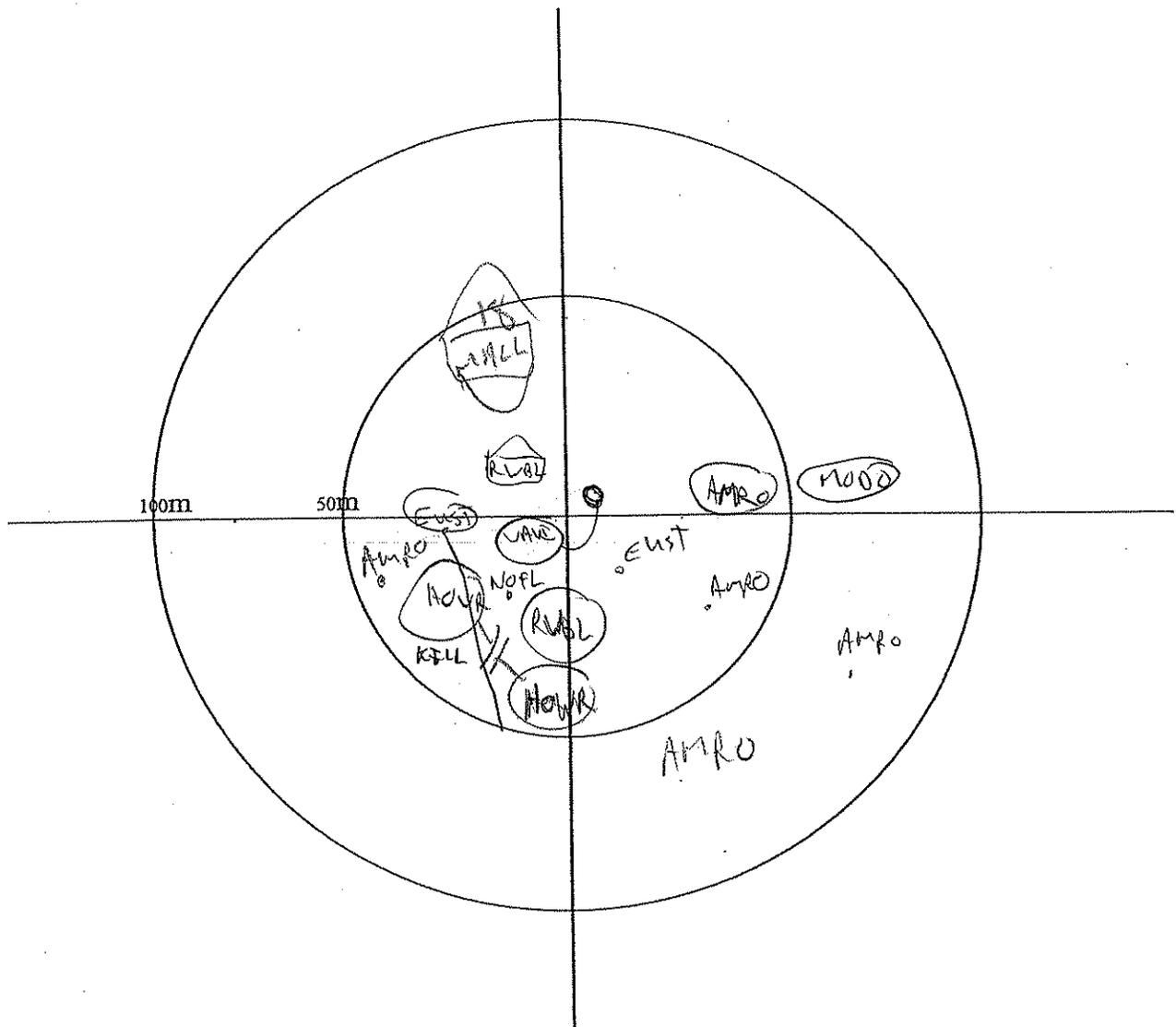
- Symbols**

  - RWBL Single bird, singing/calling
  - RWBL ↔ RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

**Height**

  - 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RBGM II
OCCO
AMGO



**Point Count Data Form**

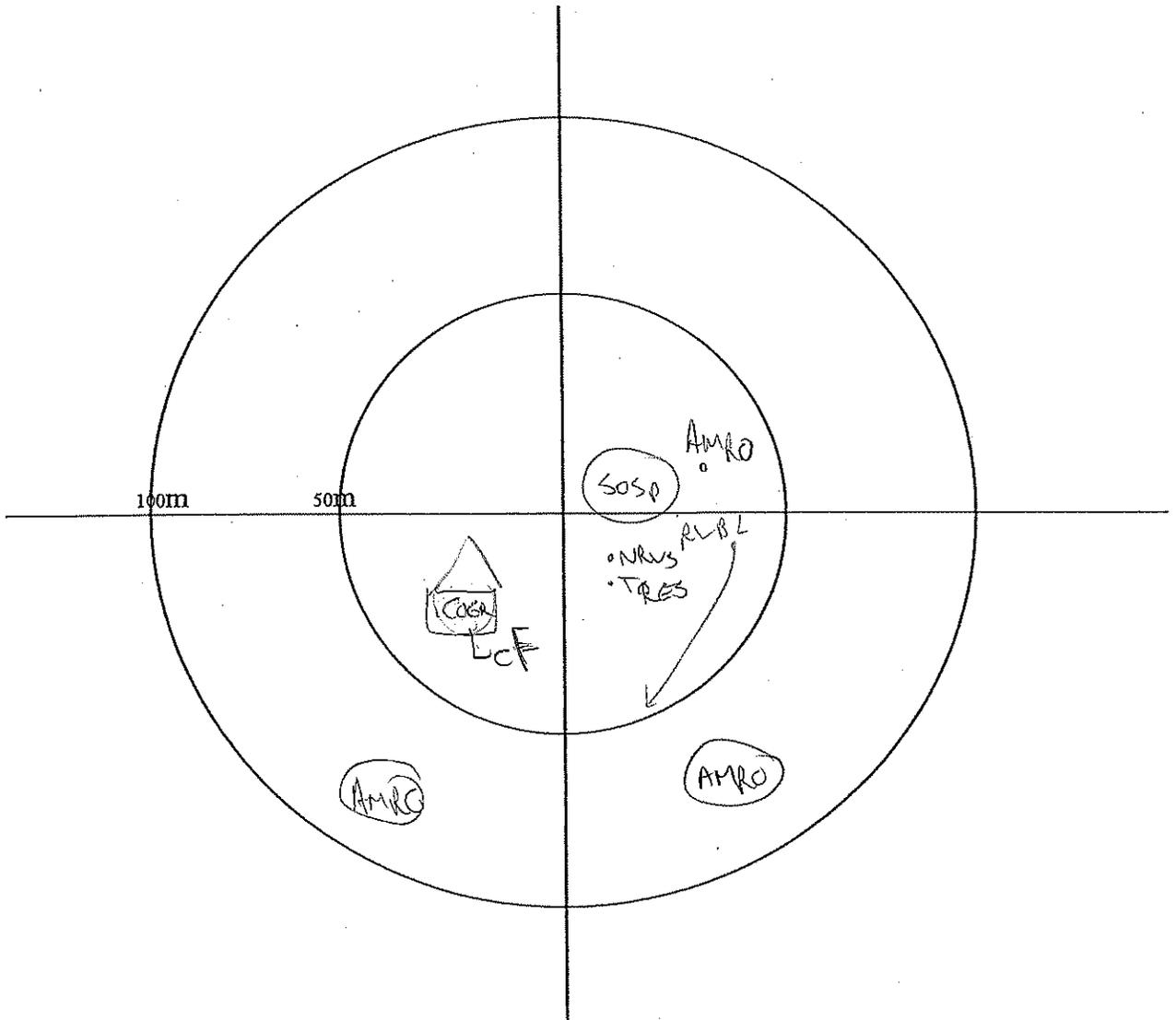
Observer: SKM	Site: SANSUNG	Date: June 24/09
Station ID: LEOG	Visit #: SUM 02	Start Time (HH:MM): 08:16
Beaufort Wind Scale: BLS	Cloud Cover (%): 0	Temperature (°C): 19
Precipitation: —	Visibility: clear	
Remarks: Traffic		

Aerial Foragers	
Species	Tally
NRVS	

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
HEGA - III
DECO - 4 + 5
COGR - 2
RWBL
AMRO - II
RRCU - III





## Point Count Data Form

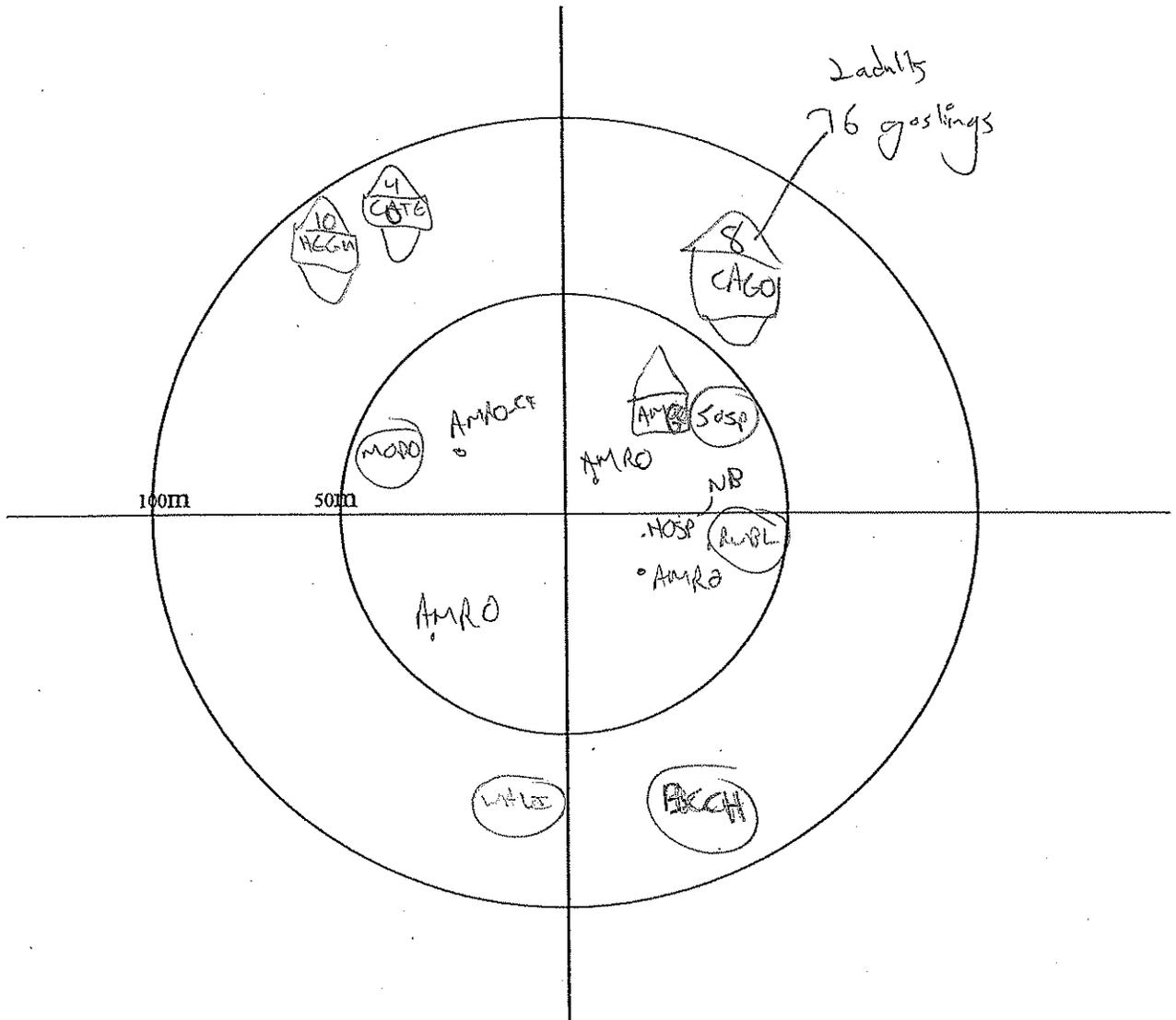
Observer: SKM	Site: <i>← sampling SUTTON</i>	Date: Jun 24 / 09
Station ID: LEO4	Visit #: <i>← sampling SUTTON</i>	Start Time (HH:MM): 08:41
Beaufort Wind Scale: B1	Cloud Cover (%): 0	Temperature (°C): 19
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
DECO - 6
COGR - 11



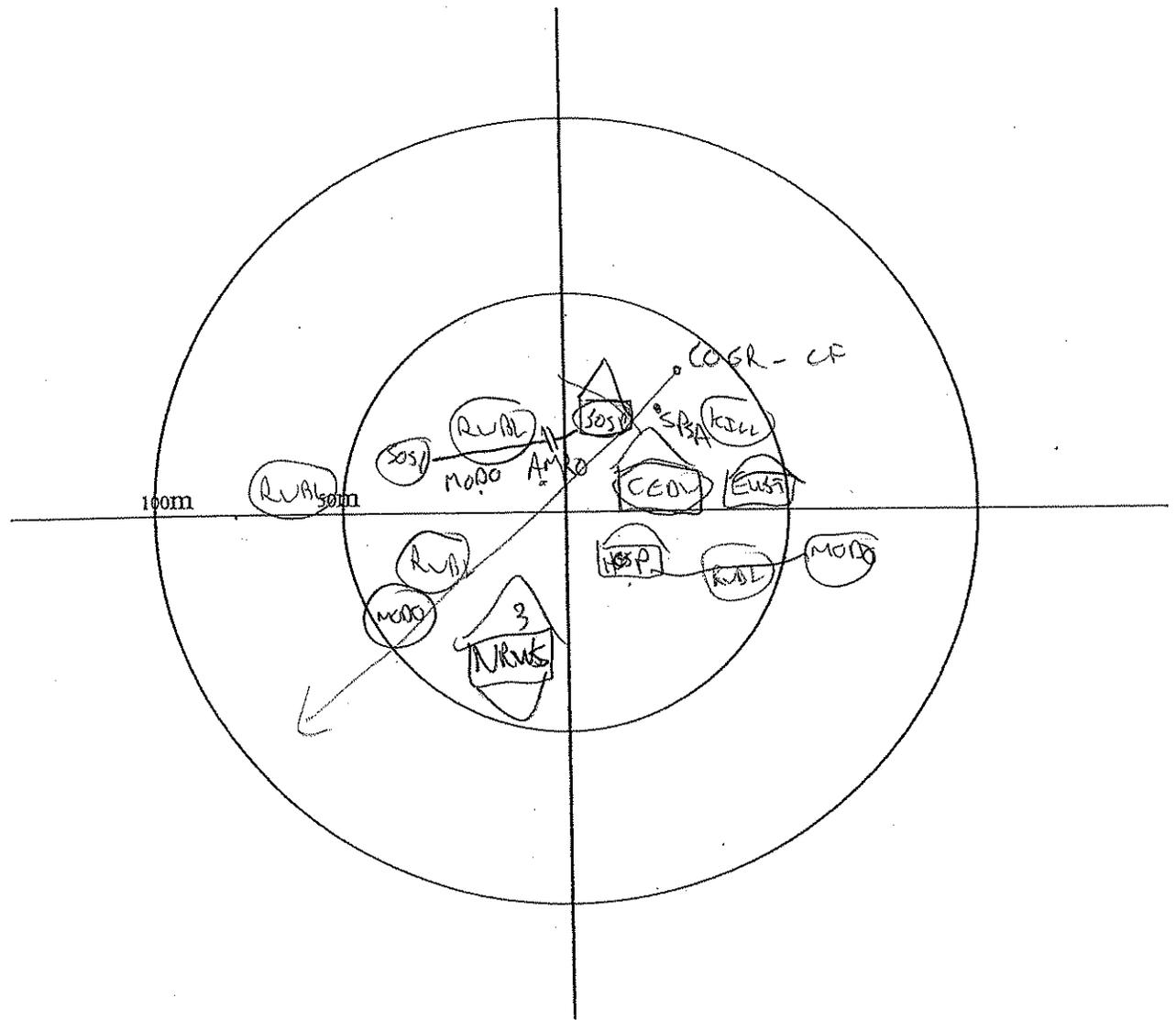
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <b>LEO3</b>	Visit #:	Start Time (HH:MM): <b>08:52</b>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
TRGS	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
CATE - III
HEGU - III
DCCO - Y



## Point Count Data Form

Observer: SKM.	Site: SAMSUNG	Date: Jun 24/09
Station ID: LEO2	Visit #: SUM-02	Start Time (HH:MM): 09:03
Beaufort Wind Scale: 51	Cloud Cover (%): 0	Temperature (°C): 20
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
PURFF	11

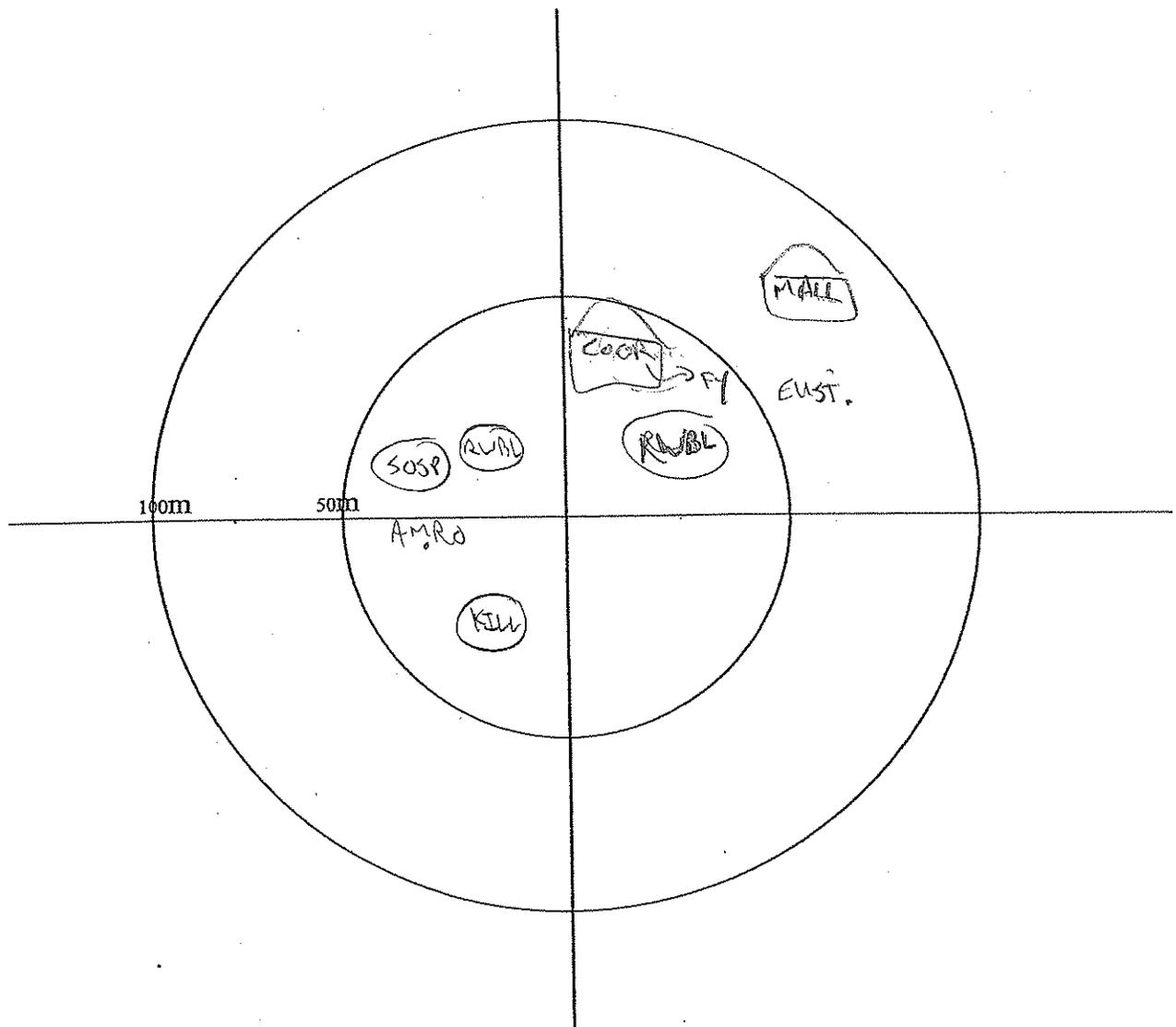
- ### Symbols

  - RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

### Height

  - 1 - BT H
  - 2 - close to TH
  - 3 - WBS
  - 4 - WABS

Outside/Flythru
WCM ~ 20
PCCO ~ 10
CABO ~ 20



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>1601</u>	Visit #:	Start Time (HH:MM): <u>07:15</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

### Symbols

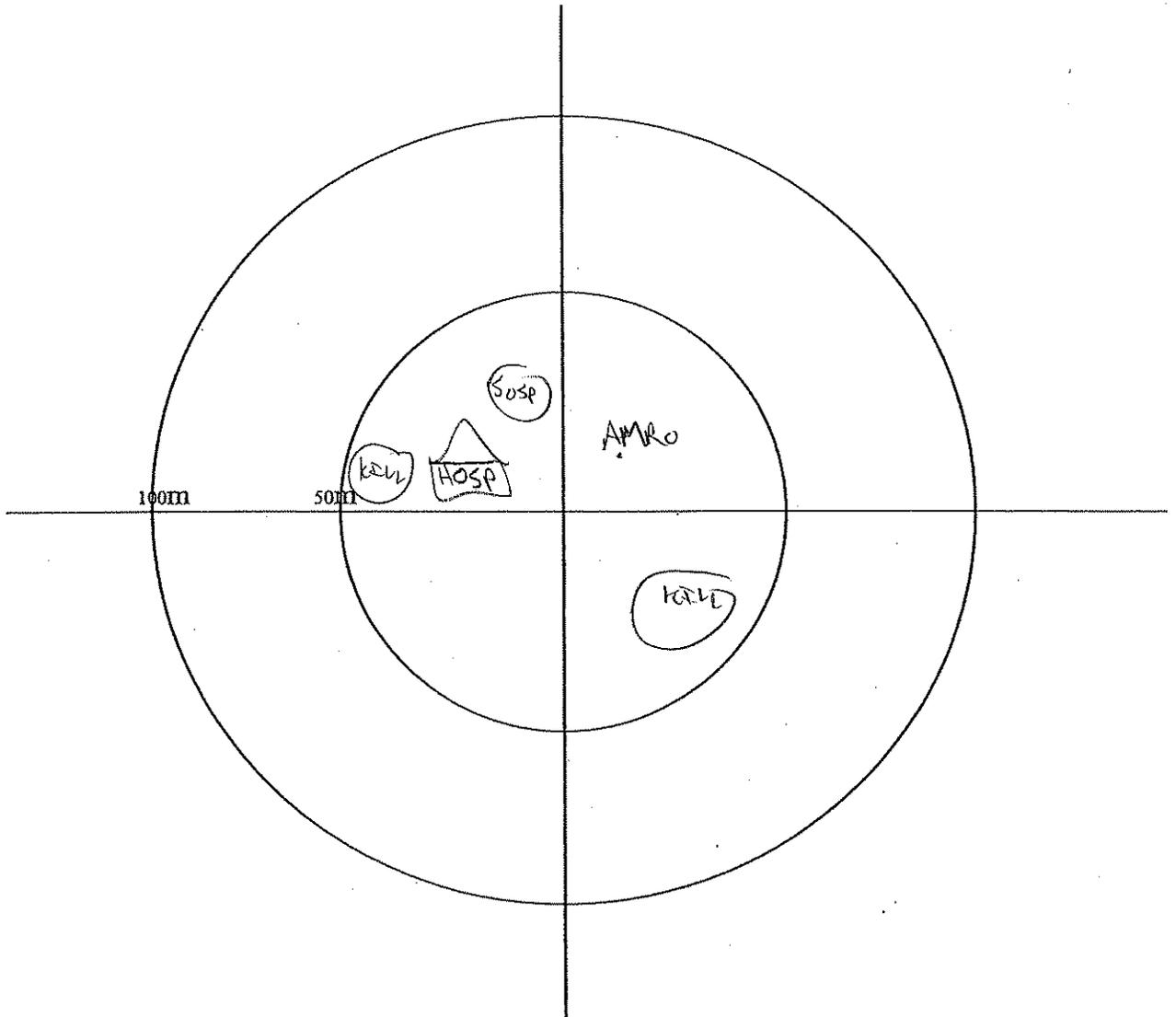
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- △ Pair together
- ◊ Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1 - BTM
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
RBL
HEGy II
RWBL
MALL
CATE II

Aerial Foragers	
Species	Tally
TRES	1



## Point Count Data Form

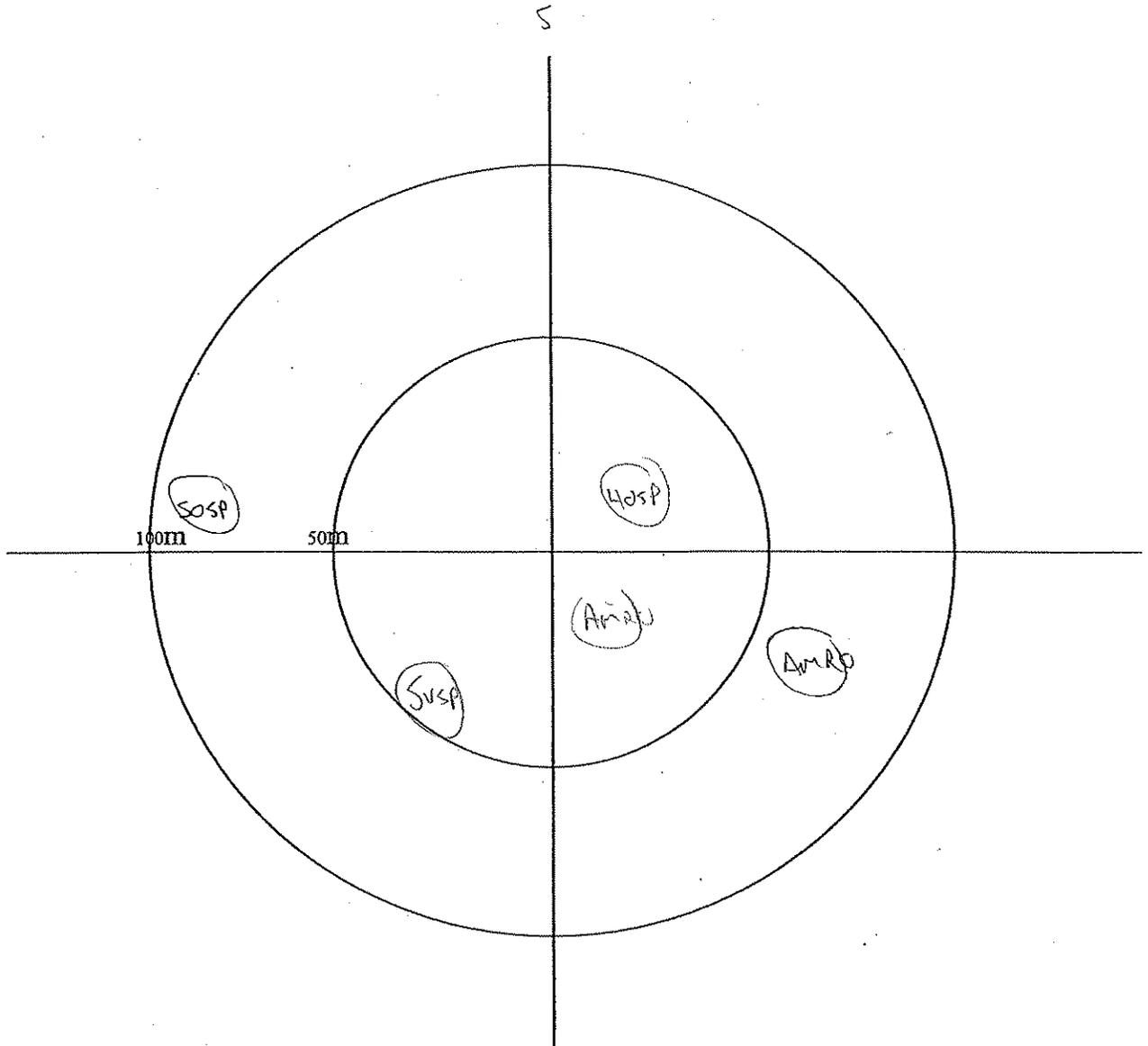
Observer: <i>SM</i>	Site: <i>Sainsbury</i>	Date: <i>June 4/09</i>
Station ID: <i>LA01</i>	Visit #: <i>SM01</i>	Start Time (HH:MM): <i>04:57</i>
Beaufort Wind Scale: <i>B 3 W</i>	Cloud Cover (%): <i>30</i>	Temperature (°C): <i>7</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>WLL II</i>
<i>CAGC-2</i>
<i>AmRO</i>
<i>NOCA</i>





## Point Count Data Form

Observer: SKM	Site: SARUNGA	Date: June 7/04
Station ID: LHO3	Visit #: SWM01	Start Time (HH:MM): 05:01
Beaufort Wind Scale: B3	Cloud Cover (%): 30	Temperature (°C): 8
Precipitation: n	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
TRBS	"

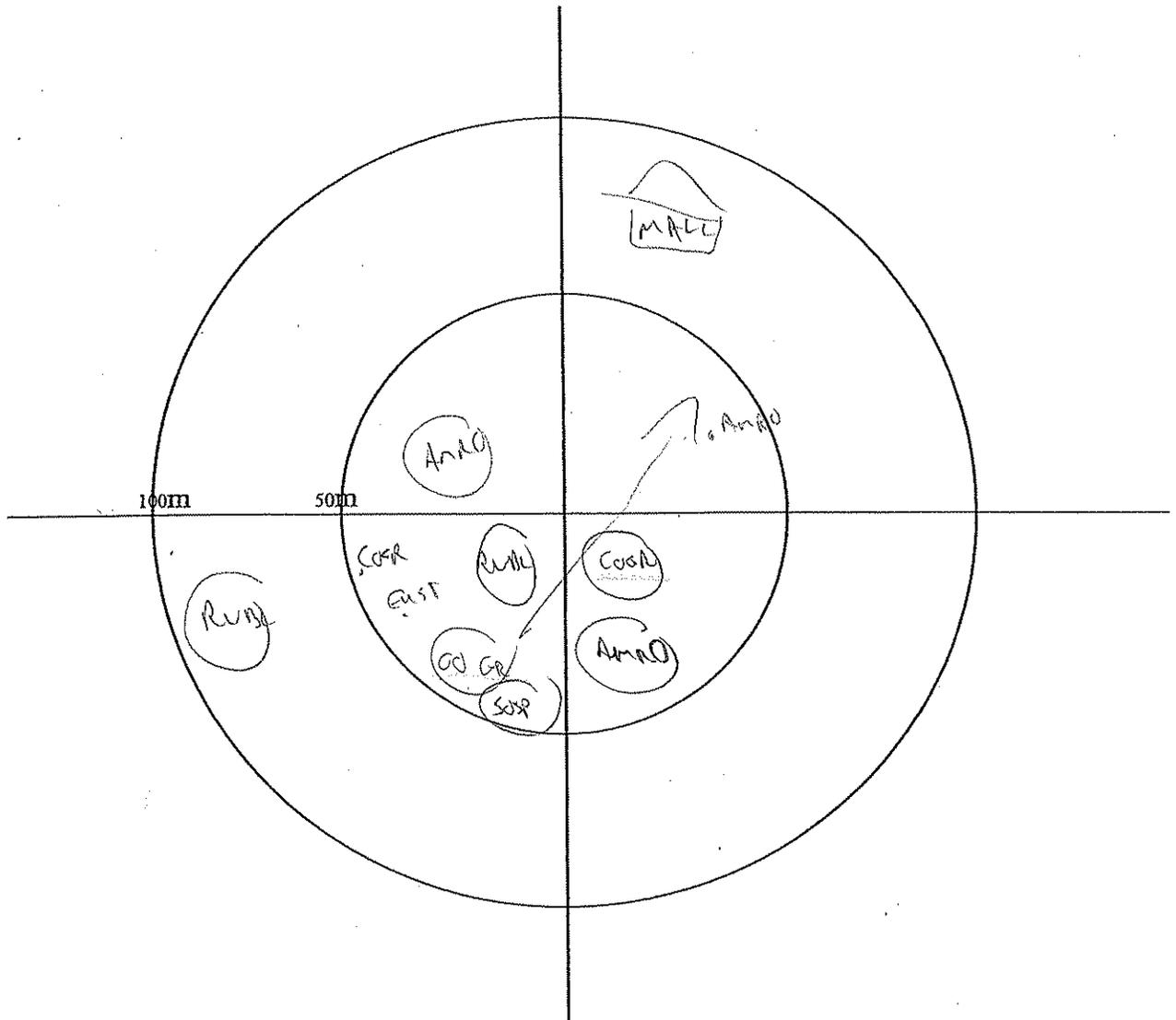
**Symbols**

RWBL Single bird, singing/calling  
RWBL → RWBL Diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 →  Known change in position

**Height**

1 - BTH  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
ROGU - NL "
ARCR
HCU - 15 on out.



### Point Count Data Form

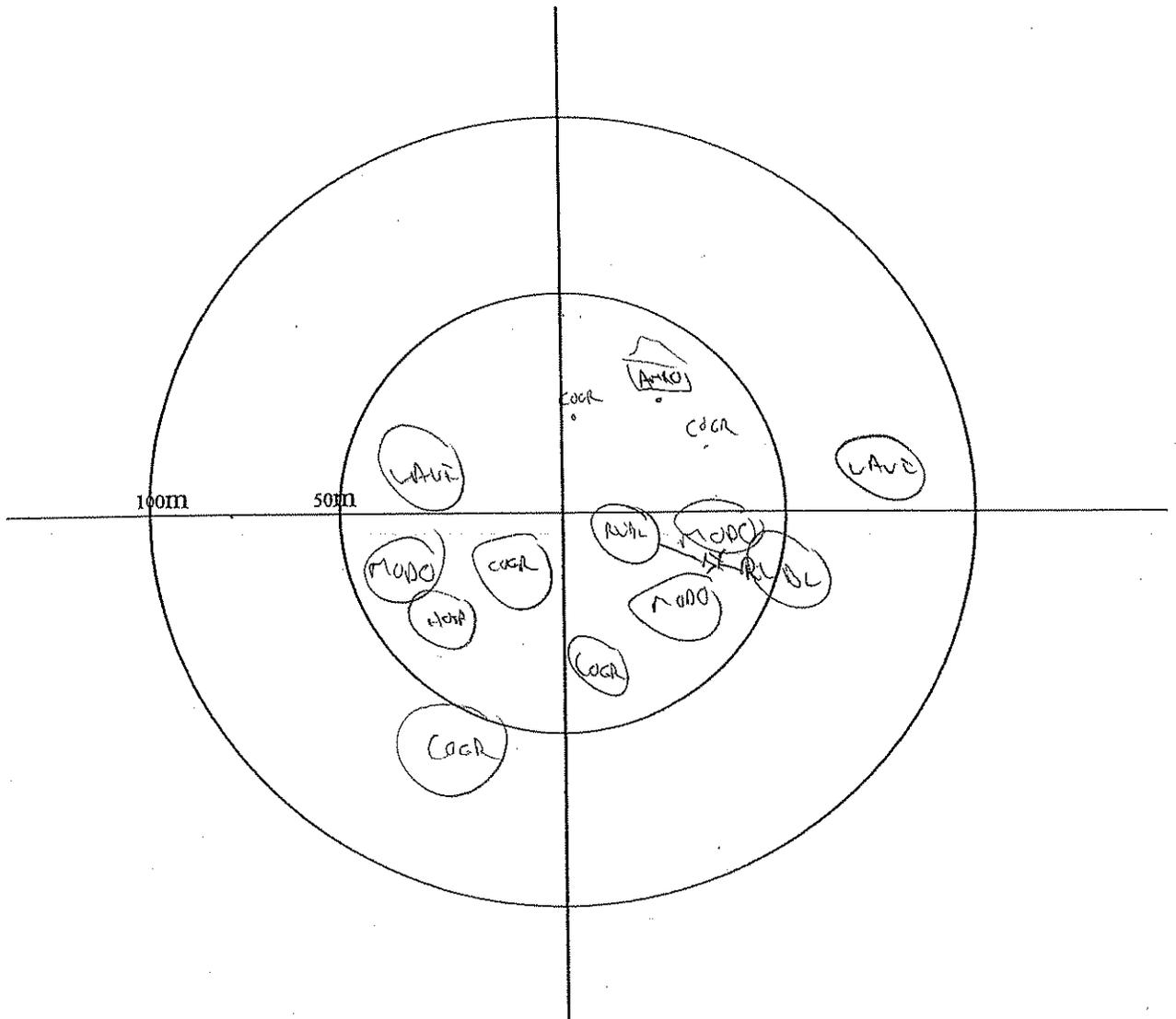
Observer:	Site:	Date:
Station ID: <u>LAD4</u>	Visit #:	Start Time (HH:MM): <u>05:24</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
TRKS	<del>11</del> 11

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1- BTH
  - 2- close to TH
  - 3- VBS
  - 4- VABS

Outside/Flythru
AMRO 11
RBC <del>11</del> 11
COGR <del>11</del> 11
EUST - 110 22
MOGO - 11
AMGO







## Point Count Data Form

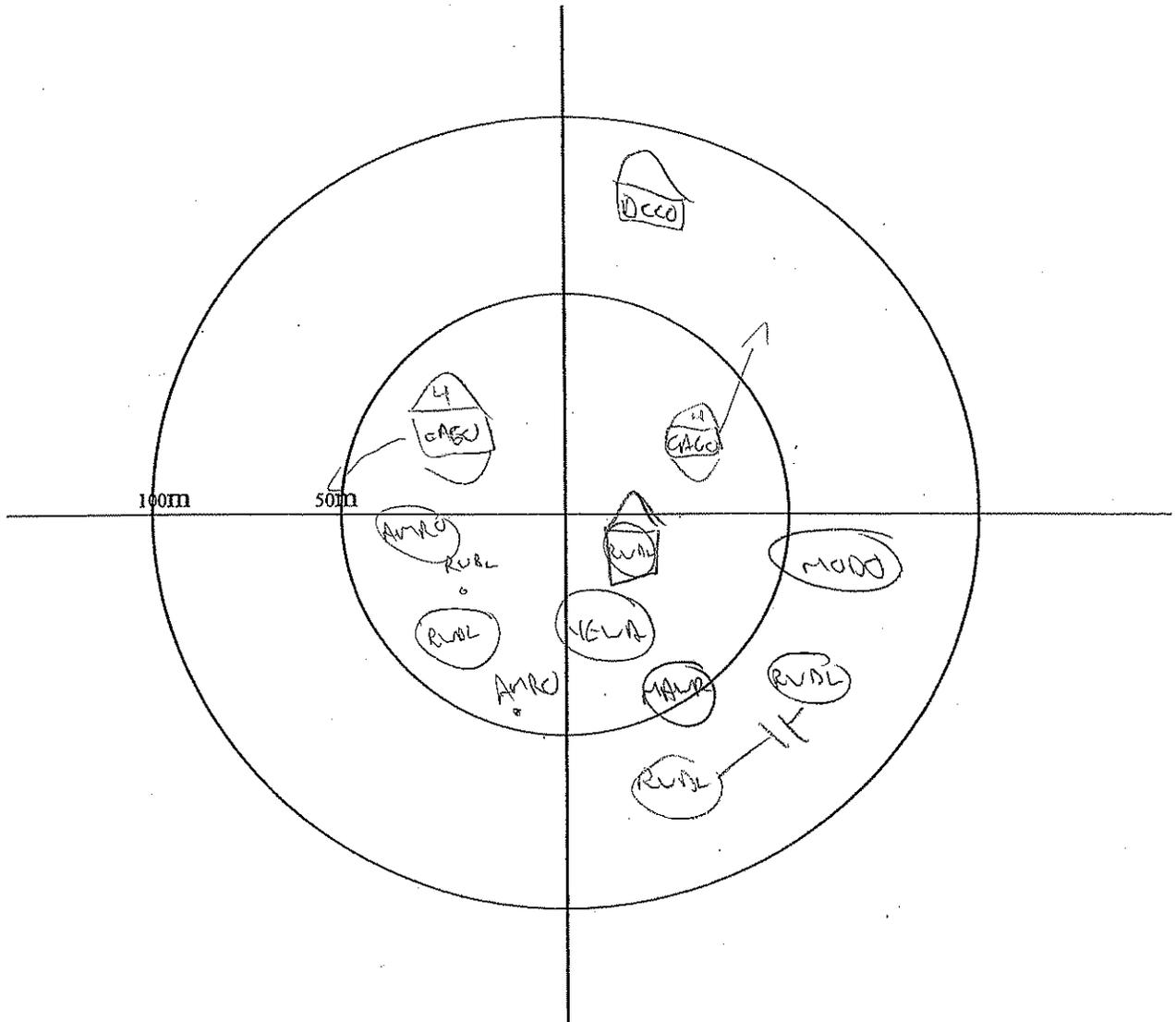
Observer: <i>SKW</i>	Site: <i>SAMSUNA</i>	Date: <i>June 4/09</i>
Station ID: <i>LA08</i>	Visit #: <i>Sum 01</i>	Start Time (HH:MM): <i>06:28</i>
Beaufort Wind Scale: <i>B/W</i>	Cloud Cover (%): <i>20</i>	Temperature (°C): <i>8</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally
BRWS	1
NRWS	1
TRGS	11

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>East side</i>
<i>OCCO - 1</i>
<i>NOPE</i>
<i>ABGU 11</i>
<i>Blon</i>
<i>Arco - 1</i>





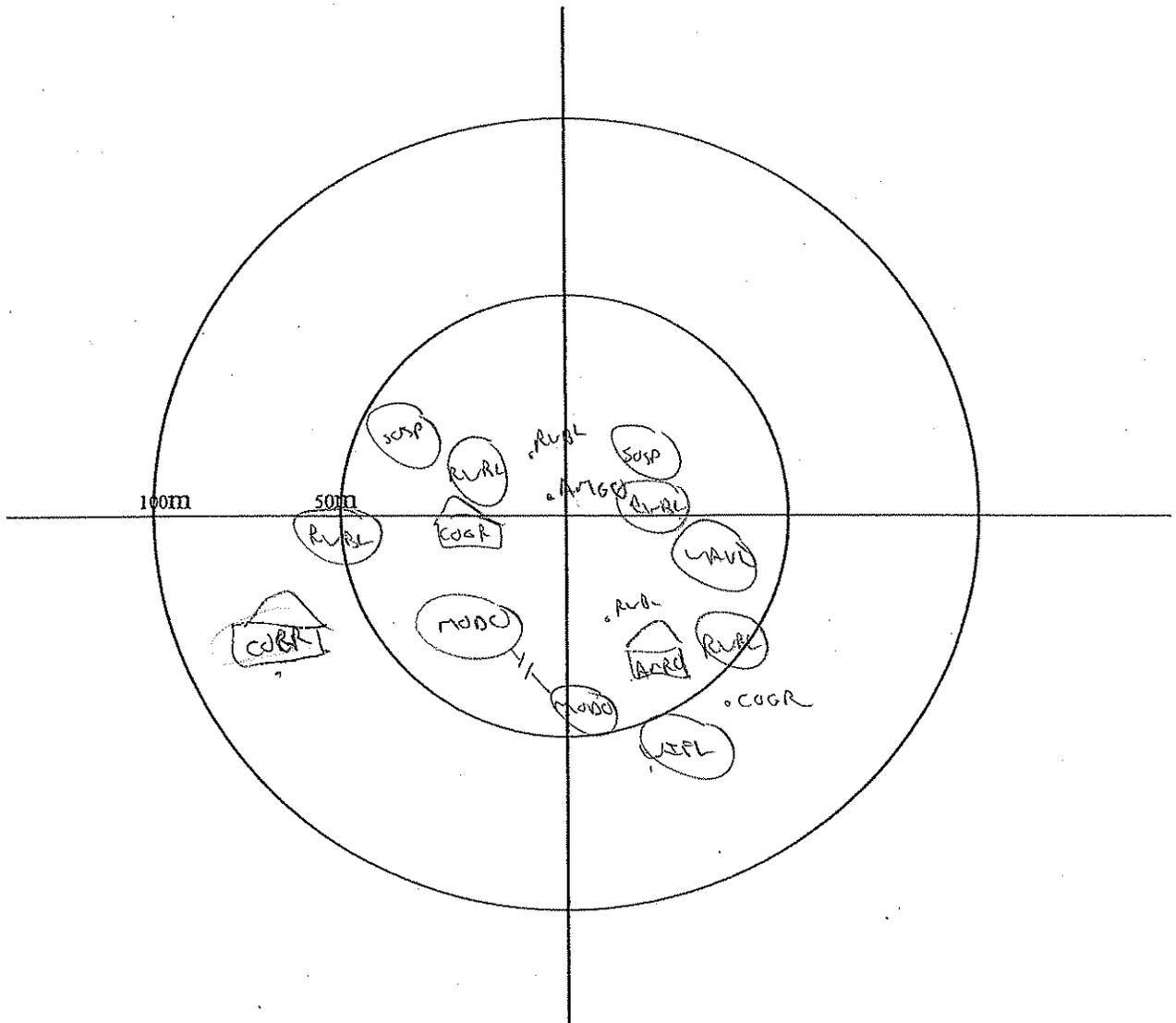
## Point Count Data Form

Observer: <i>JKW</i>	Site: <i>SAMSUNC</i>	Date: <i>June 4/09</i>
Station ID: <i>LA07</i>	Visit #: <i>SUR101</i>	Start Time (HH:MM): <i>06:14</i>
Beaufort Wind Scale: <i>3, W</i>	Cloud Cover (%): <i>20</i>	Temperature (°C): <i>8</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally
<i>TRGS</i>	<i>111</i>

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>CACO - 1000</i>
<i>ANCO</i>
<i>RBCU - 41</i>
<i>DCCO 25</i>
<i>REGU - 10</i>
<i>RELL</i>



## Point Count Data Form

Observer:	Site:	Date:
Station ID: LA10	Visit #:	Start Time (HH:MM): 07:01
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
TRES	1

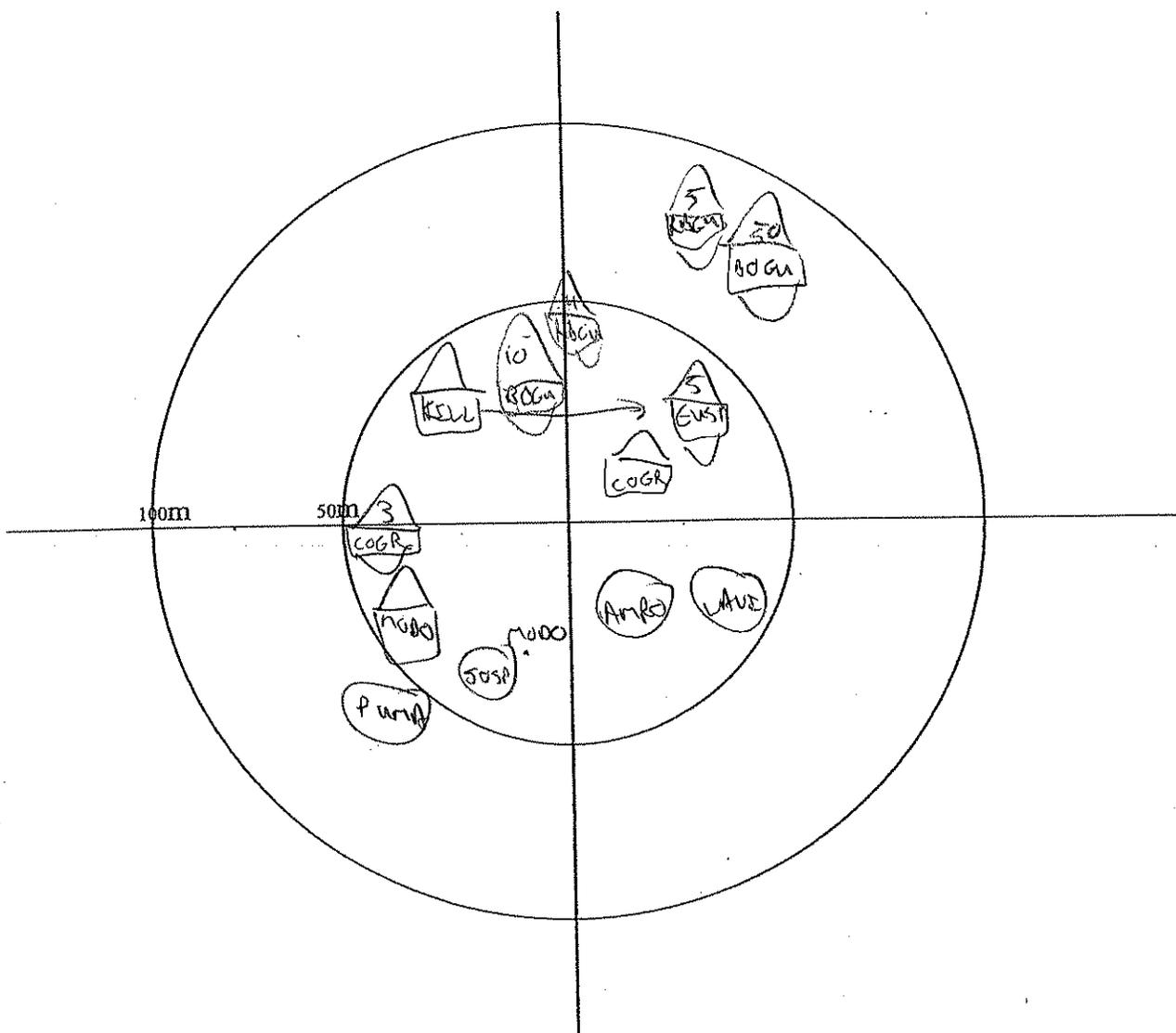
**Symbols**

RWBL Single bird, singing/calling  
RWBL — RWBL Diff. birds of same sp.  
 Pair together  
 Family group  
• Obs., but not calling/singing  
○ → ○ known change in position

Height

1 - BTH  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
COGR-11



## Point Count Data Form

Observer: SM	Site: Samsung	Date: June 8/09
Station ID: LAN	Visit #: SM 01	Start Time (HH:MM): 07:15
Beaufort Wind Scale: 81W	Cloud Cover (%): 10	Temperature (°C): 10
Precipitation: None	Visibility: clear	
Remarks: 1805 Lakeside Rd.		

Aerial Foragers	
Species	Tally
TRES	11
BRWS	11
Pump	11

### Symbols

RWBL Single bird, singing/calling

RWBL → RWBL diff. birds of same sp.

Pair together

Family group

• Obs., but not calling/singing

○ → ○ known change in position

### Height

1 - BT H

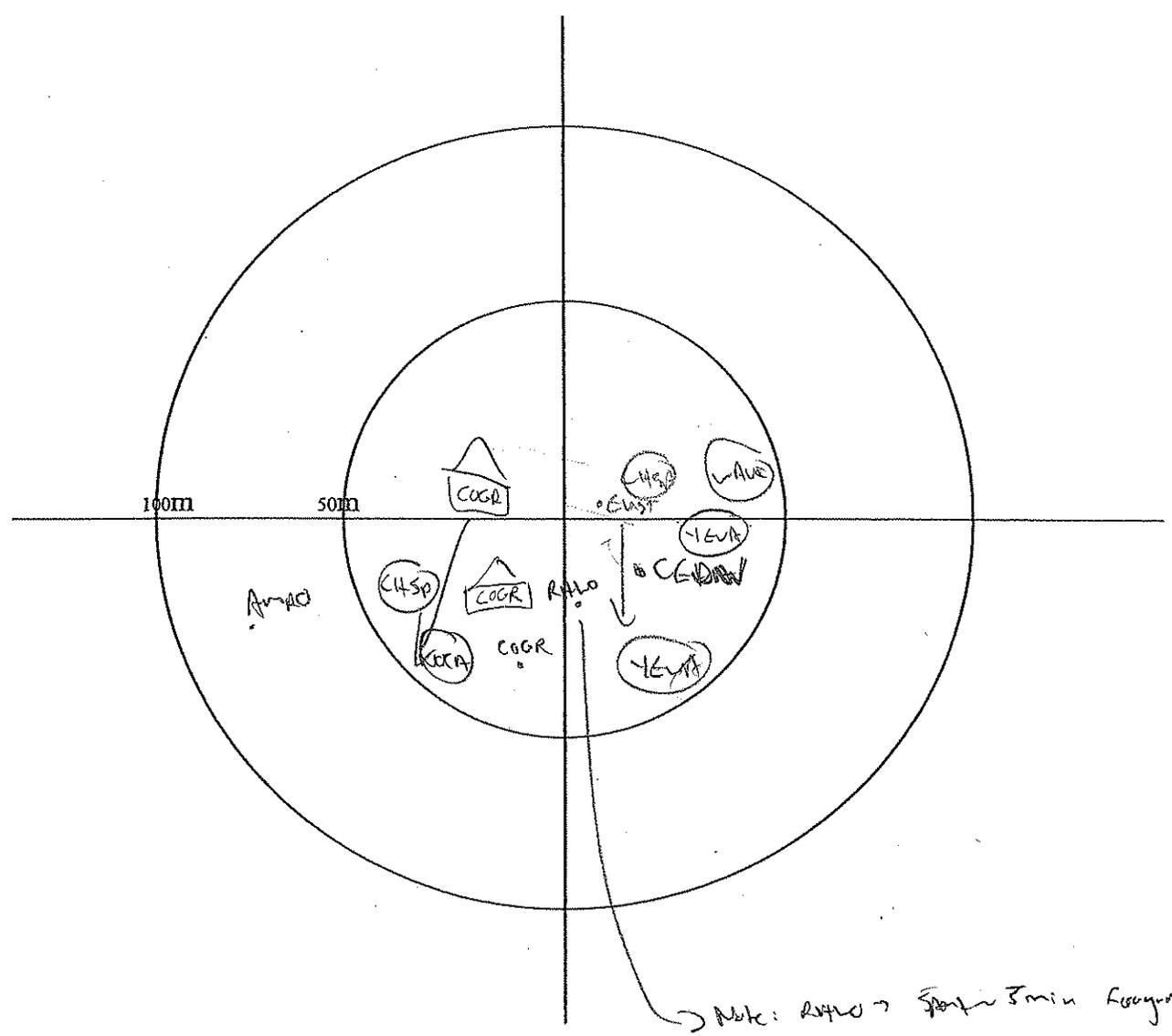
2 - close to TH

3 - VBS

4 - WABS

Outside/Flythru
RBCU - Sec 1 ~ 10
DCCO
COGR - 111

Cottonwood II



## Point Count Data Form

Observer:	Site:	Date:
Station ID: LA 2	Visit #:	Start Time (HH:MM): 07:33
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
TRES	1111
BRWS	11

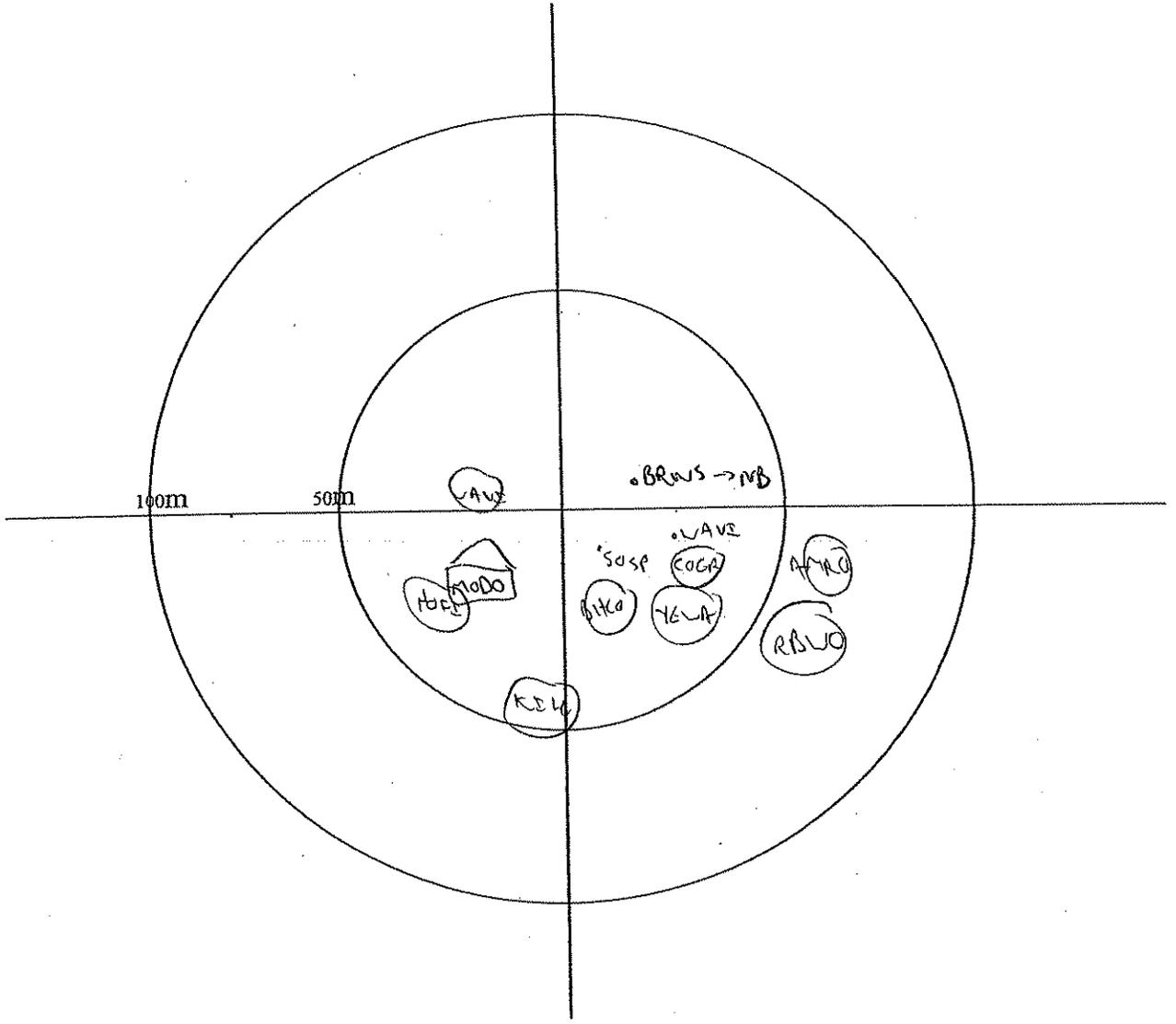
### Symbols

- RWBL Single bird, singing/calling
- RWBL ← RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1 - BT H
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
RSCM-25
MALL





## Point Count Data Form

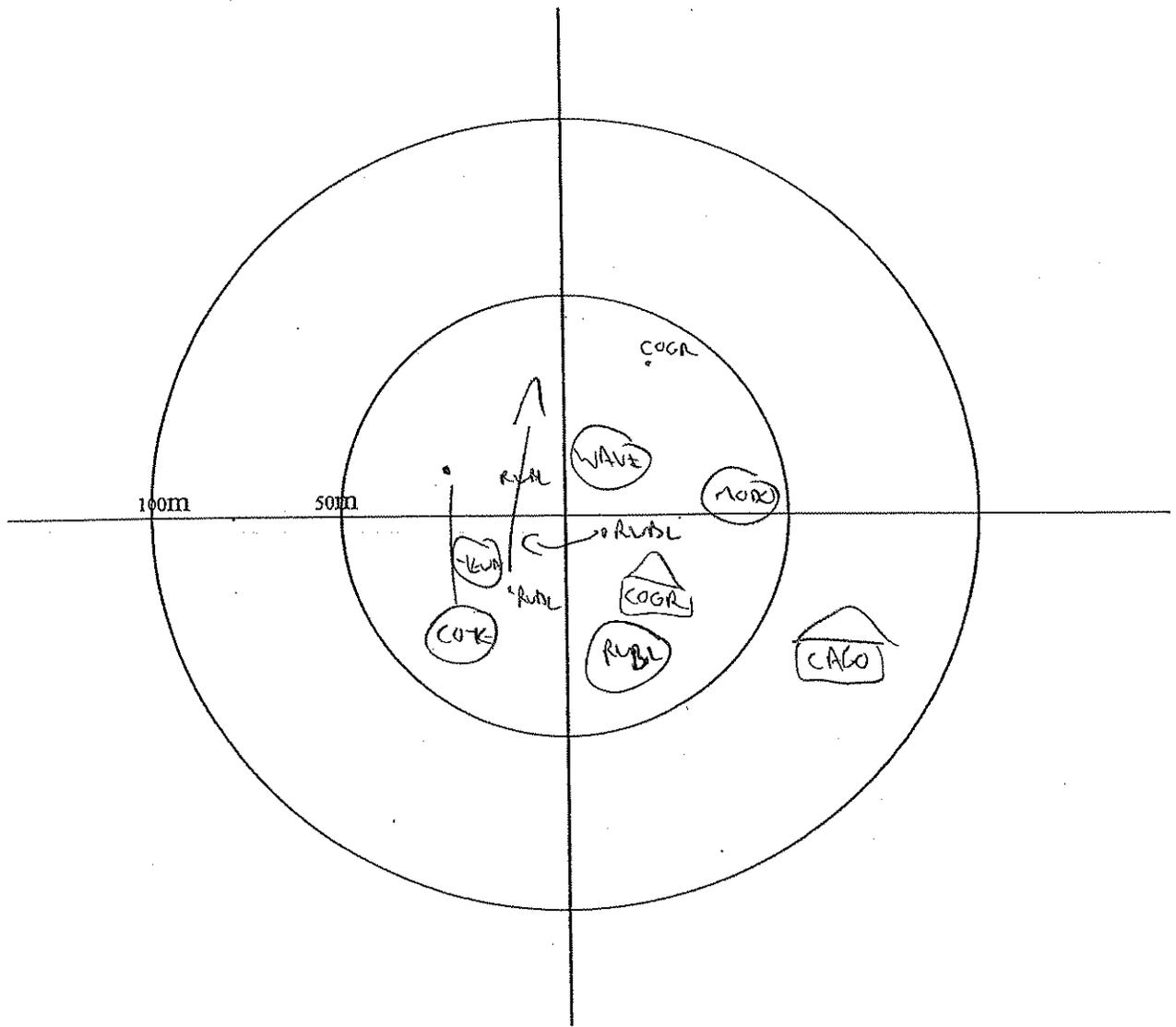
Observer:	Site:	Date:
Station ID: LAW	Visit #:	Start Time (HH:MM): 07:59
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru
AMCR
AMCG-P
RBCW
RA LL



## Point Count Data Form

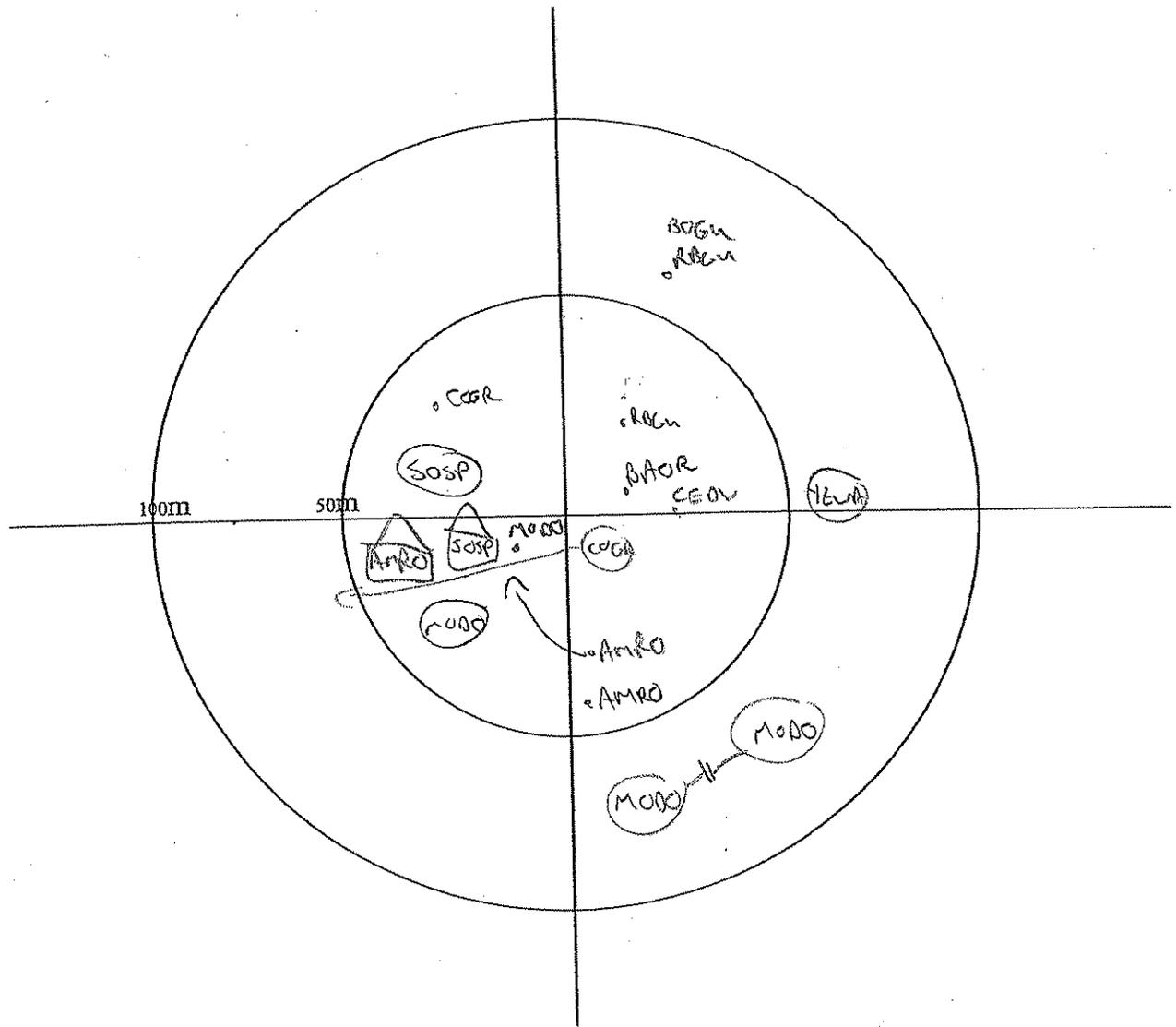
Observer: <i>SKM</i>	Site: <i>S Am SWNC</i>	Date: <i>June 4/09</i>
Station ID: <i>LA15</i>	Visit #: <i>54701</i>	Start Time (HH:MM): <i>08:12</i>
Beaufort Wind Scale: <i>B1 W</i>	Cloud Cover (%): <i>50</i>	Temperature (°C): <i>10</i>
Precipitation: <i>none</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally
<i>TRLS</i>	<i>11</i>
<i>DRWS</i>	<i>1</i>

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>CATE</i>
<i>CALO - 100-150</i>
<i>RBLN</i>
<i>HECU</i>
<i>BOGN</i>
<i>SCCO</i>



## Point Count Data Form

Observer:	Site:	Date:
Station ID: LA16	Visit #:	Start Time (HH:MM): 8:24
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

### Symbols

- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

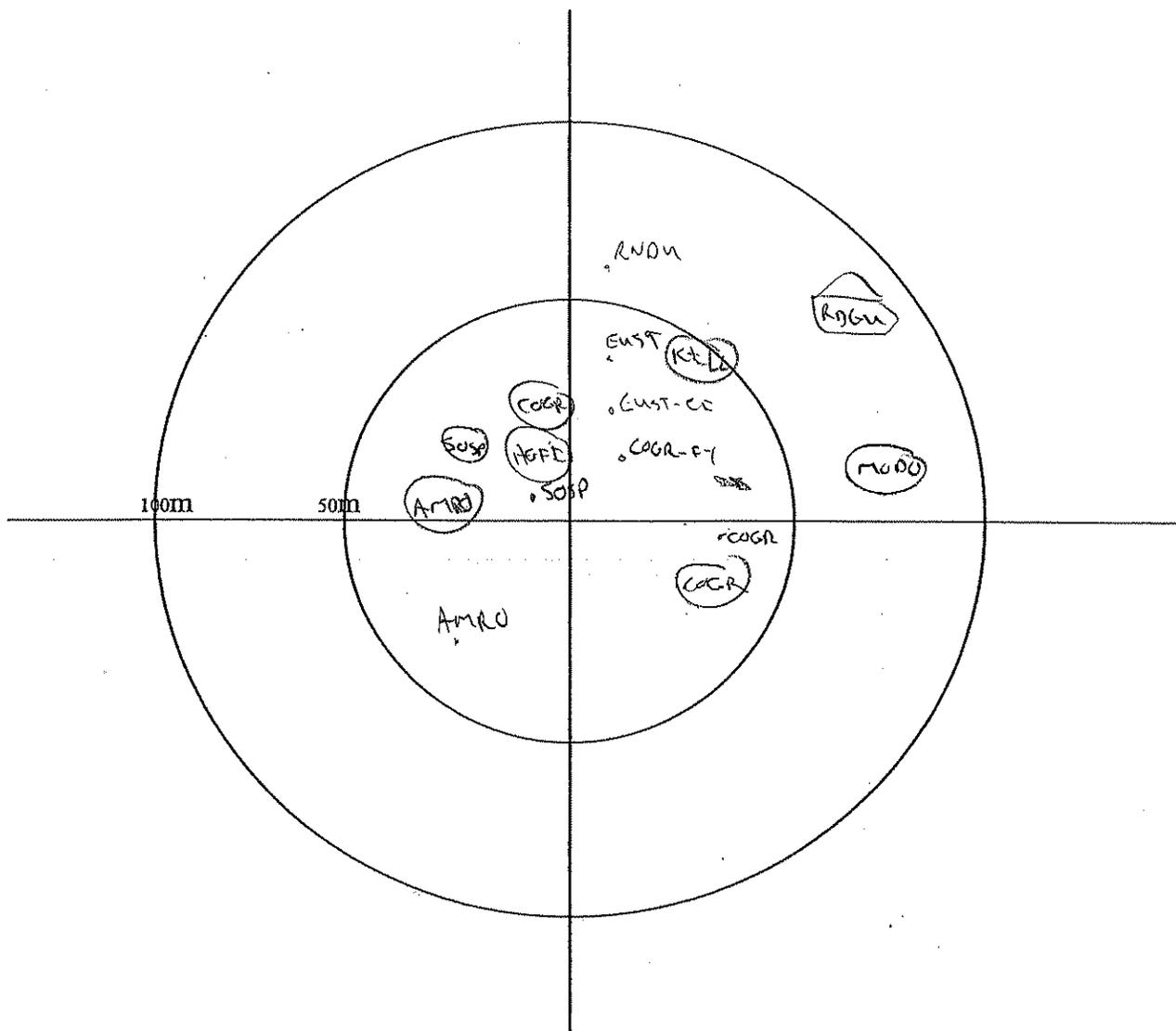
### Height

- 1 - BT H
- 2 - close to TH
- 3 - V BS
- 4 - WA BS

### Outside/Flythru

RJGU - 15  
BOGU - 2

Aerial Foragers	
Species	Tally
PWHT	1
TRES	11
BRNS	1



### Point Count Data Form

Observer: <i>SKM</i>	Site: <i>SAMS UNIC</i>	Date: <i>June 4 / 09</i>
Station ID: <i>LA 17</i>	Visit #: <i>SW101</i>	Start Time (HH:MM): <i>08:39</i>
Beaufort Wind Scale: <i>AIN</i>	Cloud Cover (%): <i>40</i>	Temperature (°C): <i>10</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks: <i>C.G. Camp</i>		

#### Symbols

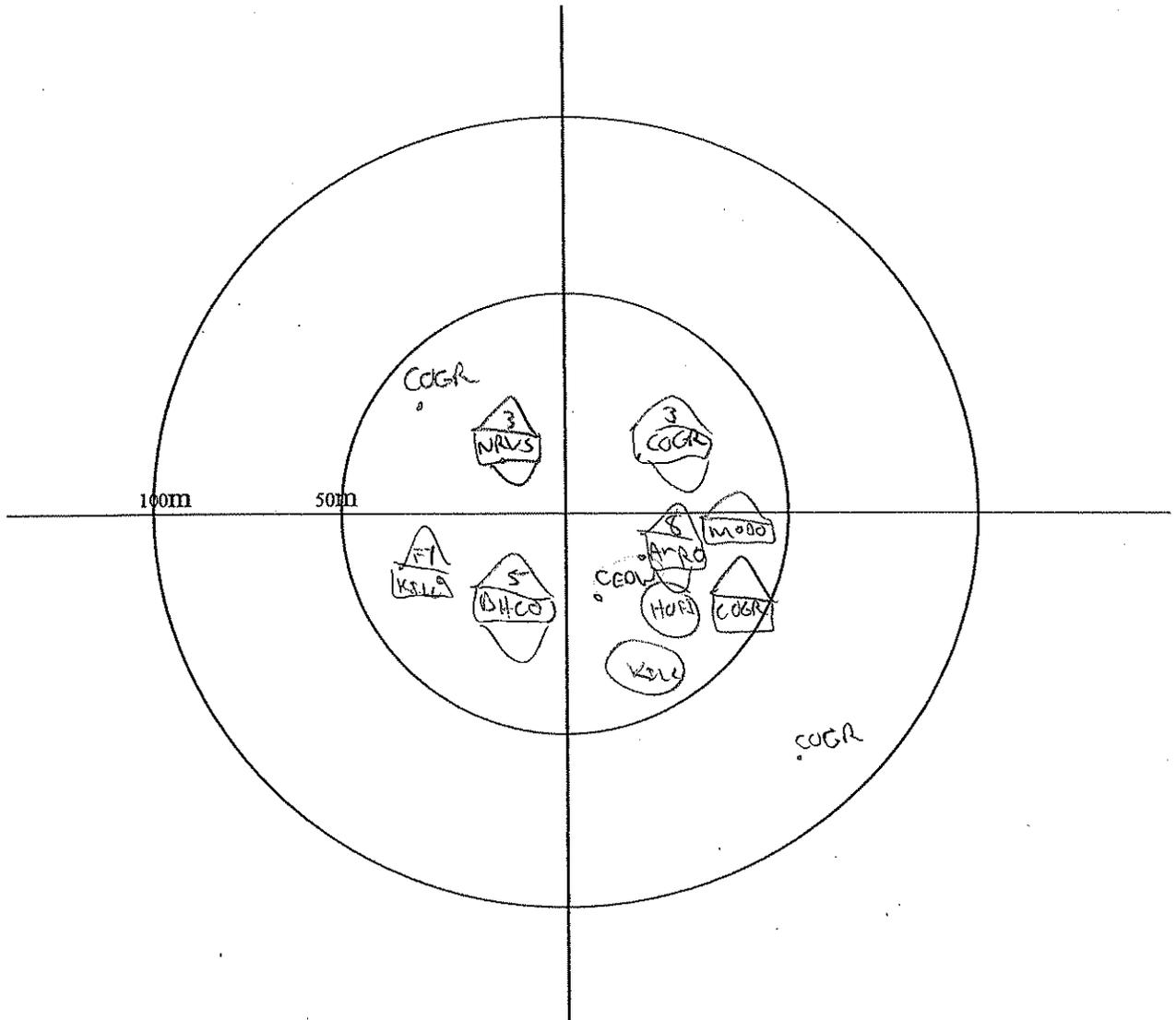
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

#### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
<i>HOLA-11</i>
<i>AMRO-111</i>

Aerial Foragers	
Species	Tally
<i>KS</i>	<i>    </i>
<i>NRVs</i>	<i>"</i>



## Point Count Data Form

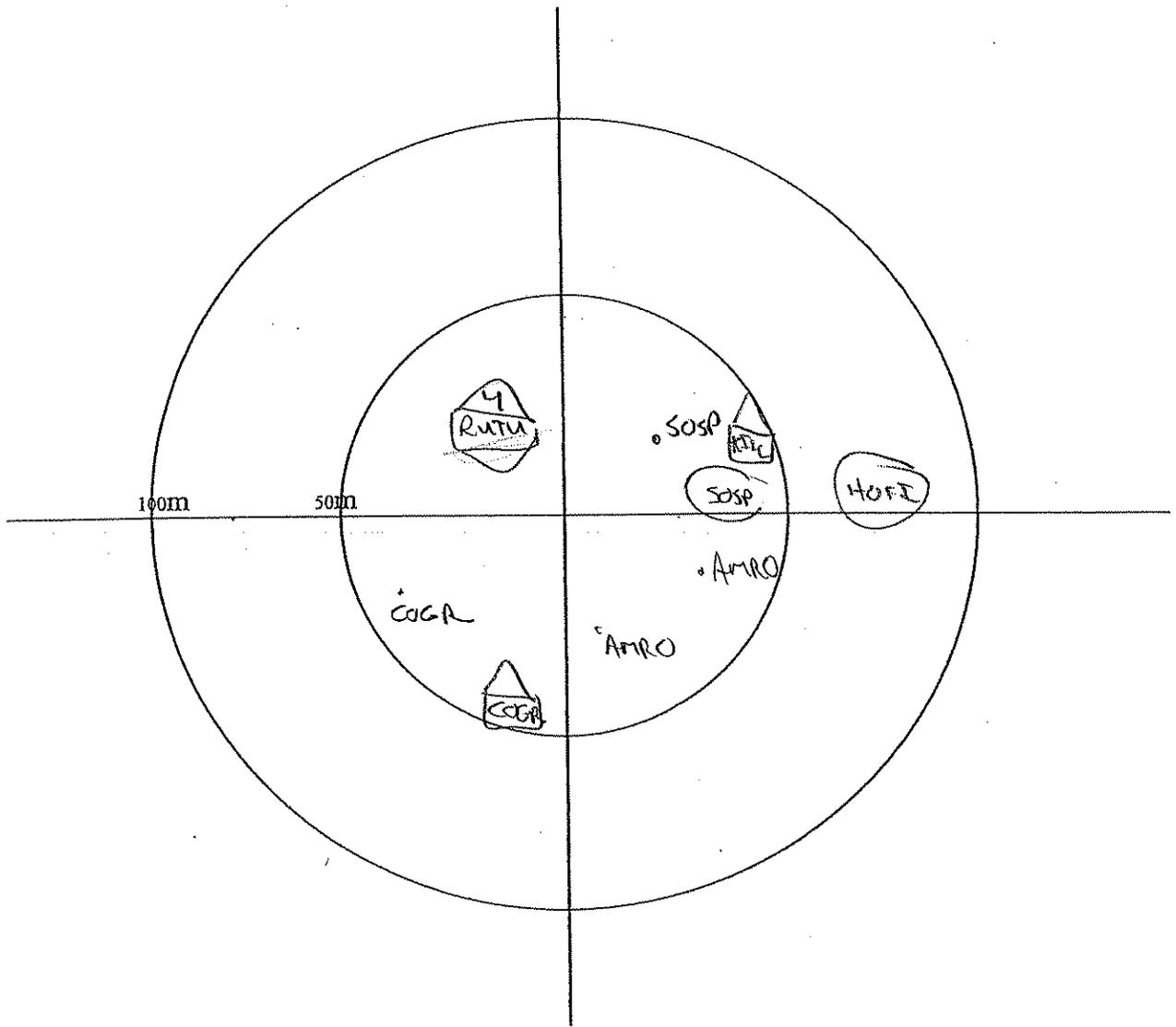
Observer:	Site:	Date:
Station ID: LA18	Visit #:	Start Time (HH:MM): 08:54
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks: just V of 2807 Lakeshore		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BTM
  - 2 - close to TM
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
DECO - 5
CAGO - 20
RSGU
HZLN - 10
RBLN - 15



## Point Count Data Form

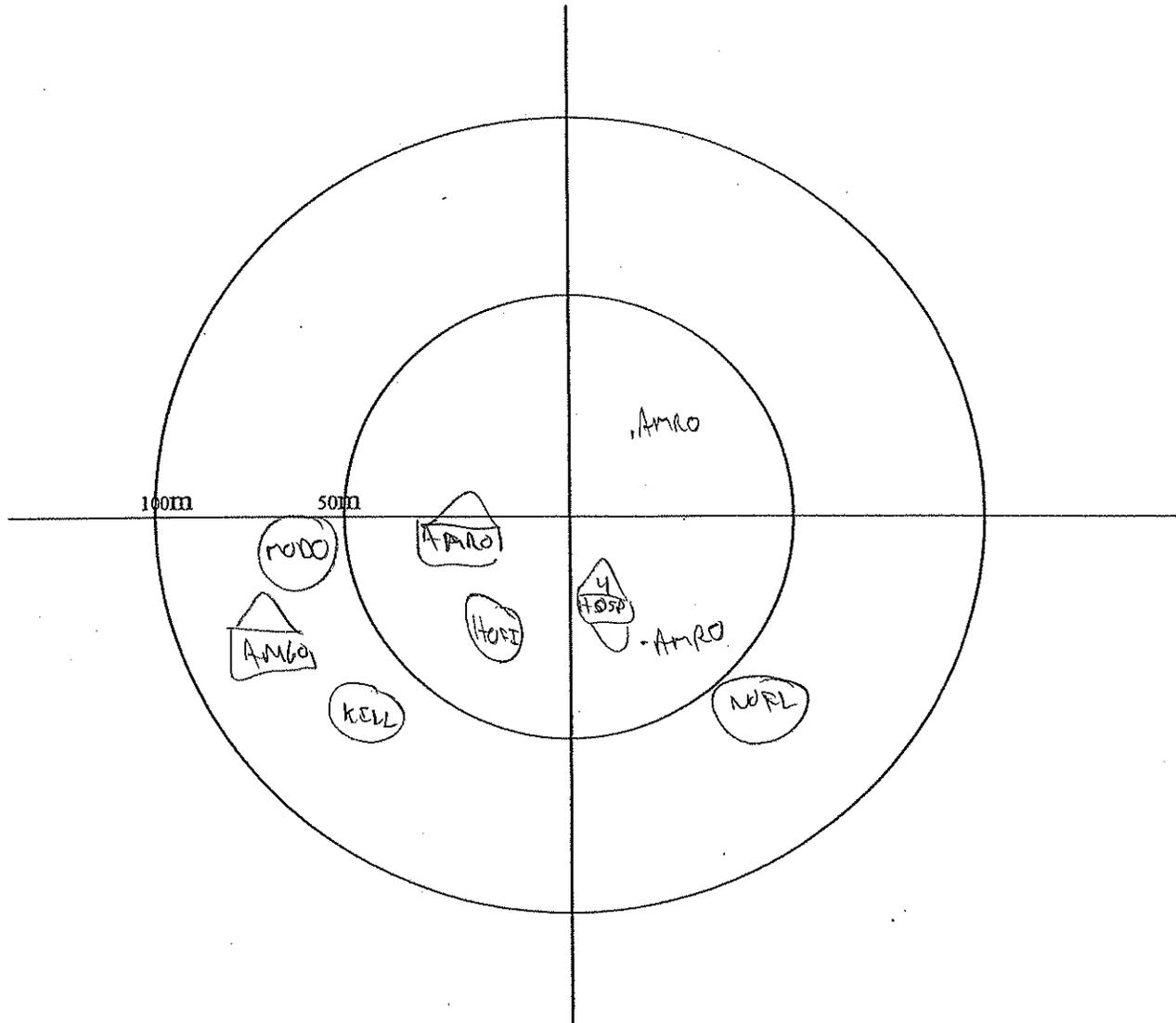
Observer: SKM	Site: SAMJNB	Date: June 4/09
Station ID: LA19	Visit #: Sum01	Start Time (HH:MM): 09:07
Beaufort Wind Scale: 11V	Cloud Cover (%): 40%	Temperature (°C): 11
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
DCCO
AMCR
MDDO
HEGN



## Point Count Data Form

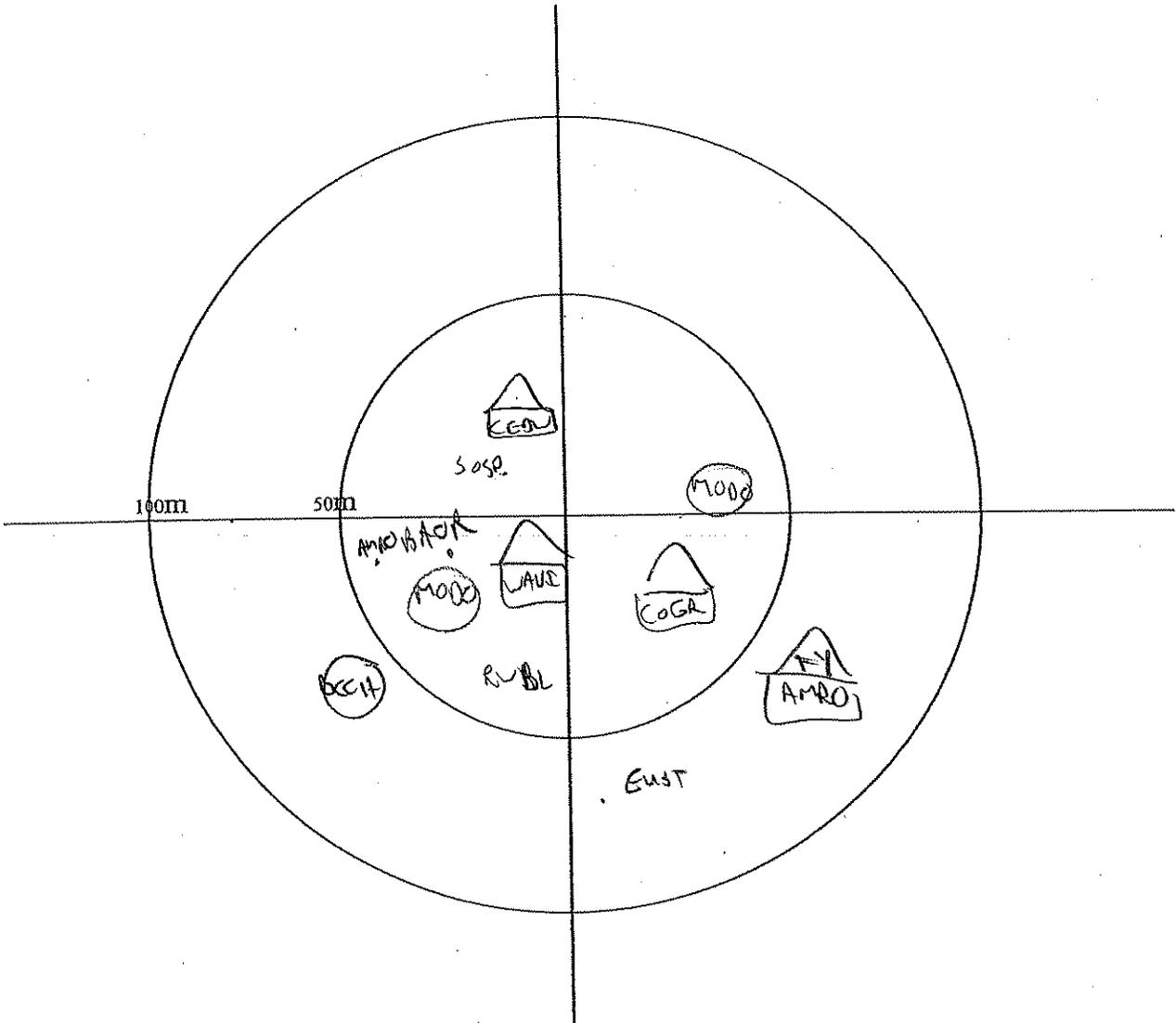
Observer:	Site:	Date:
Station ID: <u>LA20</u>	Visit #:	Start Time (HH:MM): <u>09 21</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
NEWS	1
TRES	1
PUMA	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

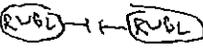
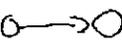
Outside/Flythru
<u>NRG ~ 20</u>



**Point Count Data Form**

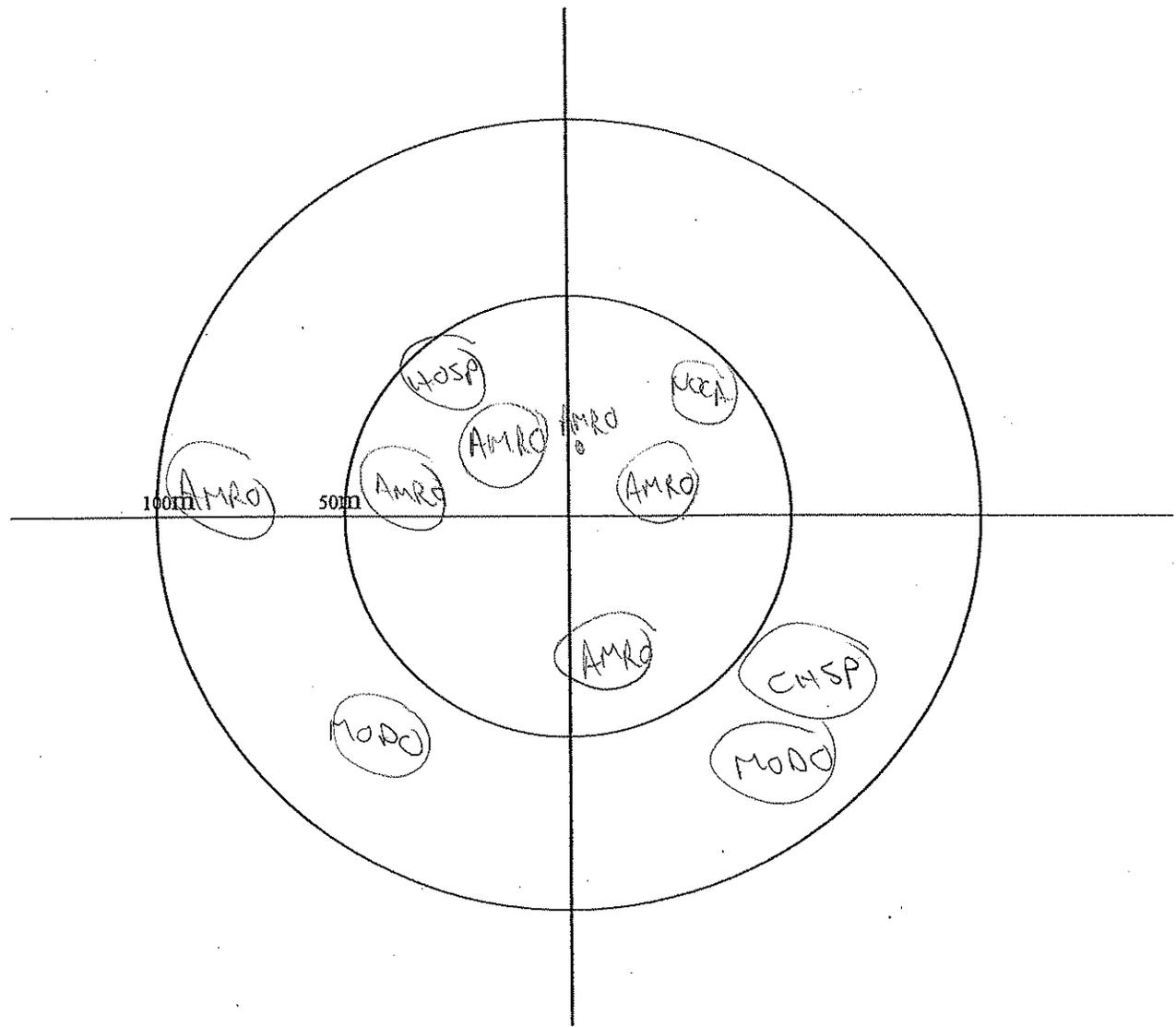
Observer: <i>SKM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 5/09</i>
Station ID: <i>GRO1</i>	Visit #: <i>sum01</i>	Start Time (HH:MM): <i>04:55</i>
Beaufort Wind Scale: <i>Bv</i>	Cloud Cover (%): <i>10</i>	Temperature (°C): <i>15</i>
Precipitation: <i>-</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
-  Single bird, ringing/calling
  -  Diff. birds of same sp.
  -  Pair together
  -  Family group
  -  Obs., but not calling/singing
  -  Known change in position

- Height**
- 1- BTH
  - 2- close to TH
  - 3- VBS
  - 4- WABS

Outside/Flythru
<i>CRGO</i>
<i>AMRO</i>
<i>NOCA</i>



## Point Count Data Form

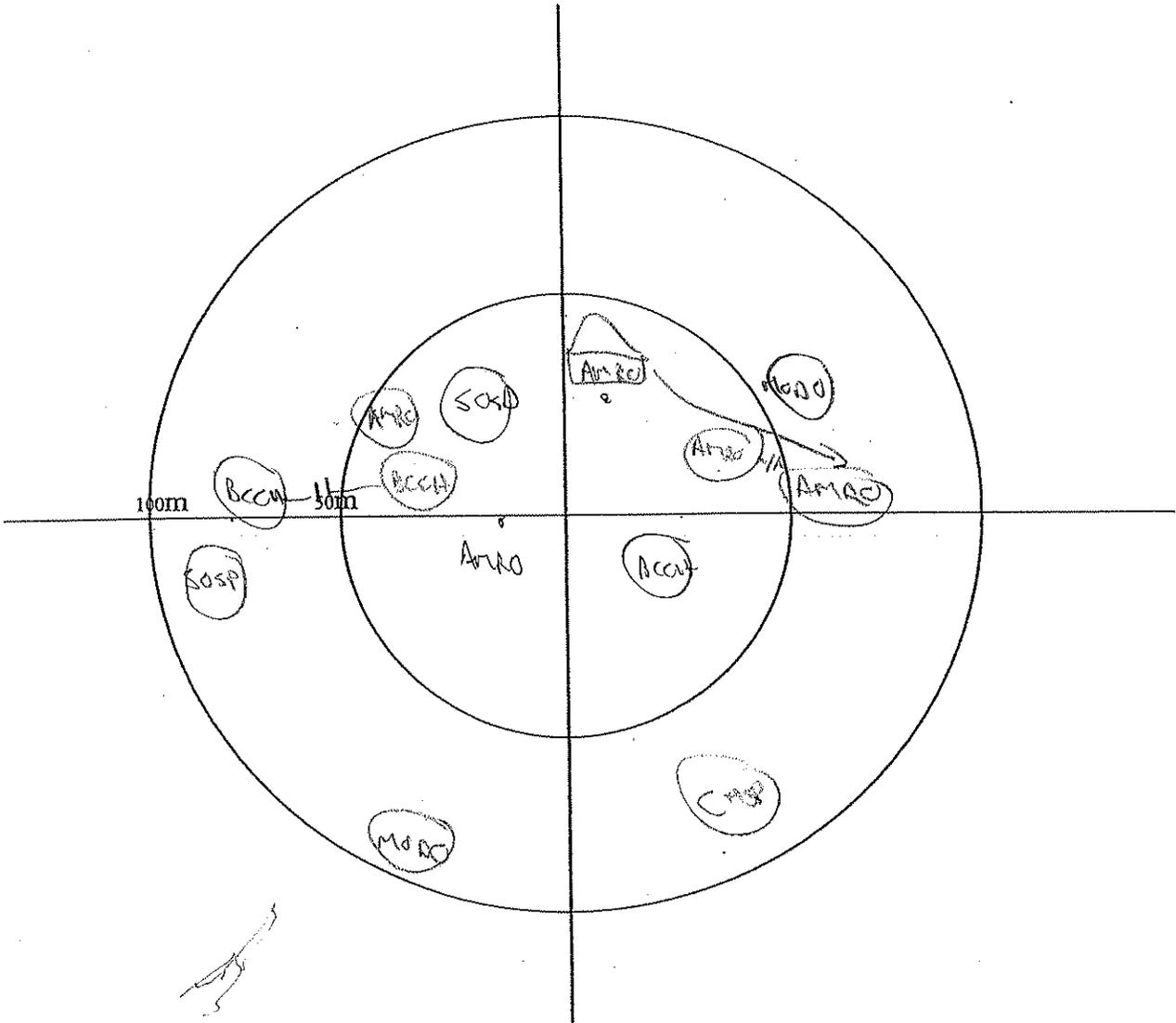
Observer:	Site:	Date:
Station ID: <i>AROW GRO 2</i>	Visit #:	Start Time (HH:MM): <i>05:20-8</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - V BS
  - 4 - WA BS

Outside/Flythru



## Point Count Data Form

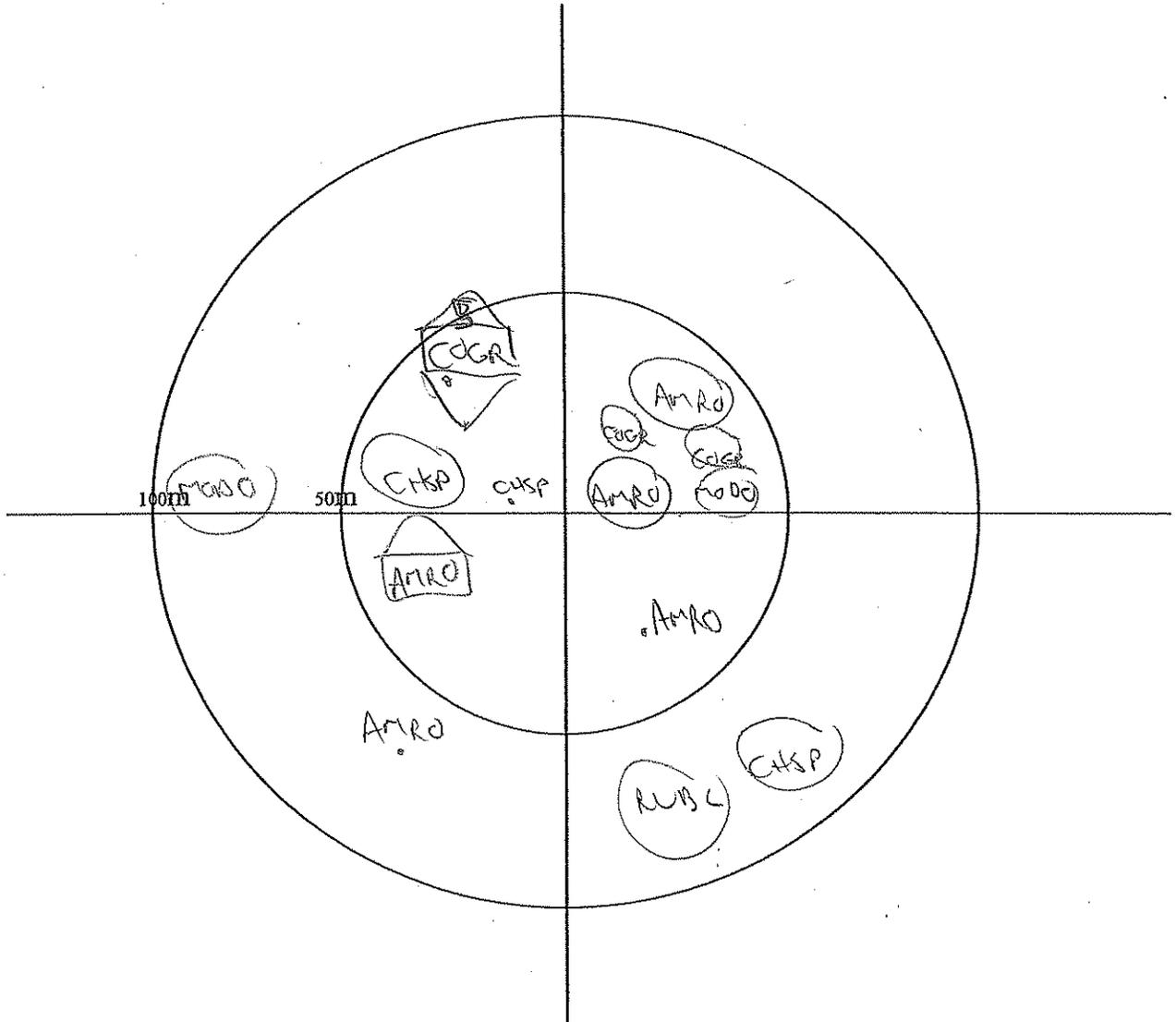
Observer: <i>Shw</i>	Site: <i>Samsung</i>	Date: <i>June 5/09</i>
Station ID: <i>GR03</i>	Visit #: <i>Sum 01</i>	Start Time (HH:MM): <i>05:21</i>
Beaufort Wind Scale: <i>81 SE</i>	Cloud Cover (%): <i>10</i>	Temperature (°C): <i>10</i>
Precipitation: <i>—</i>	Visibility: <i>Clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>AmCR II</i>
<i>COGR II</i>



## Point Count Data Form

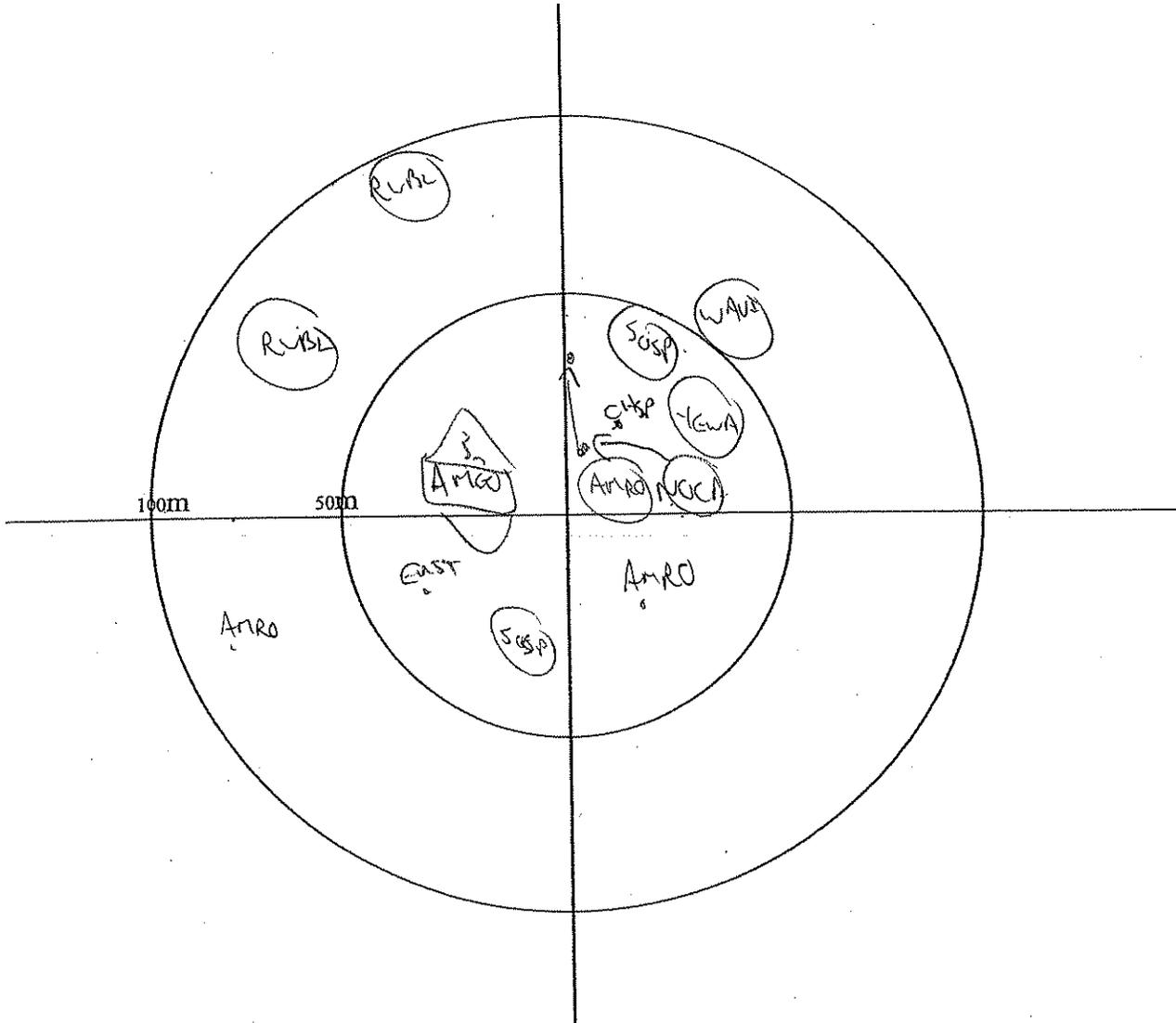
Observer:	Site:	Date:
Station ID: <u>6R04</u>	Visit #:	Start Time (HH:MM): <u>05:34</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - a Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - V B S
  - 4 - W A B S

Outside/Flythru
AMCR
EUST W1
CAGO





## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>GROG</i>	Visit #:	Start Time (HH:MM): <i>06:07</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

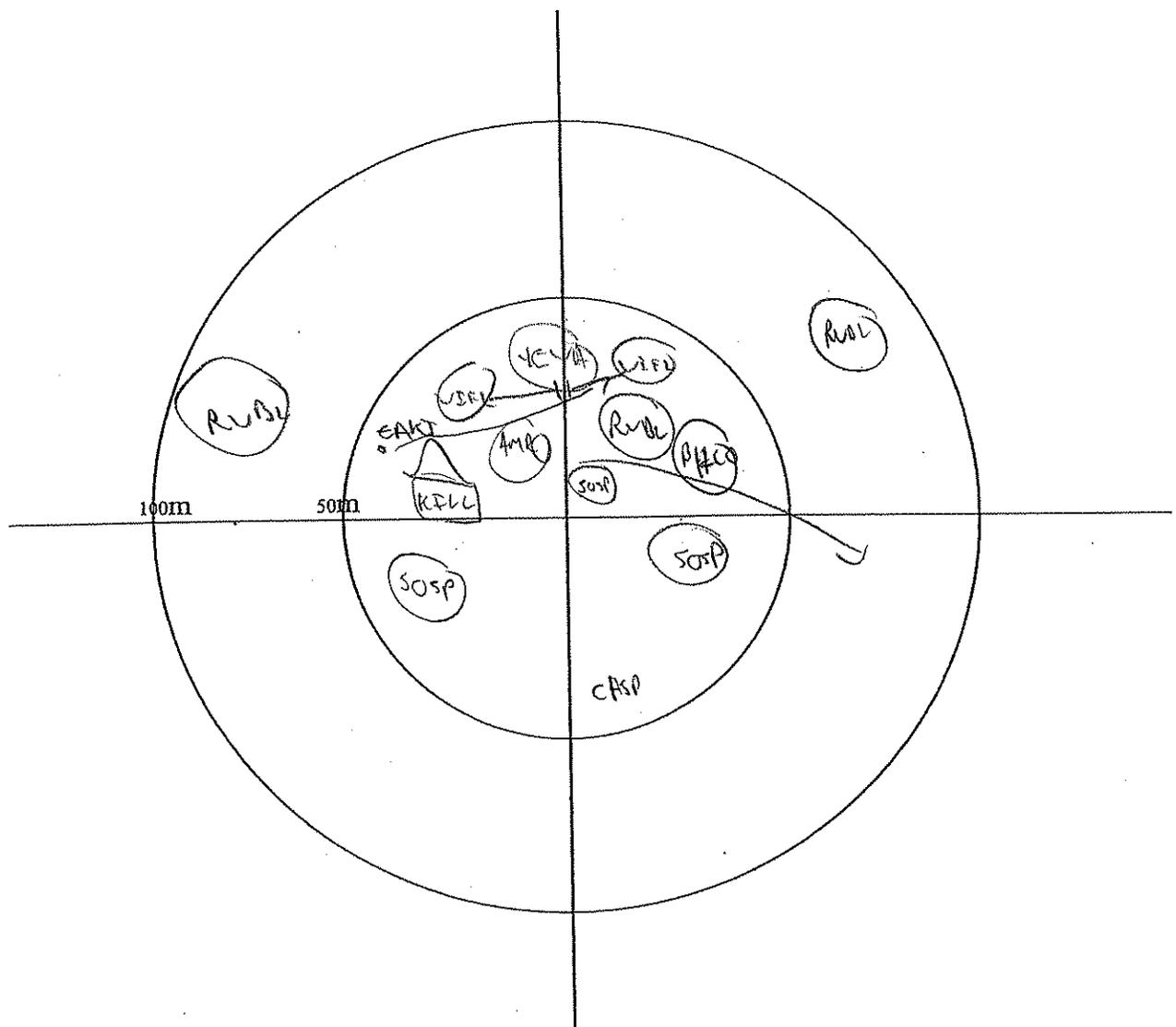
**Symbols**

RWBL Single bird, singing/calling  
RWBL ← RWBL Diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 →   Known change in position

**Height**

1 - BT H  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
AORR II
COGR
RWBL "

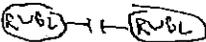
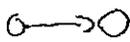


**Point Count Data Form**

Observer: SKM	Site: SANGUNG	Date: June 5/09
Station ID: GR07	Visit #: 5001	Start Time (HH:MM): 06:20
Beaufort Wind Scale: BLN	Cloud Cover (%): 10	Temperature (°C): 10
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally
BRNS	11
TRES	11

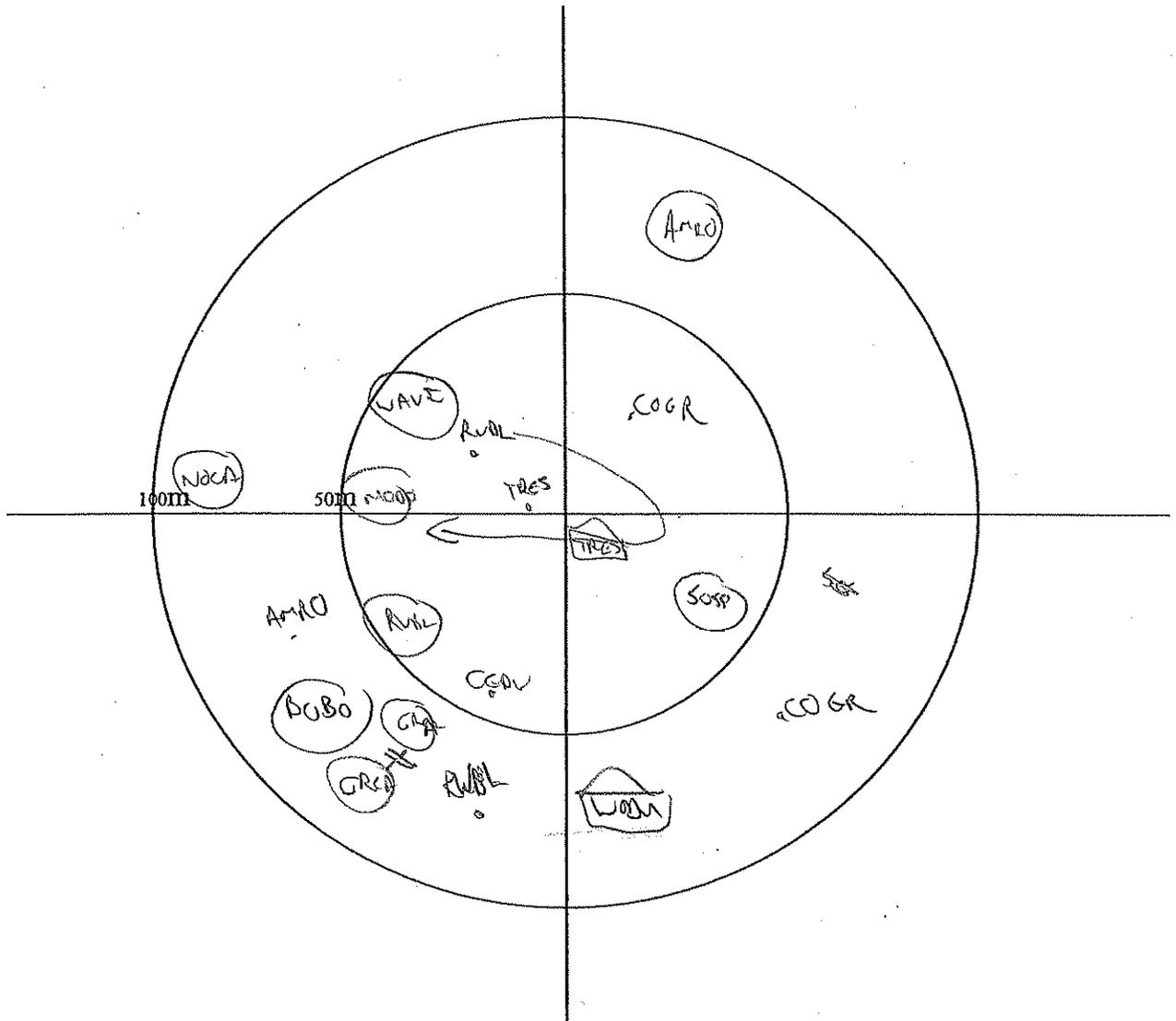
**Symbols**

 Single bird, singing/calling  
 diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 known change in position

**Height**

1- BTH  
 2- close to TH  
 3- VBS  
 4- WABS

Outside/Flythru
EWAL



## Point Count Data Form

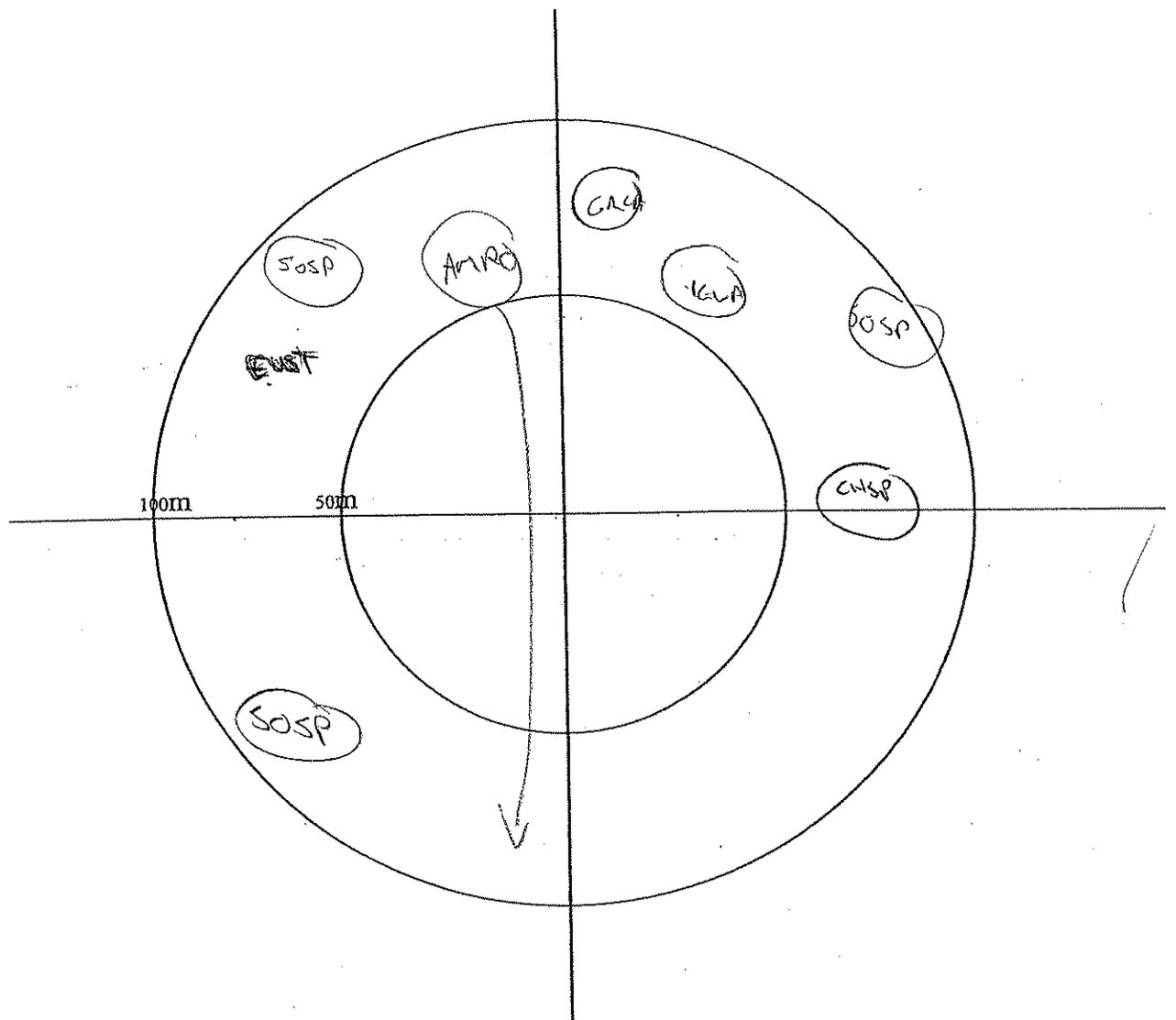
Observer:	Site:	Date:
Station ID: <u>CR08</u>	Visit #:	Start Time (HH:MM): <u>06:34</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, ringing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
EWST 11
RBCU
ANCO 11
AWCO

CR08





## Point Count Data Form

Observer:	Site:	Date:
Station ID: GR10	Visit #:	Start Time (HH:MM): 07:04
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

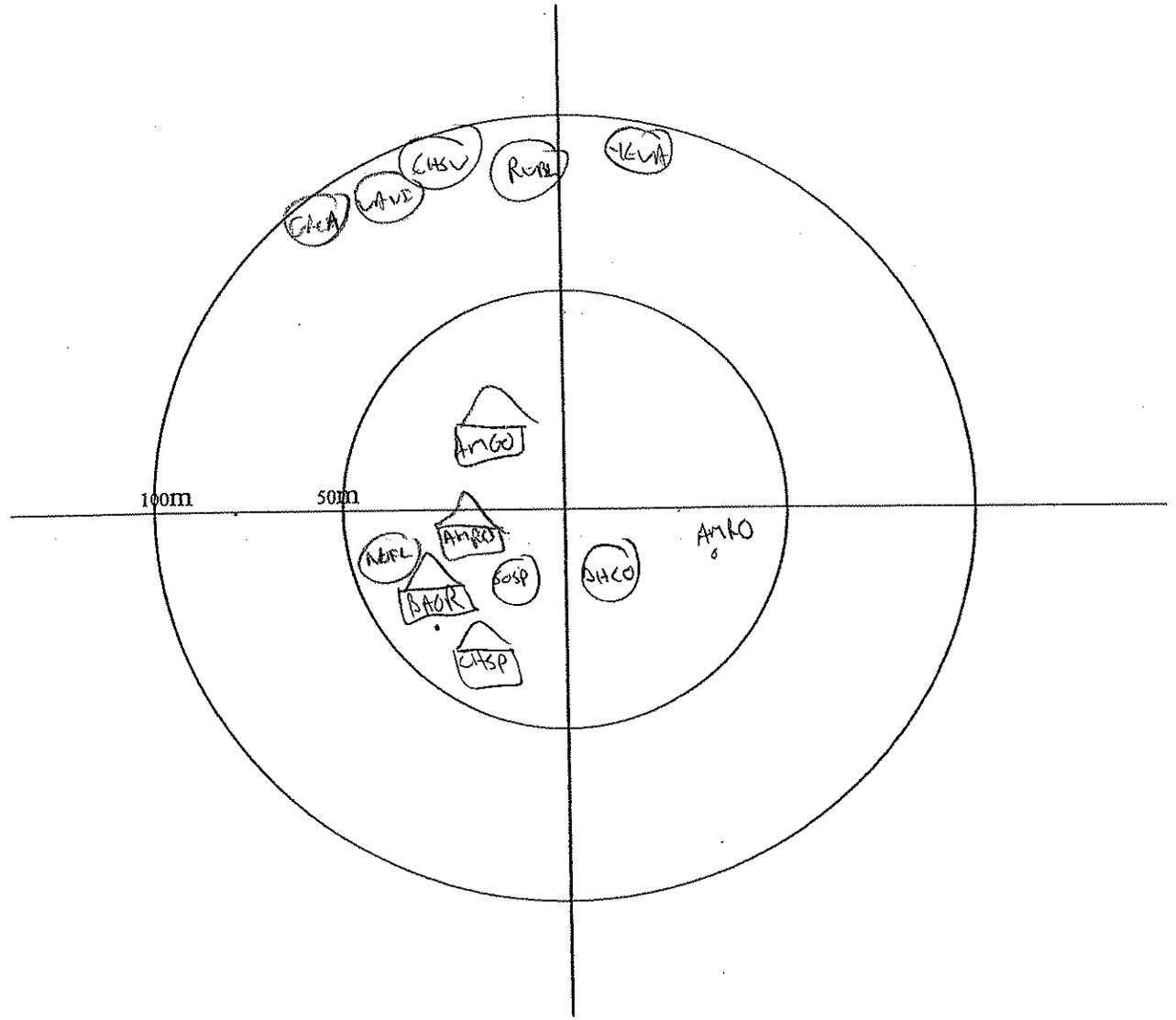
**Symbols**

RWBL Single bird, ringing/calling  
RWBL — RWBL Diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 →  known change in position

Height

1 - BT H  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
3LJA II
SOSP

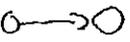


Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: June 5/09
Station ID: GR1	Visit #: SW01	Start Time (HH:MM): 7:21
Beaufort Wind Scale: 80	Cloud Cover (%): 0	Temperature (°C): 18
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

**Symbols**

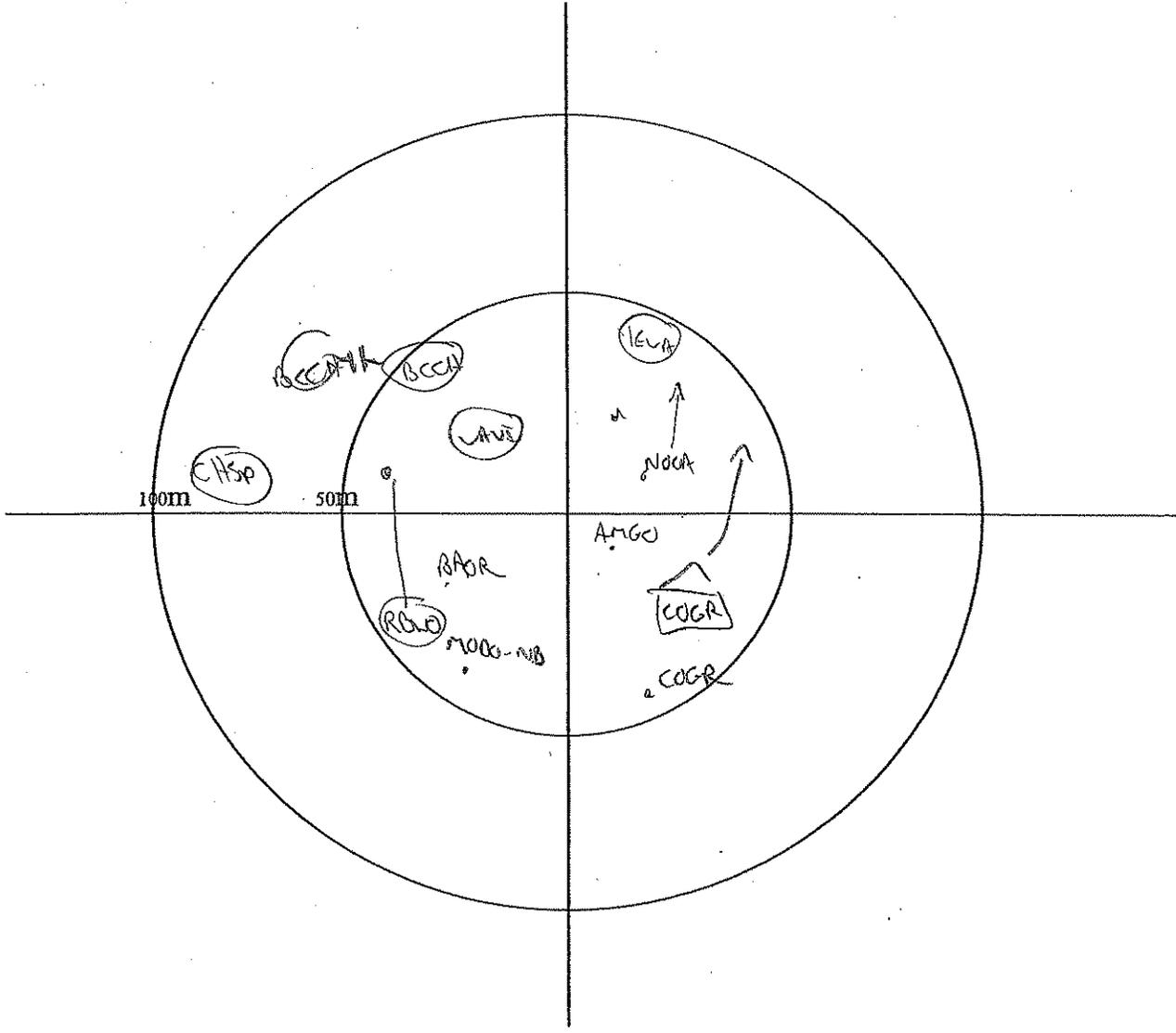
 Single bird, singing/calling  
 →  Diff. birds of same sp.  
 Pair together  
 Family group  
 Obs., but not calling/singing  
 known change in position

Height

1 - BTH  
 2 - close to TH  
 3 - VBS  
 4 - WABS

Outside/Flythru
RUBL
AMRO
EUPV
AMGO

MUSKAT



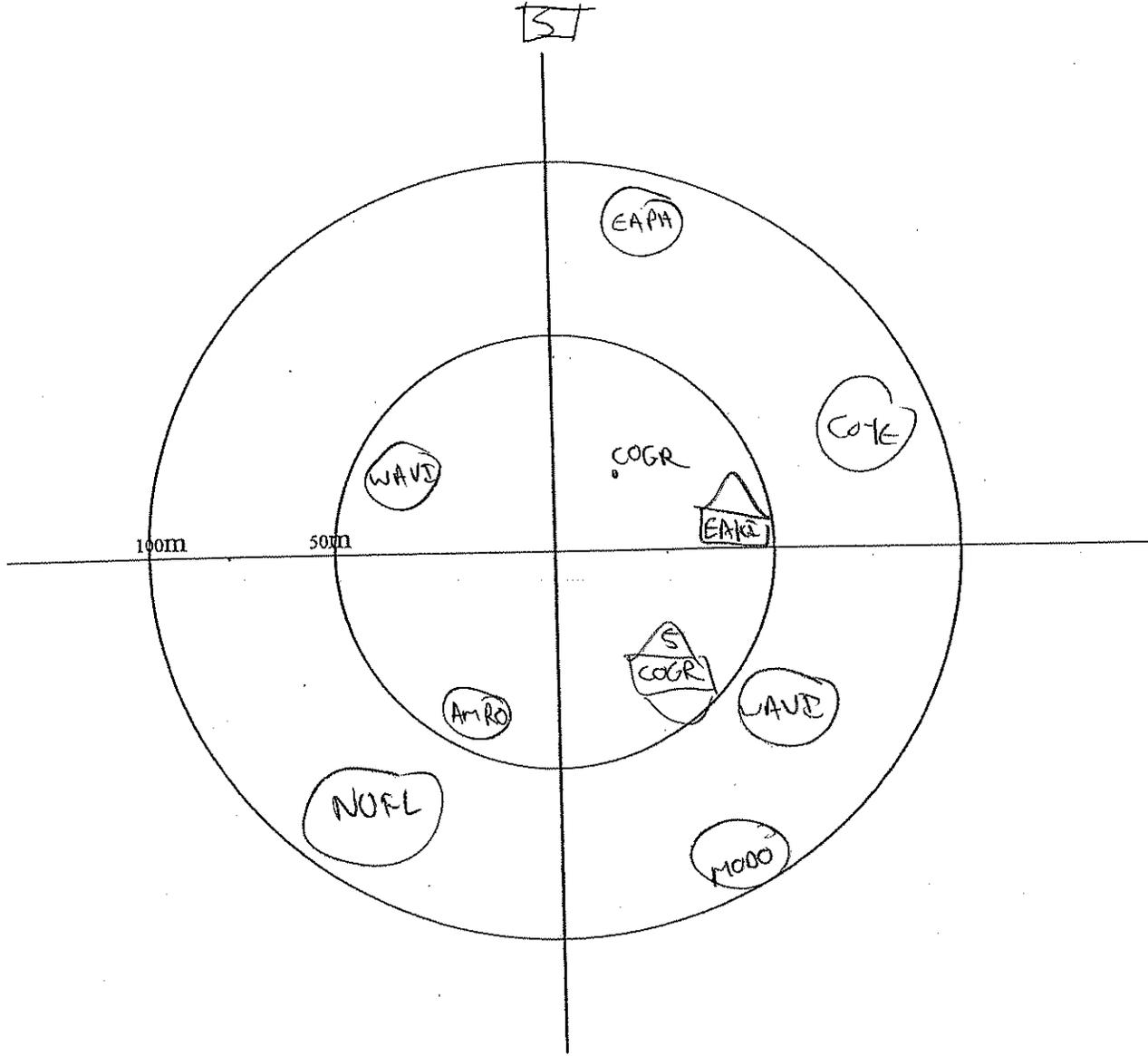
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>IN01</i>	Visit #:	Start Time (HH:MM): <i>07:37</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
<i>TRGS</i>	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTM
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>VOTH</i>
<i>OVEN</i>
<i>BACO</i>
<i>MOOO</i>
<i>KILL</i>



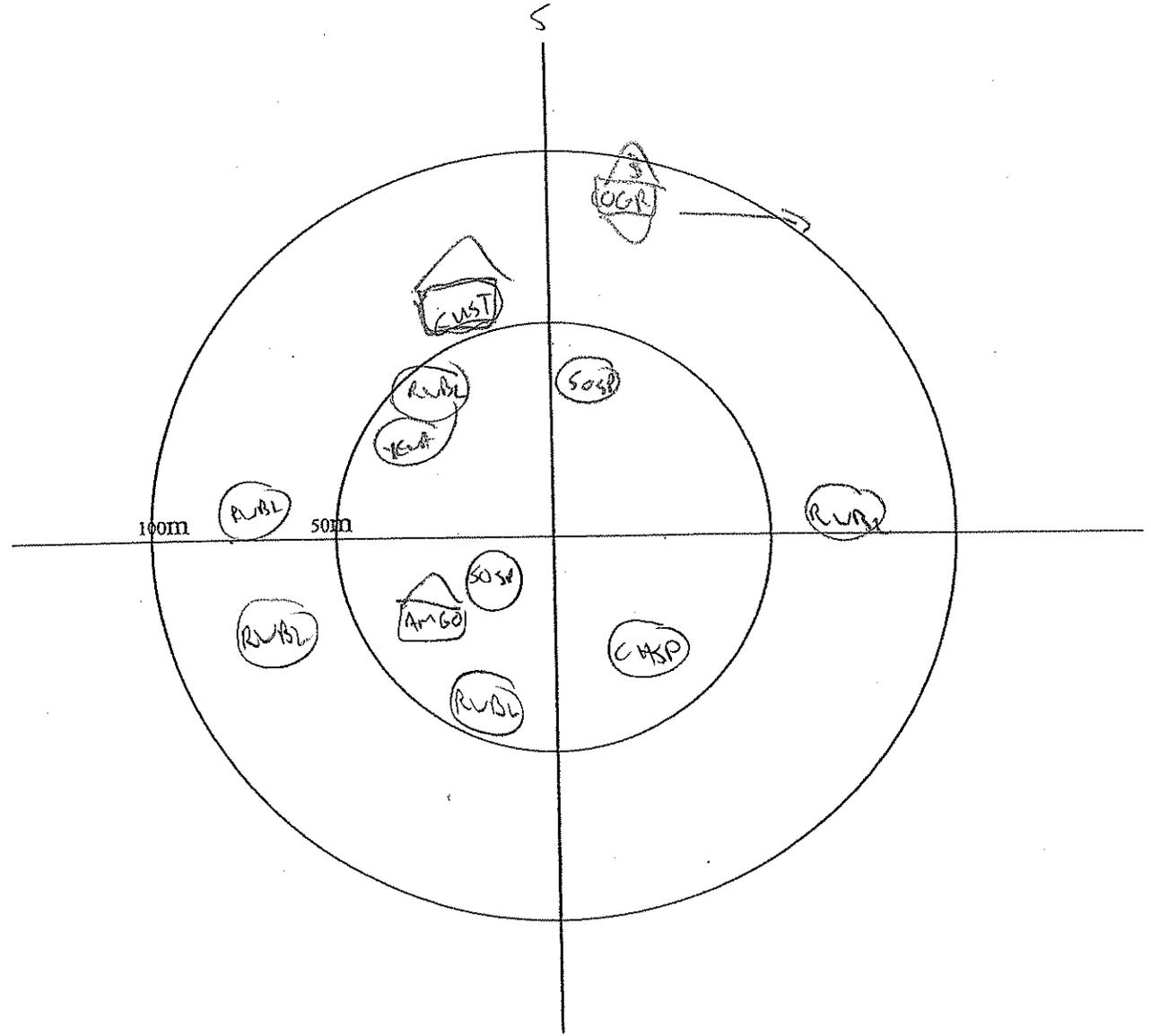
## Point Count Data Form

Observer: <u>SKM</u>	Site: <u>SAMSUNG</u>	Date: <u>Jun 5/09</u>
Station ID: <u>ZNO2</u>	Visit #: <u>5UM01</u>	Start Time (HH:MM): <u>07:56</u>
Beaufort Wind Scale: <u>B1</u>	Cloud Cover (%): <u>0</u>	Temperature (°C): <u>13</u>
Precipitation: <u>—</u>	Visibility: <u>clear</u>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TA
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
NO HA





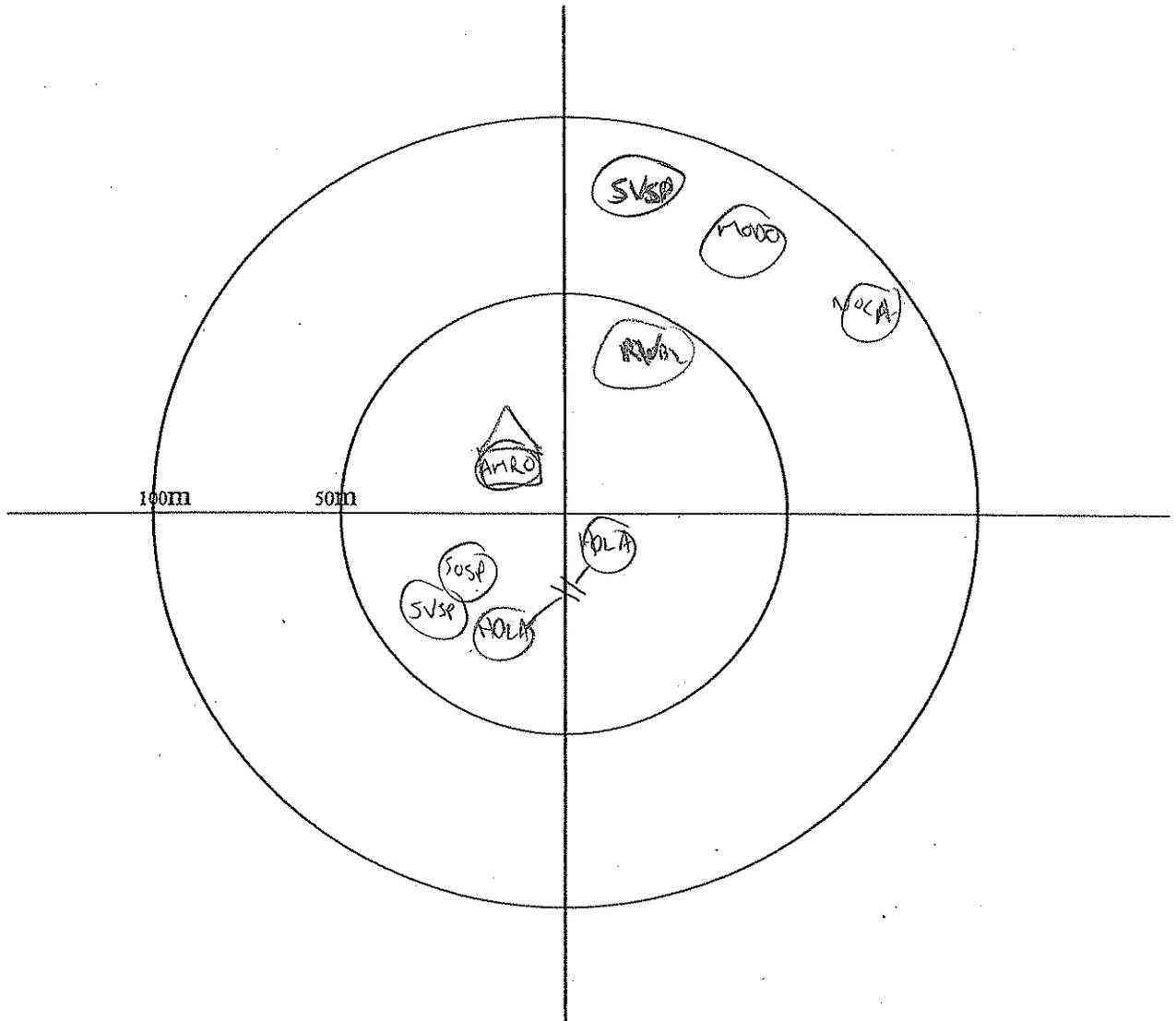
## Point Count Data Form

Observer: SKMM	Site: SAM SURVE	Date: June 5/09
Station ID: IN04	Visit #: SUM01	Start Time (HH:MM): 08:27
Beaufort Wind Scale: B1	Cloud Cover (%): 0	Temperature (°C): 14
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTM
  - 2 - close to TM
  - 3 - VBS
  - 4 - WABS

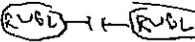
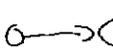
Outside/Flythru
HOLA
COGR III
ANGOM
RWBL
ROPE



## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>JW05</i>	Visit #:	Start Time (HH:MM): <i>08:43</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

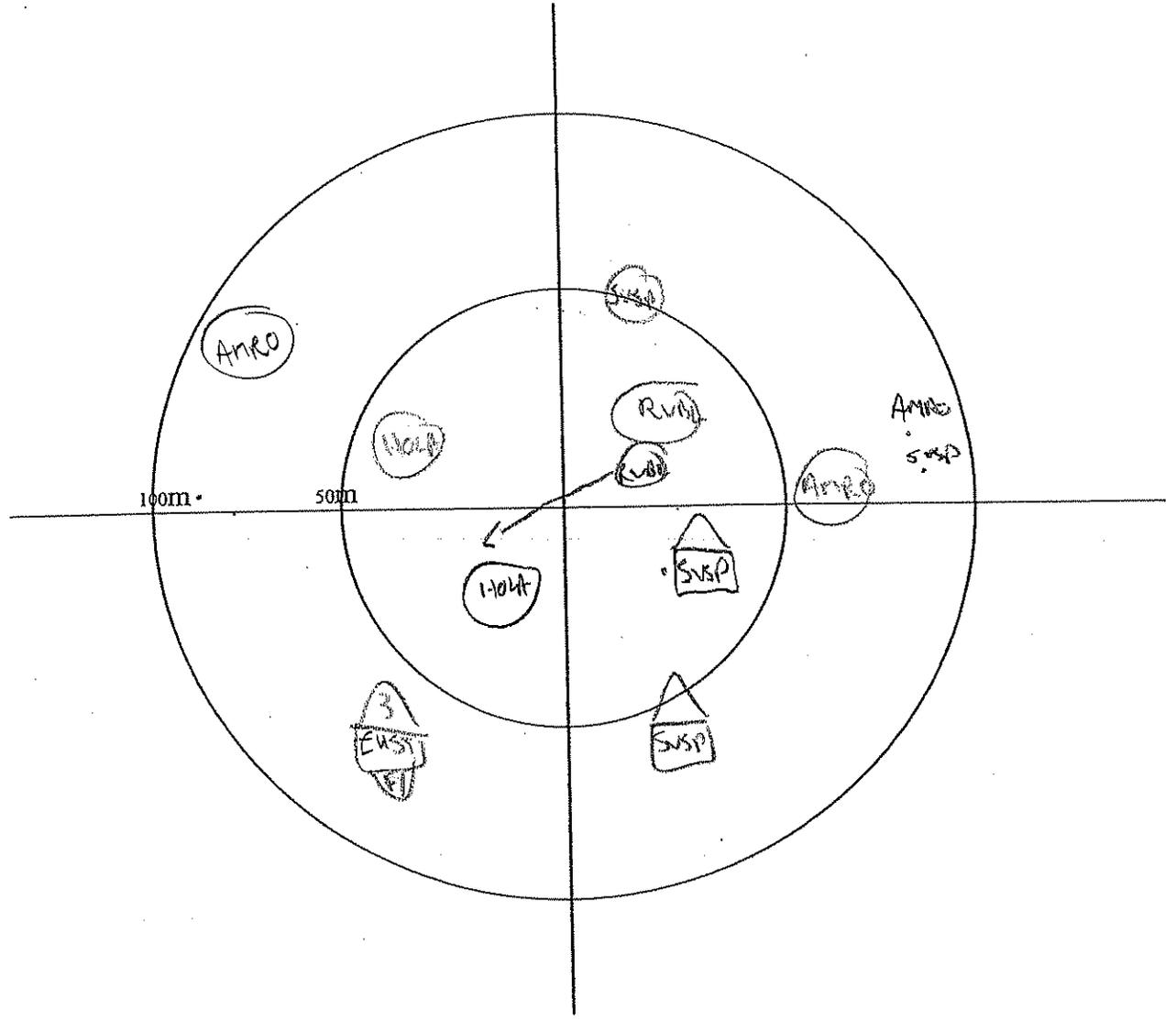
Aerial Foragers	
Species	Tally
NRVS	1

- Symbols**
-  Single bird, singing/calling
  -  Diff. birds of same sp.
  -  Pair together
  -  Family group
  -  Obs., but not calling/singing
  -  known change in position

- Height**
- 1 - BTM
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RWBL
COGR III
NRVS
<del>NRVS</del>
EUST

BLJA  
CAGO - 







## Point Count Data Form

Observer: <i>SKW</i>	Site: <i>LAGISUNG</i>	Date: <i>June 10/09</i>
Station ID: <i>DW08</i>	Visit #: <i>Sum 01</i>	Start Time (HH:MM): <i>05:33</i>
Beaufort Wind Scale: <i>BIV</i>	Cloud Cover (%): <i>100</i>	Temperature (°C): <i>13</i>
Precipitation: <i>—</i>	Visibility: <i>c/bs</i>	
Remarks:		

### Symbols

- RWBL Single bird, singing/calling
- RWBL ← RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

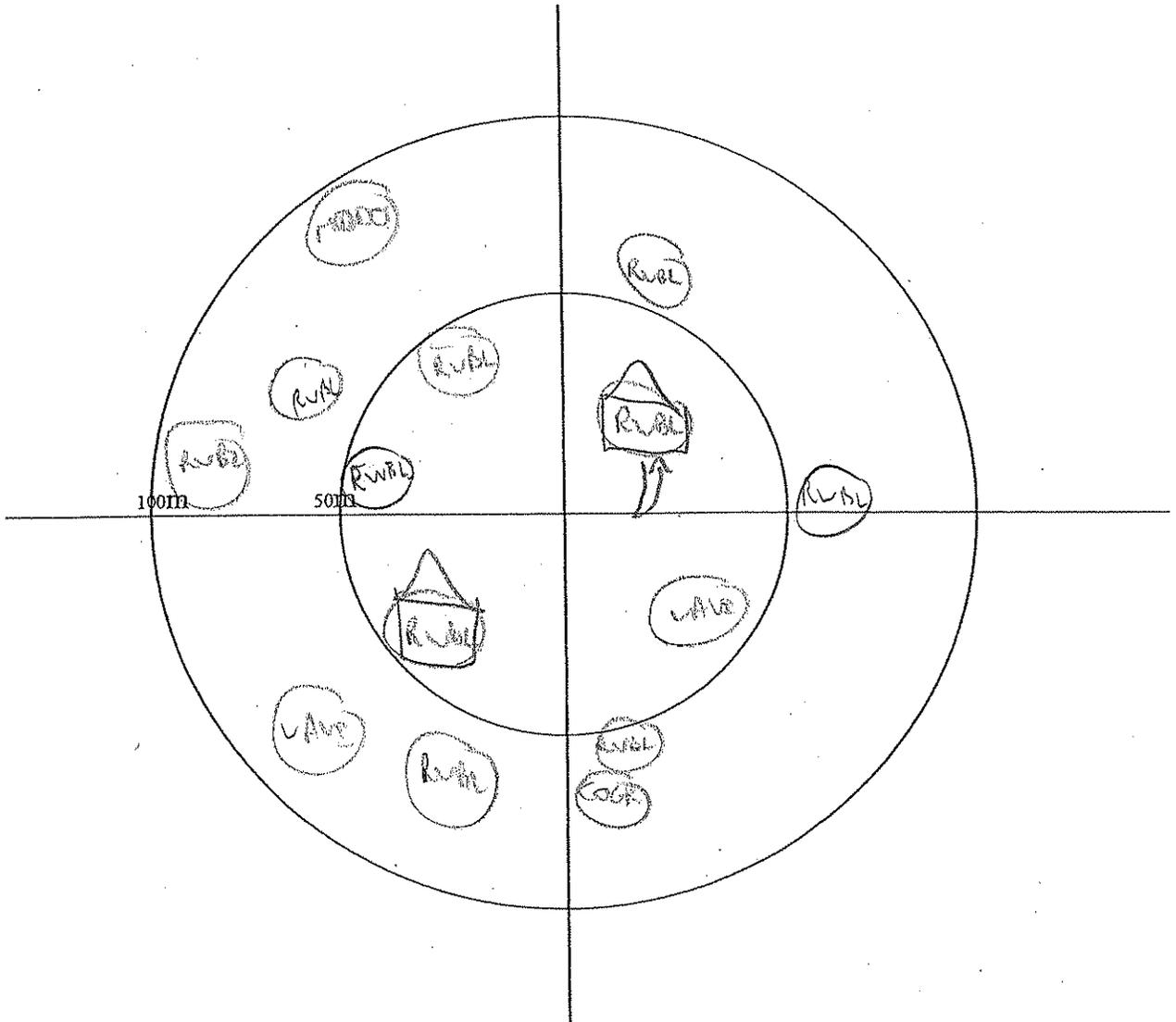
### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

### Outside/Flythru

ARCR

Aerial Foragers	
Species	Tally
<i>TACS</i>	<i>11</i>
<i>Blus</i>	<i>1</i>



# Point Count Data Form

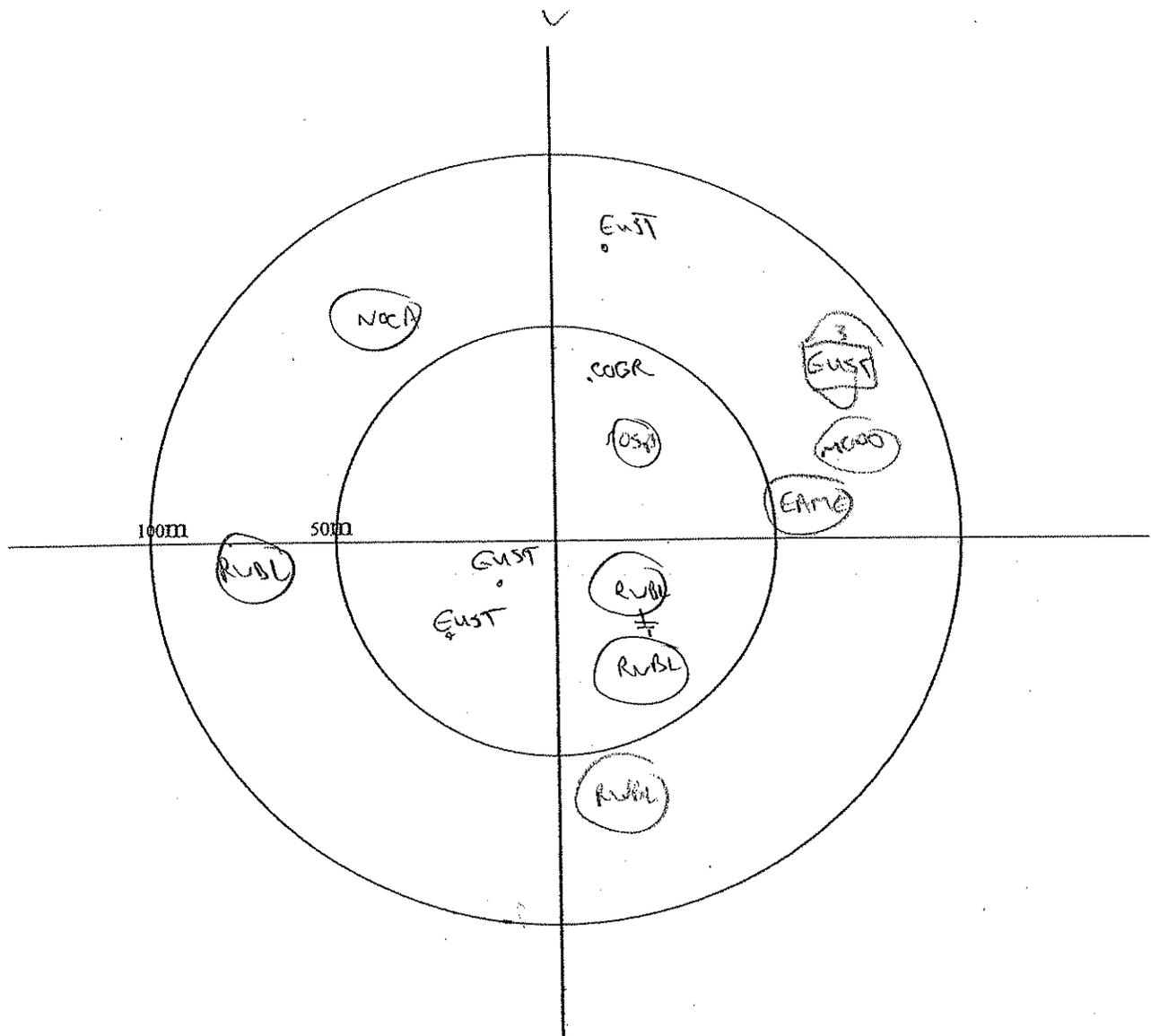
Observer:	Site:	Date:
Station ID: <i>12009</i>	Visit #:	Start Time (HH:MM): <i>05:49</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
AMCK
CAGO 4
RTAA
ROPT III



## Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: June 10/09
Station ID: IN10	Visit #: SW101	Start Time (HH:MM): 06:08
Beaufort Wind Scale:	Cloud Cover (%): 100	Temperature (°C): 13
Precipitation: —	Visibility: clear	
Remarks: @ F-ville Sign		

### Symbols

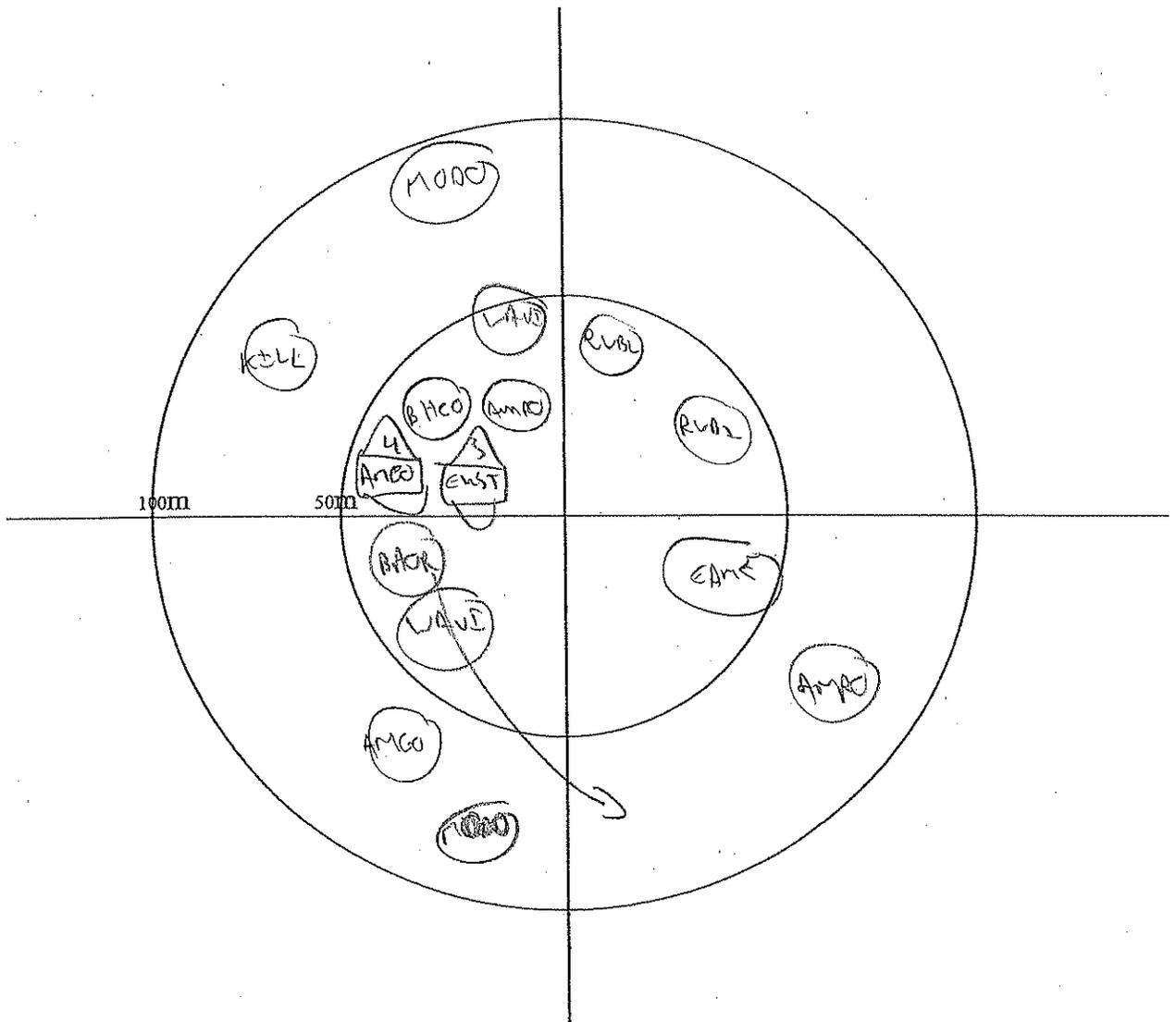
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1 - BTB
- 2 - close to TH
- 3 - WBS
- 4 - WABS

Outside/Flythru
AMCR
ENST
COGR

Aerial Foragers	
Species	Tally



## Point Count Data Form

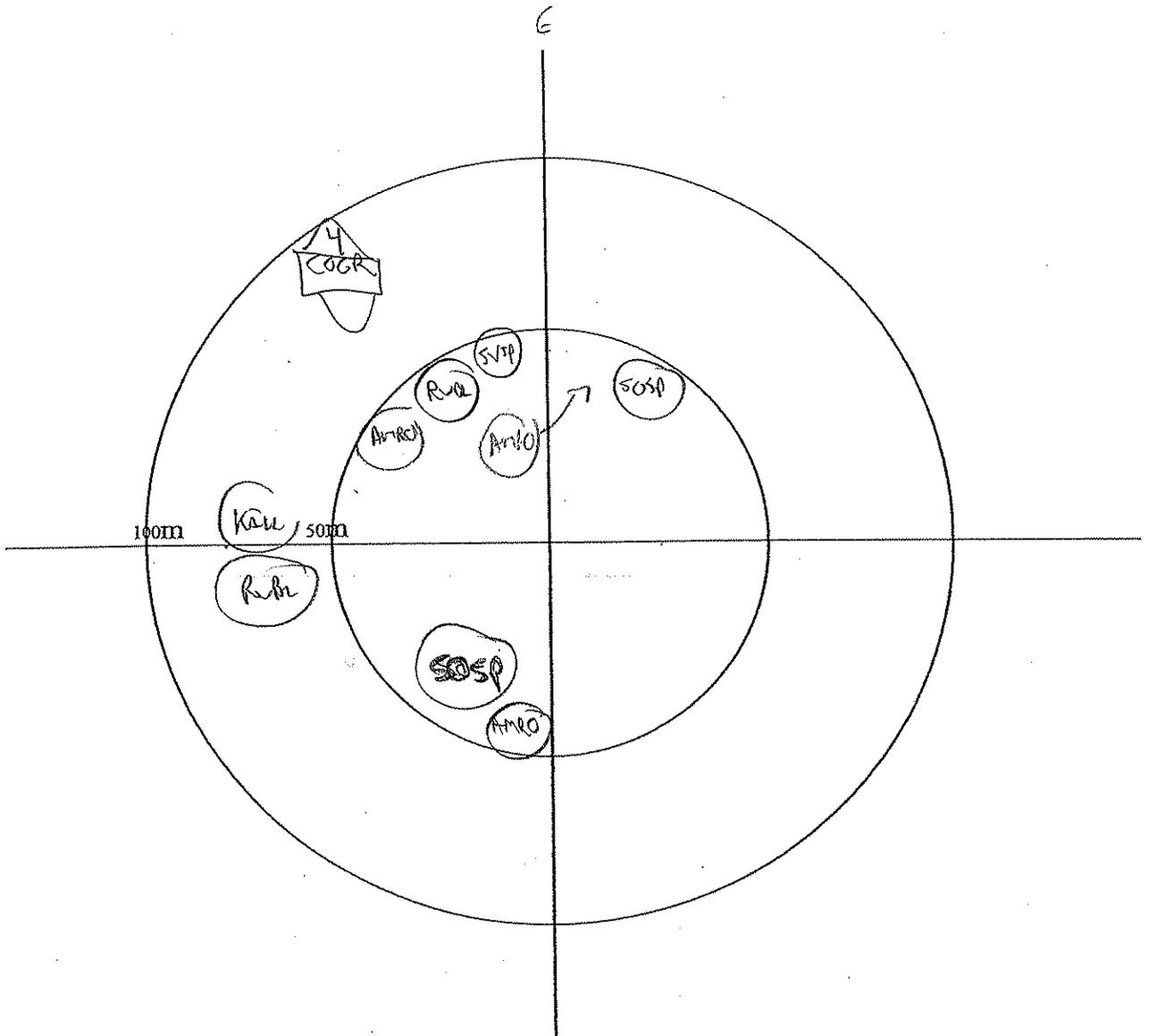
Observer:	Site:	Date:
Station ID: <u>12/11</u>	Visit #:	Start Time (HH:MM): <u>06:26</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
ARNS	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
UPSA
AMCR
AMCO II



# Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>DW13</u>	Visit #:	Start Time (HH:MM): <u>07:07</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
BANS	11

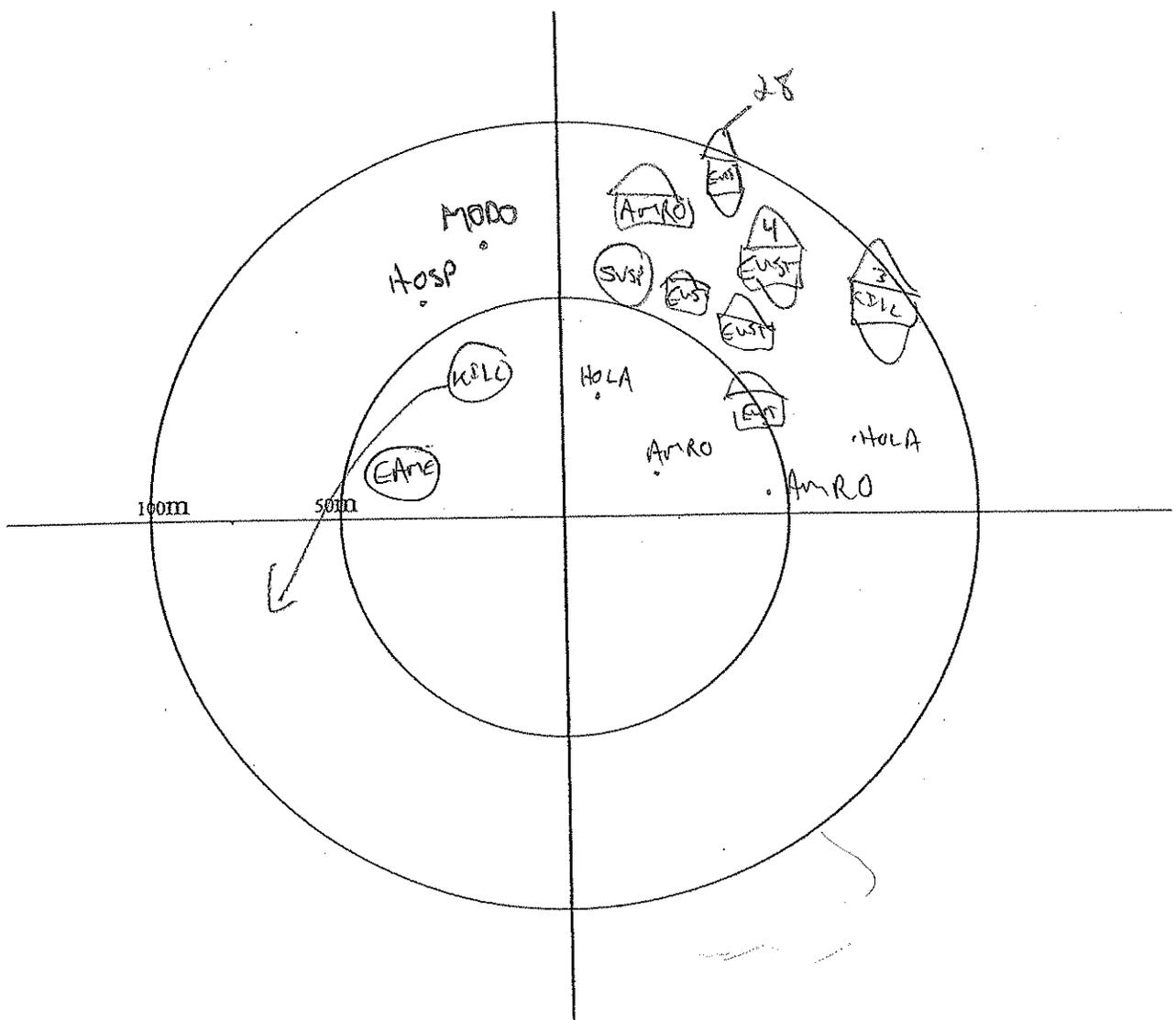
**Symbols**

RWBL Single bird, singing/calling  
RWBL → RWBL Diff birds of same sp.  
 Pair together  
 Family group  
• Obs., but not calling/singing  
○ → ○ known change in position

**Height**

1 - BTH  
 2 - close to TH  
 3 - VBS  
 4 - WABS

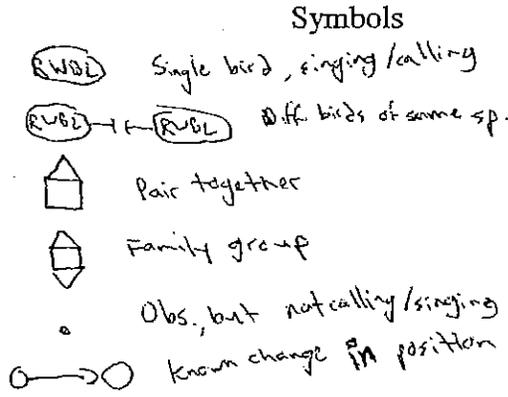
Outside/Flythru
NONE ✓
RWBL
RTAA - P



## Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: June 10/09
Station ID: IN12	Visit #: Sum01	Start Time (HH:MM): 06:48
Beaufort Wind Scale: BIN	Cloud Cover (%): 100	Temperature (°C): 13
Precipitation: -	Visibility: Clear	
Remarks:		

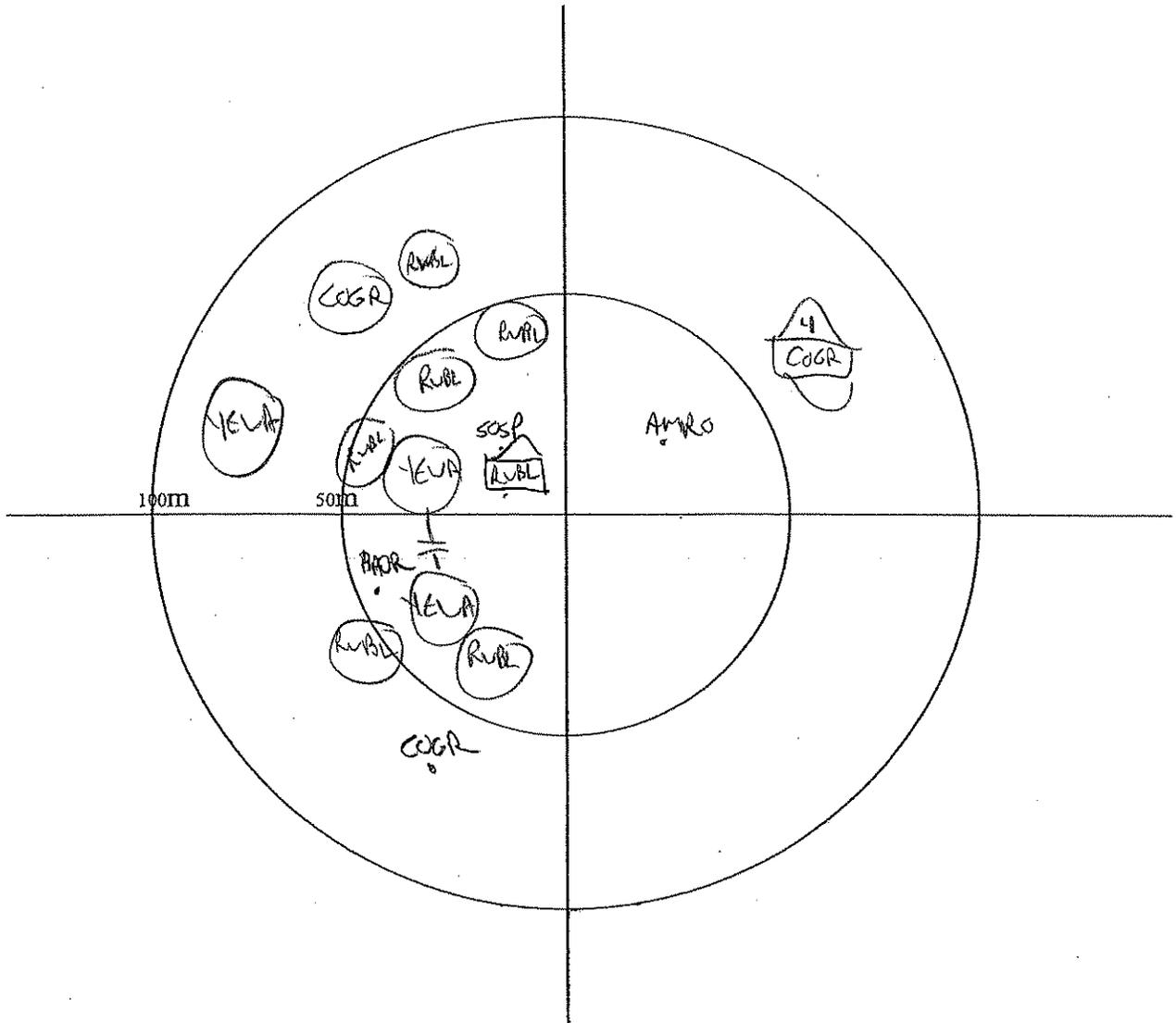
Aerial Foragers	
Species	Tally



Height

- 1- BTH
- 2- close to TH
- 3- VBS
- 4- WABS

Outside/Flythru
AMRO-CP





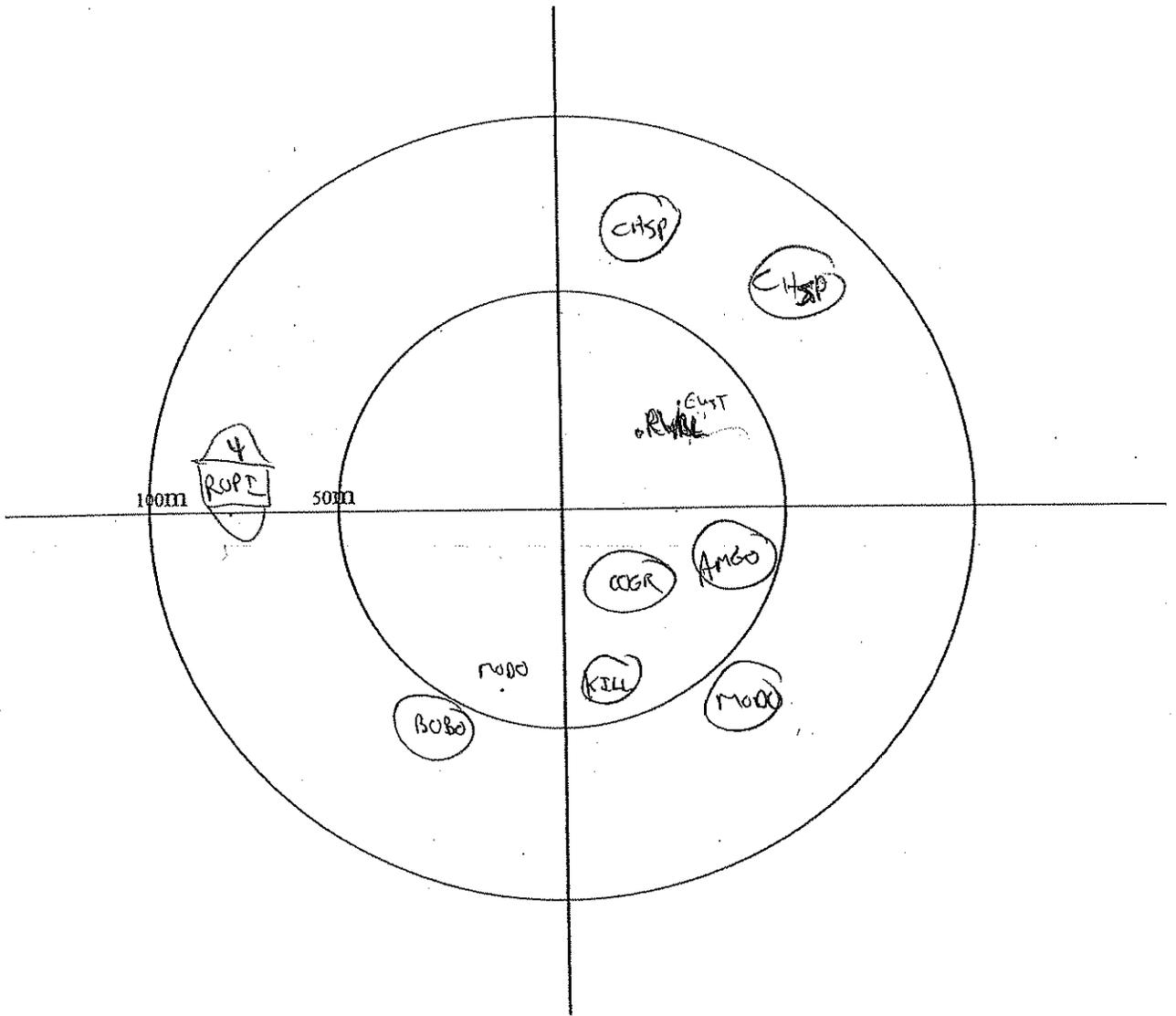
## Point Count Data Form

Observer:	Site:	Date:
Station ID:	Visit #:	Start Time (HH:MM): 07:39
Beaufort Wind Scale: IN15	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RWL
AMCR
R000



### Point Count Data Form

Observer: SKM	Site: SAMSONO	Date: June 10 / 09
Station ID: DW16	Visit #: 54107	Start Time (HH:MM): 07:56
Beaufort Wind Scale: BIN	Cloud Cover (%): 100	Temperature (°C): 13
Precipitation: —	Visibility: clear	
Remarks:		

#### Symbols

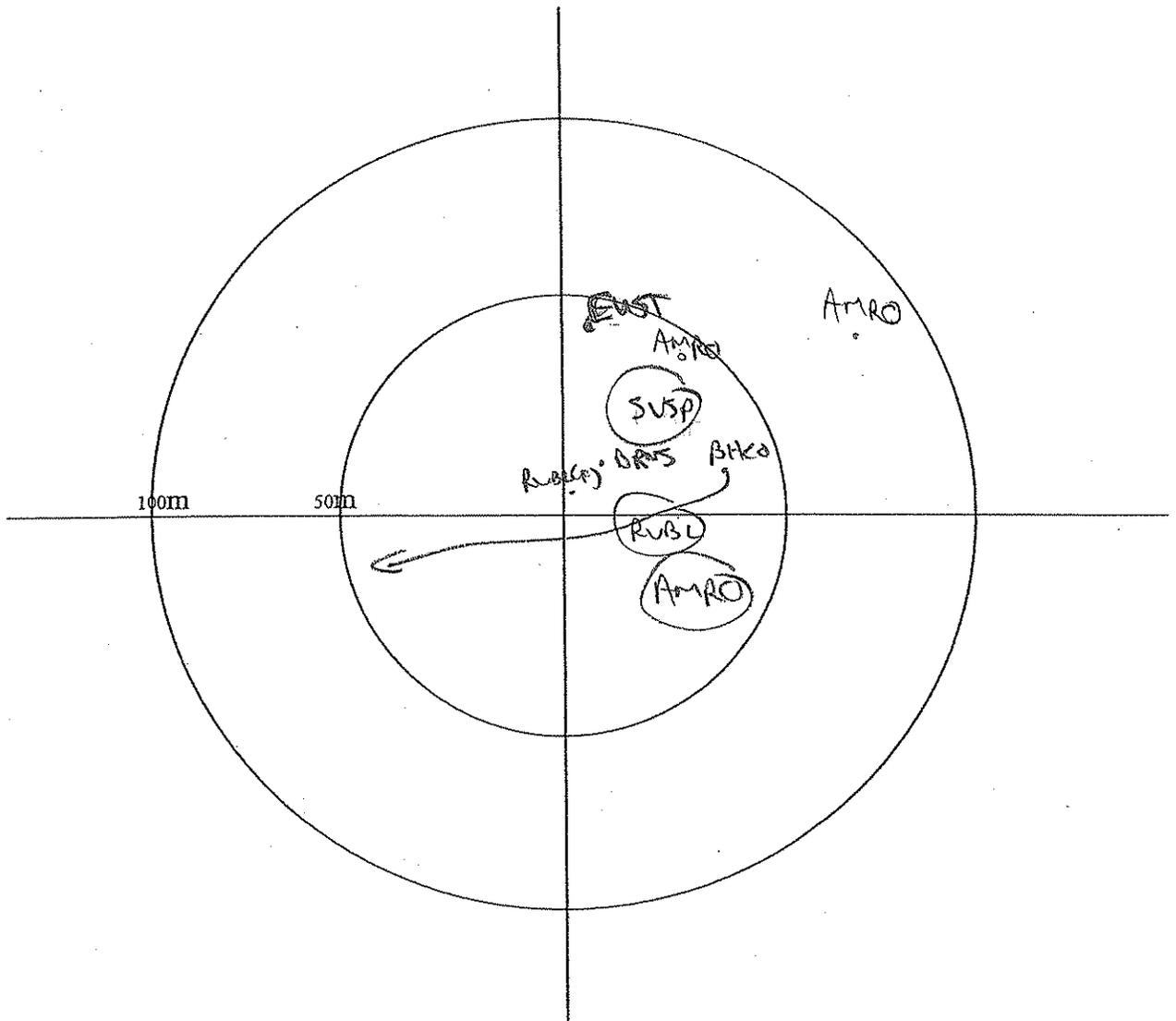
- RWBL Single bird, singing/calling
- RWBL — RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

#### Height

- 1 - BTB
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Outside/Flythru
AMRO

Aerial Foragers	
Species	Tally
BRWS	11



## Point Count Data Form

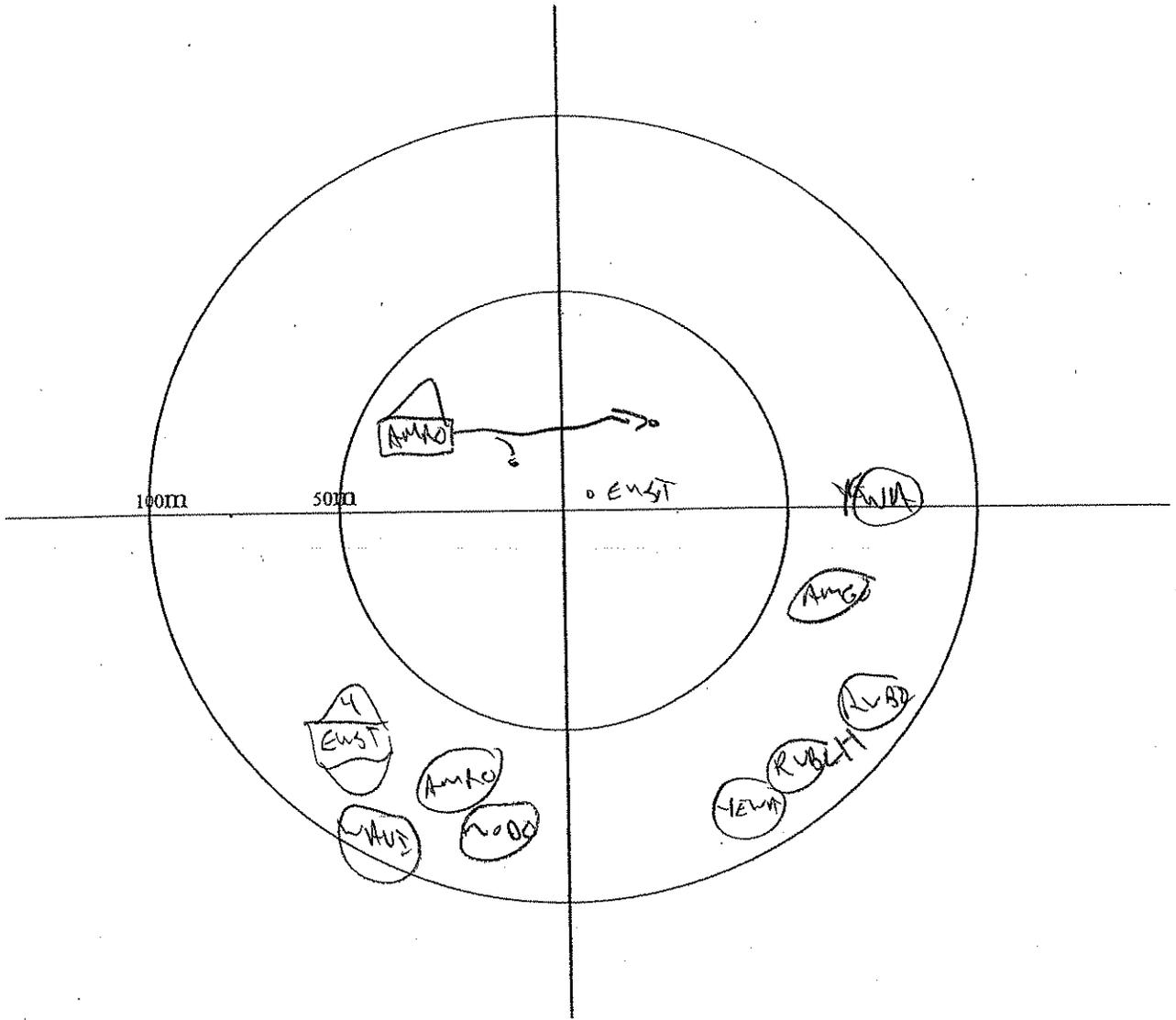
Observer:	Site:	Date:
Station ID: <u>IN17</u>	Visit #:	Start Time (HH:MM): <u>08:35</u>
Beaufort Wind Scale:	Cloud Cover (%): <u>50</u>	Temperature (°C): <u>15</u>
Precipitation:	Visibility:	
Remarks: <u>Breaker in tree change!</u>		

Aerial Foragers	
Species	Tally
BANS	1

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position

- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABBS

Outside/Flythru
RWBL
AMCA
EWST II
RTHA - P
ALJA
RSGW II
COGR III



**Point Count Data Form**

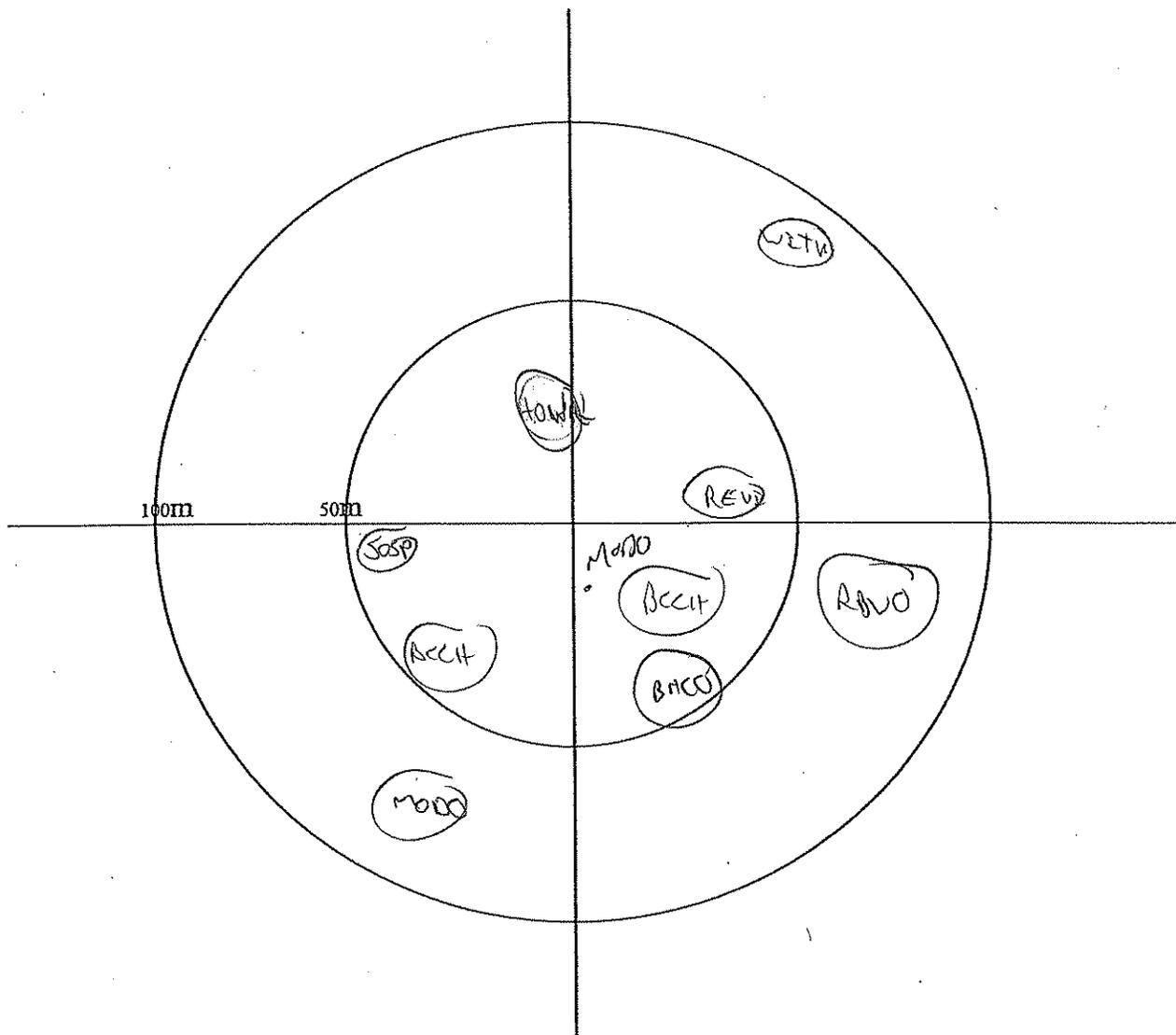
Observer: SKM	Site: SAMSUNG	Date: June 10/09
Station ID: IN18	Visit #: SUM 01	Start Time (HH:MM): 08:49
Beaufort Wind Scale: 8/14	Cloud Cover (%): 50	Temperature (°C): 14
Precipitation: —	Visibility: clear	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position

- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
AMCK
HOSP



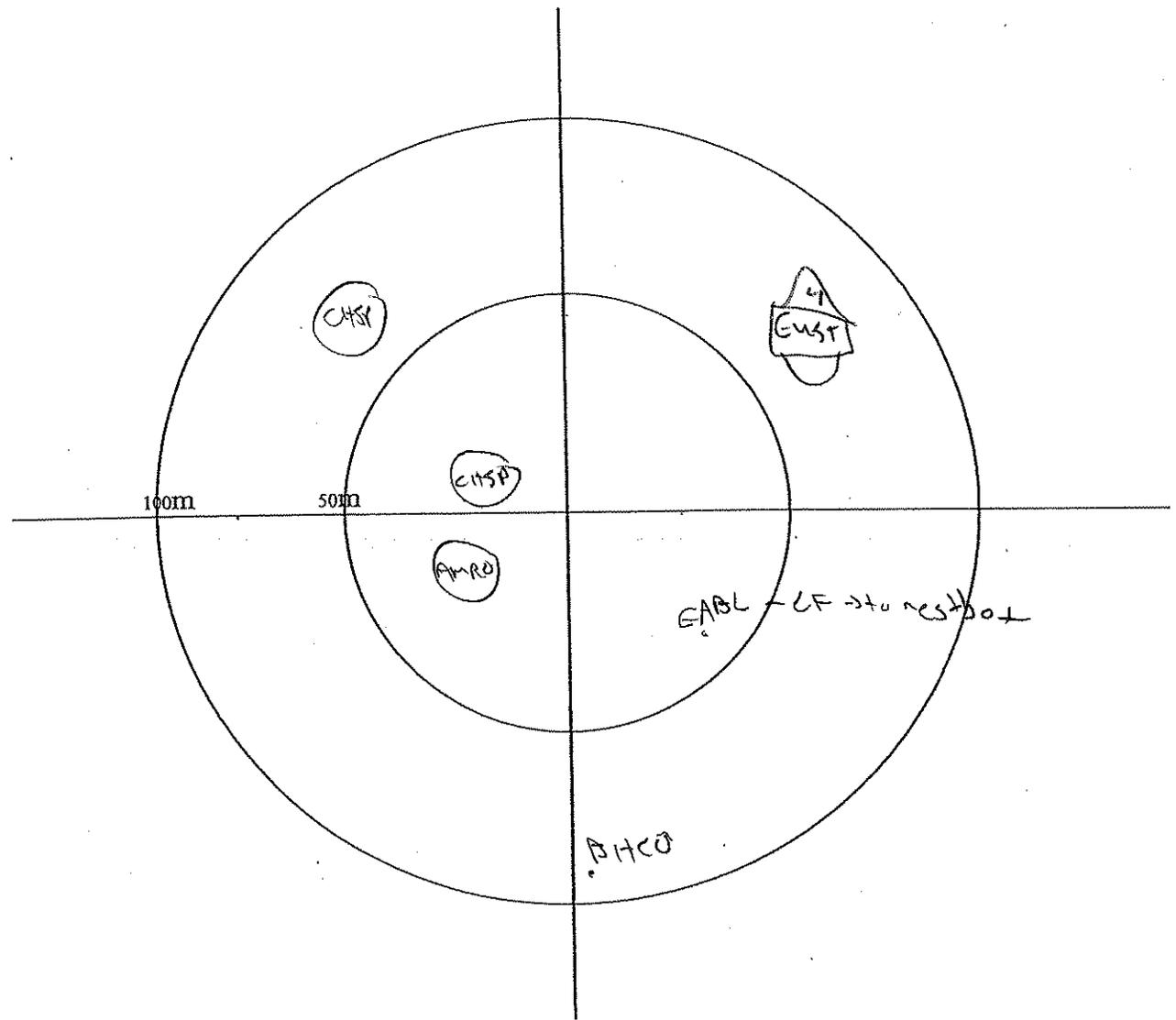
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>DN 19</u>	Visit #:	Start Time (HH:MM): <u>09:08</u>
Beaufort Wind Scale:	Cloud Cover (%): <u>30</u>	Temperature (°C):
Precipitation:	Visibility:	
Remarks: <u>@ JCT 50 sign</u>		

Aerial Foragers	
Species	Tally
<u>BRNS</u>	<u>THH</u>
<u>CSB</u>	

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL - RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<u>RBLH - 24</u>
<u>AMCO - 4</u>
<u>AMRO</u>



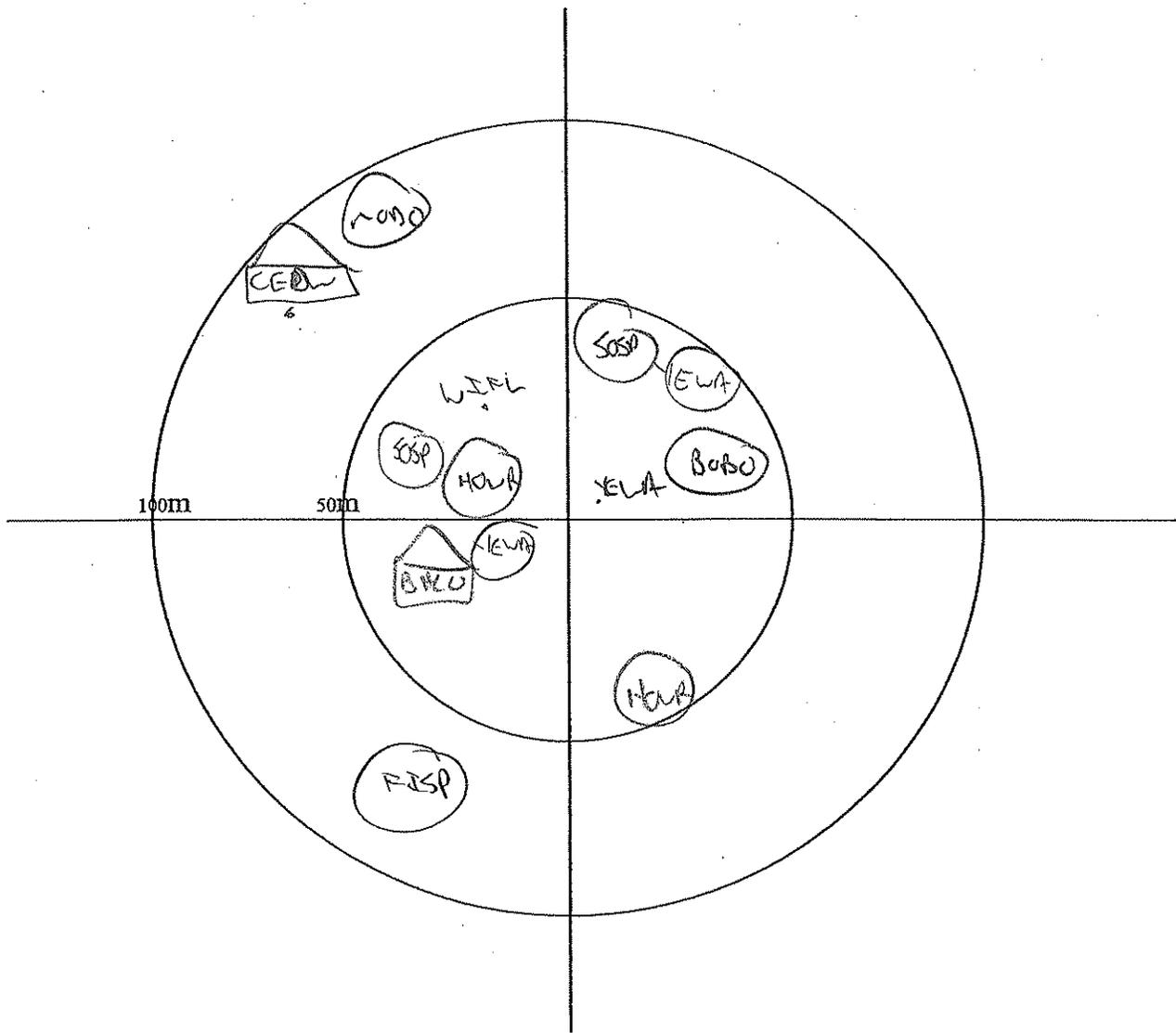
**Point Count Data Form**

Observer: <i>SKM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 10/09</i>
Station ID: <i>TW20</i>	Visit #: <i>5/1/01</i>	Start Time (HH:MM): <i>09:18</i>
Beaufort Wind Scale: <i>3/N</i>	Cloud Cover (%): <i>20</i>	Temperature (°C): <i>15</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- Single bird, singing/calling
  - Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - Known change in position
- Height**
- 1 - BTM
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

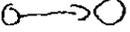
Outside/Flythru
<i>W@TH</i>
<i>GOBE - (low)</i>



## Point Count Data Form

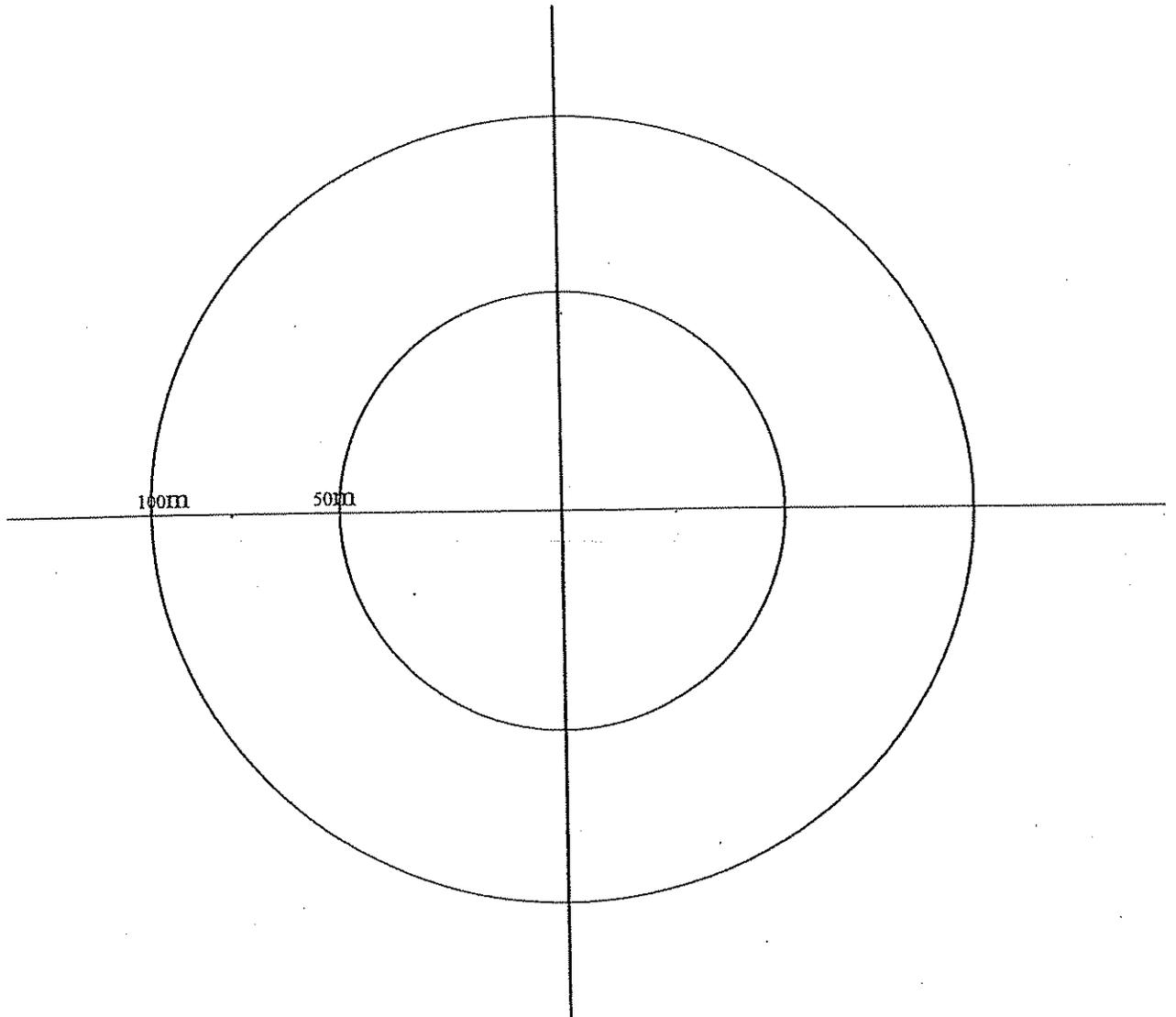
Observer:	Site:	Date:
Station ID:	Visit #:	Start Time (HH:MM):
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
-  Single bird, ringing/calling
  -  -  Diff. birds of same sp.
  -  Pair together
  -  Family group
  -  Obs., but not calling/singing
  -  Known change in position

- Height
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

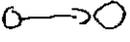
Outside/Flythru



**Point Count Data Form**

Observer: <i>S Kim</i>	Site: <i>SAMSUNG</i>	Date: <i>June 23/09</i>
Station ID: <i>V001</i>	Visit #: <i>5 Jun 01</i>	Start Time (HH:MM): <i>05:19</i>
Beaufort Wind Scale: <i>0</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>15</i>
Precipitation: <i>-</i>	Visibility: <i>Clear</i>	
Remarks:		

**Symbols**

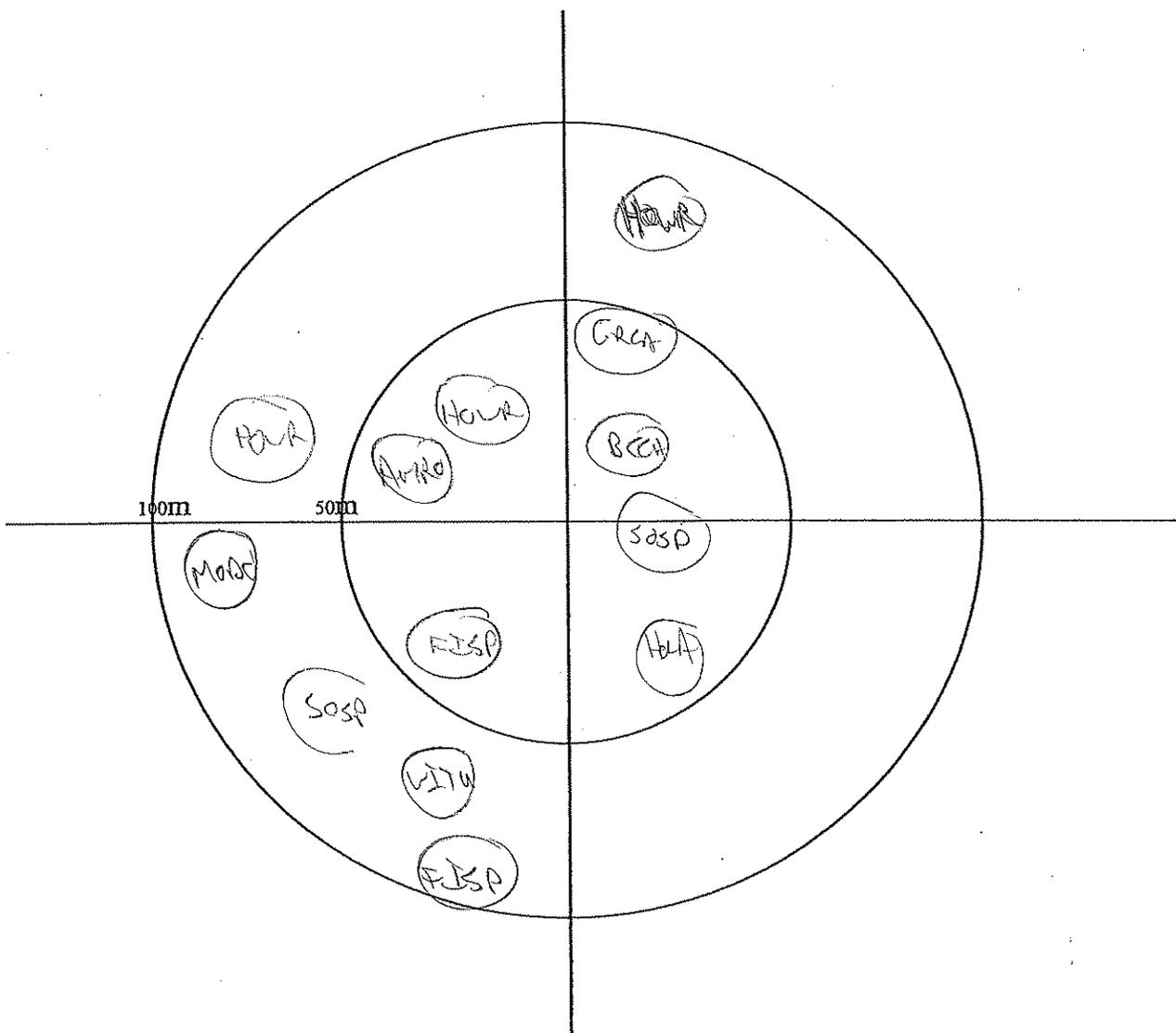
-  Single bird, singing/calling
-   Diff. birds of same sp.
-  Pair together
-  Family group
-  Obs., but not calling/singing
-  known change in position

Height

- 1- BT H
- 2- close to TH
- 3- VBS
- 4- WABS

Aerial Foragers	
Species	Tally

Outside/Flythru



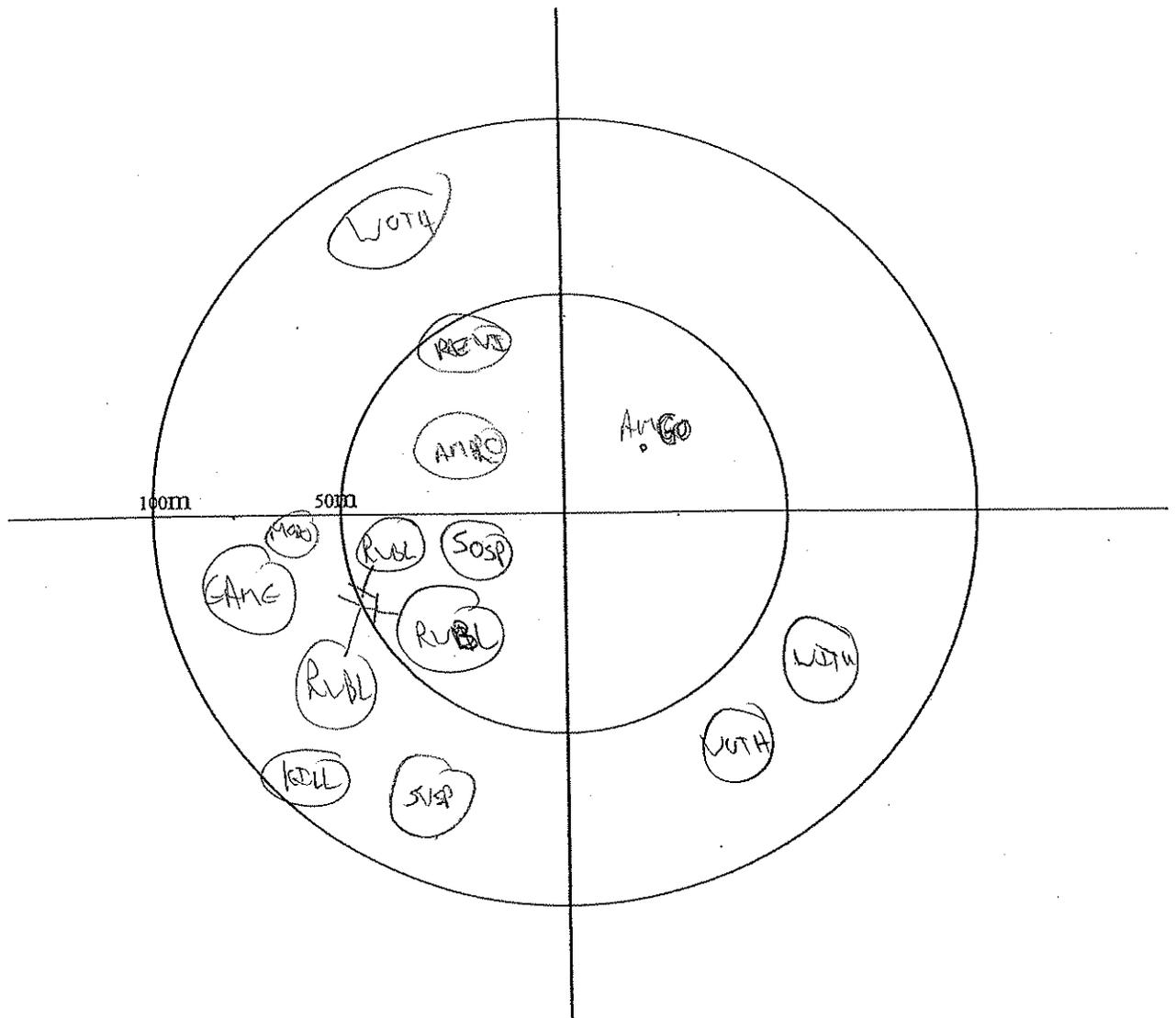
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>W002</u>	Visit #:	Start Time (HH:MM): <u>05:31</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru



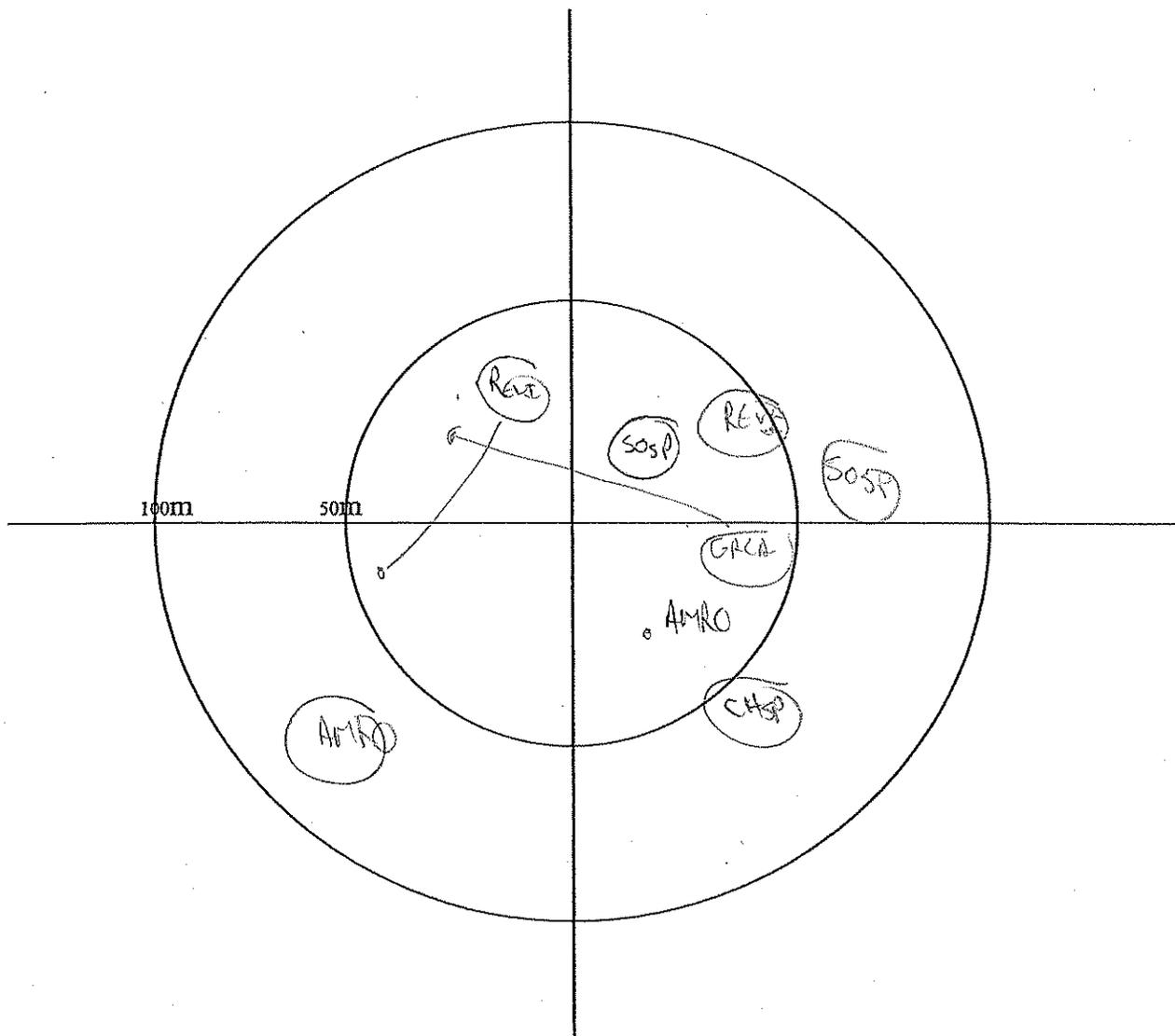
### Point Count Data Form

Observer: SKM.	Site: SAMSONG	Date: Jun 23/09
Station ID: V003	Visit #: SWM01	Start Time (HH:MM): 08:54
Beaufort Wind Scale: 80	Cloud Cover (%): 0	Temperature (°C): 15
Precipitation: -	Visibility: clear	
Remarks: ① Mennonite Church		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
RACO-III
PUMA
AMGO
AMCK-II



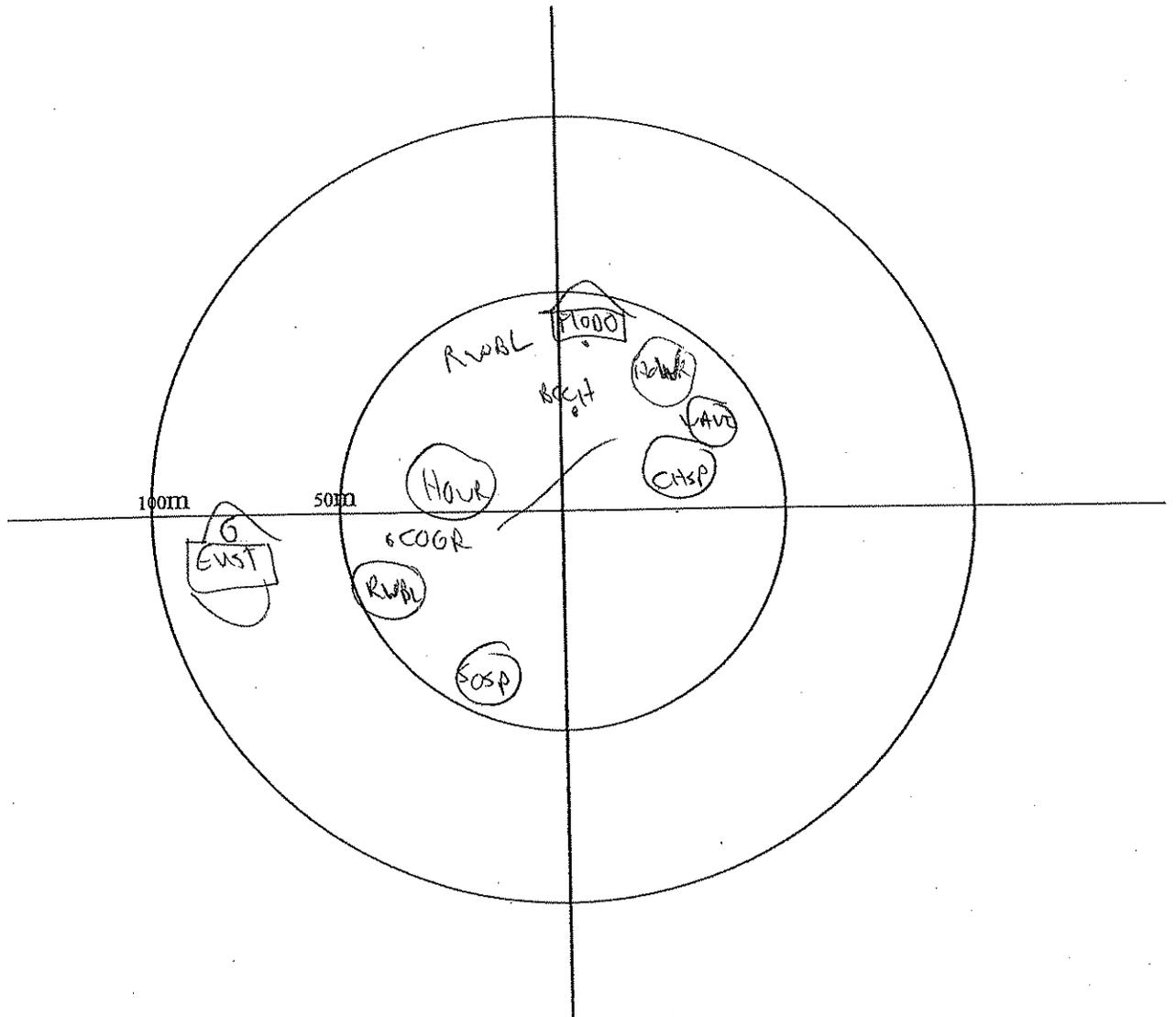
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>U004</u>	Visit #:	Start Time (HH:MM): <u>06:14</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
<u>PumA</u>	<u>1</u>

- Symbols**
- RWBL Single bird, ringing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BT H
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<u>CAGO</u>
<u>AMCR</u>
<u>BLJA</u>
<u>KEL</u>
<u>LOTH</u>





## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>V006</u>	Visit #:	Start Time (HH:MM): <u>06:50</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

### Symbols

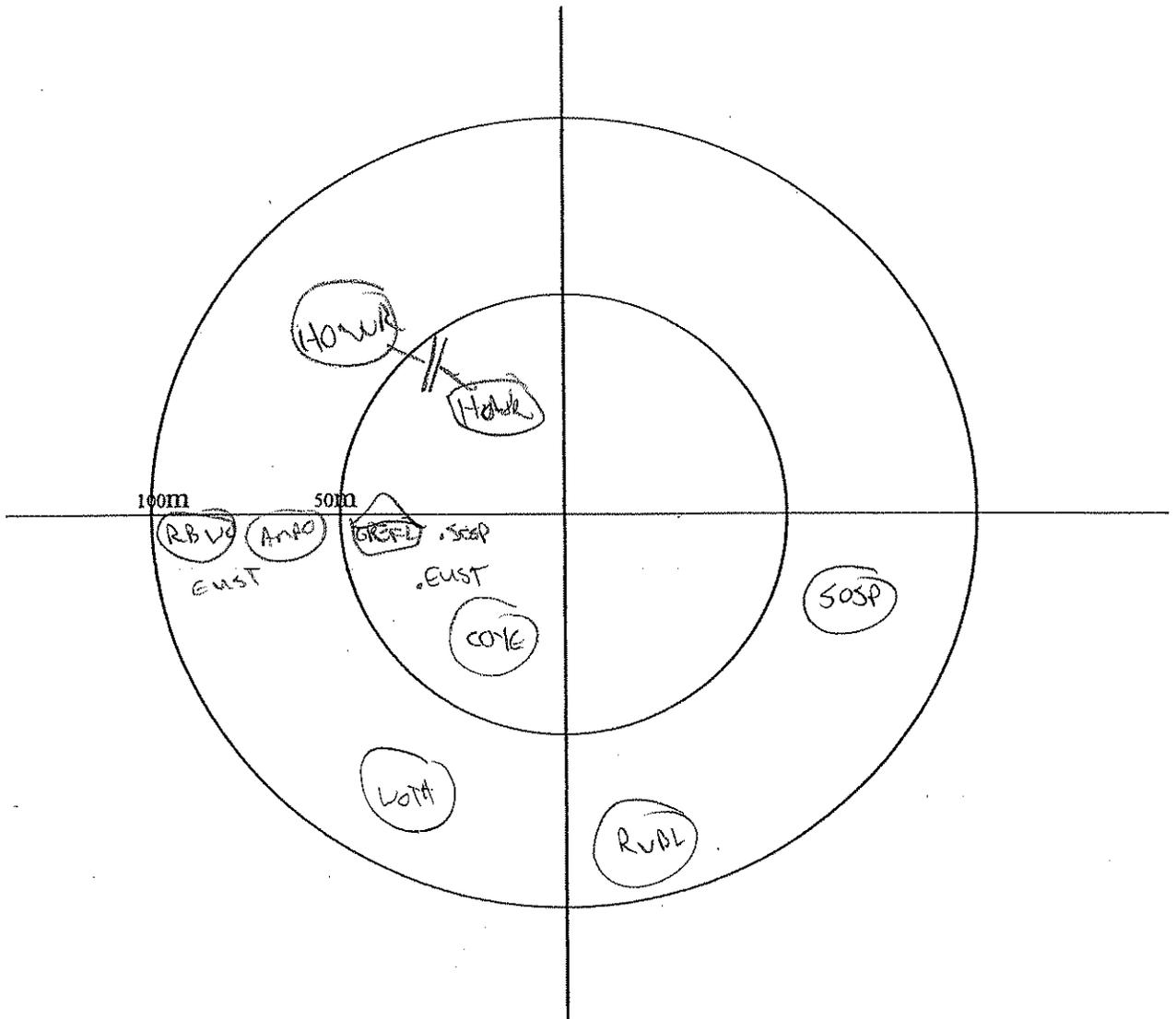
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ Known change in position

### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Aerial Foragers	
Species	Tally

Outside/Flythru



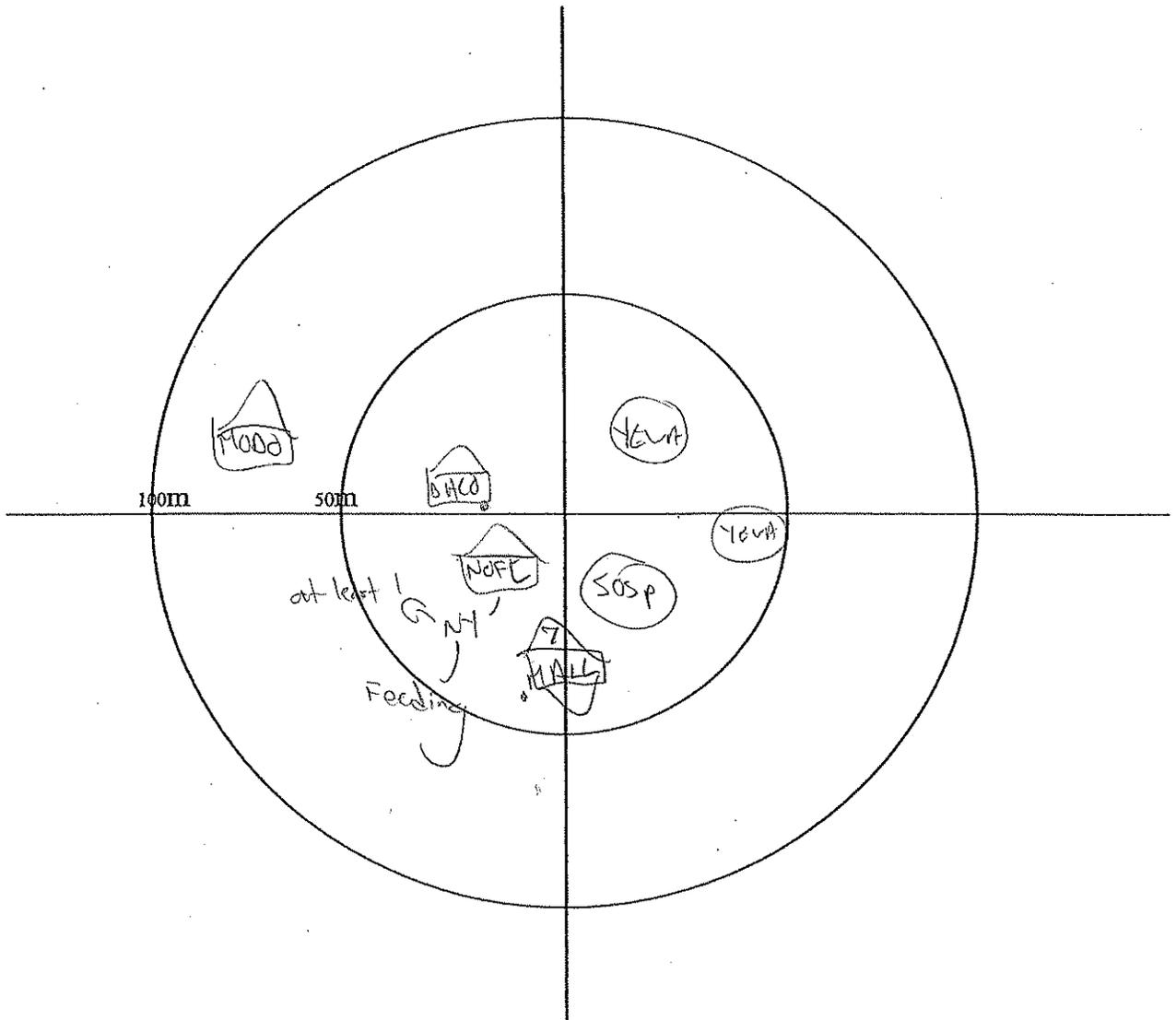
### Point Count Data Form

Observer: <i>SJM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 23</i>
Station ID: <i>W007</i>	Visit #: <i>SUM01</i>	Start Time (HH:MM): <i>07:07</i>
Beaufort Wind Scale: <i>06</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>18</i>
Precipitation: <i>none</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>RWBL</i>



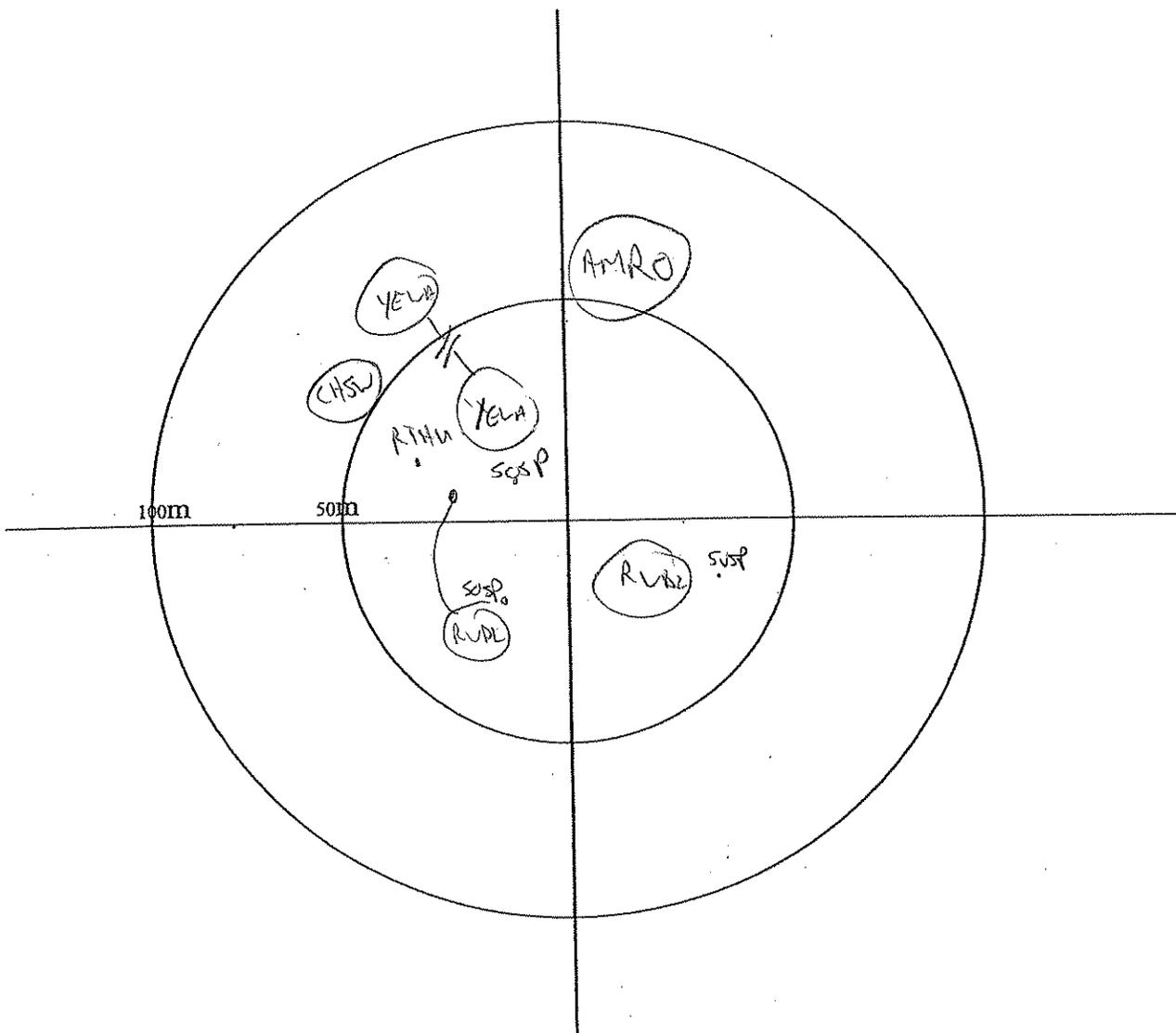
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>U008</i>	Visit #:	Start Time (HH:MM): <i>07:24</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

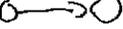
Outside/Flythru
<i>AMRO</i>
<i>EWST</i>
<i>BACO</i>
<i>BAOR</i>



**Point Count Data Form**

Observer: <i>SKW</i>	Site: <i>SARISING</i>	Date: <i>Jun 23/09</i>
Station ID: <i>W009</i>	Visit #: <i>54401</i>	Start Time (HH:MM): <i>07:41</i>
Beaufort Wind Scale: <i>0</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>18</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

**Symbols**

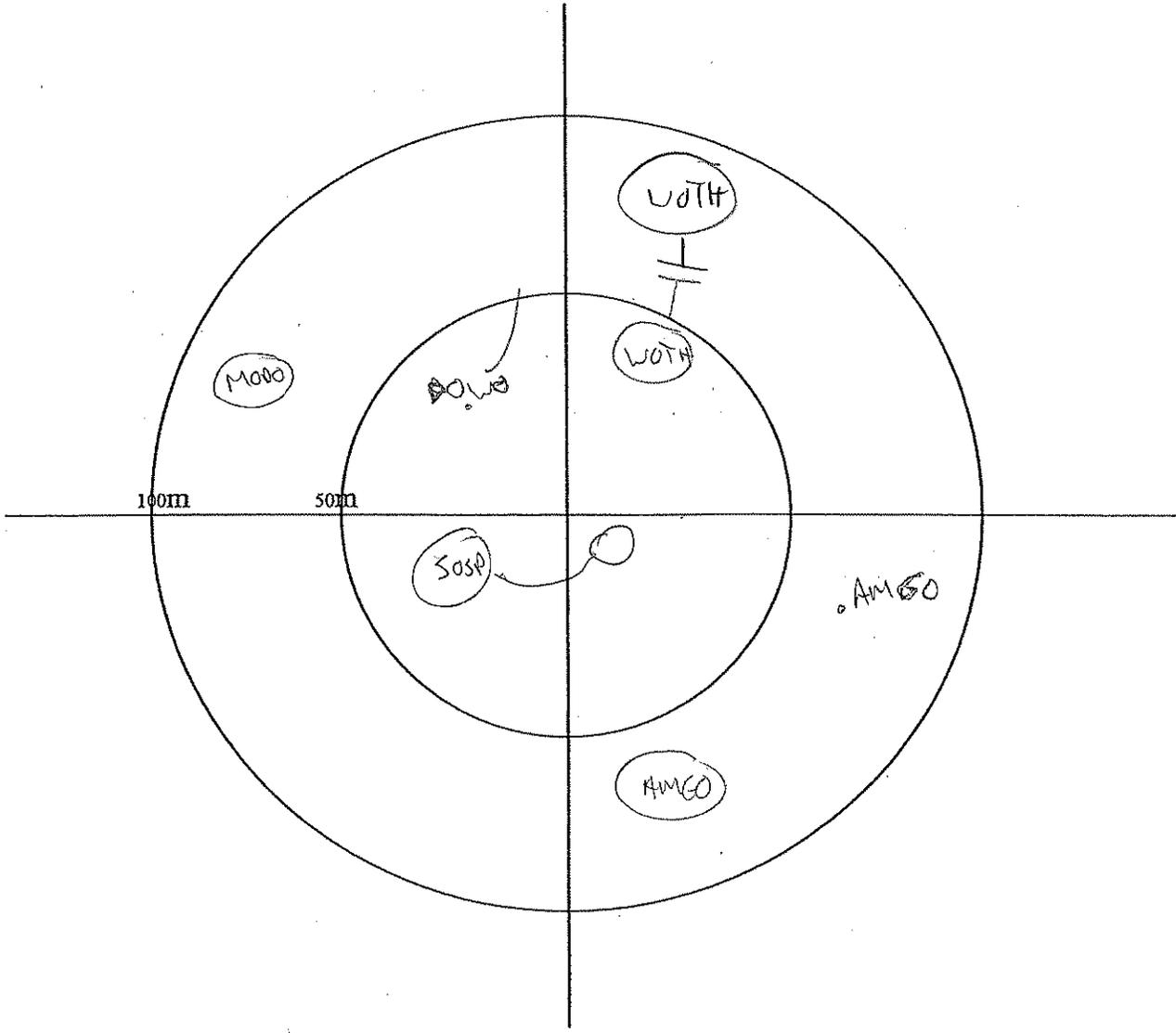
-  Single bird, singing/calling
-  →  Diff. birds of same sp.
-  Pair together
-  Family group
-  Obs., but not calling/singing
-  Known change in position

Height

- 1- BTH
- 2- close to TH
- 3- VBS
- 4- WABS

Outside/Flythru
<i>Amck II</i>
<i>KILL</i>

Aerial Foragers	
Species	Tally
<i>BRNS</i>	<i>1</i>





## Point Count Data Form

Observer: <i>SM</i>	Site: <i>SANJUNE</i>	Date: <i>Jun 25</i>
Station ID: <i>U011</i>	Visit #: <i>Sum 01</i>	Start Time (HH:MM): <i>08:12</i>
Beaufort Wind Scale: <i>0</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>18</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

### Symbols

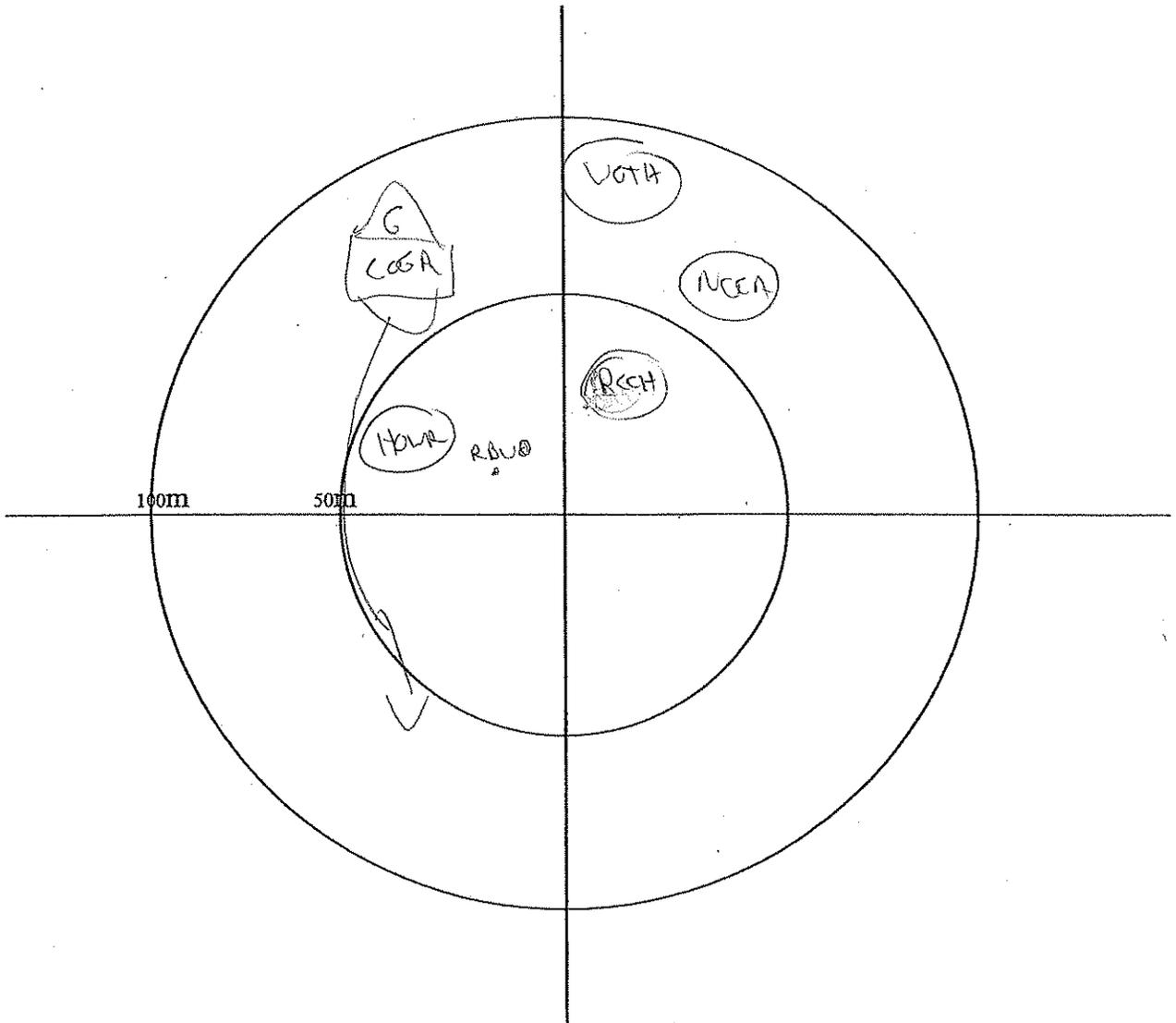
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Aerial Foragers	
Species	Tally

Outside/Flythru
AnGG
RWBL



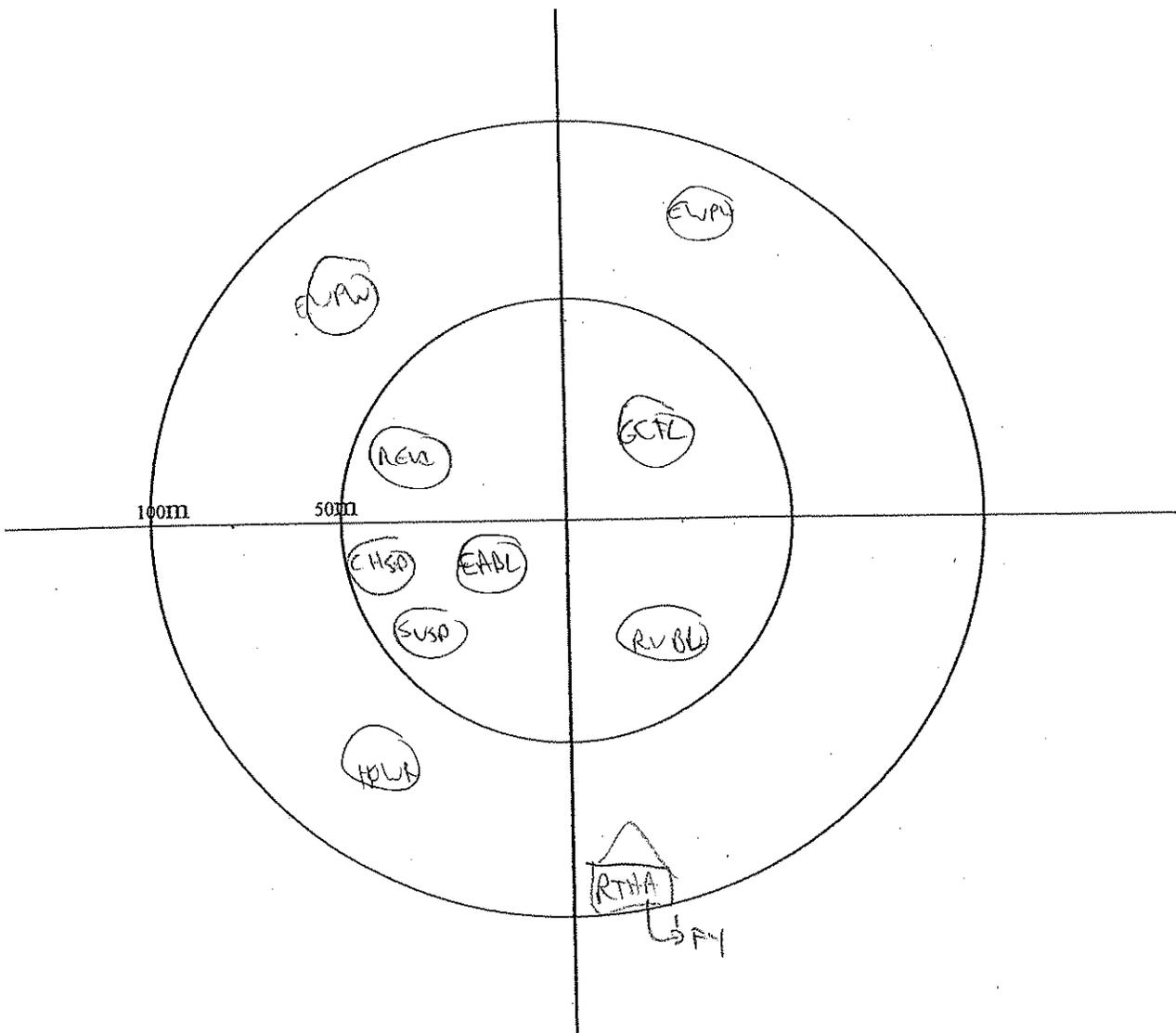
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>V012</i>	Visit #:	Start Time (HH:MM): <i>08:25</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RVBL Single bird, singing/calling
  - RVBL — RVBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>AMCR</i>



### Point Count Data Form

Observer: <i>SKM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 23/09</i>
Station ID: <i>W013</i>	Visit #: <i>5001</i>	Start Time (HH:MM): <i>08:42</i>
Beaufort Wind Scale: <i>00</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>20</i>
Precipitation: <i>clear</i>	Visibility: <i>clear</i>	
Remarks:		

#### Symbols

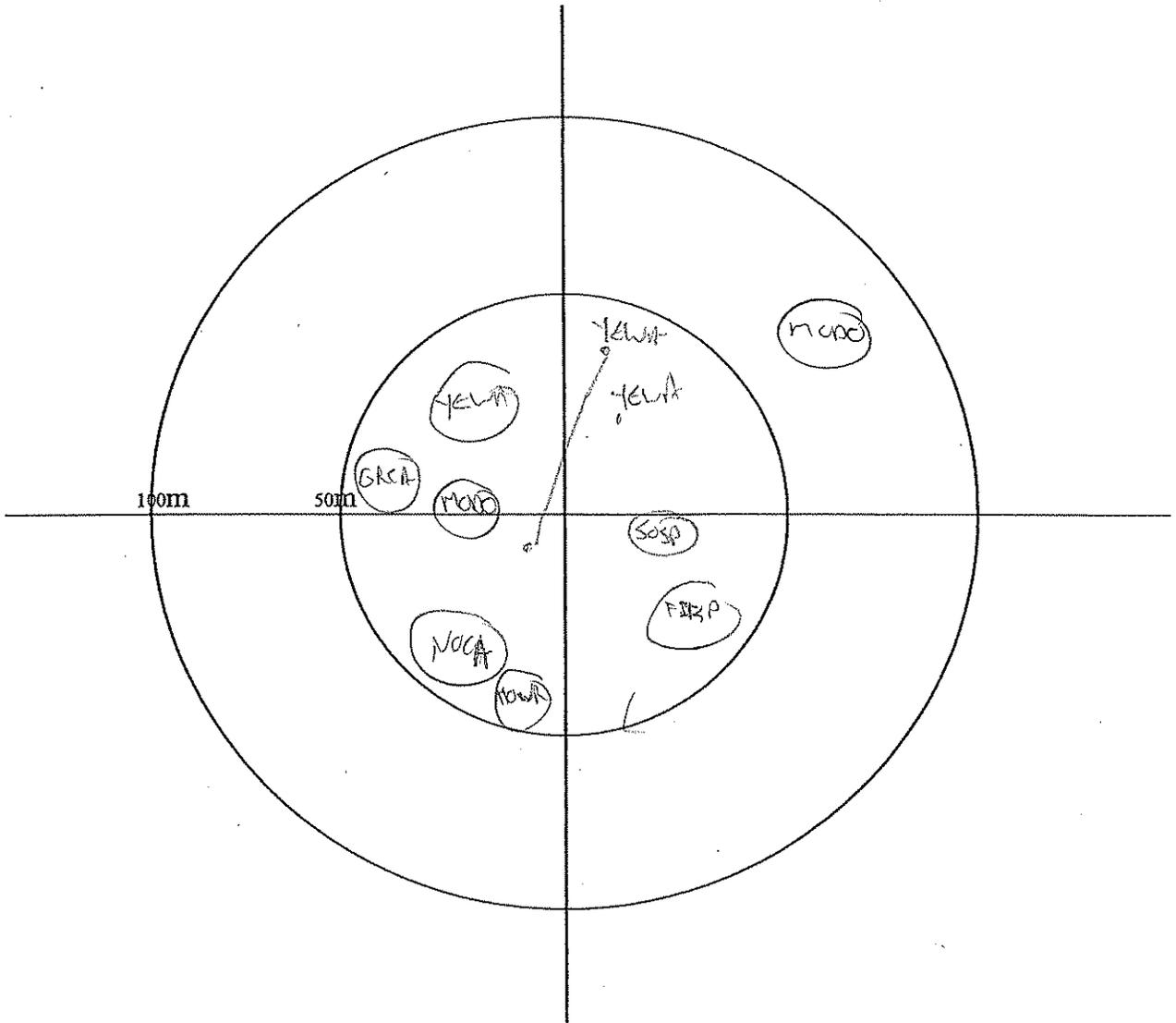
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

#### Height

- 1 - BTH
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Aerial Foragers	
Species	Tally

Outside/Flythru



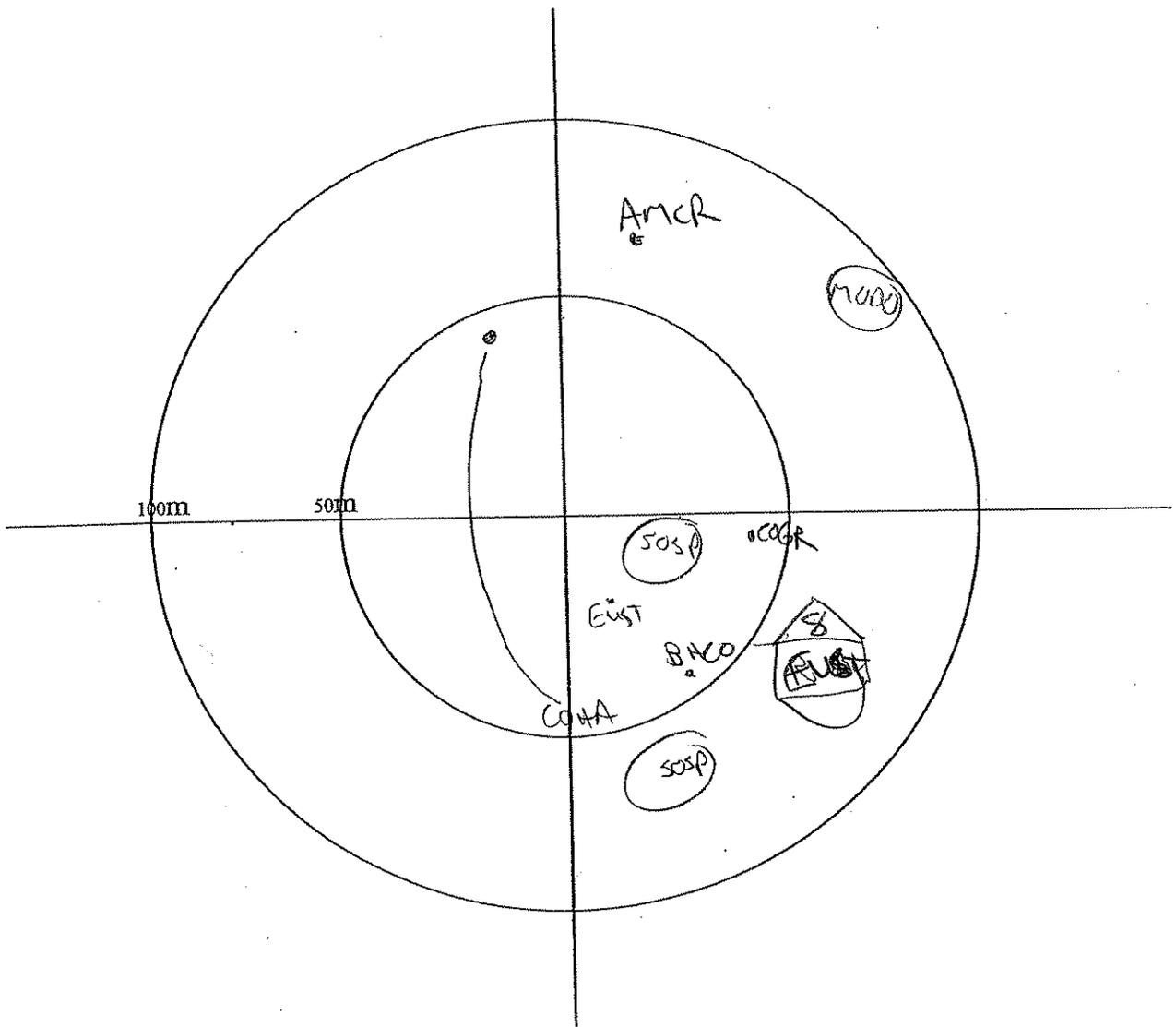
## Point Count Data Form

Observer:	Site:	Date:
Station ID: W014	Visit #:	Start Time (HH:MM): 09:00
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally
PUMA	III
BRWS	II

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL - RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - known change in position
- Height**
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
MODO II
AMCR



## Point Count Data Form

Observer: SKM	Site: SAMSUNG	Date: June 23/09
Station ID: W015	Visit #: 5001	Start Time (HH:MM): 09:13
Beaufort Wind Scale: 0-15	Cloud Cover (%): 0	Temperature (°C): 20
Precipitation: ~	Visibility: clear	
Remarks:		

### Symbols

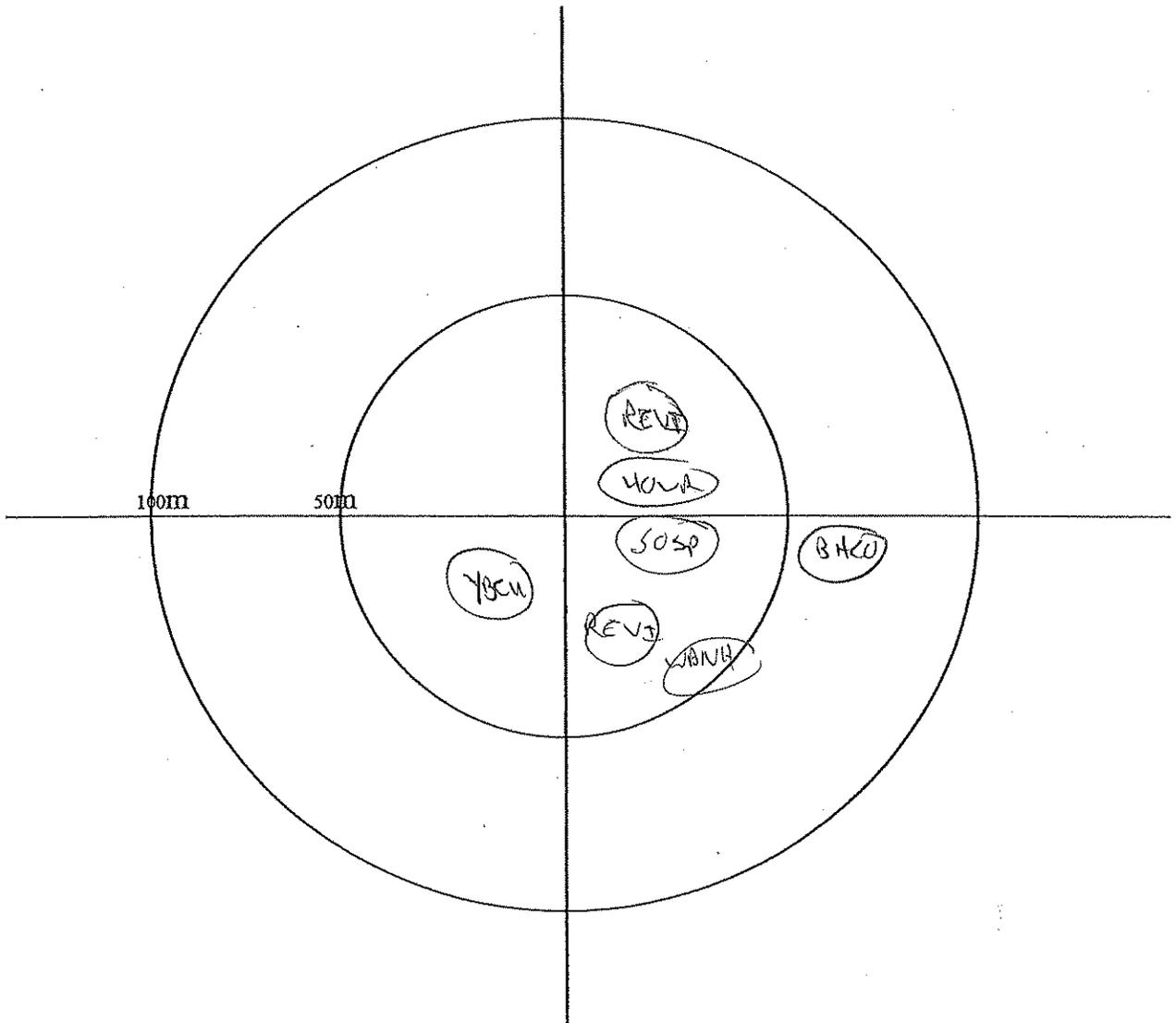
- RWBL Single bird, singing/calling
- RWBL → RWBL Diff. birds of same sp.
- Pair together
- Family group
- Obs., but not calling/singing
- → ○ known change in position

### Height

- 1 - BTM
- 2 - close to TH
- 3 - VBS
- 4 - WABS

Aerial Foragers	
Species	Tally

Outside/Flythru
TUM



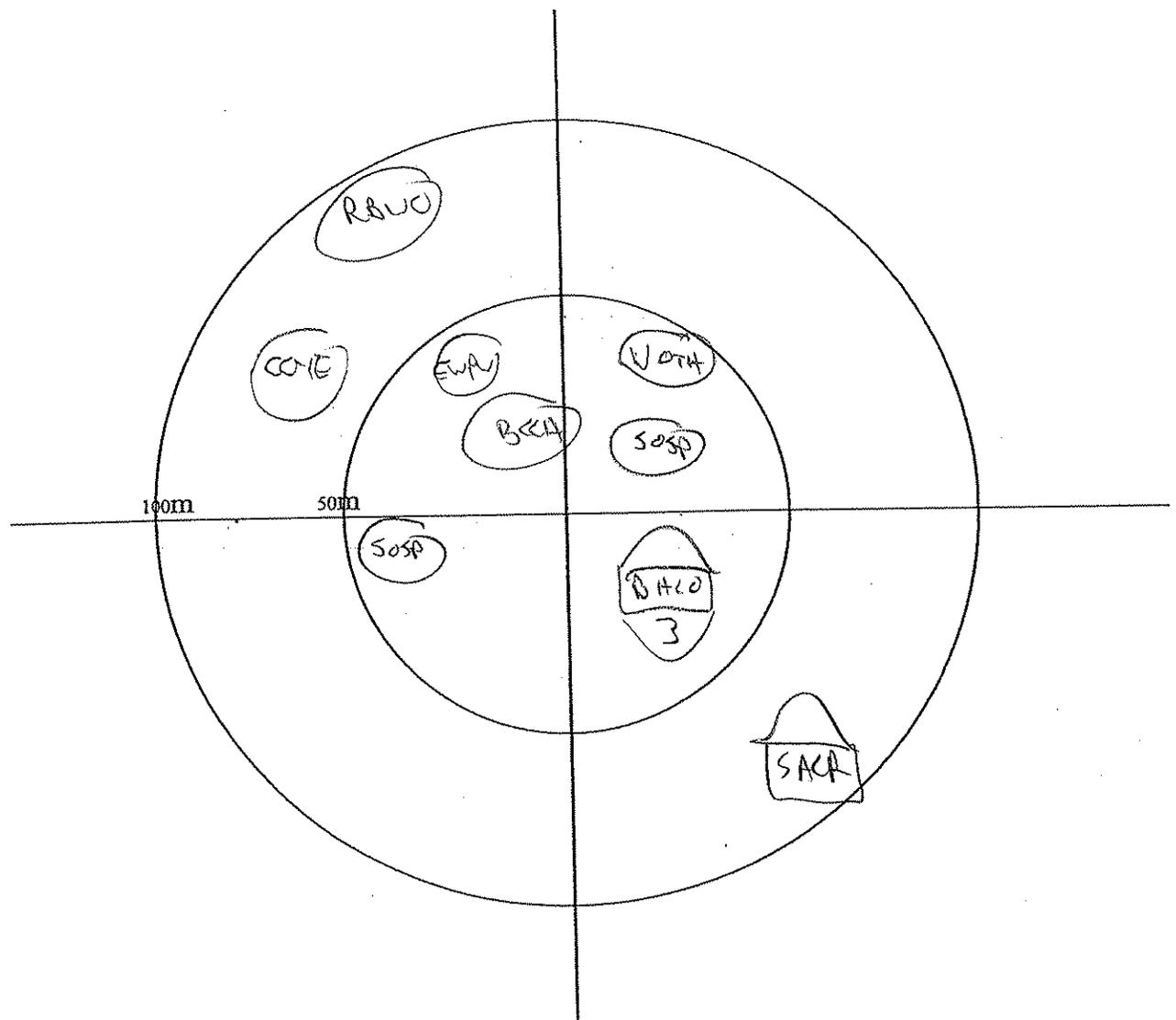
## Point Count Data Form

Observer:	Site:	Date:
Station ID: <u>U016</u>	Visit #:	Start Time (HH:MM): <u>09:26</u>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL ← RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ Known change in position
- Height**
- 1 - BTM
  - 2 - close to TM
  - 3 - VBS
  - 4 - WABS

Outside/Flythru AMCR



## Point Count Data Form

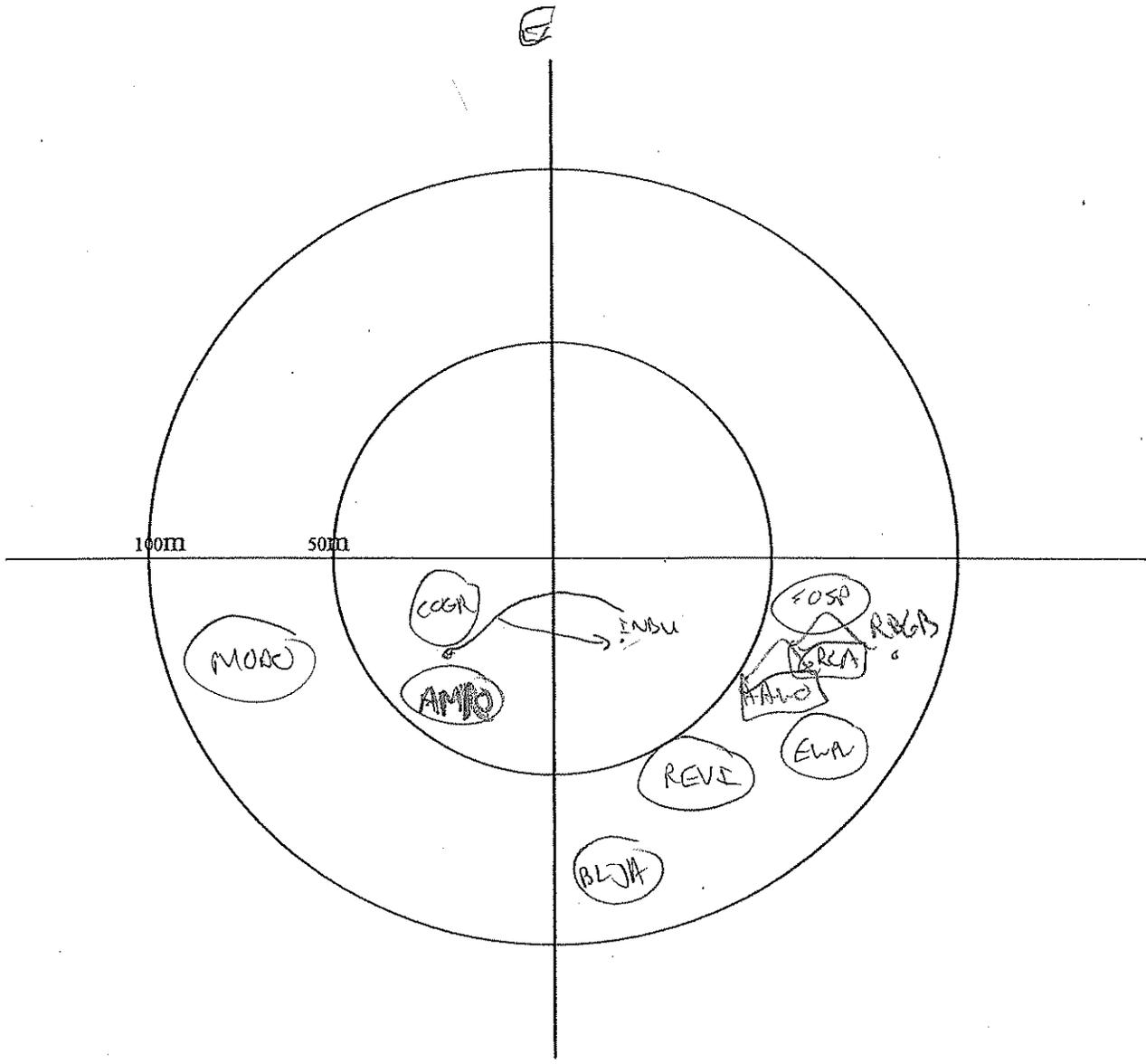
Observer: <i>SKM</i>	Site: <i>SAMSUNG</i>	Date: <i>June 23/07</i>
Station ID: <i>V017</i>	Visit #: <i>Sum01</i>	Start Time (HH:MM): <i>09:40</i>
Beaufort Wind Scale: <i>015</i>	Cloud Cover (%): <i>0</i>	Temperature (°C): <i>20</i>
Precipitation: <i>—</i>	Visibility: <i>clear</i>	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL → RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position

- Height
- 1 - BTH
  - 2 - close to TH
  - 3 - VBS
  - 4 - WABS

Outside/Flythru
<i>WVW</i>
<i>Amch</i>



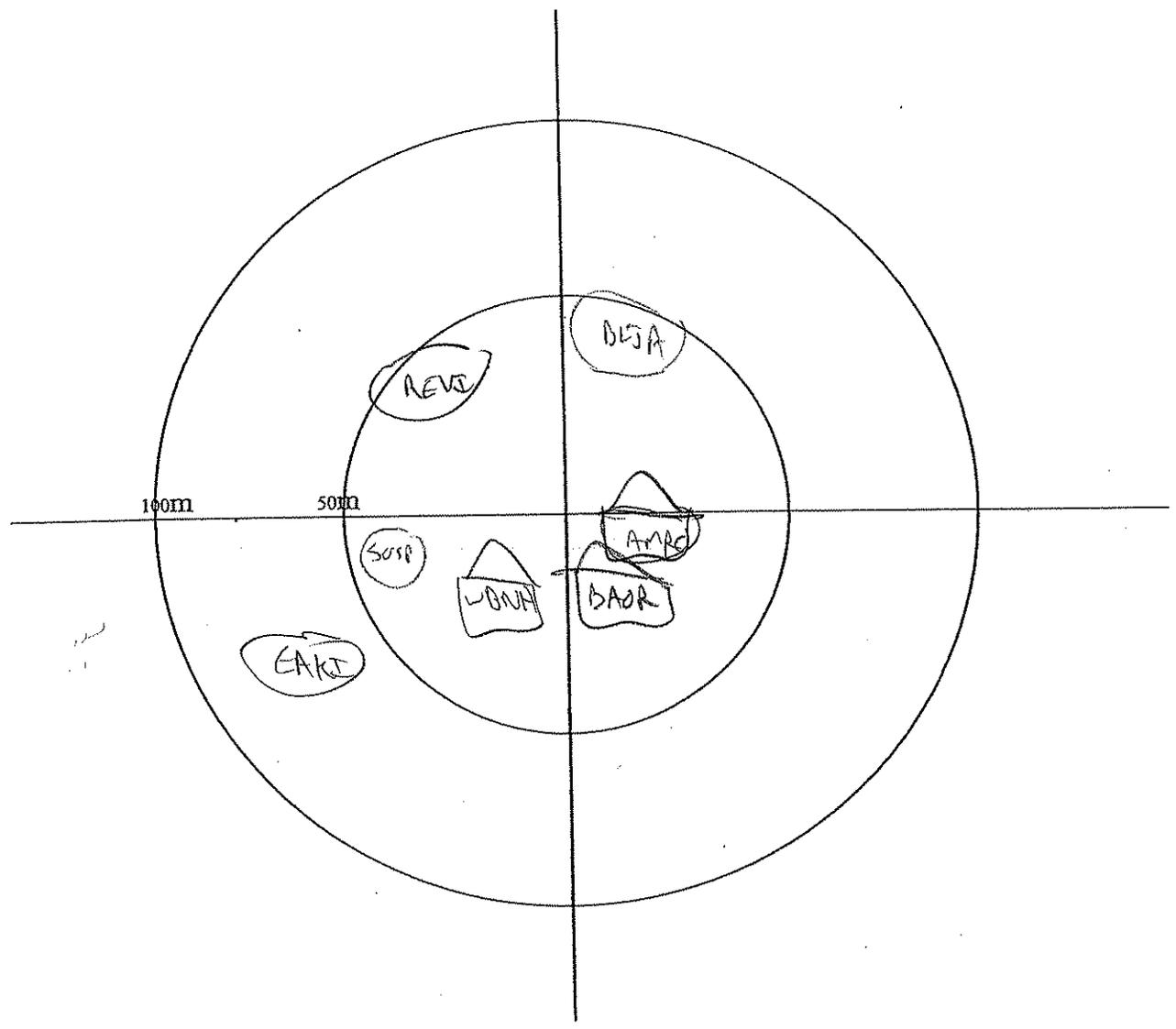
### Point Count Data Form

Observer:	Site:	Date:
Station ID: <i>W018</i>	Visit #:	Start Time (HH:MM): <i>09:59</i>
Beaufort Wind Scale:	Cloud Cover (%):	Temperature (°C):
Precipitation:	Visibility:	
Remarks:		

Aerial Foragers	
Species	Tally

- Symbols**
- RWBL Single bird, singing/calling
  - RWBL — RWBL Diff. birds of same sp.
  - Pair together
  - Family group
  - Obs., but not calling/singing
  - → ○ known change in position
- Height**
- 1- BTH
  - 2- close to TH
  - 3- VBS
  - 4- WABS

Outside/Flythru
<i>EUST</i>



## H2 – Vista Survey Raw Data



Migration Monitoring

Date: Nov 27 2009

Station Number VI A

Time 10:30 - 12:30

Observers SKA

Elevation \_\_\_\_\_

PROJECT SITE:

SAMSUNG

UTM: \_\_\_\_\_

Air Temp. 5°C

Precipitation —

Cloud Cover (%) 20 (light wispy)

Visibility clear, slightly hazy

Wind Direction S

Wind Speed B1

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:30	TURN	1	in woods	A	12-200	N
	AMBL	1	in field	A	100-200	E
	AMBL	1	in field	A	100-200	E
	AMBL	1	in field	A	100-200	E
	AMBL	1	in field	A	100-200	E
10:36	AMBL	6	flying NE	A	0-50	WNW
10:54	TURN	1	seen as being flew from truck, W	A=B	100-200	NW
10:56	AMBL	2	flying SE	A=B	100-200	SE
10:58	AMBL	1	flying S	B	50-100	E
11:00	AMBL	1	flying S	A	200-300	W
11:00	AMBL	1	flying S	A	50-100	NNE
11:00	AMBL	1	flying S	A	100-200	SE
11:07	AMBL	2	flying S	B	200-300	E
11:07	AMBL	2	flying S	A	0-50	ENE
11:10	AMBL	10	flying S	A	100-200	S
11:17	AMBL	2	flying S	A	100-200	NE
11:20	AMBL	3	flying S	A	100-200	N
11:26	AMBL	1	flying S	A	100-200	N
11:27	AMBL	1	flying S	A	0-50	E
11:27	AMBL	2	flying S	B	200-300	NW
11:28	AMBL	1	flying S	A	50-100	N
11:28	AMBL	1	flying S	A	200-300	NW

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

AMBL



Migration Monitoring PROJECT SITE: 5 April 2006  
 Date: April 8/09 UTM: \_\_\_\_\_ Wind Direction: SW  
 Station Number NEA Air Temp. 30 Wind Speed 0-10 mph - 5  
 Time 10:30 Precipitation - Barometric Pressure \_\_\_\_\_  
 Observers SKW Cloud Cover (%) 10  
 Elevation \_\_\_\_\_ Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:33	WAVE	2	feeding SKW	B	500-100	S
	RAVE	2	calling	A	500-100	WNW
	WAVE	1	calling SKW	A	0-50	W
	RAVE	1	calling SKW	A	0-50	W
	RAVE	3	calling SKW	A	200-500	N
	RAVE	1	calling SKW	A	0-50	N
10:36	RAVE	1	calling SKW	B	200-500	N
	RAVE	1	calling SKW	A	0-50	NE
10:36	RAVE	1	calling SKW	B	200-500	NW
10:40	RAVE	1	calling SKW	B	200-500	NW
10:45	RAVE	10	calling SKW	A	0-50	ENE
10:50	RAVE	10	calling SKW	A	0-50	ENE
10:55	RAVE	1	calling SKW	A	200-500	S
10:56	GOEA	1	rising from water + soaring N	B-C	200-500	NW
11:00	RAVE	1	feeding SKW	A	500-100	NNE
11:01	BLBI	50	moving SKW	A	feeding SKW	N
11:05	RAVE	2	calling SKW	A	200-500	S
11:05	RAVE	1	calling SKW	A	0-50	S

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere  
 (crossing way)

Migration Monitoring

PROJECT SITE: \_\_\_\_\_, p. \_\_\_\_\_

Date: \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:04	RBGM kall	1	flying N	C	500-100	N
		1	calling	A	0-50	N
11:10	TUNU	1	flying N	A-B	200-500	N
11:16	TUNU	1	flying S	A	500-1000	E
11:17	RBGM	1	flying N	A	200-500	S
11:18	"	1	flying NW	B	100-300	N

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

PROJECT SITE: STAMBUSUNG  
 Wind Direction B 2-3  
 Wind Speed SE  
 Barometric Pressure \_\_\_\_\_

UTM: \_\_\_\_\_  
 Air Temp. 14°  
 Precipitation —  
 Cloud Cover (%) 0  
 Visibility clear

Migration Monitoring  
 Date: Apr 24/09  
 Station Number USIA  
 Time 13:14  
 Observers SKM  
 Elevation \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:16	ARKE SUSP	1	foraging over forest	A-B	200-300	ESE
13:25	ARCR	1	calling	A	0-30	W
13:26	STINE	1	flying SSE	A	200-500	SW
13:29	ATNA CAGO TUVA R-BGM BRNS MOLA TUVA	2	flying NW flying over water, generally SE, over water	B A-B	50-100 500-1000 100-200	W E NE
13:30	TUVA	1	flying over water	A	0-50	S
13:35	BRNS	1	flying E	A	0-50	SW
13:37	MOLA	1	flying over water	A	0-50	SW
13:47	TUVA	2	foraging over water	A-B-C	200-500	NNW
13:53	TUVA	1	foraging E	A-B	100-200	N
	ROGU	6	flying N	A-B	500-1000	W
13:56	ARCR	1	flying E	B-C	100-200	W
14:03	"	1	flying S	A	500-1000	W
14:07	RUSA STNA ARCR	1	flying over water	A-B A-B	100-200 20-500	W NNE

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere



Migration Monitoring

PROJECT SITE: Samsung

Date: Nov 11/09

UTM: \_\_\_\_\_

Wind Direction S

Station Number VI SE

Air Temp. 11°

Wind Speed 0-3

Time 12:04

Precipitation —

Barometric Pressure \_\_\_\_\_

Observers skm

Cloud Cover (%) 0

Elevation \_\_\_\_\_

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:04	THUN	1	soaring over woodlot	B	100-200	W
12:06	ATHA	1	soaring over woodlot	B	100-200	E
12:07	CAOO	2	FLYING IN CROWN	A	100-200	S
12:08	BOBE	1	on perch	A	0-100	all dir.
12:11	AMCR	1	clipped to perch	A	100-200	S
12:14	AMCR	2	robbying ATHA from perch; both low in woodlot	A	0-50	SEW
12:17	ATHA	1	second flying to woodlot	B	100-200	E
12:18	AMCR	1	flying S	A	0-50	W
12:20	AMCR	1	flying N back to woodlot	A	200-500	W
12:21	"	1	flying "	A	100-200	W
12:23	BOBE	1	calling	"	50-100	E
12:25	AMCO	2	flying W	A	80-100	SSW
12:31	ATHA	1	rising over woods	A-B	0-50	04
	"	2	soaring	B	100-200	N
12:34	AMCR	2	robbying ATHA; chase 2 W, then flew back	B	500-1000	SSW
12:34	SUSP	1	calling	A	100-200	NW
12:34	AMCR	1	flying ESE	A	0-50	N
"	ATHA	2	back over woodlot	A	21000	SSW
12:45	ATHA	2	perched over woodlot	B	100-200	NW
	AMCR	1	robbying above	A	200-500	E

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE: \_\_\_\_\_, P. \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Date: \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:44	TUNN	3	Scarrying over field	B-C	7000	SE
12:52	RTAA	1	scarrying over field	B	100-200	N
	COQA RICE	1	chasing W	A	200-500	N
	TUNN	1	scarrying W	A	200-500	N
12:56	TUNN	4	scarrying over woodlot; HAWK S	A-B	200-500	WNW
12:57	RTAA	1	scarrying W; then scarrying over field	A-B	50-100	N
12:58	AMCR	1	flitting W then back towards field	A-B	100-200	N

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: Mar. 27/09

PROJECT SITE: Samsung

UTM: \_\_\_\_\_

Wind Direction \_\_\_\_\_

Station Number VI 9

Air Temp. 6

Wind Speed \_\_\_\_\_

Time 11:40

Precipitation \_\_\_\_\_

Barometric Pressure \_\_\_\_\_

Observers shw

Cloud Cover (%) 0

Elevation \_\_\_\_\_

Visibility \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:45	<del>RBGM</del>	2	high flying & some seen moving along river	E	0-50	OH
11:47	RTBL	1	calling in field	A	100-200	SW
11:49	RTBL	4	calling in field	A	0-50	W
11:49	RBGM	1	flying over creek	A	50-100	W
11:50	TUNM	1	searching over creek, N	B	200-300	E
11:52	MOSE	1	in substrate	A	0-50	E
	bull	2	flying SSE	B	200-500	E
11:55	TUNM	15	flying down river, ground	B	70000	NW
11:56	RBGM	6	diving S	B	0-50	W
11:58	TUNM	4	flying SW	C	100-200	W
	RBGM	2	over woodland	Dist. 500-1000	SW	
12:01	RBGM	2	flying N to river	A	0-50	OH
12:01	COCR	2	calling S	A	0-50	W
12:05	RTBL	1	soaring over woodland	B-C	500-1000	SW
12:08	TUNM	1	searching ground, N	B	200-500	E
12:09	RTBL	1	calling E	B	50-100	S
12:11	RBGM	1	flying S	B	0-50	OH
	RTBL	1	soaring (1st over creek; still looking for food)	C	100-200	SE
12:21	TUNM	1	calling N	B	11	"
"	RTBL	1	flying S	B	100-300	SE
"	CRTE	1	calling N along river	B	500-1000	N

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Note on route ~ 5 flocks of 30-50 CRTE obs. Flying E along river.

American Towel

Migration Monitoring

PROJECT SITE:

Station Number \_\_\_\_\_, P. \_\_\_\_\_

Date: \_\_\_\_\_ Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? Wind B3 @ 12:30

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:15	TWVA EWST	2 210	feeding to orbits house	B-C	100-200	ESC
12:18	CACA	10	Diving. Eating river	B	100-200	N
12:23	RTAA	1	Bath house water river	B	200-300	S
12:24	TWVA	1	feeding	B/C	100-200	N
12:25	CACA	2	@ house	A	100-200	E
12:26	BAGA	1	over house	A	500-600	N
12:26	TWVA	1	soaring to river	C	500-600	NE
12:29	RTAA	2	feeding + bath; moving towards river	B/C	0-50	S
12:30	TWVA	3	soaring 3	B/C	100-200	E
12:35	CAOR	6	flying N	A	400-500	NE
12:36	BAGA	1	soaring over river	B/C	200-300	N
12:39	AMKC	1	flying S	B	0-50	SA

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: April 8/09 PROJECT SITE: Sears Valley  
 Station Number VIB UTM: \_\_\_\_\_ Wind Direction SW  
 Time 12:35 Air Temp. 4° Wind Speed BS  
 Observers SKW Precipitation — Barometric Pressure \_\_\_\_\_  
 Elevation \_\_\_\_\_ Cloud Cover (%) 10% Visibility clear

*Chorus Feeds*

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:41	NGR	1	calling	A	100-200	SW
12:43	MALL	1	FLYING TO OVER	A	0-50	E
12:47	CRGO	2	FLYING N to over	A	0-50	SE
12:48	BLBI	10	FLYING N	A	0-50	E
12:52	TUNN	3	calling	B-C	710-800	ENE
12:54	CRGO	2	Foraging in field	A	300-500	NW
12:58	TRSS	1	FLYING over field	A	0-50	E
12:58	RTHA	1	FLYING over field E	A	100-200	SE
1:00	TUNN	4	calling in low (S)	A-B-C	500-1000	E
1:03	"	1	calling N	A-B	0-50	E
1:04	"	3	calling in low E	B-C	21000	WNW

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE:

\_\_\_\_\_, P. \_\_\_\_\_

Date: \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:05	WELL	1	in field	A	0-50	S
11:06	RBGU	2	flying in land	A	0-50	dir
	ARKE	1	flying along	A	500-1000	NE
13:08	TUNU	3	soaring over field	B	200-500	W
13:13	RBGU	3	Flying S	A-B	0-50	W
13:15	CAGO	2	flying over river	A	21000	NW
13:19	ROGU	8	along field	A-B	500-1000	NW
13:20	TUNU	3	soaring over wood	A-B	71000	SW
13:22	BLBE	10	flying N	A	30-100	E
13:24	TUNU	3	soaring over <del>wood</del> field	B	300-1000	NW
13:25	RBGU	1	flying ENE to river	A	0-50	dir
13:27	TRÉS	1	over field; constant	A	0-50	dir
13:29	TUNU RBGU	2	soaring over field	B	100-200 100-200	N S
13:31	TUNU	2	over wood along river	B	200-700	W

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE: Samsung

Wind Direction: SE

UTM: \_\_\_\_\_

Wind Speed: B3

Air Temp: 18°

Barometric Pressure: \_\_\_\_\_

Precipitation: \_\_\_\_\_

Cloud Cover (%): 0

Visibility: clear

Station Number: VD01B

Time: 12:07

Observers: Stor

Elevation: \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:00	AMCO	1	fly SW	A	0-50	614
12:11	AMCR	2	perched on tree	A	200-500	WNW
	RTAA	1	soaring over field	C	"	"
	RTAA	1	F.O.	B	100-500	N
12:14	TUMM	1	soaring over field	D	500-1000	N
12:15	TUMM	1	searching over trees	A	100-200	ENC
12:16	AMAO	1	perched in tree, singing	A	7000	W
12:17	W2 raptor	2	fly SW	A	0-50	E
12:20	TUMM	2	fly SW	C	0-50	OH
12:20	DCCO	1	fly SW	B	1000	SE
12:22	TUMM	2	carry N ground as bird?	B	7000	SE
12:27	TUMM	1	rising in the air	A	0-50	W
"	kill	1	fly W	B	0-50	OH
12:29	NOBA	1	fly W several minutes, regular movement	A	50-100	S
12:30	AMCA	1	calling's perched in tree	A	"	"
12:31	BLOA	1	in view	A	"	"
12:31	NOBL	1	in view	B	200-500	S
12:35	RTAA	1	soaring S	A	500-1000	W
12:36	"	1	fly SW	B	7000	W
12:39	TUMM	1	soaring N	A	"	"
12:40	BWWS	1	soaring over field	A	0-50	OH

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Went to site, check log, check record, Co-Hendail Skunk

Migration Monitoring

PROJECT SITE:

\_\_\_\_\_, p. \_\_\_\_\_

Date: \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:46	ROGM	1	Flying N to river	B	0-50	014
12:47	RTTA	1	soaring over woods	B	500-1000	S
12:48	OSPR	1	soaring dir. river	B	500-1000	NW
12:55	BA CO	1	fly E	A	200-500	S
	AMCR	1	fly SW	A	500-1000	N
12:59	TUVU	1	fly N	B	200-500	W

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

12:55: 3 families nearby

Migration Monitoring

Date: May 11

Station Number VIWE

Time 13:13

Observers SKM

Elevation \_\_\_\_\_

PROJECT SITE: Samsung

UTM: \_\_\_\_\_

Air Temp. 13°

Precipitation \_\_\_\_\_

Cloud Cover (%) 15

Visibility clear

Wind Direction B2-3

Wind Speed 5

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:13	TUUN	1	flying w	A	0-50	014
	NOCA	1	strong	A	0-50	NE
13:16	ARRO	1	perched on wire /	A	0-50	NE S
13:17	TUUN	2	scanning w	A-B	70-500	S
13:18	RTAA	1	soaring w	B	"	"
13:19	SVSP	1	strong	A	0-50	V
13:21	TUUN	4	soaring w	B	100-200	V
"	ARCO	1	flying w	A	100-300	E
13:24	RSVO	2	integrated	A	100-200	S
	TUUN	2	scanning over river	B	200-300	N
13:25	ARBL	4	in meadow	A	50-100	NE
13:26	TUUN	2	scanning N to river	D	50-100	E
13:30	RTAA	1	flying w	A	50-100	V
13:31	DLIA	1	calling from tree	A	200-500	S
13:31	NOCA	1	calling from field	A	100-200	S
13:35	TUUN	4	feeding	B	0-50	E
13:36	TAGS	1	foraging over field	A	0-50	E
13:40	BRNS	1	foraging over field	B	0-50	E
13:46	RTAA	1	soaring grad. N	B	200-300	SE
13:48	TUUN	3	feeding	B	100-200	S
13:49	NOCA (CF)	1	soaring over field	A-B	50-100	S
13:51	MARU	1	calling	A	100-200	E

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE: \_\_\_\_\_, p. \_\_\_\_\_

Date: \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? 30% cloud 50% e wind

Time	Bird Species	# of Birds	Behaviour	Height- (Zone A-D)	Dist. From Observer	Dir. from Observer
13:58	AMGO	2	Fl.ing E	A	0-50	N
14:01	RTHA	1	kit-frog	B	200-300	S
14:01	ANCR	1	Fl.ing v along river	B	500-1000	N
14:05	DCCC	1	Fl.ing E " "	B	" "	" "
14:09	HOLA	1	F.D.	B	0-50	SE
14:10	KALL	1	Fl.ing over field	A	50-100	S

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: Apr 8/09

Station Number VIC

Time 13:45

Observers SKM

Elevation \_\_\_\_\_

PROJECT SITE: Samsung

UTM: \_\_\_\_\_

Air Temp. 5°C

Precipitation —

Cloud Cover (%) 30

Visibility Clear

Wind Direction SE

Wind Speed 63

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:45	Area	1	Flying around field	A	0-50	W
13:58	Area	1	Flying SE	B	200-500	SU
14:01	Area	2	feeding in field	A	0-50	S
14:09	Area	1	Flying over	A	100-200	SU
14:14	<del>Area</del> TUNA	1	searching over road lot	B	50-1000	NW
14:16	Area	1	in field	A	0-50	NE
14:16	Area	1	flying WSW	B	0-50	NE
14:17	Area	2	flying NW over field	A	20-500	N
14:20	Area	2	flying W	B	200-500	E
14:21	Area	3	flying S	A	50-100	NE
14:21	Area	50	flying around generally ENE	A	0-50	E
14:21	Area	50	flying around generally ENE	B	0-50	0.12

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE:

, P.

Date: \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
14:35	W. Vireo (F)	1	Foraging over field (chasing)	A	500-1000	NW
14:31	W. Vireo	200-300	Flipping E along river	B-C	7000	NE
14:36	R. B. W.	2	Flipping SSE	A	100-200	SE
14:37	R. B. W.	2	moving about field	A	200-300	N
14:38	T. Wren	1	Flipping N	A-B	100-200	W
14:39	T. Wren	1	Flipping S over field	A	100-500	E
14:39	R. B. W.	1	Flipping about field	A	200-500	S
14:42	R. B. W.	3	Flipping NW	A	0-50	NE
14:44	T. Wren	2	Flipping NW	B	0-50	SE
14:44	T. Wren	1	searching over woods	B	500-1000	E

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: Apr 24/2008

Station Number VER

Time 06:54

Observers SPK

Elevation \_\_\_\_\_

PROJECT SITE:

UTM: \_\_\_\_\_

Air Temp. 13

Precipitation —

Cloud Cover (%) 10

Visibility clear

Savannah  
Wind Direction 83-9

Wind Speed SE

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
09:54	SUSO	1	in field	A	0-50	W
09:58	ADA	1	in field	A	0-50	SW
09:56	WALL	1	in field	A	50-100	E
10:00	TUNA	1	moving over marsh, flew SE 10-15	A-B	200-500	W
10:02	HOVA	1	in field, moving at our	A	0-50	90° N
10:08	ARCA	1	nothing really	A	100-200	SW
10:09	ALBA	1	soaring N	A-B	500-100	NU
10:09	TUNA	1	flapping W	<del>A-B</del>	200-500	N
10:05	CBRE	2	FLYING	B	0-50	E
10:08	MOAD	1	FLYING 60%	A	200-500	E
10:08	TUNA	1	Soaring NE	A-B	500-1000	NNW
10:31	RAVA	3	SOARING NE	A	700	SE
10:33	RAVA	1	SOARING NE WIND	A	200-500	SE
10:34	WOMA	2	FLYING 3	A	0-20-500	✓
10:34	TUNA	1	FLYING 3	B-C	500-100	E
10:34	TUNA	1	FLYING 3	A-B	250-300	✓
10:34	" "	1	FLYING 5 to rd. level	B	200-500	✓
10:38	RAVA	1	Soaring high over field changing	B	500-1000	S
09:10	RAVA	1	FLYING 1000' over rd. level	C	200-500	S

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere



3 SACA still on field, passed during

Migration Monitoring

Date: May 11

Station Number VINL

Time 14:21

Observers SKV

Elevation \_\_\_\_\_

PROJECT SITE: Samsam

UTM: \_\_\_\_\_

Air Temp. 13°

Precipitation \_\_\_\_\_

Cloud Cover (%) 30

Visibility clear

Wind Direction B 2-3

Wind Speed 5

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
14:21	SOSP	1	singing	A	100-200	SE
14:23	HOCA	1	singing from field	A	0-50	W
14:24	RTAA	1	singing over field	A-B	200-500	NNW
14:25	RUBL	6	scattered in field	A	0-200	all dir.
14:27	HOVA	1	F.O.	A-B	0-50	W
14:30	AMGO	3	flying overhead	A	0-50	0N
14:31	RUPI	6	in field	A	200-500	S
14:38	AMER	1	F.O.	B	0-50	W
	HOVA	1	F.O.	B	0-50	W
	"	"	"	"	"	E
14:45	HOVA	1	F.O.	B	0-50	NNE
14:47	"	2	copulating	A	0-50	N
14:53	UPS A	1	calling	A	100-200	N
14:54	HOVA	1	F.O.	B	0-50	0A
14:56	HOVA	2	Quelling F.O.	B	0-50	0A

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Time	Sp.	#	Behavior	Height	Dist.	Dir.
15:01	TUMM	1	Flying S; then back N over last lot	B	200-500	NNW
15:05	GBAE	1	flying SSW	B	0-50	V
15:10	WR. Pass. <del>AB</del>	30	flying NE	B	200-500	NE
15:13	ROFS	2	flying V	B	500-1000	N
15:16	BRMS	1	foraging around barn	A	200-500	S
11	HOVA	1	FID.	B	0-50	SW

N Shore Drive  
+  
Face Rd.

Migration Monitoring  
Date: April 8/09

PROJECT SITE: SARASWATI

Station Number 1450

Wind Direction SS

Time 1453

Wind Speed SW

Observers SKM

Barometric Pressure \_\_\_\_\_

Elevation \_\_\_\_\_

Air Temp. 4

Precipitation -

Cloud Cover (%) 50%

Visibility \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
1453	ABCA (C)	1	Feeding over field	A	200-500	N
	TUNA	1	Feeding S	B	100-200	E
1457	ABCA	1	Feeding S	A	100-500	ENE
15.00	HORN	50	Feeding V	B-C	100-200	NNW
15.06	ABCA	3	Feeding S	A-B	0-50	NV
15.14	ROPE	1	Feeding over field	A	100-200	N
15.15	ABCA	3	Feeding V	A	0-50	SW
15.21	ROPE	1	Feeding V	A	100-200	S
	WALO	30	same as other in field	A	50-100	S
15.23	ABCA	1	Feeding V	A	0-50	N
15.28	ROPE	3	Feeding V	A-B	100-500	WSW

Area ( Feeding N )

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE:

\_\_\_\_\_, p. \_\_\_\_\_

Date: \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
15:32	TWUN	2	soaring over fields	A-B	down	E
	Amur	1	Approaching RTWA	B	500-1000	E
15:35	ROBE	1	soaring W	A	"	"
15:37	TWUN	1	soaring W	B	500-1000	N
	ROBE	1	soaring NE	B	50-100	S
15:40	TWUN	1	soaring ESE	B	100-200	S
15:44	TWUN	1	soaring W	B	300-1000	N
	RTWA	1	soaring over wooded I	B	"	"
15:46	BUSA	2	nearby long creek blot edge	A	200-500	W
15:46	TWUN	1	soaring W	B	down	WNW
15:51	ROBE	1	flying S	B	50-100	NW

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

NOTE: New loc in due to rework - just E of center on birds.

Migration Monitoring

Date: April 24 PROJECT SITE: Schubert  
 Station Number 120 UTM: \_\_\_\_\_  
 Air Temp. 15 Wind Direction SE  
 Time 10:59 Precipitation \_\_\_\_\_  
 Observers SKM Cloud Cover (%) 10  
 Elevation \_\_\_\_\_ Visibility \_\_\_\_\_  
 Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:59	TUUV	2	soaring SW	A-B	0-50	SE
	SUSP	1	in air	A	0-50	S
	AMKE	1	soaring ~ field	A	100-200	E
11:04	ERME	1	soaring ~ field	A	0-50	SW
11:07	TUUV	2	soaring ESC	B	100-200	S
	AMKE	1	"	"	"	"
11:11	RTTA	1	soaring in thermal	B-C	500-1000	SE
	AMKE	1	soaring	A-B	"	"
	TUUV	1	soaring	A	100-200	S
11:13	RTTA	2	over woodlot	A	0-50	W
11:14	AMKE	1	flapping WNW	A	0-50	E
	TRES	1	flapping to base	A	0-50	E
11:21	ERME	1	flapping S	A	0-50	E
11:29	TUUV	1	flapping S	B	200-500	W
	KELL	2	in field	A	0-50	W
	HOLA	2	a.i.	A	"	"
11:36	TUUV	1	soaring	B	200-500	N
11:41	TUUV	1	soaring over woodlot	B	200-500	N
11:42	TUUV	1	chirping S	B	100-200	ESE

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE: \_\_\_\_\_, P. \_\_\_\_\_

Date: \_\_\_\_\_ Station Number \_\_\_\_\_ Time \_\_\_\_\_

Observers \_\_\_\_\_ Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:50	TWUN	4	Flying S	B	200-500	SE
11:53	ANCK	1	Flying N	B	500-1000	N
11:57	TWUN	2	Flying S	A	500-1000	NW

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: May 11 1999

Station Number VISW

Time 09:30

Observers SKM

Elevation \_\_\_\_\_

PROJECT SITE: SAMSUNG

UTM: \_\_\_\_\_

Air Temp. 8

Precipitation \_\_\_\_\_

Cloud Cover (%) 0

Visibility clear

Wind Direction E

Wind Speed B1

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
09:40	RUL LAV	~100	all around field	A	0-100	E
	NOCA SNP	1	singing	A	0-50	E
	SNP	1	singing	B	50-100	S
	SNP	1	singing	B	0-50	E
	SNP	1	calling	A	0-50	E
09:51	AMRO	1	singing	A	0-50	E
10:01	TWUN	1	singing	C	200-500	E
10:05	TRES	4	foraging over field	A	0-50	N
10:09	ABGN	1	A-100 W	A	200-500	S
10:05	ABNS	2	foraging - TRES	A	0-50	E
10:11	AMCR ATRA	1	mobility; eventually flew SE	B → C	100-200	E
10:14	AMCR ATRA	4	mobility over woodlot; separate	A → B	100-500	SSW
10:18	TWUN	1	singing E	B	0-50	out
10:19	CAGO	1-2	calling behind woods	A	200-500	S
10:21	ATRA AMCR	1	calling over woodlot	B	200-500	SSW
10:22	AMCR	1	calling	A	"	"
"	EMST	~150	feeding in woods	B	"	"
"	AMRO	1	calling	A	0-50	E
10:30	ATRA AMCR	1	back singing over woods	B	200-500	SW
	AMCR	1	calling in woods	A → B	200-500	SE

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

PROJECT SITE:

\_\_\_\_\_, P. \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Date: \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? R 2-3 S

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:32	AMCA	2	flying 3 to woods	A	300-500	ESE
10:35	<del>AMCA</del> AMCA	2	flying 5-6	B	400-500	SSW
10:37	TUUV	2	soaring over woodlot moving W	A-B	300-500	✓
11	KLL	1	flying N	A	0-50	ON
10:39	BEJA	1	flying VSV	A	100-200	S
10:40	PUMP	1	foraging over field	A	50-100	WNW
10:45	RTAA	1	soaring	B	500-1000	✓
10:49	TUUV	1	soaring N	A-B	500-1000	NW

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Coyote St 20 → Atkins

SACA → 2

Arko  
RUBL  
COGR  
SOSP

Atkins / Lakeside

Coyote NOFA  
NOVA  
SOSP  
NOVA  
VETA → 20  
RETTA

Prins R2.

EAST ARKO SOSP  
COGR NOVA  
RUBL RETTA

Fisherville

RUBL ROCA  
SOSP  
AROK →  
ARRO  
BARO

Sub R2.

ARRO SOSP  
EAST  
AROK  
AROK - 140



Samsung

March 27/09 Start @ 06:45

clear, few small fog patches, ~0°, B1

① Yoc/River → River/Dunville Hallmark

Several dozen waterfowl up 6 runs

SAGE

AMRO → SEVEN

SOXP ↑↑

HOLA

SOXP "1

RDGA candidate over river) 2 obs.

CAGO

AMRO 4

② River/Concordia → 3 locations

AMRO

WALLS

EVST

WALLS

COGR

Greater sp. of 20-50  
fingers from lake  
over site (E of road)

WALLS

③ Distribution → Sucks Concordia

swamp on lake (Flora also present)

CAGO KELL

CONCORDIA

CAGO

WALLS

NICOTIANA on ice

④ Swamps → Beans

EVST

WALLS

RDGA candidate over river) 1 obs.

HOLA

AMRO

WALLS

⑤ Swamps → Concordia → River

JAVA MODO

EVST

AMRO

WALLS

⑥ River → Yoc/River

WALLS

AMRO

EVST

⑦ Yoc/River

AMRO

WALLS

EVST

⑧ S. Canada Rd.

KELL

RDGA - 15 can wild

CAGO

EVST

WALLS

AMRO

EVST



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: July 15/09  
 Wind: B 2 S  
 Observers: Stony

Station Number UIFVN  
 Precipitation -  
 Visibility clear

Time 13:15  
 Air Temp. 23  
 Cloud Cover (%) 50

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:15	SOSP	1	singing	A	0-50	S
13:22	SOSP	1	singing	A	0-50	S
13:28	TUVU	3	soaring over water	B	200-500	S
13:29	GRAC	1	in hedgerow	A	100-200	S
13:30	FISP	1	calling in field	A	500-1000	SE
13:33	AMCA	1	calling	A	100-200	SE
13:40	NOFL	1	calling	A	500-1000	E S
13:41	TUVU	1	soaring over woodlot	B	7000	NE
13:49	"	1	soaring	A	0-50	S
13:49	KEL	1	skinned ground field	A	0-50	S
13:51	TUVU	1	soaring over woodlot	A-B	200-500	S
13:51	RTHA	1	soaring over woodlot	A	0-50	S
13:58	NOND	2	1-singing from TL	A	0-50	S
13:58	NALD	1	foraging over field	A	500-1000	S
14:01	AMKE	1	perched on TL	A	0-50	RW

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSONASC

Station Number WFEV N  
 Precipitation \_\_\_\_\_  
 Visibility Clear

Time 11:50  
 Air Temp. 22.0  
 Cloud Cover (%) 0

Date: Sept 3/09  
 Wind 1 B 1  
 Observers SKR

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:55	TUNN	1	Soaring over field	B	>1000	S
11:57	BRNS	1	Flying E across field	A	500-1000	N
12:03	TUNN	6	Soaring over woods, moving W	C	>1000	N
12:10	TRES	4	Foraging over field	A	0-50	N
12:18	AMGR	2	calling	A	500-1000	W
12:25	TUNN	1	Soaring over woods	B	>1000	SSW
12:29	MOBO	1	Flying E	A	0-50	S
12:36	TRES	1	still foraging overhead	A	0-50	ON
12:37	TUNN	1	Soaring <u>W</u>	B	500-1000	N
12:38	TUNN	1	Soaring S	<del>B</del>	>1000	SE
	AMCR	1	on road	A	500-1000	W

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



## Behavioural Watches

PROJECT SITE: SARKISANGDate: 06.15.09Time 13:53Station Number VI-FV-NWind B4 NEPrecipitation -Cloud Cover (%) 100Visibility clearObservers SKM

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:59	NoHA	1	foraging over field	A	200-500	E
14:02	"	1	sitting in field	A	"	S
14:04	TUVU	1	over woodlot	B	500-1000	N
"	"	"	"	"	"	NE
14:07	"	2	soaring over woodlot	B	500-1000	WNW
14:10	R.B.GU	1	flying SE	A-B	500-1000	SSW
14:11	TUVU	1	over woodlot	B	500-1000	N
14:19	M080	1	perched on T/L	A	0-50	S
14:29	TUVU	1	over woodlot	A-B	500-1000	N
14:38	"	"	"	"	"	NNE
14:39	NoHA	1	foraging over field	A-B	500-1000	S
14:40	HOCA	40	in field	A	200-500	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

Date: Nov. 4/09  
 Wind: 03 N-E  
 Observers: SKM

PROJECT SITE: SAR-SUNW

Time: 11:25  
 Air Temp: 3  
 Cloud Cover (%): 100

Station Number: VRFEUN  
 Precipitation: —, higher spikes  
 Visibility: clear

11/18  
 12/12

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:27	AMCR	2	in field	A	100-200	S
11:47	NOHA	1	Foraging over field	A	100-200	S
11:54	AMCR	2	flying NW	B	100-200	SW
11:55	TUUV	4	soaring gradually	A-C	500-1000	S
"	RTAA	5	"	C	"	"
12:01	COHA	1	fly W	C	200-500	N
12:06	TUUV	7	soaring gradually	C	"	N
"	RTAA	6	"	C	"	"
12:10	AMCR	1	flying SE	A	0-50	W
12:12	W? Raptor	1	flying WNW	C	200-500	N
"	TUUV	1	soaring W	B	200-500	"
12:17	ROGA	2	soaring SSE	C	200-500	NNE
12:24	AMCR	2	flying W	A-B	100-300	N

Is presence of what appears to be raptor corridor only present due to underlying stream bank off like.

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere







Behavioural Watches

PROJECT SITE: SAMSUNG-SUMOI

Date: June 23/09  
 Wind: B2-35  
 Observers: 5 km

Time: 13:26  
 Air Temp: 27  
 Cloud Cover (%): 0

Station Number: VJLV  
 Precipitation: ---  
 Visibility: clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:27	RWB L	1	in fields, moving around	A	0-50	all dir.
13:29	SO SP	1	singing from wire	A	50-100	NW
13:31	WAVE	1	singing	A	0-50	S
13:31	MOO D	2	perched on wire	A	50-100	NW
13:32	PUMPA	1	flying S	A	0-50	N
13:32	ENST	2	circled	A	0-50	A
13:33	RJAA	1	singing over woods	B	500-1000	N
13:34	Gull sp.	20	on shore line	A	200-500	E
13:35	TRES	2	foraging over field	B	50-100	N
	KILL	1	calling from field	A	20-500	N
	RBGN	1	perched along shore	A	100-200	WSW
13:38	SO SP	1	singing	A	50-100	NE
13:39	TUVU	1	on wire	A	200-500	WSW
13:40	RBGN	2	perched along shore	A	0-50	W
	CRB	1	perched on wire; then into field	A	50-100	N
13:42	ENST	2	circled	A	0-50	N
13:44	OCCO	1	on wire	A	50-100	N
13:45	RBGN	1	perched along shore	A	20-500	SW
13:47	GBAE	1	perched on wire; then tree	A	0-50	SE
13:49	CEOW	2	perched on wire; then tree	A	200-500	N
	170LA	1	perched on wire; then tree	A	0-50	N
13:53	BRNS	2	foraging over field	C	20-500	N
13:57	TUVU	1	sootling in distance	A	6-50	N
14:00	ANCO	1	perched on wire	A	71000	N
14:03	RTHA	1	sootling over woods	A	0-50	N
"	TUVU	1	sootling in distance	A	7000	N
14:04	RBGN	1	singing along shore line	B	71000	NW
14:05	AMCO	1	perched in grass; then flew into field	A	0-50	SW
				A	0-50	ESE

Green Frog

BACFA → seen over low drifts  
 Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere

Behavioural Watches

PROJECT SITE:

Date: \_\_\_\_\_ Station Number \_\_\_\_\_ Time \_\_\_\_\_  
 Observers \_\_\_\_\_ Any Weather Changes? no change in weather, terns ~ 26-28°

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
14:10	FRAL	1	on lake	A	200-500	ESE
14:14	AMRO	1	perched on vice	B	0-50	N
14:15	CATE	1	Foraging along shoreline	A	6-50	S
14:16	RBGY	1	Chirping w J	A	0-50	04

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere  
 \* report of more hawk migration along lakeshore

Note: RH WO → seen @ 1833 Lakeview (same area)

**Behavioural Watches**

Date: July 15 107  
 Wind: BWS  
 Observers: Skur

**PROJECT SITE: SAMSUNG**

Station Number: VELW  
 Precipitation: -  
 Visibility: clear

Time: 18:00  
 Air Temp: 23  
 Cloud Cover (%): 50

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
18:00	MODO	2	perched on wire	A	0-50	NW
	SOBP	1	calling	A	0-50	N
18:06	RBGU	1	along shoreline; remaining present	A	0-50	S
	GUSP	5	also on wire	A	0-50	all dir.
18:12	COTE	1	flying along shoreline	A	0-50	S
18:13	BRNS	5	foraging over field + water	A-B	0-50	S
	PUMX	2	flying low along shoreline	A	0-50	S
18:18	MALL	1	on lake	A	0-50	SE
18:19	AMGO	1	calling	A	0-50	N
"	DCCO	12	on lake	A	200-500	S
18:20	BRAL	1	flying along shoreline	A	0-50	N
18:23	RBGU	1	flying along shoreline	A	0-50	S
18:26	MODO	1	flying along shoreline	A	100-200	S
18:27	KILL	1	calling	A	0-50	E
18:29	CATE	1	flying along shoreline	A	0-50	S
	BGCH	2	in tree	A	0-50	E
18:30	RBGU	1	along shoreline	A	0-50	S
18:44	CATE	1	flying along shoreline	A	0-50	S
18:45	RBGU	2	along shoreline	"	"	"
18:48	COTE	3	flying	"	"	"
18:55	BRGU	1	along shoreline	A	0-50	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Station Number WLA W  
 Precipitation →  
 Visibility clear

Time 10:01  
 Air Temp. 19  
 Cloud Cover (%) 0

Date: Sept-2-01  
 Wind B  
 Observers SPK

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:01	CAGE	7	Flying S	B	100-200	W
10:04	GRN	1	calling	A	0-50	S
10:09	CAGE	4	Flying S	A	0-50	OH
10:17	MOO	1	perched on wire	A	0-50	SW
10:21	GUST	18	Flying W	A	0-50	N
10:24	BUTA	2	calling from trees	A	50-100	W
10:26	AMGO	1	Flying S	A	0-50	OH
10:29	CAGE	1	Flying along shoreline	B	50-100	S
"	NOCA	1	calling	A	0-50	E-SE
10:38	BCCA	1	calling from woods	A	0-50	E
10:39	AMGO	3	Flying SE	A	100-200	E
10:43	TUNN	2	Soaring over water	B	>1000	NE
	AMGO	2	Flying S	A	0-50	OH
10:49	BWKS	4	Foraging	A	0-50	OH

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



## Behavioural Watches

Date: 02.15/09

Wind 84 SNE

Observers Spar

## PROJECT SITE:

SAMSUNG

Time 11:41

Air Temp. 4

Cloud Cover (%) 100

Station Number VELA W

Precipitation —

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:42	CAGO	50	knitting on the	A	50-100	W
11:44	Gulls	20	on lake	A	"	"
"	DCCO	1	"	"	"	"
"	RBGU	2+2	flying W along lake	A	100-200	S
11:51	RBGU	1	" "	"	0-50	S
11:53	CAGO	36	relocating to near bank	A	100-200	W
11:55	RBGU	19+2	flying E over lake	A	120-200	S
12:04	CAGO	4	joining others	A	100-200	W
12:11	DCCO	15	flying W over lake	A	200-500	S
12:12	CAGO	11	on lake; floating W	A	100-200	S
12:13	RBGU	5	moving over lake	A	100-200	S
12:15	CAGO	3	flying E over lake	A	0-50	S
12:17	CAGO	3	"	"	"	"
12:21	RBGU	1	flying E along shoreline	A	0-50	S

Note: Bird movement generally restricted by wind

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

Date: Nov. 3 / 09  
 Wind B 3-4 NW  
 Observers SKM

PROJECT SITE: Springs

Time 12:08  
 Air Temp. 6  
 Cloud Cover (%) 100

Station Number VF LA W  
 Precipitation light spitting rain  
 Visibility 1000

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:08	COLO	8	on lake	A	100-200	S
"	BOGA	100	on lake	A	500-1000	W
12:15	Waterfowl	30	grebes gulls Merganser RNOB	A	"	"
12:19	Gulls	10	flitting around shoreline	A-B	50-100	S
12:25	Mergansers	40	on lake	A	200-500	S
12:26	Grebe	4	"	A	50-100	S
12:34	Gulls	30	flying over lake	B	100-200	S
13:04	NOBTA	1	over field; foraging low	A	100-200	N

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



@ 1437 Lakeshore

Behavioural Watches

PROJECT SITE: SAMSUNG

Station Number VJLAV  
Precipitation —  
Visibility clear

Time 13:21  
Air Temp. 7  
Cloud Cover (%) —

Date: Nov. 17 10<sup>th</sup>  
Wind B3-4 E  
Observers Shon

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:22	MALL	2	Flying E	A	0-50	S
13:33	CAGO	<del>1</del>	resting on spit of land	A	0-50	ESE
"	SNGO	5	" " 3 white adult 1 downy juv. 1 white juv.	A	0-50	ESE
13:38	RBGU	5	flying W along shoreline	A	0-50	S
13:46	BURP	2	in with CAGO (near rafting to e)	A	100-200	ESE
13:47	RBGU	1	flying E	A	0-50	S
13:48	RBGU	1	flying W over lake	A	100-200	S
13:57	<del>MALL</del>	1	on lake	A	50-100	SSE
14:00	RBGU	2+3	flying E along shoreline	A	0-50	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

Date: July 14/04  
 Wind: B2-3  
 Observers: SKW

PROJECT SITE: SAMSUNG

Time: 11:00 Station Number: VI SLW  
 Air Temp: 20 Precipitation: ---  
 Cloud Cover (%): 0 Visibility: clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:04	SOSP	1	singing	A	200-300	S
	NAMO SVSP	1	perched on wire	A	0-50	S
	AR160	1	"	"	"	"
11:12	NOHA - F	1	fly E over field, being mobbed	A-B	200-300	N
	RUBL	15	mobbing NOHA	A-B	"	"
11:15	TUNU	1	fly over field	A-B	200-300	N
11:16	RBGR	1	over field	A	200-300	NNV
11:20	ME00	2	fly w	A	0-50	S
11:35	NO5P	1	perched on wire	A	0-50	S
11:41	NRUS	1	fly w; foraging	A	0-50	N
11:50	AR60	2	fly w	A	0-50	N
			Very quiet session!			

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

Date: Sept. 25/09  
 Wind 2-3 N  
 Observers SKM

PROJECT SITE: SAMSUNG

Time 12:32 Station Number VI SW  
 Air Temp. 15 Precipitation -  
 Cloud Cover (%) 80 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:39	CA60	14	Flying W	C	100-200	S
12:43	TUNU	1	soaring SE	B	100-200	S
12:48	TUNU	5	Flying E+W over field	B-C	200-500	S
12:58	MOBO	1	Flying S	A	100-200	W
13:04	AMCR	5	perched in tree	A	200-500	NW
13:12	TUNU	1	Flying E	B	>1000	NNE
13:14	CHSP	1	perched in hedgerow	A	0-50	S
	AM60	1	calling	A	0-50	W
13:17						

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: Oct. 14/09 Station Number VI 5L  
 Wind B3N Precipitation —  
 Observers Skm Visibility clear

Time 14:00  
 Air Temp. 7  
 Cloud Cover (%) 60

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
14:00	RTAA	1	Flying E	A	100-200	N
14:06	BUSA	1	Flying S	A	0-50	E
14:19	TANA	1	Flying N	A-B	0-50	04
14:22	ANCR	3	Flying E	A	200-500	SE
	ROEI	1	Flying to silo	"	"	"
	MUNO	1	perched on T/L	A	0-50	E
	RTUB	2	soaring N	B	100-200	E
14:25	ENST	3	Flying E	A	30-100	N
14:32	RTHA	1	soaring over field	A	200-500	N
14:42	ENST	1	perched on T/L	A	0-50	E
14:46	RTHA	1	soaring over field	A-B	100-200	N
14:52	ENST	15	perched on T/L + on roadside	A	0-50	W
14:58						

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere







Behavioural Watches

Date: Nov. 23 109  
 Wind 83 S  
 Observers Skorn

PROJECT SITE: SHAMSUNG

Time 11:43  
 Air Temp. 7  
 Cloud Cover (%) 10

Station Number VFSW  
 Precipitation —  
 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:43	COHA	1	perched in tree	A	100-200	NNW
11:44	ARGO	1	Clipping SW	A	0-50	OH
11:50	BUTA	2	clipping to woodlot	A	100-200	S
11:55	Amca	10	flipping over woodlot	B	>1000	SE
"	ALHA	1	Soaring over field	A	100-500	E
12:01	NOHA - F	1	soaring above field	A	500-1000	NE
12:05	AOPE	20	flipping W	A-B	"	S
12:07	RTHA	1	soaring over woods; calling; then moving N	A-B-C	100-500	S
"	Amca	2	flipping; flipping	A	100-500	SV
12:11	GOEA - Juv.	1	flipping E	B	0-50	OH
"	NOHA	1	soaring over field	B	100-200	E
12:14	RTHA	2	over field (likely from before)	C	200-500	ESE
12:20	RTHA #1	3	still visible soaring in distance	C	>1000	E
"	GOEA	1				

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere

Behavioural Watches

PROJECT SITE: SAM SOUNDS

Date: Nov. 23/09  
 Observers: JKM

Station Number VE5V  
 Any Weather Changes? —

Time 12:30

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:31	RBGA	300	flying over field	B	7000	SE
12:34	RTTA	1	over field	A-D	100-200	N
12:41	RSPZ	6	flying W	B	200-500	W
12:42	ANR	4	flying V	B	200-500	S
	RSHA	2	soaring over water	B	200-500	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere

Behavioural Watches

PROJECT SITE: SAMSUNG - Sum 61

Date: Jun 23/09  
 Time 12:17  
 Station Number VILC  
 Wind BLS  
 Air Temp. 26  
 Precipitation  
 Observers Steve  
 Cloud Cover (%) 0  
 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:14	RUBL	3	in air	A	0-50	N
12:21	TUVN	1	searching in surrounding woods	A-B	200-500	N
	RUBL	1	calling in surrounding area	A	0-50	all dir.
	CHXP	1	calling	A	0-50	SW
12:23	OCGO	2	flying in field	B	200-500	N
	AMRO	2	staying in field	A	50-100	S
	HOSP	1	perched on fence	A (0-50)		SE
	KPLL	1	calling	A (50-100)		S
	TRDS	1	calling	A	0-50	ESE
12:26	GUST	10	in surrounding area	A-B	0-50	all dir.
	BANS	5	forging over field	A-B	0-50	N
	TRES	1	calling	A-B	100-200	NW
12:27	COGR	2	flying in	A	0-50	OH
12:28	HOFE	1	on road	A	0-50	V
12:29	DOVO	1	calling overhead	A	0-50	S
	PUMA	1	flying overhead	A-B	0-50	OH
12:32	BACO	3	in field	A	0-50	N
	NRWS	1	searching overhead	A	0-50	OH
12:33	REACH	1	flying overhead	A	500-1000	N
	ADLA	1	flying overhead	A	100-200	N
12:41	KELL	1	in air	A	100-200	N
12:44	AMGO	1	flying overhead	A	0-50	OH
12:51	LANZ	1	staying	A	0-50	SSW
12:55	REGN	2	flying	B	30-100	SW
12:59	MDOO	1	on road	A	0-50	N
13:07	FUVN	1	over road	A	500-1000	N
13:11	WNER	1	perched in tree	A	200-500	NNE
13:12	TUVN	1	coming down roadlet; then continuing SE	A-B	200-500	NNE

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAND SPRING

Station Number NJLCC  
 Precipitation —  
 Visibility clear

Time 10:53  
 Air Temp. 22  
 Cloud Cover (%) 30

Date: July 15, 09  
 Wind 62  
 Observers SJM

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:53	WAVE HOSP	1 10	singing on road	A	0-50	S
10:55	GUST	10-20	in fields	A	0-50	E
11:07	RUBL + COGR	1	calling	A	0-50	W
11:11	BLJA	1	calling	A	0-50	S
11:12	AWBO	1	on road	A	0-50	W
11:16	TUNU	1	soaring over woodlot	A	500-1000	N
11:28	TUNU	1	soaring over woodlot	A	71000	N
11:30	BRNS	2	foraging over field	A	0-50	W
11:30	RSGU /	10-20	flying above Farmers Field	A	300-1000	NE
11:36	TRES	2	foraging over field	A	0-50	N
11:36	TUNU	2	soaring over woods	A-B	500-1000	N
11:39	AMGO	1	flying SE	A	0-50	S
11:46	RTHA	1	soaring W	A	71000	N
11:46	TUNU	1	soaring over woodlot	B	200-300	N

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: Feb 2 1997

Time 11:14

Air Temp. 21°C

Station Number WJAC

Wind B2

Precipitation —

Observers SKN

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:15	MODO	1	perched on T/L	A	50-100	W
11:17	TUUV	3	Soaring over fields & woods	A-C	500-1000	N
11:19	GUST	4	in shrubs	A	0-50	W
11:22	TUUV	1	Soaring SW	A	7000	NW
"	TUUV	1	over field	A	50-100	NW
11:27	TUUV	4	soaring along shoreline	A	200-500	W
11:32	TUUV	1	over woods	A-B	300-1000	N
11:37	"	1	soaring SW	B	500-1000	NW
11:37	HOSP	1	in shrubs	A	0-50	L
"	AMZQ	1	on T/L	A	0-50	E
"	TUUV	4	soaring along shoreline rather far over field	A-B	200-500	W
"	TUUV	1	Soaring SW do <del>just</del> above	A	100-200	N
"	TUUV	2	Soaring E along woodlot	A-B	7000	NE
11:50	GUST	2	perched on T/L	A	0-50	W

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

Date: 04.14.09  
 Wind: B 3N  
 Observers: SKA

PROJECT SITE: SAMSUNG

Time: 15:07  
 Air Temp: 8  
 Cloud Cover (%): 50

Station Number: VI LAC  
 Precipitation: -  
 Visibility: clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
15:07	AMCR	1	calling	A	500-1000	N
15:25	RBCU	1	moving along lakeshore	A	500-1000	SW
15:27	THUN	1	soaring over woods	B	> 1000	N
	AMGO	5	flying S	A	0-50	W
	RBCU	40	flying over lake	B	500-1000	NW
15:35	HOSP	6	in hedge area	A	0-50	V
15:00						

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere





Behavioural Watches

PROJECT SITE: Dunnville

Date: Nov. 3/09  
 Wind: B 3NW  
 Observers: Stor

Station Number VJLAC  
 Precipitation —  
 Visibility clear

Time 10:53  
 Air Temp. 6  
 Cloud Cover (%) 40

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:57	AMCR	2	flapping over woodlot	A	50-100	N
11:09	NOCA	1	in hedgerow	A	0-50	W
11:10	AMCR	2	perched in hedgerow; flew off	A	0-50	NNW
11:15	RTHA	1	100% Flying along shoreline; caused by people in field	A	50-100	WSW
11:18	NOTE: clauding over; rain in distance; staying cool					
11:19	BCCH	1	calling from trees in Knight's Beach	A	0-50	S
11:24	AMCR	2	Flying E over woodlot	A	500-1000	N
11:27	NOHA	1	foraging over field	A	200-500	NNW
11:28	HOsp	4	in Hedgerow	A	50-100	NNW
11:34	⇒ light spitting		⇒ ended @ 11:40			
11:35	RTHA	1	Flying to hedgerow	A	100-200	NW
11:47	⇒ light rain.					

Note: mixed flock of BUFF, REDH, RNOU on lake.

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere







Behavioural Watches

Date: Jun 23/09

Wind B1 S

Observers SKW

PROJECT SITE: SAMSUNG - Sum 01

Time 11:02

Air Temp. 23

Cloud Cover (%) 0

Station Number VRL E

Precipitation

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:02	WELL	1	in field	A	0-50	N
"	SWSO	1	calling	"	"	S
11:04	WAVE	1	"	"	"	S
11:04	HOWA	1	singing	A	0-50	E
11:19	RTHA	1	soaring over woods	B	500-1000	N
11:21	HOWA	1	F.I.D.	B	50-100	N
11:22	AWBL	1	calling	A	50-100	S
11:22	SWSR	1	calling	A	"	WNW
"	WGL	1	calling	A	"	"
11:24	AMGO	2	in field	A	50-100	N
11:26	TUNN	1	singing	A	0-50	W
"	NEUT	1	singing	B	71000	N
"	MODE	1	singing	A	0-50	SE
11:28	AMRO	1	in field	A	50-100	SW
11:30	RTHA	1	entering woods	A	0-50	S
"	NontA	1	flapping E	A	500-1000	N
11:38	TUNN	4	soaring W	A-B	"	N
"	EUST	1	in field	B-L	71000	N
11:41	SWSO	1	calling perched on wire	A	0-50	S
11:42	NRLWS	1	soaring over field	A	0-50	E
11:44	BLTA	1	foraging over field	A	100-200	NNE
11:50	BLTA	1	foraging over woodlot	A	0-50	W
11:50	BLTA	1	foraging over woodlot	C	71000	N
11:52	TUNN	4	soaring	B-C	"	NNW
"	RTTA	2	"	"	"	"
11:54	HOWA	1	P.D.	B	0-50	N
11:58	RTTA	1	soaring along edge of woodlot	A	500-1000	N
"	NFL	1	foraging over woodlot	A	500-1000	N
12:00	RTTA	1	foraging over woodlot	A	0-50	OA
"	TUNN	1	soaring	C	71000	E

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere







Behavioural Watches

Date: Sept 2/00  
 Wind: BS 2  
 Observers: SKM

PROJECT SITE: SAMSUNG

Time: 12:27 Station Number: WLA 6  
 Air Temp: 21 Precipitation: Trace  
 Cloud Cover (%): 0 Visibility: Trace

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:28	Gulls	30	Flying W over lake	A	200-300	S
	BREA	1	Foraging over water's caught fish; then flew to land	A	200-500	W
12:38	RBGU	1	Flying W	A	500-1000	S
	AMGO	1	Flying along shoreline	A	0-50	S
12:49	CAGO	4	Flying W over water	A	200-500	S
	several gulls & DCCO		on water	A	>1000	W
12:55	RBGU	2	Flying E along shoreline	A	0-50	S
13:01	TUNN	2	Soaring along shoreline	A	>1000	W
	CAGO	15	Flying W over water	A	500-1000	SE
13:02	RBGU	1	Flying along shoreline	A	0-50	S
13:04	NOHA-F	2	soaring over field	B	200-500	N
13:12	TUNN	2	Soaring over field	B	500-1000	N
13:23	DCCO	1	Flying W along shoreline	A	0-50	CH

Note: very quiet through mid-day.

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

Date: Oct 15/01  
 Wind B 3-4 NE  
 Observers 3 km

PROJECT SITE: SAMSUNG

Time 10:26 Station Number VICA E  
 Air Temp. 4°C Precipitation  
 Cloud Cover (%) 100% Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:26	RBCU	6	flying N	B	0-50	W
10:28	"	8	moving along lakeshore + over field	B	200-500	W-NW
10:31	"	2	moving along lakeshore	B	100-200	W
10:33	RBCU	8	flying N	B	100-200	W
10:51	RBCU	4	flying along shoreline	A	50-100	S
10:54	RBCU	6	flying N	A-B	200-500	W
10:57	"	7	flying N	"	"	"
11:00	"	7	flying over field	B	500-1000	NW
11:04	"	8	"	"	"	"
11:07	"	9	flying N over field	B	200-500	NW
11:09	ARCR	2	flying W along lake	B	100-200	S
11:12	W <sub>2</sub> Waterfowl	2	flying NW	B	500-1000	W
11:14	RBCU	4	flying N over field	B	200-500	W
11:16	BCCA	1	calling from hedgehog	A	0-50	S
11:22	RBCU	6	flying S to lake	B	200-500	W

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: Nov. 23/09

Station Number VILA E

Time 15:05

Observers SKM

Any Weather Changes? ~30% cloud

B3-4 NE, ~6°

Note: Cooling down, less activity, cool temperatures birds settling in forest moving about

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. from Observer	Dir. from Observer
<del>15:18</del>	Amgo	1	moving in trees	A	0-50	S
15:23	RBOu	1	Flying W along shoreline	B	50-100	S
	Note: ~	100 ca-50	& 100 waterbirds calling in lake.			
15:25	RBOu	2	Flying NE	B-C	200-500	NW
15:29	BCCIT	2	calling from within	A	0-50	E
15:34	RBOu	1	Flying NNW	B	0-50	E
<del>15:37</del>	"	1	Flying E along shoreline	A	50-100	S
15:58	RLHA	1	Flying S to lake	A	100-200	N

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Migration Monitoring  
Date: June 10/09

PROJECT SITE: SAMSUNG, p.  
Station Number VI-FVS Time 10:35

Observers SKM  
Any Weather Changes? 100% , ~14° , B2N

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:35	RUBL	3	calling from field	A	0-50	S
10:44	GAKE	2	on ground in field	A	0-50	E
	ENNE	1	singing on T/LINE	A	50-100	E
	SUSP	1	"	A	0-50	N
10:46	WAVE	2	singing	A	10-200	N
	SUSP	2	high in scrub	A	0-50	W
10:52	BRWS	4	foraging scrub field	A	0-50	S
10:54	COTE	1	singing	A	100-200	N
	ENST	30	in field	A	100-200	W
10:55	DOVA	1	in field	A	50-100	NNW
11:00	COGR	1	flying	A	2-200	S
	HOLA	2	F.D.	A	50-100	S
11:08	NOFL	1	flying to scrub to SE	A	0-50	W
	AMKE	1	singing	B	500-1000	SSG
11:13	TUNN	3	singing	B	500-1000	ENE
	TRGS	2	foraging from field	A	200-500	ENE
11:19	KILL	1	calling from field	A	100-200	E
11:20	MATE	1	calling	A	100-200	N
11:21	TUNN	1	singing on wicket	C	500-1000	ENE
	DOVA	2	F.D.	B	50-100	N

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Behavioural Watches

PROJECT SITE: SARISUNG

Date: Sept. 3/09 Time 10:24 Station Number N1FVS  
 Wind B N Air Temp. 21 Precipitation ---  
 Observers shw Cloud Cover (%) 0 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:24	TUVU	6	soaring over field	A-C	200-500	N
"	"	1	soaring over field	B	500-1000	S
10:36	BLBT	40	perched on T/L + in field.	A	200-500	E
10:43	TUVU	3	soaring over field	A-B	300-1000	N
10:44	SPAS	1	perched on fence	A	0-50	NE
"	"	1	" " T/L	A	0-50	E
10:47	TUVU	5	soaring over woodlot	B	>1000	SE
10:52	ENST	20	flying S, foraging; remaining in air	A	0-50	OH
10:54	BLBT	50-100	generally contained movement around area	A-B	0-500	WN
11:11	TUVU	14	flying W	A-B-C	200-500	N
11:14	MDDO	1	perched on string	A	50-100	N
11:21						

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAH-SMNC

Date: Sep. 25/09

Time 13:38

Station Number VEFVS

Wind BSE

Air Temp. 17

Precipitation -

Observers Steve

Cloud Cover (%) 40

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:56	AMEA	1	calling	A	U7.	N
13:58	AMGO	1	calling overhead	A	0-50	04
14:04	TUVU	1	soaring <del>over</del> NE	B	0-50	N
14:05	"	1	" E	A-B	500-1000	N
14:07	"	2	1 Soaring over field, rising in wing slowly, 5 following 2	A-B	50-100	NW
14:09	TUVU	1	soaring over field, wing s	B-C	200-500	NW
14:16	MEUL	1	calling	A	200-500	WNW
14:20	TUVU	1	soaring over field	A	500-1000	ESE
14:21	"	1	Soaring SE	B	2000	WSW
14:33	RTHA	1	soaring over field	B-C	100-200	WSW
14:36	TUVU	1	soaring over field	B-C	7000	SSW

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

Date: OCT. 15/09  
 Wind B4-5 NE  
 Observers SKM

PROJECT SITE: 5 Ar15NWG

Time 12:47 Station Number VIFUS  
 Air Temp. 6 Precipitation -  
 Cloud Cover (%) 100 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:47	TUNU	3	searching over fields	A	100-200	W
12:50	RTHA	1	"	A-B	100-200	W
12:52	AMCR	1	flying W	A	0-50	W
12:53	"	1	flying S	A	100-200	W
12:55	"	1	flying SSW	A	200-300	E
13:25	RTHA	1	searching over woodland	B	500-1000	SSW
"	"	"	" " field	A	"	"
13:27	TRES	10	flying V among plants	A	0-50	S
13:29	EURS	6	flying V	A	0-50	S
13:30	MEDD	1	flying NNE	A	0-50	ON
13:32	TUNU	1	flying W	A	50-100	S
13:33	TRES	6	flying W among plants	A	0-50	S
	RBCN	1	flying NNE	B	100-200	SSW
13:35	TUNU	1	searching over woodland	A-B	500-1000	SSW



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: Nov. 3/09

Time 13:12

Station Number VERUS

Wind 13-14 NE

Air Temp. 6

Precipitation -

Observers SKM

Cloud Cover (%) 100

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:31	AMCR	2	Flying SE	A	200-500	SW
13:32	RTHA	1	Flying NNW	B	200-500	WSW
13:38	BUBB	200	Flying E	A	500-1000	S
13:38	NOHA-M	1	foraging over field	A	200-500	N
13:40	BWA	1	DD Flying low behind tree	A	100-200	NE
"	NOHA-F	2	foraging over field	A	100-200	S
13:42	NOHA	1	Flying NW (near 4 in total)	A-B	200-500	S
13:43	AMCR	4	perched in tree	A	200-500	S
13:47	AMCR	17+1	Flying around field mostly	A	0-50	W
13:49	BLBE	75	Flying NNW	A	50-100	W
13:50	<del>AMCR</del> BLBE	100	flying W	B	500-1000	S
13:55	AMCR	1	perched in tree	A	50-100	E
14:04	BUBB	200	Flying ESE	A	200-500	S
14:03	BUBB	400	in cornfield	A	100-200	S
14:15	RTHA	1	foraging BLBE	A	500-1000	SE

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: July 14 Station Number NE PVS  
 Wind B 2 Precipitation —  
 Observers SKM Visibility clear

Time 12:10  
 Air Temp. 21  
 Cloud Cover (%) 10

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:10	ANGO	1	calling	A	0-50	N
12:16	<del>ANGO</del>	1	perched	A	0-50	N
12:19	SVSP	2	singing	A	100-200	N
12:20	SVSP	1	perched on fence	A	0-50	N
12:23	SVSP	2	flying around field	A	200-300	NE
12:25	BBW	1	calling	A	20-50	W
12:26	NOFL	1	in field	"	100-200	NW
12:26	KILL	1	in field	A	0-50	WS
12:30	BRNS	1	flocking over field	A	0-50	WS
12:37	RUWBL	1	calling from <del>field</del> hedgerow	A	100-200	N
12:46	SVSP	1	calling in field	A	0-50	SW
12:46	WISA	1	calling in field	A	0-50	S
12:56	EVST	5	calling from trees in hedgerow	A	200-300	SW

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

Date: June 24/09  
 Wind B2-3 NNW  
 Observers SKM

PROJECT SITE: SAMSUNG - SUM02  
 Time 11:14  
 Air Temp. 26  
 Cloud Cover (%) 0

Station Number VI 6N  
 Precipitation  
 Visibility clear

JJC

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:14	AMRE	1	perched on wire	A	50-100	NNE
	EMRE	1	perched on electric fence	A	0-50	W
	RTHA	1	soaring	B	200-300	W
	TUVU	2	soaring W	B	500-1000	W
11:20	TUVU	1	perched on wire	A	50-100	NNE
11:24	TUVU	1	soaring over road but	B	700-1000	NNE
	RTHA	1	soaring - observed by RWB2	B	200-500	SW
	AMRE	3	soaring - observed by RWB2	B	200-500	SW
11:25	AMRE	1	calling	A	"	"
	TUVU	2	perched on wire; calling in field	A	50-100	SW
	AMRE	1	soaring in field	A	0-50	E
11:26	AMRE	1	soaring in field	A	50-100	SW
11:32	HOLA	2	agitated side interaction	A	0-50	NNE
	YEWV	1	perched on wire; then flew to stretch line	A	100-200	NNE
11:34	RTHA	1	soaring over woods	B	500-1000	W
11:40	HOLA	1	F.D.	B	0-50	E
11:42	TUVU	3	soaring	B	2000	N
11:47	AMRE	1	flashed E	A-B	200-500	S
11:56	RTHA	1	perched on snag	A	500-1000	NW
12:02	KJLV	1	calling in field	A	100-300	S
12:06	TUVU	1	soaring S	B	7000	NW
12:12	"	"	"	B	"	"
12:11	"	1	soaring	B	7000	W

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Migration Monitoring

PROJECT SITE: SAMSONVILLE, p. 1

Date: JUNE 5/09

Station Number VESW

Time 10:50

Observers SKR

Any Weather Changes? 18° Bz E, Clear, 0% cloud, no precip

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:51	TUUV SNVP	1	scaring SE	B	200-500	S
	RVAL	1	flushed in wire; calling	A	0-50	W
	MONO	1000	in field	A	100-300	W
10:53	ENST	1	calling	A	50-100	N
	AMRO	1	feeding; perched in snags	A	100-200	E
	CHSP	1	calling	B	1	"
10:55	AMER	2	calling	A	200-500	S
10:57	TUUV	2	scaring E	B-C	200-500	E
10:58	"	1	scaring S	C	500-1000	W
11:00	BSTA	1	feeding over house	A	0-50	OH
	NRUS	3	scaring over woods	A	0-50	N
11:03	TUUV	2	scaring over woods	A-B	200-500	W
11:10	TUUV	1	calling	B	200-500	NW
	RVAL	1	mobbing	B	1	NW
11:11	ARVO	1	calling from yard	A	200-500	SW
11:20	BOBO	1	scaring in field	A	50-100	SSW
"	TUUV	3	scaring over field / woodlot	A	200-500	W
11:22	DRNO	4	over field	A	1-50	N
11:27	BOBO	1	calling in field	A	50-100	S
11:29	BACO	3	on edge	A	50-100	E
11:30	REPT	1	calling	A	50-200	S
"	TUUV	1	scaring	B-C	200	S
11:35	TUUV	1	scaring NW	B	200-500	SW
11:40	TUUV	1	scaring over field	B	200-500	NW
	ANCK	2	calling	A	200-500	E

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: June 3/09

Station Number BNC

Time 09:40

Observers SKR

Elevation \_\_\_\_\_

PROJECT SITE: Samsung

UTM: \_\_\_\_\_

Air Temp. 16

Precipitation —

Cloud Cover (%) 0

Visibility clear

Wind Direction \_\_\_\_\_

Wind Speed 82-E

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
09:41	NOCA	1	calling from tree line	A	400-200	N
09:43	<del>LEVA</del> CUSV	1	calling from woodlot	A	700-500	S
09:45	RBNV	1	calling	A	100-200	N
09:46	BLVA	1	calling	A	100-200	N
09:47	ARND	3	calling around creek bed	A	100-200	N
09:48	TRVA	1	calling from hedge row	A	100-200	N
09:49	ARNS	1	scanning over field	A	0-50	E
09:50	SOSP	1	calling	A	100-200	ESE
09:51	RWSB	1	calling	A	200-500	N
09:54	TRDO	1	calling	A	0-50	SE
09:55	KZIL	1	calling in field	A	200-500	N
09:59	CRGO	2	calling from tree	A	10-200	ENE
10:01	GRCO	1	in field; foraging	C	500-1000	N
10:04	GBNE	1	foraging in field	D-C	500-1000	N
10:06	TRVA	1	scanning over field	A-B	200-500	E
10:08	TRVS	1	scanning over field	A-B	100-200	E
10:10	NOPL	1	calling from woodlot	A	200-500	S
10:12	KZIL	1	scanning in field	A	0-50	SE
10:13	GRKS	1	calling	A	0-50	off
10:13	ARND	1	calling	A	200-500	NE

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Migration Monitoring

Date: \_\_\_\_\_

PROJECT SITE: \_\_\_\_\_

P. \_\_\_\_\_

Station Number \_\_\_\_\_

Time \_\_\_\_\_

Observers \_\_\_\_\_

Any Weather Changes? \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:16	TUNU	1		C	0-50	W
10:17	"	4	FLYING	B-C	100-300	N
10:20	ATHA	2	singing on top of tree	A	500-1000	N
10:21	TUNU	1	FLYING	B	100-300	W
"	RUBR	1	FLYING	D	"	"
10:31	GBHE	1	FLYING N to tree	A	100-200	E
10:33	TUNU	1	FLYING W	B	200-500	S
10:36	AMGO	1	FLYING E	A	0-50	W
"	TUNU	1	FLYING W	D	200-300	S
10:37	BOBO	1	singing	A	100-200	W
10:38	GBHE	1	FLYING	B	200-500	E
"	EAPH	1	singing from trees	A	100-200	S

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere

Behavioural Watches

Date: July 14  
 Wind 03 NW  
 Observers SK

PROJECT SITE: SARZUNG

Time 09:50  
 Air Temp. 18  
 Cloud Cover (%) 0

Station Number NE  
 Precipitation -  
 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
09:55	SACP SOSP COPE	4 1 1	2 adults + 2 fledglings in field Singing	A A A	50-100 50-100	N N
10:06	RUB2 RUB2	10	Singing over field	A	100-200	N
10:00	TUNN	1	Singing from mid-air	B	500-1000	SE
10:05	SOSP SOSP	2 5	Singing all around	A A	100-200 0-200	ENE all dir.
10:15	BRGO	1	Flapping	A	0-50	N
10:15	TUNN	2	Singing NWS	B	0-50	04
10:19	TUNN	1	Flapping N	B	0-50	017
10:23	BRGO	2	over cover	A	0-50	E
10:24	TUNN	10	calling on tree	A	7000	N
10:25	BRDA	2	calling over field	A	100-500	NE
10:27	BRDA	1	calling on tree	A	100-1000	NE
10:30	BRNS	2	foraging over field	A	0-50	S
10:33	COGR	1	calling food? flying	A	0-50	E
10:35	BRGO	1	flying over field	A	50-100	N
10:38	BRDA	1	singing	B	200-500	SE
10:44	BRNS	1	flying over field	A	0-50	S
10:51	TUNN	1	singing over field	B	500-1000	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: Sept. 3 / 09

Time 13:03

Station Number VINE

Wind B1

Air Temp. 22°

Precipitation ---

Observers SKM

Cloud Cover (%) 20

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:04	EUST	3	perched in snag	A	200-500	N
13:08	AMCR	4	calling; flying W along river	A-B	500-1000	NE
13:17	"	3	perched in snags	A	100-200	NE
<del>13:27</del>	TWU	1	soaring over river	B	71000	N
	"	1	soaring gradually over field	B	60-200	E
13:31	RBGU	1	flying N to river	B	50-100	NE
13:35	RBGU	1	flying along river	B	500-1000	N
	TWU	4	soaring over river	B-C	71010	N
13:39	RBGU	1	flying over field	A	50-100	ENE
13:40	M000	1	flying SE	A	200-500	NE
13:47	RBGU	1	climbed W along river	A	100-200	S
13:50	AMCR	5	perched on snag; mobbed RTAA	A	100-200	NE
	RTAA	1	flew, perched on snag, then flew away	"	"	"
13:51	SACR	1	flying N to river	B	100-200	W

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Behavioural Watches

Date: Oct. 14/09  
 Wind B 3N  
 Observers S km

PROJECT SITE: SAMSUNG

Time 11:50 Station Number UENE  
 Air Temp. 6 Precipitation \_\_\_\_\_  
 Cloud Cover (%) 70 Visibility Clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:51	TUVU	1	soaring over field in	A-B	0-50	W
	RTHA	1	soaring over field	B-C	300-100	SSW
11:52	ANCR	2	flying ESE	A	0-50	04
12:01	SAPR	2-3	around	A	100-200	ENE
12:06	BUBI	40	flying SSE 1000 in field	A	100-200	ENE
"	"	"	flying " "	"	"	"
"	RTHA	1	soaring over wetland	B	300-1000	SSW
12:12	TUVU	1	soaring along river	B	100-200	ENE
"	ANRO	2	perched in hedge	A	50-100	E
12:20	BUBI	200	flying S	B	0-50	04
12:22	RTAA	2	working field	B	100-200	W
12:36	"	1	soaring S	A	500-1000	E

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



**Behavioural Watches**

PROJECT SITE: SAMSUNG

Date: Nov. 23/07

Station Number VINE

Time 17:55

Observers Sam

Any Weather Changes? ---

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:56	MOGO	20	perched in tree	A	50-100	E
14:01	<del>RBWA</del> RBWA	1	calling from woodlot	A	100-200	S
14:05	AMCR	2	calling	A	200-500	E
14:05	AMGO	5	flying N	A	0-50	04
14:10	SA CR	2+	calling	A	200-500	NE
14:20	RBVO	1	flying; perching in tree	A	50-100	E
14:21	AMCR	1	flying W	C	0-50	014
	RRGU	1	flying S	C	100-200	W
14:25	RBGU	15	flying over field near river	C	100-200	NE
	BWA	1	calling	A	"	S
14:27	BCCA	2	calling on hedgerow	A	50-100	NE
14:33	RBGU	<del>15</del>	flying NNW	C	100-200	N
14:49	AMCR	1	flying W	C	200-500	N
14:52	ABWA-F	1	foraging over field	A	0-50	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere

Behavioural Watches

PROJECT SITE: SHAMSUNG

Station Number VI NW  
 Precipitation ~  
 Visibility Clear

Time 12:48  
 Air Temp. 8  
 Cloud Cover (%) 10

Date Nov. 25/01  
 Wind B3 S  
 Observers S/K

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:48	RTTA	3	soaring in thermal	C	500-1000	W
"	Amcl	1	Soaring	A	0-50	0#
"	Amcl	1	perched in tree	A	100-200	S
13:00	RTTA	1	Perching in tree	A	200-500	N
13:02	NOTA-E	2	Soaring along hedge row; foraging over field	A	200-500	E
13:05	RTTA	1	soaring over field	A-B	500-1000	E
13:05	RTTA	1	soaring over Mt. O'Leary; perching in tree	A-B	200-500	SSW
13:47	NOTA	1	Foraging over field	A	50-100	S

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere

Migration Monitoring

Date: June 4 1009

Station Number VENW

Time 11:15

Observers SKM

Elevation \_\_\_\_\_

PROJECT SITE: SAMSUNG

UTM: \_\_\_\_\_

Air Temp. 18°

Precipitation \_\_\_\_\_

Cloud Cover (%) 10

Visibility clear

Wind Direction WN

Wind Speed \_\_\_\_\_

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:15	WPBA	1	singing	A	100-200	N
11:17	SOSP	1	singing	A	50-100	WE
11:17	SWSP	1	singing	A	0-50	N
11:16	RTHA	1	singing + circling	A-B	200-500	NW
11:18	BODO	1	singing	A	0-50	N
11:18	WVA	1	singing	A	50-100	N
11:21	HOLA	1	on road	A	100-200	SSW
11:21	KELL	1	in field	A	50-100	N
11:23	SOSP	1	singing	A	50-100	SSW
11:23	TUUV	1	singing	A	200-500	NW
11:23	"	2	singing over road	D	500-1000	SE
11:27	"	4	singing over road but then E	B-C	200-500	N
11:28	RTHA	1	singing over field	B	200-500	SSW
11:31	GBHE	1	circling	A	0-50	N
11:34	AMGO	1	circling	A	"	"
11:34	HOLA	2	circling	A	"	"
11:39	TUUV	1	singing	B-C	200-500	NW
11:41	"	1	singing	A-B	100-200	N
11:41	"	1	singing	C	500	E
11:41	RTHA	1	singing over field	B	200	N
11:44	KELL	2	flying around field	A	0-50	W
11:45	TUUV	3	singing over field	A-C	200-500	EE

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAR-135MANG

Station Number VI 211  
 Precipitation ---  
 Visibility clear

Time 12:53  
 Air Temp. 7  
 Cloud Cover (%) 60

Date: Oct 14 / 07  
 Wind B3N  
 Observers SKM

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:55	NOHA	1	working field	A	200-500	SW
13:06	"	"	"	A	100-200	S
13:08	AMKE	1	perched on T/L	A	100-200	NNE
13:15	NOHA	1	Flying S	A	500-1000	W
13:24	ROPI	4	Flying N	A	200-500	SW
13:28	AMGO	1	Flying E	A	0-50	OH
13:30	AMKA	1	Flying W	A	100-200	S
13:31	BLBT	50	Flying "	A	500-1000	SSW
13:31	AMKA	1	Flying SSW; <sup>fly back N</sup> perched in hedge-row	A	0-50	N
13:33	AMKA	1	Flying around GND (diff from above)	A	0-50	N
13:35	RTAA	1	perched in tree	A	500-1000	S
13:39	BLBT	30	Flying SE	B	800-1200	SSW
13:39	RTAA	1	scaring grass area	B	200-500	SW
13:41	NOHA/SMB	210	in fields	A	0-50	all dir.

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere

Behavioural Watches

PROJECT SITE: Samsung

Date: Oct. 14 / 09

Station Number VD SW

Time 13:42

Observers SKM

Any Weather Changes? no change

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
13:44	NOAA	1	working Field - N	B	200-500	W
"	ROPI	1	Flying NNE	A	<del>200-500</del>	W
13:46	EUST	2	Flying N	A	0-50	E
13:52	BLBI	20	Flying NNE	A	100-200	E

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere

Behavioural Watches

Date: Nov. 4/09  
 Wind: 83  
 Observers: SKW

PROJECT SITE:

SAVANA

Station Number: VS NW  
 Precipitation: 9 Night rain e  
 Visibility: clear  
 Flying @ 12:57  
 from @ B: 8

Time: 12:33  
 Air Temp.:  
 Cloud Cover (%): 100

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
12:38	RTHA	1	perched in tree	A	100-200	NE
12:45	NOHA	1	in veldt	A	200-500	W
	ARCR	2	"	"	"	W
12:47	ENST	4	Flying NNE	A	0-50	W
12:48	ROPE	10	on silo	A	500-1000	W
	ENST	20	in field + on hedge rows	A	0-50	W
12:57	RTHA	1	in field	A	100-200	N
12:58	ENST	40	Along about car pasture	A	20-500	W
13:15	NOHA-F	1	working field	A	100-200	NE
13:21	ENST	1	perched on T/L	A	0-50	NNE
13:25	NOHA	1	Flying SSW	A	200-500	W
13:30						

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Migration Monitoring

Date: June 4 / 09

Station Number VISE

Time 10:00

Observers Skor

Elevation \_\_\_\_\_

PROJECT SITE: Sandwing

UTM: \_\_\_\_\_

Air Temp. 13°

Precipitation —

Cloud Cover (%) 20

Visibility Clear

Wind Direction BlW

Wind Speed \_\_\_\_\_

Barometric Pressure \_\_\_\_\_

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:03	REBL	1	along	A	0-50	N
	CUCKOO	1	calling from woodlot	A	300-500	W
10:06	WCCA	1	sat "	A	100-200	NNE
	PUMX	1	foraging over field	A	0-50	E
10:08	RUBL	15-20	foraging in field	A	0-200	W
	SVSP	1	calling	A	0-50	W
10:10	HORN	1	FIJ	B	0-50	SE
10:11	BRNS	1	over field foraging	A	0-50	NNW
	HOLA	2	on field	A	0-50	NE
10:12	PUMX	1	foraging flying high above field	B	0-50	W
10:13	FIJSP	1	singing	A	50-100	W
	AMGO	1	flying overhead	A	100-200	dit
10:25	BRNS	1	foraging along road	A	0-50	W
10:31	AMCR	1	calling from woodlot	A	100-200	NNE
	WOOB	1	calling	A	20-500	S
10:35	AMHA	1	soaring over field, mobbed by AMKE	A-B	100-200	E
	EMST	1	flying 5	A	0-50	E
	AMGC	1	mobbing	B	100-200	E
10:40	CPAE	1	flying NW	A	71000	E
10:43	BRNS	1	foraging over field	A	200-300	S
10:51	TUNN	1	soaring NE	C	0-50	dit
10:52	RAGU	1	soaring NE	C	" "	" "

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere



Behavioural Watches

Date: Jun 24/09  
 Wind B2-3 NNW  
 Observers Skm

PROJECT SITE: Samsung - Sum 02  
 Time 10:05  
 Air Temp. 28  
 Cloud Cover (%) 0

Station Number VI 5E  
 Precipitation  
 Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:05	RBNL	1	calling	A	30-500	E
10:12	RBNL HOUT	10 1	in field, moving around	A	0-100	all dir.
10:14	SVSP TUNN	1 1	P.O. singing	B	0-50	W
10:17	EBRNS	3	foraging over field	B	100-200	NW
10:22	HOLA	1	F.D.	B	0-50	W
10:24	EAST	3	in field, moving around	A	100-200	W
10:27	RTHA	1	scaring S	B-C	200-300	W
10:36	RTHA	1	scaring SE	B	100-200	W
10:40	TUNN	1	P.O.	B	0-50	W
10:43	HOLA	1	scaring	B	50-100	S
10:43	RBNL	1	scaring, mobbed by RBNL	B	500-500	NNE
10:43	TUNN	1	scaring	B	50-100	S
10:44	RBNL	5	mobbing RTHA	B	50-100	S
10:44	ANRO	1	in field	A	50-100	W
10:51	SOSP	1	singing from nest	A	50-100	NNW
11:02	ANRUL	1	calling	A	100-200	W

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: SAMSUNG

Date: Sept. 25/09 Time: 11:24 Station Number: VISE  
 Wind: 1023N Air Temp: 14 Precipitation: -  
 Observers: SKOR Cloud Cover (%): 90 Visibility: clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:24	AMCR	1	perched on tree, low E	A	100-200	N
11:26	GRGR	2	Flung	A	"	"
11:30	BUTR	1	calling from wastot	A	200-500	N
11:31	BUBS	20	perched in tree; remaining in area throughout	A	100-200	N
11:34	SUSP	1	perched on weeds on roadside	A	0-50	N
11:37	AMCR	2	in field	A	100-200	NW
11:44	AMCR	2	flying around field	A	0-50	W
11:46	AMCR	5	flying E	A-B	100-200	N
	BUBI	10	"	B	"	"
	AMCR	3	flying around woodlot; perched on thin tree; perched on trees	A	100-200	NW
12:02	AMCR	2	perched on trees	A	100-200	S
12:11	CAGO	45	flying	C	50-100	S
12:14	AMCR	6	perched in tree	A	100-200	N
	BUTR	1	calling from wastot	A	200-500	NNE

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



**Behavioural Watches**

**PROJECT SITE: SA-01-01**

Date: Oct. 17 / 09 Time: 09:45 Station Number: US 56  
 Wind: B Air Temp: 3° Precipitation: —  
 Observers: SK Cloud Cover (%): 0 Visibility: < 1km

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
10:43	Amck	1	calling in woodlot	A	200-300	NW
10:44	Passerines	30	flying WNW	A	0-50	SW
10:46	RTAA	1	flying E	A	100-200	N
10:47	BLJA	1	calling in woodlot	A	200-500	NW
10:51	BLBE	10	flying ESE	A	0-50	N
11:01	BLBE	2300	moving about fields	A	100-200	N
11:07	RRG4	1	flying N	A	0-50	W
11:16	BLBE	50	flying N to grassy areas	A	0-50	W
11:21	N01A	1	working field, moving N	A	0-70	W
11:22	RTAA	1	soaring over woodlot	A	100-300	NNE
11:27	TWNA	6	soaring generally S	B	100-200	N
11:34	N01A	1	working field, moving E	A	100-200	N
11:39	RTAA	2	soaring over woodlot	B	200-500	NW
11:4						

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Ask Due Date  
with correct case of TIME

Behavioural Watches

Date: Nov 3 1999  
Wind: B 2 N  
Observers: SKM

PROJECT SITE: SAMSUNG

Time: 09:45  
Air Temp: 6  
Cloud Cover (%): 20-60  
Station Number: VE SE  
Precipitation: --  
Visibility: --

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
09:46	AMCR	4	Flying W	A-B	0-50	EA
09:49	RTNA	1	perched in hedgerow	A	100-200	N
09:51	AMCR	1	Flying to hedgerow of the Area C	A-B	200-500	N
10:00	RTNA	2	visiting lower field	A-B	50-100	W
10:08	AMCR	3	in field	A	100-200	W
10:13	RTNA	1	calling from rabbit	A	200-500 W	
10:17	HOVA	1	Flying into con. field	A	0-50	N
10:20	BUBE	1	Flying E	A	30-100	N
10:21	AMCR	2	flying into rabbit	A	20-500	W
10:28	HOVA	2	flying V from con. field	A	0-50	E
10:40	BCJA	1	flying E	A	50-100	N

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C=Above Blade Sphere



Behavioural Watches

PROJECT SITE: Stansbury

Date: Nov. 17/09

Time 11:08

Station Number WSE

Wind B3 E

Air Temp. 5

Precipitation —

Observers skm

Cloud Cover (%) 0

Visibility clear

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:11	RTAD	1	soaring over wetland	B	300-500	W
11:14	BUSA	2	flapping W	A	50-100	N
11:21	RTAD	1	soaring over wetland	B	500-1000	WNW
11:28	AMCR	2	flapping E	A	50-100	N
11:43	BUSA	1	flapping E (alighted in hedgerow)	A	50-100	N
11:47	BUSA	1	flapping V (post some as done)	A	10-200	N
11:54	RTAD	1	flapping over field	B-C	10-200	V

Height Zones: A=Below Blade Sphere, B=Within Blade Sphere, C= Above Blade Sphere



Migration Monitoring

Date: June 10/09

PROJECT SITE: SAMSUNG

, P.

Station Number VDFVN

Time 11:49

Observers SKM

Any Weather Changes? 18% 30% clouds; B 1 N

Time	Bird Species	# of Birds	Behaviour	Height (Zone A-D)	Dist. From Observer	Dir. from Observer
11:49	AMRO	1	singing in field	A	50-100	S
11:52	RUBL	1	perched on T/L	A	0-50	E
11:55	TUVU	1	mobbing	A-B	300-500	SSSE
11:57	RUBZ	1	mobbing	"	"	"
11:58	EUST	2	flying SE	A	100-200	SW
11:59	AMGO	1	FLYING E	A	0-50	OUT
12:00	HONA	1	F.D. 10	B 50-100	→	N
12:01	SUSP	1	singing from fence line	A	0-50	E
	"	2	perched on T/L	A	50-100	W
	RUBZ	1	"	A	0-50	W
12:07	TUVU	1	soaring MNE	C	> 1000	SE
12:09	AOLA	1	on road	A	50-100	W
12:10	TUVU	1	soaring gradually S over field; then back over road	over road B	100-200	E
12:13	TUVU	1	soaring over road	A	100-500	WNE
12:15	BTFO	4	on field; 2P	A	100-200	ESE
12:16	TUVU	6	soaring along hedgerow	A-C	200-500	SE
12:25	"	1	flying along hedgerow	A	100-200	ENE
12:29	SOSP	1	staying from T/L	A	0-50	W
12:31	TUVU	2	soaring over road	A-B	300-500	NE
	RTHA	1	soaring	B	7000	SE
0:37	TUVU	1	soaring over road	A-C	200-500	NE

Height Zones: A=Within Blade Sphere, B=Close to Blade Sphere, C= Well Below Blade Sphere, D=Well Above Blade Sphere



## H3 – Area Search Raw Data



Samsung

March 27/09 Start @ 06:45

clear, few small fog patches, ~0°, B1

① York River → River / Downville Hallmark

Several dozen waterfowl up 6 am

Spike

ARRO → 5000

SOSP ↑↑

HOLA

SNVP ~11

REGA (unsure over snip) 2 obs.

CAGO

After 9

② River / Downville Hallmark → Lakehouse

ARRO

HALLS

EVST

ARRO

COGR

Emilia site

to 20-50

spings from lake

one spike (see p. 2)

HALL

③ D. M. ... → Sucks Cones R.?

Buses on lake (Flora, no plants)

to CAGO KELL NICOTIN on ice

CORGE NALL

CAGO HALL

spare

④ Scott's → Beans

EVST

ARRO → 1

to 5000 on lake ...

HOLA

ARRO

REGA

⑤ ... → ...

JUN MODO

REGA ARRO →

HOSP HALLS

⑥ River → ...

REGA

REGA

REGA

REGA

⑦ ...

ARRO

REGA

REGA

REGA

⑧ S ...

HALL

REGA

REGA

CAGO

Cayuga St 20 → Atkins

Stack → 2

Amro

RuBl

CoGr

Sosp

Atkins Lakeside

Coyote

NCA

Arch

Susp

NCA

Letu → 20

RT 11A

Burns R.R.

East

CoGr

RuBl

Amro

Sosp

Thru - 2

RT 11A

Fisherville

RuBl

Sosp

Amro

Libero

RuBl

Sosp

Amro

Libero

Arch →

Sub R.R.

Amro

Sosp

East

AOSP

East

Amro

40

Starling

08/27 → Evening  
Rushville Rd

→ Flock of 20 CAGO on field

Amck  
Amck  
Amck

Lakeshore Rd

OCCO  
HGGU  
RBGM  
CAGO

) Flocks on field

BOGU → scattered ind.

Monarch →

kill a shore

BEKE @ creek

5 peeps → black legs / black backs

None

08/28

Morning

~15°

BI

overcast

v. light precip (spitting)

08:30

06:30

4-5 Anck flygs

17000 ||

HOLA - ~15 on field SW of Rebeck.

RTHA

2

0700

AMCO-5  
MOO 0  
EUST -15

AMKE

3

CON 4 R2

CAGO-2 Flying S  
AMPO  
MOO0 N 15-20 scattered  
AMCR-2  
KILL N10 a km in front of FETTO  
+RES  
NOMO  
NOFL  
BEKE → over creek  
AMGO

4

CON 3 R1

MOO0 → N 50-100 on T/L  
GBHF in creek  
PURA  
EUST -15 FIELD  
NOMH - over  
TURA-2  
KILL  
SOMER in field

5

Bans R1

0700  
0700

BLBA in com

S AMCR in Field x 2

AMKE → Flying

COHA

MOO -3

NOFL

BLTA-13 @ Bans + H/Dum T/L

~~AMPO~~ COHA in lead 6+

⑥ MEADOWS RD 08:31

GRCA  
RTHA - III

TWU

BLJA-4

REU - 15 on lawn

NOHA -> in field (near VENC)

+ over field on REU

COHA @ Richard + River Rd.

⑦ River Rd. 08:48

AMKE

AMER -> S in field

WOM on marsh

TWU

Non

Note TWU in field @ Sunset H/D near T/Linc  
↳ 3 adu; 4 fledglings

Non

⑧ Lakeside Rd. 09:20

NOFL

REU - 5

WCG x2

BOGU / REU -> scattered flocks

BOGU

note Red Fox (just before Knight's Beach)

WAGO ->

9°C 0% cond 30

① Hamburg Rd 53 08:42

AMCR  
MODO - v10 on T/L @ Con 4

NOAA on field  
SAGE @ lake

② Fisherville Rd.

AMCR on T/L

NOAA flying in circles over field

AMCR - 10 in field @ Con 3

GBHE along creek just N of Con 3

EMST - 15 on T/L

KILL

BLSC - 10 in tree @ Con 5

③ Kottler Rd 07:27

NOAA - Juvenile perched in tree

AMCR in field

SVSP

RTAA on snag in field

→ KILL on shore → lots → Birds ok to observe

→ Gulls on 120

→ swallows along shore

→ NOAA

BLSC  
Long-billed  
Least 2 spp

④ Streets Corner → 08:03

~ 12 gulls flying N  
NOAA, EMST, SVSP



⑤ Richey Rd. 08:13  
NoHA  
Skulls  
Arche  
EUST → chicks of 20  
M000-3

⑥ Lucy / 50 08:25

EUST-10  
Arche-5  
RTHA II  
NoHA II  
EUST-20 on TIL

~70 CAGO flying SW, above B.S. > 1000 SE  
3 Arche in field

→ Kill, peep, gulls, deco

⑦ S. Cayuga Rd. 08:49

→ 8 WTH on field edge of marsh  
↳ near RAT HILL

RTHA 7 in field

6 Arche ~~in~~ @ 20

⇒ ~200 → SE in fields around field

⑧ Hill - 1/2 mile from 09:13 near 18°E  
RTHA II

⑨ 09:25

3 Arche in snag

SAM SWNG

Sept 25/09

EW roads

12°

10% c.c

B1, N

① 49 → 07.10

AMER - 3 Flying E  
- 2 in tree

BLJA

② Lakeshore Rd. 07.15

MODO

NOCA, PCCIT

EWOT - 6 in tree ; 15 in T/L

BONGPARRIE'S Gull - 30 on lake

CAGG - 70 Flying E, low (at tree height)

- 15 Flying SW; high

- 10 on lake + 15 + 50 + 20 + 50 (to Beckee)

Gulls - 20 on lake ; 60 on lake @ Reichold ; 120 on lake

KILL - 3 -- low + 2

2 on lake + 2 + 5 + 5 + 5 (Munk's Park)

AMRO

GBHE on lake @ ~~Reichold~~

CATE

COMG - 3 on lake

BEKE @ mouth of Vandell's creek

GBHE on lake @ Disiples

COMG - 7 on lake @ Sweets CNR

BLKT @ lake @ Reichold

Greater Yellowlegs x 2

GBHE → Flying E, low over field

Note: Bat Manibony visit gone

→ 20 KILL Flying E

③ Can 3 RJ → E-Dome  
08:38

MOOG - 10 on Field + 2 + 1 + 5  
ALDI - 5 - 60 on Field + 25 + 20 + 30 + 20 + 60  
BLJA  
AMRO  
AMCR - 3 on Field  
RTAA EAME  
TUVU - Tower VADAT  
KELL - 3

④ Banks RJ. 08:51

BLBI - 40  
AMCR - 1 + 2  
TUVU - 2  
BLBE - 30

⑤ 09:11 New 60% cloud New B3N

ALBI - 100 in com Field + 20 + 10 + 10 + 5 + 30 + 20 + 4  
MOOG - 2 + 1 + 4 + 1  
AMCR - 4  
TUVU - 2  
COHA - 2  
RTAA

⑥ Can 6 RJ 09:35

AMKE - 2  
BLBI - 20 + 1 + 2 + 30 + 15  
AMCR - 2 + 3 + 2 + 4 + 1  
MOOG + 1 + 1  
NO HA

⑤ Con 3 RJ. 09:40

MOJO +1+1  
BLBI -10 +10  
TUVU +1  
RTHA +1

⑥ Con 4 RJ. 09:55

BLBI -3 +2 +40 +6 +5 +6 +4

Sparrows -3 +1

RTHA

AMCR -2

TUVU -1 +1

AMKE

BLBI -60

⑦ Meadows RJ. 10:00

AMCR -1+2

COHA

AMGO

BLJA

AMRO -10

SUSP

MOJO

⑩ River RJ. Eastbank 10:30

AMCR

MOJO +2

EUST -4 +50 (BLBI) +100 +4

AMGO

RESP

DOLO

NOHA -2

AMCR -4

BLBI -50

Sept. 30/09

SAMSUNG

no precip.

7°C

B2 - 3

90% cloud cover

① 49 06:54

Raccoons (2)

BLBI - 3

SAVS sp - 1

② Half Dunn Pointe 07:06

CAGO - 14 flying SSW → H<sub>1</sub>A

AMCR - 3<sup>rd</sup> - perched in trees

MOJO - 2

CAGO - 3 flying S over

H<sub>1</sub>A - C

③ S Cayuga Rd. 07:20

BLBI - 35 on T/L + 20 + 20 + 50  
NOCA

MOJO - 3 + 12 CAGO - 20 flying NNE → B  
→ 30 flying E - A

SAVS

HOSP - 10

WOW on lake

DECO

Greater black-backed Gull

AMCR

CAGO (12)

COGO - 8

GRHE

AMKE

4) 50 07:58

MOGO + 2  
BLBI - 10 + 9  
Amck - 2  
Amck

Raccoons - 2  
sack - 3 along in Field (A)

CAGO - 10 Flying E along river  
RTHA

5) Sube Rd 08:17

MOGO - 2  
Grey Squirrel  
Amck - 2  
BLBI - 30 + 50

6) Richard Rd 08:28

RRGM NOHA  
LAKE RTHA x 2  
swallows ~~30~~ 60 in field

7) Wilson Rd 08:35

CAGO - 40 Flying W to low  
- 2 Flying N to river - 1  
NOHA  
BLBI - 50

River of Blackbirds - 200 flying low over tree

8) Sweets CNR Rd 08:44

NOHA  
Amck  
TREES

BLBI - 10 + 13 + 8 + 7 + 7  
MOGO - 3

Raccoon - 40 in lake

KILL - 5  
Greater Yellowlegs  
BOGAL - 50

CAGO - 20

MA: - 15  
CAME

9 Kohler Rd. 0102

BLBI - 30 + 10 + 20 + 15 + 6

MOON - 15 + 3

Swallow - 20 + 20

CAGO - 2 flying SW - C

10 Fishersville Rd. 12 01:00

BLBI - 10 + 5

AMCR - 4

MOON - 2

AMKE

Non  
Lakeshore

BLTA - 8

Gulls - 10

NOFL - 2

AMKE

Non

11 Erie St. 01:37

53

Bi-BI - 15

MOON - 2

Swallows - 40 + 20

TUVU - 2 + 3 + 2

Sept. 30

SAMSUNG

EVENING

12°

40% c.c.

B3-4 N

①

CONG

17:23

NOHA

CAGO - 70

Flying

ESE, landing in field; A

→ 150

in field

on 6

just used  
week

BLBI - 2 + 2 + 10

MODO - 2 + 1

AMRO - 2

AMKE

RTHA

②

20

17:28

RTHA + 1

NOHA - 2 on fields (flying)

NOHA

TUVU

AMKE

MODO

@ 20

near Ricketts

BLBI → several hundred in corn field, moving  
between fields & woods  
→ easily 4-500 in area  
maybe 1000 in general  
area

→ 100 + 15 + 100  
+ 50

Barred owl heard calling - birds @ Hald-Dunn i-line.

③

River Rd.

17:58

HOSP

BLBI - 30 + 20

AMER - 3

→ river of BLBI @

bin ↓ +

50

Letting  
→ several thousand in area

BLJA

HECA - 20

MODO - 5 + 3

another couple  
hundred

@ Ricketts + Dunn

④ Con 4 Rd. 18:27

MOOO - 2 + 5 + 2 + 11 + 30 + 8

Sparrows - 15

⑤ Lakeshore Rd. → several flocks on lake

RBL-4

Gulls raking ~ 100 on lake

Ducks

COGO - 0

NAUL - 3

MOOO

CAGO - 1

SAMSONING HALOJIN AND PROJECT

Feb 4/10

08:30

clear

10% cc-

N - 5

By

light snow cover on fields

① Con 6 R2 08:30

AMCR - 3rd - perched in hedge

NOVA - 4

EUST - 2 + 15 + 10

RTHA

W2 Apter

AMCR - 1

DLTA

② 08:49

ROPE - 4 in barn

GUST

perched 50

AMCR - 1st - perched in tree

RTHA - perched in tree

EUST - 10

NOVA - 5

RTHA - perched @ edge of woods

③ Burns R2 09:17

NOVA in hedge

AMCR

EUST

④ Con 3 R2 09:35

EUST - 3 + 1 + 3 + 10

COVA perched in tree

RTHA - 11

AMCR - 1 Apter

WBVA

Even - 20 perched in trees around barn

⑤ Con 4 R2 10:05

AMCR - 2 perched in tree 5

GUSA + 2 + 15

AMGO - 15 - Flock flying

RMAA - 2 perched in tree @ edge of woodlot

BLDI - 10 - flying

MOOO - 1

AMCR - 1 perched in hedgerow  
L + 1 + 2 + 5 + 1

HOCN - 2 in tree

MOOO

⑥ Con. 3 R2. 10:33

Note: lots of hawks (~10) moving on woodlot bin 5 + 4 +  
→ one = couple head in track  
+ another couple crazy box in track bed

RMAA - perched in tree

EUST + 20 perched on VLA RU

RMAA perched in tree @ edge of RU

MOOO  
BCCA

⑦ Lakeshore R2 10:38

→ freeze ice flow on lake.

→ some channels

→ waterfowl present in open areas.

→ flock of 20-30 geese @ edge of ice @ 171 location.  
→ flock of 20-30 rump.

→ MOOO

@ 857 Lakeshore R2. ~100 CAG O  
~10 swans

→ ~10-20 King Ducks

 **HATCH**™

Lakeview Rd (cont.)

@ 1100 ~ 200-300 waterfowl in bay

CAGO  
3 Sams

@ 1533 4 CAGO  
4 MALL

Back on H2O  
@ 16511 CAGO - 200 along shoreline

Part 3 CNR Rd

3 HOSP

RTAA perched in tree further back.

@ Austin Park  
~ 200 CAGO  
~ 2 Sams  
~ 2 Sams

@ 2441 75 CAGO

AMCR - 4

RTAA - 1 perched in tree

BLJA - 2

8

49

12:00

AMCR + 3 in flock

↳ 1

AMCR

9) River Rd. 12:12

RTAA - soaking over loadst - B

NO SP-7 in helgeer

EUST →

3 AMCR mobbing RTAA + 1

BECA

AMCR - 2 + 1 + 1

EUST - 2 + 1

AMKE

→ all stay @ 1414

10) Richard Rd. 12:39

AMCR - 3

EUST - 4 + 20 on house

AMKE

11) Mt. Olivet Mercedes Rd. 12:43

RTAA

AMCR - 2 in field

+ 2 flying around RTAA

RTAA - perched in tree

EUST - 30

ROPP - 20 + 7

NO DO - 2 + 2

morning - ends @ 5:55



AFL. => B 2-3 ~ 2° ~ 50-70% acc.

12

B:54 Kings Row Rd

N50 East on Field S of road

13

Hall Dunn T/Line 2:15

EAST - 15 on basin

RT HA - 1 soaring V - B

DEJU

EAST - 20

AMTS - 10 in hedgerow

AMCR

NOSH - working field

AMCR - 2 flying W

RT HA - 2 soaring over woodlot just N of 20

EAST - 10 on ground

RT HA - 1 flying W to same area as - A  
+ N over woodlot.

-> All Apple working

14

S Cayuga Rd 11:43

AMCR - 1 flying W - B

AMCR - 1 perched in tree

EAST - 20 on basin in S Cayuga

NOSH - just S of Rainbow Rd

15

50 / Warren 1 5:09

AMKE

RT HA - 2 flying S low over field

WITWIT - 35 on field, S of 20, S of 50

16) Suber Rd. 15:33

RTHA

AMER - 6 flying N

HOSP - 7

AMTS - 3

17) Wilson Rd. 15:49

RTHA

18) Swick EVER Rd. 16:00

GUST - 13 flying N - A

+ 200 perched in trees & flying N from community @ int. E Road

now

Swicks are TRSW

Wakeshore

SWEP → common in lake  
~ 30-40 obs.

19) Kohler Rd. 16:23

NOHA - 1 flying E - A

RTHA - soaring near road → A

HOLA - 2 - flying over field

RTHA - perched on tree + IL

WITN - 1 on field at road

905-383-3555

Sold

Large C  
Gc. Pepper  
Pineapple  
Mushrooms  
Onion  
Prep. on 1/2

(20)

12

15-46

EUST-80 in faces in RU

(21)

17:06

RTHA - perched on 4L

RTHA - perched @ edge of road

DOW

RIBEN - 1 flying 5

ROPE-6

EUST-10

RTHA + 40 EUST → perched in early, successful road to  
just N of car 6

RTHA - perched in face

ANKK = vole on T-line just ~~edge~~ of car 8

Feb. 25 / 10

SAMSUNG

-5°C  
100% cloud  
B 2 NL

light snow

① 1497 07454

HOLA - 6 on shoulder + 8 + 2 + 5

Hatch  
AMKE

North - 1 taking field to E-A

AMTS - 3 on shoulder

② Lakeshore 0802

BLSA

AMKE

~50 CAGO on field just N of road @ 2499

+ 50 along road

+ 20

→ study animals on field

~100 along ice edge on lake

MALC-4

Scalp - 10

CAGO → ~60 in bag @ 2500 Lakeshore

COME on lake

Cont: BBGM + 1

CONG-P + 2

MERG → 11 RBMCIS + 1 CONG @ A-stn. + 15 CAGO

+ 2 CONG + CAGO → @ 2069

+ 20 CAGO

From Baker

CAGO-70

LABS G - 2

DOGA-ABEN

MALC-2  
COMB-6

COGO-2

- Redland - 10

CAGO - 70 very small

} e sweets can

HOUT

MALL-5

MERG-20 in bay 1465

Scap - 60 e 1437

CAGO-30 - bay

COMB - 20 e 14112

BUFF-3

⇒ 0 = roller e 8-14

③ 20 09 26

AMCR-3

CAGO-6 flying in → A + 2

HOUT-4 flying in

- 1 on shoulder

DOLO

AMCR

CAGO-70 in field N of bay ↓  
HOUT-5 on shoulder + 8 + 3 + 1

AMCR

AMCR-2 on roadkill  
L3 in corn field + 5

+ 1

ROWO

RTHA

AMCR

④ Con 6 RJ 10:01

AMCR +2 +1 +1

HOLA -2 +2 +1

DEJU

CAGO -2 RJ's ; A

⑤ Con RJ 5 10:16

AMCR - 5

HOLA - 2 on shoulder + 3

AMCR  
EHSI - 30 on T/L in PV

Shaw ended

⑥ Con 4 RJ 10:35

AMCR - 2

RLHA - dark adult over field B

L + light adult in tree

AMCR - 4

HOLA - 3 + 10 on shoulder + 5

AMCR - 5 along side ahead + 1

⑦ Richard RJ 11:08

HOLA - 3 on road

SUBU - 15 in field near road

RLHA, RTHA perched in trees

L + 1

⑧ River Rd 11:16

Northern Shrike @ B70

AMCR - 3

→ skunk crossing rd.

RLHA

RTHA

⑨ Meadows Rd 11:49

Amcr - 2 Flying N - A

+ 1 in field

+ 1 flying S, A

+ 1 perched in tree.

EUST → 36 → in front of house in grass

HOLA - 1 on field

⑩ rd. over Rd 11:59

RTHA - perched on TIL.

⑪ Dams Rd 12:02

EUST - 15

AMCR - 1 + 1

AMTS - 4

RTHA

RLHA → 2 flying over field, A @ 6:47

HOLA - 6

AMTS - 4

Non  
Lunch @ 12:25

(12)

Con 3 Rd 12:43

AMCR-5

HOLA - 8 on shoulder +3 +5  
+15 +2  
+10 +2  
+20

ROPE - 6 on Barn

RTHA - 2 in tree

EUST - 2

DEJU - 2

RTHA - working drill

AMCR - 4

(13)

Lakeston Rd to Kohler 1:07

BUFF - 3

MAU - 4

CAGO - 200 along Lakeshore  
+80

AMCR - 4

RTHA

MAU - 1 in 1500 + 1 Redkey

ROBU +1 +1

TUG - 3

REK - 6

CAGO - 5 +4

Roller - 4

MAU - 10

CONG - 4

TUSU - 12 in 1500 @ 6:13

CAGO - 20 in 1500 @ 4:21

AMTS

AMBD

CAGO - 20

AMCO - 10

2nd yr B.E @ 2441

(14) 1:56, 2nd yr B.E @ 2441  
~500 CAGO  
on field near

H-D  
Time



14) H-D TLine 152

EUST-20 on walls

HOLA-3 on shoulder  
+15

RTAA.

RTAAA

15) S Cayuga Rd. 2:13

AMCR-3 + 2 + (in field)

HOLA-5 + 2  
SUB-1

RTAA draping over field → A

EUST-20 on walls.

16) 50 2:31

AMKE

RTAA-2 patch @ edge of walls.

HOLA-8 + 2 + 5

AMCR + 1

RTAA draping over field - A

show again 300

B 4

17) Sutor Rd. 2:52

RTAA-2 draping over field's plating. → A

AMCR-3 strip + 4

Spacers → 3 in walls.

AMGO-10

NOCA

AMTS-3 + 1

HOLA-20 on shoulder.

18) Wilson RJ. 3:04  
ROPE - 15 u. bron

19) Streets CAR RE.  
RTHA  
ROPE - 6  
NOVA - 15 + 10  
SNUBA - 12

20) Kohler RE 3:25  
EUST - 818 + 10 E, A + 2  
NOVA - 15 on 3rd floor + 8 + 10  
RTHA  
NOVA → 17 on 2nd floor

21) 3:45  
EUST - 3  
ROPE - 6  
SNUBA + NOVA → mixed floor = 40  
NOVA + 8 + 11  
RTHA  
NOVA - 2

(25)

Setting Line 1/86

End of 1/86

SAMSUNG - Sept. 3/09

10°C 0% c.c. B1

① Woodlot @ Meadow + Sutor 06:40

~~side~~ RTAA BCHA  
AMCR AMGO, flying overhead  
DOWO BUSE  
BJA

② Meadows wetland Woods 07:10

BCHA-11 → many BCHA  
AMGO ATAU AMGO-11 C-BA

③ River Rd. 07:24

↳ trees along edge of marshland.  
→ Flocks of ~20 flocks of BUSE  
moving along river  
→ AMGO ATAU BJA

④ Woodlot @ S Cayuga River Rd

MAGNOLIA 07:43

~~BJA~~ CRCA HOWTern  
DOWO Warbler  
LNUV AMRE

groundhog, opossum

⑤ Baths RJ. E end  
08.38

RTHA  
AMCR

→LE-16

LE-5A

SEPL ⇒ 26

Notes

Morning

100% cloud  
N-1 PC  
B!

Start @ 06:35

① River Rd → Jack /  
RTAA AMER - 2/2 10:30  
AMRO - 2 11-a AMKE W? W/AM  
SOSP - 2 - a NOCA EVST  
WSP CAGO - 11 (1.00 AMER)

② River Rd → To a 2  
CAGO - 2 → Giving loc over AMK  
→ 3 over AMK  
RUBEN on ~~AMK~~ later water →  
W → 10-15 → 30 x 10 on water

RUBL - a  
AMRO - a CAGO  
COGR - a RTAA  
LJI - a NOCA - 0  
ROGR - 9 AMER - 2  
DETH AMKE

③ D-H → 20

Area RBW 10  
 RSGM-15 - SOSP  
 NOCA AMRO  
 EUST-5 COGR - 15  
~~10~~

④

EUST-15 AMCR-11  
 RSGM-8 SOSP  
 a → RUBL, COGR  
 ROLI NOCA

⑤

Banks Rd

RSGM → 200 on land  
 RUBL → a EUST-a  
 AMRO-11 KILL-2  
 CAGG-8 NOCA  
 RSGM-7 + 5 → AMCR-3  
 RLHA x2 RLHA

⑥ D-D / Aliens / No Lake Shoreland

EUST-40 RSGM-6  
 RUBL-a WOOD-P  
 NOCA  
 AMRO  
 AMRO  
 NOCA  
 RSGM

⑦

LAKE SHORE

Water channel → Clones of <sup>MS</sup> ~~Merger~~  
 Along along ~~MS~~

Scattered Buses + Corns  
 AMRO Fungus  
 COGO  
 CADV

Large Flea ~ 20-30 → common in  
 (AMRO) RUBL  
 (R BNE) RSGM  
 common all along  
 of Lake

BAEA  
 MALL-P  
 GBHE  
 COGO-2

⑧ Svetitskaya Rd.

RBCU-50	
EUST-a	SOSP
RUBL-a	AMRO-a
CAGO-2	KILL
	LTAA

⑨ Mt. Oirat Road

EUST-a	RUBL-a
AMRO-a	KILL-3
AMCA	RLAA
TUVU-2	

⑩ Sutor Rd.

RUBL-a	Raccoon
DETU	skunk
AMCA	co. squirrel
EUST	

⑪ Mearns Rd.

RBCU	RLAA
AMRO-2-a	TUVU-1
KILL-2 + 1	KILL
RBCU	AMCR-2-13
BLTA	
CAGO-4	

⑫ Yacov Road

CAGO-4	SOSP
RUBL	RLAA-a
RUBL	KILL-3
EUST	AMRO-a
MOD	RUBL-a

⑬ S. Canyon Rd.

AMRO-a	EUST-a (SOSP)
KILL-3	AMCR-a (S. 50)
CAGO	RUBL
RLAA-a	AMCR
RUBU-10 on hill	TUVU

No. ....

Date ..... Page .....

14	D.R. TLP
	TUM-2
	AMRO-2
	RTAA-1

No. Samsung .....

Date April 8/09 .....

20% cloudy

Evening

6°  
83 W

① Lakeshore Rd.

BUFF → 4 (S. side)

↳ lots along shoreline

ABME COME OVER

lots of fossil present on buff

MALL AMCR

BUFFS general caving

CAGE MALL

20 BOGU Along S low  
near Rock

Several fossils of 30-35 BLOT  
on folds

14 ② Bains Rd.

BLBI (check)  
CAGO 210 on field  
RSGU 20 still @ Wilson/Bains

RARC, RLBE,

③ 20

GBAC, Flying S

④ RARC

4 TUBS on field  
just Solcon?

210 ~~still~~ RSGU 20 still  
Several smaller ones over

RNDW still on inlet  
Several RLBCU on field down

lots of Bains - Wains

SWAN place  
also

Several CAGO on small  
drainage area

2 BLTE

2 SACR

1 2 flying over

RARC - present on wet

No. Samsung

Date..... Page.....

Apr 23 109 5/6 2' B2

18.35 Lakeshore Rd.

RUBEN RENE

Some sig sign on lake

BPGU still present

RBCN on wave  
frozen

occ. small CACO P  
scattered

AMRO in  
mud  
SOUTH  
RUBEN

GRUBS

USO PPS on lake  
near lake

SOSP AOSP

Now

Bank rd. 18.52

AMRO THUN

OLSA  
CUST on  
HILL P

No.....

Date..... Page.....

Full Rd 19/24

CACO in area GAB MIO

WPU

RUBEN EAST CACO in

HOSP

RUBEN (2)

RUBEN TUBO

EAST RUBEN CACO in

SMALL  
THUN

OSPR not on lake  
near lake

CACO in area

NOPI in area

down

lots of  
RUBEN

Apr 27 109

5° 30% cc 133

06:00 River R2.

AMPA - NOLA BETA ACCT - a

NOCA - AMCO

RVAL - COGR - a RTAA

MAH - EAST - a SUSP

March - AMCO RVAL AMCO  
COGR - a

GATE AMCR RVAL use in  
NON field

06:33 S. 1000 ft

SUSP RVAL BOSP RVAL - COGR

NOCA - EAST AMCO KELL

GATE (11) RTAA II

LTSP AMCR AMCR No 50

RTAA II LTIU-6

07:10 1000 ft

RAME - COGO (11) COLO (11)

BPGU - RAGU ACCT (SUSP)

a - AMCO - EAST COGR

GAGO MAH KELL

NOPL-7 TRES NOPI

ACCO P. 1000 ft 1000 ft

COGR COGR - 2

Capra Test

NOPI

07:10 1000 ft

a - EAST AMCO COGR

AMCO

RVAL - 10 on field

NOPI

SOSP SUSP - a GAGO RTAA

NOPI

AMCR

RTAA

NOPI

SUSP

08:07 Meadows Rd.  
 a  
 BACO AMRO NOAL  
 COOR - a FISH CACO - 1  
 GUST - a

08:20  
 P. L. L. Rd.

BUBL GUST COOP - a

HOP ALTA NOAL

HOSP SOSE SUSP

Now

release from today to  
 Sunday

08:35  
 Meadows Rd.

AMRO - a COOR - a

ALTA - a GUST

NOAL BRCA SUSP - a

ALTA FLSP.

08:57 50

COLO  
 GUST - a  
 AMRO

COOR - a  
 FULLY  
 RUBBL - a

09:00 S. (page 9)

WALL  
 DIVISION (2)  
 BACO - a

ALTA  
 HOSP

AMRO

AMRO  
 GUST - a

CACO - a  
 COOR - a

ALTA  
 TULLY

09:40 Subor Rd.

ALTA - a

AMRO - a

COOR - a

GUST - a

SOSP - a

RUBBL

No. Samsung

Date MAY 11

Page

05:33

Morning

0-19

R1

Clear, patchy fog

① Richard Rd. 0

HOLA-a

BOCH

HOLA

SOSP-a

DOLA

RUBL-a

AMRO

MOO 0

SOSP-a

CASP

TRES

WTSP

KOLL

BATA

RTHA

VELA

EMBE

CAGO

AMGO

EUST

② Lakeshore

Rich →

05:51

AMRO

TRES

VELA

Some activities  
come

COGR

HOLA

NOBA

~~NOBA~~-a

MALL

EUST

RTHA

NOFL

SOSP

No.

Date

Page

③ [50]

06:01

COGR

EUST

RUBL-a

MOO

AMRO

VELA

LATA

RTHA

MALL

BAOL

SOSP

EUST

TRES

SPSA

RTBA

HOLA

SOSP

AMRO-HOB

VELA

DOLL

④ Meadows

06:31

BOBO

VELA

TRES

BAOL

RUBL

NOBA

EMBE

RTBA

AMRO

AMCR

EUST

HOLA

AMGO

CAGO

EUST

LEVE

GRIZ

RBOA

ROPE

VITA

(8) 301 0558  
 EAME AMRO RABL CAGO  
 COGR EUST AMGO SOSP  
 .70

(6) SUTOR 0705  
 EUST SVSP EAME  
 BCUA -KWA AMWA  
 BOBO ~~AMGO~~ SOSP

(7) 0726 E Boundary  
 EUST RUBE ROIR RABR  
 AMRO HOLR SVSP RCUA  
 BLJA BHLO KELL MALL  
 NADO RBGB COGR SOSP  
 CHSP

(8) 5 Canyon Rd. 0756  
 TRES KELL SOSP RUA  
 EUST AMRO MWA CRCA  
 LETU SOSP

(9) River Rd 0810  
 HOLR AMRO RUSA RUAL  
 MKE SOSP MODO CSEA  
 KELL BOBO CRCA AMGO  
 FOSP HUR LCSP VBLE  
 CUTE BRTH BRUS

(10) Bojins Rd. 0847  
 SOSP UKSP RUSA CHSP  
 RUAL TUVU EUST AMAG  
 MODO KELL NORL PUFF

① Lakshya R? 09:10  
 b. ... → 10

ME	HECU	OCO	RUBL	CHSP
SOSP	MAU	AMRO	COGR	BURP (3)
CAGO	GBAE	BWNS	CATE	ROCM
HECU	SEPL			

④ Lakshya R? 19:14

EUST	MORO	RUBL	AMRO	HECU	CATE
AMGO	GBAECL	COGR	GRCA	RINE	TRCS
YAWA	CAGE	MAU	CHSP	RBCU	

Evening 17:10

② Bains R?			
HOLA	RUBL	NOGA	RITA
TUVU	AMRO	SOSP	DOUO
<del>MAU</del>	MORO	KILL	NOEL
SOSP	GUST		

⑦ 20 18:14

AMCR	SOSP	RUBL	AMRO
HECU	FUNE	ELINE	MORO
BWNS	CHSP	CAGO	AMGO

③ River R? 09:15

YAWA	AMRO	COGR	RUBL
AMGO	BCKE	SOSP	MAU
CAGE	CHSP	MORO	NOGA
PILVA	AMRO	BODO	EUST
CAGO	KILL	SOSP	HOLA
WRWS	SAKR	BWNS	

4/10/6  
 var. class

No. Samsung  
Date May 17/09

Page

Wayd bt	clear, 3°, 20		
① N	Dumale-Human	Tourline	
	05:37 - 05:51		
SOSP	NOCA		
WOTH	NOUR		
AMRO	GRCA		
BCCH	COYE		
② N	Sub rd.		
	05:22 - 05:21		
RBVIO			
BCCA			
HOVR II			
AMRO			
③	Sub + 17 roads	05:23 - 07:12	
RBVIO	AMRO		
GRCA	RIWA		
GRCA II	BITCO		
SOSP	AMGO		

No. ....  
Date ..... Page .....

④	Richard Rd.	07:31 - 07:56	
PLRT	HOVR	RBVIO	TRWA
YELVA	BLWA	AMRO I	
CHSP	WOTH	GRCA	
RBVIO II	BLWA	RBGR	
⑤	08:16	08:48	
	Bains rd	W Long	
RBVIO II	BOORP	SOSP	
HOVR II	AMGO		
	09:10		
⑥	08:39	30	+ Bains
COYE	YELVA	GRCA III	RBVIO II
NALA	BBR-P	HOVR	
⑦	09:13	09:35	30
SOSP	AMGO	AMRO	GRCA
TRWA	NOCA	WOTH	

No. ....

Date..... Page.....

(8) S Campaga Sd. RI  
1/1 → construction

(9) S Campaga 1 Bang 09:34

OVGN RRGB EUPW BCL  
BIGW NALWA MGO

No. SAMSUNG -Sun-08

Date. June 24/09 Page.....

Dusk Search Sat 19:50

~~0/20~~

SPGM + RBME  
Lack present on lake

No. Samsung  
Date Sept. 30/09 Page

1:00 5°C BLN  
70% c.c.

Disciples Conference Ground

BLJA  
CAGO

07:20  
Pat LAE

SSHA BLJA

07:51 Basing HI-D TL.  
to S. Camp

~ 50 CAGO  
- RWIA - II  
- JOSP - I  
- BECA - III  
- UTSP - III  
- BLJA - II

Dovo - I

(4) 08:26 → 8:59  
S. Canyon to 50

No FL x3  
BLJA COVA

(5) 09:20 Meadows / Wilson.

BLJA-III  
AMGO

(6) 09:40 → V. Hanz on meadows

AMGO several

RTHA

WTSP Flk 10-15

VIAVI-P

ANCR

WSTU-4

MOVA

BCHT

RUGR

(7) 10:06 → Bat ≈ 5 E

AMGO

BLJA

GRKA

SOSP

YBSA

mixed Flk 10-15

CCRP

CEOW-P

NORL

HAUD

YRWA

c.c. 40%

B1

Temp. - 0°C

(1) Bains Rd.

DEJU-11

ANCR

ENST-12

07:17

RTHA 11

CAGO-12 Aug EJA

(2) Conc. 3 NA

RTHA 11+1

HOLA

MOGO -4 +7 +10 +11 +13 +3

ENST -5 +20 +30 +20 +18 +7 +2

CAGO -4 Aug SJA +15

ANCR 11/11

EPHE

ALBE -15 +5 +30

KOPE -2

07:40

(3) Lake Shore Rd.

ANCR

RSGW +10

EPHE

BOGW-30

08:09

Amph. Caen-4

CAGO-100

Lakeshore RI (Cont.)

BOGU-40 + 70

DECO-7 + 5 + 5

RANON-100 v. 200 at shore + 4

CITCO-100 + 40 + 4 + 20 + 20 + 100

BOGU-100

Megg-20 + 15 + 20

BAEN on lake @ 1105 Lakeshore

CULTS-60 + 40 + 100 + 50 + 60 + 50

KILL + 40

SEPL-2

Blow-up of seal

Lam-3

CAAO 20- Fly NVA

KILL + 4

③ 20 0720

EUST-15 + 20 + 10 + 100

MODO-5 + 10

AMCR + 2 + 4 + 1 + 2

AMCO-10 BLJA

NOWA

MODO TUNU-10

AMRO

④ Con. 6 RI 0928

TUNU-5 + 5 AMRO

AMCO-10 AMCR 111

AMKE-2 NOWA

EUST + 1

MODO + 1

⑤ Conc. 3 RJ 09:48  
 Amke  
 NOHA

⑥ River RJ. 10:01

RBGU - 2  
 WDD - 2  
 Amke  
 RTHA + 1

BCRD - 10  
 ANCR - 3  
 BUSA

SAMSUNG - ENEWIN C  
 Oct 14/09

LC: 70%  
 T: 60  
 B3 N

⑦ Bams RJ. 10:45

ANCR  
 LIBNA  
 DETU  
 EAST - 10  
 AMRO - 10  
 EAST - 40

⑧ Conc. 3 RJ. 11:04

hall

BLBI - 5 + 15 + 30

EAST - 6

WDD - 10 + 1

AMCR - 10

NOHA

URTU - 2

RTHA + 1

Amke - 2

AMRO - 6

RBGU - 6 on field

③ Conc. ~~4~~ RJ ~~17:26~~ 17:26

MGOO - 3 + 2 + 2 + 2 + 1 + 9

AMGO - 2

NOHA -

BLBI - + 20

④ River RJ. 05:47

AMKE

MGOO + 15

BLBI - 2

AMRO + 20

BLBI - 300 + 20

BLJA

⑤ Lakeside Rd. 18:14

CAGO 50 21, 2 N; A-B

AMRO

CAGO - 100 or 110 + 15  
 Culls - 40 + 40 + 50  
 + 30 + 100

MALL-4

GBAE

No. SAMSUNC

Date Oct. 15, 1979

Page

T → 30

100% c.c.

① [S3] 07:07

KILL  
AMRO-11

② Fisherville Rd. 07:25

BLBE-10 RTAA+1  
AMCR-3+2  
CUST  
NOHA-11

③ Kohler Rd. 07:45

RTAA  
CUST-8+4+6  
Sullows-20  
AMCR-5  
NOHA  
RRCY-2  
AMCR

No.

Date

Page

Underbrush  
Gulls-30  
RRCY

Greater Yellowlegs  
Heard Thrush

④ Swope CNR Rd. 08:11

NOHA III  
MOO  
CUST-5  
AMCR

⑤ Mt. Olivet / Richert 08:30

RRCY-7  
CUST-6+1+5  
ROPT-10  
NOHA-2

⑥ Wilson Rd. 08:33

VIEW 20 on rd  
RRCY, Deer, AMCR  
AMCR-5  
CUST

⑦ Subar 08:36

GUST-15

MODO-3

AMCR

BLJA

⑧ variety 150 08:48

AMCR-2 + 1 + 3

AMRO

BCCA-3

AMGO-2

MODO

TUNU-2

EUST-4

⑨ S. Capra R2 09:07

TUNU

EUST-15 + 7

MODO-2

AMRE

AMCR + 6

BLJA

GAME

BLBT-20

TUNU  
AMGO 40

⑩ Half Dunn. T-Line 09:24

AMGO-30 + 20 on field

RBLU-10 + 200 on field

MOLA-5

BLBE-100 + 200 on field

MODO-2

RBLU-10 on field N; B

⑪ 149 09:40

BCCA-4

SAMSUNG

① 53

06:33

Clear 07/2  
60 BO

RTHA

HOSP

BUFF - 50

RNOH - 30 on lake @ 57+ Westshore

Gulls

MAIL - 10

CAGS - 6

AMKE - 15 flying W; A  
↳ along Westshore

② 06:59 112

BLBE - 20 in trees

MODO  
BLBE - 3300 flying W into creek  
F172

Gulls 100 flying N; C

RTHA

BLJA

AMKE  
MODO

130 MAIL in creek

CAGS - 13 flying W; B + 20 in creek

③ 07:04 Kohl R1

EUST - 20 + 6

AMKE + 1

DEJU - 5

BLBE - 3 + 60 (flying W; A)

RNOH &gt; 60

BUFF &gt; 60

↳ Westshore

RB Merganser - 2

CAGS

Mergansers - 12 on lake  
↳ individualsGulls - 20  
CAGS - 20

BOCU - 16

CAGS - 3

④ Swets CURR 07:53

NO HA

RTHA - 4

BLBE - 50 in lake

Gulls - 50 in lake

BLBE - 15 on beach

⑤ Richard RJ 08:05

ROBE -20  
BLBE -5

⑥ Wilson RJ 8:10

RTAA  
RBLG  
EWST -5  
AMRO

⑦ Suter RJ. 08:17

RTAA  
AMCR 1/4

⑧ [30] 08:26

RTAA  
AMCR -3  
NOHA

Lakewood

CLUB -2  
MCA  
SUFF  
CAGO -20

GBAE -> parked on base

⑨ S. Cayuga RJ 08:45

AMCR -2 +5 +1  
ROBU  
GUST -2 +1  
ROAD -6  
BLBE -7  
BLTA +1  
NOHA

⑩ Tarnier RJ. 09:02

RTAA  
NOHA +1  
BLTA  
Gulls - 50 following tractor

⑪ [49] 09:15

Gulls - 200 over field  
AMCR -2  
RTAA

① 06:38

~~12-07~~

70% LC.

RTNA +1 +1 +1 +1 +1

ARCA-2

-2 +1000

BLST-2 +12 5-1800 along W<sup>9</sup>B

EAST-9 +8 +5 +10 +200 → 2000  
+15 +13

CAGO

ULT W-25 → Field @ Can. 6

② 07:11 Can. 5 R2.

RTNA +1 +1 +1

BLST-2 +50 +5

AMCR-2 +1 +3

MALLO 5 along N<sup>40</sup> Ave

MCO-2

EAST-2

DS-2

MODO-2

③ 07:27 Con. 5 R2

AMCR +3  
BLBT -20  
Gulls - 30 Alton Nj C  
EUST - 2 + 3  
MODO

④ 07:41 Con. 4 R2

EUST - 8 + 10 + 2 + 10  
ROPT - 15 on Air @ corner of 30  
Gulls - 30 on Air @ corner of 30  
RTNA + 2  
AMCR + 1 + 1  
CHSP = 4  
DEJY + 1 + 1  
MODO  
BLTA - 2

⑤ 08:03 Con 3 R2

EUST - 3 + 10 + 5 + 10  
Gulls - } 150 on Air @ 30 R2  
AMCR - 1 + 6 + 30 on field 3 of  
ROPT - 2  
AMCO - 2  
MODO + 2

⑥ 08:20 Burns R2

RTNA + 1 + 2 + 1  
BLTA + 1  
NOAA  
AMCO - 2  
MODO - 2 + 2  
DEJY - 2 + 3 + 1  
AMCR  
SAVS - 4  
BLBT - 5

⑦ Lakeshore Rd 08:43

CAGO - 100 on lake @ 2537 Lakeshore

Mergansers - scattered  
BLWA → BUFF also

in bay near 2537  
BOGN - 10  
Robin  
BUFF - 6

Water is calm

Crow's Yellowlegs  
Carolina Wren @ 50

across from Hunting Park  
BUFF - ~20

Howard Goebe - 3  
COLD

@ 2069 Lakeshore  
~ 100 waterfowl

major BOGN  
BUFF  
mergansers

BOGN - 30  
@ Disruptus

BUFF - 70  
S-C RE

BLWA in tree @ 1523 Lakeshore

CAGO - 100 on bank @ 1445

+5 MALL  
Horned - 3  
BLFR - 30

@ 171  
Goebe - 3  
Flock of Song/Robin  
→ 60

BOGN - 20 @ 1273  
+40

BOGN - 30 @ 1273

@ 1814 W/Waterfowl out in lake  
~500

~50 BOGN + Merg @ 537  
+150 BOGN

~300 mixed flock mostly BOGN  
Robin  
BUFF

+18 swans + 4

SAMSUNG

① Bains R2 06:35  
Temp - 20° 0% occ. Frost

Josp. 2

EUST 3

NOHA

BLB 100

RTHA

EUST 9

⑤ can. 3 R2 07:16

Amck

RTHA 2

EUST - 3 + 7 + 15 + 8 + 2 + 6 + 7 + 2 + 2

RBLU - 30 Flipping ; B

Amck

RTHA

Amck

③ can. 6 R2 07:10

RTHA 1 + 1

NOHA

Amck + 1

Amck

RBLU 30 Flipping - A

EUST - 5 + 20

BLTA

④ 120 07:54

Amck + 1

RBLU - 2 Flipping ; A 76 (can)

Amck

EUST - 10 + 20 + 2 + 2

NOHA - 2 + 1

COHA + 1

NOHA

BLB 1 - 30

Amck - 2

RTHA

No. ....  
Date Nov 4? Page .....

(8) Meadows Rd 10:08

AMCR-3 + 1 + 2 + 1

SCHA

RTHA + 1 + 1

BLJA

AMGO-3

DEJU-4

(9) River Rd 10:22

RTHA + 1

AMRE

DOLO

TRWA

CASP

DEJU

AMCR-2

ROPT

MOGO-2

CONA

BLJA

SUSE-15

NOHA

No. ....  
Date Nov 17/09 Page .....

Nov 17/09

(5) Lakeshore Rd 08:24

FAA to S Cayuga

RBGU-10 along NEB

RBGU-20 Nov-30 on road spur

~~RBGU-20~~ B x P 20

~~RBGU-20~~

(6) S Cayuga - Yarn

Glaucous Gull

RBGU-10 + 7 = 15

- 5 flying along shoreline

CAGO-15 in bay @ Yarn

(7) Yarn - S of S Cayuga

BURP-6 + 3 + 3

RBGU-6

FAU-6 + 25

Gulls - 40 - mixed flock @ Barke

RBGU-86

COME

① Swamps CR R2-

HOSP-2

RBGU-3 - 3 flying around water

CAGO-60 in Bay @ 1447 + 30 @ 1441

BUFF-2

+ 30 on creek

HEGU-6

FLER-3

BUFF-2

RBGU-6 along V abby shoreline

⑤ Kontler - Fishcalle

BUSA

EUST-16

RBGU-15

TUW-5 + 23 @ 767

BUFF-15

Scamp-16

CAGO-36

② Fishcalle board

BGU-20

BUFF-2

150 water (comp. 1000000)

@ 65

CAGO-36

Nov 20

③ Cen 41 R2

09:34

Amck-8

BLTA-2

EUST-4 + 26

RT11A

BLBT-20

ROPI-2

⑦ Can 5 RJ 09:53

~~Can 5~~ RLHA  
EUST-7  
MOO-3

⑧ Meadows RJ 10:16

AMCR  
RTHA  
NONA-2

⑨ River RJ 10:23

AMGO-6  
AMKE  
AMCR-4 + 2 + 1  
RLJA  
RBGU + 2

⑩ 2<sup>nd</sup> clear <sup>patrol</sup> Regt 7:01 RJ E

⑪ Hold-Down T-Box 07:13

RTHA + 2  
COHA AMCR  
EUST  
BLJA

⑫ S. Canyon RJ 07:35

CAGO-15 → lifting off from pond; drawings  
EUST ~~15~~ + 3  
MOO-0 + 4  
AMCR-2 + 1  
DEJU  
RTHA + 1 + 1  
AMCR-4 Aug E: 1A  
RBLO  
BLJA-2  
RBGU-3

~~1~~

on lakebank : MORG-30  
 BUFR-15  
 RRGU-15  
 RRGU-20

(4) 50 08:00

EUST-4  
 AMCR +1  
 RTHA +1 @ pond  
 RRGU-100 on field  
 BUFR-30 on roadside  
 AMCR-2 on field

(3) Sata. RJ. 08:19  
 AMCR-4  
 SOSP

(6) Wilson RJ. 08:27

(7) Ricket RJ. 08:31

RTHA-2 +1  
 AMCR-2  
 BUFR-80 in field  
 RTHA  
 RAPP-2

(8) Sata. CNR RJ. 08:41

ROPE-15  
 SOSP  
 RBLU-250 on field just N of intersection  
 EUST-6  
 NOHA  
 UBWA

No. Samsung

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⑨ Kohler RJ. 08:54

EUST-2

RTHA + 1 + 1

AMCR-7

⑩ Hallmark Road 12 09:14

AMGO

EUST

BUTA

AMCR

Now

cage at ~ 100 sample on lake

⑪ ~~AMCR~~ 09:38

AMCR + 2

RTHA

EUST-30 in pasture

COHA

No. Samsung

Date Dec 21/09

Page

- 2 09:24 100% c.c.

⑪ 09:25

AMCR

EUST-3

AMCR

MOGO-3

HOSP-30

AMGO

on lake

MALL-20

AMLE

BLUFF - 2 + 5

COGO - 3

NOPE

MGRG-10

COCO-30

④ Eisherville 09/28

AMKE - 51  
AMCR +1  
RTHA  
EWST - 13  
POPE - 7

⑤ 10:07 Kohler R2.

RUAR  
RTHA  
EWST - 3  
AMCR - 3

on lake

CARGO - 30 + 100  
BOG - 10

⑥ Sweet CNR R2 10/36

EWST - 30  
VADP - 10  
RTHA

⑤ Ricket R2 10/28

AMKE  
AMCR - 5 in field

⑥ Wilson R2 10/31

RTHA - 2  
AMCR - 2

⑦ Sutor R2 10/38

RTHA - 2

⑧ Mackay R2 11/03

AMKE - 4  
AMCR - 4  
NOAA

on lake - CARGO - 100 + 130  
CARR

⑨ 11:23 S. Campyga Rd.

RTAA - entire road

7000-3

NORTHERN SHARK

RTAA

CAGO - M Fly 3

RTAA

BLTA

Amco

⑩ No. - Dum. 7/16/11 11:41 / -

ROPE - 10

AMCR - 5

SWT - 10

AMCR

AMGO

RTAA

⑪ 11:55

NON

ART. ⇒ E-W road

SAMSUNG 12.4.1

10C, 100% EG, 02-3 NW

① Sandy B. Rd. RTAA

② Lakeshore Rd. 12/5/11

N300 water level ⇒ sample taken

BWEP - 1

CAGO - 4.25 @ 100'

@ 2383 ⇒ Area of MARCS CAGO  
LAND L7 ~ 100

@ 2383 CAGO - N200

MALL - 10

BWEP - 2

RTWA-3  
CUSTUDO  
BLWA

@ Baker?

CAGO 75 + 100 ~~+10~~  
MAU - 10

+100 CAGO to 1267

+75 CAGO e 1095

Arch-3

Now

③ Con. 3 RD 1:49 Fluents

NOHA

AMKE

ROPE-4

MOOO

EUST-2 +10 +30

R+WA

④ Bais RA 2:03  
RTWA

AMCR-2

RTWA

AMCR-4

RTWA

RTWA

⑤ 100 2:19

MOOO-3

AMCR

⑥ Con. 6 RD 2:17

⑦ Con 5 RD 2:51

⑧ Mandus RD 3:01  
RTWA +1 +1 +1

⑨ R+WA RD 3:13

RTWA

CONA

SAM SUN G → Aug 28/09

TIME	SE	10:48	N 60°	B 2-3 N	100% cc.	no precip
10:50	PUNA	2	Flying over our field	A	0-50	E
10:55	BRNS	3	Foraging over field	A	0-50	W
	AMCO	4	Flying over	A	100-200	E
⇒ swallows constantly over field 1 wing below black height						
11:05	AMCR	3	calling from sky	A	200-500	S
	HOLA	1	flying S	A	0-50	W
11:14	AMCO	2	flapping	A	0-50	W
	W? PASS. sp.	20	flying NW	A	200-300	N
⇒ quiet → fall is here. ↓ little bird movement						
11:19	RWBL	3	flying S	A	100-200	E
11:22	BSTA	1	calling	A	200-500	NW
11:26	DICK	5	into field	A	0-50	N
11:30	AMCR	1	flapping over woods	A	200-500	W
11:35	TUNU	2	flapping gradually	A-B	100-200	N
11:38	NOFL	1	flying to woodlot	A	100-200	N
11:40	RDEU	1	flying S	A	0-50	OH
11:43	EUST	12	flying SE	A	0-50	NE
11:44	COTC	2	flying NW	B	200-500	W
11:46	GBHE	1	rising over WSW	B	100-200	N

SAMSUNG - Aug. 28/09

VESU 11:56 52 NNW 100% c.c. ~ 17°

11:58 RVBL 30 Flying SE A 0-50 E

BRNS 15 perched on T/L A 0-50 E  
 ↳ occ. Foraging over field (A)

11:59 TUVU 1 soaring over woodlot A 200-500 W

12:00 EUST 1 Flying W A 0-50 S

12:05 RTHU 1 Flying N A 0-50 W

12:06 MODO 1 Flying S A 0-50 W

12:11 W? Pigeon 11 Flying S A 0-50 OH

12:15 MODO 2 perched on T/L A 0-50 E

EUST 2 Flying W A 0-50 S

12:19 RBGU 2 Flying N + W over field A 0-50 W

12:21 AMCO 5 Flying S A 0-50 S

12:22 TUVU 1 soaring over woodlot A 100-200 S

12:24 RTHA 1 " " B " "

12:26 MALL 2 present over field @ 12:30 B 0-50 W  
 ↳ occ. spitting; over light

v. light rain @ 12:35 V. rain done @ 12:45

12:37 AMKE 1 Flying N A 0-50 OH

12:43 TUVU 1 soaring over field A 200-500 W

VIEW	13:01	100% c.c.	8 2	u light rain	13:06
			3-4 @ 13:50		
13:01	AMCR	2	in field	A	0-50 E
	TUVU	2	over field	A	100-200 S
13:02	NOHA - R	1	Foraging over field	A	100-200 ENE
13:10	BRNS	1	"	A	0-50 S
13:12	CAGO	8	Flying N	B	> 1000 E
13:13	TUVU	1	Flying N	A	0-50 E
13:21	TUVU	3	over field ↳ then 2 N	A-B	100-200 SW
13:27	NOHA	3/11	present, had perched on snag		
13:27	TUVU	3	perched on snag	A	100-200 E
			↳ relatively constant presence in area		
13:35	AMCR		perched on trees @ edge of drainage channel	A	100-200 NE
13:37			partly clearing		
13:38	AMCR	1	in field	A	0-50 SW
13:43	AMGO	2	Flying N	A	0-50 W
13:44	TUVU	1	soaring NE	C	500-1000 E
13:46	RTHA	1	soaring over field	A-B	200-500 W
13:52	HOLA	6	on road	A	0-50 S
13:55	BLBI	50	Flying S	A	500-1000 NE
	BRNS	2	Foraging over field	A	0-50 S

Sept 30/09

SAMSUNG

VINE 11:30 11.5° ~40% c.c.  
B4 clear, no precip.

11:30	TUVU	1	Soaring along river	500-1000	ENE	C
11:39	AMGO	50	Flying E along river	500-1000	N	A
	SACR	3	"	"	N	A
11:41	"	2	alighting in wetland	"	N	A
11:42	BLBI	5	perched in tree	100-200	N	A
11:44	TUVU	1	soaring W along river	200-300	NE	A
	TUVU	2	soaring over field	"	S	A-B
	BLBI	30	flying W	200-500	S	B
11:46	TUVU	2	soaring W along wetlot	7000	SU	A-B
11:49	TUVU	1	over woods	100-200	S	A
11:54	TUVU	2	still over field still present @ 11:58	0-50	S	A-B
12:01	HOLA	2	flying about field	0-50	V	A
12:04	BLJA	4	flying along hedgerow	50-100	E	A
12:05	BLJA	1	flying S	100-300	E	A
12:07	BLBI	9	flying S	0-50	PH	A
12:08	TUVU	1	flying E	50-100	SE	A-B
12:11	SARR	4	flying SSE	0-50	W	A
12:14	TUVU	1	soaring over woodlot	200-500	S	A
12:16	BLBI	20	flying W along river	500-1000	N	A
12:19	BLBI	19	flying SW	200-500	SSU	B
12:24	SAUS	1	in field	0-50	S	A
12:25	BLBI	50	flying N	500-1000	W	A
12:27	AMGO	2	flying S	200-500	W	A

VIEW	same	weather	12:36			
12:36	NOHA	1	foraging over field	A	0-50	S
12:39	BLBI	200	flying around corn field	A	500-1000	W
12:45	NOHA	2	over corn field	A-B	"	"
	RTAA	1	"	B	"	"
	AMKE	1	"	B	"	"
12:51	RTAA	1	perched in hedge row => monarch flying S	A	"	E
12:53	RTAA	1	soaring over woodlot	B	>1000	E
	AMKE	1	"	"	"	"
12:55	AMCR	2	flying NE	A	50-100	SE
12:57	AMGO	1	flying N	A	100-300	E
13:13	RTAA	2	soaring over field	B	500-1000	WNW
13:23	AMCR	6	flying over corn field mostly E	A	>1000	ENE
13:28	TUVU	1	flying E over field	A	500-1000	NNE
13:29	SANS	2	in field	A	0-50	SW
13:31	ROPI	12	in field	A	0-50	N
13:32	TUVU	1	soaring over woodlot	B	500-1000	SSE
13:33	TUVU	1	soaring over Mt. Olive	B	>1000	SW

- Sept. 30

SARAWAK

13:46	VILAW		12° 80% cloud	VY		
⇒ Monarch in scrub + 3 along shoreline						
13:51	HEGU	1	in water	A	50-100	SE
	CAGO	30	on island	A	20-500	ESE
	KILL	2	flying along shore	A	0-50	S
13:56	BGJA	1	flying W	A	0-50	N
	DCCO	✓	visible 71000 ft	E	along lakeshore	
	Gulls	✓				
	CAGO	✓				
13:58	AMGO	1	flying E	A	0-50	N
14:02	RBGU	1	flying along shoreline	A	0-50	S
14:12	AMKE	1	foraging W along shoreline	A	50-100	WSW
14:16	RBGU	1	flying " "	"	100-200	S
14:23	"	2	flying along shoreline	A	100-200	SW
	DCCO	1	flying " "	A	50-100	S
14:26	RBGU	1	" "	A	100-200	S
14:27	CAGO	2	flying W	A	0-50	S
14:33	RBGU	1	flying E along shoreline	A	"	"
14:35	DCCO	1	flying E	A	100-200	S
14:36	RBGU	2	flying W	A	200-500	S
14:38	RBGU	3	flying W along shoreline	A	100-200	S
14:43	NOHA	1	foraging over (field)	A	500-1000	N

Sept. 30

SAMSUNG

VERUN

Time	Species	Count	Behavior	Category	Altitude	Direction
14:56			12°C 84 80% c.c.			
14:56	TUVU	2	flying NNW	A-B	200-500	E
15:07	NOHA	2	over field	A	500-1000	E
	TUVU	4	soaring gradually NW	A-B	>1000	SE
15:09	HOLA	50	moving about field	A	200-500	SSW
15:12	RTHA	1	perched in hedgerow	A	200-500	S
	TUVU	1	soaring across field	A-B	500-1000	S
15:14	TUVU	3	soaring over woodlot	B-C	500-1000	S
15:16	RTHA	3	soaring over field	B-C	>1000	SE
15:18	TUVU	1	soaring over woodlot	A	500-1000	N
15:19	TUVU	1	flying E	A	200-500	S
15:28	HOLA	still present	in field.			
15:30	MORO	2	flying W	A	0-50	S
15:36	TUVU	1	soaring over woodland	A	500-1000	SSW
15:41	ANGO	1	flying NNW	A	100-200	SU
15:42	NOHA	1	flying E	A	200-500	S
15:44	TUVU	1	soaring W	A	500-1000	S
		2	soaring over field	B	>1000	S
15:47	TUVU	1	soaring over woodlot	B	500-1000	S
15:53	TUVU	1	soaring over woodlots	A	>1000	S

Oct. 1 / 09

SAMSUNG

VI-LA-E

11:17		10.5°	B3NW	70% c.c.			
11:20	RBCU	1	Flying along shoreline		A	100-200	S
11:26	BLBJ	10	perched on T/L		A	50-100	W
11:30	RBCU	2	Flying along shoreline		B	200-500	S
11:38	RTHA	1	soaring along shoreline; then NE over field		A-B	0-50	S
11:47	BLJA	1	Flying along shoreline - trees		A	50-100	S
11:51	AMRO	1	on T/L; calling		A	0-50	E
11:52	EUST	9	on T/L		A	50-100	SW
11:53	TUVU	3	soaring in distance		B-C	7000	NE
11:54	MADO	2	on T/L		A	0-50	E
11:59	RBCU	1	Flying along shoreline		A	50-100	SW
12:05	GRCA	1	calling from trees		A	30-100	S
	AMGO	1	Flying N		A	0-50	S
12:06	BAGA	1	soaring along shoreline w/min.	back to field	A	100-200	SW
12:09	CAGO	5-10	audible on lake		A	4?	SSW
<del>12:01</del>							

Oct 1 / 09

SAN SW C

VI-LA-C

→ same weather

12:23

12:34

GRCA

calling from hedgerow

1

50-100 NW

12:36

THW

soaring W in distance; gradual

B-C

>1000

NW

12:40 → lawn mowing in area

12:48

→ area quiet

typical fall levels of activity

→ cool day so movements mixed

12:53

→

~~monarch~~

monarch

moving

along field,

then to shoreline

Notes: migration is ongoing, though muted because of