

Vascular plants of the Upper Kemptown COMFIT site, Colchester County, Nova Scotia, with notes on plant communities and birds



Ground-Fir Clubmoss (Lycopodium sabinifolium, S3? – Sensitive), at Upper Kemptown COMFIT site.

September 20, 2014

Conducted by Sean Blaney, Atlantic Canada Conservation Data Centre for Affinity Wind LP

Methods

AC CDC botanist Sean Blaney (herein "I") conducted two hours of fieldwork on foot at the Upper Kemptown Community Feed-in Tariff (COMFIT) project site in Colchester County, Nova Scotia on June 20, 2014, walking 3.56 km. GPS tracks of site coverage are mapped in Figure 1. Site planning was in an early stage, with turbine sites and road locations not yet finalized, so Reuben Burge and Lisa Fulton of Affinity Wind LP accompanied Sean Blaney to direct field survey toward the areas most suited to final turbine and road construction.

I documented full lists of vascular plant and bird species observed while on site with locations documented for the first observation of each species. For provincially rare species (those ranked S3S4 or lower by AC CDC, see Appendix 1), I recorded location by GPS and noted abundance, extent of occurrence and habitat. Breeding evidence for birds was recorded using the categories of the Maritimes Breeding Bird Atlas. In addition, I documented plant communities present within the turbine construction footprints, recording dominant species in the canopy, sapling, low shrub/tree seedling and herbaceous strata, as well as approximating total percentage cover for each strata and individual species' percentage cover for tree species.

Results and Discussion

I. Vascular Plant Species

I recorded 82 vascular plant taxa (71 native, 11 exotic; Table 1), one of which is of some conservation significance (Figure 1, mapped in Figure 2). Ground-Fir Clubmoss (*Lycopodium sabinifolium*, S3? – Secure; see Appendix 1 for definitions) occurred in small numbers at one site (45.4905N, 63.12712W) on an anthropogenic open gravelly bank along a forest margin, within an area potentially subject to turbine construction impacts through road widening and upgrading. This species is of northern affinity, most frequently occurring in exposed areas along the coast or at higher elevations, and it is known from about 15 different locations in Nova Scotia. The species is uncommon throughout the Maritimes (S3 – Secure in New Brunswick, S1S2 – May Be At Risk in Prince Edward Island).

Further visits to the site, especially with greater focus on the heavily disturbed roadside locations which were not sampled thoroughly, would yield additional species to those recorded. However, based on the nature and condition of the plant communities present, it is unlikely that many additional provincially rare plant species would be found in the project footprint.

II. Breeding Birds

I recorded 15 species of breeding birds (Table 2) through incidental observations during plant fieldwork. The mid-morning fieldwork meant that bird activity was reduced relative to its maximum around daybreak and thus only a small proportion of the species actually breeding on the site were documented.

Three bird species of conservation significance were noted: Bay-breasted Warbler (S3S4 – Sensitive, Golden-crowned Kinglet (S4 – Sensitive), and Ruby-crowned Kinglet (S4 – Sensitive). All were singing males noted in young Black Spruce plantation within what had once been Sugar Maple-dominated forest. The Bay-breasted Warbler and Golden-crowned Kinglet were within the construction footprint for Turbine 1, and the Ruby-crowned Kinglet was just outside the likely construction footprint in forest near a road. All these species, especially the two species of kinglets, are still fairly common to common in Nova Scotia but are of concern because of major population declines. None have legal conservation status.

III. Plant Communities

Notes on plant communities at the proposed turbine construction sites are given in Table 3 and photographs of the proposed turbine sites are given in Figures 3 to 5. None of the plant communities documented within the turbine or road construction footprints are considered provincially rare (AC CDC data, S. Blaney, pers. obs.). The proposed project footprint falls within three major habitat groups: 1) disturbed, gravelly, open and semi-open upland, including existing gravelly roadways, the roadside – forest transition zone, and open gravel pit; 2) young to intermediate-aged (40 to 60 years, with thinly scattered larger trees) deciduous forest dominated by Sugar Maple (the area around and between turbines 2 and 3); and 3) approximately 15 year old thinly planted Black Spruce plantation within former Sugar Maple-dominated forest, where Balsam Fir, Sugar Maple and Yellow Birch regeneration is dense in areas not planted with Black Spruce (the area around turbine 1 and between that turbine and the existing road).

Table 1. Vascular plants recorded in the Kemptown COMFIT project footprint, with Nova Scotia S-ranks and General Status (GS) ranks (defined in Appendix 1). Taxonomy follows Kartesz (1999) – *Synthesis of the North American Flora*, CD-ROM.

Species / Family	Common Name	S-rank	GS Rank
Lycopodiaceae	Clubmoss Family		
Lycopodium annotinum	Stiff Clubmoss	S5	4 Secure
Lycopodium digitatum	Southern Clubmoss	S5	4 Secure
Lycopodium hickeyi	Hickey's Tree-clubmoss	S4?	4 Secure
Lycopodium obscurum	Flat-branched Tree-clubmoss	S4S5	4 Secure
Lycopodium sabinifolium	Ground-Fir	S3?	4 Secure
Dennstaedtiaceae	Hay-Scented Fern Family		
Dennstaedtia punctilobula	Eastern Hay-Scented Fern	S5	4 Secure
Thelypteridaceae	Marsh Fern Family		
Thelypteris noveboracensis	New York Fern	S5	4 Secure
Dryopteridaceae	Wood Fern Family		
Dryopteris campyloptera	Mountain Wood Fern	S5	4 Secure
Dryopteris intermedia	Evergreen Wood Fern	S5	4 Secure
Pinaceae	Pine Family		
Abies balsamea	Balsam Fir	S5	4 Secure
Picea mariana	Black Spruce	S5	4 Secure
Picea rubens	Red Spruce	S5	4 Secure
Fagaceae	Beech Family		
Fagus grandifolia	American Beech	S5	4 Secure
Betulaceae	Birch Family		
Betula alleghaniensis	Yellow Birch	S5	4 Secure
Betula papyrifera var. papyrifera	Heart-leaved Birch	S5	4 Secure
Polygonaceae	Smartweed Family		
Polygonum cilinode	Fringed Black Bindweed	S5	4 Secure
Clusiaceae	St. John's-wort Family		
Hypericum perforatum	Common St. John's-wort	SNA	7 Exotic
Violaceae	Violet Family		
Viola blanda var. palustriformis	Sweet White Violet	S5	4 Secure
Viola sororia	Woolly Blue Violet	S5	4 Secure
Salicaceae	Willow Family		
Populus tremuloides	Trembling Aspen	S5	4 Secure
Salix bebbiana	Bebb's Willow	S5	4 Secure
Salix humilis	Upland Willow	S5	4 Secure
Ericaceae	Heath Family		
Vaccinium angustifolium	Late Lowbush Blueberry	S5	4 Secure
Vaccinium myrtilloides	Velvet-leaved Blueberry	S5	4 Secure
Monotropaceae	Indian Pipe Family		

Species / Family	Common Name	S-rank	GS Rank
Monotropa uniflora	Indian Pipe	S5	4 Secure
Primulaceae	Primrose Family		
Trientalis borealis	Northern Starflower	S5	4 Secure
Rosaceae	Rose Family		
Amelanchier sp.	serviceberry species	[native]	[native]
Fragaria virginiana	Wild Strawberry	S5	4 Secure
Potentilla simplex	Old Field Cinquefoil	S5	4 Secure
Rubus canadensis	Smooth Blackberry	S5	4 Secure
Rubus idaeus ssp. strigosus	Red Raspberry	S5	4 Secure
Rubus vermontanus	Vermont Blackberry	SNR	5 Undetermined
Fabaceae	Bean Family		
Trifolium repens	White Clover	SNA	7 Exotic
Onagraceae	Evening-Primrose Family		
Chamerion angustifolium	Fireweed	S5	4 Secure
Aquifoliaceae	Holly Family		
Nemopanthus mucronatus	Mountain Holly	S5	4 Secure
Aceraceae	Maple Family		
Acer saccharum	Sugar Maple	S5	4 Secure
Acer spicatum	Mountain Maple	S5	4 Secure
Araliaceae	Sarsaparilla Family		
Aralia nudicaulis	Wild Sarsaparilla	S5	4 Secure
Lamiaceae	Mint Family		
Galeopsis tetrahit	Common Hemp-nettle	SNA	7 Exotic
Plantaginaceae	Plantain Family		
Plantago major	Common Plantain	SNA	7 Exotic
Scrophulariaceae	Figwort Family		
Veronica officinalis	Common Speedwell	S5	7 Exotic
Orobanchaceae	Broomrape Family		
Epifagus virginiana	Beechdrops	S4	4 Secure
Rubiaceae	Bedstraw Family		
Houstonia caerulea	Azure Bluet	S5	4 Secure
Caprifoliaceae	Honeysuckle Family		
Lonicera canadensis	Canada Fly Honeysuckle	S5	4 Secure
Sambucus racemosa	Red Elderberry	S5	4 Secure
Asteraceae	Aster Family		
Anaphalis margaritacea	Pearly Everlasting	S5	4 Secure
Doellingeria umbellata	Hairy Flat-top White Aster	S5	4 Secure
Euthamia graminifolia	Grass-leaved Goldenrod	S5	4 Secure
Hieracium caespitosum/aurantiacum	Orange or Field Hawkweed	[SNA]	[7 Exotic]
Hieracium lachenalii/umbellatum	Common or Umbellate Hawkweed	[SNA]	[7 Exotic]

Species / Family	Common Name	S-rank	GS Rank
Hieracium pilosella	Mouse-ear Hawkweed	SNA	7 Exotic
Lactuca canadensis	Canada Lettuce	S5	4 Secure
Oclemena acuminata	Whorled Wood Aster	S5	4 Secure
Prenanthes trifoliolata	Three-leaved Rattlesnakeroot	S5	4 Secure
Solidago canadensis	Canada Goldenrod	S5	4 Secure
Solidago puberula	Downy Goldenrod	S5	4 Secure
Solidago rugosa	Rough-stemmed Goldenrod	S5	4 Secure
Symphyotrichum lateriflorum	Calico Aster	S5	4 Secure
Taraxacum officinale	Common Dandelion	SNA	7 Exotic
Juncaceae	Rush Family		
Juncus tenuis	Slender Rush	S5	4 Secure
Luzula multiflora	Common Woodrush	S5	4 Secure
Cyperaceae	Sedge Family		
Carex brunnescens ssp. sphaerostachya	Brownish Sedge	S5	4 Secure
Carex communis	Fibrous-Root Sedge	S5	4 Secure
Carex debilis var. rudgei	White-edged Sedge	S5	4 Secure
Carex intumescens	Bladder Sedge	S5	4 Secure
Carex novae-angliae	New England Sedge	S5	4 Secure
Carex scoparia	Broom Sedge	S5	4 Secure
Scirpus atrocinctus	Black-girdled Bulrush	S5	4 Secure
Scirpus hattorianus	Mosquito Bulrush	S5	4 Secure
Poaceae	Grass Family		
Agrostis capillaris	Colonial Bent Grass	SNA	7 Exotic
Anthoxanthum odoratum	Large Sweet Vernal Grass	SNA	7 Exotic
Brachyelytrum septentrionale	Northern Shorthusk	S5	4 Secure
Cinna latifolia	Drooping Wood Reed Grass	S5	4 Secure
Danthonia compressa	Flattened Oat Grass	S5	4 Secure
Danthonia spicata	Poverty Oat Grass	S5	4 Secure
Dichanthelium acuminatum	Woolly Panic Grass	S5	4 Secure
Dichanthelium boreale	Northern Panic Grass	S5	4 Secure
Poa pratensis	Kentucky Blue Grass	S5	4 Secure
Poa saltuensis	Weak Blue Grass	S5	4 Secure
Liliaceae	Lily Family		
Erythronium americanum	Yellow Trout Lily	S4S5	4 Secure
Maianthemum canadense	Wild Lily-of-The-Valley	S5	4 Secure
Trillium cernuum	Nodding Trillium	S4	4 Secure

Table 2. List of birds recorded incidentally by Sean Blaney on June 20, 2014 at the Upper Kemptown COMFIT site, with breeding evidence recorded following the methods of the Maritimes Breeding Bird Atlas. Breeding evidence with codes are: H = adult in suitable nesting habitat; S = singing male in suitable nesting habitat, NE = Nest with eggs, X = observed without evidence of breeding (heard overhead in this case).

Species	Common Name	S-rank	GS Rank	Breeding Evidence
Dryocopus pileatus	Pileated Woodpecker	S5	4 Secure	Н
Regulus satrapa	Golden-crowned Kinglet	S4	3 Sensitive	S
Regulus calendula	Ruby-crowned Kinglet	S4B	3 Sensitive	S
Catharus ustulatus	Swainson's Thrush	S4S5B	4 Secure	S
Catharus guttatus	Hermit Thrush	S5B	4 Secure	S
Vireo olivaceus	Red-eyed Vireo	S5B	4 Secure	NE
Dendroica magnolia	Magnolia Warbler	S5B	4 Secure	S
Dendroica virens	Black-throated Green Warbler	S4S5B	4 Secure	S
Dendroica castanea	Bay-breasted Warbler	S3S4B	3 Sensitive	S
Setophaga ruticilla	American Redstart	S5B	4 Secure	S
Seiurus aurocapilla	Ovenbird	S5B	4 Secure	S
Geothlypis trichas	Common Yellowthroat	S5B	4 Secure	S
Carpodacus purpureus	Purple Finch	S4S5	4 Secure	S
Loxia curvirostra	Red Crossbill	S4?	4 Secure	X

Table 3. Locations, site community descriptions and dominant understory flora of proposed turbine locations at the Upper Kemptown COMFIT site.

Turbine #	Latitude	Longitude	Site Description	Dominant Understory Species
01	45.49462	-63.12776	Approximately 30 year old black spruce plantation within former sugar maple-dominated site. Tree cover 90%, composed of 40% black spruce (planted) - 30% sugar maple – 30% balsam fir – trace amounts of red maple & yellow birch. Shrub cover very limited	Maianthemum canadense; Dryopteris campyloptera; Dryopteris intermedia; Aralia nudicaulis; Trientalis borealis (patchy cover – between 0% and 50% in different areas)
02	45.49526	-63.11998	Approximately 40 year old sugar maple – yellow birch – beech forest. Tree cover 85-90%. Shrub cover 10%, mostly Mountain Maple (<i>Acer spicatum</i>).	Maianthemum canadense, Dryopteris intermedia, Carex brunnescens ssp. sphaerostachya, Poa saltuensis, Aralia nudicaulis, Oclemena acuminata. 40% herb cover overall.
03	45.49554	-63.11373	Approximately 40 year old mixed forest. 40% balsam fir, 30% yellow birch, 30% red maple, trace amounts of white spruce. Tree cover 80%. Shrub layer cover 10%, mostly balsam fir & yellow birch saplings.	Dennstaedtia punctilobula, Dryopteris campyloptera, Dryopteris intermedia, Carex novae- angliae, Aralia nudicaulis, Trientalis borealis. 70% herb cover overall.



Figure 1. GPS tracks (blue line) of area covered by Sean Blaney on June 20, 2014 at the proposed Upper Kemptown COMFIT site, Colchester County, Nova Scotia. Sites T1, T2 and T3 are proposed turbine locations, as determined in the field by Reuben Burge, and the magenta lines represent potential road locations between turbine sites. Ground-Fir Clubmoss (*Lycopodium sabinifolium*, S3? - Sensitive) site is indicated by the red dot.

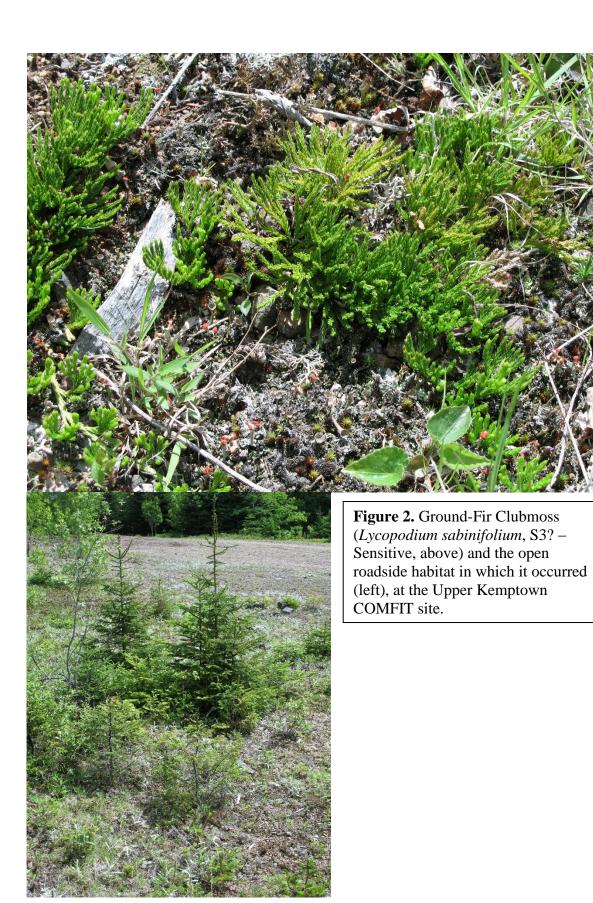


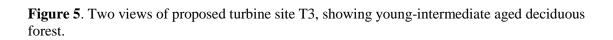


Figure 3. Proposed turbine site T1, showing an unplanted naturally regenerating area within an otherwise generally dense, approximately 15 year old Black Spruce plantation in an area of formerly deciduous-dominated forest.



Figure 4. Two views of the young-intermediate aged mixed forest at proposed turbine site T2.





Appendix 1. Definitions of Atlantic Canada Conservation Data Centre (AC CDC) provincial ranks (S-ranks) and Nova Scotia Department of Natural Resources General Status Ranks. Both sets of ranks were developed through the consensus of the Nova Scotia Flora Ranking Committee, cooperatively led by Nova Scotia Department of Natural Resources and AC CDC. The ranks reflect the best understanding of plant status at the time of ranking, but are subject to revision as new information becomes available.

<u>Definitions of provincial (subnational) ranks (S-ranks):</u>

- S1 Extremely rare throughout its range in the province (typically 5 or fewer occurrences or very few remaining individuals). May be especially vulnerable to extirpation.
- Rare throughout its range in the province (usually 6 to 20 occurrences or few remaining individuals). May be vulnerable to extirpation due to rarity or other factors.
- Uncommon throughout its range in the province (usually 21 to 100 occurrences), or found only in a restricted range, even if abundant in at some locations.
- Usually widespread, fairly common throughout its range in the province (usually 100+ occurrences), and apparently secure, but the element is of long-term concern.
- Demonstrably widespread, abundant, and secure throughout its range in the province, and essentially ineradicable under present conditions (100+ occurrences).
- S#S# Numeric range rank: A range between two consecutive numeric ranks. Denotes range of uncertainty about the exact rarity of the Element (e.g., S1S2).
- SNA Conservation status not applicable: The taxon is exotic, its occurrence in the jurisdiction is not confirmed, or it is a hybrid without conservation value.
- ? Is used as a qualifier indicating uncertainty: for numeric ranks, denotes inexactness, e.g., SE? denotes uncertainty of exotic status. (The ? qualifies the character immediately preceding it in the SRANK).

<u>Definitions of National General Status Ranks (from Wild Species: the General Status Program in Canada, Lisa Twolan and Simon Nadeau, 2004, Canadian Wildlife Service, Ottawa)</u>

- Extirpated: species that have disappeared from (or are no longer present in) a given geographic area but which occur in other areas
- Extinct: species that are extirpated worldwide (i.e., they no longer exist anywhere)
- At Risk: species for which a formal detailed risk assessment (COSEWIC assessment or provincial or territorial equivalent) has been completed, and which have been determined to be at risk of extirpation or extinction (i.e., Endangered) or are likely to become at risk of extirpation or extinction if limiting factors are not reversed (i.e., Threatened)
- May Be At Risk: species that may be at risk of extirpation or extinction and are, therefore, candidates for a detailed risk assessment by COSEWIC or the provincial or territorial equivalent

- Sensitive: species that are believed to not be at risk of extirpation or extinction but which may require special attention or protection to prevent them from becoming at risk
- Secure: species that are believed to not belong in the categories At Risk, May Be At Risk, Extirpated, Extinct, Accidental, or Exotic. This category includes some species that show a declining trend in numbers in Canada but which remain relatively widespread or abundant.
- *Undetermined*: species for which insufficient data, information, or knowledge is available with which to reliably evaluate their general status
- *Not Assessed*: species that are known or believed to be present in the geographic area in Canada to which the general status rank applies but which have not yet been assessed
- *Exotic*: species that have been moved beyond their natural range as a result of human activity. In the *Wild Species 2005* report, exotic species have been purposefully excluded from all other categories.
- Accidental: species occurring infrequently and unpredictably outside their usual range

Bird Pre-construction Monitoring Plan

MacKenzie Settlement Road

Kemptown, Colchester County, Nova Scotia

By Ross Hall, Wildlife Biologist

Affinity Wind LP will seek Environmental Assessment approval for a three turbine COMFIT project on the MacKenzie Settlement Road near Kemptown, Colchester County, Nova Scotia. Following is a proposed plan for bird pre-construction monitoring. The purpose of the plan is to assess what birds use and move through the area and set a baseline for post-construction monitoring. Affinity Wind LP seeks comment or approval from Canadian Wildlife Biologists on this proposed plan prior to beginning.

The design of the bird monitoring plan follows the protocol of Environment Canada documents: (1) Wind Turbines and Birds: A Guidance Document for Environmental Assessment (April 2007) and (2) Recommended Protocols for Monitoring Impacts on Birds (April 2007). Also a review was made of bird monitoring designs used in Environmental Assessments at other wind turbine sites. (Aulds Mountain, Kaizer Meadow, Bateston, Elderhouse, and Martock).

Habitat and Count Point Locations

Habitat surrounding the proposed wind turbine sites was studied using NS DNR Forest Cover Maps and from the study of 2004 air photographs. A visit was also made through the site. Habitat at the area is predominately young forest that is regenerated after extensive forest harvest. Riparian habitat along the South Branch North River occurs within 500 metres of the turbines. To the north and at a distance over 500 metre from turbines is commercial blueberry fields.

Bird monitoring will use a combination of <u>Point Counts</u> and <u>Stopover Counts</u>. Point Counts, as known, are a standardized survey type used for breeding birds. They are from stationary points and identify breeding birds from song or by sight during a 10 minute stop. Stopover Counts will use the same locations as for the Point Counts. Stopover Counts are less standardized than point counts and can have various approaches, but must be of a design that is repeatable.

Mapping is attached to illustrate habitat and chosen point count and stopover locations.

Seven (7) Point Count locations are chosen within 500 metres of the proposed turbine locations. Two (2) of these points will occur near riparian habitat and the other five (5) within young forest. Another six (6) Point Count locations are situated at distances between 500-1000 metres from any turbine. Points in the 500-1000 metre zone will serve somewhat as control plots and also will survey avifauna at Big Lake and about commercial blueberry fields. There are a total of 13 Point Count locations. Locations are situated at least 250 metres apart.

During spring and fall bird migration, two variations of Stopover Counts are proposed. Where a point is readily accessible by vehicle the observer will look and listen for existing birds from a stationary point for a minimum of 10 minutes. There are 8 of these point type. There are two and perhaps three

situations (Stop 5 to 14, Stop 8 to 8R and possibly onto Stop 8L) where the observer cannot drive but must walk between points. The observer here will record bird occurrence along at least two 300 metre distance transects.

Schedule Year 2014

Spring One count during Week April 28-May 2 (Roads permitting) or May 5-9

May 12-16

May 19-23

May 26-30

A late evening spring owl survey using playback methods.

Breeding June 9-13 Point Count

June 23-27 Point Count

Fall September 8-12

September 22-26

October 6-10

October 20-24

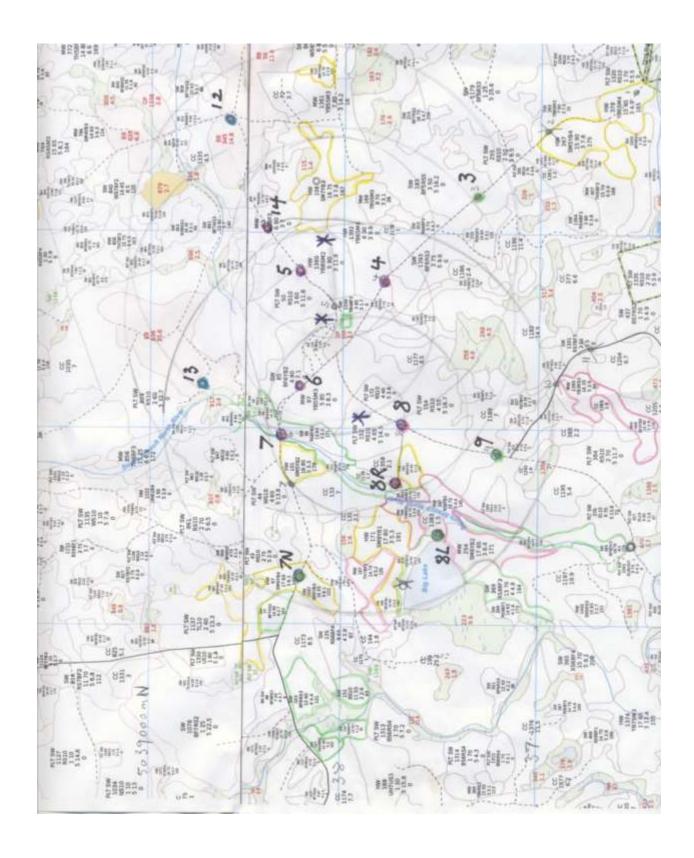
Diurnal Passage Counts will be done mid-day during fall survey dates.

Winter Completed March 1, 2014

Experienced Birder

Ken McKenna will complete this survey. Ken is an experienced birder and very capable of identifying bird song during point counts. Other biologists on site, such as Ross Hall or Sean Blaney, will make incidental bird observations.





							start						
		time	time			end temp	wind	wind	cloud cover	visibility		pre	
type of monitoring	date	start	finish	observer	temp C	С	speed	direction	percent	m	comments	post	signif_weather
A	00/04/004	4045	4500	Ken McKenna/	•		00	N.					
Area search	26/04/2014			Ross Hall	9		20	N	4000/ 01 0110				
Spring migration	30/04/2014			Ken McKenna	-2		10	N	100% CLOUD				
Passage Count	30/04/2014	1030	1100	Ken McKenna	4		10	N	20% CLOUD				
Na atoma at a sourt	00/04/004			Ken McKenna/	0		-	N.					
Nocturnal count	30/04/2014			Ross Hall	-2	0	5	N	.1				
spring migration	14/05/2014			Ken McKenna	-4	8	5	NE	clear				
Passage Count	14/05/2014			Ken McKenna	-2	0	12	SW	clear				
spring migration	21/05/2014			Ken McKenna	5	17	3	SSE	slight fog	100)		
spring migration	29/05/2014			Ken McKenna	1	7	3	NW	clear				
Breeding bird	09/06/2014			Ken McKenna	3	13	3	S	clear				
Breeding bird	28/06/2014	450	930	Ken McKenna	4	14	2	NW	clear				
Fall Migration	08/09/2014	650	1120) Ken McKenna	3	14	5	N	clear			pre	
Passage Count	08/09/2014	1130	1305	Ken McKenna	14	17	15	N	clear			pre	
Passage Count	13/09/2014	1020	1150) Ken McKenna	14	21	10	Е	20% cloud			pre	10% cloud on leaving
													40% cloud at end with
													heavy clouds
													approaching from
Passage Count	19/09/2014	1000	1140) Ken McKenna	6	10	25	N	clear			pre	north
Fall Migration	24/09/2014	705	1150) Ken McKenna	5	11	15	NW	clear			pre	
Passage Count	24/09/2014	1220	1250) Ken McKenna	11	11	10	W	clear			pre	
													skies cleared 20 min
Fall Migration	06/10/2014	717	1125	Ken McKenna	10	14	5	WSW	100 cloud			pre	after start of survey
Passage Count	06/10/2014	1144	1215	Ken McKenna	14	15	15	WNW	40% cloud			pre	

Summary of Spring/Summer 2014 Avian Study Proposed MacKenzie Settlement Windmill Site Ken McKenna

An avian survey was done on the proposed windmill site at MacKenzie Settlement, *Colchester* during the spring and summer of 2014. The survey consisted of ten minute point counts at 13 locations and five transect counts sampling representative habits types in the study area. Incident sightings from an early scouting trip April 26 with retired regional DNR biologist, Ross Hall are also presented. Spring migration counts took place April 30 and May 14, 21 and 29. Breeding bird surveys took place June 9 and 28. A Nocturnal bird survey also took place April 30 and I was again joined by Ross Hall for that survey. In addition, a small window of passage counting took place April 30 and May 14 after the spring migration counting.

Six species of waterfowl were noted. All but Surf Scoter could nest in the vicinity with only Mallard confirmed. The presence of Surf Scoter in the Big Lake might indicate the lakes in the area might be used by migrating waterfowl shortly after ice thaw. Double-crested Cormorant presence would be in a similar category with this species using the lake during migration. Common Loon was seen only once but the lake seems large enough to have a nesting pair.

Three species of raptor were noted – Bald eagle near Big Lake and Northern Harrier and Red-tailed Hawk near blueberry fields off Upper Kempton Cross Road. Both American Woodcock and Wilson's Snipe were detected on the nocturnal survey and likely common breeders. Both do aerial displays near nesting areas. Killdeer was noted in the quarry off Upper Kemptown Cross Road and was found breeding there during the last Maritime Breeding Bird Atlas.

Barred Owl and Northern Saw-whet Owl likely nest in the area and although not detected, Great Horned Owl would also likely use the habitat for breeding.

Five woodpecker species were detected with all likely breeding in the area. Black-backed Woodpecker was not detected.

Five species of flycatcher were detected and were a little late arriving this year. **Olive-sided Flycatcher** normally arrives third week of May, but I did not detect any until my June 28th visit when I heard three. One was in the vicinity of Big Lake and two were calling from the area near the quarry near the blueberry field. Both areas represent good breeding area for this species which is listed by COSEWIC as "threatened" in NS. **Eastern Wood-Pewee** also was found in both dates of the breeding survey, likely nests and is a COSEWIC species of special concern.

For the Corvidae family, both Gray and Blue Jays were present and crows in small numbers. **Common Ravens** were **very common** and constantly flying about or in the blueberry fields or Cross Road quarry. On May 21, I flushed 30 Ravens from the Cross Rd. quarry and these were probably part of the flock of **105** in the blueberry field. Most

days I saw flocks of 10-30 ravens. Common Ravens were the vast majority of the birds I noted from the passage counts. Most were in the distance near the Colchester Balefill. Also from the passage counts, flocks of gulls were seen around the balefill, but I did not note any gulls in the study area.

Although both Tree and Barn Swallow were sighted on one day each, they do not appear to be in any number in the study area. Boreal Chickadees were found in small numbers on three days. Winter Wren was more common than at most locations I have surveyed.

There were three species of thrush. Good numbers of Hermit Thrush and American Robin were noted in migration in late April. The robins seem to favour the blueberry fields and were there in significant numbers in spring migration.

I noted 18 species of wood warbler with all but Blackpoll Warbler likely breeding. Black-throated Green Warbler was especially abundant. Often hard to find in many locations, Bay-breasted Warbler was seen on four of the study days from a couple of locations. **Canada Warbler** on the COSEWIC status as "threatened" was noted on both June dates and can be assumed to be probably breeding in 2-3 areas of the study territory.

Six species of sparrow were noted. Fox Sparrow was not detected, but would probably passed through in migration earlier than the study dates. No Vesper Sparrows were detected in either of the sections of the blueberry fields.

Rusty Blackbird was one of three species of blackbird noted. This is a species of special concern (COSEWIC) and s single male was found singing in a damp area on the transect between the two blueberry fields. There is good habitat for this species here or around either Big and Little Lakes.

Four species of finch were present and although not found, in this part of the study, both crossbill species might be found at times when conifers are supporting good cone crops. This was not the case this spring/summer.

Mammals Observations

Red Squirrel Groundhog Snow-shoe Hare Coyote- May 29 Black Bear- prints on trail to Big Lake –June 9

Butterfly Observations Dreamy Duskywing Brown Elfin Mourning Cloak
Arctic Skipper
Hobomok Skipper
Long-dash Skipper
Northern Spring Azure
Canadian Tiger Swallowtail
Harris Checkerspot
Northern Crescent
Clouded Sulphur
Silver-bordered Fritillary

Amphibians Spring Peeper Wood Frog Green Frog Bull Frog

Wildflower observations May 14 Spring Beauty Wild Strawberry Small White Violet

May 21
Dwarf Ginseng
Nodding trillium
Dutchman's Breeches
Spring Beauty
Painted Trillium
Small White Violet
Hobblebush
Trout lily
Bluet
Wild Strawberry

May 29
Rose Twisted –stalk
Wild Lily-of-the-Valley
Dwarf Ginseng
Painted trillium
Hobblebush
Small White Violet
Spring Beauty
Trout Lily
Wild Sarsaparilla

Wild Strawberry

June 9 Starflower Wild Lily-of-the-Valley Northern Blue Violet Bunchberry Wild Sarsaparilla Dewberry Dwarf ginseng

June 28 Wild lily-of-the-Valley Bunchberry Buttercup sp?

Ken McKenna Resume

Education:

BSC Biology 1975 University Prince Edward Island

DDS 1979 Dalhousie University

Bird related activities:

Participant Christmas Bird Counts-1991- present

Compiler Pictou Harbour Christmas Bird Count- 1992- present

Past member of Eastern Mainland Field Naturalists and was representative for that club to the Federation of NS Naturalists

Co-founder of Pictou Co. Naturalists Club-1995

Program coordinator of Pictou Co. Naturalists Club 1995-present

Seasonal editor NS Bird Society quarterly magazine 2001- present

Compiler NS Spring Migration Count (Pictou Co.) 1992- present

Breeding Bird Survey routes (1-2 yearly) for CWS- Bird Studies Canada 1999-present James River, Tatamagouche and Trafalgar are routes that have been run- James River every year during that period; Started a new BBS route Crow's Nest in 2014.

Atlantic Canada Nocturnal Owl Survey for Bird Studies Canada 2001- present 2-3 routes yearly

Regional Coordinator area 23 (Antigonish) for the Maritime Breeding Bird Atlas – 2006-2010

Compile Data for nearly a decade on the New Glasgow Temperance St school Chimney Swifts and participant in the Maritime Swiftwatch Program

Piping Plover Guardian Pictou Co. beaches for 20+ years

Have volunteered with CWS on Marsh surveys for Willets and Nelson's Sparrows

Have Volunteered with CWS with Kate Bredin on uptake of chemicals in Tree Swallows near a local pulp mill (field work only)

Volunteer Bird Studies NS Nature Trust - St Mary's River, 2013, 2014

Volunteer Bird Inventory Abraham's Lake for Nature Conservancy Canada

Bird Related Work Projects:

Windmill EA: Bird section Forbes Lake, Pictou Co.- spring breeding and fall,.- 2012

Bird Nest Survey for Heritage Gas -spring 2013, spring 2014

Bird Study Brierly Brook Quarry spring, breeding and fall 2013

		site_numb			st	art		
project_name	survey type	_	D	М	tii	ne	species_code	total #
MacKenzie	Spring	Ci			٠		Black-capped	total II
Settlement	migration	MS1	26		4	1347	Chickadee	1
MacKenzie	Spring		20		7	1041	- Cinonado	1
Settlement	migration	MS1	26		4	13/17	American Robin	1
MacKenzie	Spring	14101	20		7	1341	7 III OHOUH TOOM	1
Settlement	migration	MS1	26		4	12/7	Unknown Raptor	1
MacKenzie	Spring	IVIOT	20		4	1347	Black-capped	1
Settlement	migration	MS2	26		4	1255	Chickadee	2
MacKenzie	Spring	IVIOZ	20		4	1333	Chickadee	2
Settlement	migration	MS2	26		4	1055	Dark-eyed Junco	2
	•	IVISZ	26		4	1355	Dark-eyed Junco	2
MacKenzie	Spring	MCO	00			4.400	Nouthous Flighter	4
Settlement	migration	MS3	26		4	1400	Northern Flicker	1
MacKenzie	Spring	MCA				4 405	Dork aved limes	
Settlement	migration	MS4	26		4	1405	Dark-eyed Junco	1
MacKenzie	Spring						5 . 5 .	_
Settlement	migration	MS7	26		4	1420	Purple Finch	1
MacKenzie	Spring						Black-capped	_
Settlement	migration	MS7	26		4	1420	Chickadee	1
MacKenzie	Spring	N4054	_				0	
Settlement	migration	MS51	26		4	1420	Common Raven	1
MacKenzie	Spring						_	
Settlement	migration	MS9	26		4	1440	American Crow	1
MacKenzie	Spring							
Settlement	migration	MS9	26		4	1440	American Robin	1
MacKenzie	Spring	Transect to						
Settlement	migration	53	26		4	1450	Ruffed Grouse	2
MacKenzie	Spring							
Settlement	migration	Lake	26		4	1510	Bald Eagle	1
MacKenzie	Spring							
Settlement	migration	Lake	26		4	1510	Surf Scooter	2
MacKenzie	Spring							
Settlement	migration	Lake	26		4	1510	Common Loon	1
MacKenzie	Spring						Double-crested	
Settlement	migration	Lake	26		4	1510	Cormorant	1
MacKenzie	Spring							
Settlement	migration	Lake	26		4	1510	Mallard	
MacKenzie	Spring						Black-capped	
Settlement	migration	Lake	26		4	1510	Chickadee	3
MacKenzie	Spring						Golden-crowned	
Settlement	migration	Lake	26		4	1510	Kinglet	2
MacKenzie	Spring	Transect to						
Settlement	migration	MS5	26		4	1550	Common Raven	1
MacKenzie	Spring	Transect to						
Settlement	migration	MS5	26		4	1550	Dark-eyed Junco	1
MacKenzie	Spring	Transect to					Golden-crowned	
_	migration	MS5	26		4	1550	Kinglet	2
Settlement							-	
Settlement MacKenzie	Spring	Transect to					Ruby-crowned	

		4					
Mookonzio	Carina	transect					
MacKenzie Settlement	Spring	drive to MS55	26	4	1640	Northern Harrier	1
Settlement	migration		26	4	1640	Normem Hamer	ı
MacKenzie	Spring	transect drive to					
Settlement	migration	MS55	26	4	1640	American Robin	1
Settlement	mgration	transect	20	4	1040	AITIETICATI NODITI	'
MacKenzie	Spring	drive to					
Settlement	migration	MS55	26	4	1640	Common Raven	1
Settlement	mgration	transect	20	7	1040	Common Naven	'
MacKenzie	Spring	drive to					
Settlement	migration	MS55	26	4	1640	Song Sparrow	1
Cottlomont	mgradon	transect	20	•	1010	cong opanon	•
MacKenzie	Spring	drive to					
Settlement	migration	MS55	26	4	1640	Northern Flicker	2
	g. cc	transect		•			_
MacKenzie	Spring	drive to					
Settlement	migration	MS55	26	4	1640	Northern Shrike*	1
MacKenzie	spring						
Settlement	migration	MS56	30	4	530	Winter Wren	3
MacKenzie	spring						
Settlement	migration	MS56	30	4	530	American Robin	2
MacKenzie	spring						
Settlement	migration	MS56	30	4	530	Hermet Thrush	3
MacKenzie	spring					White-throated	
Settlement	migration	MS56	30	4	530	Sparrow	1
MacKenzie	spring						
Settlement	migration	MS56	30	4	530	Brown Creeper	1
MacKenzie	spring						
Settlement	migration	MS56	30	4	530	Winter Wren	1
MacKenzie	spring						
Settlement	migration	MS56	30	4	530	Ruffed Grouse	1
MacKenzie	spring						_
Settlement	migration	MS56	30	4	530	Hermet Thrush	3
MacKenzie	spring	14050	00		500	A ' D '	
Settlement	migration	MS56	30	4		American Robin	1
MacKenzie	spring	MOEC	20	4		White-throated	4
Settlement	migration	MS56	30	4	530	Sparrow	1
MacKenzie Settlement	spring	MS56	30	4	F20	Common Raven	2
MacKenzie	migration spring	MSSO	30	4	550	Common Raven	2
Settlement	migration	MS56	30	4	530	Barred Owl	1
MacKenzie	spring	MOSO	30	7	330	Darred Owi	'
Settlement	migration	MS56	30	4	530	American Robin	1
MacKenzie	spring		00	•	000	, arronoarr room	•
Settlement	migration	MS3	30	4	545	Hermet Thrush	2
MacKenzie	spring			•		Red-breasted	_
Settlement	migration	MS3	30	4		Nuthatch	1
MacKenzie	spring		-		=-		
Settlement	migration	MS3	30	4	545	American Robin	1
MacKenzie	spring						
Settlement	migration	MS3	30	4	545	Common Raven	2

MacKenzie	spring					
Settlement	migration	MS3	30	4	545 Hermet Thrush	1
MacKenzie	spring					
Settlement	migration	MS3	30	4	545 Winter Wren	1
MacKenzie	spring					
Settlement	migration	MS3	30	4	545 Ruffed Grouse	1
MacKenzie	spring				Golden-crowned	
Settlement	migration	MS3	30	4	545 Kinglet	1
MacKenzie	spring				_	
Settlement	migration	MS3	30	4	545 Common Raven	1
MacKenzie	spring					
Settlement	migration	MS3	30	4	545 Purple Finch	2
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Dark-eyed Junco	1
MacKenzie	spring				White-throated	
Settlement	migration	MS4	30	4	559 Sparrow	2
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 American Robin	2
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Purple Finch	2
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Hermet Thrush	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Hermet Thrush	2
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Winter Wren	1
MacKenzie	spring				White-throated	
Settlement	migration	MS4	30	4	559 Sparrow	2
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 American Robin	1
MacKenzie	spring				Ruby-crowned	
Settlement	migration	MS4	30	4	559 Kinglet	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 American Crow	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Northern Flicker	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Ruffed Grouse	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Hermet Thrush	2
MacKenzie	spring				_	
Settlement	migration	MS4	30	4	559 Common Raven	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Purple Finch	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 Evening Grosbeak	1
MacKenzie	spring					
Settlement	migration	MS4	30	4	559 American Goldfinch	1
MacKenzie	spring	1405	• •		Black-capped	
Settlement	migration	MS51	30	4	612 Chickadee	1
MacKenzie	spring	N4054			040 Associate D. I.	_
Settlement	migration	MS51	30	4	612 American Robin	2

MacKenzie	spring	N054	00		040	Ruby-crowned	
Settlement	migration	MS51	30	4	612	Kinglet	1
MacKenzie	spring	MOE4	20	4	C40	Dowle aread tripped	4
Settlement	migration	MS51	30	4	612	Dark-eyed Junco	1
MacKenzie	spring	MOE4	20	4	C40	Minter Man	2
Settlement	migration	MS51	30	4	612	Winter Wren	2
MacKenzie	spring	MOEA	00	4	040	D. # - 1 O	
Settlement	migration	MS51	30	4	612	Ruffed Grouse	1
MacKenzie	spring	MOE4	20	4	C40	Unknown	4
Settlement	migration	MS51	30	4	612	Woodpecker	1
MacKenzie	spring	MCE1	20	4	640	Durale Cinch	1
Settlement MacKenzie	migration	MS51	30	4	012	Purple Finch Golden-crowned	1
Settlement	spring	MS6	30	4	620		2
MacKenzie	migration	IVISO	30	4	020	Kinglet	2
Settlement	spring	MS6	20	4	620	Durale Fineh	1
MacKenzie	migration spring	IVISO	30	4	020	Purple Finch	1
Settlement		MS6	30	4	620	Dark avad Junea	2
MacKenzie	migration	IVISO	30	4	628	Dark-eyed Junco	2
Settlement	spring	MS6	20	4	620	Ruffed Grouse	1
	migration	IVISO	30	4	628	Rulled Glouse	1
MacKenzie Settlement	spring	MS6	20	4	620	Common Raven	1
MacKenzie	migration	IVISO	30	4	020	Common Raven	1
	spring	MSG	20	4	620	Unknown Duck	4
Settlement	migration	MS6	30	4	628	Unknown Duck	1
MacKenzie	spring	MCC	00	4	000	Company Crookle	
Settlement	migration	MS6	30	4	628	Common Grackle	1
MacKenzie	spring	MOZNI	00	4	045	Minter Man	
Settlement	migration	MS7N	30	4	645	Winter Wren	1
MacKenzie	spring	MOZNI	20	4	CAE	Red-breasted	4
Settlement	migration	MS7N	30	4	645	Nuthatch	1
MacKenzie Settlement	spring	MOZNI	20	4	C4E	Dork avad Junea	4
	migration	MS7N	30	4	645	Dark-eyed Junco	1
MacKenzie Settlement	spring	MOZNI	20	4	C 1 E	White-throated	1
MacKenzie	migration	MS7N	30	4	045	Sparrow	1
	spring	MS7N	30	4	C 1 E	Ruby-crowned	1
Settlement MacKenzie	migration	IVISTIN	30	4	043	Kinglet	ı
Settlement	spring	MS7N	30	4	645	Black-capped Chickadee	1
MacKenzie	migration	IVIOTIN	30	4	043	Chickadee	1
Settlement	spring migration	MS7N	30	4	645	Northern Flicker	1
MacKenzie	spring	IVIOTIN	30	4	043	Northern Flicker	1
Settlement	migration	MS7N	30	4	645	Winter Wren	1
MacKenzie	spring	IVISTIN	30	4	043	Willer Wiell	ı
Settlement	migration	MS7N	30	4	645	Purple Finch	1
MacKenzie	spring	IVIOTIN	30	4	043	White-throated	1
Settlement	migration	MS7N	30	4	645	Sparrow	1
MacKenzie	spring	IVIOTIN	30	4	043	Sparrow	1
Settlement	migration	MS7N	30	4	645	Swamp Sparrow	1
MacKenzie	spring	IVIO/IN	30	4	040	Black-capped	ı
Settlement	migration	MS7N	30	4	61E	Chickadee	1
MacKenzie	spring	IVIO7IN	30	4	040	OHIORAUGE	1
Settlement	migration	MS7N	30	4	645	Common Raven	1
Semement	myralion	IVIOTIN	30	4	043	Common Naven	1

MacKenzie	spring					
Settlement	migration	MS7N	30	4	645 Ruffed Grouse	1
MacKenzie	spring					
Settlement	migration	MS7N	30	4	645 Hermet Thrush	1
MacKenzie	spring					
Settlement	migration	MS8	30	4	702 American Robin 2	2
MacKenzie	spring					
Settlement	migration	MS8	30	4	•	1
MacKenzie	spring				Black-capped	
Settlement	migration	MS8	30	4	702 Chickadee	1
MacKenzie	spring					
Settlement	migration	MS8	30	4	,	1
MacKenzie	spring				Red-breasted	
Settlement	migration	MS8	30	4		1
MacKenzie	spring				Golden-crowned	_
Settlement	migration	MS8	30	4	702 Kinglet	2
MacKenzie	spring	1400				
Settlement	migration	MS8	30	4	_	1
MacKenzie	spring	MCO	00		Ruby-crowned	
Settlement	migration	MS8	30	4	702 Kinglet	1
MacKenzie	spring	MCO	20	4	700 Dayle aread liveas	
Settlement MacKenzie	migration	MS8	30	4	702 Dark-eyed Junco	1
Settlement	spring migration	MS8	20	4	702 American Goldfinch	1
MacKenzie	spring	IVISO	30	4	702 American Goldinich	1
Settlement	migration	MS8	30	4	702 Northern Flicker	1
MacKenzie	spring	IVIO	30	4	702 Northern Flicker	'
Settlement	migration	MS8	30	4	702 Purple Finch	1
MacKenzie	spring	IVIOO	30	4	702 Turple Tillon	•
Settlement	migration	MS9	30	4	715 American Robin	1
MacKenzie	spring	Wico	00	7	7 To 7 tilleticall (Cobin	•
Settlement	migration	MS9	30	4	715 Ruffed Grouse	1
MacKenzie	spring		00	•	The stance escale	•
Settlement	migration	MS9	30	4	715 Canada Goose 2	2
MacKenzie	spring					
Settlement	migration	MS9	30	4	715 Purple Finch	1
MacKenzie	spring				·	
Settlement	migration	MS9	30	4	715 Common Raven	1
MacKenzie	spring				Ruby-crowned	
Settlement	migration	MS9	30	4	715 Kinglet	1
MacKenzie	spring				Red-breasted	
Settlement	migration	MS9	30	4	715 Nuthatch	1
MacKenzie	spring					
Settlement	migration	MS9	30	4	715 Evening Grosbeak	2
MacKenzie		transect to				
Settlement	Transect count	MS53	30	4	•	2
MacKenzie		transect to			Pileated	
Settlement	Transect count		30	4	•	1
MacKenzie	_	transect to	_		Black-capped	
Settlement	Transect count		30	4	731 Chickadee 2	2
MacKenzie	-	transect to				
Settlement	Transect count	IVIS53	30	4	731 Dark-eyed Junco	1

	transect to					
Transect count	MS53	30	4	731	Purple Finch	2
	transect to					
Transect count	MS53	30	4	731	American Robin	1
	transect to				Black-capped	
Transect count	MS53	30	4	731	Chickadee	8
	transect to					
Transect count	MS53	30	4	731	Boreal Chickadee	2
Migration count	MS53	30	4	739	Winter Wren	1
J					Golden-crowned	
Migration count	MS53	30	4	739	Kinglet	1
J					9	
Migration count	MS53	30	4	739	American Robin	1
3	Transect					
	MS 53-					
Transect count		30	4	750	American Robin	2
		00	•	, 00		_
					Yellow-bellied Sap	
Transect count		30	4	750	•	1
Transcot count		00	7	700	Cucker	•
Transect count		30	1	750	Purnle Finch	1
Transcot count		30	7	750	r diple i illeli	'
					Pilested	
Transact count		20	4	750		1
rransect count	Lake	30	4	750	•	'
Migration count	LAVE	20	4	750	•	2
wigration count	LANE	30	4	759		2
Migration count	LAKE	20	4	750		4
wigration count	LANE	30	4	759	_	1
Migratian agust		20	4	750		2
wigration count	LANE	30	4	759	Chickadee	2
Migratian agust		20	4	750	American Crow	4
wigration count	LANE	30	4	759	American Crow	1
Migratian agust		20	4	750	Northorn Fligker	4
wigration count		30	4	759	Northern Flicker	1
Transact count		20	4	022	Durale Cineb	2
Transect count		30	4	832	•	2
Transact count		20	4	000		2
Transect count		30	4	832	Cnickadee	2
T		20	4	000	Arrandiana Calakia ak	
ransect count		30	4	832	American Goldfinch	1
Transact count		20	4	000	Durale Cinele	
Transect count		30	4	832	Purple Finch	1
T		00	4	000	Comment Davids	
ransect count	IVIS5	30	4	832	Common Raven	1
Minustina	MOE	00	4	000	D. # - 1 O	
ivilgration count	CCIVI	30	4	838	Kullea Grouse	1
N Alamatic contract	MOE	00	4	000	O	_
ivilgration count	IVIS5	30	4	838	Common Raven	2
NA: and Control	MOE	00	,	000	Amaniana O	
Migration count	MS5	30	4	838	American Crow	1
	Transect count Transect count Migration count Migration count Migration count Transect count Transect count Transect count Migration count Migration count Migration count Migration count Transect count Migration count Migration count Transect count	Transect count MS53 transect to Transect count MS53 transect to Transect count MS53 transect to Transect count MS53 Migration count MS53 Migration count MS53 Migration count MS53	Transect count MS53 30 transect to Transect count MS53 30 transect to Transect count MS53 30 transect to Transect count MS53 30 Migration count MS53 30 Transect MS 53- Transect count Lake 30 Migration count LAKE 30 Transect count MS5 30 Migration count MS5 30	Transect count MS53 30 4 Migration count MS53 30 4 Migration count MS53 30 4 Migration count MS53 30 4 Transect MS 53- 30 4 Transect count Lake 30 4 Migration count LAKE 30 4 Transect count MS5 30 4 Trans	Transect count MS53 transect to 30 4 731 Transect count MS53 transect to 30 4 731 Transect count MS53 30 4 731 Migration count MS53 30 4 739 Transect MS 53- Transect count Lake 30 4 750 Transect count Lake 30 4 750 Transect count Lake 30 4 750 Miss 53- Transect count Lake 30 4 750 Miss 53- Transect count Lake 30 4 750 Migration count LAKE 30 4 750 Migration count LAKE 30 4 759 Transect count MS5 30 4 832 Migration count MS5 30	Transect count MS53 transect to Transect count MS53 stransect to Transect count MS53 stransect to Transect count MS53 so 4 round fransect managed fransect formanaged formanaged fransect formanaged formanaged fransect formanaged for

MacKenzie		Transect to					
Settlement	Transect count		30	4	940	Dark-eyed Junco	1
MacKenzie	Transect Count	101004	30	4	049	Black-capped	1
Settlement	Migration count	MSEA	30	4	052	Chickadee	4
MacKenzie	wilgration count	101004	30	4	032	Chickadee	4
Settlement	Migration count	MCEA	30	4	050	Durale Cineb	1
	wilgration count	101334	30	4	032	Purple Finch	ı
MacKenzie	Migratian count	MCEA	20	4	050	Common Boyen	2
Settlement	Migration count	IVIS54	30	4	002	Common Raven	2
MacKenzie Settlement	Migration count	MCEA	20	4	050	Puffed Crouse	1
MacKenzie	Migration count	IVIS54	30	4	002	Ruffed Grouse	1
Settlement	Migration count	MCEA	30	4	050	Blue Jay	1
MacKenzie	wilgration count	101004	30	4	032	Blue Jay	ı
Settlement	Migration count	MS54	30	4	052	Common Raven	1
MacKenzie	wilgration count	101004	30	4	032	Common Naven	ı
Settlement	Migration count	MSSS	30	4	024	American Robin	22
MacKenzie	wilgration count	MOOO	30	4	924	American Robin	22
Settlement	Migration count	MSSS	30	4	024	Song Sparrow	3
MacKenzie	wilgration count	MOOO	30	4	924	Sorig Sparrow	3
Settlement	Migration count	MSSS	30	4	024	Dark-eyed Junco	1
MacKenzie	wilgration count	101000	30	4	924	Dark-eyed Jurico	1
Settlement	Migration count	MSEE	30	4	024	Winter Wren	1
MacKenzie	wilgration count	101000	30	4	924	willer wien	1
Settlement	Migration count	MSSS	30	4	024	American Crow	1
MacKenzie	wilgration count	MOOO	30	4	924	American crow	ı
Settlement	Migration count	MSEE	30	4	024	American Robin	1
MacKenzie	wilgration count	MOOO	30	4	924	American Robin	ı
Settlement	Migration count	MSEE	30	4	024	Common Raven	6
MacKenzie	wilgration count	101000	30	4	924	Common Raven	O
Settlement	Migration count	MSSS	30	4	024	American Goldfinch	1
MacKenzie	wilgration count	Drive to	30	4	924	American Goldinich	ı
Settlement	Transect count		30	4	035	Winter Wren	1
MacKenzie	Transect count	Drive to	30	4	933	Ruby-crowned	'
Settlement	Transect count		30	4	035	Kinglet	2
MacKenzie	Transect count	Drive to	30	7	333	Red-breasted	_
Settlement	Transect count		30	4	035	Nuthatch	1
MacKenzie	Transect count	Drive to	30	7	333	Nutriatori	'
Settlement	Transect count		30	4	035	Song Sparrow	1
MacKenzie	Transect count	Drive to	30	7	333	Yellow-rumped	'
Settlement	Transect count		30	4	035	Warbler	1
MacKenzie	Transcot count	Drive to	50	7	555	vvaiblei	'
Settlement	Transect count		30	4	035	Dark-eyed Junco	1
MacKenzie	Transcot count	Drive to	50	7	555	Golden-crowned	'
Settlement	Transect count		30	4	035	Kinglet	2
MacKenzie	Transcot count	Drive to	30	7	333	Black-capped	_
Settlement	Transect count		30	4	035	Chickadee	1
MacKenzie	Transcot obant	WOTO	50	7	555	Chloradee	'
Settlement	Migration count	MS13	30	4	940	Savannah Sparrow	1
MacKenzie	wiigiation count	101010	50	7	J+3	Savannan Spanow	'
Settlement	Migration count	MS13	30	4	9/10	American Robin	4
MacKenzie	wingsation count		50	7	J -1 3	, anonour Robin	4
Settlement	Migration count	MS13	30	4	QΔQ	Northern Flicker	1
Journalit	wiigiation coulit	1410 13	50	7	J43	14OTUTOTTT HUNG!	1

MacKenzie						Ruby-crowned	
Settlement	Migration count	MS13	30	4	949	Kinglet	1
MacKenzie	· ·						
Settlement	Migration count	MS13	30	4	949	American Robin	6
MacKenzie						Black-capped	
Settlement	Migration count	MS13	30	4	949	Chickadee	1
MacKenzie							
Settlement	Migration count	MS13	30	4	949	Common Raven	2
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	American Woodcock	2
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	Wilson's Snipe	1
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	Ruffed Grouse	1
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	Hermet Thrush	1
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	Winter Wren	1
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	American Robin	1
MacKenzie	Nocturnal						
Settlement	count	MS9	30	4	2045	Barred Owl	2
MacKenzie	Nocturnal					Northern Saw-whet	
Settlement	count	MS8	30	4	2120	Owl	1
MacKenzie	Nocturnal					Northern Saw-whet	
Settlement	count	MS Quarry	30	4	2158	Owl	1
MacKenzie						Ruby-crowned	
Settlement	Migration count	MS3	14	5	516	Kinglet	1
MacKenzie							
Settlement	Migration count	MS3	14	5	516	Swamp Sparrow	2
MacKenzie							
Settlement	Migration count	MS3	14	5	516	American Robin	1
MacKenzie							
Settlement	Migration count	MS3	14	5	516	Hermet Thrush	2
MacKenzie						Red-breasted	
Settlement	Migration count	MS3	14	5	516	Nuthatch	1
MacKenzie						Yellow-rumped	
Settlement	Migration count	MS3	14	5	516	Warbler	1
MacKenzie						White-throated	
Settlement	Migration count	MS3	14	5	516	Sparrow	1
MacKenzie							
Settlement	Migration count	MS3	14	5	516	Ruffed Grouse	1
MacKenzie							
Settlement	Migration count	MS3	14	5	516	Swamp Sparrow	2
MacKenzie				_		White-throated	
Settlement	Migration count	MS3	14	5	516	Sparrow	2
MacKenzie				_			
Settlement	Migration count	MS3	14	5	516	Hermet Thrush	1
MacKenzie	Minumble	MOO	4.4	_	E 4 6	American Delli	,
Settlement	Migration count	IVIろろ	14	5	516	American Robin	1
MacKenzie	Migration agent	MCO	4.4	_	E40	Harmat Thruch	^
Settlement	Migration count	IVIOS	14	5	516	Hermet Thrush	2

						140.00	
MacKenzie	5.4 1	1400		_		White-throated	
Settlement	Migration count	MS3	14	5	516	Sparrow	1
MacKenzie	Minustine secont	MOO	4.4	_	540	Common Davida	
Settlement	Migration count	MS3	14	5	516	Common Raven	1
MacKenzie	Minustine secont	MOO	4.4	_	540	A ser e si e e e Consul	
Settlement	Migration count	MS3	14	5	516	American Crow	1
MacKenzie	N4' ('	1400	4.4	_	540	10/2 of a 10/2 or a	
Settlement	Migration count	IVIS3	14	5	516	Winter Wren	1
MacKenzie	Migratian agust	MCA	11	E	E20	Hermet Thrush	1
Settlement MacKenzie	Migration count	10154	14	5	529	neimet miusii	1
Settlement	Migration count	MQA	14	5	520	Blue-headed Vireo	1
MacKenzie	wilgration count	10104	14	3	323	Ruby-crowned	'
Settlement	Migration count	MS4	14	5	520	Kinglet	1
MacKenzie	wiigration count	IVIO4	14	3	323	Kinglet	'
Settlement	Migration count	MS4	14	5	520	American Robin	2
MacKenzie	wiigration count	WOT	14	3	323	Black-throated	_
Settlement	Migration count	MS4	14	5	520	Green Warbler	2
MacKenzie	wigration count	WIO-	17	5	020	White-throated	_
Settlement	Migration count	MS4	14	5	529	Sparrow	1
MacKenzie	mgradon oodin		• •	Ü	020	Spairon.	•
Settlement	Migration count	MS4	14	5	529	Dark-eyed Junco	1
MacKenzie	9						-
Settlement	Migration count	MS4	14	5	529	Swainson's Thrush	1
MacKenzie	3					Black-capped	
Settlement	Migration count	MS4	14	5	529	Chickadee	2
MacKenzie	-					White-throated	
Settlement	Migration count	MS4	14	5	529	Sparrow	1
MacKenzie							
Settlement	Migration count	MS4	14	5	529	Ruffed Grouse	1
MacKenzie							
Settlement	Migration count	MS4	14	5	529	American Robin	1
MacKenzie						Yellow-rumped	
Settlement	Migration count	MS4	14	5	529	Warbler	2
MacKenzie				_			
Settlement	Migration count	MS4	14	5	529	Dark-eyed Junco	1
MacKenzie				_			_
Settlement	Migration count	MS4	14	5	529	American Crow	2
MacKenzie	Minustine secont	MO4	4.4	_	-00	Common Davida	_
Settlement	Migration count	IVI54	14	5	529	Common Raven	2
MacKenzie	Migratian agust	MCA	11	E	E20	Common Dovon	4
Settlement MacKenzie	Migration count	10154	14	5	529	Common Raven	1
Settlement	Migration count	MSA	14	5	520	Purple Finch	1
MacKenzie	wilgration count	10104	14	5	529	ruipie i ilicii	•
Settlement	Migration count	MS51	14	5	5/16	Ovenbird	1
MacKenzie	wiigration count	WOOT	14	3	340	White-throated	'
Settlement	Migration count	MS51	14	5	546	Sparrow	2
MacKenzie	gradon oodin		17	5	U- 1 U	opalion .	_
Settlement	Migration count	MS51	14	5	546	Purple Finch	1
MacKenzie	.g			-	5.5	Yellow-rumped	•
Settlement	Migration count	MS51	14	5	546	Warbler	2
	ū						

	MacKenzie							
	Settlement	Migration count	MS51	14	5	546	American Robin	1
	MacKenzie				_		Unknown	
	Settlement	Migration count	MS51	14	5	546	Woodpecker	1
	MacKenzie				_		Yellow-rumped	
	Settlement	Migration count	MS51	14	5	546	Warbler	1
	MacKenzie				_		White-throated	
	Settlement	Migration count	MS51	14	5	546	Sparrow	1
	MacKenzie	N. C	14054		_	5 40	Ruby-crowned	
	Settlement	Migration count	MS51	14	5	546	Kinglet	1
	MacKenzie	Minustine secont	N4054	4.4	_	- 40	Minton Man	^
	Settlement	Migration count	MSST	14	5	546	Winter Wren	2
	MacKenzie	Migratian against	MOEA	4.4	_	- 40	Davini Waadaalaa	
	Settlement	Migration count	MSSI	14	5	546	Downy Woodpecker	1
	MacKenzie	Migratian agust	MCE1	4.4	_	F 4 C	Division booked Vires	4
	Settlement MacKenzie	Migration count	IVISSI	14	5	546	Blue-headed Vireo	1
	Settlement	Migration count	MCE1	1.1	5	E A C	Common Raven	1
	MacKenzie	wigration count	IVISST	14	5	546	Common Raven	ı
	Settlement	Migration count	MQ51	14	5	E 1 G	Ruffed Grouse	1
	MacKenzie	wigration count	IVISST	14	5	546	Rulled Glouse	ı
	Settlement	Migration count	MS51	14	5	5 46	Evening Grosbeak	1
	MacKenzie	wigration count	IVIOOT	14	3	540	Everiling Grosbeak	'
	Settlement	Migration count	MS51	14	5	5/6	Purple Finch	1
	MacKenzie	wiigration count	IVIOOT	14	5	340	White-throated	'
	Settlement	Migration count	MS6	14	5	601	Sparrow	1
	MacKenzie	wigration count	IVIOO	17	5	001	Yellow-rumped	'
	Settlement	Migration count	MS6	14	5	601	Warbler	1
	MacKenzie	wigration count	WOO	17	5	001	Golden-crowned	•
	Settlement	Migration count	MS6	14	5	601	Kinglet	2
	MacKenzie	wigration count	Wee	1-7	Ü	001	Tungiot	_
	Settlement	Migration count	MS6	14	5	601	Winter Wren	1
	MacKenzie	g						
	Settlement	Migration count	MS6	14	5	601	Blue-headed Vireo	2
	MacKenzie	3						
,	Settlement	Migration count	MS6	14	5	601	Hermet Thrush	1
	MacKenzie	J						
,	Settlement	Migration count	MS6	14	5	601	Dark-eyed Junco	1
	MacKenzie							
,	Settlement	Migration count	MS6	14	5	601	Boreal Chickadee	1
-	MacKenzie							
,	Settlement	Migration count	MS6	14	5	601	Common Raven	1
I	MacKenzie						Ruby-crowned	
	Settlement	Migration count	MS6	14	5	601	Kinglet	1
	MacKenzie							
	Settlement	Migration count	MS6	14	5	601	American Robin	1
	MacKenzie							
	Settlement	Migration count	MS6	14	5	601	American Crow	1
	MacKenzie				_		5	
	Settlement	Migration count	MS6	14	5	601	Dark-eyed Junco	1
	MacKenzie	NAT: C .	1400		_	064	Black-throated	,
,	Settlement	Migration count	MS6	14	5	601	Green Warbler	1

MacKenzie				
Settlement	Migration count MS6	14	5	601 Common Raven 2
MacKenzie	g.ao ooaoo	• •	Ü	Yellow-rumped
Settlement	Migration count MS6	14	5	601 Warbler 1
MacKenzie	Migration count Moo	17	0	oo i waibici
Settlement	Migration count MC7N	4.4	5	C1E Overhird
	Migration count MS7N	14	5	615 Ovenbird 1
MacKenzie	N		_	Black-throated
Settlement	Migration count MS7N	14	5	615 Green Warbler 1
MacKenzie			_	
Settlement	Migration count MS7N	14	5	615 American Robin 1
MacKenzie				White-throated
Settlement	Migration count MS7N	14	5	615 Sparrow 2
MacKenzie				Black and White
Settlement	Migration count MS7N	14	5	615 Warbler 1
MacKenzie				Yellow-bellied Sap
Settlement	Migration count MS7N	14	5	615 Sucker 1
MacKenzie				
Settlement	Migration count MS7N	14	5	615 Winter Wren 2
MacKenzie	•			
Settlement	Migration count MS7N	14	5	615 Dark-eyed Junco 1
MacKenzie	9		•	White-throated
Settlement	Migration count MS7N	14	5	615 Sparrow 2
MacKenzie	Migration count Mo714	17	5	Yellow-rumped
Settlement	Migration count MS7N	14	5	615 Warbler 1
MacKenzie	wigration count wishi	14	5	
	Migration count MC7N	4.4	_	Ruby-crowned
Settlement	Migration count MS7N	14	5	615 Kinglet 1
MacKenzie	Minus Comment MOZNI		_	OAE Dalas Washing
Settlement	Migration count MS7N	14	5	615 Palm Warbler 1
MacKenzie			_	Black-capped
Settlement	Migration count MS7N	14	5	615 Chickadee 1
MacKenzie				Unknown
Settlement	Migration count MS7N	14	5	615 Woodpecker 2
MacKenzie				
Settlement	Migration count MS7N	14	5	615 American Robin 1
MacKenzie				
Settlement	Migration count MS7N	14	5	615 Northern Flicker
MacKenzie				
Settlement	Migration count MS7N	14	5	615 American Goldfinch
MacKenzie	· ·			White-throated
Settlement	Migration count MS8	14	5	632 Sparrow
MacKenzie	3			'
Settlement	Migration count MS8	14	5	632 Purple Finch
MacKenzie	mgradon eedin mee	• •	Ü	COL 1 diplo 1 mon
Settlement	Migration count MS8	14	5	632 Hermet Thrush
MacKenzie	Migration count Mee	17	J	Black-throated
Settlement	Migration count MS8	14	5	632 Green Warbler
MacKenzie	Migration count Moo	14	3	032 Green Warbier
	Migration count MCO	4.4	_	COO Overhird
Settlement	Migration count MS8	14	5	632 Ovenbird
MacKenzie	Microticst MOC		_	Ruby-crowned
Settlement	Migration count MS8	14	5	632 Kinglet
MacKenzie			_	Black-capped
Settlement	Migration count MS8	14	5	632 Chickadee

MacKenzie				Yellow-rumped	
Settlement	Migration count MS8	14	5	632 Warbler	
MacKenzie			_		
Settlement	Migration count MS8	14	5	632 American Robin	
MacKenzie			_		
Settlement	Migration count MS8	14	5	632 Ruffed Grouse	
MacKenzie				Yellow-bellied Sap	
Settlement	Migration count MS8	14	5	632 Sucker	
MacKenzie					
Settlement	Migration count MS8	14	5	632 Common Raven	
MacKenzie					
Settlement	Migration count MS8	14	5	632 American Goldfinch	1
MacKenzie					
Settlement	Migration count MS8	14	5		2
MacKenzie				Yellow-rumped	
Settlement	Migration count MS9	14	5	646 Warbler	3
MacKenzie					
Settlement	Migration count MS9	14	5		1
MacKenzie				White-throated	
Settlement	Migration count MS9	14	5	646 Sparrow	1
MacKenzie					
Settlement	Migration count MS9	14	5	•	1
MacKenzie				Black and White	
Settlement	Migration count MS9	14	5	646 Warbler	1
MacKenzie					
Settlement	Migration count MS9	14	5	•	1
MacKenzie				Ruby-crowned	
Settlement	Migration count MS9	14	5	S	1
MacKenzie				Black-throated	_
Settlement	Migration count MS9	14	5	646 Green Warbler	2
MacKenzie					
Settlement	Migration count MS9	14	5		1
MacKenzie			_	White-throated	_
Settlement	Migration count MS9	14	5	646 Sparrow	3
MacKenzie	M:	4.4	_	0.40 11	
Settlement	Migration count MS9	14	5	646 Hermet Thrush	1
MacKenzie	M:	4.4	_	040 D	
Settlement	Migration count MS9	14	5	•	1
MacKenzie	M:	4.4	_	Black-capped	
Settlement	Migration count MS9	14	5		1
MacKenzie	M:	4.4	_	Ruby-crowned	
Settlement	Migration count MS9	14	5	646 Kinglet	1
MacKenzie	Minustina sount MOO	4.4	_	0.40 Maria dia 10/antala	
Settlement	Migration count MS9	14	5	646 Magnolia Warbler	1
MacKenzie	Missalis and MOO	4.4	_	0.40 DL - b b - 1 //	_
Settlement	Migration count MS9	14	5		2
MacKenzie	Minustina sount MOO	4.4	_	Yellow-bellied Sap	
Settlement	Migration count MS9	14	5	646 Sucker	1
MacKenzie	Migration count MCO	4.4	E	646 Buffod Crouss	4
Settlement	Migration count MS9	14	5		1
MacKenzie Settlement	Migration count MCO	1 /	E	Unknown	1
Semement	Migration count MS9	14	5	646 Woodpecker	1

MacKenzie	B.41:	1400		_		D 1 5" 1	_
Settlement	Migration count	MS9	14	5	646	Purple Finch	2
MacKenzie	Migration count	MCO	4.4	_	C 4 C	Common Boyen	4
Settlement	Migration count	IVI59	14	5	040	Common Raven	1
MacKenzie	Migration count	MCO	4.4	_	C 4 C	Dolto d Kingstick or	4
Settlement	Migration count		14	5	040	Belted Kingfisher	1
MacKenzie	Transact sevent	transect to	4.4	_	CEO	Black and White	4
Settlement MacKenzie	Transect count		14	5	050	Warbler	1
	Transect count	transect to	4.4	E	GEO	Yellow-rumped Warbler	2
Settlement MacKenzie	Transect Count		14	5	650	warbiei	2
Settlement	Transect count	transect to	14	5	650	American Robin	1
MacKenzie	Transect Count	transect to	14	5	030	Black-throated	1
Settlement	Transect count		14	5	650	Green Warbler	3
MacKenzie	Transect Count	Transect to	14	3	030	Oreen Warbier	3
Settlement	Transect count		14	5	650	Ovenbird	2
MacKenzie	Transcot count	Transect to	14	5	030	Black-throated	_
Settlement	Transect count		14	5	650	Green Warbler	1
MacKenzie	Transcot count	Transect to	17	3	000	Green Warbier	'
Settlement	Transect count		14	5	650	Evening Grosbeak	1
MacKenzie	Transcot count	Transect to		Ü	000	_vorming Groodsan	•
Settlement	Transect count		14	5	650	Boreal Chickadee	1
MacKenzie			• •	Ü	000	Yellow-rumped	•
Settlement	Migration count	MS53	14	5	711	Warbler	2
MacKenzie	g			•			_
Settlement	Migration count	MS53	14	5	711	Northern Parula	1
MacKenzie	9						-
Settlement	Migration count	MS53	14	5	711	Ovenbird	2
MacKenzie	J					Black-throated	
Settlement	Migration count	MS53	14	5	711	Green Warbler	1
MacKenzie	· ·						
Settlement	Migration count	MS53	14	5	711	Winter Wren	1
MacKenzie		Transect to					
Settlement	Transect count	54	14	5	722	Ovenbird	2
MacKenzie		Transect to				Black-throated	
Settlement	Transect count	54	14	5	722	Green Warbler	2
MacKenzie		Transect to				Black-capped	
Settlement	Transect count	54	14	5	722	Chickadee	2
MacKenzie		Transect to				Golden-crowned	
Settlement	Transect count	54	14	5	722	Kinglet	1
MacKenzie		Transect to				White-throated	
Settlement	Transect count	54	14	5	722	Sparrow	1
MacKenzie		Transect to				Black and White	
Settlement	Transect count	_	14	5	722	Warbler	2
MacKenzie		Transect to				Yellow-rumped	
Settlement	Transect count	_	14	5	722	Warbler	1
MacKenzie	_	Transect to					
Settlement	Transect count		14	5	722	Ruffed Grouse	1
MacKenzie	-	Transect to		_		Yellow-bellied Sap	
Settlement	Transect count		14	5	722	Sucker	1
MacKenzie	Tananasas	Transect to	4.4	_	700	O	
Settlement	Transect count	54	14	5	722	Common Raven	1

		-					
MacKenzie	T	Transect to		_	700	NAC - (NAC	
Settlement	Transect count		14	5	722	Winter Wren	1
MacKenzie	T	Transect to	4.4	_	700	Nicolar a EPsi	
Settlement	Transect count	54	14	5	722	Northern Flicker	1
MacKenzie		=		_		Yellow-rumped	
Settlement	Migration count	LAKE	14	5	722	Warbler	1
MacKenzie				_		Golden-crowned	_
Settlement	Migration count	LAKE	14	5	722	Kinglet	3
MacKenzie						Black and White	
Settlement	Migration count	LAKE	14	5	722	Warbler	2
MacKenzie						Yellow-bellied Sap	
Settlement	Migration count	LAKE	14	5	722	Sucker	1
MacKenzie						Black-throated	
Settlement	Migration count	LAKE	14	5	722	Green Warbler	1
MacKenzie						Black-capped	
Settlement	Migration count	LAKE	14	5	722	Chickadee	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	Blue-headed Vireo	1
MacKenzie						Yellow-rumped	
Settlement	Migration count	LAKE	14	5	722	Warbler	1
MacKenzie						Black-capped	
Settlement	Migration count	LAKE	14	5	722	Chickadee	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	Ovenbird	1
MacKenzie						Unknown	
Settlement	Migration count	LAKE	14	5	722	Woodpecker	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	Song Sparrow	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	American Robin	1
MacKenzie						Red-winged	
Settlement	Migration count	LAKE	14	5	722	Blackbird	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	Swainson's Thrush	1
MacKenzie						Yellow-rumped	
Settlement	Migration count	LAKE	14	5	722	Warbler	1
MacKenzie						White-throated	
Settlement	Migration count	LAKE	14	5	722	Sparrow	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	Purple Finch	1
MacKenzie							
Settlement	Migration count	LAKE	14	5	722	Common Raven	1
MacKenzie	-						
Settlement	Migration count	LAKE	14	5	722	Blue Jay	1
MacKenzie	· ·					American Black	
Settlement	Migration count	LAKE	14	5	722	Duck	2
MacKenzie	· ·						
Settlement	Migration count	LAKE	14	5	722	Bald Eagle	1
MacKenzie	Č					Ŭ	
Settlement	Migration count	LAKE	14	5	722	American Crow	1
MacKenzie	-						
Settlement	Migration count	LAKE	14	5	722	Common Raven	2

MacKenzie		Transect				Yellow-rumped	
Settlement	Transect count		14	5	803	Warbler	3
MacKenzie		Transect				Ruby-crowned	Ū
Settlement	Transect count		14	5	803	Kinglet	1
MacKenzie		Transect				Black-throated	-
Settlement	Transect count		14	5	803	Green Warbler	2
MacKenzie		Transect		•		0.00	_
Settlement	Transect count		14	5	803	Ruffed Grouse	1
MacKenzie	Transcot count	Transect	• •	O	000	ranea erease	•
Settlement	Transect count		14	5	803	Ovenbird	1
MacKenzie	Transcot count	Transect	• •	O	000	CVOINGILG	•
Settlement	Transect count		14	5	803	Purple Finch	1
MacKenzie	rianooti oodiit	Transect	• •	Ü	000	. a.p.o . men	•
Settlement	Transect count		14	5	803	American Robin	1
MacKenzie		Transect	• •	Ü	000	Yellow-bellied Sap	•
Settlement	Transect count		14	5	803	Sucker	1
MacKenzie		Transect	• •	Ü	000		•
Settlement	Transect count		14	5	803	Common Raven	2
MacKenzie		Transect		•			_
Settlement	Transect count		14	5	803	American Goldfinch	1
MacKenzie						Black-throated	-
Settlement	Migration count	MS5	14	5	813	Green Warbler	1
MacKenzie	3					Black-capped	
Settlement	Migration count	MS5	14	5	813	Chickadee	3
MacKenzie	J					Yellow-rumped	
Settlement	Migration count	MS5	14	5	813	Warbler	3
MacKenzie	J						
Settlement	Migration count	MS5	14	5	813	Purple Finch	1
MacKenzie	Ü					Black-throated	
Settlement	Migration count	MS5	14	5	813	Green Warbler	1
MacKenzie	J						
Settlement	Migration count	MS5	14	5	813	Common Raven	2
MacKenzie	Migration count	MS5	14	5	813	Barn Swallow	1
MacKenzie							
Settlement	Migration count	MS5	14	5	813	Pine Siskin	1
MacKenzie		Transect to				Black-throated	
Settlement	Transect count	54	14	5	823	Green Warbler	2
MacKenzie		Transect to					
Settlement	Transect count	54	14	5	823	Hairy Woodpecker	1
MacKenzie		Transect to				Black-capped	
Settlement	Transect count	54	14	5	823	Chickadee	1
MacKenzie		Transect to					
Settlement	Transect count	54	14	5	823	Purple Finch	1
MacKenzie		Transect to					
Settlement	Transect count	54	14	5	823	Ovenbird	1
MacKenzie		Transect to					
Settlement	Transect count	54	14	5	823	Blue-headed Vireo	2
MacKenzie		Transect to				Golden-crowned	
Settlement	Transect count	54	14	5	823	Kinglet	1
MacKenzie		Transect to					
Settlement	Transect count	54	14	5	823	Common Raven	4

MacKenzie				Yellow-rumped	
Settlement	Migration count MS54	14	5	828 Warbler	1
MacKenzie				Black-throated	
Settlement	Migration count MS54	14	5	828 Green Warbler	2
MacKenzie					
Settlement	Migration count MS54	14	5	828 Ovenbird	1
MacKenzie				Black-capped	
Settlement	Migration count MS54	14	5	828 Chickadee	1
MacKenzie					
Settlement	Migration count MS54	14	5	828 Purple Finch	1
MacKenzie	M		_	000 11 1 7	
Settlement	Migration count MS54	14	5	828 Hermet Thrush	1
MacKenzie	Migration count NCE4	4.4	_	000 Dark avad kunas	_
Settlement	Migration count MS54	14	5	828 Dark-eyed Junco	2
MacKenzie	Migration count MCE4	4.4	_	Black and White 828 Warbler	4
Settlement MacKenzie	Migration count MS54	14	5	828 Warbier	1
Settlement	Migration count MS54	14	5	828 American Goldfinch	2
MacKenzie	Migration Count M354	14	3	626 American Goldinch	2
Settlement	Migration count MS55	14	5	904 Lincoln's Sparrow	1
MacKenzie	Migration Count Moss	14	J	904 Ellicolits Sparrow	'
Settlement	Migration count MS55	14	5	904 Savannah Sparrow	2
MacKenzie	Wilgration Count Wicco	17	J	White-throated	_
Settlement	Migration count MS55	14	5	904 Sparrow	1
MacKenzie	mgraden coam meco	• •	Ü	Ruby-crowned	•
Settlement	Migration count MS55	14	5	904 Kinglet	1
MacKenzie	3		•	3 4	-
Settlement	Migration count MS55	14	5	904 American Robin	3
MacKenzie	G				
Settlement	Migration count MS55	14	5	904 Song Sparrow	2
MacKenzie				Ruby-crowned	
Settlement	Migration count MS55	14	5	904 Kinglet	1
MacKenzie					
Settlement	Migration count MS55	14	5	904 American Robin	1
MacKenzie					
Settlement	Migration count MS55	14	5	904 Blue-headed Vireo	1
MacKenzie					
Settlement	Migration count MS55	14	5	904 Magnolia Warbler	1
MacKenzie			_		
Settlement	Migration count MS55	14	5	904 Savannah Sparrow	1
MacKenzie	M		_	Yellow-rumped	
Settlement	Migration count MS55	14	5	904 Warbler	1
MacKenzie	Migration count MCEE	4.4	_	004 Durale Fineh	4
Settlement	Migration count MS55	14	5	904 Purple Finch	1
MacKenzie Settlement	Migration count MS55	11	5	904 Common Raven	1
MacKenzie	wilgration count M333	14	J	304 Common Naven	ı
Settlement	Migration count MS55	14	5	904 Barn Swallow	1
MacKenzie	wiigiation count wioss	14	J	304 Daili Owallow	'
Settlement	Migration count MS55	14	5	904 American Goldfinch	1
Journalit	Migration Count Micoo	17	J	JUT / IIII CIICAII GOIGIIIICII	•

MacKenzie Settlement	Transect count		14	5	Black and White 915 Warbler	2
MacKenzie Settlement	Transect count	Drive transect to 13 Drive	14	5	Black-throated 915 Green Warbler	3
MacKenzie Settlement	Transect count	transect to	14	5	915 Swainson's Thrush	1
MacKenzie Settlement	Transect count	Drive	14	5	915 Magnolia Warbler	2
MacKenzie Settlement	Transect count	Drive	14	5	915 Savannah Sparrow	1
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Gray Jay	2
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Swamp Sparrow	3
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	Ruby-crowned 915 Kinglet	1
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	Golden-crowned 915 Kinglet	1
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Northern Parula	3
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Blue-headed Vireo	2
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Rusty Blackbird	1
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Brown Creeper	1
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	915 Winter Wren	1
MacKenzie Settlement	Transect count	transect to 13 Drive	14	5	White-throated 915 Sparrow	2
MacKenzie Settlement	Transect count	transect to	14	5	Yellow-rumped 915 Warbler	2
MacKenzie Settlement	Transect count	transect to	14	5	915 Dark-eyed Junco	2

MacKenzie							
Settlement	Migration count	MS13	14	5	925	Savannah Sparrow	2
MacKenzie	3					Ruby-crowned	
Settlement	Migration count	MS13	14	5	925	Kinglet	1
MacKenzie	3					3 -	
Settlement	Migration count	MS13	14	5	925	Mallard	1
MacKenzie	J						
Settlement	Migration count	MS13	14	5	925	American Robin	7
MacKenzie	Ü					Yellow-rumped	
Settlement	Migration count	MS13	14	5	925	Warbler	1
MacKenzie	_						
Settlement	Migration count	MS13	14	5	925	Swainson's Thrush	1
MacKenzie	_						
Settlement	Migration count	MS13	14	5	925	Winter Wren	1
MacKenzie							
Settlement	Migration count	MS13	14	5	925	Northern Flicker	1
MacKenzie						Black-capped	
Settlement	Migration count	MS13	14	5	925	Chickadee	1
MacKenzie							
Settlement	Migration count	MS13	14	5	925	Common Raven	30
MacKenzie							
Settlement	Migration count	MS13	14	5	925	Boreal Chickadee	1
MacKenzie							
Settlement	Migration count	MS13	14	5	925	Blue Jay	1
MacKenzie							
Settlement	Migration count	MS13	14	5	925	Common Grackle	5
MacKenzie							
Settlement	Migration count	MS3	21	5	508	Winter Wren	1
MacKenzie						Common	
Settlement	Migration count	MS3	21	5	508	Yellowthroat	1
MacKenzie							
Settlement	Migration count	MS3	21	5	508	Magnolia Warbler	1
MacKenzie				_			_
Settlement	Migration count	MS3	21	5	508	Dark-eyed Junco	2
MacKenzie				_		Golden-crowned	
Settlement	Migration count	MS3	21	5	508	Kinglet	1
MacKenzie				_		Yellow-rumped	
Settlement	Migration count	MS3	21	5	508	Warbler	1
MacKenzie	.	1400	0.4	_	500		
Settlement	Migration count	MS3	21	5	508	American Robin	1
MacKenzie	Minustina	1400	04	_	500	Ruby-crowned	
Settlement	Migration count	IVIS3	21	5	508	Kinglet	1
MacKenzie	Migration count	MCO	04	_	F00	White-throated	4
Settlement MacKenzie	Migration count	IVISS	21	5	508	Sparrow	1
Settlement	Migration count	MC2	24	_	E00	Harmat Thrush	4
MacKenzie	Migration count	IVISS	21	5	508	Hermet Thrush Red-breasted	1
Settlement	Migration count	MC2	21	E	ΕΛO	Nuthatch	4
MacKenzie	Migration count	IVISS	21	5	506	Nutriatori	1
Settlement	Migration count	MS3	21	5	509	Hermet Thrush	1
MacKenzie	wingration could	14100	۷ ۱	J	500	rioliliot Hilusii	'
Settlement	Migration count	MS3	21	5	508	Swainson's Thrush	1
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MacKenzie							
Settlement	Migration count	MS3	21	5	508	American Robin	1
MacKenzie	g					Black-capped	•
Settlement	Migration count	MS3	21	5	508	Chickadee	1
MacKenzie	mg.aon coam					Black-throated	•
Settlement	Migration count	MS3	21	5	508	Green Warbler	1
MacKenzie	migration ocum			Ū	000	Ring-necked	•
Settlement	Migration count	MS3	21	5	508	Pheasant	1
MacKenzie	wingration count	Wico		Ū	000	Triododin	•
Settlement	Migration count	MS3	21	5	508	American Crow	1
MacKenzie	wingration count	Wico		Ū	000	Black-throated	•
Settlement	Migration count	MS4	21	5	520	Green Warbler	1
MacKenzie	mgration count			Ū	0_0	Green realisier	•
Settlement	Migration count	MS4	21	5	520	Dark-eyed Junco	1
MacKenzie	g.ao cca			Ū	0_0		•
Settlement	Migration count	MS4	21	5	520	Hermet Thrush	1
MacKenzie	g.ao cca			Ū	0_0		•
Settlement	Migration count	MS4	21	5	520	Swainson's Thrush	2
MacKenzie	g.ao cca			Ū	0_0		_
Settlement	Migration count	MS4	21	5	520	Ovenbird	2
MacKenzie	g				0_0		
Settlement	Migration count	MS4	21	5	520	American Robin	1
MacKenzie	g.ao cca			Ū	0_0	Yellow-rumped	•
Settlement	Migration count	MS4	21	5	520	Warbler	1
MacKenzie	g				0_0		
Settlement	Migration count	MS4	21	5	520	American Redstart	1
MacKenzie	g				0_0		•
Settlement	Migration count	MS4	21	5	520	Blue-headed Vireo	2
MacKenzie	3						
Settlement	Migration count	MS4	21	5	520	Swainson's Thrush	2
MacKenzie	3						
Settlement	Migration count	MS4	21	5	520	American Robin	
MacKenzie	J					White-throated	
Settlement	Migration count	MS4	21	5	520	Sparrow	1
MacKenzie	J					Yellow-bellied Sap	
Settlement	Migration count	MS4	21	5	520	Sucker	1
MacKenzie	Ü						
Settlement	Migration count	MS4	21	5	520	Hermet Thrush	1
MacKenzie	Ü					Black-throated	
Settlement	Migration count	MS4	21	5	520	Green Warbler	1
MacKenzie	Ü						
Settlement	Migration count	MS4	21	5	520	Common Raven	1
MacKenzie	J						
Settlement	Migration count	MS4	21	5	520	Dark-eyed Junco	1
MacKenzie	J					•	
Settlement	Migration count	MS4	21	5	520	Ruffed Grouse	1
MacKenzie	_						
Settlement	Migration count	MS4	21	5	520	Purple Finch	1
MacKenzie	_					·	
Settlement	Migration count	MS51	21	5	536	Ovenbird	2
MacKenzie						Black-throated	
Settlement	Migration count	MS51	21	5	536	Green Warbler	2

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Settlement	Migration count	MS6	21	5	548	Northern Parula	1
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Settlement	Migration count	MS6	21	5	548	Warbler	1
MacKenzie	g						
Settlement	Migration count	MS6	21	5	548	Swainson's Thrush	1
MacKenzie	· ·					Black-throated	
Settlement	Migration count	MS6	21	5	548	Green Warbler	2
MacKenzie							
Settlement	Migration count	MS6	21	5	548	Hermet Thrush	1
MacKenzie							
Settlement	Migration count	MS6	21	5	548	Mallard	3
MacKenzie						Black-throated	
Settlement	Migration count	MS7N	21	5	602	Green Warbler	2
MacKenzie							_
Settlement	Migration count	MS7N	21	5	602	Ovenbird	2
MacKenzie	NA' C	N 407N	0.4	_	000	Line dala Occasion	
Settlement	Migration count	MS/N	21	5	602	Lincoln's Sparrow	1
MacKenzie	Migratian agust	MOZNI	04	_	000	Black-capped	2
Settlement MacKenzie	Migration count	IVIS/IN	21	5	602	Chickadee	2
Settlement	Migration count	MOZNI	24	5	602	Magnalia Warblar	2
MacKenzie	Migration count	IVISTIN	21	5	602	Magnolia Warbler Common	2
Settlement	Migration count	MS7N	21	5	602	Yellowthroat	2
MacKenzie	wilgration count	WOTN	∠ I	3	002	Tellowithoat	_
Settlement	Migration count	MS7N	21	5	602	Blue-headed Vireo	1
MacKenzie	mgradon oodin			Ŭ	002	Ruby-crowned	•
Settlement	Migration count	MS7N	21	5	602	Kinglet	1
MacKenzie	9					3	
Settlement	Migration count	MS7N	21	5	602	American Robin	1
MacKenzie	-					White-throated	
Settlement	Migration count	MS7N	21	5	602	Sparrow	1
MacKenzie							
Settlement	Migration count	MS7N	21	5	602	Swainson's Thrush	1
MacKenzie						Black and White	
Settlement	Migration count	MS7N	21	5	602	Warbler	1
MacKenzie							
Settlement	Migration count	MS7N	21	5	602	Winter Wren	1
MacKenzie							
Settlement	Migration count	MS/N	21	5	602	Swamp Sparrow	1
MacKenzie	Minustina and	N407NI	0.4	_	000	North and Daniela	
Settlement	Migration count	MS/N	21	5	602	Northern Parula	1
MacKenzie	Migration count	MOZNI	24	_	602	Dark avad Jupas	4
Settlement MacKenzie	Migration count	IVIO/IN	21	5	002	Dark-eyed Junco Yellow-bellied	1
Settlement	Migration count	MS7N	21	5	602	Flycatcher	1
MacKenzie	wiigiation count	IVIO/IN	۷1	J	002	i iyoatonei	1
Settlement	Migration count	MS8	21	5	615	Boreal Chickadee	1
Cottoniont	mgration count		4 1	5	013	Doroai Ornonadoo	'

Maakaaria				Dioals and Mhita	
MacKenzie	Migration count MCO	04	_	Black and White	,
Settlement	Migration count MS8	21	5	615 Warbler	1
MacKenzie	Migration count MCC	24	E	615 Dive booded Virgo	2
Settlement	Migration count MS8	21	5	615 Blue-headed Vireo	2
MacKenzie	Migration count MCO	04	_	Black-throated	2
Settlement	Migration count MS8	21	5	615 Green Warbler	2
MacKenzie	Minustine sount MCC	04	_	CAE Ownshind	
Settlement	Migration count MS8	21	5	615 Ovenbird	1
MacKenzie	Migration count MCO	04	_	Yellow-rumped	4
Settlement	Migration count MS8	21	5	615 Warbler	1
MacKenzie	Migration count MCC	21	E	White-throated	1
Settlement MacKenzie	Migration count MS8	21	5	615 Sparrow	ı
Settlement	Migration count MS8	21	5	615 Magnolia Warbler	1
MacKenzie	Migration Count M36	۷1	5	Black-capped	ı
Settlement	Migration count MS8	21	5	615 Chickadee	1
MacKenzie	Migration Count M36	۷1	5	613 Chickadee	ı
Settlement	Migration count MS8	21	5	615 Hermet Thrush	2
MacKenzie	Migration Count M36	۷1	5	613 Heimet Hilusii	2
Settlement	Migration count MS8	21	5	615 Swainson's Thrush	1
MacKenzie	Migration Count M36	۷1	5	Black-throated	ı
Settlement	Migration count MS8	21	5	615 Green Warbler	1
MacKenzie	Migration Count M36	۷1	5	613 Green Warbler	ı
Settlement	Migration count MS8	21	5	615 Ovenbird	1
MacKenzie	Migration Count M36	۷1	5	013 Overibild	'
Settlement	Migration count MS8	21	5	615 American Robin	1
MacKenzie	Migration Count M36	۷1	5	013 American Robin	'
Settlement	Migration count MS8	21	5	615 American Redstart	1
MacKenzie	Migration Count M36	۷1	5	Ruby-crowned	'
Settlement	Migration count MS8	21	5	615 Kinglet	1
MacKenzie	Migration count Moo	21	J	013 Kinglet	'
Settlement	Migration count MS8	21	5	615 Winter Wren	1
MacKenzie	wilgration obtain wide	21	J	010 Whitel Wiell	•
Settlement	Migration count MS8	21	5	615 Common Raven	1
MacKenzie	wilgration obtain wide	۷.	Ü	o to common reaven	•
Settlement	Migration count MS8	21	5	615 Northern Flicker	1
MacKenzie	wigration obtain wide		Ū	Black-throated	•
Settlement	Migration count MS9	21	5	632 Green Warbler	2
MacKenzie	mgration oddin mod		Ū	Common	_
Settlement	Migration count MS9	21	5	632 Yellowthroat	1
MacKenzie	mgration oddin mod		Ū	30 <u>2</u> 101101111111000	•
Settlement	Migration count MS9	21	5	632 American Robin	1
MacKenzie	g.a.a acamac			Black and White	•
Settlement	Migration count MS9	21	5	632 Warbler	1
MacKenzie	g			302 11 amone:	•
Settlement	Migration count MS9	21	5	632 Swainson's Thrush	1
MacKenzie	9		•		-
Settlement	Migration count MS9	21	5	632 Magnolia Warbler	1
MacKenzie	5		-	White-throated	
Settlement	Migration count MS9	21	5	632 Sparrow	1
MacKenzie	5		-	•	
Settlement	Migration count MS9	21	5	632 Hermet Thrush	1
	•				

MacKenzie							
Settlement	Migration count	MS9	21	5	632	Swainson's Thrush	1
MacKenzie	9			•		Black-capped	·
Settlement	Migration count	MS9	21	5	632	Chickadee	2
MacKenzie	g.ao			•		Ruby-crowned	_
Settlement	Migration count	MS9	21	5	632	Kinglet	2
MacKenzie	mgradon oodin			Ü	002	g.o.	_
Settlement	Migration count	MS9	21	5	632	Northern Warbler	1
MacKenzie	mgradon oodin			Ü	002	White-throated	•
Settlement	Migration count	MS9	21	5	632	Sparrow	1
MacKenzie	g.ao			•		Common	•
Settlement	Migration count	MS9	21	5	632	Yellowthroat	1
MacKenzie	9						-
Settlement	Migration count	MS9	21	5	632	Ovenbird	1
MacKenzie	9						-
Settlement	Migration count	MS9	21	5	632	Magnolia Warbler	1
MacKenzie	9					3	-
Settlement	Migration count	MS9	21	5	632	Hermet Thrush	1
MacKenzie	9				00_		•
Settlement	Migration count	MS9	21	5	632	Common Raven	1
MacKenzie	9						-
Settlement	Migration count	MS9	21	5	632	Canada Goose	1
MacKenzie	9	Transect to				Golden-crowned	
Settlement	Transect count	53	21	5	650	Kinglet	1
MacKenzie		Transect to				Black and White	
Settlement	Transect count	53	21	5	650	Warbler	1
MacKenzie		Transect to					
Settlement	Transect count	53	21	5	650	Ovenbird	1
MacKenzie		Transect to					
Settlement	Transect count	53	21	5	650	Swainson's Thrush	1
MacKenzie		Transect to				Yellow-bellied Sap	
Settlement	Transect count	53	21	5	650	Sucker	1
MacKenzie		Transect to				Black-throated	
Settlement	Transect count		21	5	650	Green Warbler	2
MacKenzie		Transect to				Red-breasted	
Settlement	Transect count	53	21	5	650	Nuthatch	1
MacKenzie		Transect to					
Settlement	Transect count	53	21	5	650	Purple Finch	1
MacKenzie						Blackburnian	
Settlement	Migration count	MS53	21	5	658	Warbler	2
MacKenzie	-					Black-throated	
Settlement	Migration count	MS53	21	5	658	Green Warbler	2
MacKenzie	-						
Settlement	Migration count	MS53	21	5	658	Swainson's Thrush	1
MacKenzie							
Settlement	Migration count	MS53	21	5	658	Magnolia Warbler	1
MacKenzie						Black-throated Bluel	
Settlement	Migration count	MS53	21	5	658	Warbler	1
MacKenzie							
Settlement	Migration count	MS53	21	5	658	Ovenbird	2
MacKenzie							
Settlement	Migration count	MS53	21	5	658	Blue-headed Vireo	2

MacKenzie						Ruby-crowned	
Settlement	Migration count	MS53	21	5	658	Kinglet	1
MacKenzie	wiigration count	10000	۷۱	J	030	Kinglet	'
Settlement	Migration count	MSES	21	5	650	American Redstart	1
MacKenzie	wiigration count	101333	۷۱	5	030	American Neustan	'
Settlement	Migration count	MOEO	21	5	CEO	Northern Parula	1
Settlement	Migration count		∠ I	5	000	Northern Parula	1
Maakansia		Transect					
MacKenzie	T	MS53-	04	_	700	Or combined	4
Settlement	Transect count		21	5	709	Ovenbird	4
MarilZanila		Transect				District districts	
MacKenzie	T	MS53-	0.4	_	700	Black-throated	_
Settlement	Transect count		21	5	709	Green Warbler	2
Maakansia		Transect				Caldan anarra d	
MacKenzie	T	MS53-	0.4	_	700	Golden-crowned	
Settlement	Transect count		21	5	709	Kinglet	1
		Transect				DI 1 1941.5	
MacKenzie		MS53-		_		Black and White	
Settlement	Transect count		21	5	709	Warbler	1
		Transect					
MacKenzie	_	MS53-					
Settlement	Transect count		21	5	709	Northern Parula	1
		Transect					
MacKenzie	_	MS53-					
Settlement	Transect count		21	5	709	Common Grackle	1
		Transect					
MacKenzie	_	MS53-				Pileated	
Settlement	Transect count		21	5	709	Woodpecker	1
		Transect					
MacKenzie	_	MS53-					
Settlement	Transect count	Lake	21	5	709	American Goldfinch	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Ovenbird	3
MacKenzie						Yellow-rumped	
Settlement	Migration count	LAKE	21	5	722	Warbler	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Magnolia Warbler	1
MacKenzie						Black-throated	
Settlement	Migration count	LAKE	21	5	722	Green Warbler	1
MacKenzie						Black and White	
Settlement	Migration count	LAKE	21	5	722	Warbler	1
MacKenzie						Ruby-crowned	
Settlement	Migration count	LAKE	21	5	722	Kinglet	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	American Robin	1
MacKenzie						Black-capped	
Settlement	Migration count	LAKE	21	5	722	Chickadee	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Northern Parula	1
MacKenzie						Yellow-bellied Sap	
Settlement	Migration count	LAKE	21	5	722	Sucker	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Ovenbird	1

MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Hermet Thrush	1
MacKenzie	g.aa			Ū		Common	•
Settlement	Migration count	LAKE	21	5	722	Yellowthroat	2
MacKenzie	3						
Settlement	Migration count	LAKE	21	5	722	Northern Flicker	1
MacKenzie	J						
Settlement	Migration count	LAKE	21	5	722	Song Sparrow	1
MacKenzie	J					White-throated	
Settlement	Migration count	LAKE	21	5	722	Sparrow	2
MacKenzie	Ŭ.						
Settlement	Migration count	LAKE	21	5	722	COR	2
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Winter Wren	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	American Robin	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Gray Jay	2
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Hermet Thrush	1
MacKenzie							
Settlement	Migration count	LAKE	21	5	722	Common Raven	1
MacKenzie		Transect to					
Settlement	Transect count	MS5	21	5	758	Ovenbird	4
MacKenzie		Transect to					
Settlement	Transect count	MS5	21	5	758	American Redstart	2
MacKenzie		Transect to				Black-throated	
Settlement	Transect count		21	5	758	Green Warbler	3
MacKenzie		Transect to				Bay-breasted	
Settlement	Transect count	MS5	21	5	758	Warbler	1
MacKenzie		Transect to				Ruby-crowned	
Settlement	Transect count		21	5	758	Kinglet	2
MacKenzie		Transect to					
Settlement	Transect count	MS5	21	5	758	American Robin	3
MacKenzie		Transect to				Yellow-rumped	
Settlement	Transect count		21	5	758	Warbler	3
MacKenzie		Transect to					
Settlement	Transect count		21	5	758	Purple Finch	2
MacKenzie		Transect to					
Settlement	Transect count		21	5	758	Hermet Thrush	1
MacKenzie		Transect to				Blackburnian	
Settlement	Transect count		21	5	758	Warbler	2
MacKenzie	_	Transect to				Black-capped	
Settlement	Transect count		21	5	758	Chickadee	1
MacKenzie		Transect to		_			_
Settlement	Transect count	MS5	21	5	758	American Robin	3
MacKenzie				_			_
Settlement	Migration count	MS5	21	5	808	Ovenbird	2
MacKenzie	N Alleman Communication	MOE	0.4	_	000	Black-throated	
Settlement	Migration count	IVIS5	21	5	808	Green Warbler	1
MacKenzie	Migratica source	MCE	04	_	000	Black-capped	^
Settlement	Migration count	COIVI	21	5	808	Chickadee	2

MacKenzie Settlement	Migration count	MSE	21	5	000	Ruby-crowned	1
MacKenzie	Migration count	IVISS	21	5	000	Kinglet Yellow-rumped	ı
Settlement	Migration count	MS5	21	5	808	Warbler	3
MacKenzie	wigiation count	Wiec	_ '	Ū	000	value.	Ü
Settlement	Migration count	MS5	21	5	808	Hermet Thrush	1
MacKenzie	g.ao cca					Black-throated	•
Settlement	Migration count	MS5	21	5	808	Green Warbler	2
MacKenzie	g						_
Settlement	Migration count	MS5	21	5	808	Ovenbird	2
MacKenzie	J						
Settlement	Migration count	MS5	21	5	808	American Robin	2
MacKenzie	· ·						
Settlement	Migration count	MS5	21	5	808	Common Raven	2
MacKenzie							
Settlement	Migration count	MS5	21	5	808	Ruffed Grouse	1
MacKenzie							
Settlement	Migration count	MS5	21	5	808	American Crow	1
MacKenzie		Transect to					
Settlement	Transect count		21	5	819	Ovenbird	3
MacKenzie		Transect to				Black-throated	
Settlement	Transect count	-	21	5	819	Green Warbler	3
MacKenzie		Transect to					
Settlement	Transect count		21	5	819	Purple Finch	1
MacKenzie	_	Transect to				Golden-crowned	
Settlement	Transect count		21	5	819	Kinglet	1
MacKenzie		Transect to		_		DI 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Settlement	Transect count		21	5	819	Blue-headed Vireo	1
MacKenzie	Transport count	Transect to	04	_	040	Black and White	4
Settlement MacKenzie	Transect count	Transect to	21	5	019	Warbler	1
Settlement	Transect count		21	5	210	Magnolia Warbler	1
MacKenzie	Transcot count	Transect to	Z I	J	013	Wagnona Warbier	'
Settlement	Transect count		21	5	819	Common Raven	1
MacKenzie	Transcot oddine	0.		Ū	0.0	Ruby-crowned	•
Settlement	Migration count	MS54	21	5	827	Kinglet	4
MacKenzie	9					3 -	
Settlement	Migration count	MS54	21	5	827	Ovenbird	3
MacKenzie	-					Black-throated	
Settlement	Migration count	MS54	21	5	827	Green Warbler	1
MacKenzie						Yellow-rumped	
Settlement	Migration count	MS54	21	5	827	Warbler	1
MacKenzie							
Settlement	Migration count	MS54	21	5	827	Northern Parula	1
MacKenzie							
Settlement	Migration count	MS54	21	5	827	Blue-headed Vireo	1
MacKenzie							
Settlement	Migration count	MS54	21	5	827	Purple Finch	1
MacKenzie	Minne	NACE 4	0.4	_	00-	Bay-breasted	
Settlement	Migration count	IVIS54	21	5	827	Warbler	1
MacKenzie Settlement	Migration sount	MSEA	21	-	007	Red-breasted Nuthatch	1
Jemenieni	Migration count	141004	4 1	5	021	radilaton	'

MacKenzie					
Settlement	Migration count MS54	21	5	827 Ovenbird	1
MacKenzie	g		Ū	Black-throated	·
Settlement	Migration count MS54	21	5	827 Green Warbler	1
MacKenzie	g.aa		Ū	<u> </u>	·
Settlement	Migration count MS54	21	5	827 Hermet Thrush	1
MacKenzie	Migration oddin Moo+	21	J	027 Fightiet Filiagn	•
Settlement	Migration count MS54	21	5	827 Common Raven	2
MacKenzie	Wilgration count Wi334	21	J	White-throated	_
Settlement	Migration count MS54	21	5	827 Sparrow	1
MacKenzie	Migration count M334	21	J	027 Sparrow	'
Settlement	Migration count MS55	21	5	905 Savannah Sparrow	2
MacKenzie	Migration Count M355	۷1	5	Common	_
Settlement	Migration count MS55	21	5	905 Yellowthroat	1
MacKenzie	Migration count M355	21	5	Black-throated	1
Settlement	Migration count MSEE	21	5	905 Green Warbler	1
MacKenzie	Migration count MS55	21	5		1
Settlement	Migration count MCEE	04	_	Ruby-crowned	2
	Migration count MS55	21	5	905 Kinglet	2
MacKenzie	Minusting sount MOSS	0.4	_	Black-throated	_
Settlement	Migration count MS55	21	5	905 Green Warbler	2
MacKenzie	Minusting sount MOSS	0.4	_	205 Overskind	
Settlement	Migration count MS55	21	5	905 Ovenbird	1
MacKenzie	Minusting sount MOSS	0.4	_	White-throated	_
Settlement	Migration count MS55	21	5	905 Sparrow	3
MacKenzie	Missacian at MOSS	0.4	_	Yellow-rumped	_
Settlement	Migration count MS55	21	5	905 Warbler	2
MacKenzie	Migration accept MCFF	04	_	Red-breasted	
Settlement	Migration count MS55	21	5	905 Nuthatch	1
MacKenzie	Migration accept MCFF	04	_	OOF Durale Fineh	
Settlement	Migration count MS55	21	5	905 Purple Finch	1
MacKenzie	Migration count MCEE	04	_	OOF Plus boaded Vires	4
Settlement	Migration count MS55	21	5	905 Blue-headed Vireo	1
MacKenzie	Migration count MCEE	24	E	905 American Robin	2
Settlement	Migration count MS55	21	5	905 American Robin	2
MacKenzie	Migration count MSEE	21	_	OOF Northern Warbler	1
Settlement MacKenzie	Migration count MS55	21	5	905 Northern Warbler	1
Settlement	Migration count MCEE	24	E	OOF Common Boyen	4
MacKenzie	Migration count MS55	21	5	905 Common Raven	1
Settlement	Migration count MCEE	24	E	905 Ruffed Grouse	1
	Migration count MS55	21	5		ı
MacKenzie	Migration accept MCFF	04	_	Black-throated	4
Settlement	Migration count MS55	21	5	905 Green Warbler	1
MacKenzie	Minusting sount MOSS	0.4	_	Northern	
Settlement	Migration count MS55	21	5	905 Waterthrush	1
MacKenzie	Minusting sount MOSS	0.4	_	005 American Ones	
Settlement	Migration count MS55	21	5	905 American Crow	1
MacKenzie	Minusting sount MOSS	0.4	_	OOF Dad and Vines	
Settlement	Migration count MS55	21	5	905 Red-eyed Vireo	1
MacKenzie	Migration sount MOSS	04	_	Ring-necked	,
Settlement	Migration count MS55	21	5	905 Pheasant	1
MacKenzie	Migration sount MCEE	04	F	OOE Lincoln's Charrett	4
Settlement	Migration count MS55	21	5	905 Lincoln's Sparrow	1

MacKenzie							
Settlement	Migration count	MS55	21	5	905	Magnolia Warbler	1
MacKenzie							
Settlement	Migration count		21	5	905	Common Raven	3
MacKenzie		Transect drive to					
Settlement	Transect count		21	5	015	Northern Flicker	2
	Transect Count	Transect	21	5	915	Northern Flicker	2
MacKenzie		drive to				Black-throated	
Settlement	Transect count	MS13 Transect	21	5	915	Green Warbler	4
MacKenzie		drive to				Black and White	
Settlement	Transect count	MS13	21	5	915	Warbler	3
		Transect					
MacKenzie		drive to				Golden-crowned	
Settlement	Transect count	MS13	21	5	915	Kinglet	1
		Transect					
MacKenzie		drive to					
Settlement	Transect count	MS13	21	5	915	Dark-eyed Junco	1
		Transect					
MacKenzie		drive to					
Settlement	Transect count		21	5	915	Magnolia Warbler	9
		Transect					
MacKenzie	_	drive to				Ruby-crowned	
Settlement	Transect count		21	5	915	Kinglet	1
		Transect					
MacKenzie	_	drive to				Northern	
Settlement	Transect count		21	5	915	Waterthrush	1
		Transect					
MacKenzie		drive to		_	- 4 -		_
Settlement	Transect count		21	5	915	Hermet Thrush	2
Mookontio		Transect					
MacKenzie	Transact count	drive to	24	_	015	Common Davon	0
Settlement	Transect count		21	5	915	Common Raven	8
Maakanzia		Transect				White threeted	
MacKenzie Settlement	Transect count	drive to	21	5	015	White-throated Sparrow	3
Settlement	Transect Count	Transect	∠ 1	3	915	Sparrow	3
MacKenzie		drive to					
Settlement	Transect count		21	5	015	Mallard	3
Settlement	Transect count	Transect	Z I	5	313	Maliaid	3
MacKenzie		drive to				Bay-breasted	
Settlement	Transect count		21	5	915	Warbler	1
Cottlement	Transcot odant	Transect	21	Ü	310	valbici	'
MacKenzie		drive to					
Settlement	Transect count		21	5	915	Common Grackle	1
		Transect			0.0		•
MacKenzie		drive to				Yellow-rumped	
Settlement	Transect count		21	5	915	Warbler	1
		Transect					
MacKenzie		drive to					
Settlement	Transect count	MS13	21	5	915	Ovenbird	1

		T					
MacKenzie		Transect drive to					
Settlement	Transect count		21	5	015	Boreal Chickadee	1
Settlement	Transect Count	Transect	۷1	J	913	Borear Chickagee	'
MacKenzie		drive to					
Settlement	Transect count		21	5	915	Swamp Sparrow	1
Cottlement	Transcot oodin	Transect	21	O	310	Cwamp Spanow	•
MacKenzie		drive to					
Settlement	Transect count		21	5	915	Tree Swallow	1
Comomone	Transcot count	Transect		Ü	0.0	. ree emailem	•
MacKenzie		drive to					
Settlement	Transect count	MS13	21	5	915	American Robin	1
MacKenzie							
Settlement	Migration count	MS13	21	5	927	Song Sparrow	1
MacKenzie						Black-throated	
Settlement	Migration count	MS13	21	5	927	Green Warbler	1
MacKenzie							
Settlement	Migration count	MS13	21	5	927	Dark-eyed Junco	1
MacKenzie							
Settlement	Migration count	MS13	21	5	927	Gray Jay	2
MacKenzie						Ruby-crowned	
Settlement	Migration count	MS13	21	5	927	Kinglet	1
MacKenzie							
Settlement	Migration count	MS13	21	5	927	American Robin	2
MacKenzie							
Settlement	Migration count	MS13	21	5	927	Savannah Sparrow	2
MacKenzie		14040		_		Red-winged	
Settlement	Migration count	MS13	21	5	927	Blackbird	1
MacKenzie	Migratian aggrega	MC40	04	_	007	Northern	
Settlement MacKenzie	Migration count	IVIS 13	21	5	927	Waterthrush Black-throated	1
Settlement	Migration count	MS13	21	5	027	Green Warbler	3
MacKenzie	wiigration count	IVIOTO	۷1	5	921	Green Warbier	3
Settlement	Migration count	MS13	21	5	927	Ovenbird	1
MacKenzie	wiigiation coant	WOTO	21	O	521	CVCHBIIG	•
Settlement	Migration count	MS13	21	5	927	Purple Finch	1
MacKenzie	g				-	Yellow-rumped	-
Settlement	Migration count	MS13	21	5	927	Warbler	1
MacKenzie	J						
Settlement	Migration count	MS13	21	5	927	Savannah Sparrow	1
MacKenzie						·	
Settlement	Migration count	MS13	21	5	927	Blue-headed Vireo	1
MacKenzie							
Settlement	Migration count	MS13	21	5	927	American Robin	4
MacKenzie						White-throated	
Settlement	Migration count	MS13	21	5	927	Sparrow	1
MacKenzie							
Settlement	Migration count	MS13	21	5	927	Dark-eyed Junco	1
MacKenzie		14046	•	_		A	
Settlement	Migration count	MS13	21	5	927	Magnolia Warbler	1
MacKenzie	Migratian	MC40	04	_	00-	Black and White	,
Settlement	Migration count	IVIOIO	21	5	927	Warbler	1

MacKenzie							
Settlement	Migration count	MS13	21	5	927	Hermet Thrush	1
MacKenzie	ingration ocum			O	02.	Tiomiot Tindon	•
Settlement	Migration count	MS13	21	5	927	Common Raven	10
MacKenzie	wiigiation count	WICTO	21	5	521	Common Naven	10
Settlement	Migration count	MS3	29	5	504	Winter Wren	1
MacKenzie	wiigration count	IVIOS	29	5	304		'
	Migration sount	MCO	20	_	E04	White-throated	4
Settlement	Migration count	10103	29	5	504	Sparrow	1
MacKenzie	NAT C	1400	00	_	504	NA P - NA/ III	_
Settlement	Migration count	MS3	29	5	504	Magnolia Warbler	2
MacKenzie				_		Common	
Settlement	Migration count	MS3	29	5	504	Yellowthroat	1
MacKenzie							
Settlement	Migration count	MS3	29	5	504	Swamp Sparrow	1
MacKenzie						Ruby-crowned	
Settlement	Migration count	MS3	29	5	504	Kinglet	1
MacKenzie						Black-throated	
Settlement	Migration count	MS3	29	5	504	Green Warbler	1
MacKenzie						Black-capped	
Settlement	Migration count	MS3	29	5	504	Chickadee	1
MacKenzie							
Settlement	Migration count	MS3	29	5	504	Dark-eyed Junco	1
MacKenzie						•	
Settlement	Migration count	MS3	29	5	504	Swamp Sparrow	1
MacKenzie	· ·					• •	
Settlement	Migration count	MS3	29	5	504	Ovenbird	1
MacKenzie	3						-
Settlement	Migration count	MS3	29	5	504	American Robin	2
MacKenzie	g.a		_0	Ü		Black-throated	_
Settlement	Migration count	MS3	29	5	504	Green Warbler	1
MacKenzie	g.a		_0	Ü	٠.	0.00	•
Settlement	Migration count	MS3	29	5	504	Hermet Thrush	1
MacKenzie	ingration ocum	00	20	O	00.	White-throated	•
Settlement	Migration count	MS3	29	5	504	Sparrow	1
MacKenzie	wiigiation count	WICO	20	U	004	Red-breasted	•
Settlement	Migration count	MS3	29	5	504	Nuthatch	1
MacKenzie	wiigration count	IVIOS	23	3	JU4	Ruby-crowned	'
Settlement	Migration count	MS3	29	5	504	Kinglet	1
MacKenzie	wiigration count	IVIOS	29	3	304	Kinglet	'
Settlement	Migration count	MCO	29	5	E04	Ruffed Grouse	1
MacKenzie	wilgration count	IVIOS	29	5	304	Rulled Glouse	ı
	Migration sount	MCO	20	_	E04	Curaina and Thursh	4
Settlement	Migration count	10153	29	5	504	Swainson's Thrush	1
MacKenzie	NAT C	1400	00	_	-04	A service a Oct	
Settlement	Migration count	MS3	29	5	504	American Crow	1
MacKenzie				_		Ring-necked	
Settlement	Migration count	MS3	29	5	504	Pheasant	1
MacKenzie							
Settlement	Migration count	MS3	29	5	504	American Robin	1
MacKenzie							
Settlement	Migration count	MS3	29	5	504	Common Raven	1
MacKenzie							
Settlement	Migration count	MS4	29	5	516	Hermet Thrush	1

				51 1 11 1	
MacKenzie				Black-throated	
Settlement	Migration count MS4	29	5	516 Green Warbler	1
MacKenzie					
Settlement	Migration count MS4	29	5	516 American Redstart	1
MacKenzie					
Settlement	Migration count MS4	29	5	516 American Robin	2
MacKenzie					
Settlement	Migration count MS4	29	5	516 Ovenbird	2
MacKenzie				Ruby-crowned	
Settlement	Migration count MS4	29	5	516 Kinglet	1
MacKenzie					
Settlement	Migration count MS4	29	5	516 Dark-eyed Junco	1
MacKenzie	-			Black and White	
Settlement	Migration count MS4	29	5	516 Warbler	1
MacKenzie	_				
Settlement	Migration count MS4	29	5	516 Blue-headed Vireo	1
MacKenzie	J				
Settlement	Migration count MS4	29	5	516 Blackpoll Warbler	1
MacKenzie	3			•	
Settlement	Migration count MS4	29	5	516 Ovenbird	1
MacKenzie	ŭ				
Settlement	Migration count MS4	29	5	516 Winter Wren	1
MacKenzie	ŭ				
Settlement	Migration count MS4	29	5	516 Magnolia Warbler	2
MacKenzie	ŭ			3	
Settlement	Migration count MS4	29	5	516 Hermet Thrush	1
MacKenzie	ŭ			Black-throated	
Settlement	Migration count MS4	29	5	516 Green Warbler	1
MacKenzie	ŭ				
Settlement	Migration count MS4	29	5	516 American Robin	1
MacKenzie	3		_		
Settlement	Migration count MS4	29	5	516 Swainson's Thrush	1
MacKenzie	9		-	Common	
Settlement	Migration count MS4	29	5	516 Yellowthroat	1
MacKenzie	9		_	Black-capped	
Settlement	Migration count MS4	29	5	516 Chickadee	1
MacKenzie	9			White-throated	
Settlement	Migration count MS4	29	5	516 Sparrow	1
MacKenzie	g		-	Ring-necked	
Settlement	Migration count MS4	29	5	516 Pheasant	1
MacKenzie	g		-		-
Settlement	Migration count MS4	29	5	516 Swainson's Thrush	1
MacKenzie	g.ao ooao		•	Black-capped	•
Settlement	Migration count MS51	29	5	532 Chickadee	2
MacKenzie	g.a	_0	Ū	Black-throated	_
Settlement	Migration count MS51	29	5	532 Green Warbler	1
MacKenzie	g.aa ccacc	_0	Ū	002 0.00.1.1.0.2.0.	•
Settlement	Migration count MS51	29	5	532 Ovenbird	2
MacKenzie		_0	-	Golden-crowned	_
Settlement	Migration count MS51	29	5	532 Kinglet	1
MacKenzie	g. a coant moor	20	•	Yellow-rumped	•
Settlement	Migration count MS51	29	5	532 Warbler	1
	ing.a.a	20	J	<u> </u>	•

MacKenzie					
Settlement	Migration count MS51	29	5	532 Purple Finch	1
MacKenzie	g		•	White-throated	
Settlement	Migration count MS51	29	5	532 Sparrow	1
MacKenzie	g.a		•	Yellow-bellied	·
Settlement	Migration count MS51	29	5	532 Flycatcher	1
MacKenzie	wilgration count wice	20	J	002 i iyoddonor	•
Settlement	Migration count MS51	29	5	532 American Redstart	1
MacKenzie	Migration count Mos i	23	J	332 American Redstart	•
Settlement	Migration count MS51	29	5	532 Blue-headed Vireo	1
MacKenzie	Migration count Mos i	23	J	332 Blue-fleaded Vileo	'
Settlement	Migration count MS51	29	5	532 American Redstart	1
MacKenzie	Migration count Mos i	23	J	White-throated	'
Settlement	Migration count MS51	29	5	532 Sparrow	1
MacKenzie	Migration count Mos i	23	3	332 Sparrow	'
Settlement	Migration count MS51	29	5	532 Magnolia Warbler	1
MacKenzie	Migration Count MSS1	29	5	552 Magridia Warbier	1
Settlement	Migration count MS51	29	5	532 Swainson's Thrush	1
MacKenzie	Migration Count M351	29	5	552 Swallison's Thrush	1
Settlement	Migration count MS51	29	5	532 American Robin	1
MacKenzie	Migration Count M351	29	5	552 American Robin	1
Settlement	Migration count MSE1	20	_	532 Ovenbird	1
	Migration count MS51	29	5	532 Overbild	ı
MacKenzie	Migration count MCE1	20	_	FOO Buffod Crouse	4
Settlement	Migration count MS51	29	5	532 Ruffed Grouse	1
MacKenzie	Migration count MCC	00	_	Black-throated	
Settlement	Migration count MS6	29	5	548 Green Warbler	1
MacKenzie	Migration count MC6	20	_	Blackburnian	4
Settlement	Migration count MS6	29	5	548 Warbler	1
MacKenzie	Migration count MC6	20	_	E40 Winter Wron	4
Settlement	Migration count MS6	29	5	548 Winter Wren	1
MacKenzie	Migration count MC6	20	_	E40 Magnelia Werbler	2
Settlement	Migration count MS6	29	5	548 Magnolia Warbler	2
MacKenzie	Migration count MCC	20	_	Black and White	4
Settlement	Migration count MS6	29	5	548 Warbler	1
MacKenzie	Missastian agent MCC	00	_	White-throated	
Settlement	Migration count MS6	29	5	548 Sparrow	1
MacKenzie	Minaria	00	_	540 Ded 1 1	
Settlement	Migration count MS6	29	5	548 Dark-eyed Junco	1
MacKenzie	Min and an annual MOO	00	_	Golden-crowned	
Settlement	Migration count MS6	29	5	548 Kinglet	1
MacKenzie	M: 0 (MO)	00	_	540 N. J. B. J.	_
Settlement	Migration count MS6	29	5	548 Northern Parula	2
MacKenzie	M: 0 (MO)		_		
Settlement	Migration count MS6	29	5	548 Swainson's Thrush	1
MacKenzie			_	0 · · · · - -	
Settlement	Migration count MS6	29	5	548 Swainson's Thrush	1
MacKenzie					
Settlement	Migration count MS6	29	5	548 Blue-headed Vireo	1
MacKenzie			_	Yellow-rumped	
Settlement	Migration count MS6	29	5	548 Warbler	1
MacKenzie			_	Common	
Settlement	Migration count MS6	29	5	548 Yellowthroat	1

MacKenzie					
Settlement	Migration count MS6	29	5	548 Magnolia Warbler	1
MacKenzie	9		Ū	C 1C magnana manana	•
Settlement	Migration count MS6	29	5	548 American Robin	1
MacKenzie	mgradon oodin moo		Ū	Black-throated	•
Settlement	Migration count MS6	29	5	548 Green Warbler	1
MacKenzie	Migration oodin Moo	25	J	040 Ciccii Waibici	•
Settlement	Migration count MS6	29	5	548 Hermet Thrush	1
MacKenzie	Migration count Moo	29	J	Common	'
Settlement	Migration count MS7N	29	5	600 Yellowthroat	2
MacKenzie	Migration count Mo714	29	J	Black-throated	_
Settlement	Migration count MS7N	29	5	600 Green Warbler	2
MacKenzie	Migration count Mo714	29	J	000 Green Warbler	_
Settlement	Migration count MS7N	29	5	600 Magnolia Warbler	2
MacKenzie	Migration count M3/14	29	5	Chestnut-sided	_
Settlement	Migration count MS7N	29	5	600 Warbler	1
MacKenzie	Wilgration Count W371	29	5	Ruby-crowned	1
Settlement	Migration count MC7N	20	_	•	,
MacKenzie	Migration count MS7N	29	5	600 Kinglet	1
	Missotion accept MC7N	00	_	Yellow-rumped	
Settlement	Migration count MS7N	29	5	600 Warbler	1
MacKenzie	Missotian asset MCZNI	00	_	COO Dive beeded Vires	
Settlement	Migration count MS7N	29	5	600 Blue-headed Vireo	1
MacKenzie	Missotian asset MCZNI	00	_	COO Owanhind	
Settlement	Migration count MS7N	29	5	600 Ovenbird	1
MacKenzie	NA:tion count NACZNI	00	_	OOO Nambaan Danila	
Settlement	Migration count MS7N	29	5	600 Northern Parula	1
MacKenzie	NA:tion count NACZNI	00	_	OOO Harrard Through	
Settlement	Migration count MS7N	29	5	600 Hermet Thrush	1
MacKenzie	NA:tion count NACZNI	00	_	White-throated	
Settlement	Migration count MS7N	29	5	600 Sparrow	1
MacKenzie	Missotian asset MCZNI	00	_	COO Corodo Warbler	
Settlement	Migration count MS7N	29	5	600 Canada Warbler	1
MacKenzie	NA:tion count NACZNI	00	_	Black and White	_
Settlement	Migration count MS7N	29	5	600 Warbler	2
MacKenzie	Missotian asset MCZNI	20	_	Yellow-bellied	4
Settlement	Migration count MS7N	29	5	600 Flycatcher	1
MacKenzie	NA:tion count NACZNI	00	_	Black-throated	_
Settlement	Migration count MS7N	29	5	600 Green Warbler	2
MacKenzie	NA' (' NAO-7NI	00	_	000 13 1-1- 0	
Settlement	Migration count MS7N	29	5	600 Lincoln's Sparrow	1
MacKenzie	NAi-matical account NACZNI	00	_	000 BOOK	,
Settlement	Migration count MS7N	29	5	600 BCCK	1
MacKenzie	NA:tion count NACZNI	00	_	OOO Maaaadia Waadaa	
Settlement	Migration count MS7N	29	5	600 Magnolia Warbler	1
MacKenzie	NA' (' NAO-7NI	00	_	Ring-necked	
Settlement	Migration count MS7N	29	5	600 Pheasant	1
MacKenzie	N4:		_	White-throated	
Settlement	Migration count MS7N	29	5	600 Sparrow	1
MacKenzie	M' ('		_	Black-throated	_
Settlement	Migration count MS8	29	5	620 Green Warbler	2
MacKenzie	Minustina as at MOC	22	_	Black and White	,
Settlement	Migration count MS8	29	5	620 Warbler	1

MacKenzie					
Settlement	Migration count MS8	29	5	620 Ovenbird	2
MacKenzie	g		•	020 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_
Settlement	Migration count MS8	29	5	620 Magnolia Warbler	1
MacKenzie	g.co.c		•	0_0agoaa.oo.	•
Settlement	Migration count MS8	29	5	620 Blue-headed Vireo	1
MacKenzie	mgration ocum moc	_0	Ū	Yellow-rumped	•
Settlement	Migration count MS8	29	5	620 Warbler	2
MacKenzie	mgration ocum moc	_0	Ū	Ruby-crowned	_
Settlement	Migration count MS8	29	5	620 Kinglet	1
MacKenzie	g.co.c		•	0_0 \g.o.	•
Settlement	Migration count MS8	29	5	620 Brown Creeper	1
MacKenzie	g		-	White-throated	
Settlement	Migration count MS8	29	5	620 Sparrow	1
MacKenzie	3		-	2_2 2 1	-
Settlement	Migration count MS8	29	5	620 Canada Warbler	1
MacKenzie	3		-	<u></u>	
Settlement	Migration count MS8	29	5	620 Magnolia Warbler	2
MacKenzie	3		-	5_5 3.5	
Settlement	Migration count MS8	29	5	620 Ovenbird	2
MacKenzie	3		-		
Settlement	Migration count MS8	29	5	620 Northern Parula	1
MacKenzie	3		-	<u></u>	-
Settlement	Migration count MS8	29	5	620 Ruffed Grouse	1
MacKenzie	3		-	Black-throated	
Settlement	Migration count MS8	29	5	620 Green Warbler	1
MacKenzie	o		_	Ring-necked	
Settlement	Migration count MS8	29	5	620 Pheasant	1
MacKenzie	o				
Settlement	Migration count MS8	29	5	620 Common Raven	1
MacKenzie	G				
Settlement	Migration count MS9	29	5	632 Magnolia Warbler	2
MacKenzie	•			· ·	
Settlement	Migration count MS9	29	5	632 American Robin	2
MacKenzie	_			Common	
Settlement	Migration count MS9	29	5	632 Yellowthroat	3
MacKenzie	_			Black-throated	
Settlement	Migration count MS9	29	5	632 Green Warbler	2
MacKenzie	-				
Settlement	Migration count MS9	29	5	632 Ovenbird	1
MacKenzie	-			White-throated	
Settlement	Migration count MS9	29	5	632 Sparrow	2
MacKenzie	-			Ruby-crowned	
Settlement	Migration count MS9	29	5	632 Kinglet	1
MacKenzie				Black and White	
Settlement	Migration count MS9	29	5	632 Warbler	1
MacKenzie					
Settlement	Migration count MS9	29	5	632 Blue-headed Vireo	1
MacKenzie				Yellow-bellied	
Settlement	Migration count MS9	29	5	632 Flycatcher	1
MacKenzie				Chestnut-sided	
Settlement	Migration count MS9	29	5	632 Warbler	1

MacKenzie							
Settlement	Migration count	MS9	29	5	632	Magnolia Warbler	1
MacKenzie	g.a		_0	Ü	002	White-throated	•
Settlement	Migration count	MS9	29	5	632	Sparrow	1
MacKenzie	g.a				00_	C pao	
Settlement	Migration count	MS9	29	5	632	Palm Warbler	1
MacKenzie	wigiation count	Mee	20	Ü	002	Taill Waldio	•
Settlement	Migration count	MS9	29	5	632	Blue Jay	1
MacKenzie	wigiation count	Mee	20	Ü	002	Dido day	•
Settlement	Migration count	MS9	29	5	632	Gray Jay	1
MacKenzie	wigiation count	Mee	20	Ü	002	Yellow-bellied	•
Settlement	Migration count	MS9	29	5	632	Flycatcher	1
MacKenzie	mgradon oodin		_0	Ü	002	Black-throated	•
Settlement	Migration count	MS9	29	5	632	Green Warbler	2
MacKenzie	g.a		_0	Ü	002	0.00	_
Settlement	Migration count	MS9	29	5	632	Swainson's Thrush	1
MacKenzie	g.a		_0	Ü	002		•
Settlement	Migration count	MS9	29	5	632	Hermet Thrush	1
MacKenzie	mgradon oodin		20	Ü	002	Tiomiet Tinden	•
Settlement	Migration count	MS9	29	5	632	Northern Flicker	1
MacKenzie	wigiation count	Mee	20	J	002	Tronule III I llokel	•
Settlement	Migration count	MS9	29	5	632	Common Raven	1
MacKenzie	wigiation count	Mee	20	J	002	Common ravon	•
Settlement	Migration count	MS9	29	5	632	Ruffed Grouse	1
MacKenzie	wigiation count	Mee	20	J	002	Red-breasted	•
Settlement	Migration count	MS9	29	5	632	Nuthatch	1
MacKenzie	wigiation count	Transect to	20	J	002	Bay-breasted	•
Settlement	Transect count		29	5	648	Warbler	1
MacKenzie	Transcot count	Transect to	20	J	0-10	Yellow-rumped	•
Settlement	Transect count		29	5	648	Warbler	1
MacKenzie	Transcot oodin	Transect to	20	Ü	0.0	Traibio.	•
Settlement	Transect count		29	5	648	Ovenbird	1
MacKenzie		Transect to	_0	Ü	0.0		•
Settlement	Transect count		29	5	648	American Redstart	1
MacKenzie		Transect to			0.0	Black and White	•
Settlement	Transect count		29	5	648	Warbler	1
MacKenzie	Transcot oodin	Transect to	_0	Ü	0.0	Traibio.	•
Settlement	Transect count		29	5	648	Northern Parula	1
MacKenzie		Transect to			0.0		
Settlement	Transect count		29	5	648	Red-eyed Vireo	1
MacKenzie	Transcot oodin	Transect to	_0	Ü	0.0	Ruby-crowned	•
Settlement	Transect count		29	5	648	Kinglet	1
MacKenzie	Transcot count	Transect to	20	Ü	0.0	Tunglet	•
Settlement	Transect count		29	5	648	Magnolia Warbler	1
MacKenzie	Transcot oodin	Transect to	20	Ü	0.0	magnena rraner	•
Settlement	Transect count		29	5	648	Blue-headed Vireo	1
MacKenzie	Transcot oodin	Transect to	20	Ü	0.0	Dido fiedada viito	•
Settlement	Transect count		29	5	648	Winter Wren	1
MacKenzie		Transect to	_0	5	0 +0	Unknown	'
Settlement	Transect count		29	5	648	Woodpecker	1
MacKenzie				-	0.0		•
Settlement	Migration count	MS53	29	5	657	Winter Wren	1
	5		-	-			

MacKenzie						Blackburnian	
Settlement	Migration count	MS53	29	5	657	Warbler	1
MacKenzie						-	
Settlement	Migration count	MS53	29	5	657	Ovenbird	1
MacKenzie							
Settlement	Migration count	MS53	29	5	657	Magnolia Warbler	1
MacKenzie							
Settlement	Migration count	MS53	29	5	657	American Robin	2
MacKenzie							
Settlement	Migration count	MS53	29	5	657	Blue-headed Vireo	1
MacKenzie						Black-throated	
Settlement	Migration count	MS53	29	5	657	Green Warbler	2
MacKenzie				_		5	
Settlement	Migration count	MS53	29	5	657	Red-eyed Vireo	1
MacKenzie				_		Golden-crowned	
Settlement	Migration count	MS53	29	5	657	Kinglet	1
MacKenzie	.	14050		_		5	_
Settlement	Migration count	MS53	29	5	657	Dark-eyed Junco	2
MacKenzie	.	14050		_		Black-throated Bluel	
Settlement	Migration count	MS53	29	5	657	Warbler	1
MacKenzie	NAC C	14050	00	_	057	No diversi Describ	
Settlement	Migration count	MS53	29	5	657	Northern Parula	1
MacKenzie	Minustina	MOSO	00	_	057	Ama anisana Dadatant	
Settlement	Migration count	MS53	29	5	657	American Redstart	1
MacKenzie	Minustina	MOSO	00	_	057	Yellow-rumped	
Settlement	Migration count	IVIS53	29	5	657	Warbler	1
MacKenzie	Minustina	MOSO	00	_	057	Lagat Ebraatabaa	
Settlement	Migration count	IVIS53	29	5	657	Least Flycatcher	1
MacKenzie	Minustina	MOSO	00	_	057	Lie was at Thursah	
Settlement	Migration count	IVIS53	29	5	657	Hermet Thrush	1
MacKenzie Settlement	Migratian agust	MCEO	20	_	CEZ	Black-throated	1
MacKenzie	Migration count		29	5	657	Green Warbler	- 1
Settlement	Transect count	Transect to	29	5	700	Magnolia Warbler	2
MacKenzie	Transect Count	Transect to	29	5	700	Black-throated	2
Settlement	Transect count		29	5	708	Green Warbler	4
MacKenzie	rransect count	Transect to	29	3	700	Black-capped	4
Settlement	Transect count		29	5	708	Chickadee	1
MacKenzie	Transect Count	Transect to	29	5	700	Cilickadee	'
Settlement	Transect count		29	5	708	Northern Parula	1
MacKenzie	Transect Count	Transect to	23	5	700	Golden-crowned	'
Settlement	Transect count		29	5	708	Kinglet	1
MacKenzie	Transect Count	Transect to	23	5	700	Kinglet	'
Settlement	Transect count		29	5	708	Swainson's Thrush	1
MacKenzie	Transcot count	Transect to	25	5	700	Cwainson's middin	
Settlement	Transect count		29	5	708	Ovenbird	2
MacKenzie	Transcot count	Transect to	20	O	700	Black-throated Bluel	_
Settlement	Transect count		29	5	708	Warbler	1
MacKenzie	. randout dount	Transect to	20	J	, 00	Yellow-rumped	'
Settlement	Transect count		29	5	708	Warbler	1
MacKenzie	. rangoot oodin	Transect to	20	J	. 00		٠
Settlement	Transect count		29	5	708	American Redstart	1
3031110110				•	. 55		•

MacKenzie		Transect to					
Settlement	Transect count		29	5	708	Dark-eyed Junco	1
MacKenzie		Transect to					
Settlement	Transect count	Lake	29	5	708	Red-eyed Vireo	1
MacKenzie						Black and White	
Settlement	Migration count	LAKE	29	5	719	Warbler	1
MacKenzie				_			
Settlement	Migration count	LAKE	29	5	719	Ovenbird	1
MacKenzie		–		_		Golden-crowned	
Settlement	Migration count	LAKE	29	5	719	Kinglet	1
MacKenzie	NAT C		00	_	740	District IIII	
Settlement	Migration count	LAKE	29	5	719	Blackpoll Warbler	1
MacKenzie	Migration count		20	_	740	Black-throated Green Warbler	4
Settlement MacKenzie	Migration count	LANE	29	5	719	White-throated	1
Settlement	Migration count	IAKE	29	5	710	Sparrow	1
MacKenzie	wiigration count	LANE	29	5	719	Sparrow	ı
Settlement	Migration count	IAKE	29	5	710	Magnolia Warbler	1
MacKenzie	wiigration count	LAIL	29	3	113	Wagnona Warbler	'
Settlement	Migration count	LAKE	29	5	710	Ring-necked Duck	1
MacKenzie	Wilgiation count		23	5	115	Tring hooked back	•
Settlement	Migration count	LAKE	29	5	719	Swamp Sparrow	1
MacKenzie	wiigiation count	L) ((\(\(\) \)	20	J	710	Yellow-rumped	•
Settlement	Migration count	LAKE	29	5	719	Warbler	1
MacKenzie	January Committee			•			•
Settlement	Migration count	LAKE	29	5	719	Ovenbird	1
MacKenzie	3						
Settlement	Migration count	LAKE	29	5	719	Hermet Thrush	1
MacKenzie	•						
Settlement	Migration count	LAKE	29	5	719	Magnolia Warbler	2
MacKenzie						Common	
Settlement	Migration count	LAKE	29	5	719	Yellowthroat	1
MacKenzie							
Settlement	Migration count	LAKE	29	5	719	Blue-headed Vireo	1
MacKenzie						White-throated	
Settlement	Migration count	LAKE	29	5	719	Sparrow	1
MacKenzie				_			
Settlement	Migration count	LAKE	29	5	719	Swamp Sparrow	1
MacKenzie	Minustinu anunt	1 A12E	00	_	740	Dad wad Vince	
Settlement	Migration count	LAKE	29	5	719	Red-eyed Vireo	1
MacKenzie	Migration count		20	E	710	American Dobin	1
Settlement MacKenzie	Migration count	LANE	29	5	719	American Robin	1
Settlement	Migration count	IAKE	29	5	710	Song Sparrow	1
MacKenzie	wiigration count	LAIL	29	3	113	Song Spanow	'
Settlement	Migration count	LAKE	29	5	710	Lincoln's Sparrow	1
MacKenzie	Wilgiation count		23	5	115	Ring-necked	•
Settlement	Migration count	LAKE	29	5	719	Pheasant	1
MacKenzie		·· ·_		J			•
Settlement	Migration count	LAKE	29	5	719	American Robin	1
MacKenzie	G		-	-		-	•
Settlement	Migration count	LAKE	29	5	719	American Redstart	1
	-						

MacKenzie		Transect to		_			
Settlement	Transect count		29	5	730	Hermet Thrush	1
MacKenzie		Transect to	00	_	700	Ruby-crowned	
Settlement	Transect count		29	5	730	Kinglet	1
MacKenzie		Transect to		_		Yellow-rumped	_
Settlement	Transect count		29	5	730	Warbler	2
MacKenzie		Transect to		_		Black-throated	_
Settlement	Transect count		29	5	730	Green Warbler	5
MacKenzie		Transect to		_			_
Settlement	Transect count		29	5	730	American Robin	2
MacKenzie		Transect to	00	_	700	Bay-breasted	_
Settlement	Transect count		29	5	730	Warbler	2
MacKenzie	Turner of count	Transect to	00	_	700	Demala Finak	
Settlement	Transect count		29	5	730	Purple Finch	1
MacKenzie	Turner of count	Transect to	00	_	700	Managalia Mandalan	
Settlement	Transect count		29	5	730	Magnolia Warbler	1
MacKenzie	Turner of count	Transect to	00	_	700	Common	
Settlement	Transect count		29	5	730	Yellowthroat	1
MacKenzie	T	Transect to	00	_	700		_
Settlement	Transect count		29	5	730	Ovenbird	2
MacKenzie	Turner of count	Transect to	00	_	700	Dayle aread lesson	
Settlement	Transect count		29	5	730	Dark-eyed Junco	1
MacKenzie	Turner of count	Transect to	00	_	700	C C	
Settlement	Transect count		29	5	730	Song Sparrow	1
MacKenzie	Turner of count	Transect to	00	_	700	Amazinan Dadatant	_
Settlement	Transect count		29	5	730	American Redstart	2
MacKenzie	Transact count	Transect to	00	_	700	Common Davies	_
Settlement	Transect count	IVISS	29	5	730	Common Raven	5
MacKenzie	Migration count	MCE	20	_	000	Magnalia Warblar	2
Settlement	Migration count	IVISS	29	5	800	Magnolia Warbler	2
MacKenzie Settlement	Migration count	MCE	20	_	900	Bay-breasted Warbler	1
MacKenzie	Migration count	IVISS	29	5	800	warbiei	ı
Settlement	Migration count	MSE	29	5	900	Ovenbird	2
MacKenzie	wilgration count	IVIOO	29	3	800	Overibild	_
Settlement	Migration count	MSE	29	5	900	American Robin	2
MacKenzie	wilgration count	IVIOO	29	3	800	Black-throated	_
Settlement	Migration count	MSE	29	5	800	Green Warbler	2
MacKenzie	wilgration count	IVIOO	23	3	000	Green Warbier	_
Settlement	Migration count	MS5	29	5	800	Dark-eyed Junco	1
MacKenzie	wiigiation count	IVIOO	23	5	000	Dark-eyed Juneo	'
Settlement	Migration count	MS5	29	5	800	Hermet Thrush	1
MacKenzie	wiigiation count	WOS	25	3	000	Tiermet Tillusii	•
Settlement	Migration count	MS5	29	5	800	Ovenbird	2
MacKenzie	wigiation count	Wee	20	Ü	000	Overland	_
Settlement	Migration count	MS5	29	5	800	Purple Finch	1
MacKenzie	wigiation count	Wiec	20	Ü	000	Tarpio Tillon	'
Settlement	Migration count	MS5	29	5	800	Ruffed Grouse	1
MacKenzie				•	550	Black-throated	•
Settlement	Migration count	MS5	29	5	800	Green Warbler	1
MacKenzie	J	·		-			•
Settlement	Migration count	MS5	29	5	800	Common Raven	1
	<u> </u>						

MacKenzie							
Settlement	Migration count	MS5	29	5	800	Common Raven	1
MacKenzie	9	Transect to		•			·
Settlement	Transect count		29	5	811	Ovenbird	3
MacKenzie		Transect to		•	•		Ū
Settlement	Transect count		29	5	811	Magnolia Warbler	1
MacKenzie	Transcot count	Transect to	20	J	011	Black-throated	'
Settlement	Transect count		29	5	211	Green Warbler	1
MacKenzie	Transcot count	Transect to	23	3	011	Green warbier	'
Settlement	Transect count		29	5	211	Dark-eyed Junco	1
MacKenzie	Transect Count	34	23	3	011	Bay-breasted	1
Settlement	Migration count	MS54	29	5	216	Warbler	1
MacKenzie	wiigration count	101004	23	3	010	Black-throated	1
Settlement	Migration count	MS54	29	5	216	Green Warbler	2
MacKenzie	wiigration count	101004	29	3	010	Oreen warbier	_
Settlement	Migration count	MS54	29	5	216	Ovenbird	2
MacKenzie	wiigration count	101004	29	3	010	Ruby-crowned	_
Settlement	Migration count	MS54	29	5	016	Kinglet	1
MacKenzie	wiigration count	101004	29	3	010	Kinglet	ı
Settlement	Migration count	MS54	29	5	016	Blue-headed Vireo	1
MacKenzie	wiigration count	101004	29	3	010	Blue-fleaded vileo	ı
Settlement	Migration count	MS54	29	5	016	Dark-eyed Junco	1
MacKenzie	wiigration count	101004	29	3	010	Dark-eyed Julico	ı
Settlement	Migration count	MS54	29	5	016	Duralo Finch	1
MacKenzie	wiigration count	101004	29	3	010	Purple Finch Golden-crowned	ı
Settlement	Migration count	MCEA	20	5	016		1
MacKenzie	Migration count	IVI334	29	5	010	Kinglet	ı
Settlement	Migration count	MS54	20	5	016	Ovenbird	1
MacKenzie	wiigration count	101004	29	3	010	Overibila	ı
Settlement	Migration count	MS54	29	5	016	Magnolia Warbler	1
MacKenzie	wiigration count	101004	29	5	010	wagilolla warbiel	1
Settlement	Migration count	MS54	29	5	216	American Robin	1
MacKenzie	wiigration count	101004	29	3	010	White-throated	'
Settlement	Migration count	MS54	29	5	216	Sparrow	1
MacKenzie	wiigration count	101004	23	3	010	Black-capped	1
Settlement	Migration count	MS54	29	5	216	Chickadee	1
MacKenzie	wiigration count	101004	29	3	010	Cilickauee	'
Settlement	Migration count	MS54	29	5	216	Common Raven	2
MacKenzie	wiigration count	101004	29	5	010	Common Raven	_
Settlement	Migration count	MSEE	29	5	950	Red-tailed Hawk	1
MacKenzie	wiigration count	MSSS	29	3	009	Reu-taileu Hawk	ı
Settlement	Migration count	MOSE	29	5	050	Savannah Sparrow	1
MacKenzie	Migration count	MSSS	29	3	009	Savarinan Sparrow	ı
Settlement	Migration count	MSSS	29	5	950	Song Sparrow	1
MacKenzie	wiigration count	MOOO	29	5	009	Northern	1
Settlement	Migration count	MSEE	29	5	050	Waterthrush	2
MacKenzie	wiigration count	MOOO	29	3	009		2
Settlement	Migration count	MOSE	20	E	050	Ruby-crowned	4
MacKenzie	Migration count	MOOO	29	5	009	Kinglet White-throated	1
Settlement	Migration count	MSEE	20	5	850	Sparrow	2
MacKenzie	wiigiauon count	IVIOOO	29	5	009	Yellow-rumped	2
Settlement	Migration count	MS55	29	5	850	Warbler	1
Johnston	Migration Count	. 41000	23	J	003	TTUIDIO	'

MacKenzie							
Settlement	Migration count	MS55	29	5	859	Northern Warbler	1
MacKenzie	g.ao ooa		_0	Ü	000		•
Settlement	Migration count	MS55	29	5	859	Magnolia Warbler	1
MacKenzie	g.ao ooa			•		magnena rransie.	•
Settlement	Migration count	MS55	29	5	859	Blue-headed Vireo	1
MacKenzie	g					Red-breasted	-
Settlement	Migration count	MS55	29	5	859	Nuthatch	1
MacKenzie	g.ao ooa			•		Common	•
Settlement	Migration count	MS55	29	5	859	Yellowthroat	1
MacKenzie	9						
Settlement	Migration count	MS55	29	5	859	Common Raven	6
MacKenzie	· ·						
Settlement	Migration count	MS55	29	5	859	American Crow	1
MacKenzie	· ·					Black-throated	
Settlement	Migration count	MS55	29	5	859	Green Warbler	1
MacKenzie	· ·					White-throated	
Settlement	Migration count	MS55	29	5	859	Sparrow	1
MacKenzie	-					•	
Settlement	Migration count	MS55	29	5	859	Northern Flicker	1
MacKenzie							
Settlement	Migration count	MS55	29	5	859	American Robin	1
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	American Redstart	2
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	Magnolia Warbler	2
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	Dark-eyed Junco	2
		Drive					
MacKenzie		transect to				Yellow-bellied Sap	
Settlement	Transect count	MS13	29	5	910	Sucker	1
		Drive					
MacKenzie		transect to				Black-capped	
Settlement	Transect count		29	5	910	Chickadee	1
		Drive					
MacKenzie	_	transect to				Northern	
Settlement	Transect count		29	5	910	Waterthrush	1
		Drive					
MacKenzie	_	transect to		_		Chestnut-sided	
Settlement	Transect count		29	5	910	Warbler	1
		Drive					
MacKenzie		transect to		_		Common	
Settlement	Transect count		29	5	910	Yellowthroat	3
NA 17 '		Drive				D	
MacKenzie	T	transect to	00	_	040	Blackburnian	_
Settlement	Transect count		29	5	910	Warbler	2
Mooker=:-		Drive					
MacKenzie	Transact sever	transect to	20	_	040	Durale Finale	4
Settlement	Transect count	IVIOIO	29	5	910	Purple Finch	1

		Drive					
MacKenzie		transect to				Black and White	
Settlement	Transect count		29	5	910	Warbler	2
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	Canada Warbler	1
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	Red-eyed Vireo	1
		Drive					
MacKenzie		transect to				Black-throated	
Settlement	Transect count	MS13	29	5	910	Green Warbler	4
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	American Robin	1
		Drive					
MacKenzie		transect to					
Settlement	Transect count	MS13	29	5	910	Northern Parula	2
		Drive		•	0.0		
MacKenzie		transect to					
Settlement	Transect count		29	5	910	Blackpoll Warbler	2
Comonion	Transcott count	Drive	20	J	0.0	Diaekpeli Warbier	_
MacKenzie		transect to					
Settlement	Transect count		29	5	910	Swamp Sparrow	1
MacKenzie	Transcot count	WOTO	23	J	510	Ruby-crowned	'
Settlement	Migration count	MS13	29	5	913	Kinglet	1
MacKenzie	wiigiation ooant	1010	20	O	510	rangiot	•
Settlement	Migration count	MS13	29	5	913	American Robin	1
MacKenzie	wiigiation ooant	1010	20	O	510	Black and White	•
Settlement	Migration count	MS13	29	5	913	Warbler	1
MacKenzie	mgradon oodin		20	Ü	010	Transie.	•
Settlement	Migration count	MS13	29	5	913	Magnolia Warbler	1
MacKenzie	g.aa		_0	Ū	0.0	magnana marara.	•
Settlement	Migration count	MS13	29	5	913	Savannah Sparrow	1
MacKenzie	mgradon oodin		_0	Ū	0.0	Cavamian Spanon	•
Settlement	Migration count	MS13	29	5	913	Swainson's Thrush	1
MacKenzie	mgradon oodin		_0	Ū	0.0	Northern	•
Settlement	Migration count	MS13	29	5	913	Waterthrush	1
MacKenzie	mgradon oodin		_0	Ū	0.0	Tratori i i don	•
Settlement	Migration count	MS13	29	5	913	American Robin	4
MacKenzie	wiigiation oodin	1010	20	J	0.0	7 tillollodil i Kobiil	•
Settlement	Migration count	MS13	29	5	913	Magnolia Warbler	1
MacKenzie	wiigiation oodin	WOTO	20	O	510	Wagnona Warbier	'
Settlement	Migration count	MS13	29	5	013	Common Grackle	3
MacKenzie	wiigration count	WOTO	23	5	313	Common Grackic	3
Settlement	Migration count	MS13	29	5	013	Northern Parula	1
MacKenzie	wiigration count	WISTS	29	J	913	Yellow-rumped	'
Settlement	Migration count	MS13	29	5	012	Warbler	1
MacKenzie	wiigialion coulil	IVIOTO	23	J	913	Black-throated	ı
Settlement	Migration count	MS13	29	5	042	Green Warbler	1
MacKenzie	wiigialion coulit	IVIOTO	29	J	913	Common	ı
	Migration sount	MC12	20	E	040		4
Settlement	Migration count	IVIOIO	29	5	913	Yellowthroat	1

MacKenzie	Microtion count	MC40	00	_	O40 Locat Chroatabar	_
Settlement MacKenzie	Migration count	IVIS 13	29	5	913 Least Flycatcher	2
Settlement	Migration count	MC12	29	5	913 Winter Wren	1
MacKenzie	wiigration count	IVISTS	29	5	913 Willer Wien	ı
Settlement	Migration count	MC12	29	5	913 Purple Finch	1
MacKenzie	wiigration count	IVIOTO	29	5	913 Fulple Fillon	'
Settlement	Migration count	MS13	29	5	913 American Redstart	2
MacKenzie	wiigration count	IVIOTO	29	3	913 American Redstart	_
Settlement	Migration count	MS13	29	5	913 Dark-eyed Junco	2
MacKenzie	wiigration count	IVIOTO	23	5	913 Dark-eyed Juneo	_
Settlement	Migration count	MS13	29	5	913 Song Sparrow	1
MacKenzie	wiigiation count	WIG15	25	3	313 Gong opanow	•
Settlement	Migration count	MS13	29	5	913 Swamp Sparrow	1
MacKenzie	mgration oount		20	Ü	oro emanip opaniem	•
Settlement	Migration count	MS13	29	5	913 Common Raven	3
MacKenzie	g.ao cca			Ü	Yellow-bellied	Ū
Settlement	Migration count	MS13	29	5		1
MacKenzie	Breeding Bird			•		•
Settlement	Point Count	MS3	9	6	452 Magnolia Warbler	2
MacKenzie	Breeding Bird		•		Black-throated	
Settlement	Point Count	MS3	9	6	452 Green Warbler	2
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6	452 Hermet Thrush	1
MacKenzie	Breeding Bird				Ruby-crowned	
Settlement	Point Count	MS3	9	6	· · · · · · · · · · · · · · · · · · ·	1
MacKenzie	Breeding Bird				Black and White	
Settlement	Point Count	MS3	9	6	452 Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6	452 Swainson's Thrush	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6	452 Magnolia Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6	452 Winter Wren	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6		1
MacKenzie	Breeding Bird				White-throated	
Settlement	Point Count	MS3	9	6	452 Sparrow	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6	452 Hermet Thrush	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS3	9	6	452 Swainson's Thrush	1
MacKenzie	Breeding Bird		_	_	5	
Settlement	Point Count	MS3	9	6	452 Blue-headed Vireo	1
MacKenzie	Breeding Bird	1400	_	_	4501 451 41	
Settlement	Point Count	MS3	9	6	452 Least Flycatcher	1
MacKenzie	Breeding Bird	1400	•		450 Developing	
Settlement	Point Count	MS3	9	6	452 Purple Finch	1
MacKenzie	Breeding Bird	MCO	0	^	450 Dorle over division	4
Settlement	Point Count	MS3	9	6	452 Dark-eyed Junco	1
MacKenzie	Breeding Bird	MC2	0	c	452 American Craw	1
Settlement	Point Count	MS3	9	6	452 American Crow	1

D						
_	Mea	0	6	E00	Overhird	2
	10134	9	О	506	Overibila	2
_	MS4	q	6	508	Magnolia Warbler	2
	WOT	5	U	500	Wagnona Warbier	_
_	MS4	q	6	508	American Redstart	1
	1010	Ü	O	000		•
_	MS4	9	6	508		1
		Ū	Ü	000	Crosn Transis.	·
_	MS4	9	6	508	American Robin	1
		-				
Point Count	MS4	9	6	508	Alder Flycatcher	1
Breeding Bird					-	
Point Count	MS4	9	6	508		1
Breeding Bird						
Point Count	MS4	9	6	508	Dark-eyed Junco	1
Breeding Bird					White-throated	
Point Count	MS4	9	6	508	Sparrow	1
	MS4	9	6	508	Dark-eyed Junco	1
•						
	MS4	9	6	508	Purple Finch	1
_		_	_			_
	MS4	9	6	508	Ovenbird	2
_	MOA	•	•	500	Amaniana Dahin	
	IVI54	9	6	508	American Robin	1
_	MCA	0	^	F00	Dive booded Vires	4
	IVI54	9	б	508		1
_	MSA	0	6	500	-	1
	WIO4	Э	O	506	Kinglet	1
•	MS4	a	6	508	Winter Wren	1
	1010	J	O	000		•
_	MS4	9	6	508		1
						•
•	MS4	9	6	508		1
Breeding Bird						
Point Count	MS4	9	6	508	Hermet Thrush	1
Breeding Bird						
Point Count	MS4	9	6	508	Blue Jay	1
Breeding Bird						
Point Count	MS4	9	6	508	American Crow	1
Breeding Bird					Ring-necked	
Point Count	MS4	9	6	508	Pheasant	1
_						
	MS51	9	6	522		1
_						
	MS51	9	6	522	Green Warbler	1
_	14054	_			N. A	
	MS51	9	6	522	_	1
_	MOE4	0	•	F00		4
Point Count	IVIODI	9	ь	522	Chickadee	1
	Breeding Bird Point Count	Point Count Breeding Bird Point Count BS51 Breeding Bird	Point Count Breeding Bird Point Count Breedi	Point Count Breeding Bird Point Count Breedi	Point Count Breeding Bird Point Count MS4 9 6 508 Breeding Bird Point Count MS51 9 6 522 Breedi	Point Count Breeding Bird Point Count MS4 9 6 508 Magnolia Warbler Breeding Bird Point Count MS4 9 6 508 American Redstart Breeding Bird Point Count MS4 9 6 508 Green Warbler Breeding Bird Point Count MS4 9 6 508 Green Warbler Breeding Bird Point Count MS4 9 6 508 American Robin Breeding Bird Point Count MS4 9 6 508 American Robin Breeding Bird Point Count MS4 9 6 508 American Robin Breeding Bird Point Count MS4 9 6 508 American Robin Breeding Bird Point Count MS4 9 6 508 American Robin Breeding Bird Point Count MS4 9 6 508 Chickadee Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco White-throated Point Count Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco Breeding Bird Point Count MS4 9 6 508 Dark-eyed Junco Breeding Bird Point Count MS4 9 6 508 Magnolia Warbler Black-throated Point Count MS4 9 6 508 Blue-headed Vireo Ruby-crowned Point Count MS4 9 6 508 Kinglet Breeding Bird Point Count MS4 9 6 508 Winter Wren Black and White Point Count MS4 9 6 508 Blue-headed Vireo Ruby-crowned Point Count MS4 9 6 508 Blue-headed Vireo Black-throated Point Count MS4 9 6 508 Blue Jay Breeding Bird Point Count MS4 9 6 508 Blue Jay Breeding Bird Point Count MS4 9 6 508 Blue Jay Breeding Bird Point Count MS4 9 6 508 Pheasant Breeding Bird Point Count MS4 9 6 508 Pheasant Breeding Bird Point Count MS4 9 6 508 Pheasant Breeding Bird Point Count MS4 9 6 508 Pheasant Breeding Bird Point Count MS51 9 6 522 Green Warbler Breeding Bird Point Count MS51 9 6 522 Green Warbler Breeding Bird Point Count MS51 9 6 522 Green Warbler Black-capped

MarilZara	D						
MacKenzie Settlement	Breeding Bird Point Count	MS51	9	6	522	American Robin	1
MacKenzie	Breeding Bird	IVIOOT	9	O	322	American Nobin	'
Settlement	Point Count	MS51	9	6	522	Ovenbird	1
MacKenzie	Breeding Bird		Ū	Ü	0		•
Settlement	Point Count	MS51	9	6	522	Red-eyed Vireo	1
MacKenzie	Breeding Bird					Bay-breasted	
Settlement	Point Count	MS51	9	6	522	Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	9	6	522	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	9	6	522	Blue-headed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	9	6	522	Magnolia Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	9	6	522	Ovenbird	1
MacKenzie	Breeding Bird					Ruby-crowned	
Settlement	Point Count	MS51	9	6	522	Kinglet	1
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS51	9	6	522	Yellowthroat	1
MacKenzie	Breeding Bird		_	_			
Settlement	Point Count	MS51	9	6	522	Purple Finch	1
MacKenzie	Breeding Bird	M054	•	•		Ded a self-see	
Settlement	Point Count	MS51	9	6	522	Dark-eyed Junco	1
MacKenzie	Breeding Bird	M054	•	•		Associate Con	
Settlement	Point Count	MS51	9	6	522	American Crow	1
MacKenzie	Breeding Bird	MOEA	•	•	500	Unknown	
Settlement	Point Count	MS51	9	6	522	Woodpecker	1
MacKenzie	Breeding Bird	MOE4	_	•	500	Coder Mercia	0
Settlement MacKenzie	Point Count	MS51	9	6	522	Cedar Waxwing	3
Settlement	Breeding Bird Point Count	MS6	9	6	E2E	Blue-headed Vireo	1
MacKenzie	Breeding Bird	IVISO	9	0	555	Black-throated	ı
Settlement	Point Count	MS6	9	6	535	Green Warbler	2
MacKenzie	Breeding Bird	IVIOU	3	U	555	Green Warbier	_
Settlement	Point Count	MS6	9	6	535	Ovenbird	1
MacKenzie	Breeding Bird	WOO	J	U	555	Ovenbila	'
Settlement	Point Count	MS6	9	6	535	Swainson's Thrush	1
MacKenzie	Breeding Bird	Wiec	Ü	Ü	000	Blackburnian	•
Settlement	Point Count	MS6	9	6	535	Warbler	1
MacKenzie	Breeding Bird						•
Settlement	Point Count	MS6	9	6	535	Northern Parula	1
MacKenzie	Breeding Bird					Yellow-bellied	
Settlement	Point Count	MS6	9	6	535	Flycatcher	1
MacKenzie	Breeding Bird					•	
Settlement	Point Count	MS6	9	6	535	Magnolia Warbler	1
MacKenzie	Breeding Bird					Black-capped	
Settlement	Point Count	MS6	9	6	535	Chickadee	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS6	9	6	535	Hermet Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS6	9	6	535	American Robin	1

MacKenzie	Breeding Bird		_		5	
Settlement	Point Count	MS6	9	6	535 Dark-eyed Junco	1
MacKenzie Settlement	Breeding Bird Point Count	MS6	9	6	535 Ovenbird	1
MacKenzie	Breeding Bird	IVIOU	9	U	555 Overibild	'
Settlement	Point Count	MS6	9	6	535 Red-eyed Vireo	1
MacKenzie	Breeding Bird	WOO	J	Ü	ooo rea eyea viico	'
Settlement	Point Count	MS6	9	6	535 American Robin	1
MacKenzie	Breeding Bird			· ·	White-throated	•
Settlement	Point Count	MS6	9	6	535 Sparrow	1
MacKenzie	Breeding Bird		•			
Settlement	Point Count	MS6	9	6	535 Magnolia Warbler	1
MacKenzie	Breeding Bird				3	
Settlement	Point Count	MS6	9	6	535 Common Raven	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS6	9	6	535 Common Grackle	1
MacKenzie	Breeding Bird				Black-throated	
Settlement	Point Count	MS7N	9	6	550 Green Warbler	1
MacKenzie	Breeding Bird				Common	
Settlement	Point Count	MS7N	9	6	550 Yellowthroat	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS7N	9	6	550 American Robin	1
MacKenzie	Breeding Bird				Black and White	
Settlement	Point Count	MS7N	9	6	550 Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS7N	9	6	550 Blue-headed Vireo	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS7N	9	6	550 Ovenbird	1
MacKenzie	Breeding Bird				White-throated	
Settlement	Point Count	MS7N	9	6	550 Sparrow	1
MacKenzie	Breeding Bird	14071	_		All Fl / l	
Settlement	Point Count	MS7N	9	6	550 Alder Flycatcher	1
MacKenzie	Breeding Bird	14071	•	•	550 N // B /	
Settlement	Point Count	MS7N	9	6	550 Northern Parula	1
MacKenzie	Breeding Bird	MOZNI	0	_	Yellow-rumped	4
Settlement	Point Count	MS7N	9	6	550 Warbler	1
MacKenzie	Breeding Bird	MOZNI	0	c	FFO Curainagnia Thrugh	4
Settlement	Point Count	MS7N	9	6	550 Swainson's Thrush	1
MacKenzie Settlement	Breeding Bird Point Count	MS7N	9	6	Yellow-bellied 550 Flycatcher	1
MacKenzie	Breeding Bird	IVISTIN	Э	0	550 Flycatcher	ı
Settlement	Point Count	MS7N	9	6	550 Hermet Thrush	2
MacKenzie	Breeding Bird	MOTIN	9	U	550 Heimet Hildsii	
Settlement	Point Count	MS7N	9	6	550 Magnolia Warbler	1
MacKenzie	Breeding Bird	WOTN	9	U	550 Magnolla Warblei	'
Settlement	Point Count	MS7N	9	6	550 American Redstart	1
MacKenzie	Breeding Bird	WOTH	3	O	330 / interiodir reducir	'
Settlement	Point Count	MS7N	9	6	550 Hairy Woodpecker	1
MacKenzie	Breeding Bird		J	J	220 . iai. j. 11 00apoonoi	'
Settlement	Point Count	MS7N	9	6	550 Swamp Sparrow	1
MacKenzie	Breeding Bird		J	J	Blackburnian	•
Settlement	Point Count	MS7N	9	6	550 Warbler	1
			9	•		•

Maakaasia	Duna adina a Dina						
MacKenzie Settlement	Breeding Bird Point Count	MS7N	9	6	EEO	Pod avad Viraa	1
MacKenzie	Breeding Bird	IVISTIN	9	O	550	Red-eyed Vireo	'
Settlement	Point Count	MS7N	9	6	550	American Robin	2
MacKenzie	Breeding Bird	WISTIN	3	U	550	American Robin	_
Settlement	Point Count	MS8	9	6	607	Canada Warbler	1
MacKenzie	Breeding Bird	WIGO	J	O	001	Carlada Warbier	'
Settlement	Point Count	MS8	9	6	607	NASH	1
MacKenzie	Breeding Bird	WIGO	J	O	001	Black and White	'
Settlement	Point Count	MS8	9	6	607	Warbler	1
MacKenzie	Breeding Bird	Wiec	Ū	Ü	001	value.	•
Settlement	Point Count	MS8	9	6	607	Hermet Thrush	1
MacKenzie	Breeding Bird			•			•
Settlement	Point Count	MS8	9	6	607	Ovenbird	1
MacKenzie	Breeding Bird		•				-
Settlement	Point Count	MS8	9	6	607	Mourning Warbler	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS8	9	6	607	Green Warbler	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	9	6	607	Red-eyed Vireo	2
MacKenzie	Breeding Bird					•	
Settlement	Point Count	MS8	9	6	607	Magnolia Warbler	1
MacKenzie	Breeding Bird					Bay-breasted	
Settlement	Point Count	MS8	9	6	607	Warbler	1
MacKenzie	Breeding Bird					Yellow-bellied	
Settlement	Point Count	MS8	9	6	607	Flycatcher	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS8	9	6	607	Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	9	6	607	Blue-headed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	9	6	607	Swainson's Thrush	2
MacKenzie	Breeding Bird			_			
Settlement	Point Count	MS8	9	6	607	Winter Wren	1
MacKenzie	Breeding Bird		_	_		White-throated	
Settlement	Point Count	MS8	9	6	607	Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	9	6	607	Magnolia Warbler	1
MacKenzie	Breeding Bird	1400	^	•	007	Ruby-crowned	
Settlement	Point Count	MS8	9	6	607	Kinglet	1
MacKenzie	Breeding Bird	MCO	0	•	007	American Dahin	4
Settlement	Point Count	MS8	9	6	607	American Robin	1
MacKenzie Settlement	Breeding Bird Point Count	MCO	0	6	607	Hormot Thrush	4
MacKenzie	Breeding Bird	MS8	9	6	607	Hermet Thrush	1
Settlement	Point Count	MS8	9	6	607	Purple Finch	1
MacKenzie	Breeding Bird	IVISO	9	0	607	Yellow-rumped	1
Settlement	Point Count	MS8	9	6	607	Warbler	1
MacKenzie	Breeding Bird	IVIOU	Э	U	007	Unknown	1
Settlement	Point Count	MS8	9	6	607	Woodpecker	1
MacKenzie	Breeding Bird	14100	Э	U	007	** Joupeoner	'
Settlement	Point Count	MS8	9	6	607	Common Raven	2
Cottloilloill	. on a oount	14100	J	U	001	John Navon	_

	B !! B! !						
MacKenzie Settlement	Breeding Bird Point Count	MS9	9	6	622	Mourning Warbler	1
MacKenzie	Breeding Bird	IVIO9	9	O	022	Mourning Warbler	1
Settlement	Point Count	MS9	9	6	622	Lincoln's Sparrow	1
MacKenzie	Breeding Bird			Ü			·
Settlement	Point Count	MS9	9	6	622	Red-eyed Vireo	1
MacKenzie	Breeding Bird				_	Common	
Settlement	Point Count	MS9	9	6	622	Yellowthroat	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS9	9	6	622	Alder Flycatcher	2
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS9	9	6	622	Green Warbler	1
MacKenzie	Breeding Bird					Black and White	
Settlement	Point Count	MS9	9	6	622	Warbler	1
MacKenzie	Breeding Bird					Black-capped	
Settlement	Point Count	MS9	9	6	622	Chickadee	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS9	9	6	622	Hermet Thrush	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS9	9	6	622	Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS9	9	6	622	Hermet Thrush	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS9	9	6	622	Alder Flycatcher	1
MacKenzie	Breeding Bird			_		Common	
Settlement	Point Count	MS9	9	6	622	Yellowthroat	1
MacKenzie	Breeding Bird	1400					
Settlement	Point Count	MS9	9	6	622	Magnolia Warbler	1
MacKenzie	Breeding Bird	MOO	^	•	000	Eastern Wood	4
Settlement	Point Count	MS9	9	6	622	Peewee	1
MacKenzie Settlement	Breeding Bird Point Count	MS9	0	6	600	Plue lov	4
MacKenzie	Breeding Bird	10139	9	6	022	Blue Jay Chestnut-sided	1
Settlement	Point Count	MS9	9	6	622	: Warbler	1
MacKenzie	Breeding Bird	IVIOS	9	O	022	vvaiblei	ı
Settlement	Point Count	MS9	9	6	622	American Crow	1
MacKenzie	Breeding Bird	WOS	J	U	022	American Grow	'
Settlement	Point Count	MS9	9	6	622	Common Raven	1
Octionich	Breeding bird	WIOO	J	O	022	Common reaven	•
MacKenzie	Transect	Transect to					
Settlement	Count	53	9	6	635	Ovenbird	1
	Breeding bird			Ü			·
MacKenzie	Transect	Transect to					
Settlement	Count	53	9	6	635	American Redstart	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	53	9	6	635	Red-eyed Vireo	1
	Breeding bird					•	
MacKenzie	Transect	Transect to				Black-throated	
Settlement	Count	53	9	6	635	Green Warbler	1

	Breeding bird						
MacKenzie	Transect	Transect to				Black-throated Bluel	
Settlement	Count	53	9	6	635	Warbler	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	53	9	6	635	Mourning Warbler	1
MacKenzie	Breeding Bird					Blackburnian	
Settlement	Point Count	MS53	9	6	647	Warbler	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS53	9	6	647	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS53	9	6	647	Northern Parula	1
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	MS53	9	6	647	Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS53	9	6	647	Blue-headed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS53	9	6	647	American Robin	1
MacKenzie	Breeding Bird					Yellow-bellied	
Settlement	Point Count	MS53	9	6	647	Flycatcher	1
MacKenzie	Breeding Bird					·	
Settlement	Point Count	MS53	9	6	647	Hermet Thrush	1
MacKenzie	Breeding Bird		-				
Settlement	Point Count	MS53	9	6	647	Red-eyed Vireo	1
MacKenzie	Breeding Bird		_			,	
Settlement	Point Count	MS53	9	6	647	Winter Wren	1
MacKenzie	Breeding Bird					Golden-crowned	
Settlement	Point Count	MS53	9	6	647	Kinglet	1
MacKenzie	Breeding Bird					J	
Settlement	Point Count	MS53	9	6	647	Magnolia Warbler	1
MacKenzie	Breeding Bird					· ·	
Settlement	Point Count	MS53	9	6	647	Cedar Waxwing	1
	Breeding bird					_	
MacKenzie	Transect	Transect to				Black-throated	
Settlement	Count	Lake	9	6	658	Green Warbler	2
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	9	6	658	Magnolia Warbler	1
	Breeding bird					· ·	
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	9	6	658	Winter Wren	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	9	6	658	Ovenbird	2
	Breeding bird		•				
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	9	6	658	Hermet Thrush	1
	Breeding bird		-	•	500		•
MacKenzie	Transect	Transect to				Yellow-rumped	
Settlement	Count	Lake	9	6	658	Warbler	1
2 2 2 2 2 2 1 1 4			-	_	555		•

MacKenzie	Breeding bird Transect	Transect to				Black-capped	
Settlement	Count Breeding bird	Lake	9	6	658	Chickadee	2
MacKenzie	Transect	Transect to				Ruby-throated	
Settlement	Count Breeding bird	Lake	9	6	658	Hummingbird	1
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	9	6	658	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Hairy Woodpecker	1
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	Lake	9	6	707	Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Winter Wren	1
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	Lake	9	6	707	Yellowthroat	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	Lake	9	6	707	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Mourning Warbler	1
MacKenzie	Breeding Bird					Black and White	
Settlement	Point Count	Lake	9	6	707	Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Magnolia Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Ovenbird	2
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Song Sparrow	1
MacKenzie	Breeding Bird					Yellow-bellied Sap	
Settlement	Point Count	Lake	9	6	707	Sucker	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Red-eyed Vireo	2
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	American Robin	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Lincoln's Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Swainson's Thrush	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	Lake	9	6	707	Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	Lake	9	6	707	Swamp Sparrow	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS5	9	6	745	Hermet Thrush	1
	Breeding bird						
MacKenzie	Transect	Transect to				Common	
Settlement	Count	MS5	9	6	745	Yellowthroat	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS5	9	6	745	Dark-eyed Junco	1
						•	

	Prooding hird						
MacKenzie	Breeding bird Transect	Transect to					
Settlement	Count	MS5	9	6	745	American Robin	1
Comomon	Breeding bird		Ü	Ü	0	, anonean result	•
MacKenzie	Transect	Transect to					
Settlement	Count	MS5	9	6	745	Magnolia Warbler	3
	Breeding bird					3	
MacKenzie	Transect	Transect to					
Settlement	Count	MS5	9	6	745	American Redstart	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS5	9	6	745	American Goldfinch	1
	Breeding bird						
MacKenzie	Transect	Transect to				Ruby-crowned	
Settlement	Count	MS5	9	6	745	Kinglet	1
	Breeding bird						
MacKenzie	Transect	Transect to				Yellow-rumped	
Settlement	Count	MS5	9	6	745	Warbler	1
	Breeding bird	_					
MacKenzie	Transect	Transect to	_	_		Bay-breasted	
Settlement	Count	MS5	9	6	745	Warbler	1
MarilZanila	Breeding bird	T ()					
MacKenzie	Transect	Transect to	•	•	- 4-	DI - I-	
Settlement	Count	MS5	9	6	745	Blue Jay	1
Maakansia	Breeding bird	Transactio					
MacKenzie Settlement	Transect	Transect to	0	•	715	Common Boyen	4
Settlement	Count Breeding bird	MS5	9	6	745	Common Raven	1
MacKenzie	Transect	Transect to				Black-throated	
Settlement	Count	MS5	9	6	7/15	Green Warbler	1
Octionich	Breeding bird	WOO	9	U	743	Green Warbier	'
MacKenzie	Transect	Transect to					
Settlement	Count	MS5	9	6	745	Dark-eyed Junco	1
MacKenzie	Breeding Bird	Wiec	Ü	Ü	, 10	Black and White	•
Settlement	Point Count	MS5	9	6	754	Warbler	1
MacKenzie	Breeding Bird		Ū	Ū			•
Settlement	Point Count	MS5	9	6	754	Ovenbird	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	9	6	754	Red-eyed Vireo	2
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS5	9	6	754	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	9	6	754	Magnolia Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	9	6	754	Dark-eyed Junco	1
MacKenzie	Breeding Bird					Ruby-crowned	
Settlement	Point Count	MS5	9	6	754	Kinglet	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	9	6	754	Ovenbird	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	9	6	754	Hermet Thrush	1

MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS5	9	6	754	Sparrow	1
MacKenzie	Breeding Bird					•	
Settlement	Point Count	MS5	9	6	754	Common Raven	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	9	6	754	Cedar Waxwing	1
	Breeding bird					· ·	
MacKenzie	Transect	Transect to					
Settlement	Count	54	9	6	805	Red-eyed Vireo	1
	Breeding bird					·	
MacKenzie	Transect	Transect to					
Settlement	Count	54	9	6	805	Ovenbird	1
	Breeding bird						
MacKenzie	Transect	Transect to				Bay-breasted	
Settlement	Count	54	9	6	805	Warbler	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS54	9	6	809	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Purple Finch	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Blue-headed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Dark-eyed Junco	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Red-eyed Vireo	1
MacKenzie	Breeding Bird					Yellow-bellied	
Settlement	Point Count	MS54	9	6	809	Flycatcher	1
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	MS54	9	6	809	Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Ovenbird	1
MacKenzie	Breeding Bird					Red-breasted	
Settlement	Point Count	MS54	9	6	809	Nuthatch	1
MacKenzie	Breeding Bird					Black-capped	
Settlement	Point Count	MS54	9	6	809	Chickadee	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Swainson's Thrush	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS54	9	6	809	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Ovenbird	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	Common Raven	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	9	6	809	American Crow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Savannah Sparrow	1
MacKenzie	Breeding Bird		_				-
Settlement	Point Count	MS55	9	6	850	American Robin	2
MacKenzie	Breeding Bird	14055	_	_		5	
Settlement	Point Count	MS55	9	6	850	Dark-eyed Junco	1

MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS55	9	6	850	Yellowthroat	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Northern Parula	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Dark-eyed Junco	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Blue-headed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Alder Flycatcher	1
MacKenzie	Breeding Bird			_		Yellow-rumped	
Settlement	Point Count	MS55	9	6	850	Warbler	1
MacKenzie	Breeding Bird			_			
Settlement	Point Count	MS55	9	6	850	Song Sparrow	1
MacKenzie	Breeding Bird		_	_			
Settlement	Point Count	MS55	9	6	850	Common Raven	25
MacKenzie	Breeding Bird	14055	_		050	Ruby-crowned	
Settlement	Point Count	MS55	9	6	850	Kinglet	1
MacKenzie	Breeding Bird	MOSS	_	•	050	Yellow-bellied	0
Settlement	Point Count	MS55	9	6	850	Flycatcher White-throated	2
MacKenzie	Breeding Bird Point Count	MS55	0	•	050		4
Settlement MacKenzie		IVISSS	9	6	850	Sparrow	1
Settlement	Breeding Bird Point Count	MS55	0	6	050	Hermet Thrush	4
MacKenzie	Breeding Bird	MSSS	9	О	650	Heimet imusii	1
Settlement	Point Count	MS55	9	6	950	Northern Warbler	1
MacKenzie	Breeding Bird	MOOO	9	O	000	Notthern warblet	1
Settlement	Point Count	MS55	9	6	850	Northern Flicker	1
MacKenzie	Breeding Bird	WOOO	3	O	000	THORITION OF	'
Settlement	Point Count	MS55	9	6	850	American Redstart	
MacKenzie	Breeding Bird		Ü	Ü	000	White-throated	
Settlement	Point Count	MS55	9	6	850	Sparrow	1
MacKenzie	Breeding Bird		•	_			
Settlement	Point Count	MS55	9	6	850	American Crow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Purple Finch	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	American Goldfinch	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	9	6	850	Cedar Waxwing	2
	Breeding bird	driving					
MacKenzie	Transect	transect to				Yellow-bellied	
Settlement	Count	13	9	6	901	Flycatcher	1
	Breeding bird	driving					
MacKenzie	Transect	transect to	_			Bay-breasted	_
Settlement	Count	13	9	6	901	Warbler	1
NA	Breeding bird	driving					
MacKenzie	Transect	transect to	_	•	001	America De Liti	_
Settlement	Count	13	9	6	901	American Redstart	2

	Breeding bird	driving					
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	Northern Parula	1
Maskani	Breeding bird	driving				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
MacKenzie	Transect	transect to	0	•	004	White-throated	4
Settlement	Count	13	9	6	901	Sparrow	1
MacKenzie	Breeding bird Transect	driving transect to					
Settlement	Count	13	9	6	001	Blue-headed Vireo	1
Semement	Breeding bird	driving	9	0	901	Blue-fleaded vireo	'
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	Song Sparrow	1
Octionich	Breeding bird	driving	3	U	501	Cong Opanow	'
MacKenzie	Transect	transect to				Golden-crowned	
Settlement	Count	13	9	6	901	Kinglet	1
	Breeding bird	driving	Ū	Ü	00.	9.51	•
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	Magnolia Warbler	3
	Breeding bird	driving	•			3	
MacKenzie	Transect	transect to				Black-throated	
Settlement	Count	13	9	6	901	Green Warbler	1
	Breeding bird	driving					
MacKenzie	Transect	transect to				Black and White	
Settlement	Count	13	9	6	901	Warbler	1
	Breeding bird	driving					
MacKenzie	Transect	transect to				Northern	
Settlement	Count	13	9	6	901	Waterthrush	1
	Breeding bird	driving					
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	Blue Jay	1
	Breeding bird	driving					
MacKenzie	Transect	transect to		_			
Settlement	Count	13	9	6	901	Canada Warbler	2
	Breeding bird	driving				B 11 ()	
MacKenzie	Transect	transect to	•	•	004	Red-breasted	
Settlement	Count	13	9	6	901	Nuthatch	1
Maakaasia	Breeding bird	driving					
MacKenzie	Transect	transect to	0	c	001	Durale Cineb	1
Settlement	Count	13	9	6	901	Purple Finch	1
Maakanzia	Breeding bird Transect	driving					
MacKenzie Settlement	Count	transect to 13	9	6	001	Swamp Sparrow	1
Settlement	Breeding bird	driving	9	O	901	Swamp Spanow	'
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	American Goldfinch	1
Cottlornorn	Breeding bird	driving	J	Ü	501	7 anondar Columbia	•
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	American Robin	1
	Breeding bird	driving	-	-	501		•
MacKenzie	Transect	transect to					
Settlement	Count	13	9	6	901	Mourning Warbler	1
						5	

	5 " ' '						
Maakaasia	Breeding bird	driving				Dubu arasına d	
MacKenzie	Transect Count	transect to 13	9	6	004	Ruby-crowned	1
Settlement			9	О	901	Kinglet	ı
MacKenzie	Breeding bird Transect	driving transect to					
Settlement	Count	13	9	6	001	Boreal Chickadee	1
Settlement	Breeding bird	driving	9	U	301	Borear Criickadee	'
MacKenzie	Transect	transect to				Black-capped	
Settlement	Count	13	9	6	901	Chickadee	1
MacKenzie	Breeding Bird	10	Ü	Ü	001	Cincidado	•
Settlement	Point Count	MS13	9	6	914	American Robin	5
MacKenzie	Breeding Bird		-				-
Settlement	Point Count	MS13	9	6	914	Red-eyed Vireo	1
MacKenzie	Breeding Bird					•	
Settlement	Point Count	MS13	9	6	914	Song Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS13	9	6	914	Alder Flycatcher	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS13	9	6	914	Magnolia Warbler	1
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	MS13	9	6	914	Warbler	1
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS13	9	6	914	Yellowthroat	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS13	9	6	914	Red-eyed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS13	9	6	914	Swamp Sparrow	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS13	9	6	914	Green Warbler	2
MacKenzie	Breeding Bird	14040	_	_		Blackburnian	
Settlement	Point Count	MS13	9	6	914	Warbler	1
MacKenzie	Breeding Bird	N/O40	•	0	04.4	White-throated	
Settlement	Point Count	MS13	9	6	914	Sparrow	1
MacKenzie	Breeding Bird	MO40	_	0	04.4	Black-capped	
Settlement	Point Count	MS13	9	6	914	Chickadee	1
MacKenzie	Breeding Bird Point Count	MC12	0	6	04.4	Curaina anta Thruah	4
Settlement MacKenzie		MS13	9	6	914	Swainson's Thrush	1
Settlement	Breeding Bird Point Count	MS13	9	6	014	Blue Jay	1
MacKenzie	Breeding Bird	IVIO I O	Э	O	914	Blue Jay	ı
Settlement	Point Count	MS13	9	6	01/	Dark-eyed Junco	1
MacKenzie	Breeding Bird	WIG13	9	U	314	Ruby-crowned	'
Settlement	Point Count	MS13	9	6	914	Kinglet	1
MacKenzie	Breeding Bird	WOTO	3	U	514	Kinglet	'
Settlement	Point Count	MS13	9	6	914	Boreal Chickadee	1
MacKenzie	Breeding Bird		Ü	Ü	0	Boroar Griionados	•
Settlement	Point Count	MS13	9	6	914	Purple Finch	1
MacKenzie	Breeding Bird		-	•	· · ·	· F · · · · · ·	•
Settlement	Point Count	MS13	9	6	914	Ovenbird	1
MacKenzie	Breeding Bird		-	-			•
Settlement	Point Count	MS13	9	6	914	Common Raven	35
					-		-

MacKenzie	Breeding Bird						
Settlement	Point Count	MS13	9	6	01/	Cedar Waxwing	2
MacKenzie	Breeding Bird	WOTO	3	U	314	Golden-crowned	_
Settlement	Point Count	MS3	28	6	456	Kinglet	1
MacKenzie	Breeding Bird	WOO	20	Ü	400	rangiot	•
Settlement	Point Count	MS3	28	6	456	Magnolia Warbler	2
MacKenzie	Breeding Bird	Wico	20	Ü	.00	Black-throated	_
Settlement	Point Count	MS3	28	6	456	Green Warbler	1
MacKenzie	Breeding Bird	Wico	20	Ü	.00	Crock Waldier	•
Settlement	Point Count	MS3	28	6	456	Blue-headed Vireo	1
MacKenzie	Breeding Bird		_0	Ü	.00	Black-capped	•
Settlement	Point Count	MS3	28	6	456	Chickadee	1
MacKenzie	Breeding Bird			Ū		Common	•
Settlement	Point Count	MS3	28	6	456	Yellowthroat	1
MacKenzie	Breeding Bird						-
Settlement	Point Count	MS3	28	6	456	Winter Wren	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS3	28	6	456	Sparrow	1
MacKenzie	Breeding Bird					Black and White	-
Settlement	Point Count	MS3	28	6	456	Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	American Robin	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	Hermet Thrush	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	American Robin	2
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS3	28	6	456	Yellowthroat	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	Swamp Sparrow	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS3	28	6	456	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	Northern Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS3	28	6	456	Dark-eyed Junco	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS4	28	6	509	Red-eyed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS4	28	6	509	Ovenbird	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS4	28	6	509	Northern Parula	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS4	28	6	509	Green Warbler	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS4	28	6	509	Sparrow	1
MacKenzie	Breeding Bird					Black-capped	
Settlement	Point Count	MS4	28	6	509	Chickadee	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS4	28	6	509	Sparrow	1

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MacKenzie Settlement	Breeding Bird Point Count	MS4	28	6	500	Hermet Thrush	1
MacKenzie	Breeding Bird	10104	20	U	509	Heimet illiusii	ı
Settlement	Point Count	MS4	28	6	509	Dark-eyed Junco	1
MacKenzie	Breeding Bird		_0	Ü	000	Dain Gydd ddiled	•
Settlement	Point Count	MS4	28	6	509	American Redstart	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS4	28	6	509	Red-eyed Vireo	1
MacKenzie	Breeding Bird					•	
Settlement	Point Count	MS4	28	6	509	Ovenbird	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS4	28	6	509	Common Raven	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Ovenbird	2
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS51	28	6	523	Green Warbler	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Red-eyed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Hermet Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Hairy Woodpecker	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Ovenbird	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS51	28	6	523	Sparrow	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS51	28	6	523	Green Warbler	2
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS51	28	6	523	Yellowthroat	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Hermet Thrush	2
MacKenzie	Breeding Bird			_			
Settlement	Point Count	MS51	28	6	523	American Robin	1
MacKenzie	Breeding Bird			_		Blackburnian	
Settlement	Point Count	MS51	28	6	523	Warbler	1
MacKenzie	Breeding Bird			_			
Settlement	Point Count	MS51	28	6	523	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS51	28	6	523	Common Raven	1
MacKenzie	Breeding Bird	14054	00		500		
Settlement	Point Count	MS51	28	6	523	Magnolia Warbler	1
MacKenzie	Breeding Bird	MOEA	00	•	500	Dad avad Vissa	,
Settlement	Point Count	MS51	28	6	523	Red-eyed Vireo	1
MacKenzie	Breeding Bird	MOEA	00	•	-00	No who are Manhar	
Settlement	Point Count	MS51	28	6	523	Northern Warbler	1
MacKenzie	Breeding Bird	N400	00	•	-0-	Black-throated	
Settlement	Point Count	MS6	28	6	535	Green Warbler	1
MacKenzie	Breeding Bird	MCC	20	C	F0F	Dive booded Vires	
Settlement	Point Count	MS6	28	6	၁ 35	Blue-headed Vireo	1
MacKenzie Settlement	Breeding Bird	MSE	20	6	FOE	Dark aved lunca	4
Settlement	Point Count	MS6	28	6	ეკე	Dark-eyed Junco	1

MacKenzie	Broading Bird						
Settlement	Breeding Bird Point Count	MS6	28	6	535	Hairy Woodpecker	1
MacKenzie	Breeding Bird	WIOU	20	U	555	rially woodpecker	'
Settlement	Point Count	MS6	28	6	535	Ovenbird	1
MacKenzie	Breeding Bird	Wico	20	Ü	000	Golden-crowned	•
Settlement	Point Count	MS6	28	6	535	Kinglet	1
MacKenzie	Breeding Bird			Ü	000	Blackburnian	·
Settlement	Point Count	MS6	28	6	535	Warbler	1
MacKenzie	Breeding Bird					Black-capped	-
Settlement	Point Count	MS6	28	6	535	Chickadee	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS6	28	6	535	Green Warbler	1
MacKenzie	Breeding Bird					Ruby-crowned	
Settlement	Point Count	MS6	28	6	535	Kinglet	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS6	28	6	535	American Robin	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS6	28	6	535	Dark-eyed Junco	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS6	28	6	535	Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS6	28	6	535	Magnolia Warbler	1
MacKenzie	Breeding Bird					140 - 141	
Settlement	Point Count	MS6	28	6	535	Winter Wren	1
MacKenzie	Breeding Bird	1400	00		-0-	D. 1 11/1	
Settlement	Point Count	MS6	28	6	535	Red-eyed Vireo	1
MacKenzie	Breeding Bird	MCC	00	0	- 0-	Dina Cialda	
Settlement MacKenzie	Point Count	MS6	28	6	535	Pine Siskin Black-throated	1
Settlement	Breeding Bird Point Count	MS7N	28	6	5 47	Green Warbler	1
MacKenzie	Breeding Bird	WISTIN	20	O	547	Green warbier	1
Settlement	Point Count	MS7N	28	6	547	Hermet Thrush	1
MacKenzie	Breeding Bird	WOTH	20	Ü	047	Tiomiot Tindon	•
Settlement	Point Count	MS7N	28	6	547	Blue-headed Vireo	1
MacKenzie	Breeding Bird				•		•
Settlement	Point Count	MS7N	28	6	547	Magnolia Warbler	1
MacKenzie	Breeding Bird					3	
Settlement	Point Count	MS7N	28	6	547	Dark-eyed Junco	1
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS7N	28	6	547	Yellowthroat	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS7N	28	6	547	Northern Parula	1
MacKenzie	Breeding Bird					Ruby-throated	
Settlement	Point Count	MS7N	28	6	547	Hummingbird	1
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS7N	28	6	547	Sparrow	1
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	MS7N	28	6	547	Warbler	1
MacKenzie	Breeding Bird	N4071	00	•		Yellow-bellied	
Settlement	Point Count	MS7N	28	6	547	Flycatcher	1
MacKenzie	Breeding Bird	MOZNI	00	_	- 1 -	Harmat Thursh	4
Settlement	Point Count	MS7N	28	6	54/	Hermet Thrush	1

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MacKenzie Settlement	Breeding Bird Point Count	MS7N	28	6	E 17	Winter Wren	1
MacKenzie	Breeding Bird	IVISTIN	20	O	347	willer wien	ı
Settlement	Point Count	MS7N	28	6	547	Swamp Sparrow	1
MacKenzie	Breeding Bird	WOTN	20	U	547	Swamp Spanow	'
Settlement	Point Count	MS7N	28	6	5/17	Mourning Warbler	1
MacKenzie	Breeding Bird	1010711	20	O	571	Ruby-crowned	'
Settlement	Point Count	MS7N	28	6	547	Kinglet	1
MacKenzie	Breeding Bird	1010711	20	O	571	White-throated	'
Settlement	Point Count	MS7N	28	6	547	Sparrow	1
MacKenzie	Breeding Bird	10.0714	20	Ü	0	Sparrow.	•
Settlement	Point Count	MS7N	28	6	547	Magnolia Warbler	1
MacKenzie	Breeding Bird		_0	Ü	0	Black and White	•
Settlement	Point Count	MS7N	28	6	547	Warbler	1
MacKenzie	Breeding Bird			•	•		•
Settlement	Point Count	MS7N	28	6	547	Red-eyed Vireo	1
MacKenzie	Breeding Bird			•	•		•
Settlement	Point Count	MS7N	28	6	547	Northern Flicker	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS7N	28	6	547	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS7N	28	6	547	Common Grackle	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS7N	28	6	547	Purple Finch	1
MacKenzie	Breeding Bird					Pileated	
Settlement	Point Count	MS7N	28	6	547	Woodpecker	1
MacKenzie	Breeding Bird					·	
Settlement	Point Count	MS8	28	6	603	Red-eyed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	28	6	603	American Robin	2
MacKenzie	Breeding Bird					Ruby-crowned	
Settlement	Point Count	MS8	28	6	603	Kinglet	1
MacKenzie	Breeding Bird					Yellow-bellied	
Settlement	Point Count	MS8	28	6	603	Flycatcher	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS8	28	6	603	Green Warbler	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	28	6	603	Ovenbird	1
MacKenzie	Breeding Bird					-	
Settlement	Point Count	MS8	28	6	603	Swainson's Thrush	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS8	28	6	603	Magnolia Warbler	1
MacKenzie	Breeding Bird			_			
Settlement	Point Count	MS8	28	6	603	Swainson's Thrush	1
MacKenzie	Breeding Bird	1400	00		000	NAC - (NAC	
Settlement	Point Count	MS8	28	6	603	Winter Wren	1
MacKenzie	Breeding Bird	1400	00		000	Bull and Love	
Settlement	Point Count	MS8	28	6	603	Dark-eyed Junco	1
MacKenzie	Breeding Bird	MCC	00	•	000	Black and White	4
Settlement	Point Count	MS8	28	6	603	Warbler	1
MacKenzie Settlement	Breeding Bird	MCO	20	6	600	American Dobin	4
Settlement	Point Count	MS8	28	6	003	American Robin	1

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MacKenzie Settlement	Breeding Bird Point Count	MS8	28	6	603 Northern Parula	1
MacKenzie	Breeding Bird	MOO	20	O	003 Northern Fartila	'
Settlement	Point Count	MS8	28	6	603 Blue-headed Vireo	1
MacKenzie	Breeding Bird		_0	Ü	ood Blad Hodaed Viiot	•
Settlement	Point Count	MS8	28	6	603 Hermet Thrush	2
MacKenzie	Breeding Bird					
Settlement	Point Count	MS8	28	6	603 Northern Flicker	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 Mourning Warbler	1
MacKenzie	Breeding Bird				-	
Settlement	Point Count	MS9	28	6	615 Alder Flycatcher	2
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 American Robin	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 Red-eyed Vireo	3
MacKenzie	Breeding Bird				Black-throated	
Settlement	Point Count	MS9	28	6	615 Green Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 Dark-eyed Junco	1
MacKenzie	Breeding Bird				Yellow-bellied	
Settlement	Point Count	MS9	28	6	615 Flycatcher	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 Song Sparrow	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 American Redstart	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS9	28	6	615 American Robin	1
MacKenzie	Breeding Bird			_	Black-throated	
Settlement	Point Count	MS9	28	6	615 Green Warbler	
MacKenzie	Breeding Bird	1400		_	Chestnut-sided	
Settlement	Point Count	MS9	28	6	615 Warbler	1
MacKenzie	Breeding Bird	1400	00	0	Common	
Settlement	Point Count	MS9	28	6	615 Yellowthroat	1
MacKenzie	Breeding Bird	N400	00	0	White-throated	
Settlement	Point Count	MS9	28	6	615 Sparrow	1
MacKenzie	Breeding Bird	MCO	20	•	CAE Northorn Domile	,
Settlement	Point Count	MS9	28	6	615 Northern Parula	1
MacKenzie Settlement	Breeding Bird	Meo	28	6	Ruby-crowned	1
MacKenzie	Point Count	MS9	20	6	615 Kinglet	ı
Settlement	Breeding Bird Point Count	MS9	28	6	615 Hermet Thrush	2
MacKenzie	Breeding Bird	MSS	20	O	615 Heimet Imusii	2
Settlement	Point Count	MS9	28	6	615 Ovenbird	1
MacKenzie	Breeding Bird	IVIOS	20	O	013 Overibild	'
Settlement	Point Count	MS9	28	6	615 American Crow	3
MacKenzie	Breeding Bird	IVIOS	20	O	013 American Crow	3
Settlement	Point Count	MS9	28	6	615 Common Raven	1
MacKenzie	Breeding Bird	14100	20	U	010 Common Naven	1
Settlement	Point Count	MS9	28	6	615 Blue Jay	1
MacKenzie	Breeding Bird	14100	20	U	010 Dide day	1
Settlement	Point Count	MS9	28	6	615 Winter Wren	1
Journalit	i oiiit oouiit	MOS	20	J	OID WHITCH WIGH	1

MarilZanii	D						
MacKenzie Settlement	Breeding Bird Point Count	MS9	28	6	615	Northern Flicker	1
Collienten	Breeding bird		20	Ū	010	Troitino III II I	•
MacKenzie	Transect	Transect to				Bay-breasted	
Settlement	Count	MS53	28	6	631	Warbler	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS53	28	6	631	Red-eyed Vireo	1
	Breeding bird						
MacKenzie	Transect	Transect to				Black-throated	
Settlement	Count	MS53	28	6	631	Green Warbler	2
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS53	28	6	631	Ovenbird	2
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS53	28	6	631	Magnolia Warbler	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	MS53	28	6	631	American Redstart	1
	Breeding bird						
MacKenzie	Transect	Transect to				Golden-crowned	
Settlement	Count	MS53	28	6	631	Kinglet	1
	Breeding bird	_					
MacKenzie	Transect	Transect to					
Settlement	Count	MS53	28	6	631	Winter Wren	1
	Breeding bird	_					
MacKenzie	Transect	Transect to		_			
Settlement	Count	MS53	28	6	631	Hermet Thrush	1
	Breeding bird						
MacKenzie	Transect	Transect to		_		Yellow-rumped	
Settlement	Count	MS53	28	6	631	Warbler	1
MacKenzie	Breeding Bird	14050	00	0	0.40	Dad a self-see	
Settlement	Point Count	MS53	28	6	640	Dark-eyed Junco	1
MacKenzie	Breeding Bird	14050	00	0	0.40	Black-throated Bluel	
Settlement	Point Count	MS53	28	6	640	Warbler	1
MacKenzie	Breeding Bird	MOEO	20	•	C40	North and Davida	4
Settlement	Point Count	MS53	28	6	640	Northern Parula	1
MacKenzie	Breeding Bird	MOEO	20	•	C40	Dad avad Viras	4
Settlement	Point Count	MS53	28	6	640	Red-eyed Vireo	1
MacKenzie	Breeding Bird	MOEO	20	•	C40	Black-throated	2
Settlement	Point Count	MS53	28	6	640	Green Warbler	2
MacKenzie	Breeding Bird	MCEO	20	•	C40	Blackburnian	4
Settlement MacKenzie	Point Count Breeding Bird	MS53	28	6	640	Warbler	1
Settlement	Point Count	MCEO	20	6	640	Parrad Owl	4
		MS53	28	6	640	Barred Owl Black-throated	1
MacKenzie	Breeding Bird	MCEO	20	•	C40		4
Settlement	Point Count	MS53	28	6	040	Green Warbler	1
MacKenzie Settlement	Breeding Bird Point Count	MSES	20	6	640	Yellow-bellied	4
MacKenzie		MS53	28	6	040	Flycatcher Golden-crowned	1
Settlement	Breeding Bird Point Count	MS53	20	6	640	Kinglet	1
Semement	i onit count	141000	28	6	040	Mildier	ı

MacKenzie Settlement	Breeding Bird Point Count Broading bird	MS53	28	6	640	American Robin	1
MacKenzie	Breeding bird Transect	Transect to					
Settlement	Count	Lake	28	6	651	Northern Parula	1
Settlement	Breeding bird	Lake	20	U	051	Northern Fardia	'
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Red-eyed Vireo	1
Octionich	Breeding bird	Lake	20	O	001	Red cyca viico	'
MacKenzie	Transect	Transect to				Black-throated Bluel	
Settlement	Count	Lake	28	6	651	Warbler	1
Comomon	Breeding bird	Lano	20	Ü	001	vvaisioi	•
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Magnolia Warbler	1
	Breeding bird			•	• • • • • • • • • • • • • • • • • • • •	g	•
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Blue-headed Vireo	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Ovenbird	3
	Breeding bird						
MacKenzie	Transect	Transect to				Black-throated	
Settlement	Count	Lake	28	6	651	Green Warbler	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Gray Jay	1
	Breeding bird						
MacKenzie	Transect	Transect to				Yellow-bellied Sap	
Settlement	Count	Lake	28	6	651	Sucker	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Winter Wren	1
	Breeding bird						
MacKenzie	Transect	Transect to	00		054	Eastern Wood	
Settlement	Count	Lake	28	6	651	Peewee	1
Maakansia	Breeding bird	T				Dio alcored White	
MacKenzie	Transect Count	Transect to	20	6	CE 1	Black and White	4
Settlement	Breeding bird	Lake	28	6	651	Warbler	1
MacKenzie	Transect	Transact to					
Settlement	Count	Transect to Lake	28	6	651	American Crow	1
Settlement	Breeding bird	Lake	20	U	051	American Crow	'
MacKenzie	Transect	Transect to					
Settlement	Count	Lake	28	6	651	Hermet Thrush	1
MacKenzie	Breeding Bird	Lake	20	U	051	Golden-crowned	'
Settlement	Point Count	Lake	28	6	703	Kinglet	2
MacKenzie	Breeding Bird	Lake	20	O	700	Kinglet	_
Settlement	Point Count	Lake	28	6	703	Red-eyed Vireo	1
MacKenzie	Breeding Bird	Lano	20	J	, 00		'
Settlement	Point Count	Lake	28	6	703	Ovenbird	1
MacKenzie	Breeding Bird		_5	J	. 00	Black-throated	•
Settlement	Point Count	Lake	28	6	703	Green Warbler	1
				-			•

MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Ovenbird	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Hermet Thrush	1
MacKenzie	Breeding Bird				White-throated	
Settlement	Point Count	Lake	28	6	703 Sparrow	2
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Mourning Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Dark-eyed Junco	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 American Robin	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Northern Warbler	1
MacKenzie	Breeding Bird				Yellow-bellied	
Settlement	Point Count	Lake	28	6	703 Flycatcher	1
MacKenzie	Breeding Bird				Olive-sided	
Settlement	Point Count	Lake	28	6	703 Flycatcher	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Swamp Sparrow	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 American Crow	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Northern Flicker	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Song Sparrow	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Unknown Duck	2
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Common Grackle	1
MacKenzie	Breeding Bird					
Settlement	Point Count	Lake	28	6	703 Common Raven	1
	Breeding bird	_				
MacKenzie	Transect	Transect to				
Settlement	Count	5	28	6	736 American Robin	1
	Breeding bird	_				
MacKenzie	Transect	Transect to		_	Black-throated	_
Settlement	Count	5	28	6	736 Green Warbler	3
Marilen	Breeding bird	T				
MacKenzie	Transect	Transect to	00	0	700 Marca Pa Madda	
Settlement	Count	5	28	6	736 Magnolia Warbler	1
Maskania	Breeding bird	T			0	
MacKenzie	Transect	Transect to	00	0	Common	
Settlement	Count	5	28	6	736 Yellowthroat	1
Mookonzio	Breeding bird	Transact to				
MacKenzie	Transect	Transect to	20	•	700 Overhird	2
Settlement	Count	5	28	6	736 Ovenbird	2
MacKenzie	Breeding bird Transect	Transact to				
Settlement	Count	Transect to 5	20	6	736 Dark-ayed Junes	1
Semement	Count	5	28	6	736 Dark-eyed Junco	ı

	Dan a dia a biad						
MacKenzie	Breeding bird Transect	Transect to			V	ellow-rumped	
Settlement	Count	5	28	6		Varbler	1
Octionion	Breeding bird	Ü	20	O	700 V	varbioi	•
MacKenzie	Transect	Transect to			В	slack-capped	
Settlement	Count	5	28	6		Chickadee	1
	Breeding bird	-					
MacKenzie	Transect	Transect to			В	slack-throated	
Settlement	Count	5	28	6	736 G	Green Warbler	2
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	5	28	6	736 S	Song Sparrow	1
	Breeding bird						
MacKenzie	Transect	Transect to				'ellow-rumped	
Settlement	Count	5	28	6	736 W	Varbler	1
	Breeding bird				_		
MacKenzie	Transect	Transect to		_		Ruby-crowned	
Settlement	Count	5	28	6	736 K	linglet	1
Maakanzia	Breeding bird	Transect to			١٨	White threeted	
MacKenzie Settlement	Transect Count	5	20	c		Vhite-throated	4
Semement	Breeding bird	5	28	6	130 3	Sparrow	1
MacKenzie	Transect	Transect to					
Settlement	Count	5	28	6	736 R	Red-eyed Vireo	1
Octionich	Breeding bird	3	20	U	750 10	ica cyca viico	'
MacKenzie	Transect	Transect to					
Settlement	Count	5	28	6	736 W	Vinter Wren	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	5	28	6	736 A	merican Redstart	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	5	28	6	736 C	Common Raven	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	5	28	6	736 S	Swainson's Thrush	1
Marildani	Breeding bird	T					
MacKenzie	Transect	Transect to	20	C	700.0	Sadar Marrina	4
Settlement	Count	5	28	6	736 C	Cedar Waxwing	1
MacKenzie Settlement	Breeding Bird Point Count	MS5	28	6	7/6 D	Red-eyed Vireo	1
MacKenzie	Breeding Bird	IVIOO	20	O		slack-throated	ı
Settlement	Point Count	MS5	28	6		Green Warbler	1
MacKenzie	Breeding Bird	WOO	20	U	740 0	order warbier	•
Settlement	Point Count	MS5	28	6	746 O	Ovenbird	1
MacKenzie	Breeding Bird	- -		-		Black-capped	•
Settlement	Point Count	MS5	28	6		Chickadee	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	28	6	746 A	merican Robin	1
MacKenzie	Breeding Bird				Υ	ellow-rumped	
Settlement	Point Count	MS5	28	6	746 W	Varbler	1

Maakaatia	Dunnalina Diva						
MacKenzie Settlement	Breeding Bird Point Count	MS5	28	6	7/16	Ovenbird	1
MacKenzie	Breeding Bird	WOO	20	U	740	Ruby-crowned	'
Settlement	Point Count	MS5	28	6	746	Kinglet	1
MacKenzie	Breeding Bird					9	-
Settlement	Point Count	MS5	28	6	746	Common Raven	2
MacKenzie	Breeding Bird						
Settlement	Point Count	MS5	28	6	746	Swainson's Thrush	1
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	54	28	6	757	Ovenbird	2
	Breeding bird						
MacKenzie	Transect	Transect to					
Settlement	Count	54	28	6	757	Blue Jay	1
	Breeding bird	_					
MacKenzie	Transect	Transect to		_			
Settlement	Count	54	28	6	757	Red-eyed Vireo	1
NA 12 :	Breeding bird						
MacKenzie	Transect	Transect to	00	•		Black-throated	
Settlement	Count	54	28	6	/5/	Green Warbler	1
Maakaasia	Breeding bird	Troposot to				Caldan araumad	
MacKenzie	Transect	Transect to	20	_	757	Golden-crowned	4
Settlement	Count	54	28	6	151	Kinglet	1
MacKenzie	Breeding bird Transect	Transect to					
Settlement	Count	54	28	6	757	American Crow	1
MacKenzie	Breeding Bird	34	20	O	131	American Crow	'
Settlement	Point Count	MS54	28	6	803	Purple Finch	1
MacKenzie	Breeding Bird	WOOT	20	U	003	Black-throated	'
Settlement	Point Count	MS54	28	6	803	Green Warbler	1
MacKenzie	Breeding Bird	WIGO I	20	Ü	000	Crock Warbier	•
Settlement	Point Count	MS54	28	6	803	Ovenbird	1
MacKenzie	Breeding Bird			Ū			•
Settlement	Point Count	MS54	28	6	803	Blue-headed Vireo	1
MacKenzie	Breeding Bird					Black-capped	
Settlement	Point Count	MS54	28	6	803	Chickadee	2
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	MS54	28	6	803	Warbler	1
MacKenzie	Breeding Bird					Black-throated	
Settlement	Point Count	MS54	28	6	803	Green Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	28	6	803	Red-eyed Vireo	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	28	6	803	Common Raven	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS54	28	6	803	American Crow	1
MacKenzie	Breeding Bird					Common	
Settlement	Point Count	MS55	28	6	841	Yellowthroat	1
MacKenzie	Breeding Bird			_	_	D	
Settlement	Point Count	MS55	28	6	841	Blue-headed Vireo	1
MacKenzie	Breeding Bird	14055	00	•	0.4.4	Red-breasted	,
Settlement	Point Count	MS55	28	6	841	Nuthatch	1

MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	28	6	841	Magnolia Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	28	6	841	Northern Warbler	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	28	6	841	Song Sparrow	1
MacKenzie	Breeding Bird						
Settlement	Point Count	MS55	28	6	841	Savannah Sparrow	1
MacKenzie	Breeding Bird			_			
Settlement	Point Count	MS55	28	6	841	American Robin	1
MacKenzie	Breeding Bird					Yellow-rumped	
Settlement	Point Count	MS55	28	6	841	Warbler	1
MacKenzie	Breeding Bird	14055		_		White-throated	
Settlement	Point Count	MS55	28	6	841	Sparrow	1
MacKenzie	Breeding Bird	14055	00		0.44	Alles Electrics	
Settlement	Point Count	MS55	28	6	841	Alder Flycatcher	1
MacKenzie	Breeding Bird	MOSS	00	0	044	Marriago Davia	
Settlement	Point Count	MS55	28	6	841	Mourning Dove	1
MacKenzie	Breeding Bird Point Count	MOEE	20	•	044	Curaina anta Thruah	4
Settlement		MS55	28	6	841	Swainson's Thrush	1
MacKenzie	Breeding Bird Point Count	MOEE	20	•	0.44	Harmat Thrush	4
Settlement		MS55	28	6	841	Hermet Thrush	1
MacKenzie Settlement	Breeding Bird Point Count	MS55	20	6	0.44	Ruby-crowned	4
MacKenzie		เขเอออ	28	6	041	Kinglet Olive-sided	1
Settlement	Breeding Bird Point Count	MS55	28	6	011		1
MacKenzie	Breeding Bird	เขเอออ	20	О	041	Flycatcher	1
Settlement	Point Count	MS55	28	6	0/1	Northern Parula	1
MacKenzie	Breeding Bird	101000	20	O	041	Northern	'
Settlement	Point Count	MS55	28	6	2/1	Waterthrush	1
MacKenzie	Breeding Bird	WOOO	20	U	041	Black-throated	'
Settlement	Point Count	MS55	28	6	841	Green Warbler	1
MacKenzie	Breeding Bird	Medd	20	O	0+1	Croon Warbion	'
Settlement	Point Count	MS55	28	6	841	Dark-eyed Junco	1
MacKenzie	Breeding Bird			Ü	•	Olive-sided	•
Settlement	Point Count	MS55	28	6	841	Flycatcher	1
MacKenzie	Breeding Bird				•	. iyouterie.	·
Settlement	Point Count	MS55	28	6	841	Common Raven	2
MacKenzie	Breeding Bird					White-throated	
Settlement	Point Count	MS55	28	6	841	Sparrow	1
MacKenzie	Breeding Bird					•	
Settlement	Point Count	MS55	28	6	841	American Crow	2
	Breeding bird						
MacKenzie	Transect	Transect to				Bay-breasted	
Settlement	Count	MS13	28	6	852	Warbler	1
	Breeding bird						
MacKenzie	Transect	Transect to				Black-capped	
Settlement	Count	MS13	28	6	852	Chickadee	1
	Breeding bird						
MacKenzie	Transect	Transect to				Black and White	
Settlement	Count	MS13	28	6	852	Warbler	1

MarilZarada	Breeding bird	T ()				
MacKenzie	Transect	Transect to	00	•	OFO Malland	•
Settlement	Count	MS13	28	6	852 Mallard	3
MacKenzie	Breeding bird	Transact to				
	Transect	Transect to MS13	20	6	OFO Alder Threetober	4
Settlement	Count	IVISTS	28	6	852 Alder Flycatcher	1
MacKenzie	Breeding bird Transect	Transect to				
Settlement	Count	MS13	28	6	852 American Robin	1
Settlement	Breeding bird	IVISTS	20	0	652 American Robin	ı
MacKenzie	Transect	Transect to			Common	
Settlement	Count	MS13	28	6	852 Yellowthroat	3
Settlement	Breeding bird	101010	20	U	032 Tellowithoat	3
MacKenzie	Transect	Transect to				
Settlement	Count	MS13	28	6	852 Hermet Thrush	1
Comomone	Breeding bird		20	Ū	002 110111101 111110011	•
MacKenzie	Transect	Transect to			Black-throated	
Settlement	Count	MS13	28	6	852 Green Warbler	2
	Breeding bird			Ü		
MacKenzie	Transect	Transect to				
Settlement	Count	MS13	28	6	852 Ovenbird	1
	Breeding bird					
MacKenzie	Transect	Transect to			White-throated	
Settlement	Count	MS13	28	6	852 Sparrow	1
	Breeding bird				·	
MacKenzie	Transect	Transect to				
Settlement	Count	MS13	28	6	852 Mourning Warbler	1
	Breeding bird					
MacKenzie	Transect	Transect to			Yellow-bellied	
Settlement	Count	MS13	28	6	852 Flycatcher	2
	Breeding bird					
MacKenzie	Transect	Transect to				
Settlement	Count	MS13	28	6	852 Blue-headed Vireo	1
	Breeding bird					
MacKenzie	Transect	Transect to		_	White-throated	
Settlement	Count	MS13	28	6	852 Sparrow	1
	Breeding bird	-				
MacKenzie	Transect	Transect to	00	•	OFO New House Header	
Settlement	Count	MS13	28	6	852 Northern Harrier	1
MacKenzie	Breeding Bird	MC40	20	•	OOC American Dahin	4
Settlement MacKenzie	Point Count	MS13	28	6	906 American Robin Common	1
Settlement	Breeding Bird Point Count	MS13	28	6	906 Yellowthroat	1
MacKenzie	Breeding Bird	IVISTS	20	6	906 reliowinioai	ı
Settlement	Point Count	MS13	28	6	906 Hermet Thrush	1
MacKenzie	Breeding Bird	IVIOTO	20	O	900 Heimet Hildsii	1
Settlement	Point Count	MS13	28	6	906 Song Sparrow	1
MacKenzie	Breeding Bird	101010	20	J	Job Cong Opanow	1
Settlement	Point Count	MS13	28	6	906 Savannah Sparrow	1
MacKenzie	Breeding Bird		20	J	555 Cavamian opanow	•
Settlement	Point Count	MS13	28	6	906 Alder Flycatcher	1
				-		

MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 Red-eyed Vireo	1
MacKenzie	Breeding Bird					_
Settlement	Point Count	MS13	28	6	906 Common Raven	2
MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 Hermet Thrush	1
MacKenzie	Breeding Bird			_		
Settlement	Point Count	MS13	28	6	906 Northern Parula	1
MacKenzie	Breeding Bird			_	Black-throated	
Settlement	Point Count	MS13	28	6	906 Green Warbler	1
MacKenzie	Breeding Bird			_		
Settlement	Point Count	MS13	28	6	906 Canada Warbler	1
MacKenzie	Breeding Bird			_		
Settlement	Point Count	MS13	28	6	906 Dark-eyed Junco	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 Blue-headed Vireo	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 Common Raven	2
MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 Swainson's Thrush	1
MacKenzie	Breeding Bird				Black-throated	
Settlement	Point Count	MS13	28	6	906 Green Warbler	1
MacKenzie	Breeding Bird				Ruby-crowned	
Settlement	Point Count	MS13	28	6	906 Kinglet	1
MacKenzie	Breeding Bird				Yellow-rumped	
Settlement	Point Count	MS13	28	6	906 Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 Magnolia Warbler	1
MacKenzie	Breeding Bird					
Settlement	Point Count	MS13	28	6	906 American Crow	1

American Black Duck

Hooded Merganser

Ruffed Grouse

Bald Eagle

Sharp-shinned hawk

Red-tailed Hawk

Barred Owl

Belted Kingfisher

Downy Woodpecker

Hairy Woodpecker

Northern Flicker

Pileated Woodpecker

American Kestrel

Merlin

Blue-headed Vireo

Red-eyed Vireo

Gray Jay

Blue Jay

American Crow

Common Raven

Black-capped Chickadee

Boreal Chickadee

Red-breasted Nuthatch

Brown Creeper

Winter Wren

Golden-crowned Kinglet

Ruby-crowned Kinglet

Swainson's Thrush

Hermit Thrush

American Robin

American Pipit

European Starling

Cedar Waxwing

Ovenbird

Black and White Warbler

Common Yellowthroat

American Redstart

Cape May Warbler

Northern Parula

Magnolia Warbler

Blackpoll Warbler

Palm Warbler

Yellow-rumped Warbler

Black-throated Green Warbler

Canada Warbler

Savannah Sparrrow

Song Sparrow

Lincoln's Sparrow

Swamp Sparrow

White-throated Sparrow

Dark-eyed Junco

Common Grackle

Purple Finch Pine Siskin American Goldfinch Evening Grosbeak

survey type	site_number	day	month	year		start_time	species n
Fall Migration	MS3	•	8	9	2014	650	. –
Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS3		8	9	2014	650	
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Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS3		8	9	2014	650	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS4		8	9	2014	704	
Fall Migration	MS51		8	9	2014	718	
Fall Migration	MS51		8	9	2014	718	
Fall Migration	MS51		8	9	2014	718	
Fall Migration	MS51		8	9	2014	718	
Fall Migration	MS51		8	9	2014	718	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
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Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS6		8	9	2014	735	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS7N		8	9	2014	751	
Fall Migration	MS8		8	9	2014	807	
Fall Migration	MS8		8	9	2014	807	
Fall Migration	MS8		8	9	2014	807	
Fall Migration	MS8		8	9	2014	807	
Fall Migration	MS8		8	9	2014	807	
Fall Migration	MS8		8	9	2014	807	
Fall Migration	MS8		8	9	2014	807	

Fall Migration	MS8	8	9	2014	807
Fall Migration	MS8	8	9	2014	807
Fall Migration	MS8	8	9	2014	807
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
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Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	MS9	8	9	2014	820
Fall Migration	Transect to MS53	8	9	2014	838
Fall Migration	Transect to MS53	8	9	2014	838
Fall Migration	Transect to MS53	8	9	2014	838
Fall Migration	Transect to MS53	8	9	2014	838
Fall Migration	Transect to MS53	8	9	2014	838
Fall Migration	MS53	8	9	2014	845
Fall Migration	MS53	8	9	2014	845
Fall Migration	MS53	8	9	2014	845
Fall Migration	Transect to Lake	8	9	2014	856
Fall Migration	Transect to Lake	8	9	2014	856
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	Lake	8	9	2014	911
Fall Migration	transect to MS5	8	9	2014	942
Fall Migration	transect to MS5	8	9	2014	942
Fall Migration	transect to MS5	8	9	2014	942
Fall Migration	transect to MS5	8	9	2014	942
Fall Migration	transect to MS5	8	9	2014	942
Fall Migration	transect to MS5	8	9	2014	942
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	MS5	8	9	2014	953
Fall Migration	Transect to MS54	8	9	2014	1005
Fall Migration	MS54	8	9	2014	1008
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Fall Migration	MS54	8	9	2014	1008
Fall Migration	MS54	8	9	2014	1008
Fall Migration	MS54	8	9	2014	1008
Fall Migration	MS54	8	9	2014	1008
Fall Migration	MS54	8	9	2014	1008
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	MS55	8	9	2014	1040
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	Transect to MS13	8	9	2014	1051
Fall Migration	MS13	8	9	2014	1109
Fall Migration	MS13	8	9	2014	1109
Fall Migration	MS13	8	9	2014	1109
Fall Migration	MS13	8	9	2014	1109
Fall Migration	MS13	8	9	2014	1109
Fall Migration	MS13	8	9	2014	1109
Fall Migration	MS3	24	9	2014	705
Fall Migration	MS3	24	9	2014	705
Fall Migration	MS3	24	9	2014	705
Fall Migration	MS3	24	9	2014	705
Fall Migration	MS3	24	9	2014	705
Fall Migration	MS3	24	9	2014	705
Fall Migration	MS4	24	9	2014	720
Fall Migration	MS4	24	9	2014	720
Fall Migration	MS51	24	9	2014	734
Fall Migration	MS51	24	9	2014	734
Fall Migration	MS6	24	9	2014	746
Fall Migration	MS6	24	9	2014	746
Fall Migration	MS6	24	9	2014	746
Fall Migration	MS6	24	9	2014	746
Fall Migration	MS6	24	9	2014	746
Fall Migration	MS6	24	9	2014	746
Fall Migration	MS7N	24	9	2014	801
Fall Migration	MS7N	24	9	2014	801
Fall Migration	MS8	24	9	2014	819
Fall Migration	MS8	24	9	2014	819
Fall Migration	MS8	24	9	2014	819
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Fall Migration	MS8	24 24	9	2014	819
Fall Migration	MS8	24 24	9	2014	819
Fall Migration	IVIOU	24	9	2014	019

Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
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Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
Fall Migration	MS9	24	9	2014	834
Fall Migration	Transect to MS53	24	9	2014	853
Fall Migration	Transect to MS53	24	9	2014	853
Fall Migration	Transect to MS53	24	9	2014	853
Fall Migration	Transect to MS53	24	9	2014	853
Fall Migration	Transect to MS53	24	9	2014	853
Fall Migration	MS53	24	9	2014	902
Fall Migration	MS53	24	9	2014	902
Fall Migration	MS53	24	9	2014	902
Fall Migration	MS53	24	9	2014	902
•		24	9	2014	914
Fall Migration	Transect to Lake	24 24			914
Fall Migration	Transect to Lake		9	2014	
Fall Migration	Transect to Lake	24	9	2014	914
Fall Migration	Lake	24	9	2014	926
Fall Migration	Lake	24	9	2014	926
Fall Migration	Lake	24	9	2014	926
Fall Migration	Lake	24	9	2014	926
Fall Migration	Lake	24	9	2014	926
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	Transect to MS5	24	9	2014	1000
Fall Migration	MS5	24	9	2014	1007
Fall Migration	MS5	24	9	2014	1007
Fall Migration	MS5	24	9	2014	1007
Fall Migration	MS5	24	9	2014	1007
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
Fall Migration	Transect to 54	24	9	2014	1017
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Fall Migration	MS54	24	9	2014	1026
Fall Migration	MS54	24	9	2014	1026
Fall Migration	MS54	24	9	2014	1026
Fall Migration	MS54	24	9	2014	1026
Fall Migration	MS54	24	9	2014	1026
Fall Migration	MS54	24	9	2014	1026
Fall Migration	MS55	24	9	2014	1107
Fall Migration	MS55	24	9	2014	1107
Fall Migration	MS55	24	9	2014	1107
Fall Migration	MS55	24	9	2014	1107
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Fall Migration	MS55	24	9	2014	1107
Fall Migration	MS55	24	9	2014	1107
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	Transect to MS13	24	9	2014	1118
Fall Migration	MS13	24	9	2014	1139
Fall Migration	MS13	24	9	2014	1139
Fall Migration	MS13	24	9	2014	1139
Fall Migration	MS13	24	9	2014	1139
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS3	6	10	2014	717
Fall Migration	MS4	6	10	2014	729
Fall Migration	MS4	6	10	2014	729
Fall Migration	MS4	6	10	2014	729
Fall Migration	MS4	6	10	2014	729
Fall Migration	MS4	6	10	2014	729
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS51	6	10	2014	743
Fall Migration	MS6	6	10	2014	756
Fall Migration	MS6	6	10	2014	756

Fall Migration	MS6	6	10	2014	756
Fall Migration	MS6	6	10	2014	756
Fall Migration	MS6	6	10	2014	756
Fall Migration	MS6	6	10	2014	756
Fall Migration	MS6	6	10	2014	756
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS7N	6	10	2014	809
Fall Migration	MS8	6	10	2014	827
Fall Migration	MS8	6	10	2014	827
Fall Migration	MS8	6	10	2014	827
Fall Migration	MS8	6	10	2014	827
Fall Migration	MS8	6	10	2014	827
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Fall Migration	MS8	6	10	2014	827
Fall Migration	MS8	6	10	2014	827
Fall Migration	MS9	6	10	2014	840
Fall Migration	MS9	6	10	2014	840
Fall Migration	MS9	6	10	2014	840
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Fall Migration	MS9	6	10	2014	840
Fall Migration	MS9	6	10	2014	840
Fall Migration	MS9	6	10	2014	840
Fall Migration	MS9	6	10	2014	840
Fall Migration	MS9	6	10	2014	840
Fall Migration	Transect to MS53	6	10	2014	858
Fall Migration	Transect to MS53	6	10	2014	858
Fall Migration	Transect to MS53	6	10	2014	858
Fall Migration	Transect to MS53	6	10	2014	858
Fall Migration	MS53	6	10	2014	905
Fall Migration	Transect to Lake	6	10	2014	916
Fall Migration	Transect to Lake	6	10	2014	916
		6	10	2014	916
Fall Migration	Transect to Lake	6	10	2014	
Fall Migration	Lake				925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925

Fall Migration	Lake	6	10	2014	925
Fall Migration	Lake	6	10	2014	925
Fall Migration	Transect to MS5	6	10	2014	955
Fall Migration	Transect to MS5	6	10	2014	955
Fall Migration	MS5	6	10	2014	1003
Fall Migration	MS5	6	10	2014	1003
Fall Migration	MS5	6	10	2014	1003
Fall Migration	Transect to 54	6	10	2014	1013
Fall Migration	Transect to 54	6	10	2014	1013
Fall Migration	MS54	6	10	2014	1016
Fall Migration	MS54	6	10	2014	1016
Fall Migration	MS54	6	10	2014	1016
Fall Migration	MS54	6	10	2014	1016
Fall Migration	MS54	6	10	2014	1016
Fall Migration	MS54	6	10	2014	1016
Fall Migration	MS55	6	10	2014	1050
Fall Migration	MS55	6	10	2014	1050
Fall Migration	MS55	6	10	2014	1050
Fall Migration	MS55	6	10	2014	1050
Fall Migration	MS55	6	10	2014	1050
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Fall Migration	MS55	6	10	2014	1050
Fall Migration	MS55	6	10	2014	1050
Fall Migration	MS55	6	10	2014	1050
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
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Fall Migration	Transect to MS13				
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
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Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	Transect to MS13	6	10	2014	1101
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114
Fall Migration	MS13	6	10	2014	1114

UNWA= Unidentified warbler UNWO=Unidentified woodpecker

species_code	count_0_50r count_50_100 cour count_over_100m	tcfly_over	breeding_€age
RBNU	3		
AMRE	1		
BTNW	1		
YRWA	1		
MAWA	1		
HETH	1		
CORA		2	
GRJA		1	
AMCR		1	
AMRO			3
BAWW	1		3
REVI	1		
BTNW	1		
HETH	1		
BLJA		1	
AMCR			1
CORA			1
BTNW	1		•
BTNW	1		
REVI	2		
	2		•
BTNW			2
UNWA			1
RBNU	1		
HAWO	2		
OVEN	1		
UNWA	2		
REVI	1		
BLJA	2		
BCCH	2		
BTNW	1		
RBNU	1		
GRJA	1		
MERL			1
COYE	2		
WTSP	1		
BLJA	1		
COYE	1		
BCCH	3		
BAWW	2		
HETH	2		
AMRO	1		
BTNW	1		
BOCH	1		
AMRO			2
AMRO	1		
BCCH	4		
YRWA	1		
GCKI	2		
HETH	3		
BAWW	1		
BOCH	2		

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2				1
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			3	1
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2				
4				
1	1			
	1			
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1				4
2				
	2 3 1 1 1 1 1 1 1 2 1 2 1 4 1	2 2 3 1 1	2 2 3 3 1 1	1 1 2 2 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1

BAWW BCCH	1 5			
BTNW	3			
HETH	1			
GCKI	1			
EUST	500			
BLJA		1		
YRWA		1		
SAVS		1		
RTHA			1	
BLJA			2	
CORA				4
AMCR	4			1
COYE	4 1			
SOSP BTNW	1			
BCCH	9			
CAWA	1			
GCKI	1			
CORA	·			14
SWSP			1	
BTNW			3	
YRWA			2 5	
BCCH			5	
BHVI			1	
CORA			2	
YRWA	1			
GCKI	2			
BOCH	1	4		
GRJA		1	4	
CORA AMCR			1 1	
YRWA		1	ı	
CORA		•		1
BTNW	1			
CORA	·			1
GCKI	2			
BCCH	3			
MAWA	1			
BTNW	1			
BRCR	1			
CORA	,			2
GRJA	1			4
CORA	4			1
AMRO	1			
BCCH GCKI	3 1			
YRWA	1 1			
BOCH	2			
MAWA	1			
PIWO	•	2		
AMCR		1		

BHVI YRWA BCCH	1 1 1			
HETH	2			
WTSP	1			
PAWA	2			
BLPW COYE	2			
LISP	2 2			
BLJA	_	1		
AMCR		•	2	
CORA			1	
PUFI				1
RCKI			1	
AMGO				1
PUFI				1
HETH	1			
AMRO	1			
BLJA BCCH	1 3			
COYE	3 1			
BLJA		2		
CORA		2		2
BRCR	1			_
BEKI		1		
AMGO				1
GCKI	1			
BAEA			1	
ABDU			2	
CORA				2
AMGO	0			1
YRWA	3 1			
CMWA DEJU	4			
RCKI	1			
ВОСН	1			
BTNW	3			
HBHVI	1			
GCKI	1			
BCCH	5			
BCCH	1			
MAWA	1			
CORA			1	
CORA				1
CEDW BCCH	6			15
BAWW	1			
BLPW	1			
NOPA	1			
HETH	1			
DEJU	1			
AMRO	1			

BDOW PIWO BTNW REVI GCKI HETH COYE SAVS AMRO CORA AMGO RTHA CORA SWTH GCKI BLJA SOSP COYE BTNW YRWA WTSP RCKI	1 1 2 1 2 1 1 5 1 5 1 2 1 8 1	1	1 1	2 2
CORA BOCH RUGR AMPI MAKE CORA BCCH RBNU YRWA BLJA	1 3 1 1 1 2 2	1	1	1
HETH BDOW AMCR CORA PISI GCKI	1	2	1	2 9 1
YRWA AMCR CORA PISI BLPW DEJU GCKI	1 5 1	1	1 1	2
YRWA CORA PIWO YRWA PISI DEJU RBNU	1 2		2 1	2 2

CORA PUFI CORA AMRO YRWA BCCH DEJU BLPW YRWA	1	6 2 1 3	1	2 2	
HETH CORA WTSP BLJA PUFI YRWA PISI DEJU BOCH BCCH GCKI	1 3 1	2	1 1 1	2 1 2	
YRWA HAWO CORA PUFI YRWA DEJU YRWA BCCH RBNU WTSP	3 1 3	1 3 4 1 1	1	1 1	
BLPW AMCR RUGR PUFI GRJA YRWA DOWO AMGO DEJU GCKI	1 2 1	2	1	2	
CORA COGR BLPW WIWR YRWA BAEA HAWO PUFI PISI GRJA BCCH BAEA	1 1	2 1 1	1 1 2 1 2	20	IMMATURE ADULT

CORA				1	
PISI	•			1	
YRWA	1				
BDOW			1		
YRWA	2				
GCKI	1				
BLJA		1			
AMRO	1				
YRWA		1			
GCKI	3				
YRWA	4				
BCCH	2				
BLPW	1				
AMRO	1			4	
AMGO				1	
SWSP	1				
SAVS	1				
YRWA		3			
BCCH		1			
SOSP		1			
PAWA		2			
CORA			1		
HAWO			1		
BLJA			1		
PUFI			1		
BLJA	1		ı		
BOCH	2				
SWSP	1				
WTSP	3				
YRWA	2				
BCCH	2				
GCKI	1				
CORA	1				
AMRO	2				
SAVS	3				
RTHA	1				
DEJU	1				
AMGO	1				
SOSP	1				
SWSP	1				
	1	4			
AMRO		1 3			
YRWA		3			
AMKE			1		
CORA			2		
YRWA			2		
BAEA				1	ADULT

Still singing

PASSAGE COUNTS MACKENZIE SETTLEMENT FALL 2014

Passage Counts were done on five occasions in the proposed MacKenzie Settlement windmill site in the fall of 2014. The area of the quarry on 7219 Rd. (45.48238N -63.03160W) provided a good observation point in all directions. A total of 346 minutes were spent doing passage counts on days with predicted winds from the north. Counts were done after each of three days of fall migration surveys and two other days were also selected for an earlier start to counts. No counts were done after 13:00.

In general, the area of the quarry was somewhat quiet for passage movement of birds on the days and times selected. Most of the observations were local birds and the majority were near the Balefill which is 3-4 Km south of the quarry. At the Balefill, Herring and Great Black-backed Gulls as well as American Crow, Common Ravens and European Starlings were numerous. A quick count in the early afternoon on September 13 had 220 Herring Gulls, 5 Great Black-backed Gulls, 700 European Starlings, 2 Bald Eagles, 1 Red-tailed Hawk and some Rock Pigeons. I did not note the number of Crows and Ravens but they were present.

Many of the Common Ravens in the vicinity of the passage count observation point were travelling from the nearby blueberry fields to the balefill and at times passed over or within 300M. On earlier spring and summer visits, up to 100 Common Ravens were found in nearby blueberry fields.

Thirteen species were noted during passage counts including two gull* species which actually were 3-4 Km away at the balefill. At no times during spring, breeding and fall surveys did I see gulls in the actual study area as they seemed to stay in the vicinity of the balefill and likely were transiting from the Truro area and did not involve a flight over the proposed windmill site. Only two species of raptor were recorded, Bald Eagle and redtailed Hawk and many of the observations were probably local resident birds. Again most of the observations were Common Ravens.

List of Passage Count Birds MacKenzie Settlement- Fall 2014

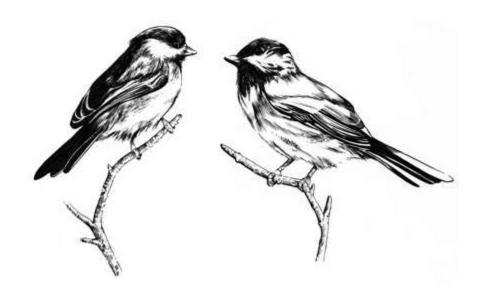
Red-tailed Hawk
Bald Eagle
Northern Flicker
Herring Gull*
Great Black-backed Gull*
Northern Flicker
Gray Jay
Blue Jay
American Crow
Common Raven
European Starling

Yellow-rumped warbler Purple finch American Goldfinch

day	month	year	start	time	species_name	species_code	count c br₁age
,	8	9 [°]	2014		Common Raven	CORA	1
	8	9	2014		Common Raven	CORA	1
	8	9	2014		Red-tailed Hawk	RTHA	1
	8	9	2014		Bald Eagle	BAEA	1
	8	9	2014	1150	Common Raven	CORA	1
	8	9	2014		Common Raven	CORA	2
	8	9	2014		Gray Jay	GRJA	_ 1
	8	9	2014		Northern Flicker	NOFL	2
	8	9	2014	1230	Bald Eagle	BAEA	1
	8	9	2014	00	Common Raven	CORA	1
	8	9	2014		Common Raven	CORA	8
	8	9	2014		Large gulls	Gull species	120
	8	9	2014		unknown Warbler	UNWA	1
	8	9	2014		Blue Jay	BLJA	2
	8	9	2014	1305	Common Raven	CORA	15
	13	9	2014		unknown warbler	UNWA	2
	13	9	2014		Common Raven	CORA	1
	13		2014	1033		CORA	
		9		1050	Common Raven		1
	13	9	2014		Blue Jay	BLJA	1
	13	9	2014	1120	unknown Warbler	UNWA	1
	13	9	2014		Purple Finch	PUFI	1
	13	9	2014		European Starling	EUST	5
	13	9	2014		Blue Jay	BLJA	2
	13	9	2014		American Goldfinch	AMGO	2
	13	9	2014		unknown Warbler	UNWA	1
	13	9	2014		Common Raven	CORA	1
	13	9	2014	1130	Bald Eagle	BAEA	2
	13	9	2014		Common Raven	CORA	3
	19	9	2014	1000	American Crow	AMCR	2
	19	9	2014		Bald Eagle	BAEA	1
	19	9	2014		Common Raven	CORA	5
	19	9	2014		American Crow	AMCR	1
	19	9	2014		Gull species		100+
	19	9	2014	1030	Common Raven	CORA	1
	19	9	2014		Common Raven	CORA	2
	19	9	2014	1050	Common Raven	CORA	1
	19	9	2014		Common Raven	CORA	1
	19	9	2014	1130	Common Raven	CORA	3
	24	9	2014	1215	Yellow-rumped Warbler	YRWA	1
	24	9	2014		unknown Warbler	UNWA	1
	24	9	2014	1230	Common Raven	CORA	2
	5	10	2014	1140	Common Raven	CORA	1
	5	10	2014		Common Raven	CORA	1
	5	10	2014		Common Raven	CORA	1
	5	10	2014	1200	Bald Eagle	BAEA	2
					•		

height_class	nu direction flight	distance from obse	eı direction_from_observer
50-100m	NW	300M	W
50-100m	NW	300M	W
	SW	300M	W
>100M			W
>100M	SW	300M	
50-100m	E	300M	not recorded
>100M	over balefill	3KM	S
0-10m	local-landed	100M	S
0-10m	local-landed	100M	S
>100m	S	3KM	S
50-100m	S	300M	E
10-50m	over balefill	3KM	S
10-50m	over balefill	3KM	S
0-10m	local-landed	100M	overhead
0-10m	W	100M	E
>100M	S	200M	overhead
0-10M	Е	100M	not recorded
50-100M	N	100m	E
10-50M	S	100m	E
0-10M	S	100M	_ N
10-50m	N	100M	overhead
10-50m	S	100M	overhead
0-10m	N	100M	overhead
0-10m	N	100M	overhead
10-50m	N	100M	overhead
0-10m	N	100M	overhead
50-100m	N	300M	not recorded
>100m	over balefill	3KM	
			S S
>100m	over balefill	3Km	
10-50M	S	50M	overhead
300M	W	300M	S
50-100M	over balefill	3Km	S
50-100 M	S	300M	S
10-50M	over balefill	3Km	S S
10-50M	S	25M	
10-50M	W	3Km	S
10-50M	N	100M	overhead
10-50M	N	100M	overhead
10-50M	N	100M	overhead
0-10M	W	50M	overhead
0-10M	local-landed	50M	overhead
50-100M	not recorded	not recorded	not recorded
50-100M	S	not recorded	E
10-50M	S	not recorded	not recorded
10-50M	N	not recorded	not recorded
10-50M	N	300M	N

KEMPTOWN, NOVA SCOTIA WIND FARM BREEDING BIRD SURVEY



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INTRODUCTION

Wind is one of the fastest growing renewable energy sources in the world. It offsets emissions from fossil fuel plants, and encourages a cleaner way of living.

Various concerns have been raised on wind turbine effects on wildlife and the environment, particularly on avian and bat species (Canadian Wind Energy Association, 2008). With these concerns in mind, the Nova Scotia Environment Act states that an environmental assessment must be conducted prior to the construction of a wind farm.

These types of assessments will cover various elements, such as; wildlife, ecology, botany, and geology.

This report focuses on the avian portion of an environmental study being executed on the Kemptown wind project site in Colchester County, Nova Scotia. This assessment will provide baseline information regarding population estimates of birds, and help to ensure the proposed turbines are not being built in bird migration routes. It will also ensure that there are no endangered or threatened species in the area, and that the Kemptown location is not a common breeding site.

The avian study which was conducted used the area point count method to record species, and numbers of species found throughout the duration of the study.

This avian study was conducted over a 52 week period. Area point counts are used to find population abundance as well as species composition within a specific area.

METHODS

The monitoring protocols established in this document were designed using information from two documents published by the Canadian Wildlife Service:

Environment Canada (2006) Recommended Protocols for Monitoring Impacts of Wind Turbines on Birds.

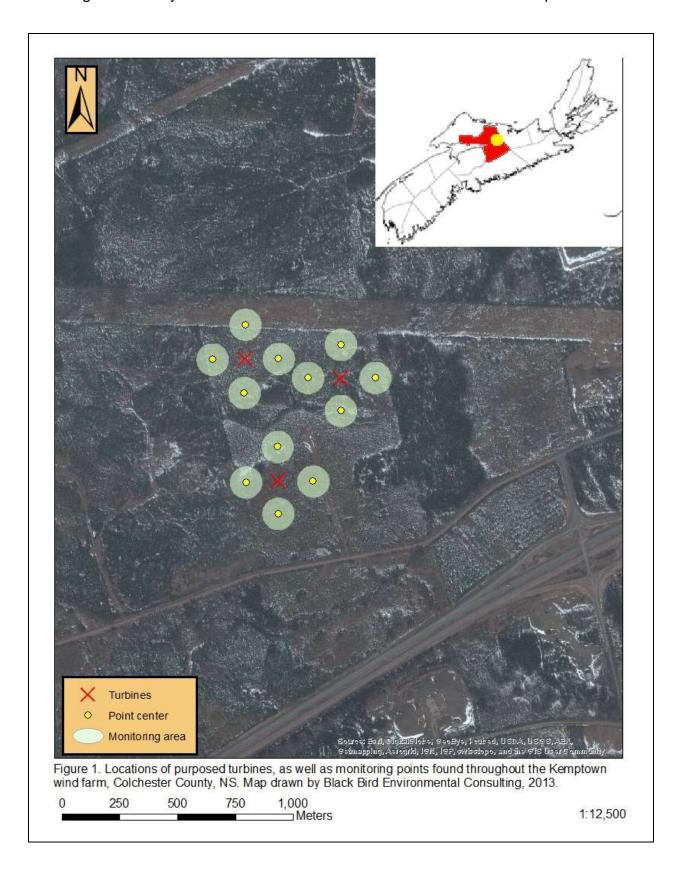
Environment Canada (2006) Wind turbines and birds: A Guidance Document for Environmental Assessment.

On 22 April 2012, Wildlife Technicians began work at the Kemptown survey location in Colchester County, Nova Scotia. Technicians set up an area point count for avian species in the area. This point count survey was part of an environmental assessment being conducted which will be used to determine the population estimate of avian species found in the area, and will also help to determine if three wind turbines will be erected at the Kemptown location.

The survey locations were given to the technicians prior to the set-up of the point count. The coordinates for the three potential sites, as of April 2012, were as follows (All coordinates are UTM zone 20T): Turbine 1 – 0490712E 5032569N, Turbine 2 – 0490903E 5032880N, Turbine 3 -0490612E 5032939N.

Using each of the survey locations as center points, 100 (m) was measured in each cardinal direction, north (0°), east (90°), south (180°) and west (270°). Using these new locations as a center points, four additional points were established 50 (m) away in each cardinal direction and marked with flagging tape. The area within these four points was the monitoring area for each turbine. A total of four points per turbine were established and monitored (Figure 1).

For the following 52 weeks, bird populations were monitored once a week, monitoring would begin 30 minutes before sunrise and would last for approximately 3 – 4 hours. Monitoring would not take place during rainy days, or days with high wind speeds as birds are not active during these types of weather conditions. A total of five minutes was spent monitoring at each point location. During the five minutes, any birds seen or heard within the monitoring location were recorded on tally sheets. Recording would include species of bird, number of birds, and location.



RESULTS

Throughout the study of the Kemptown survey location, a total of 39 different bird species were recorded. Within these species, four species were listed as below S5 (Table 1). The Killdeer, Eastern Wood Pewee and Yellow-bellied Flycatched are listed sub-nationally as S3S4B, while the Boreal Chickadee is listed as S3. All other recorded species are listed by the ACCDC as S5. For a complete list of species and their Subnational ranks (S-Ranks) found through the duration of the study, refer to Table 2. (Atlantic Canada Conservation Data Centre, 2010).

Table 1. Uncommon species sub-national and global ranks as defined by the Atlantic Canada Conservation Data Centre found throughout the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March, 2012-13.

UNCOMMON SPECIES					
Common Name	Scientific Name	Global Rank	Sub-National Ranks		
Killdeer	Charadrius vociferus	Sensitive	S3S4B		
Eastern Wood Pewee	Contopus virens	G5	S3S4B		
Boreal Chickadee	Poecile hudsonica	G5	S 3		
Yellow Bellied Flycatcher	Empidonax flaviventris	G5	S3S4B		

^{*} **S3B** - Uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences), Breeding (Migratory species).

^{*} **S4B** - Usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences), Breeding (Migratory species).

^{*} **G5** - Very common, secure under present conditions.

Table 2. Complete list of bird species observed during the 52 week study of the Kemptown wind project location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - May 2012-2013.

COMPLETE SPECIES LIST					
Common Name	Scientific Name	Global Ranks	Sub-National Ranks		
American Robin	Turdus migratorius	Secure	S5B*		
Blue Jay	Cyanocitta cristata	G5	S5		
Red-winged Blackbird	Agelaius phoeniceus	G5	S4S5B*		
Mourning Dove	Zenaida macroura	G5	S5		
Herring Gull	Larus argentatus	G5	S4S5		
Common Raven	Corvus corax	G5	S5		
American crow	Corvus brachyrhynchos	G5	S5		
European Starling	Sturnus vulgaris	G5	SNA*		
white-throated Sparrow	Zonotrichia albicollis	G5	S5B		
Song Sparrow	Melospiza melodia	G5	S5B		
Killdeer	Charadrius vociferus	G5	S3S4B		
Pileated Woodpecker	Dryocopus pileatus	G5	S5		
Hairy Woodpecker	Picoides villosus	G5	S5		
Northern Flicker	Colaptes auratus	G5	S5B		
Yellow-bellied Sapsucker	phyrapicus varius	G5	S4S5B		
Red-breasted Nuthatch	Sitta canadensis	G5	S4S5		
American Goldfinch	Carduelis tristis	G5	S5		
Swainson's Thrush	Catharus ustulatus	G5	S4S5		

^{*} S3B - Uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences), Breeding (Migratory species).

^{*} **S4B** - Usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences), Breeding (Migratory species).

^{*} S5B - Widespread, abundant, and secure, under present conditions, Breeding (Migratory species).

^{*} **G5** - Very common, secure under present conditions.

^{*} NA - Not Applicable: A conservation status is not applicable because the species is either: a) exotic, b) not definitively known to occur in the province or c) a hybrid not considered to be conservation significance.

Table 3. Complete list of bird species observed during the 52 week study of the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March 2012-2013.

COMPLETE SPECIES LIST (CONTINUED)						
Common Name Scientific Name Global Ranks Sub-National Ranks						
Golden-crowned Kinglet	Regulus satrapa	Now ranked Sensitive	S4			
Yellow-rumped Warbler	Dendroica coronata	G5	S5			
Black-throated Green Warbler	Dendroica virens	G5	S4S5B			
Black-and-White Warbler	Mniotilta varia	G5	S4S5B			
Magnolia Warbller	Setophaga magnolia	G5	S4S5B			
Ovenbird	Seiurus aurocapillus	G5	S5B			
Winter Wren	Troglodytes troglodytes	G5	S5B			
Black-capped Chickadee	Poecile atricapilla	G5	S5			
Boreal Chickadee	Poecile hudsonica	G5	S3			
Yellow Bellied Flycatcher	Empidonax flaviventris	G5	S3S4B			
Alder Flycatcher	Empidonax alnorum	G5	S5B			
Dark-eyed Junco	Junco hyemalis	G5	S4S5			
Red-eyed Vireo	Vireo olivaceus	G5	S5B			
Common Yellowthroat	Geothlypis trichas	G5	S5B			
American Redstart	Setophaga ruticilla	G5	S5B			
Northern Parula	Parula americana	G5	S5B			
Ruby-throated Hummingbird	Archilochus colubris	G5	S5B			
Ruffed Grouse	Bonasa umbellus	G5	S4S5B			
American Woodcock	Scolopax minor	G5	S4S5B			
Ring-necked Pheasant	Phasianus colchicus	G5	SNA			
Bald eagle	Haliaeetus leucocephalus	G5	S4			

^{*} S3B - Uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences), Breeding (Migratory species).

^{*} **S4B** - Usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences), Breeding (Migratory species).

^{*} SSB - Widespread, abundant, and secure, under present conditions, Breeding (Migratory species).

^{*} **G5** - Very common, secure under present conditions.

^{*} NA - Not Applicable: A conservation status is not applicable because the species is either: a) exotic, b) not definitively known to occur in the province or c) a hybrid not considered to be conservation significance.

Figure 2 shows the population trends throughout the duration of the study. The highest population count was found during the month of May with approximately 524 birds recorded. The population then drops slightly each month, with the largest drop in population from November at approximately 286 birds, to December at approximately 60 birds. The lowest population count was found during the month of March with approximately 10 birds recorded.

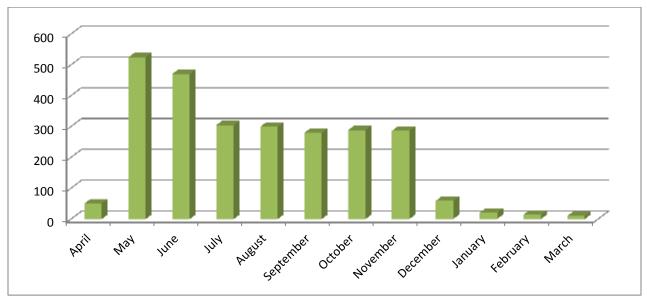


Figure 2. Total bird counts found during the study of the 52 week Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April – March 2012-2013.

Five different habitat types were observed within the Kemptown study area; immature mixedwood, mature hardwood, immature softwood, a treed bog area, and an open grass area (power line corridor). Total bird count percentages were highest in the openfield habitat type with approximately 32% of the total count found within this habitat. The lowest percentage of the bird count was found within the bog habitat with approximately 9% of the total birds recorded. The immature mixedwood habitat contained 26% of the population recorded, where the mature hardwood habitat contained 17%, and the immature softwood habitat contained 16%.

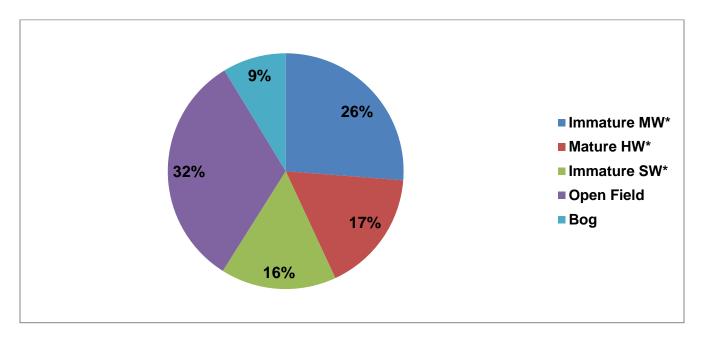


Figure 3. Percentage of total birds recorded throughout five habitat types found within the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March, 2012-2013.

- * HW- Hardwood
- * SW Softwood
- * MW Mixedwood

DISCUSSION

SPECIES OF CONCERN

During the study at the Kemptown survey location, 39 avian species were observed. With the exception of four species, all other species are considered secure by NSDNR. These had an S-Rank of S5 which is defined by the ACCDC as: Widespread, abundant, and secure, under present conditions. This is the highest possible S-Rank and therefore these species are not threatened by the construction of wind turbines on this site. The Eastern Wood Pewee (Contopus virens), Killdeer (Charadrius vociferous) and the Yellow-bellied Flycatcher (Empidonax flaviventris) have a NSDNR ranking as Sensitive: enhanced watch list but not yet at risk. Eastern Wood Pewee has a COSEWIC ranking as Special Concern but no rankings for the other two. All share an ACCDC S-Rank of S3S4B. S4: usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences). S3: uncommon, or found only in a restricted range, even if abundant at some locations (21 to 100 occurrences). The eastern wood pewee breeds in about every type of wooded habitat, and will use both deciduous and coniferous forest. It is often associated with forest clearings and edges all of which are present throughout this study area. The killdeer can be found in open grasslands, wetlands, fields, croplands and pastures, and short-grass prairies. They are often found on sandbars, mudflats and pastures. The wet bog habitat found throughout this study area is where the killdeer was observed, but this area does not have the potential to be impacted by the roads or turbine lay out areas for the Project. Yellow-Bellied Flycatcher breeds in boreal

coniferous forests and nests in cool, moist forests, bogs and swamps, again not to be impacted by the Project. They winter in a variety of habitats from forests to semi-open habitats. The Boreal Chickadee (*Poecile hudsonica*) had an S-rank of S3. This species will use both young and mature forests, as long as they are nominated with evergreens. Their ability to use both mature and younger forests helps the Boreal Chickadees withstand the effects of logging and other effects within their range. Although these species are not at a critical level of risk, pressure on this species may push these ranks down and result in further diminishing these populations.

POPULATION TRENDS

The migration period of birds found throughout Atlantic Canada can extend over several months; however, population increases dramatically during May and June, this coincides with the breeding season of most native species. It is extremely difficult to predict the exact migration times of species. Many factors such as weather conditions or other environmental factors may push migration times ahead or behind slightly. There was a dramatic increase in population during the months of May and June, which are the core migration periods, as well as the breeding season of the majority of species found within Nova Scotia. This tells us that there is a breeding population of various species within the Kemptown study area. There was also a slow drop in population each month as the temperature dropped, and the winter weather moved in. This is typical behavior for birds at this time of year, as the colder weather moves in; the migratory species finish breeding and start migrating south for the winter months.

Throughout this location there was an abundant population of scavenger species such as American crow, and herring gull. The Colchester Balefill Facility is approximately one kilometer east of the Kemptown wind project location. With this landfill site in such close proximity, it is not uncommon to see high populations of these two bird species. For a complete list of species total counts, refer to Appendix 1.

HABITAT TYPES

The Kemptown survey location consists of five habitat types: power line corridor which consisted of grassy vegetation and other low lying shrubs; immature mixed-wood which consists of red maple (*Acer rubrum*), trembling aspen (*Populous Tremuloides*), red spruce (*Picea rubens*), Norway spruce (*Picea abies*) and balsam fir (*Abies balsamea*); mature hardwood which consists of sugar maple (*Acer saccharum*), red maple (*Acer rubrum*), white birch (*Betula papyrifera*), trembling aspen (*Populous tremuloides*), and large-tooth aspen (*Populous grandidentata*); and immature softwood which consists of red spruce (*Picea rubens*), white spruce (*Picea glauca*), Norway spruce (*Picea abies*) and balsam fir (*Abieas balsemea*). The majority of the immature softwood habitats are plantations that had been pre-commercially thinned in the previous years. The treed bog habitat consists of black spruce (*Picea mariana*), eastern larch (*Larix laricina*) and various low lying ericaceous vegetation such as lambkill (*Kalmia angustifolia*) and Labrador tea (*Rhododendron groenlandicum*).

The majority of birds found throughout the five habitat types were found in the power line corridor at approximately 30%. This type of habitat attracts a variety of bird species for various reasons. As well, birds are more visible to the technician during the survey. There is an abundant food source. An open field habitat is home to millions of species of insects which are the most common food source of bird species found in Nova Scotia. The tall grassy vegetation found in this type of habitat can be used for nesting, nest building materials, and cover from predators. The majority of birds recorded in this habitat type were spotted along the edges of the grassed area, where it met wooded areas (edge effect). Many birds live along the edges of habitat types for several reasons. Birds are able to stay in the cover of wooded areas while nesting or hunting, but also have access to the large food source of the open field habitat. It is very common to see birds flying in and out of wooded areas into the power line corridor for food and nesting materials and then quickly retreating back to the cover of the wooded areas. Some birds however, field sparrows (Spizella pusilla) for example (a rare, nonresident species in Nova Scotia), live their life within the open fields and tend to stay out of wooded areas. They build their nests in the tall vegetation or in abandoned microtine burrows, and take advantage of the large amount of food within the open field.

The least populated habitat type found within this study is the treed bog habitat. Although some species such as the Swamp sparrow (*Melospiza georgiana*) thrive in bog habitat, it is not ideal for most bird species. Due to the high acidity of the soils found throughout bog habitats there is a low amount of vegetation present. The lack of vegetation does not allow for adequate cover from weather or predators, and also does not provide good nesting materials. Although there are an abundance of insects found

throughout bogs, which are the primary food for most bird, most bird species will feed in these areas only.

SUPPLEMENTAL MONITORING

During the development process of the Project, the proposed locations of the turbines were spaced out to include the easterly property to the one which the 2012-13 survey took place. The developer request BlackBird Consulting complete another cycle of surveys for the highest month of bird activity to see whether any special species at risk or sensitive breeding habitat was located in the extended portion of the property.

During the month of June 2013, two additional monitoring sessions took place.

The new survey location coordinates are: 491389E 5032930N. All of the same methods and monitoring procedures were used at the new site location. For a complete list of results found during the supplemental monitoring sessions refer to appendix 2.

CONCLUSION

If the wind turbine project continues as planned, a post monitoring period will commence immediately after construction. There will then be a correlation between the pre and post population assessments, which will help to determine whether there was an effect on population numbers in the study area and any necessary mitigation measure that may be required of the development.

After concluding this 52 week pre-assessment, it was found that there are two species of special concern (Sensitive) found in the area. As stated above, the eastern wood pewee and the killdeer both have a stable population (100+ occurrences) throughout Nova Scotia. This stability in population numbers indicates that it is not predicted that special precautions should be set into place. The access roads and turbine areas will not impact a great amount of actual disturbance, and should not be cleared during the months of May – August to avoid unnecessary impacts to the local avian population.

The Kemptown survey location is an adequate representation of a heavily harvested Acadian forests found throughout Nova Scotia. There are no habitat types or bird species unique in nature found throughout this study area. There are no threatened or endangered species found throughout the area. Based on the increased bird counts during the breeding months, it was found that there are breeding populations of birds found within the Kemptown area, however, as stated above, the habitat types are not unique, and therefore if birds need to relocate nesting grounds, there are suitable habitat types in close proximity.

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APPENDICES

Breeding Bird Survey	September 2013
Appendix 1. List of species and total counts found throughout the study area, Colchester County, NS. Drawn by Black Bird Enviror April 2012-March 2013.	e Kemptown wind farm Imental Consulting,

TOTAL COUNT BY SPECIES						
Species	Total Count	Species	Total Count			
American crow	356	Magnolia Warbler	39			
Herring Gull	281	Northern Parula	38			
Black-capped Chickadee	188	Red-breasted Nuthatch	35			
Dark-eyed Junco	169	Red-eyed Vireo	34			
Swainson's Thrush	167	Ruffed Grouse	34			
white-throated Sparrow	151	Golden crowned kinglet	30			
Blue Jay	120	Boreal Chickadee	10			
American Robin	108	Common Raven	7			
American Goldfinch	103	Yellow-bellied Sapsucker	7			
Black-throated Green Warbler	91	American Woodcock	6			
Common Yellowthroat	80	Hairy Woodpecker	6			
Ovenbird	80	Pileated Woodpecker	4			
Yellow Bellied Flycatcher	78	Red-winged Blackbird	4			
Song Sparrow	69	Killdeer	3			
Mourning Dove	64	Northern Flicker	3			
Yellow-rumped Warbler	64	American Redstart	2			
European Starling	60	Bald eagle	2			
Alder Flycatcher	53	Ring-necked Pheasant	2			
Winter Wren	49	Ruby-throated Hummingbird	1			
Black-and-White Warbler	41					

Breeding Bird Survey	September 2013
Appendix 2. Two week supplemental study done on new Kemp Colchester County, NS. Created by Black Bird Environmental	otown location, Consulting, June 2013.

KEMPTOWN SUPPLEMENTAL RESULTS

Throughout the two week supplemental study done at the new Kemptown survey location, there was a total of 15 bird species recorded. All of these species had ad S-Rank of S4S5 or higher. In comparison, in the supplemental survey there was no observance of the Eastern Wood Pee-wee (*Contopus virens*) and the Killdeer (*Charadrius vociferous*) (S3) as were recorded in the original survey. For a complete list of species recorded at supplemental location see table 1.

Table 1. Complete list of bird species observed during the 2 week supplemental study of the Kemptown survey location, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting, April - March 2012-2013.

COMPLETE SPECIES LIST						
Common Name	Scientific Name Global Ranks		Sub-National Ranks			
American Robin	Turdus migratorius	G5	S5B*			
American crow	Corvus brachyrhynchos G5		S5			
white-throated Sparrow	Zonotrichia albicollis	G5	S5B			
Song Sparrow	Melospiza melodia G5		S5B			
American Goldfinch	Carduelis tristis G5		S5			
Swainson's Thrush	Catharus ustulatus	G5	S5			
Yellow-rumped Warbler	Dendroica coronata	G5	S4S5B			
Black-throated Green Warbler	Dendroica virens G5		S4S5B			
Ovenbird	Seiurus aurocapillus G5		S5B			
Black-capped Chickadee	Poecile atricapilla G5		S5			
Dark-eyed Junco	Junco hyemalis G5		S4S5			
Red-eyed Vireo	Vireo olivaceus	G5	S5B			
Common Yellowthroat	Geothlypis trichas	G5	S5B			
Northern Parula	Parula americana	G5	S5B			
Ruffed Grouse Bonasa umbellus		G5	S4S5B			

During the two week supplemental study of the Kemptown survey location that took place throughout the month of June 2013, a total of 64 birds were recorded. In June 2012, 101 birds were recorded. There were 37 fewer birds recorded at the updated site location (figure 4).

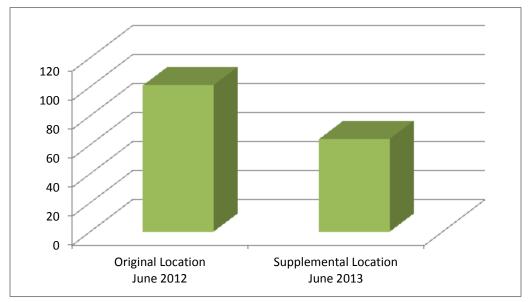


Figure 4. Comparison between mean bird totals found in June at the Kemptown original survey location and supplemental survey location during study, Kemptown, Colchester County, Nova Scotia, data collected by Black Bird Environmental Consulting.

During the two week supplemental study that took place throughout the month of June 2013, two habitat types were found at the supplemental Kemptown location. The two habitat types consisted of immature softwood, and immature mixedwood. 78 % of the total birds recorded were found in the immature softwood habitat type while 22 % of the total birds were found in the immature mixedwood field habitat type (figure 2).

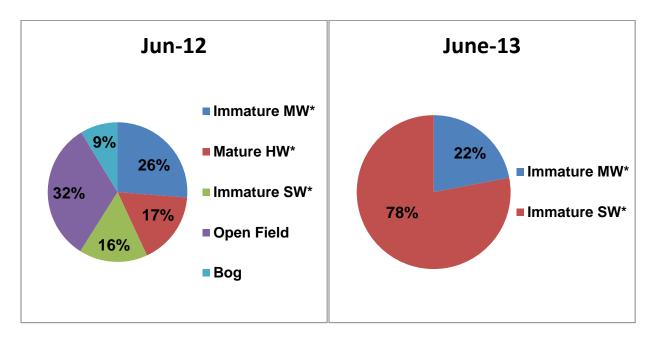


Figure 5. Comparison of percentage of total birds recorded throughout habitat types found within the Kemptown original survey location and the supplemental survey location, Colchester County, NS, data collected by Black Bird Environmental Consulting April – June 2012-2013.

MW : Mixedwood HW: Hardwood SW: Softwood

CONCLUSION

When comparing the previous and supplemental Kemptown locations, many factors indicate the supplemental location has potential to be the more desirable location (developer is choosing 3 out of 4) for turbine development. There were no species of concern as listed by the ACCDC found in the supplemental Kemptown location. When comparing this to the previous locations, three species were listed with S-ranks below S4 which is defined by the ACCDC as: usually widespread, fairly common, and apparently secure with many occurrences, but of longer-term concern (100+ occurrences). When comparing the original locations and the supplemental location, fewer birds were recorded in the supplemental location in June.

The habitat types at both of the locations are typical of a heavily harvested

Acadian forest found throughout Nova Scotia. Although the supplemental location does

not have as many habitat types, the types that are present are the same in nature of
those found in the previous location.

It is recommended that the supplemental location be one of the locations used for turbine construction. Although no habitat impact would be the best case scenario, if access roads and turbine locations are constructed outside of the major migratory and breeding bird seasons, and are built with minimal new clearing, the development has a low potential to impact the avian population in the area.

Breeding Bird Survey	September 2013
Appendix 3. Tally sheets used throughout the Kemptown wind far Kemptown, Colchester County, NS. Created by Black Bird Environ	
April 2012-March 2013.	

Date: April 6, 2012						
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky		
	10	-4		clear		
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank		
American Robin	Turdus migratorius	5	G5	S5B*		
European Starling	Sturnus vulgaris	3	G5	SNA*		
white-throated Sparrow	Zonotrichia albicollis	2	G5	S5B		
Song Sparrow	Melospiza melodia	1	G5	S5B		
Golden crowned kinglet	Regulus satrapa	1	G5	S4		
Swainson's Thrush	Catharus ustulatus	2	G5	S4S5		
	TOTAL	14				

Date: April 23, 2012						
Location: Kemptown	Wind speed (km/h) Temperature (°C)		Sky			
	10	1		clear		
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank		
American Robin	Turdus migratorius	6	G5	S5B*		
American crow	Corvus brachyrhynchos	5	G5	S5		
European Starling	Sturnus vulgaris	6	G 5	SNA*		
white-throated Sparrow	Zonotrichia albicollis	2	G5	S5B		
Song Sparrow	Melospiza melodia	3	G5	S5B		
Golden crowned kinglet	Regulus satrapa	2	G5	S4		
Swainson's Thrush	Catharus ustulatus	4	G5	S4S5		
Black-capped Chickadee	Poecile atricapilla	7	G5	S5		
Alder Flycatcher	Empidonax alnorum	1	G 5	S5B		
	TOTAL	36				

Date: April 13, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location. Remptown	10		3	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	7	G5	S5B*	
Common Raven	Corvus corax	1	G5	S5	
American crow	Corvus brachyrhynchos	4	G5	S5	
European Starling	Sturnus vulgaris	6	G5	SNA*	
white-throated Sparrow	Zonotrichia albicollis	7	G5	S5B	
Song Sparrow	Melospiza melodia	1	G5	S5B	
Pileated Woodpecker	Dryocopus pileatus	1	G5	S5	
American Goldfinch	Carduelis tristis	9	G5	S5	
Golden crowned kinglet	Regulus satrapa	2	G5	S4	
Swainson's Thrush	Catharus ustulatus	4	G5	S4S5	
Yellow-rumped Warbler	Dendroica coronata	8	G5	S5	
Black-throated Green Warbler	Dendroica virens	8	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	6	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	1	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	5	G5	S5	
Yellow Bellied Sapsucker	Phyrapicus varius	1	G5	S4S5B	
Dark-eyed Junco	Junco hyemalis	7	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	1	G5	S5B	
	TOTAL	79			

Date: May 18, 2012					
Location: Kemptown	Wind speed (km/h)	Temper	ature (°C)	Sky	
Location. Reinplown	12		10	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	4	G5	S5B*	
American crow	Corvus brachyrhynchos	7	G5	S5	
European Starling	Sturnus vulgaris	6	G5	SNA*	
white-throated Sparrow	Zonotrichia albicollis	2	G5	S5B	
Song Sparrow	Melospiza melodia	1	G5	S5B	
Northern Flicker	Colaptes auratus	4	G5	S5B	
American Goldfinch	Carduelis tristis	2	G5	S5	
Golden crowned kinglet	Regulus satrapa	6	G5	S4	
Swainson's Thrush	Catharus ustulatus	5	G5	S4S5	
Yellow-rumped Warbler	Dendroica coronata	9	G5	S5	
Black-throated Green Warbler	Dendroica virens	4	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	2	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	1	G5	S5B	
Winter Wren	Troglodytes troglodytes	1	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	5	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	11	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	5	G5	S5B	
Dark-eyed Junco	Junco hyemalis	8	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B	
Common Yellowthroat	Parula americana	6	G5	S5B	
Northern Parula	Geothlypis trichas	1	G5	S5B	
American Woodcock	Scolopax minor	2	G5	S5B	
	TOTAL	94			

Date: May 21, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (ºC)	Sky	
Location. Remptown	6	,	13	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	3	G5	S5B*	
American crow	Corvus brachyrhynchos	3	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	10	G5	S5B	
Northern Flicker	Colaptes auratus	2	G5	S5B	
American Goldfinch	Carduelis tristis	2	G5	S5	
Golden crowned kinglet	Regulus satrapa	2	G5	S4	
Swainson's Thrush	Catharus ustulatus	9	G5	S4S5	
Yellow-rumped Warbler	Dendroica coronata	6	G5	S5	
Black-throated Green Warbler	Dendroica virens	10	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	2	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	3	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	15	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	7	G5	S5B	
Dark-eyed Junco	Junco hyemalis	11	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B	
Common Yellowthroat	Parula americana	16	G5	S5B	
Northern Parula	Geothlypis trichas	1	G5	S5B	
	TOTAL	106			

Date: June 1, 2012				
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky
Location. Reinplown	13		12	clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	Turdus migratorius	5	G5	S5B*
Blue Jay	Cyanocitta cristata	3	G5	S5
Mourning Dove	Zenaida macroura	2	G5	S5
American crow	Corvus brachyrhynchos	3	G5	S5
white-throated Sparrow	Zonotrichia albicollis	7	G5	S5B
American Goldfinch	Carduelis tristis	5	G5	S5
Golden crowned kinglet	Regulus satrapa	3	G5	S4
Swainson's Thrush	Catharus ustulatus	9	G5	S4S5
Yellow-rumped Warbler	Dendroica coronata	4	G5	S5
Black-throated Green Warbler	Dendroica virens	10	G5	S4S5B
Black-and-White Warbler	Mniotilta varia	4	G5	S4S5B
Ovenbird	Seiurus aurocapillus	6	G5	S5B
Winter Wren	Troglodytes troglodytes	1	G5	S5B
Black-capped Chickadee	Poecile atricapilla	3	G5	S5
Yellow Bellied Flycatcher	Empidonax flaviventris	10	G5	S4S5
Alder Flycatcher	Empidonax alnorum	7	G5	S5B
Dark-eyed Junco	Junco hyemalis	9	G5	S4S5
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B
Common Yellowthroat	Parula americana	11	G5	S5B
Northern Parula	Geothlypis trichas	3	G5	S5B
American Woodcock	Scolopax minor	2	G5	S5B
	TOTAL	109		

Date: June 10, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (⁰ C)		Sky
Location. Remptown	10	15		clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	Turdus migratorius	9	G5	S5B*
Blue Jay	Cyanocitta cristata	4	G5	S5
Mourning Dove	Zenaida macroura	3	G5	S5
American crow	Corvus brachyrhynchos	5	G5	S5
white-throated Sparrow	Zonotrichia albicollis	6	G5	S5B
Song Sparrow	Melospiza melodia	2	G5	S5B
American Goldfinch	Carduelis tristis	8	G5	S5
Golden crowned kinglet	Regulus satrapa	2	G5	S4
Swainson's Thrush	Catharus ustulatus	10	G5	S4S5
Yellow-rumped Warbler	Dendroica coronata	4	G5	S5
Black-throated Green Warbler	Dendroica virens	9	G5	S4S5B
Ovenbird	Seiurus aurocapillus	9	G5	S5B
Winter Wren	Troglodytes troglodytes	1	G5	S5B
Black-capped Chickadee	Poecile atricapilla	3	G5	S5
Yellow Bellied Flycatcher	Empidonax flaviventris	8	G5	S4S5
Alder Flycatcher	Empidonax alnorum	6	G5	S5B
Dark-eyed Junco	Junco hyemalis	9	G5	S4S5
Red-eyed Vireo	Vireo olivaceus	4	G5	S5B
Common Yellowthroat	Parula americana	9	G5	S5B
Northern Parula	Geothlypis trichas	3	G5	S5B
	TOTAL	114		

Date: June 15, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	13	1	2	overcast	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	4	G5	S5B*	
Blue Jay	Cyanocitta cristata	2	G5	S5	
American crow	Corvus brachyrhynchos	7	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	12	G5	S5B	
Song Sparrow	Melospiza melodia	3	G5	S5B	
American Goldfinch	Carduelis tristis	5	G5	S5	
Swainson's Thrush	Catharus ustulatus	15	G5	S4S5	
Yellow-rumped Warbler	Dendroica coronata	2	G5	S5	
Black-throated Green Warbler	Dendroica virens	3	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	2	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	4	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Dark-eyed Junco	Junco hyemalis	5	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B	
Common Yellowthroat	Parula americana	5	G5	S5B	
American Redstart	Setophaga ruticilla	1	G5	S5B	
Northern Parula	Geothlypis trichas	4	G5	S5B	
Ruffed Grouse	Bonasa umbellus	2	G5	S4S5B	
American Woodcock	Scolopax minor	1	G5	S5B	
	TOTAL	81			

Date: July 1, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	11		14	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	2	G5	S5B*	
Red-winged Blackbird	Agelaius phoeniceus	1	G5	S4S5B*	
Mourning Dove	Zenaida macroura	5	G5	S5	
American crow	Corvus brachyrhynchos	9	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	11	G5	S5B	
Red-breasted Nuthatch	Sitta canadensis	3	G5	S4S5	
American Goldfinch	Carduelis tristis	3	G5	S5	
Swainson's Thrush	Catharus ustulatus	16	G5	S4S5	
Yellow-rumped Warbler	Dendroica coronata	5	G5	S5	
Black-throated Green Warbler	Dendroica virens	2	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	3	G5	S4S5B	
Magnolia Warbller	Setophaga magnolia	8	G5	S5B	
Ovenbird	Seiurus aurocapillus	1	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	6	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	1	G5	S5B	
Dark-eyed Junco	Junco hyemalis	11	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B	
Common Yellowthroat	Geothlypis trichas	3	G5	S5B	
	TOTAL	94			

Date: July 7, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location. Remptown	6		15	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	9	G5	S5B*	
Blue Jay	Cyanocitta cristata	4	G5	S5	
Mourning Dove	Zenaida macroura	5	G5	S5	
American crow	Corvus brachyrhynchos	4	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	10	G5	S5B	
Song Sparrow	Melospiza melodia	5	G5	S5B	
American Goldfinch	Carduelis tristis	11	G5	S5	
Golden crowned kinglet	Regulus satrapa	3	G5	S5	
Swainson's Thrush	Catharus ustulatus	11	G5	S4	
Yellow-rumped Warbler	Dendroica coronata	2	G5	S5	
Black-throated Green Warbler	Dendroica virens	7	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	10	G5	S5B	
Winter Wren	Troglodytes troglodytes	2	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	4	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	2	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	6	G5	S5B	
Dark-eyed Junco	Junco hyemalis	9	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	3	G5	S5B	
Common Yellowthroat	Geothlypis trichas	3	G5	S5B	
Northern Parula	Parula americana	4	G5	S5B	
	TOTAL	114			

Date: July 14, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (⁰ C)		Sky	
Location. Remptown	9		17	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	3	G5	S5B*	
Blue Jay	Cyanocitta cristata	5	G5	S5	
Mourning Dove	Zenaida macroura	5	G5	S5	
American crow	Corvus brachyrhynchos	4	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	8	G5	S5B	
Song Sparrow	Melospiza melodia	4	G5	S5B	
American Goldfinch	Carduelis tristis	9	G5	S5	
Golden crowned kinglet	Regulus satrapa	4	G5	S5	
Swainson's Thrush	Catharus ustulatus	8	G5	S4	
Yellow-rumped Warbler	Dendroica coronata	3	G5	S5	
Black-throated Green Warbler	Dendroica virens	8	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	5	G5	S5B	
Winter Wren	Troglodytes troglodytes	3	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	5	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	3	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	6	G5	S5B	
Dark-eyed Junco	Junco hyemalis	5	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	6	G5	S5B	
Common Yellowthroat	Geothlypis trichas	4	G5	S5B	
Northern Parula	Parula americana	4	G5	S5B	
	TOTAL	102			

Date: July 25, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location: Kemptown	5	1	4	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	5	G5	S5B*	
Blue Jay	Cyanocitta cristata	5	G5	S5	
American crow	Corvus brachyrhynchos	4	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	14	G5	S5B	
Song Sparrow	Melospiza melodia	10	G5	S5B	
American Goldfinch	Carduelis tristis	9	G5	S5	
Golden crowned kinglet	Regulus satrapa	3	G5	S5	
Swainson's Thrush	Catharus ustulatus	11	G5	S4	
Yellow-rumped Warbler	Dendroica coronata	6	G5	S5	
Black-throated Green Warbler	Dendroica virens	3	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	5	G5	S4S5B	
Magnolia Warbller	Setophaga magnolia	2	G5	S5B	
Ovenbird	Seiurus aurocapillus	4	G5	S5B	
Winter Wren	Troglodytes troglodytes	5	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	6	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	2	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	3	G5	S5B	
Dark-eyed Junco	Junco hyemalis	7	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	4	G5	S5B	
Common Yellowthroat	Geothlypis trichas	3	G5	S5B	
American Redstart	Setophaga ruticilla	1	G5	S5B	
Northern Parula	Parula americana	6	G5	S5B	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	119			

Date: July 31, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	Temperature (°C)		
Location. Remptown	15		17	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	2	G5	S5B*	
Red-winged Blackbird	Agelaius phoeniceus	1	G5	S4S5B*	
Mourning Dove	Zenaida macroura	5	G5	S5	
American crow	Corvus brachyrhynchos	9	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	11	G5	S5B	
Red-breasted Nuthatch	Sitta canadensis	3	G5	S4S5	
American Goldfinch	Carduelis tristis	3	G5	S5	
Swainson's Thrush	Catharus ustulatus	16	G5	S4S5	
Yellow-rumped Warbler	Dendroica coronata	5	G5	S5	
Black-throated Green Warbler	Dendroica virens	2	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	3	G5	S4S5B	
Magnolia Warbller	Setophaga magnolia	8	G5	S5B	
Ovenbird	Seiurus aurocapillus	1	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	6	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	1	G5	S5B	
Dark-eyed Junco	Junco hyemalis	11	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B	
Common Yellowthroat	Geothlypis trichas	3	G5	S5B	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	95			

Date: August 3, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location. Reinplown	8	1	16	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	6	G5	S5B*	
Blue Jay	Cyanocitta cristata	3	G5	S5	
Red-winged Blackbird	Agelaius phoeniceus	2	G5	S4S5B*	
Mourning Dove	Zenaida macroura	3	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	9	G5	S5B	
Song Sparrow	Melospiza melodia	5	G5	S5B	
Killdeer	Charadrius vociferus	1	G5	S3S4B	
Yellow-bellied Sapsucker	phyrapicus varius	2	G5	S4S5B	
Red-breasted Nuthatch	Sitta canadensis	2	G5	S4S5	
American Goldfinch	Carduelis tristis	7	G5	S5	
Golden crowned kinglet	Regulus satrapa	1	G5	S5	
Swainson's Thrush	Catharus ustulatus	9	G5	S4	
Yellow-rumped Warbler	Dendroica coronata	4	G5	S5	
Black-throated Green Warbler	Dendroica virens	5	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	4	G5	S4S5B	
Magnolia Warbller	Setophaga magnolia	5	G5	S5B	
Ovenbird	Seiurus aurocapillus	9	G5	S5B	
Winter Wren	Troglodytes troglodytes	3	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	4	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	4	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	3	G5	S5B	
Dark-eyed Junco	Junco hyemalis	4	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	1	G5	S5B	
Common Yellowthroat	Geothlypis trichas	2	G5	S5B	
Northern Parula	Parula americana	3	G5	S5B	

TOTAL	101		
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Date: August 11, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	12	1	4	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	3	G5	S5B*	
Mourning Dove	Zenaida macroura	4	G5	S5	
Herring Gull	Larus argentatus	2	G5	S4S5	
American crow	Corvus brachyrhynchos	3	G5	S5	
European Starling	Sturnus vulgaris	4	G5	SNA*	
white-throated Sparrow	Zonotrichia albicollis	9	G5	S5B	
Song Sparrow	Melospiza melodia	6	G5	S5B	
Killdeer	Charadrius vociferus	1	G5	S3S4B	
Yellow-bellied Sapsucker	phyrapicus varius	1	G5	S4S5B	
Red-breasted Nuthatch	Sitta canadensis	2	G5	S4S5	
American Goldfinch	Carduelis tristis	6	G5	S5	
Golden crowned kinglet	Regulus satrapa	1	G5	S5	
Swainson's Thrush	Catharus ustulatus	10	G5	S4	
Yellow-rumped Warbler	Dendroica coronata	4	G5	S5	
Black-throated Green Warbler	Dendroica virens	4	G5	S4S5B	
Black-and-White Warbler	Mniotilta varia	3	G5	S4S5B	
Magnolia Warbller	Setophaga magnolia	6	G5	S5B	
Ovenbird	Seiurus aurocapillus	6	G5	S5B	
Winter Wren	Troglodytes troglodytes	4	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	3	G5	S5	
Yellow Bellied Flycatcher	Empidonax flaviventris	3	G5	S4S5	
Alder Flycatcher	Empidonax alnorum	2	G5	S5B	

Dark-eyed Junco	Junco hyemalis	2	G5	S4S5
Northern Parula	Parula americana	2	G5	S5B
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B
Bald eagle	Haliaeetus leucocephalus	1	G5	S4
	TOTAL	93		

Date: August 18, 2012				
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky
Location. Remptown	19		9	overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	Turdus migratorius	4	G5	S5B*
Blue Jay	Cyanocitta cristata	6	G5	S5
Mourning Dove	Zenaida macroura	3	G5	S5
American crow	Corvus brachyrhynchos	1	G5	S5
white-throated Sparrow	Zonotrichia albicollis	7	G5	S5B
Song Sparrow	Melospiza melodia	4	G5	S5B
Yellow-bellied Sapsucker	phyrapicus varius	2	G5	S4S5B
Red-breasted Nuthatch	Sitta canadensis	4	G5	S4S5
American Goldfinch	Carduelis tristis	5	G5	S5
Golden crowned kinglet	Regulus satrapa	2	G5	S5
Swainson's Thrush	Catharus ustulatus	6	G5	S4
Yellow-rumped Warbler	Dendroica coronata	2	G5	S5
Black-throated Green Warbler	Dendroica virens	5	G5	S4S5B
Black-and-White Warbler	Mniotilta varia	2	G5	S4S5B
Magnolia Warbller	Setophaga magnolia	4	G5	S5B
Ovenbird	Seiurus aurocapillus	8	G5	S5B
Winter Wren	Troglodytes troglodytes	5	G5	S5B
Black-capped Chickadee	Poecile atricapilla	2	G5	S5

Yellow Bellied Flycatcher	Empidonax flaviventris	3	G5	S4S5
Alder Flycatcher	Empidonax alnorum	2	G5	S5B
Dark-eyed Junco	Junco hyemalis	5	G5	S4S5
Red-eyed Vireo	Vireo olivaceus	1	G5	S5B
Common Yellowthroat	Geothlypis trichas	2	G5	S5B
Northern Parula	Parula americana	3	G5	S5B
Ruby-throated Hummingbird	Archilochus colubris	1	G5	S5B
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B
American Woodcock	Scolopax minor	1	G5	S5B
Ring-necked Pheasant	Phasianus colchicus	1	G 5	SNA
	TOTAL	92		

Date: August 25, 2012				
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky
Location. Remptown	17	2	23	clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	Turdus migratorius	2	G5	S5B*
Blue Jay	Cyanocitta cristata	7	G5	S5
Mourning Dove	Zenaida macroura	4	G5	S5
Herring Gull	Larus argentatus	1	G5	S4S5
American crow	Corvus brachyrhynchos	2	G5	S5
European Starling	Sturnus vulgaris	6	G5	SNA*
white-throated Sparrow	Zonotrichia albicollis	6	G5	S5B
Song Sparrow	Melospiza melodia	4	G5	S5B
Killdeer	Charadrius vociferus	1	G5	S3S4B
Yellow-bellied Sapsucker	phyrapicus varius	1	G5	S4S5B
Red-breasted Nuthatch	Sitta canadensis	3	G5	S4S5
American Goldfinch	Carduelis tristis	8	G5	S5

Golden crowned kinglet	Regulus satrapa	1	G5	S5
Swainson's Thrush	Catharus ustulatus	9	G5	S4
Yellow-rumped Warbler	Dendroica coronata	3	G5	S5
Black-throated Green Warbler	Dendroica virens	4	G5	S4S5B
Black-and-White Warbler	Mniotilta varia	2	G5	S4S5B
Magnolia Warbller	Setophaga magnolia	4	G5	S5B
Ovenbird	Seiurus aurocapillus	7	G5	S5B
Winter Wren	Troglodytes troglodytes	4	G5	S5B
Black-capped Chickadee	Poecile atricapilla	5	G5	S5
Yellow Bellied Flycatcher	Empidonax flaviventris	2	G5	S4S5
Alder Flycatcher	Empidonax alnorum	2	G5	S5B
Dark-eyed Junco	Junco hyemalis	6	G5	S4S5
Red-eyed Vireo	Vireo olivaceus	1	G5	S5B
Common Yellowthroat	Geothlypis trichas	1	G5	S5B
Northern Parula	Parula americana	2	G5	S5B
Ruffed Grouse	Bonasa umbellus	1	G 5	S4S5B
Ring-necked Pheasant	Phasianus colchicus	1	G5	SNA
	TOTAL	100		

Date: August 31, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (ºC)	Sky	
Location. Reinplown	15	16		clear	
Common Name	Scientific Name	Total species count	Total species count		
American Robin	Turdus migratorius	3	G5	S5B*	
Blue Jay	Cyanocitta cristata	9	G5	S 5	
Mourning Dove	Zenaida macroura	5	G5	S5	
Herring Gull	Larus argentatus	1	G5	S4S5	
American crow	Corvus brachyrhynchos	1	G 5	S5	

European Starling	Sturnus vulgaris	7	G5	SNA*
white-throated Sparrow	Zonotrichia albicollis	3	G5	S5B
Song Sparrow	Melospiza melodia	5	G5	S5B
Yellow-bellied Sapsucker	phyrapicus varius	1	G5	S4S5B
Red-breasted Nuthatch	Sitta canadensis	2	G5	S4S5
American Goldfinch	Carduelis tristis	9	G5	S5
Golden crowned kinglet	Regulus satrapa	1	G5	S5
Swainson's Thrush	Catharus ustulatus	3	G5	S4
Yellow-rumped Warbler	Dendroica coronata	1	G5	S5
Black-throated Green Warbler	Dendroica virens	2	G5	S4S5B
Black-and-White Warbler	Mniotilta varia	1	G5	S4S5B
Magnolia Warbller	Setophaga magnolia	2	G5	S5B
Ovenbird	Seiurus aurocapillus	4	G5	S5B
Winter Wren	Troglodytes troglodytes	2	G5	S5B
Black-capped Chickadee	Poecile atricapilla	6	G5	S5
Yellow Bellied Flycatcher	Empidonax flaviventris	2	G5	S4S5
Alder Flycatcher	Empidonax alnorum	1	G5	S5B
Dark-eyed Junco	Junco hyemalis	6	G5	S4S5
Red-eyed Vireo	Vireo olivaceus	1	G5	S5B
Common Yellowthroat	Geothlypis trichas	1	G5	S5B
Northern Parula	Parula americana	2	G5	S5B
Ruffed Grouse	Bonasa umbellus	2	G5	S4S5B
Bald eagle	Haliaeetus leucocephalus	1	G 5	S4
	TOTAL	84		

Date: September 5, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
Location. Reinplown	18		15	overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	Turdus migratorius	6	G5	S5B*
Blue Jay	Cyanocitta cristata	5	G5	S5
Mourning Dove	Zenaida macroura	5	G5	S5
Herring Gull	Larus argentatus	9	G5	S4S5
American crow	Corvus brachyrhynchos	6	G5	S5
European Starling	Sturnus vulgaris	8	G5	SNA*
white-throated Sparrow	Zonotrichia albicollis	4	G5	S5B
Song Sparrow	Melospiza melodia	3	G5	S5B
Swainson's Thrush	Catharus ustulatus	3	G5	S4
Winter Wren	Troglodytes troglodytes	6	G5	S5B
Black-capped Chickadee	Poecile atricapilla	5	G5	S5
Dark-eyed Junco	Junco hyemalis	3	G5	S4S5
Common Yellowthroat	Geothlypis trichas	3	G5	S5B
Ruffed Grouse	Bonasa umbellus	4	G5	S4S5B
	TOTAL	70		

Date: September 14, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	14	1	16	clear	
Common Name	Scientific Name	Total species count		ACCDC Sub-National Rank	
American Robin	Turdus migratorius	7	G5	S5B*	
Blue Jay	Cyanocitta cristata	7	G5	S5	
Mourning Dove	Zenaida macroura	4	G5	S5	
Herring Gull	Larus argentatus	8	G5	S4S5	

American crow	Corvus brachyrhynchos	9	G5	S 5
European Starling	Sturnus vulgaris	5	G5	SNA*
white-throated Sparrow	Zonotrichia albicollis	2	G5	S5B
Song Sparrow	Melospiza melodia	1	G5	S5B
Swainson's Thrush	Catharus ustulatus	2	G5	S4
Winter Wren	Troglodytes troglodytes	7	G5	S5B
Black-capped Chickadee	Poecile atricapilla	3	G5	S5
Dark-eyed Junco	Junco hyemalis	6	G5	S4S5
Common Yellowthroat	Geothlypis trichas	5	G5	S5B
Ruffed Grouse	Bonasa umbellus	5	G5	S4S5B
	TOTAL	71		

Date: September 22, 2012				
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky
Location. Remptown	16	1	4	overcast
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
American Robin	Turdus migratorius	5	G5	S5B*
Blue Jay	Cyanocitta cristata	8	G5	S5
Mourning Dove	Zenaida macroura	5	G5	S5
Herring Gull	Larus argentatus	31	G5	S4S5
American crow	Corvus brachyrhynchos	18	G5	S5
European Starling	Sturnus vulgaris	8	G5	SNA*
white-throated Sparrow	Zonotrichia albicollis	1	G5	S5B
Song Sparrow	Melospiza melodia	5	G5	S5B
Swainson's Thrush	Catharus ustulatus	4	G5	S4
Black-capped Chickadee	Poecile atricapilla	4	G5	S5
Dark-eyed Junco	Junco hyemalis	4	G5	S4S5
Common Yellowthroat	Geothlypis trichas	2	G5	S5B

Ruffed Grouse	Bonasa umbellus	3	G5	S4S5B
	TOTAL	98		

Date: September 29, 2012					
Location, Kamptour	Wind speed (km/h)	Temperature (°C)		Sky	
Location: Kemptown	12		16	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	2	G5	S5B*	
Blue Jay	Cyanocitta cristata	4	G5	S5	
Mourning Dove	Zenaida macroura	5	G5	S5	
Herring Gull	Larus argentatus	15	G5	S4S5	
American crow	Corvus brachyrhynchos	12	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	3	G5	S5B	
Song Sparrow	Melospiza melodia	4	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	5	G5	S5	
Dark-eyed Junco	Junco hyemalis	5	G5	S4S5	
Common Yellowthroat	Geothlypis trichas	1	G5	S5B	
Ruffed Grouse	Bonasa umbellus	4	G5	S4S5B	
	TOTAL	60			

Date: October 3, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location. Remptown	11		11	overcast	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	3	G5	S5B*	
Blue Jay	Cyanocitta cristata	5	G5	S5	
Herring Gull	Larus argentatus	12	G5	S4S5	
American crow	Corvus brachyrhynchos	16	G 5	S5	
white-throated Sparrow	Zonotrichia albicollis	1	G5	S5B	
Song Sparrow	Melospiza melodia	1	G5	S5B	
Red-breasted Nuthatch	Sitta canadensis	1	G5	S4S5	
Black-capped Chickadee	Poecile atricapilla	8	G5	S5	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	48			

Date: October 9, 2012				
Lastine Kametaun	Wind speed (km/h)	Tempera	ature (°C)	Sky
Location: Kemptown	9		10	clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Herring Gull	Larus argentatus	14	G5	S4S5
Common Raven	Corvus corax	4	G5	S5
American crow	Corvus brachyrhynchos	13	G5	S5
Pileated Woodpecker	Dryocopus pileatus	1	G5	S5
Winter Wren	Troglodytes troglodytes	1	G5	S5B
Black-capped Chickadee	Poecile atricapilla	10	G5	S5
Dark-eyed Junco	Junco hyemalis	1	G5	S4S5
Ruffed Grouse	Bonasa umbellus	2	G5	S4S5B
	TOTAL	46		

Date: October 17, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	Temperature (°C)		
Location. Reinplown	5		9	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	2	G5	S5B*	
Blue Jay	Cyanocitta cristata	6	G5	S5	
Herring Gull	Larus argentatus	10	G5	S4S5	
American crow	Corvus brachyrhynchos	20	G5	S5	
Pileated Woodpecker	Dryocopus pileatus	1	G5	S5	
Hairy Woodpecker	Picoides villosus	2	G5	S5	
Red-breasted Nuthatch	Sitta canadensis	3	G5	S4S5	
Winter Wren	Troglodytes troglodytes	3	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	13	G5	S5	
Boreal Chickadee	Poecile hudsonicus	1	G5	S3	
Dark-eyed Junco	Junco hyemalis	3	G5	S4S5	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	65			

Date: October 23, 2012					
Location: Kemptown	Wind speed (km/h)	Temper	ature (ºC)	Sky	
Location. Remptown	10		7	overcast	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	3	G5	S5	
Herring Gull	Larus argentatus	25	G5	S4S5	
American crow	Corvus brachyrhynchos	30	G5	S5	
Red-breasted Nuthatch	Sitta canadensis	1	G 5	S4S5	
Winter Wren	Troglodytes troglodytes	1	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	9	G5	S5	
Boreal Chickadee	Poecile hudsonicus	2	G5	S3	
Dark-eyed Junco	Junco hyemalis	2	G5	S4S5	
	TOTAL	73			

Date: October 27, 2012				
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky
Location. Remptown	12		4	clear
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank
Blue Jay	Cyanocitta cristata	5	G5	S5
Herring Gull	Larus argentatus	14	G5	S4S5
American crow	Corvus brachyrhynchos	24	G5	S5
Red-breasted Nuthatch	Sitta canadensis	2	G5	S4S5
Black-capped Chickadee	Poecile atricapilla	8	G5	S5
Dark-eyed Junco	Junco hyemalis	3	G5	S4S5
	TOTAL	56		

Date: November 2, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location. Remptown	12		4	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	4	G5	S5	
Herring Gull	Larus argentatus	24	G5	S4S5	
American crow	Corvus brachyrhynchos	37	G5	S5	
Red-breasted Nuthatch	Sitta canadensis	1	G5	S4S5	
Black-capped Chickadee	Poecile atricapilla	11	G5	S5	
Dark-eyed Junco	Junco hyemalis	1	G5	S4S5	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	79			

Date: November 10, 2012					
Location: Kemptown	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location. Remptown	12	1	10	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	5	G5	S5	
Herring Gull	Larus argentatus	18	G5	S4S5	
American crow	Corvus brachyrhynchos	22	G5	S5	
Hairy Woodpecker	Picoides villosus	2	G5	S5	
Black-capped Chickadee	Poecile atricapilla	10	G5	S5	
Boreal Chickadee	Poecile hudsonicus	3	G5	S3	
Dark-eyed Junco	Junco hyemalis	3	G5	S4S5	
	TOTAL	63			

Date: November 18, 2012					
Lagation, Kamptour	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location: Kemptown	11		1	overcast	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	4	G5	S5	
Mourning Dove	Zenaida macroura	1	G5	S5	
Herring Gull	Larus argentatus	12	G5	S4S5	
American crow	Corvus brachyrhynchos	18	G 5	S5	
Red-breasted Nuthatch	Sitta canadensis	3	G5	S4S5	
Black-capped Chickadee	Poecile atricapilla	6	G5	S5	
Boreal Chickadee	Poecile hudsonicus	1	G 5	S3	
Dark-eyed Junco	Junco hyemalis	5	G5	S4S5	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	51			

Date: November 23, 2012					
Location, Kamptour	Wind speed (km/h)	Tempera	ature (°C)	Sky	
Location: Kemptown	8	-1		flurries	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	3	G5	S5	
Herring Gull	Larus argentatus	16	G5	S4S5	
Common Raven	Corvus corax	2	G5	S5	
American crow	Corvus brachyrhynchos	19	G5	S5	
Pileated Woodpecker	Dryocopus pileatus	1	G5	S 5	
Hairy Woodpecker	Picoides villosus	2	G5	S5	
Red-breasted Nuthatch	Sitta canadensis	4	G5	S4S5	
Black-capped Chickadee	Poecile atricapilla	7	G5	S 5	
Boreal Chickadee	Poecile hudsonicus	2	G5	S3	
Dark-eyed Junco	Junco hyemalis	6	G5	S4S5	
	TOTAL	62			

Date: November 27, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	18	1		clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	1	G5	S5	
Herring Gull	Larus argentatus	9	G5	S4S5	
American crow	Corvus brachyrhynchos	10	G5	S5	
Red-breasted Nuthatch	Sitta canadensis	1	G5	S4S5	
Black-capped Chickadee	Poecile atricapilla	5	G5	S5	
Boreal Chickadee	Poecile hudsonicus	1	G5	S3	
Dark-eyed Junco	Junco hyemalis	4	G5	S4S5	
	TOTAL	31			

Date: December 8, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	6		-8	clear	
Common Name	Scientific Name	Total species count		ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	2	G5	S5	
Herring Gull	Larus argentatus	18	G5	S4S5	
American crow	Corvus brachyrhynchos	2	G5	S5	
Black-capped Chickadee	Poecile atricapilla	3	G5	S5	
Dark-eyed Junco	Junco hyemalis	2	G5	S4S5	
	TOTAL	27			

Date: December 30, 2012					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	10		-3	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	2	G5	S5	
Herring Gull	Larus argentatus	13	G5	S4S5	
American crow	Corvus brachyrhynchos	9	G5	S5	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Dark-eyed Junco	Junco hyemalis	4	G5	S4S5	
Ruffed Grouse	Bonasa umbellus	2	G5	S4S5B	
	TOTAL	32			

Date: January 19, 2013					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	13		-3	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	1	G5	S5	
Herring Gull	Larus argentatus	8	G5	S4S5	
American crow	Corvus brachyrhynchos	6	G5	S5	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Dark-eyed Junco	Junco hyemalis	2	G5	S4S5	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	20			

Date: February 16, 2013						
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky		
Location. Remptown	11		-4	clear		
Common Name	Scientific Name	Total species count		ACCDC Sub-National Rank		
Blue Jay	Cyanocitta cristata	1	G5	S5		
Herring Gull	Larus argentatus	6	G5	S4S5		
American crow	Corvus brachyrhynchos	4	G5	S5		
Black-capped Chickadee	Poecile atricapilla	3	G5	S5		
	TOTAL	14				

Date: March 10, 2013						
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky		
Location. Reinplown	13		-1			
Common Name	Scientific Name	Total species count		ACCDC Sub-National Rank		
Blue Jay	Cyanocitta cristata	2	G5	S5		
Herring Gull	Larus argentatus	7	G5	S4S5		
American crow	Corvus brachyrhynchos	6	G5	S5		
Black-capped Chickadee	Poecile atricapilla	5	G5	S5		
	TOTAL	20				

Date: March 24, 2013					
Location: Kemptown	Wind speed (km/h)	Temperature (⁰ C)		Sky	
Location. Remptown	10	,	14	overcast	
Common Name	Scientific Name	Total species count		ACCDC Sub-National Rank	
Blue Jay	Cyanocitta cristata	4	G5	S5	
Herring Gull	Larus argentatus	8	G5	S4S5	
American crow	Corvus brachyrhynchos	7	G5	S5	
Black-capped Chickadee	Poecile atricapilla	7	G5	S5	
	TOTAL	26			

Date: June 8, 2013					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	14	1	6	overcast	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	2	G5	S5B*	
American crow	Corvus brachyrhynchos	5	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	9	G5	S5B	
Song Sparrow	Melospiza melodia	3	G5	S5B	
American Goldfinch	Carduelis tristis	6	G5	S5	
Swainson's Thrush	Catharus ustulatus	10	G5	S5	
Yellow-rumped Warbler	Dendroica coronata	2	G5	S4S5B	
Black-throated Green Warbler	Dendroica virens	5	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	6	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	2	G5	S5	
Dark-eyed Junco	Junco hyemalis	3	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	2	G5	S5B	
Common Yellowthroat	Geothlypis trichas	5	G5	S5B	
Northern Parula	Parula americana	1	G5	S5B	
Ruffed Grouse	Bonasa umbellus	1	G5	S4S5B	
	TOTAL	62			

Date: June 22, 2013					
Location: Kemptown	Wind speed (km/h)	Temperature (°C)		Sky	
Location. Remptown	10	1	14	clear	
Common Name	Scientific Name	Total species count	ACCDC Global Rank	ACCDC Sub-National Rank	
American Robin	Turdus migratorius	4	G5	S5B*	
American crow	Corvus brachyrhynchos	6	G5	S5	
white-throated Sparrow	Zonotrichia albicollis	11	G5	S5B	
Song Sparrow	Melospiza melodia	5	G5	S5B	
American Goldfinch	Carduelis tristis	7	G5	S5	
Swainson's Thrush	Catharus ustulatus	10	G5	S5	
Yellow-rumped Warbler	Dendroica coronata	3	G5	S4S5B	
Black-throated Green Warbler	Dendroica virens	5	G5	S4S5B	
Ovenbird	Seiurus aurocapillus	4	G5	S5B	
Black-capped Chickadee	Poecile atricapilla	4	G5	S5	
Dark-eyed Junco	Junco hyemalis	2	G5	S4S5	
Red-eyed Vireo	Vireo olivaceus	3	G5	S5B	
Common Yellowthroat	Geothlypis trichas	2	G5	S5B	
Northern Parula	Parula americana	1	G5	S5B	
Ruffed Grouse	Bonasa umbellus	0	G5	S4S5B	
	TOTAL	67			