

# **Report on Waterbird Count at Freda Houghton County Michigan 2016**

**By Joseph Youngman and Louie Dombroski**

## **Introduction**

Inspired by Laurie Binford's pioneering waterbird counts at Agate Harbor in the 1980's and 1990's, Youngman first began doing occasional waterbird counts at the old stamp mill site at Freda in 2001. The site is on the west shore of the Keweenaw peninsula about 12 miles west of Houghton. Between 2001 and 2012, fourteen counts were done, none longer than 3.5 hours. But those modest sporadic counts consistently had relatively large numbers of waterbirds moving SW along the shore in addition to the major and expected movement NE along the shore. Since all counts done by Binford and others up along the north shore of the Keweenaw had very small numbers of birds moving west the numbers of birds moving SW at Freda were surprising. The purpose of this current study was to see if the large proportion of waterbirds moving SW as opposed to NE held true for more extensive counts and to determine which species moved SW.

## **Methods**

We generally aimed to use the fall waterbird protocol used by Whitefish Point Bird Observatory (WPBO). This involved 8 hour counts beginning at local sunrise each day. All migrant waterbirds were recorded, with direction, numbers and species. The WPBO counts span the three months from 15 August through 15 November, but we lacked funding to do such a long count and devised a count "season" that was broken into two sections. We counted from 21 through 31 August to cover the early migrants, especially Red-necked Grebes. We resumed the counts on the 29<sup>th</sup> of September and continued through the 20<sup>th</sup> of October for a total of 33 days. We recorded birds on a paper field form that gave time, number, flight direction, species and flock composition for each flock. The data was transferred to Excel spreadsheets for analysis. Weather variables were recorded on a separate field form including: temperature, wind direction and speed, percentage of cloud cover and barometric pressure. Louie Dombroski was the main counter covering 24 days and Joseph Youngman counted on 9 days.

## **Results**

A total of 36,792 birds were seen migrating either northeast or southwest along the shoreline at Freda. Of these 25,377 went NE and 11,415 went south or southwest. These totals include ducks, loons, grebes, gulls and terns, shorebirds, and geese.

- **Waterbirds**

The totals for ducks, loons and grebes only, were 32,020. Of that total, 23,711 were going NE and 8,309 going SW. Table 1 gives the breakdown by species for each flight direction. Determining the most abundant species is impossible due to the high number of unidentified ducks but the top species included: Redhead, Greater Scaup and Red-necked Grebe

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Of the 33 count days there were eight days with duck, loon and grebe numbers greater than 1,000 and six in which the SW bound birds were more abundant than the NE bound birds. The biggest day was 13 October when 8,559 birds passed. The most intense movement occurred on 12, 13 and 14 October when a total of 14,689 birds passed, 11,515 NE and 3,174 SW. Those three days accounted for more than a third of the total 33 day count.

All species had individuals seen moving both NE and SW but some species had a very high ratio of NE to SW migrants. The leading species in that regard were: Red-necked Grebe - 73:1, American Wigeon - 25:1, Horned Grebe - 13:1, Surf Scoter - 12:1. Red-breasted Mergansers were notable in having more individuals going SW than NE: 1,510 to 850, a NE:SW ratio of 0.5:1. Northern Pintail also had a ratio of 0.5:1 but their numbers were much smaller, 69 to 117. Lesser Scaup were 1:1 and Green-winged Teal were 1.3:1. Long-tailed Duck were 1.8:1.

- **Lake Crossers**

Only 30 individual land birds were seen coming in to shore at Freda after apparently crossing Lake Superior. These included: small unidentified passerines (13), unidentified finches (12), Hairy Woodpecker (1), Peregrine Falcon (1), Northern Harrier (1), Red-breasted Nuthatch (1), Rusty Blackbird (1). One large bat was seen crossing as well.

- **Other Migrants**

Canada Geese were seen flying south beginning on 26 August and seen through the last day. Their total was 2,637, with 18 Cackling Geese and 1 Snow Goose as well. 10 Tundra Swans and 7 unidentified swans were seen moving SW. Double-crested Cormorant migration was virtually non-existent, with five seen going South and 9 going NE. Bonaparte's Gulls and Sterna Terns were seen moving NE in fair numbers – 347 and 279. An additional 211 “small gull /terns” were seen as well. The terns were seen in August while the Bonaparte's moved throughout the count period. Five Jaegers were seen with two going NE and three going SW. Identified Jaegers were Parasitic and Long-tailed. A single adult Black-legged Kittiwake was seen flying NE on 12 October. On 24 August 3 Hudsonian Godwits were seen flying NE in a flock with 10 Blue-winged Teal!

### **Discussion**

Freda is fairly unique among Lake Superior lakewatch sites in having such a high number of birds moving the “wrong way”. It is assumed that most NE-bound birds will continue following the Keweenaw shoreline and move east through the lake till at least the Munising area where some may cross to Lake Michigan, but most likely continue to Whitefish Point and leave Lake Superior from Whitefish Bay. The large numbers of SW-bound birds is very different from up the shore near Copper Harbor where virtually no birds are seen going west there. These SW-bound birds might well be birds that will move through the Mississippi flyway, but the question is why are none seen just 50 miles NE at Copper Harbor? Another possibility is that most of the SW-bound birds seen at

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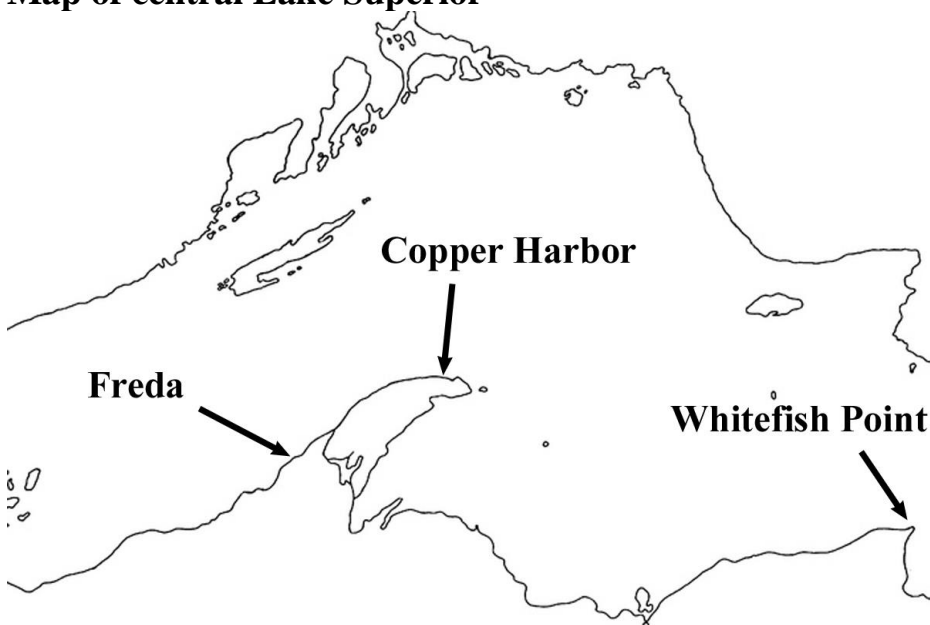
Freda might be birds temporarily confused and they later turn about and move NE. Several times flocks were seen out over the lake angling into the shore from the NW – in effect they were first seen flying SE. These angling in flocks usually turned NE to follow the shore though some turned SW. Common Loons were a special case altogether. In many cases, Common Loons were seen coming in from the NW and they took two different paths upon nearing the shore. Many turned NE to follow the shoreline and many just gained altitude and crossed inland continuing their SE bearing.

Comparisons between the Freda count and the 2014 count conducted at Hebard Park near Copper Harbor are interesting. Hebard Park in 2014 had 34,431 eastbound ducks, loons and grebes over three months. If you subtract the numbers seen in 2014 during the days NOT recorded at Freda – the Hebard Park Eastbound totals are only 18,668. Freda’s NE-bound totals were 23,711 in only 33 days and the SW bounders bring the total migrants there to 32,020. It makes sense that Hebard should have a larger number of eastbounds than Freda’s NE-bounds – due to flocks “angling in” to the Keweenaw shore between the two sites. Such birds hitting the shore between the sites would add to Hebard’s eastbounds and probably constitute ALL of Freda’s SW bounds. Perhaps 2016 just had more migrants passing the Keweenaw. A full three month fall count at Freda could help clarify the situation and simultaneous counts at both sites would be best.

### **Acknowledgements**

We thank Jim Morin and Vince Kantac for allowing us to trespass across their properties to get to the count site. We thank Keweenaw Land Trust for renting us a room for Mr. Dombroski. We especially thank Copper Country Audubon and its members for funding the count.

### **Map of central Lake Superior**



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**Table 1 Duck, Loon and Grebe migrants sorted by direction and number**

<b>NE bound</b>		<b>SW bound</b>	
Duck Species	5970	Duck Species	2590
Redhead	3300	Red-breasted Merganser	1510
Scaup Species	3207	Redhead	977
Aythya Species	2923	Scaup Species	749
Red-necked Grebe	2326	Aythya Species	735
Greater Scaup	1178	Greater Scaup	395
Red-breasted Merganser	850	Long-tailed Duck	220
Surf Scoter	636	Mallard	213
American Wigeon	460	Green-winged Teal	164
Long-tailed Duck	396	Lesser Scaup	143
White-winged Scoter	374	Northern Pintail	117
Mallard	327	Dabbler Species	77
Common Loon	291	Common Loon	67
Horned Grebe	280	White-winged Scoter	60
Green-winged Teal	223	Surf Scoter	53
Gadwall	177	Blue-winged Teal	40
Blue-winged Teal	159	Red-necked Grebe	32
Lesser Scaup	142	Gadwall	21
Red-throated Loon	78	Horned Grebe	21
Teal Species	71	American Wigeon	18
Northern Pintail	69	American Black Duck	15
Dabbler Species	64	Bufflehead	14
Northern Shoveler	53	Waterbird Species	13
Black Scoter	46	Common Goldeneye	10
Waterbird Species	34	Red-throated Loon	10
Dark-winged Scoter Species	27	Ring-necked Duck	9
Bufflehead	15	Wood Duck	8
Loon Species	13	Teal Species	7
Common Goldeneye	7	Common Merganser	6
American Black Duck	5	Northern Shoveler	5
Ring-necked Duck	5	Black Scoter	5
Common Merganser	4	Canvasback	1
Canvasback	1	Dark-winged Scoter Species	1
Wood Duck	0	Hooded Merganser	1
Hooded Merganser	0	Harlequin Duck	1
Merganser Species	0	Pacific Loon	1
Harlequin Duck	0	Merganser Species	0
Pacific Loon	0	Loon Species	0
<b>Northeast-bound Total</b>	<b>23711</b>	<b>Southwest-bound Total</b>	<b>8309</b>

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