

October Count Report

Joseph Youngman

Waterbird Counts at Manitou Island and Au Sable Point, Lake Superior 2020

Introduction

To help understand fall waterbird migration through the eastern half of Lake Superior, Copper Country Audubon (CCA) hired two skilled counters (Tim Baerwald and Alison Vilag) to conduct daily counts at the eastern tip of Manitou Island (Keweenaw peninsula) and Au Sable Point at Pictured Rocks National Lakeshore.

Methods

The counters used a protocol much like that used for waterbird counts at Whitefish Point Bird Observatory. Counts were conducted every day of October, beginning at sunrise and lasting for 8 hours. Flocks and individual birds were spotted, identified and counted using binoculars and spotting scopes. All birds were recorded in the field by flight direction either on paper sheets (Manitou Island) or a tablet computer using Dunkadoo software (Au Sable). We define “waterbirds” as all species of ducks, loons and grebes. Weather data was recorded hourly. Another task of the counters was to record species and numbers of land birds that flew in off Lake Superior from the north (lake crossers).

Each counter split their time between the two sites. Vilag started the count at Manitou Island and Baerwald at Au Sable. On 14 October they moved between sites. On the 14th and 15th, Joseph Youngman counted at Au Sable. No count was conducted at Manitou Island on the 14th. Due to weather concerns the last count at Manitou Island took place on the 20th. Counts were then conducted at Hebard Park (3 miles west of Copper Harbor) on the Keweenaw peninsula through the 31st.

Total count hours: Manitou Island - 235, Au Sable - 241.

In addition to the main count at Au Sable, Youngman counted on the 2nd, 3rd, 6th, 7th, 8th and 30th along the shore at Seven Mile Creek (7 miles west of Au Sable Point).

Results

Waterbird Migration

Manitou Island recorded 23,255 waterbirds moving eastward and 280 westward.

Au Sable Point recorded 30,275 waterbirds moving eastward and 19,749 westward.

The species list from each site was nearly identical and numbers of individuals of most species were very similar with the exceptions for: Northern Pintail, Redhead, Greater Scaup, Long-tailed Duck, Common Loon and Red-necked Grebe. Counts for Redhead, Greater Scaup, Common Loon and Red-necked Grebe were much greater at Manitou than Au Sable. Counts for Northern Pintail were much higher at Au Sable and counts for Long-tailed Duck were vastly higher at Au Sable. Table 1 gives eastbound numbers for most species at Manitou, Au Sable and Whitefish Point. Table 2 gives comparisons between east and westbound birds at Au Sable.

Manitou Island had 1 Harlequin Duck, 2 Pacific Loon and 1 Yellow-billed Loon.

Au Sable Point had 2 Canvasback and 1 Eider Duck (not identified to species).

Lake Crossers

Manitou Island recorded 999 “Lake Crossers” and Au Sable had 454.

The species with the highest count was Pine Siskin with 812 at Manitou and 120 at Au Sable.

Diurnal raptors were recorded incoming at both sites. Rough-legged Hawks tallied 5 at Manitou and 5 at Au Sable. Northern Harriers tallied 1 at Manitou and 2 at Au Sable. 1 Peregrine Falcon at Au Sable. Asio owls were recorded as follows: Manitou - 6 Long-eared, 1 Short-eared Au Sable - 2 Long-eared, 4 Short-eared and 3 Asio Species. Au Sable recorded just over 100 shorebirds crossing from the north while Manitou had none. Table 3 lists all lake crossing species seen at either site.

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Rare Birds

Au Sable recorded 2 Parasitic Jaegers on the 1st, 1 Great Black-backed Gull on the 1st, 2 Pomarine / Parasitic Jaegers on the 26th, 1 Black-legged Kittiwake on the 29th and 1 jaeger species on the 30th. Manitou recorded a Yellow-billed Loon on the 11th a Pacific Loon on the 13th. Manitou recorded a Pacific Wren at the count site on the 17th. A single Red Phalarope and a Pacific Loon were recorded at Hebard Park on the 27th.

Discussion

Manitou Island site change

From past counts and this year's count it is clear that Manitou is a merging area for flows of waterbirds from the mainland Keweenaw and from the north tip of Isle Royale. Counting at Hebard Park would not record those Isle Royale birds. This difference in count sites certainly changed our results for the "Manitou" count, but to an unknown extent.

Differential counts by species:

Redhead

The data recorded by Laurence Binford in his book *Birds of the Keweenaw Peninsula* 2006, indicated higher numbers of Redhead passing the Keweenaw versus Whitefish Point, but they were never recorded simultaneously with Whitefish counts for comparison. The much higher numbers of Redhead seen during this year's count at Manitou Island (3031) compared to both Au Sable (977) and WPBO (834) lead me to believe that significant numbers of Redheads are turning south between Manitou and Au Sable and are leaving the Lake Superior basin near Au Train and Munising bays. A previous three month count conducted by CCA in 2015 showed much higher numbers of Redhead at Hebard Park (2144) than at WPBO (1612). The data from the counts in 2015 and this year both point to REDH leaving the lake between Manitou and Au Sable.

Greater Scaup

Greater Scaup showed an odd pattern in this count with high counts at Manitou (2365) and WPBO (2222), but a low count at Au Sable (397). Unlike Redhead, our previous studies had not indicated a lower count at Au Sable compared to Manitou. But the numbers in this count and the relatively low count at WPBO indicate that significant numbers of Greater Scaup might turn south, passing out of Lake Superior between Manitou and Au Sable. Unfortunately, at Au Sable the day with the highest number of passing ducks was a day when most birds were recorded as Unidentified duck, due to that day's flight being farther off shore. That fact confounds making any firm conclusions from all of our duck numbers.

Common Loon

It seems likely that the differential of Common Loons passing Manitou (690) compared to Au Sable (304) is best explained by the loons leaving the Lake Superior basin before reaching Au Sable. Given that a number of COLO were seen angling in to the shoreline from the NNW at Au Sable it seems likely that the COLO leaving Lake Superior between the two sites was higher than the recorded differential between the sites. WPBO's higher count for COLO (361) than Au Sable could be explained by birds coming south and southeast between the two sites and then joining the eastbound flow.

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Northern Pintail

Numbers of eastbound NOPI were 179 at Manitou and 188 at Au Sable. However, 921 NOPI were observed moving west past Au Sable. That number is greater than the total eastbound NOPI from Manitou, Au Sable AND WPBO. Apparently, large numbers of NOPI are coming south to the lake's south shore between Au Sable and WPBO and most are turning west and being recorded at Au Sable. While previous counts at Au Sable led us to expect westbound Long-tailed Ducks, Northern Pintails moving west past Au Sable in large numbers were unexpected.

Long-tailed Duck

Another unfortunate consequence of shifting the Manitou count after the 20th is in regards to Long-tailed Duck numbers seen at the "Manitou" site. A significant goal of this fall's double count was to compare LTDU numbers from Manitou Island and Au Sable. In 2014 our count showed the huge difference between Hebard Park (mainland Keweenaw) and Whitefish Point. Since we knew that another flow of waterbirds meets the Keweenaw flow near Manitou's east end we wondered if significant numbers of LTDU would show up there. The shortened count that actually took place at Manitou surely weakened our comparison. But, the first really big day of LTDU movement at both Au Sable and Whitefish Point was the 20th of October which was the last day of count at Manitou Island. The LTDU numbers for the 20th are: Manitou - 28, Au Sable - 1,652 (E&W) WPBO - 712. It's a small sample size but it does indicate that large numbers of LTDU are not entering the lake from up at Thunder and Black Bays.

The CCA count at Hebard Park in 2014 showed a vastly smaller number of LTDU there at Hebard (418) compared to WPBO (27,396). Another CCA count at Au Sable in 2015 for the 1st three weeks of October showed large numbers of westbound LTDU (3400). This year's count reinforced those numbers. The 15,292 westbound LTDU at Au Sable this year constitute a full 66% of WPBO's eastbound count of LTDU. As with the NOPI we believe there must be a migratory flight path coming N to S near Michipicoten and Caribou Islands that hits the south shore between Au Sable and WPBO. Clearly, most LTDU turn east and pass WPBO but a large percentage turn west and pass Au Sable. We assume these ducks move west to the Au Train / Grand Island / Munising area and cross to Lake Michigan at night. Reports of flocks of LDTU leaving Little Bay de Noc heading north in the spring (Kaplan and Dombroski) and flocks of LTDU coming south overland to upper Green Bay (Haas and Palmer) support this idea.

Red-necked Grebe

I would have thought that RNGR numbers would show increasing numbers at each site eastward across the south shore. No previous counts indicated that RNGR leave Lake Superior before reaching Au Sable. This year's count showed an odd dip in the numbers of RNGR seen at Au Sable. Manitou had 500, Au Sable 285 and WPBO 956. A CCA count at Au Sable in 2015 did not show low numbers of RNGR, but there was no direct comparison to Manitou Island that year. I suspect that the low numbers of RNGR at Au Sable this year must be an anomaly.

Bidirectional Flight at Au Sable

Counts conducted at Freda on the western shore of the Keweenaw peninsula by CCA (Louie Dombroski) in 2016 and 2017 clearly showed a movement of waterbirds that passed both SW and NE in great numbers. This contrasts starkly with flights at the tip of the Keweenaw peninsula, Manitou Island and Whitefish Point, where the flight movement is almost entirely in one direction - eastbound. At Freda the NE flight was greater than the SW flight but the SW flight was fully one half of the NE flight.

Au Sable is clearly a site like Freda, with a significant flight in both directions. This year in October the westbound flight was a full two thirds of the eastbound flight. It is interesting that both Freda and Au Sable are sites where much of the incoming flight has just crossed a large swath of open water as opposed

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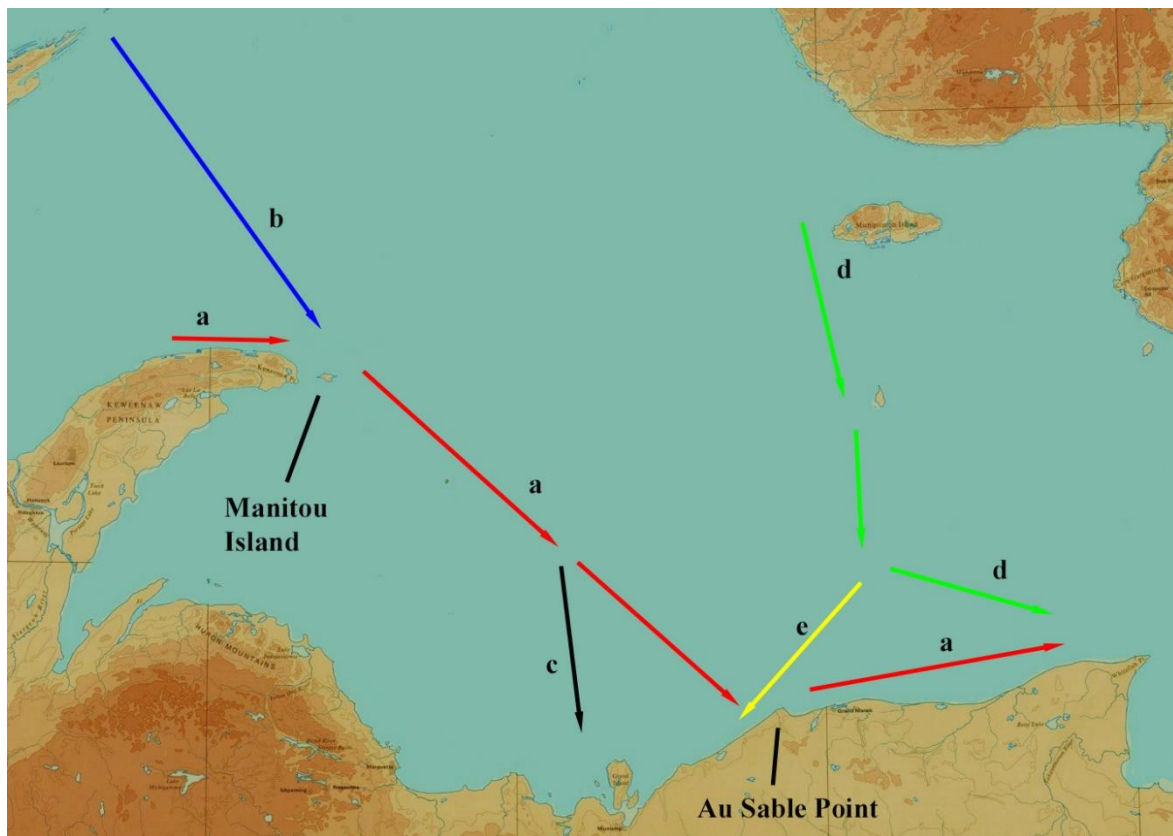
to simply following the shoreline (though there IS shoreline flight at both sites as well). In each case it seems likely that the lesser flight – westward – is a movement toward an exit point from Lake Superior.

The magnitude of the flight at Au Sable is also worth a mention. The combined east and westbound flights at Au Sable in October of 2020 are just shy of the famous flight at Whitefish Point. 50,024 compared to 55,868. These numbers seem to indicate that Au Sable is the site with the 2nd largest fall migration on Lake Superior.

Flight Paths

The map below shows likely main flight pathways of fall waterbirds through the center of Lake Superior. The red path (a) shows route taken by many ducks and most Red-necked Grebes that enter Lake Superior west of the Keweenaw peninsula. The blue path (b) shows a route taken by many species of ducks, loons and grebes coming from both Thunder and Black Bays. The black path (c) shows probable turn-off by many Redheads. The green path (d) shows another pathway, likely beginning in Nipigon Bay and extending south past the west tip of Michipicoten and Caribou Island. It splits after Caribou with many Long-tailed Ducks and Northern Pintail going SW past Au Sable Point (e) and a greater number heading SE past Whitefish Point (d). This study makes it clear that only small numbers of LTDU enter Lake Superior west of Au Sable. It seems possible that other duck species besides the LTDU and NOPI use the yellow flight path.

The proposed “green path” past Michipicoten and Caribou has some previous documentation. Fall movements of migrating waterbirds were seen at west tip of Michipicoten during a CCA survey in October of 2017 and were recorded for Caribou Island in *Ontario Birds* 1986 by Wormington, Nisbet and Finlayson.



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At Manitou Island our counters, like previous fall Manitou counters, noticed both the red flow (a) from the Keweenaw and the blue flow (b) from Isle Royale. They noticed that most Keweenaw birds passed along the north side of Manitou and a smaller number were seen moving southeast to the south of the island.

During the counts I conducted for six days at Seven Mile Creek (seven miles west of Au Sable Point) I witnessed some details of the flight paths used by waterbirds that were not seen at Au Sable point itself. In addition to flocks coming NE along the shoreline I many times saw flocks coming straight in off the open lake in a SE direction. Some of those flocks would turn NE and some would turn SW. Some flocks seemed uncertain of their desired direction and switched between NE and SW, especially if they encountered a flock going the opposite direction they would often turn and follow. The following map gives a more finely detailed look at flight paths witnessed in the area of Au Sable point.



On both maps the waterbird movements indicated by the red, blue, and yellow arrows were all witnessed directly by our counters this October. The movements indicated by the black and green arrows are assumed.

Notes on flight paths by Alison Vilag

“ Dabblers had a stronger proclivity than any other waterbird taxa to angle in from NNE (heading west) or NNW (heading east). I would confidently say that the majority of the dabblers I counted at Au Sable did this, as opposed to flying E-W

or W-E. (The heavy pintail flights were perhaps coming in from more NE than NNE.)

At Au Sable, Mergansers and *Bucephala* occasionally angled from NE or NW but more frequently flew W-E.

Aythya at Au Sable flew W-E, nearly without exception. I never saw a substantial flock of them angle like the other ducks.

At Manitou, I noticed that dabblers and loons seemed to come in from Isle Royale proportionally more frequently than other waterbird taxa. “

Acknowledgments

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Pictured Rocks National Lakeshore

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Table 1 Eastbound waterbird totals for October 2020 at Manitou Island (Keweenaw), Au Sable Point and Whitefish Point Lake Superior

Species	Manitou*	Au Sable	WPBO**	
WODU	3	1	0	Wood Duck
GADW	55	30	130	Gadwall
AMWI	267	239	1081	American Wigeon
ABDU	14	29	88	Am. Black Duck
MALL	598	427	783	Mallard
BWTE	25	1	0	Blue-winged Teal
NSHO	30	75	20	Northern Shoveler
NOPI	179	188	384	Northern Pintail
GWTE	100	74	355	Green-winged Teal
unTEAL	18	12	35	Teal Species
unDABB	119	75	513	Dabbling Species
CANV	0	2	0	Canvasback
REDH	3031	977	834	Redhead
RNDU	12	58	64	Ring-necked Duck
GRSC	2365	397	2222	Greater Scaup
LESC	126	201	252	Lesser Scaup
unSCAU	5660	2384	4812	Scaup Species
unAyth	2931	756	4550	Aythya Species
SUSC	38	40	74	Surf Scoter
WWSC	327	364	1263	White-winged Scoter
BLSC	51	176	252	Black Scoter
dwSCOT	18	121	208	dark-winged Scoter species
LTDU	119	1620	23158	Long-tailed Duck
BUFF	32	304	399	Bufflehead
COGO	148	515	1676	Common Goldeneye
HOME	6	83	4	Hooded Merganser
COME	2	68	116	Common Merganser
RBME	2824	2799	8331	Red-breasted Merganser
unMERG	0	106	65	Merganser Species
unDUCK	2758	17332	2665	Duck Species
RTLO	54	36	168	Red-throated Loon
COLO	690	304	361	Common Loon
PALO	2	0	0	Pacific Loon
YBLO	1	0	0	Yellow-billed Loon
unLOON	29	74	5	Loon Species
HOGR	21	26	42	Horned Grebe
RNGR	500	285	956	Red-necked Grebe
HADU	1	0	1	Harlequin Duck
EIDER Sp	0	1	1	Eider Species
unWATE	83	95	0	Waterbird Species
	23255	30275	55868	Totals for October

* Manitou count was moved to mainland Keweenaw for the last 11 days of the month

** WPBO totals are NOT official WPBO numbers - they are taken from the WPBO website

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Table 2 East and Westbound Waterbird species totals at Au Sable Point - October 2020

	Eastbound	Westbound	
WODU	1	2	Wood Duck
GADW	30	1	Gadwall
AMWI	239	5	American Wigeon
ABDU	29	13	Am. Black Duck
MALL	427	79	Mallard
BWTE	1	7	Blue-winged Teal
NSHO	75	1	Northern Shoveler
NOPI	188	921	Northern Pintail
GWTE	74	300	Green-winged Teal
unTEAL	12	2	Teal Species
unDABB	75	0	Dabbler Species
CANV	2	0	Canvasback
REDH	977	37	Redhead
RNDU	58	6	Ring-necked Duck
GRSC	397	49	Greater Scaup
LESC	201	68	Lesser Scaup
unSCAU	2384	294	Scaup Species
unAyth	756	44	Aythya Species
SUSC	40	86	Surf Scoter
WWSC	364	111	White-winged Scoter
BLSC	176	78	Black Scoter
dwSCOT	121	47	dark-winged Scoter species
LTDU	1620	15292	Long-tailed Duck
BUFF	304	38	Bufflehead
COGO	515	219	Common Goldeneye
HOME	83	33	Hooded Merganser
COME	68	34	Common Merganser
RBME	2799	644	Red-breasted Merganser
unMERG	106	10	Merganser Species
unDUCK	17332	1240	Duck Species
RTLO	36	6	Red-throated Loon
COLO	304	26	Common Loon
unLOON	74	0	Loon Species
HOGR	26	12	Horned Grebe
RNGR	285	34	Red-necked Grebe
EIDER SP	1	0	Eider Species
unWATE	95	10	Waterbird Species
	30275	19749	

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	Manitou	AuSable	WPBO
1-Oct-20	193	287	825
2-Oct-20	231	244	600
3-Oct-20	55	52	213
4-Oct-20	228	74	336
5-Oct-20	306	101	115
6-Oct-20	1911	1439	1542
7-Oct-20	839	101	1189
8-Oct-20	619	273	890
9-Oct-20	159	26	124
10-Oct-20	44	15	343
11-Oct-20	199	66	366
12-Oct-20	16	13	213
13-Oct-20	13339	12155	7021
14-Oct-20	0	3875	4761
15-Oct-20	871	866	1704
16-Oct-20	303	1230	1318
17-Oct-20	760	1231	978
18-Oct-20	52	380	380
19-Oct-20	275	822	1188
20-Oct-20	429	772	2022
21-Oct-20	52	269	258
22-Oct-20	128	246	739
23-Oct-20	815	1005	3912
24-Oct-20	359	1631	2857
25-Oct-20	232	1124	8083
26-Oct-20	153	479	4869
27-Oct-20	341	310	535
28-Oct-20	58	84	136
29-Oct-20	209	531	7593
30-Oct-20	68	557	671
31-Oct-20	11	17	87
	23255	30275	55868

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Table 4 Land birds observed coming south off lake at Manitou Island (Keweenaw) and Au Sable during October 2020

Peregrine Falcon	1
American Kestrel	1
Merlin	1
Raptor Species	1
Rough-legged Hawk	10
Northern Harrier	2
Bald Eagle	2
Short-eared Owl	5
Long-eared Owl	8
Asio Owl Species	3
Pluvialis Plover Species	15
American Golden Plover	2
Shorebird Species	93
Northern Flicker	2
Red-breasted Nuthatch	3
Ruby-crowned Kinglet	4
Golden-crowned Kinglet	12
Kinglet Species	3
American Robin	1
Palm Warbler	2
American Tree Sparrow	26
Dark-eyed Junco	11
Horned Lark	4
American Pipit	1
Lapland Longspur	11
Snow Bunting	12
Rusty Blackbird	6
Blackbird Species	5
Common Redpoll	59
Purple Finch	18
Finch species	84
Pine Siskin	932
Passerine species	112