

Report on the Black Bay Project Waterbird Migration Surveys at Porphyry and Edward Islands May 2011 Joseph Youngman and Greg Cleary

Introduction

Based on evidence from Thunder Cape Bird Observatory (TCBO) and our own previous surveys at Isle Royale and Manitou Island, Keweenaw County, Michigan we suspected that Black Bay provides an “exit ramp” for various waterbird species using Lake Superior as a major flyway each spring. To see if this was so, we made a 7 day visit to the area in May of 2011. Two observers were involved. One was stationed at Pt Porphyry on Porphyry Island and the other was stationed on Edward Island’s southeast shore, south of Pringle Bay. It was assumed that the Pt Porphyry observer could keep watch on waterbirds coming into Black Bay via the Montreal channel and the Edward Island observer could monitor the Magnet channel.

We arrived on Porphyry Island via Carl Ronquist’s fishing boat at 8:55AM on 4 May. One observer left immediately by canoe for Edward Island and the other hiked to Pt Porphyry. Our waterbird watches began by 9:37 at Porphyry and 11:02 at Edward. We counted between 5 and 8.5 hours all remaining days through 10 May, for a total of 81 hours of observation. On most days our count period began at 6:00AM. A total of 1,975 migrating waterbirds were seen of 25 different species. By far the most abundant species was Common Loon with 753 individuals seen flying past. Another 121 more “Loon Species” were seen and of those the vast majority were certainly Common as well. All waterbird numbers are given in a table in this report.

We documented all birds seen: raptors, passerines, shorebirds as well as a few observations of breeding birds.

Waterbird Migration

Common Loon

As expected, Common Loons (COLO) were seen passing generally northward up into Black Bay on both sides of the Porphyry / Edward island complex. During the survey period there were days when each side had over 150 COLO passing northward. Almost all COLO were first observed to the south of Porphyry and Edward and seemed to be coming from the gap between Passage Island and Blake Point on Isle Royale. A very small number of COLO first appeared on a flight path that would have (if traced backward) had them moving into the area from slightly NE of Passage Island. None of the COLO seemed to be coming from an east or east-northeast direction (as did quite a few ducks). When we began our trip we noticed inland lakes near Pass Lake were still frozen and we saw many dozens of COLO on the water on the upper parts of Black Bay. In our first days in place we noticed up to 100 COLO resting on the water in the south entrance to the Magnet Channel.

The flight paths of COLO seen at both watch sites were mostly NNW. Some diverged as far as NW. None were seen to go W and we believe none of the COLO we saw would have been seen at TCBO. As we have observed elsewhere on Lake Superior, COLO are

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the most non-conformist species of waterbird in terms of flight paths. There seemed to be two major flyways near Pt Porphyry and one near Magnet Island but plenty of COLO flew well outside those relatively narrow bands. One of the most heavily used flight paths crossed over Porphyry Island and extended up the western edge of Edward Island. While most flight paths we saw would seem to take COLO up Black Bay, some that we saw were merely crossing the bottom of Black Bay and crossed northwestward over the Sibley peninsula. Flight paths for COLO (and all species) are shown on map included in this report. While COLO began passing our sites as early as 6:10AM the vast majority of them passed between 10AM and noon.

Other Waterbirds

Red-breasted Merganser (RBME) was the 2nd most abundant species seen. Their flight paths were much simpler than COLO. They did not cross the island in large numbers. Many RBME were seen moving up the east and western channels up Black Bay, but significant numbers also seemed to be moving west from Porphyry indicating those birds may well pass Thunder Cape.

Scaup species and Lesser Scaup come next in abundance and they had basically the same patterns as the Mergansers. Many were seen going up the Montreal channel, a few going up the Magnet channel and quite a few seemed to head west from Porphyry.

Red-necked Grebe were not seen moving up the Magnet channel but did move up the Montreal in small numbers. Most RNRG seemed to head west. Over 100 RNRG seemed to arrive in the night at Edward Island on the 5th and remained on the water for a day or so. To a lesser extent they rested near Pt Porphyry as well.

White-winged Scoters all seemed to move west and were not seen moving up into Black Bay.

Red-throated Loons were seen in small numbers moving up both channels into Black Bay. None were seen going west.

Long-tailed Ducks were hard to pin down. As seen at other Lake Superior sites in spring, there seemed to be a temporarily resident gang of Longtails that moved this way and that during our entire stay. We recorded 33 Longtails as “migrating” north in the Montreal channel but its hard to say just what they were really doing.

Many other species were seen in very small numbers. A single female/1st year male type, Harlequin Duck was seen at Porphyry Pt. It came into view flying from the SE with a female Common Merganser. They landed near the point and came ashore temporarily, then foraged briefly off the south shore before the Harlequin moved on alone – last seen moving north. Photographs were obtained during the brief island stop which will surely help with convincing the Ontario Bird Records Committee.

Horned Grebe was the only waterbird species that was seen but never seen migrating. There were up to seven Horned Grebe on the water in the Magnet channel and a couple near Pt Porphyry.

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Raptor Migration

We saw eighteen raptors moving in such a way as to indicate that they may well have crossed the water from Passage Island or Isle Royale. There is no proof at all that they crossed but it seems likely that they did. The quote below is from the notes of the Edward Island site on 5 May.

10:54 SS to E goes S to N! went right past Magnet Island saw it at least ¼ mile S of Magnet

Most birds were not seen nearly that far south of our islands. Merlins were seen several times and never suspected of crossing. Peregrine Falcons were seen three times only one of which seemed like a northbound migrant. Broad-winged Hawks were seen twice – one was a territorial bird on Edward Island and one was soaring over southern Edward Island. Most of the apparent lake crossing raptors were seen at Pt Porphyry.

The breakdown by species is as follows:

Sharp-shinned Hawk	10
American Kestrel	3
Northern Harrier	2
Peregrine Falcon	1
Small Falcon	1
Unidentified Raptor	1

Passerine and Shorebird Migration

Very few passerines were seen during our entire visit. This could easily have been due to strictly the specific weather conditions during our 7 day stay. We did notice some concentration of passerines at Pt Porphyry during the mornings and some migration off the point to the west and northwest. Birds seen included, Palm, Pine and Yellow-rumped Warblers, Ruby-crowned Kinglets, Red-winged Blackbird, Common Grackle and Pine Siskin. On 4 May, a male Yellow Warbler was seen on Edward Island – an early migrant.

The only shorebirds seen were Killdeer (2) and Greater Yellowlegs (3). The Killdeer were seen along the islands shorelines and the Yellowlegs were resting on exposed bedrock at Pt Porphyry.

Breeding Birds

Two apparent active Bald Eagle nests were observed from Pt Porphyry. One was on the SW corner of Edward Island southeast of Horseshoe Cove and the other was on Cranberry Island. Both “nests” had attending adults sitting near by each morning and the Cranberry “nest” seemed to have the white head of an adult in the nest appearing and disappearing. The great distance to the Cranberry “nest” could have caused some visual illusions. The Edward nest was in a large White Pine and the Cranberry nest seemed to be in a dead tree.

A pair of Common Loons was observed on the tiny lake in the SE corner of Edward Island.

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Ramblings and Speculations

It was my expectation that we would see significant waterbird migration past Porphyry and Edward Islands and the migration flight paths we saw were expected as well. I believe that a significant migratory pathway exists in both spring and fall from Thunder and Black Bay's on the north side, down between Passage Island and Isle Royale's Blake Point and the eastern tip of Manitou Island, off the tip of the Keweenaw Peninsula. The flow of birds from Manitou seems quite likely to cross a large portion of Lake Superior before following the shoreline and passing Whitefish Point.

In the spring the flight is probably originally coming past Whitefish Point, continuing westward near the shoreline then angling NW to Manitou then up through the Passage and the two bays along the north shore and then leaving Lake Superior for their nesting areas dispersed to the N and NW.

I believe the fall flight is basically reversed.

No extensive waterbird counts have been done at most of these locations.

Beyond the expected flights seeming to come from near Passage Island, a smaller but still significant movement of ducks and some RNGR (no loons) were seen moving westward past Porphyry Island. These birds were clearly not coming across from Passage and seemed likely to be following the southern tips of the islands to the NE, Shaganash Island, etc. It seems quite possible that a flyway passes Michipicoten's western tip (we've seen it in 2007) then uses the western edge of the Slate Islands as its next waypoint and then follows the curving arc of islands from Wilson, St Ignace, through Shaganash to Porphyry. Such a flight path would seem likely to push most birds into Nipigon Bay via the Simpson Channel (we intend to check that out in the future) but possibly some birds on such an eastern line through Lake Superior could follow the arc of islands all the way around past Black Bay.

I had assumed that many or most of the birds we saw moving westward past Porphyry Island would be seen passing Thunder Cape on the same day. John Woodcock of TCBO kindly sent me a spreadsheet of their visible migrants for the days our group was at Porphyry and Edward. TCBO's numbers for every single day were less, on some days a lot less than what was seen at Porphyry. Also, in specific species no pattern of detection at both sites was apparent in the data. For example, on 10 May we had 41 White-winged Scoters passing Porphyry, seeming to head for Thunder Cape. Thunder Cape only tallied a single White-winged Scoter that day. Explanations? It is quite possible that our judgment that various ducks (including all White-winged Scoters) were NOT turning up Black Bay and were continuing along the shore toward Thunder Cape was wrong. Perhaps those ducks were just flying significantly farther to the west before turning up into Black Bay and therefore we misjudged their flight. It's also possible that many ducks were actually rafting up on the water between Porphyry and Thunder Cape. When we began our trip inland lakes were frozen near Pass Lake and many COLO were rafted up on Black Bay. It's possible that many birds migrated up to the general area and then waited for several days before moving past Thunder Cape and into the interior.

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**Combined Daily Totals of
migrating waterbirds at
Edward and Porphyry
Islands May 2011**

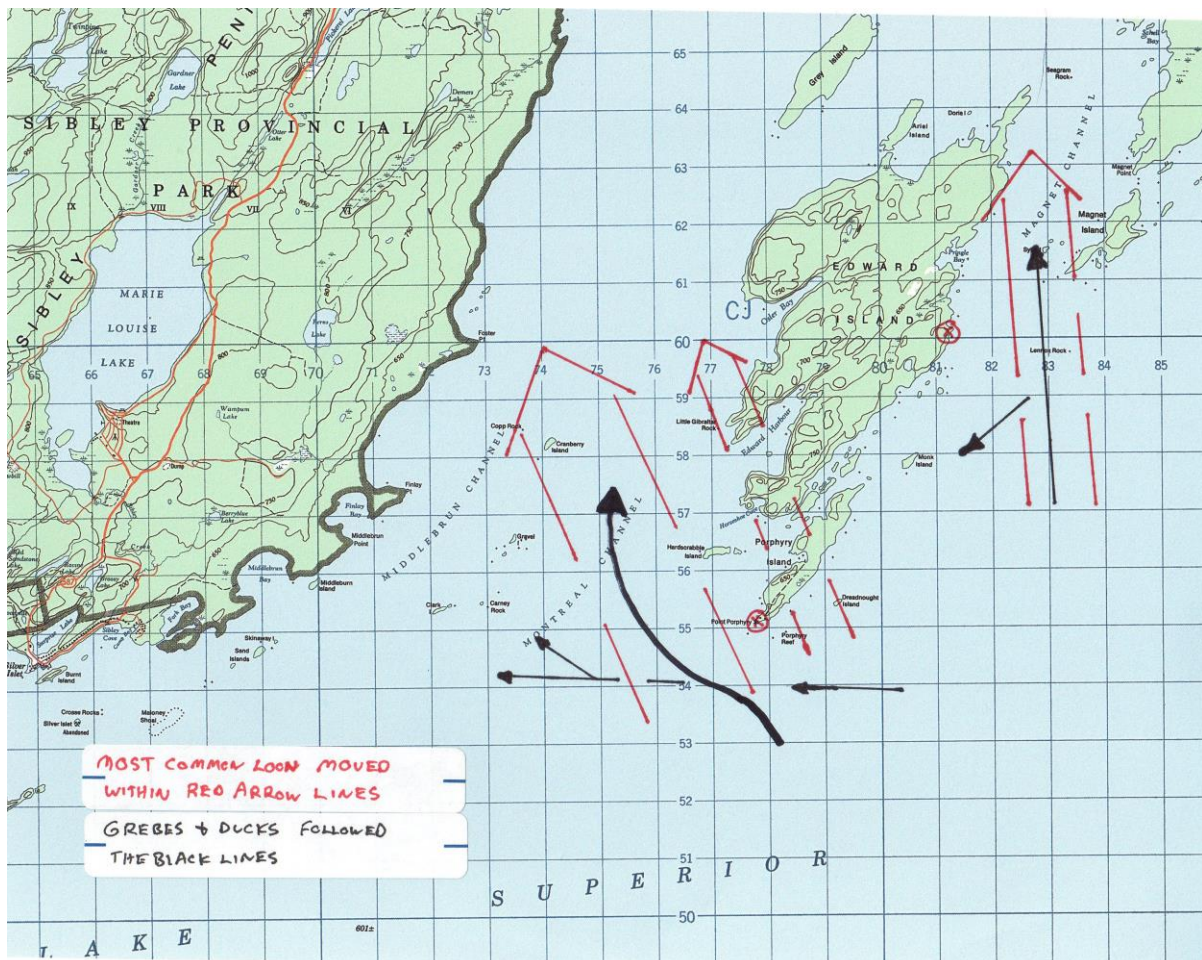
	4th	5th	6th	7th	8th	9th	10th	
Canada Goose						5		5
Wood Duck				2				2
American Wigeon		8		5				13
Mallard		2	1	3	2			8
Blue-winged Teal		4					3	7
Northern Shoveler		2				2		4
Northern Pintail					1			1
Green-winged Teal			2					2
Ring-necked Duck		4			3			7
Lesser Scaup		8		5	24	24	1	62
Scaup Species					24	59	7	90
Harlequin Duck				1				1
Surf Scoter							2	2
White-winged Scoter	2				6	13	41	62
Dark-winged Scoter Species					8	4		12
Long-tailed Duck		8	4	10	2	1	8	33
Bufflehead		4	5	6	7			22
Common Goldeneye					1	5	1	7
Hooded Merganser					2			2
Common Merganser		7			4			11
Red-breasted Merganser		15		2	18	68	22	125
Merganser Species	2	44			5		19	70
Red-throated Loon		1	2	3	6	6	2	20
Common Loon	62	203	18	71	171	206	22	753
Loon Species	2	2		4	50	63		121
Red-necked Grebe				18	4	52	12	86
Double-crested Cormorant		3	5			2		10
Unidentified Duck	5	109	7	26	103	76	46	372
Unidentified Waterbird	1	51	5			7	1	65
	74	475	49	156	441	593	187	1975

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Migrating Waterbirds Species Listed by Abundance - 4th through 10th May 2011

Common Loon	753	Common Merganser	11
Unidentified Duck	372	Double-crested Cormorant	10
Red-breasted Merganser	125	Mallard	8
Loon Species	121	Blue-winged Teal	7
Scaup Species	90	Common Goldeneye	7
Red-necked Grebe	86	Ring-necked Duck	7
Merganser Species	70	Canada Goose	5
Unidentified Waterbird	65	Northern Shoveler	4
White-winged Scoter	62	Wood Duck	2
Lesser Scaup	62	Green-winged Teal	2
Long-tailed Duck	33	Surf Scoter	2
Bufflehead	22	Hooded Merganser	2
Red-throated Loon	20	Harlequin Duck	1
American Wigeon	13	Northern Pintail	1
Dark-winged Scoter Species	12		
		Total	1,975

Map of Spring Waterbird Movements near Porphyry and Edward Islands



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Species List for Porphyry and Edward Islands 4 May through 10 May 2011

Canada Goose	Peregrine Falcon	Song Sparrow
Wood Duck	Sandhill Crane	Swamp Sparrow
Gadwall	Killdeer	White-throated Sparrow
American Wigeon	Greater Yellowlegs	White-crowned Sparrow
American Black Duck	Herring Gull	Dark-eyed Junco
Mallard	Ring-billed Gull	Lapland Longspur
Blue-winged Teal	Chimney Swift	Red-winged Blackbird
Northern Shoveler	Belted Kingfisher	Rusty Blackbird
Northern Pintail	Downy Woodpecker	Common Grackle
Green-winged Teal	Hairy Woodpecker	Brown-headed Cowbird
Ring-necked Duck	Northern Flicker	Purple Finch
Lesser Scaup	Pileated Woodpecker	Pine Siskin
Harlequin Duck	Yellow-bellied Sapsucker	Evening Grosbeak
Surf Scoter	Gray Jay	
White-winged Scoter	American Crow	
Long-tailed Duck	Common Raven	
Bufflehead	Tree Swallow	
Common Goldeneye	Black-capped Chickadee	
Hooded Merganser	Red-breasted Nuthatch	
Common Merganser	Brown Creeper	
Red-breasted Merganser	Golden-crowned Kinglet	
Ruffed Grouse	Ruby-crowned Kinglet	
Red-throated Loon	Winter Wren	
Common Loon	Sedge Wren	
Horned Grebe	Hermit Thrush	
Red-necked Grebe	American Robin	
Double-crested Cormorant	American Pipit	
Great Blue Heron	Yellow Warbler	
Turkey Vulture	Yellow-rumped Warbler	
Osprey	Pine Warbler	
Bald Eagle	Palm Warbler	
Northern Harrier	Black and White Warbler	
Sharp-shinned Hawk	American Redstart	
Broad-winged Hawk	American Tree Sparrow	
American Kestrel	Chipping Sparrow	
Merlin	Savannah Sparrow	