

## Migration of the Red-throated Loon on Lake Ontario

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#### Introduction

The Red-throated Loon (*Gavia stellata*) is not generally considered to be a social species, particularly during the breeding season (Barr *et al.* 2000). However, it is well-documented (Powers and Cherry 1983, D'Anna 1995, Sherony *et. al.* 2000, eBird, OntBirds) that during spring and autumn migration, large flocks may gather at key staging areas. These areas include the Canadian and US Atlantic and Pacific coasts and select inland locations (e.g., Presqu'ile Provincial Park, the Regional Municipality of Durham and Toronto waterfronts, the west end of Lake Ontario and near Whitefish Point Bird Observatory (WPBO), near Paradise, Michigan, on Lake Superior). These areas are utilized as staging and resting areas (e.g., sites on Lake Ontario) or passage points for migrating loons (e.g., WPBO).

In this note, I report on five observations that I made of a total of 112 Redthroated Loons in the last week of May 2015 and May 2016 and the first week of November 2016 and relate them to what is known of their spring and autumn migration in the lower Great Lakes. There is very little published material on their migration beyond dates and numbers, which may be due to two factors: (1) lack of observer encounters and (2) a limited understanding of migration timing and behaviour.

# Migration Timing, Distribution and Abundance

Historically, the Red-throated Loon was considered uncommon in both spring and autumn migration throughout much of southern Ontario (Tozer and Richards 1974, Speirs 1985, Weir 1989, LaForest 1993). Weir (1989) speculated that the species may have been more common historically and that it was simply overlooked until the migration timing was better understood. Interestingly, however, McIlwraith (1894, cited in Curry 2006) reported it as common in spring passage and Bull (1985) described it as a common to locally abundant migrant on Lake Ontario, but highly variable in numbers in any given year. D'Anna (1995) reported that aggregations and movements may be quite localized, which may partially explain why some observers see large concentrations in some places, while others see them much less commonly, and may also, in part, explain the differential reporting of the regional status of the Redthroated Loon.

The Red-throated Loon is now considered a regular spring and autumn migrant on the lower Great Lakes and on Lake Ontario, in particular. Numerous reports (eBird and OntBirds) have shown large concentrations in the autumn near Hamilton, Oshawa, Kempenfelt Bay (Barrie), Presqu'ile Provincial Park and Darlington Provincial Park in Ontario. They are also reported commonly in April and May from Monroe, Niagara and Orleans counties in New York (eBird and OntBirds). On 1 April 2016, D'Anna reported 345 birds at Niagara (eBird); he also reported that Kemnitzer recorded 500 near Webster Park (Monroe County) on 14 April 1952 (D'Anna 1995). At Hamlin Beach State Park, near Rochester, New York, several large counts have been reported: Griffith reported 1,008 on 28 November 1986, Listman reported over 2,000 on 31 October 1989, Ewald reported 1,200 on one autumn day in 1993 and other observers recorded 1,390 birds there on a single day in November 1993 (D'Anna 1995). W. D'Anna (pers. comm.) explained that these Hamlin Beach State Park counts are conducted by a stationary person or persons for variable periods of time but high counts like these are typically tallied over a period of a few hours from just after sunrise to noon.

The loons come by at variable rates, usually flying east to west. They don't come through in tight flocks, like ducks, but typically in loose lines. The migration usually slows down after mid-morning but on really good days may continue at a moderate pace into the afternoon. Distance from shore is often fairly consistent on a given morning. Unlike Common Loons (Gavia immer), Red-throated Loons rarely fly high but stay low over the water. D. Sherony (pers. comm.) reported that the annual count at Hamlin Beach State Park averaged 9,800 per year (1993-1999) with a high year count of 19,800 in 1997. Harrison (1983) indicated that the peak autumn numbers on the Great Lakes reached 1,200 birds. Barr et al. (2000) and Dunne (2006) reported that the spring migration along Lake Ontario peaks in the latter part of April. However, based on my observations (below) and eBird records, migration appears to extend well into the 3rd or 4th week of May and may involve two peaks, one in early to mid-April and another in late May.

## **Behaviour of Migrants**

W. D'Anna (1995; pers. comm.) noted that the birds moving along the south shore of Lake Ontario in the spring usually travel westward in lines of widely spaced single birds, with very little overland movement reported, while on the north shore, spring movement is both east to west and south to north (pers. obs.). It is always difficult to determine if directions of flight or movements of birds are linked to migration, but in the case of the Red-throated Loon, the window for migration is relatively short; they do not linger for long periods of time so movements involving large numbers of birds are often linked to migration as opposed to simply movements between feeding areas. In Ontario, notable movements of Red-throated Loon are often coincident with those of other species of similar waterbird migrants, such as Common Loon, Red-necked Grebe (Podiceps grisegena) and various waterfowl (T. Hoar, pers. comm.) leading credence to the suggestion that the loons are undertaking a movement related to migration, rather than feeding, since these species have different feeding preferences.

Red-throated Loons are known to leave singly from staging areas in the autumn but frequently gather on the water into small flocks, called clusters by Sherony et al. (2000). Bent (1963) referred to these clusters as "loon caucuses", so named by gunners who followed their movements to try to shoot them. While many observations of them migrating in the spring have been reported in eBird over the years, generally the observers have not commented on direction of flight, flock size or overland migration. B. Curry (pers. comm.) reported that he observed Red-throated Loons migrating westward at great altitude at Dundas Valley in Hamilton, Ontario, with 52 noted on 21 April 1996 and 48 on 5 April 1997. During the peak of migration, they sometimes form tighter assemblages of a few to 20 or more birds. He also indicated that he never has observed them flying overland nor has he seen them fly northward. So where were these birds and those from the south shore of Lake Ontario going? T. Hoar (pers. comm.) speculates that they may be following the Niagara Escarpment.



Red-throated Loons. Christine Kerrigan

Date	No. of Birds	Details	Location	Observers
24 May 2015	28	Single flock of basic plumaged birds flew in from west, circled overhead then over the lake and then headed north in a fairly tight flock. Time was ~6:15 a.m.	Darlington Provincial Park	G. Carpentier, Peter Hogenbirk and Tony Bigg
24 May 2016	20	18 birds in a single flock and 2 singles on the water. Flock lifted off the water well offshore and then headed north overland and out of sight remaining in the flock. Time was $\sim$ 6:30 a.m.	Darlington Provincial Park	G. Carpentier and Peter Hogenbirk
24 May 2016	14	Prior reported hearing the distinctive quacking at ~6 a.m. and spotted a loose flock of 14 loons circling overhead but didn't record their direction of travel.	Ajax waterfront	Paul Prior
26 May 2016	44	4 flocks noted flying north: 19 birds at 05:52, 13 at 05:52, 7 at 05:53 and 5 at 06:33 in fairly tight flocks. No single birds observed.	Scugog Twp.	G. Carpentier
09 Nov. 2016	6	5 birds in a single loose flock at 07:37 and a single bird at 07:39	Scugog Twp.	G. Carpentier

Table1: Recent observations of migrating Red-throated Loons from Lake Ontario.

One clue to their destination might lie in the fact that they are regularly counted in good numbers at WPBO on the south shore of Lake Superior, e.g., in spring 2016, 369 were recorded and WPBO counters indicate this is a low number for that site (http://wpbo.org/ spring-2016waterbird-count-summary/).

#### **Recent Observations**

Recent observations of Red-throated Loons during spring and fall migration at Darlington Provincial Park, Scugog Township and Ajax, Ontario (Table 1), support the migration behaviour reported by Sherony *et al.* (2000) and others.

These Ontario observations are notable in that they report two phenomena that are not well-documented in the literature — flock sizes near the high end of reported numbers and flocking behaviour including flock cohesion at departure and loons migrating as a flock away from the lakeshore. The two events at

Darlington Provincial Park document instances where 28 and 20 birds, respectively, were noted to flock and depart the area northbound with the flocks remaining intact at least until they were out of sight. The Ajax event indicates flocking as well but the observer did not comment on whether the flock moved off intact or broke up. The 26 May 2016 Scugog Township event was unique in that the flocks either remained intact about 25 km north of their presumed departure from the Lake Ontario shore or they formed at some point after the birds left Lake Ontario. The November 2016 Scugog sighting is an interesting report of a flock of loons migrating in a loose formation southbound. Stone (1965)and Sibley (1993, cited in Barr et. al. 2000) reported that Red-throated Loons usually fly in flocks of <15 birds during migration events, while Dunne (2006) reported migrating flocks of up to 60 birds, with feeding and resting aggregations numbering in the hundreds. Both Scugog Township observations also align with Dunne's (2006) observations in that the birds flew in loose formation, at varying altitudes and with non-uniform spacing between birds. The years when these larger movements were documented appear not to be unusual in the sense of weather patterns, so this likely is an annual event that requires further study.

D'Anna (1995) speculated as to why the numbers observed in adjacent regions vary so much. He reported that his experience shows that Red-throated Loons generally migrate and feed much further offshore than other loons, so they may be overlooked by many observers; migrating flocks are closer to shore in some areas, particularly those with landforms that jut out into the lake, so the loons are more easily identified. He also noted that observers spend more time watching at selected sites on Lake Ontario than in other less 'birdy' spots.

Based on my observations and those of others, it appears that birders should watch for this flocking phenomenon in April and the 3rd to 4th weeks of May along the Lake Ontario shore and from mid-October to late November or early December. Along the north shore of Lake Ontario, fall observations of Redthroated Loon movements are sparse and poorly documented. Generally, nothing has been reported that substantiates a directional migration (T. Hoar, pers. comm.) However, one interesting observation was made on 19 November 2011 by Mark Peck and Tyler Hoar at Niagara-on-the-Lake where 811 Red-throated Loons were observed flying west past the mouth of the Niagara River (eBird 2011).

Although aggregation of birds on Lake Ontario is an annual spring and autumn event, not enough data have been collected to substantiate if birds staging along the north shore of Lake Ontario are moving off in migrating flocks and if so, whether they remain intact for specified distances north or west (i.e., in spring) or south, east or west (i.e., in autumn) of Lake Ontario. The observations I made may not be unique but rather may be a factor of observer experience and circumstance. I hope that others will note loons' behaviour and direction of movement to help increase our knowledge of their migration.

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