First Nest Records of Canvasback in Ontario

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Introduction

The Canvasback (*Aythya valisineria*) has a long history as a very rare and localized breeding bird in Ontario. McIlwraith (1894) did not consider it an Ontario breeding bird, but it was added to the provincial list of breeding birds by Baillie (1962) based on anecdotal reports of both nests and hatched broods on Lake St. Clair in 1897, 1948, 1953 and 1954. Peck (1976) and Peck and James (1983) relegated it to the status of hypothetical breeder since none of these records was based on any form of material evidence. It was restored to the list of breeding birds (James 1984) when a brood was documented with photographs at Luther Marsh in 1983. Despite the discovery of many hatched broods in Ontario prior to the beginning of the 2000 nesting season, there were no documented nests of Canvasback known for Ontario (Peck 2000).

In June 2000, three nests of Canvasback were discovered at the Leslie St. Spit in Toronto (Worthington 2000). The purpose of this paper is to document these first nest records for Ontario, summarize the previous breeding records in Ontario, and review the status of the Canvasback in adjacent jurisdictions.

Nest Records of Canvasback in 2000

Smith (2000) detailed the recent increase in summering Canvasbacks at the Leslie St. Spit since 1997 which culminated in Toronto's first breeding record in 1999, when at least two (and likely three) broods of young Canvasbacks were found and documented by both photograph and videotape by Roy Smith and Glenn Coady.

Knowing how site tenacious Canvasbacks can be, both Smith and Coady were determined to find a Canvasback nest during the 2000 breeding season, a task which seemed very attainable due to the limited amount of suitable habitat, virtually all of which could be easily surveyed.

In the spring of 2000, several promising reports were made to the Toronto Ornithological Club bird sightings database. On 26 March, Smith saw a pair of Canvasbacks in an area of the Leslie St. Spit known as "Goldfish Pond" and an additional three males in Cell #2 inside the endikement. On 30 April, Smith observed four pairs in the Goldfish Pond, and two pairs there on 7 May. While both Smith and Coady were away between 13 May and 4 June, Theo Hofmann observed a pair of Canvasbacks in an area of the Leslie St. Spit known as Triangle

Pond on 20 May.

On 10 June, Coady went to the Leslie St. Spit both to search for Canvasback nests and to attend the ceremony recognizing the area as an Important Bird Area (IBA). At this ceremony, Coady learned that Toronto and Region Conservation Authority staff had likely found a Canvasback nest (Craig Mather, pers. comm.) in the Triangle Pond. Upon reaching Triangle Pond, Coady soon observed a female Canvasback on a nest in an emergent cattail stand in the northeast corner of Triangle Pond, and then met Gord MacPherson, Coastal Ecology Coordinator of the Toronto and Region Conservation Authority (TRCA), who had this nest site under observation. MacPherson was then made aware of the 1999 breeding records at the Leslie St. Spit and of the significance of this being the first nest record of Canvasback for Ontario. Accordingly, the TRCA was very protective of this nesting and most helpful in facilitating the documentation of this record. A male Canvasback was in the vicinity of this female and swam toward her when the nest was approached.

On 11 June, this nest was visited by Coady, Smith and Mark Peck of the Centre for Biodiversity and Conservation Biology of the Royal Ontario Museum (ROM). The nest contents were observed and photographed (see Figure 1), measurements were taken, and the female Canvasback quickly resumed incubation. The female joined the male still in attendance in the brief time she was off the nest.

The nest was in an emergent stand of cattail about 7 m wide and 2 m deep, about 3 m off the shoreline of the northeast corner of the shallow Triangle Pond. The nest was woven of, supported by, and hidden behind, emergent cattail leaves, about 0.6 m back within the cattail stand. It had a very small amount of supporting mud at the base partially anchoring it, but was floating and attached to live emergent cattail leaves. Several days later, it was determined that the nest had an outer height of 20 cm, an inner height of 14 cm, an outer diameter of 59 cm and an inner diameter of 27 cm. The nest contents included a very small amount of greyish-brown down and a small cellophane wrapper. The nest contained nine dull, pale green sub-elliptical eggs of relatively uniform appearance and size.

On 12 June, Coady, Jim Richards and Bruno Kern visited the nest. Richards obtained photographs of the female incubating the nest (see Figure 2) and Kern and Coady obtained similar videotape documentation. The same male bird was nearby and swam toward the nest during photography, during which the female sat tightly on the nest.

On 14 June, Coady noticed that the female no longer appeared to

Figure 1: Nest and 9 eggs of the first documented Canvasback nest in Ontario, 11 June 2000. Photo by *Mark K. Peck*.

Figure 2: Incubating female on the first documented Canvasback nest in Ontario, 12 June 2000. Photo by *James M. Richards*.

be incubating the nest. She was present and resting on a nearby island for about an hour with the same male Canvasback. It was readily apparent that the record amount of rainfall in late May and early June had increased this shallow pond's depth very appreciably. An examination of the nest showed that water was beginning to flood the bottom of the nest around the bottom egg. The top eggs were still warm, indicating the female had only recently deserted the nest. On 15 June, the nest was much more seriously inundated with water, the pond's depth having risen about 20 cm between 10 and 15 June. All the eggs were within water and were cold. The female was absent from the pond, and returned much later, but did not visit the nest again. Given that the nest had failed due to flooding, Mark Peck was informed and arranged with the TRCA to collect the eggs on 16 June. The dimensions of the collected eggs (in millimetres) were: 64.21 x 45.10; 60.07 x 44.12; 61.10 x 44.37; 63.04 x 44.11; 62.25 x 44.58; 61.26 x 43.20; 63.50 x 44.94; 62.18 x 44.36; 61.44 x 43.86. These are now in the Royal Ontario Museum egg collection (ROM# 500550).

Also on 16 June, Mark Peck and TRCA staff observed a second female Canvasback incubating a second nest with unknown contents. In addition, they found a third female Canvasback beginning to build yet another nest. Both of these nests were in the southeast end of Triangle Pond. The following day, 17 June, TRCA staff member Tom O'Hallaran noted a female and four very recently hatched young at the nest which was discovered second (based on the hatch date, it was certainly the first nest chronologically even though it was not first in order of discovery). On 18 and 19 June, this female and her brood of four young were observed by Smith and Coady, respectively. On 19 June, Coady noted there were no additional eggs remaining in the second nest. By 24 June, Smith noticed this brood was reduced to three downy young, and by 3 July, to two young. Two young from this brood were still present on a visit by Coady on 22 July, when the female was no longer with them. At least one young survived into August, by which time it was three-quarters grown. The nest from which this brood hatched was similarly in a small stand of emergent cattail leaves, was made of loosely woven cattail leaves, and was lined with smaller bits of cattail leaves and some greyish-brown down. This second nest's measurements were: outer height 24 cm; inner height 12 cm; outer diameter 55 cm; inner diameter 24 cm.

Meanwhile, at the third nest seen being constructed on 16 June, Smith observed on 24 June that construction was still underway, and that as of 3 July, a female had begun incubation. By 22 July, this female

was seen by Coady still incubating this nest with unknown contents. On 27 and 31 July, Coady observed that this female was incubating nine pale green eggs, none of which were pipped as of 31 July. On 3 August, Coady found this female incubating three intact eggs, six eggs having mysteriously disappeared. On 6 August, both Coady and Smith found this nest empty (apart from a few eggshells). No young were ever seen from this nest and it was assumed to have been depredated. This third nest was also in a small stand of emergent cattail only two metres off the shore of the south-east corner of Triangle Pond. The dimensions of this nest were: outer height 24 cm; inner height 13 cm; outer diameter 56 cm; inner diameter 25 cm. Aided by the videotape taken of the first nest, it was possible to exclude with confidence the possibility that this third nest represented a second nest attempt by the female from the first failed nest.

Cards for all three of these nests in 2000, with all pertinent details, have been placed on file with the Ontario Nest Records Scheme by Coady. All three nest records were also documented by photographs or video or both.

Also of interest is the fact that an apparent adult male Canvasback x Redhead (*Aythya americana*) hybrid was occasionally present in the Triangle Pond area. It was first noted in a pond south of the Goldfish Pond by Peck and Coady on 11 June, and was seen at Triangle Pond on 15 and 16 June by Coady, and on 18 June by Smith, and re-appeared there briefly on 31 July, when it was seen by Coady and Leslie Johnston.

This presumed hybrid showed the light grey body (wing coverts, scapulars, flanks, back) colour of a typical male Redhead, lacking the bright whitish coloration of an adult male Canvasback. The head and bill profile of the bird was intermediate between that of a Redhead and a Canvasback, but the bill was all black in colour like a typical male Canvasback. The head colour was intermediate between that of a male Redhead and a male Canvasback (tending more toward that of a Canvasback). The nostril was positioned more to the rear on the bill, closer to that of a typical Redhead than that of a Canvasback. This presumed hybrid tended to be shunned by the female Canvasbacks in favour of the typical male Canvasbacks present.

As Smith (2000) noted, all the newly hatched golden downy young seen with female Canvasbacks in 1999 showed dark feathering extending sagittally over the crown, across the forehead and meeting the top of the bill in a continuous band. This was also true of all four young seen in 2000. This character is diagnostic of young Canvasbacks at this age (Palmer 1976). Taken together with the fact that those birds which reached full size (or

close to it) turned out to be typically-appearing Canvasbacks with no intermediate characters, and that there appeared to be evidence of selection pressure against the presumed hybrid bird, it is probably safely assumed that these nests did not themselves involve hybrid pairings or egg dumping by Redheads.

Summary of Previous Breeding Records in Ontario

The following is a summary of the known breeding records of Canvasback for Ontario sorted chronologically for each County/Regional Municipality:

Lambton

1897 John Maughan Jr., in a letter to Charles William Nash dated 7 August 1900 (ROM Canvasback file), reported that Canvasbacks had nested at St. Anne's Island, St. Clair Flats, Lambton (Baillie 1962). This record involved no descriptions or material evidence.

1948 In a letter to James L. Baillie Jr. dated 5 October 1948 (ROM Canvasback file), Albert Andrew Wood related that Bernard Smith claimed to have seen downy young on Walpole Island, a claim Conservation Officer E. Arthur Roberts believed was credible from that observer. The record involves no descriptions or material evidence (Baillie 1962).

1953 Waterfowl expert Dr. Miles Pirnie of the Department of Fisheries and Wildlife of Michigan State University saw an adult Canvasback with an indeterminate number of young at the Bunches, at the outlet of the Johnston Channel on Walpole Island on 31 July. Baillie (1962) mistakenly reported this record as 1952 and this was corrected by Dr. Pirnie in a letter to Lester Lynne Snyder of the ROM dated 20 March 1962 (ROM Canvasback file). It is likely this same brood was also seen in the same place by Conservation Officer E. Arthur Roberts as reported by Baillie (1962) when he was under the mistaken impression the two sightings occurred a year apart. This record involves no descriptions or material evidence.

Carl Rankin reported a female with six young from Walpole Island on the "Kent County side" on 24 August (Baillie 1962; ROM Canvasback file). No descriptions or material evidence were provided.

1983 A pair of Canvasbacks was observed in suitable habitat on Walpole Island by P. Allen Woodliffe on 11 June on the edge of a cattaill marsh along the south end of Bassett Channel between Bassett Island and Squirrel Island (Cadman et. al. 1987; Ontario Breeding Bird Atlas database; P. Allen Woodliffe, pers. comm.).

Another pair of Canvasbacks was observed in suitable habitat on 11 June on the southwestern portion of Walpole Island by P. Allen Woodliffe (Cadman et. al. 1987; Ontario Breeding Bird Atlas database; P. Allen Woodliffe, pers. comm.).

An adult female Canvasback with 5 to 6 fledged young was observed by P. Allen Woodliffe at the north end of Walpole Island on 12 June (Cadman et. al. 1987; Ontario Breeding Bird Atlas database; P. Allen Woodliffe, pers. comm.). No material evidence was obtained.

Kent

1954 E. Arthur Roberts reported two nests with eggs at Mitchell's Bay on 24 May (Baillie 1962; ROM Canvasback file). No descriptions or material evidence were provided.

1982 P. Allen Woodliffe observed a pair in suitable habitat at Rondeau Provincial Park throughout June (Ontario Breeding Bird Atlas database).

1983 Duncan Gow reported fledged young at the St.Clair National Wildlife Area (Cadman et. al. 1987; Ontario Breeding Bird Atlas database). No descriptions or material evidence were provided.

1984 P. Allen Woodliffe observed a pair in suitable habitat at Rondeau Provincial Park (Cadman et. al. 1987; Ontario Breeding Bird Atlas database).

Elgin

1989 H. and J. Patterson recorded a pair present on the Port Stanley sewage lagoons on 9 July (Ontario Birds at Risk program database).

1999 John Lemon of Lively, Ontario reported an adult female and seven half-feathered young Canvasbacks at the Port Stanley sewage lagoons on the morning of 17 July (Ontario Nest Records Scheme). No descriptions or material evidence were provided.

Wellington

1965 R. Badger reported a female with downy young at Luther Marsh (Goodwin 1965). No descriptions or material evidence were provided. It would appear that both Brewer (1977) and Sandilands (1984) have mistakenly attributed this report to western New York observer Richard Brownstein.

1981 R. Bauman saw a brood of fledged young at Luther Marsh (Sandilands 1984). No descriptions or material evidence were provided.

1982 Liz Yerex and Stephanie McQuay observed a female with a brood of eight young (age class 1c based on Gollop and Marshall 1954) from 29 June to 28 July at Luther Marsh. Yerex provided a very detailed Unusual Species Report Form to the Ontario Breeding Bird Atlas (ROM Canvasback file). She had previous experience banding Canvasbacks of a similar age at the Fairlake Game Farm near Ayr. On 12 July, a second brood of five young (age class 1c) and an adult were also found by Yerex and McQuay at Luther Marsh (Cadman et. al. 1987; Ontario Breeding Bird Atlas database; Liz Yerex, pers. comm.). No material evidence was obtained for either brood.

1983 Liz Yerex observed a female and brood of six young (age class 1a as per Gollop and Marshall 1954) at Luther Marsh on 10 July. She obtained photographs of this brood which were forwarded to Ross James and placed on file with the ROM (ROM PR 1473-1479). These constituted the first material evidence of breeding by Canvasback in Ontario (James 1984; Cadman et. al. 1987; Ontario Breeding Bird Atlas database; Liz Yerex, pers. comm.).

1984 Liz Yerex observed a female and brood of five young (age class 1a as per Gollop and Marshall 1954) at Luther Marsh on 2 August (Ontario Breeding Bird Atlas database; Liz Yerex, pers. comm.). No material evidence was obtained for this brood.

1985 No Canvasback broods were observed at Luther Marsh (Liz Yerex, pers. comm.) in 1985.

1986 Liz Yerex observed a female and brood of four young (age class 2a as per Gollop and Marshall 1954) at Luther Marsh on 30 July (Liz Yerex, pers. comm.). No material evidence was obtained for this brood.

1987 Liz Yerex observed three different females with broods at Luther Marsh. On 6 July, a brood of seven young was observed (age class 1a as per Gollop and Marshall 1954); on 17 July, a brood of nine young was observed (age class 1b as per Gollop and Marshall 1954); on 28 July, a brood of eight young was observed (age class 1b as per Gollop and Marshall 1954). No material evidence was obtained for these broods (Liz Yerex, pers. comm.).

1988 No Canvasback broods were observed in the last year of formal waterfowl work at Luther Marsh (Liz Yerex, pers. comm.). Furthermore, no evidence of Canvasbacks was found on a four hour visit to Luther Marsh by Bryan Wyatt on 29 July 1989, a one hour visit by Mike Cadman on 16 June 1990, or a half-hour visit by V. McKay on 16 June 1991 (Ontario Birds at Risk database).

Toronto

1999 Smith (2000) described in detail the first breeding records of Canvasback for Toronto. On 18 July, a female with a brood of three very small downy young was discovered at the Goldfish Pond at the Leslie St. Spit by Roy Smith. These were documented with still photographs by Smith and by over seven minutes of videotape by Glenn Coady on that date. By 23 July, Coady found only one young present with the female, the others presumed to have been depredated by ever-present juvenile Black-crowned Night-Herons (*Nycticorax nycticorax*) from the adjacent colony. This duckling was last seen on 19 September, when it was about adult-size with primaries and secondaries well developed. A second brood (a female and seven downy young) was discovered by Verna Higgins and Harriet Davidson in embayment A on 2 August. On 8 August, only one of these young could be found by Coady and even it was missing later that day. The relatively open waters of this bay left the young Canvasbacks highly exposed to gull predation from the very large adjacent Ring-billed Gull (*Larus delawarensis*) colony. Also on 2 August, a lone additional young Canvasback was found in the Goldfish Pond, representing either a straggler from the Bay A brood or a lone survivor from a third brood. It was last noted in the Goldfish Pond on 16 October by Coady, at which time it was fully grown with well formed primaries and secondaries. It was not present on 24 October. All broods were documented with photographs or videotape or both.

2000 Three nests of Canvasback were discovered in the Triangle Pond at the Leslie St. Spit in June, as described above. Out of a total of at least 22 eggs laid in these three nests, only four hatched and only one duckling is likely to have survived to full grown stage. This very poor productivity was due to a combination of depredation and pronounced flooding of the nesting pond. These three nests represent the first documented nest records for Ontario, with one full clutch of nine eggs having been preserved in the ROM egg collection.

Kenora

1984 Dennis Barry and Margaret Carney reported an adult female and a 2/3 grown young Canvasback near a small island in Berens Lake (90 km. north of Red Lake) on 10 July (Cadman et. al. 1987; Ontario Breeding Bird Atlas database). Dennis Barry completed a convincing Unusual Species Report Form during the Ontario Breeding Bird Atlas to document this sight record (ROM Canvasback file).

Breeding Status in Adjacent Provinces and States

Godfrey (1986) listed the Canvasback as a common breeder in middle and southern Manitoba (encompassing The Pas, Lake St. Martin, Riding Mountain and southern Lake Winnipeg). Janssen (1987) and Green and Janssen (1975) stated that the Canvasback is a regular breeder only in northwestern Minnesota, with sporadic breeding records from southwestern and south-central Minnesota. It would seem logical that any Canvasbacks found breeding in Kenora District likely originate from these populations.

Robbins (1991) stated that Canvasbacks seldom breed in Wisconsin, with about a dozen breeding records in total for the state (four in the 19th century) and none between 1977 and 1990. Reeves (1991) stated that the only confirmed nesting of the Canvasback up until the end of the Michigan Breeding Bird Atlas occurred during the atlas at the Pte. Mouillee State Game Area in northern Monroe Co. near Lake Erie. Baillie (1962), however, cited several nests reported by a W.H. Collins on the Michigan side of the St. Clair Flats in 1880. There have been no confirmed nest records or breeding records for Canvasback in Ohio (Victor Fazio, pers. comm.). Brauning (1992) and McWilliams and Brauning (2000) confirmed that there are no recent or historical breeding records for Canvasback in Pennsylvania. In New York state, there have been breeding records involving broods of Canvasbacks in the Montezuma Marshes in 1962, 1965, 1980, 1981 (Bonnie and Burrill 1988), 1992 and 1993 (Brock 1998). A release program for Canvasback was carried out at Montezuma NWR from 1993–1995, and Brock (1998) suggested any birds hatched after 1993 should be considered to be from introduced stock. Surprisingly, the Quebec Breeding Bird Atlas mentioned two possible breeding records for Quebec involving females with broods, one from Lake Chicobi, Abitibi in August 1973, and the other from Lac du Milieu in Ashuapmushuan Wildlife Reserve in late summer 1980 (Tardif and Gagnon 1996). Since neither of these records is supported by material evidence, breeding is therefore not considered officially confirmed in Quebec. Erskine (1992) cited no current or historical breeding records for Canvasback in the Maritime Provinces. Laughlin and Kibbe (1985) cited no current or historical breeding records for Canvasback in Vermont.

Smith (2000) suggested that the small population of nesting Canvasbacks in Toronto might well have originated from the introduced stock in central New York state. Given its long history as both a very rare and ephemeral breeder in southern Ontario, combined with

an east-west migratory path directly over our jurisdiction, it would seem equally possible (if not more likely) that the infrequent breeding records in our area represent a naturally occurring phenomenon.

Summary

The Canvasback remained for nearly a century a controversial and poorly documented breeding species in Ontario. It has been a very rare and localized breeding bird in Ontario, supported by a paucity of material evidence of breeding. In June 2000, the first three well documented nests of this species were found at the Leslie St. Spit in Toronto and are supported by still photographs, videotape, and a complete clutch of eggs, in addition to detailed notes from prolonged observation.

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The Toronto and Region Conservation Authority deserves recognition for their exceptional habitat creation efforts at the Triangle Pond location on the Leslie St. Spit, which are clearly producing desirable results.

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