

Next Meeting: Tuesday, 16 April, 1991, Faunal Lab, South Borden Bldg. Speaker: Dr. H. Churcher - Natural History in an Oasis : Dakhleh Oasis, Egypt.

Minutes of the 866th Meeting of the Brodie Club, March 19, 1991, Faunal Lab., Univ. of Toronto

Speakman chaired the meeting attended by sixteen members and six guests who were ^{Dawn} Don Bazely and Poton Butar, guests of McNicholl; Don Huff, guest of Martin; Ross Goudy, guest of Auger; Margaret Bodsworth, guest of Bodsworth; Jennifer Young, guest of Young. Regrets were received from Keith Reynolds and Norma Martin. Young served as secretary. McNicholl read the minutes of the 865th meeting which were approved as read.

Announcements ^{NORM} Martin noted that a report on the Ontario timber hearings will be given in May; Zane Gray Smith of the United States will participate in the final panel. Martin also stated that the Annual Meeting of the FCN will be held at the Conference Centre, Orillia, May 17 - 19. He said that Dr. Ron Tasker has been nominated by the Brodie Club for an FCN award which will be presented in April, not at the Annual Meeting of the organization.

Lumsden reported that a quantity of old reports of the Royal Canadian Institute are now available at \$1.00 and \$2.00, 720 Spadina Avenue, Toronto.

Speaker The speaker of the evening was Harry Lumsden and, as a member of the Brodie Club, he was not given a special introduction. His topic was The Restoration of the Trumpeter Swan.

There are three swans in Canada, two of which, the Tundra and the Trumpeter, are native; the Mute Swan is an introduced species. ^{The Tundra} was extirpated as a breeding bird on the Ontario coast of Hudson Bay some time in the 1700's, but it has managed to reestablish itself with the first modern breeding record in 1973. There are now about 50 pairs in our coastal area of Hudson Bay. Total number of North American Tundra Swans now stands at about 150,000.

Tundra and Trumpeter Swans were greatly reduced by hunting when Europeans occupied North America, with the Trumpeter suffering more. French visitors in the Detroit region during early settlement time suggest that Trumpeters were very common, and may have bred there. Archaeological evidence indicates abundance in the Midland area. There was probably a broad band in central Ontario without these swans, but they could have survived longer in remote Hudson Bay Lowlands. The last Trumpeters in Ontario were migrants that crossed to the Atlantic coast wintering grounds about 100 years ago.

The Mute Swan was introduced to North America by wealthy individuals, and public parks obtained pairs. From these captive pairs cygnets were allowed to fly free and they eventually established wild breeding stocks. There were no wild Mute Swans in the USA before 1910, and the first wild breeding in Ontario was recorded in 1958. This European Swan is now established in 11 Atlantic flyway states where there were 6741 in January, 1990. In Michigan there were about 2200 and 114 counted in Ontario, but there were probably 200.

Progress with the Restoration Program From 1982 to 1984 we received 20 Trumpeter eggs from Grande Prairie, Alberta which were fostered under nesting Mute Swans at Cranberry Marsh, and 17 (85%) hatched. From these, 6 cygnets were raised by wild Mute Swans to flight stage; 29% of those hatched. Losses were primarily from Snapping Turtles.

In addition to the fostered eggs, we had 14 with detached air cells which could not be incubated. These were propped up in an incubator at 45° and 10 hatched. One was placed with a Mute Swan and fledged; 8 survived in captivity as breeding stock. In 1985 no more eggs were available from Grande Prairie, and we became entirely dependent on eggs laid by captive pairs.

We have been experimenting with the captive Trumpeter breeding pairs, and have been able to induce them to lay more eggs than they would have, left to their own devices. (10 rather than 6 eggs). The extended breeding cycle of Trumpeters, 154 days, leaves them with no time to re-nest if the first clutch is lost. They have adapted to this by enlarging many more yolks in the ovary than are needed for a single clutch. Trumpeters that lose their first nest, build another and continue to lay. By removing eggs as they are laid, we can induce them sometimes to produce a clutch double the normal size. Well-nourished captive pairs will even lay a second clutch.

We have induced one pair to lay 19 eggs in one year. From 1985 - 1990 (6 years) we have used 109 eggs for fostering under Mute Swans, an average of 18 eggs per year; 94 of these reached full term (average 16 per year) and 38 (37%) hatched. Our hatch rate of 37% from captive eggs is generally below that achieved by wild Trumpeters, but this can probably be increased by improved storage and transport of eggs.

A comparison with the Grande Prairie Trumpeters shows that the Ontario swans survive better than the Alberta ones in their first year. There is no significant difference between the two stocks, and a successful breeding population in Ontario seems likely after enough birds have been placed in habitat.

Between 1982 and 1989 we have had 129 eggs for use in the program, or an average of 14 per year. The original plan called for 50 eggs per year, but the number of cooperators with good habitat and breeding pairs limited the number of eggs. Things improved in 1990 with three new cooperators in the program and 70 eggs were available for use. If we are able to continue operating on Lake Ontario with the same rate of egg production and survival, we should have four breeding pairs by 1995. Our target of 15 breeding pairs producing 50 eggs per year should be obtainable by the year 2000.

Canadian Trumpeter Swan Status In the last 20 years we have seen concern about threatened and endangered species. Action has been taken by authorities in passing legislation to protect endangered species. Action taken in Ontario includes the following: Peregrine Falcon restoration; Bald Eagle introduction in the lower Great Lakes; Canada Goose restoration program started in 1968 is complete and a success; Wild Turkey restoration is also complete; the FON has established a recovery team to look after the Loggerhead Shrike.

In 1978 the Committee on the Status of Endangered Wildlife in Canada put the Trumpeter on the rare list, now changed to vulnerable. Under the endangered species legislation in the USA, the Trumpeter Swan is classed as rare. Removing the Trumpeter from these lists will require increasing their numbers substantially. The Trumpeter Swan is still extinct as a wild bird in four provinces and 33 states where it was once found. The 1990 inventory of Trumpeters in Canada was 1236 birds, perhaps 125 breeding pairs.

Restoration Projects Nine years ago the Ontario Ministry of Northern Resources decided to try to reintroduce the Trumpeter Swan to Ontario. In addition to restoring a missing element in our wetland communities, it was planned to help the recovery of the Trumpeters in Canada and to provide viewing opportunities for the people of Ontario.

Restoration Projects (cont'd) A secondary objective was to use the wild Mute Swans in Lake Ontario as foster parents for Trumpeters and eventually replace them with Trumpeters. Upon presentation of these proposals to the FON in March, 1983, the minutes of the board reported: "the FON enthusiastically supported the suggestion that this be tried on an experimental basis in 1983". However, on 21 Jan., 1984, an approved motion of the same board stated: "We are not in a position at this time, due to insufficient information, to support the Trumpeter Swan Introduction program of the Ontario Ministry of Natural Resources." Nevertheless, on 24 March, 1984, the following motion was passed: "Due to the benefits of removing Mute Swans, the FON supports the Trumpeter Swan program with the knowledge that there is no proof that Trumpeter Swans did breed in this part of the Province."

The reintroduction proceeded as an OMNR project with support in the form of permits from the Canada Wildlife Service. The FON acted as sponsor for the project until December, 1988, when the President withdrew the sponsorship. Fortunately, it was at that time that much help was received from the Ontario Federation of Anglers and Hunters.

Interfering with Nature One objection to the Trumpeter Swan restoration has been that we are "interfering with nature". We interfere with nature on a massive scale in southern Ontario each year. Consider that the top nine inches of its productive soil is turned over every year and we liberally dose it with chemicals and fertilizer, some of which runs into our ground water. We have also logged and grazed our woodlots for 150 years and radically altered their species composition. Our developments sometimes cause flooding and erosion, but these changes have to be studied objectively. Few people would discourage the erection of nesting boxes which have increased the number of bluebirds, and thus "interfered with nature." Backyard feeders have altered the winter distribution of many birds, particularly Goldfinches and Mourning Doves, but few would condemn that.

Trumpeter Swans Need Your Help The directors of the CWS and OMNR have instructed that restoration of the Trumpeter Swan project be moved to the Hudson Bay Lowlands. Such action would eventually cause termination of the program since it would cost \$50,000 to \$70,000 per year, and there is no prospect that so much money could be raised.

Trumpeter Swans Need Your Help Since most of the pens and facilities needed for production of Trumpeters are now in place in southern Ontario, costs can be expected to drop; costs will rise steeply in any move to the Hudson Bay Lowlands.

Now is the time for people who want to see Trumpeter Swans breeding in southern Ontario to act. They should write to the Ministers of the Ontario Ministry of Northern Resources and of Environment Canada.

The speaker's presentation was followed by a motion that the Brodie Club support the breeding of the Trumpeter Swan in southern Ontario and that this motion be sent in writing to the concerned Ministers. The motion was unanimously passed. Individual Club members were encouraged to add their support by means of similar letters to the same effect.

Members' Observations

Savage: spoke about the continuing need of the Faunal Lab for bone study material.

Bodsworth: stated that quite a number of people saw an Eurasian Brambling at Port Hope during the previous week-end.

Tasker: has been trying to discourage the use of BT in the control of Coddling Moth in the King area.

Hussell: saw a large swan at Long Point with a wing tag and wondered about the possibility that it was a Trumpeter Swan. There seemed to be no strong confirming information.

Bendell: reported foxes in the yard of his house.

Churcher: spotted a large and unusually-marked rabbit on his property. An escape?

Carrick: noted that 12 Tundra Swans flew south near his property today.

Speakman: states that a male and female Pileated Woodpecker frequently observed on his summer property, seem determined not to use same nest despite being otherwise mated.

Lumsden: reported the discovery of a weevil that is effective in the destruction of Loosestrife roots.

Adjournment: 10.15 pm.