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The Brodie Club

Announcement of next meeting - January 20, 1987.

Speaker: Mark Stabb, Graduate Student, Faculty of Forestry, University of Toronto.

Topic: The ecology and status of flying squirrels in Ontario.

Minutes of the 827th Meeting of the Brodie Club

Held Tuesday, 16 ~~November~~ <sup>December</sup>, 1986, at the Faunal Lab, University of Toronto. Riley was Chairman, Aird acted as Secretary.

The Meeting was called to order at 8:10 p.m. Present were 13 members and nine guests: T. Young, guest of Carrick; Ann Falls, guest of Falls; Margaret Bodsworth, Ivy and Evan Dickson, guests of Bodsworth; Yvonne Bendell, guest of Bendell; Norma Martin, guest of Martin; Vicki Esses, guest of Sherry; Diane Winter, guest of Peck. Minutes of the 826th meeting of the Brodie Club were read and, after minor amendments, were declared approved by the Chairman.

Announcements

Falls reported that last Saturday the Management Committee of Backus Woods (including two Brodie Club members) voted unanimously to manage the woods as a nature reserve. The Ontario Heritage Foundation will help.

Martin asked about the "Catastrophe Excess Third Party Liability Policy" distributed by the Federation of Ontario Naturalists. It was agreed that we don't need such insurance, since our organization exists in name only, without any President, Vice President or other officers.

Carrick reported that the curriculum vitae of Mrs. Martin was circulated and, hearing no objections, she was admitted by acclamation. Mrs. Martin replied she was both surprised and honoured to become a full member.

Speaker of the Evening

Harry Lumsden was introduced by the Chairman to speak on the reintroduction of trumpeter swans into Ontario.

Trumpeter swans disappeared very early in Ontario. Their original breeding distribution was probably in post-glacial lake beds or areas previously submerged by marine intrusions.

The reintroduction is taking place in Cranberry Marsh, which has no outlet and no carp. The tundra and trumpeter swans differ both in eye markings and in size. Also, the mute swan raises its wings to show aggression, while the trumpeter does not.

The 1987 inventory of North America showed about 655 trumpeter swans in Canada. However, there were 9,459 in Alaska and 669 in the lower States. Hence the species is rare, but not threatened or endangered. There could have been as many as 2,000 trumpeter swans in North America. It is one of the rarest swans in the world at this point in time, along with the blacknecked swan in South America.

A number of restoration projects are taking place, notably in Alberta, Michigan, Wisconsin, Minnesota, and Missouri. The various techniques used for restoration include:

1. Raising birds in captivity and then letting them go. This has not been very successful for normal imprinting.
2. Releasing pinioned breeding stock and letting their young fly free. If done in a wild environment, this works well, but the stock is not readily available.
3. Catch adult breeding stock in the west and release them in the east or other areas. The young return to where they were brought up and not where the parents came from. For example, eggs collected from the west coast and fostered on Elk Island in Alberta flew south and not to the west coast. The conventional wisdom that they will fly "home" does not work.

The research in Ontario began in 1982. The only way at that time was to have mute swans raise trumpeter swans. The mutes are not native and there is some thought of getting rid of them. They will nest in colonies in very high numbers averaging about 1.1 acres per nest whereas the trumpeter swans requires 50 to 160 acres per nest. This makes a vast difference on the impact of the species on submerged vegetation. There were nine pairs of mute swans in Cranberry Marsh, where managers removed mute swan eggs and replaced them with trumpeter eggs. It is important to do this properly. You cannot put pipped eggs in, because the cygnets are not properly imprinted. It is very important that the eggs live for a period beneath the adopted parents. In this way the embryo learns who to follow before it hatches.

They found that some male mute swans would often peck at the cygnets, and if the researchers hadn't intervened, perhaps the cygnets would have been killed. It was found that mute swans pecked only at the white phase. So they dyed the trumpeter cygnets, which are only white, to simulate the colour of the mute swan cygnets. A previously aggressive male did not peck the dyed cygnets.

Rarely did they see a trumpeter cygnet on a mute swan's back, though the reverse would be true. Mute swans put a tarsal out to give "a leg up" but the trumpeter cygnets don't want to get up.

Snapping turtles were a serious problem. In 1984 the researchers started to control them and removed 27, amounting to a total of 83 over two years. Top size was 33 pounds, with an average of 15.

Alberta may do more introductions next year, so the acute shortage of eggs is a serious problem at this time. Perhaps Ontario could get some pairs on a "breeder loan basis." Ontario wants 8 or 10 pairs.

The nest size of swans varies greatly. The mute swan range is 4.9 in Denmark, and 6.3 in Ontario. The trumpeter swan is least productive in the Idaho, Montana region - 4.8 eggs per clutch, with 5.2 in Alaska and 6.4 in our Prairies. Also, there is variation in egg size. The first and last eggs are the smallest. In contrast, the last egg laid by grackles is the latest. In Canada Geese, the last egg is often the smallest and therefore the hatchling fares poorly. Swans lay very small eggs in proportion to their size, they represent only about 3 percent of the females pre-laying weight, whereas goldeneye eggs are about 8 percent.

Trumpeter swans have potential to lay many more eggs. One swan that had laid two eggs had fourteen follicles, so it has a potential for sixteen, though it usually laid seven. Another that had laid 7 eggs had a potential for 11. We do not see these potentials in other waterfowl.

Why do swans have this potential? Perhaps it is because they have a long nesting cycle. The trumpeter swans cycle is 144 to 159 days, which is twice the length of geese. There is no time for a second clutch.

During the question period, it was noted that two cygnets left Ontario in November and stayed all winter on Chesapeake Bay. They were noted as being absent on 5 April the following spring, and on the 7th they were in Frenchman's Bay, 640 kilometres north. One of these died later of lead poisoning from ingesting lead shot, to which all swans are very sensitive. It is not know if the trumpeter swans will sexually imprint on mute swans though the speaker did not think so. They have not been seen courting, though in captivity, they have hybridized.

In the west, swans can become a nuisance causing much crop damage on dairy farms. Swans and geese often feed on grain in the winter, switching to greens for egg production in the springtime.

Questions and Comments

The knob on the head of the mute swan appears to be a facial feature, for recognition purposes.

Mute swans hate all white bird species. They are also very intolerant of Canada Geese on their territory and will actively destroy their nests.

On the Toronto waterfront, about 115 mute swans are present, and their numbers have been fairly constant in recent years. On the east coast they are increasing at a rate of about 15% per year.

Swans can not be hunted anywhere in Canada, but some species can in several areas in the U.S.

The first mute swan was introduced into North America about 1910. After 1918, many hundreds were introduced into parks and zoos throughout North America. In 1958, the first nest was found in Ontario at Shore Point Marsh.

The United States will have prohibited, continent wide, lead shot for hunting by 1990. In Canada, little is changing. The steel in guns can withstand the steel shot, and furthermore, much of the steel shot is wrapped in plastic sleeves.

The incidence of lead poisoning depends on the species. It is common for canvasbacks, redheads, ringnecks, and black ducks. It is rare for teal, shovelers, baldpate.

The speaker was thanked by Boissoneau, noting that the slides and presentation were excellent. Hearty applause followed.

#### Members' Notes and Observations

Falls reported good gull watching on the Niagara River. He saw nine species, which is not a record. The blackhooded gull was the rarest. Kittiwake and lesser blackbacked gulls were also present and great numbers of Bonapartes.

Boissoneau reported the hairy woodpecker on birdfeeders eating feed, and other members had noted this rare occurrence as well.

Lumsden reported that snowy owls were present on November 27 and December 11. Eight were recently reported at the airport.

Reading reported almost no snow in Keewatin. It has been very mild there, suggesting that some of the snowy owls could have remained further north.

Riley showed some slides of the Wainfleet Bog, where European white birch and Scots pine are moving in. Their leaf litter chokes out the sphagnum.

Savage showed the humerus of a trumpeter swan from the Armstrong site, Pepin County in Wisconsin, dating about 1100-1190 AD.

The meeting adjourned at 10:10 p.m.