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THE BRODIE CLUB
Minutes of the 869th meeting

Date: Sept 17, 1991
Place: Faunal Lab, South Borden Building
Chairman: Paul Aird
Recording Secretary: Ann Falls

The meeting was attended by /6 members and five guests: Margaret Bodsworth guest of Bodsworth, Jewel Macdonald guest of Bertin, Kelly Whitlock and Frank de Matteis guests of Carrick, and Marjorie Ritchie guest of Ritchie.

Minutes of the 868th meeting were read by Norma Martin.

Election of Officers:

The following slate was elected for 1990-1991.

Treasurer: Speakman
Corresponding Secretary: Savage
FON Representative: Norm Martin
Membership committee: Carrick, A. Falls, Riley, Young
Programme Committee: Aird, Bendell, Bertin, Bodsworth, B. Falls, McNicholl, Savage, Tasker.

Announcements:

Carrick reported that the Metro Zoo would be delighted to have the Terry Shortt library which Mrs Shortt had offered to the club. He had collected the books. Savage suggested that there was room for some of the books in the faunal lab. Since Mrs Shortt had requested that the books be kept together it was decided to give the books to the zoo provided access for Brodie Club members could be arranged.

Carrick also noted that the city of Toronto wanted to build a nature park with plants and trees from the Carolinian zone. The site on the south side of Cumberland, east of Avenue Road is presently a parking lot. They had asked for tenders, received 167, selected a short list of five. Carrick has been consulted by a person on the short list.

McNicholl reported that Bruce Falls is now president of the Society of Canadian Ornithologists.

Norm Martin had several announcements:

The Ontario Heritage Foundation had sent information on how to have heritage areas set aside. Project Feederwatch news release from Erica Dunn contained a report on window kills. Henri Duellat sent a questionnaire re a directory of Canadian ornithologists. The Conservation Council of Ontario asked for nominees for the Lt. Governor's Conservation Award.

Kuff had a copy of a Policy Statement on Wetlands. Comments were asked for by Nov 8 under section 3 of the Planning Act.

Aird announced that the public was invited to the annual meeting of the Canadian Inst. of Forestry with the theme

"Capturing Canada's Forest Ethic".

Speaker:

Bruce Duncan was introduced by McNicholl. He has long involvement with environmental education and is presently with the Hamilton Conservation Authority. He has a special interest in raptors, has published on hawk migration at Hawk Cliff, and has been involved in a bald eagle release project near Cayuga.

His topic was the Virginia Opossum (Didelphis virginiana). He has first hand experience with these animals as he has raised orphans and released them in the wild. The talk was illustrated with many excellent slides. By questioning club members he made the point that few had been seen in Ontario before the 1980's. (Don Young's observation of one in Chatham in 1946 was the exception). There are very few records before 1970. This species is the only marsupial in North America, and one of only three species of Didelphis in the New World. The name is from Algonkian, said to mean "white animal". It originated in South America 75,000 years ago, and during the Pleistocene when many placental mammals moved south it was the only marsupial to move north. Five hundred years ago its range was from Kentucky south, but it expanded northward reaching southern New York in the 1920's. From there it managed to cross the Niagara River into Ontario. Numbers built up very slowly in the 50's and 60's, and by the 1970's they were present in the Hamilton Wentworth area. Now they have been found as far north as Orillia and Parry Sound.

They are reputed to be stupid, sluggish and lazy, but if so how can they be such successful colonizers? Several factors contribute. They are very prolific and have two litters a year, one in March and another in June or July. They can raise 13 young at a time although usually only 6 to 9 survive. Young are very tiny when born after about 12 days of gestation and must make their way to the pouch by climbing through the fur without help from the mother. Deciduous nails on the front legs aid this journey - the rear limbs are just undeveloped buds at birth. They attach themselves to nipples in the pouch which then closes. They remain in the pouch for about 75 days but after 60 days can come out in shifts. Their eyes are then fully open, their tail is prehensile, and their fur is darker than an adults. Young have a sneeze-like call to attract their mothers attention. Most young are very wary and show no sign of affection toward a human keeper whom they tend to ignore.

Their brains are small for their body size in comparison to other mammals, but their senses of smell and hearing are good. They have 50 teeth, more than any other North American mammal. Males have larger canines than females. Their front feet in which they hold food have five toes which are all similar, but the rear feet have an opposable toe with no claw. This may point to the rear when walking, making their tracks very distinctive. Their prehensile tails are not quite naked but have some short stiff hairs. When fattened

up for winter they are too heavy to hang by their tails but young can do it easily. Males are larger than females. Almost all Ontario opossums have the tip of the tail frozen off and their ears damaged by frost by the end of winter.

When attacked they may run, give a threat display, or 'play possum' - i.e. flop on side with eyes and mouth open while producing a bad smell from their perianal glands. This may last 20 minutes.

They do well in man-made habitats (suburbs and farms, but not cities) but prefer territories along streams or lakeshores, or in swamps. They winter in dens which may be underground, in hollow trees, or in buildings. They line the dens with leaves carried by their tails. They are omnivores with a preference for animal food. Diet includes mushrooms, insects, snails, earthworms, amphibians and reptiles. They will eat toads but discard the parotid glands. They have a tolerance for rattlesnake venom but not for the toxins of Old World snakes. They often eat cat or dog food which has been left out for pets, and they may be tolerated by some cats.

Great horned owls are likely predators but coyotes avoid them. Many are killed on roads especially on wet nights when foraging for worms, and also when young are dispersing. They are vulnerable to bad winter weather and may come out in the day if hungry.

There has been a big expansion in the 1980's when winters have been mild, and numbers may fluctuate with the winter weather. Their success is due to their prolific reproduction, adaptability in habitat and food, good defense and few predators. Duncan predicts that eventually they may colonize up to the Canadian Shield.

- Questions followed the talk, eliciting further information.
- Their low body temperature (35 C) probably makes them less susceptible to the rabies virus than some other mammals.
 - Impact on raccoons? They compete successfully with them.
 - Impact on reptiles and amphibians? Some, but opossums are relatively slow.
 - Stomach analyses? Only anecdotal information in Ontario, some analyses in NY and Mich. show mainly animal food in spring, summer and fall, but anything in winter.
 - Savage noted that they were found at early 1600's archeological sites on the south side of Lake Erie in Ohio but none at Ontario sites.
 - Longevity? Only 8% alive after the first year in one study.
 - Fur? Used for trim commonly up to the 1950's, but low quality.
 - Presence in B.C.? Yes, in central B.C.
 - Spend time in trees? To escape hunters.
 - First Ont. record was 1858 in Toronto. In the '30's and '40's some came around the west end of Lake Erie.

Riley thanked the speaker for a very interesting talk, and hearty applause followed.

Notes and Observations:

Bodsworth observed 3 downy young and 6 adult red-necked grebes near Sioux Lookout in early August. Merlins were abundant - he found 3 merlin nests with vocal young, and also saw a sharp-shinned hawk nest.

Young saw fewer late summer migrants than usual. In mid-August a few migrants, including a pine warbler which stayed for 1 1/2 days, visited his back yard, but little was seen after that.

Carrick said that 18 trumpeter swans were raised by all involved for release this year. He has 5 at Lake Scugog and can film them behind a boat, but has not been permitted to train them to follow any aircraft. Carrick trained Canada geese to follow a boat in just 2 days.

McNicholl reported that the last of the terns which he has been studying this summer flew last Saturday. About 370 young were raised on rafts off the Leslie spit. None of the tern nests on land were successful.

Bruce Falls commented on the gypsy moth outbreak in Muskoka which followed a forest tent caterpillar outbreak. In late August an infestation of pine sawfly was also apparent in the same area.

Riley had seen lots of gypsy moths in the Rouge River valley.

Savage reported bones of Fowler's toad in Elba cave in Dufferin Co. 150 km north of the Lake Erie shore where they are currently found. Bones of Keen's bat were also found. The ancient 'fingerprint' he mentioned at the last meeting had been examined and found to lack some of the features of human epidermal ridges i.e. sweat pore openings. Many things can give similar ridges.

Bendell also had found less migration than in previous years, so far this year. In his study area in Gogama he saw 4 adult wolves on the road.

Ritchie reported that merlins had nested on his island in Parry Sound, high in a pine tree. Fewer small birds than usual were present, perhaps as a consequence.

Riley showed slides of a Pike to illustrate Savage's find in a Niagara escarpment cave.

Lumsden had seen a mockingbird on sideroad in late June. The trumpeter swan programme will go ahead. Birds will be released at Wye Marsh and at Metro Zoo. He thanked all those who had written to the government on behalf of the programme, because the show of public support had removed the main objection.

The meeting adjourned at 10.14 p.m.