

THE BRODIE CLUB



ROYAL ONTARIO
MUSEUM OF ZOOLOGY

THE 1,031st MEETING OF THE BRODIE CLUB

The 1,031st meeting of the Brodie Club was held at 7:30 pm on Sept. 15, 2009 in Room 430 of the Ramsay Wright Laboratories of the University of Toronto. This was the annual members' meeting.

Chairman: **Helen Juhola**

Secretary: **Oliver Bertin**

The meeting was attended by 22 members and three guests:

- **Emily Addison**, guest of **Rosemary Addison**
- **Sharon Hick**, guest of **Jock McAndrews**
- **Terry Marescaux**, guest of **Oliver Bertin**

Regrets were offered by **George Bryant**, the **Bendells**, **Fred Bodsworth**, **Bill Crins**, **Sandra Eadie**, **Harry Lumsden**, **Jim and Trudy Rising**, **Bill Rapley** and **Ron Tasker**.

NEW BUSINESS:

Bruce Falls offered the list of speakers for the coming months. They include:

October: **Martin Daly** of McMaster University, an evolutionary psychologist who will talk on murder as an aspect of human natural history. The meeting will be held at 7:30 pm on Oct. 20 in Room 432 of the Ramsay Wright Zoological Laboratories.

November: **Justina Ray**, who will talk on caribou.

December: **Dan Strickland**, who will talk on the moose-deer-wolf interaction in Algonquin Park.

Brodie Club elections will be held at the October meeting. The current officers include:

Secretary: **Oliver Bertin**

Treasurer: **Aarne Juhola**

Membership Committee: **George Bryant, Ann Falls, Kevin Seymour, Jennifer Young**

Program Committee: **Ed Addison, Hugh Currie, Bruce Falls, Jock McAndrews, Jim Rising**

FON (Ontario Nature) Representative: **Trudy Rising**

Archives: **Alexandra Eadie, Kevin Seymour**

After 11 years, **Bertin** has decided to pass the Secretary's mantle to another eager volunteer. It's time to move on so a fresh face can take over.

Norm and **Norma Martin** have just published the fourth edition of their *Handbook of Biotic Forest Communities of Ontario*. First released in 1990, the 217-page book is part of a life study of biotic forest communities on upland and bottomland in Ontario from the far north of the province to the far south, beginning in 1952 and continuing to the present. It identifies the basic communities, describes quantitatively their biotic composition and considers the successional relationships

among them. The fourth edition expands and updates previous versions, particularly material on the pine/oak and hemlock communities, primary succession on upland since deglaciation, and additional bird studies. An index of plant and animal species is included. It is available from the publisher, Commonwealth Research, Suite 1107, 2 South Front St., Belleville K8N 5K7, at \$15.00 plus \$3.00 p. & h. Bertin will bring a copy to the October meeting. A must read!

Rosemary Addison offered the Ontario Nature report, including notice of the regional meetings this fall.

Ken Abraham won the Robert Todd Eberhardt Memorial Award for “his significant contribution to waterfowl management while employed as a provincial or state biologist”. The award is offered every three years at the North American Duck Symposium and Workshop, held this year in Toronto from August 17 to 21.

SPEAKERS:

Jock McAndrews reported research on how a comet may have killed off the Clovis culture. Clovis culture refers to a prehistoric Aboriginal group that was characterized by fluted spear points. They lived across North America, hunting large mammals for between 200 and 500 years, and disappeared about 12,900 years ago at the beginning of the cold-dry Younger Dryas interval.

McAndrews had personal experience during his army days in the early 1950s, when he was stationed at Fort Huachuca in southern Arizona. Fluted spear points were found in the nearby San Pedro Valley associated with a mastodon kill. A shaft wrench, fluted points and mammoth were found near Murray Springs, below a black mat that was dated to 12,900 BP; above the mat were only bison but no mammoths, horses or camels.

There are other Clovis sites, including three in Western Canada, with mammoth tracks and bones, and several in the southwest United States and Great Lakes region. One noted site dating about 13,000 years ago, the Hiscock, is beneath a cattail marsh near Buffalo, N.Y. Bones of at least 15 mastodon together with charcoal, magnetite and lithic butchering tools have all been found there.

The black mat was particularly interesting because it contained iridium and nanodiamonds, likely from a comet. A comet apparently hit earth 12,900 years ago. Comets are agglomerations of dust and ice that explode when they hit the earth’s atmosphere, spraying trace minerals including iridium and generating ammonia. They can also send out shock waves, which cause fires and especially floods, which disrupt the Gulf and Jet Streams leading to colder weather.



McAndrews suspects that the after-effects of the comet led to the extinction of North American mastodon, camel, ground sloth etc., 33 species, most of them ruminants (cud chewers). Mammoth and other gastric feeders (non-cud chewers such as horse) survived for quite a while longer. Mammoth lived as late as 3,800 years ago on Wrangel Island, off the coast of Siberia.

David Hussell described his fieldwork on Northern Wheatears at Iqaluit, Nunavut. The Northern Wheatear (see pic above) is the only member of an Old World family, comprising about 20 species, that extends its breeding range into North America. Also, it is the only passerine that breeds in North America and winters in Africa. Alaskan and Yukon breeders migrate roughly southwest to winter in east Africa and the eastern Arctic population, breeding from Ellesmere Island south to Labrador and in Greenland, migrates southeast, crossing the Atlantic to winter in western Africa south of the Sahara.

A breeding female, banded by **Hussell** at Iqaluit in July 2007, was found dead near Reykjavik, Iceland in mid-May 2009, presumably en route back to Baffin Island. This is the first North American-banded wheatear recovered anywhere, as well as the first banded songbird from North America found in Iceland. It would have been on at least its sixth Atlantic crossing when it died in Iceland.

Other evidence, including recoveries in western Europe of wheatears banded in Greenland,



indicates that Canadian and Greenland wheatears regularly follow a spring migration route through north-western Europe and Iceland to their Arctic breeding range, but may migrate at lower latitudes in fall, perhaps making longer trans-oceanic flights.

Hussell spent nearly eight weeks studying wheatears at Iqaluit this year, with assistance from collaborators, Ryan Norris (University of Guelph), Franz Bairlein (Avian Research Institute, Wilhelmshaven, Germany) and **Erica Dunn** (wife and Brodie Club member). They found 16 nests, several of which were near houses or in other disturbed habitats. They equipped 26 adults with light-logger geolocators, some of which they hope to retrieve from returning birds next year to track their migrations and

identify their wintering ranges. (David Hussell)

Bruce Falls said he met David Snow in 1954, who had just published a note in Ibis on Wheatears landing on ships in the mid-Atlantic. **Falls** said he saw many Turnstones while traveling across the Atlantic on his way to Oxford.

Jean Iron offered a long and detailed presentation on her trip to Longridge Point on James Bay in 2009, accompanied by many excellent photographs. I cannot do her talk justice in the space available so refer you to **Jean's** website at <http://www.jeaniron.ca/Trips/JamesBay2009/index.htm>. I have attached her photograph of a Red Knot (above).

Ken Abraham reported on the breeding conditions for birds in the Hudson Bay Lowland in 2009. The year was one of the latest recorded in the past four decades on the Hudson Bay coast. The James Bay coast and southern Nunavut were also late in thawing, but not to the same degree.

Snow Goose nesting colonies at Cape Churchill, Pen Islands and Shell Brook were completely unsuccessful. The Cape Henrietta Maria nesting colony had approximately 20% of its usual numbers. Akimiski Island nesting colony was an exception to the rule, and it might have had some influx of birds from more northern colonies so nest counts were higher than usual. However, it had relatively poor reproductive success judging by age ratios during banding. Success of

Canada Geese nesting along the Hudson Bay coast was also dramatically lower than average, and one of the worst on record. Other birds that nest later in the spring/summer did better, but the start of the nesting season was delayed until mid-June.

An aerial survey of breeding pairs and broods of scoters in the Peawanuck area was initiated. It revealed much higher pair numbers than the literature reports, as high as those in the core of some species ranges (e.g., Black Scoters were as dense as those in Quebec). The brood survey was less informative, due to poor weather and poor visibility, and possibly due to too-early timing given the lateness of the breeding season. American White Pelicans were observed in reasonable numbers (up to 150 at one time) in Akimiski Strait and western James Bay for the fifth consecutive year. No sign of breeding was discovered. Double-crested Cormorants nesting in Akimiski Strait have increased 2-3 fold since the colony was discovered in 2006.

An aerial survey of the Hudson Bay Lowland coastline was conducted in July to estimate caribou for the second consecutive year. The results confirmed the 2008 results, in that approximately 3,000 caribou were found in aggregations on the northernmost James Bay coast near Cape Henrietta Maria. Satellite telemetry from caribou marked in February and March 2009 indicates that the HBL caribou which summer in these aggregations have come from wintering areas as far away as Big Trout Lake. This represents a major shift in distribution from the 1980s and 1990s, a potential decline in the herd (with uncertainty about what may have caused it and whether the coastal survey covers all current summer habitat used by the animals). (Ken Abraham)

The speakers were thanked by **Bruce Falls**.

NOTES & OBSERVATIONS:

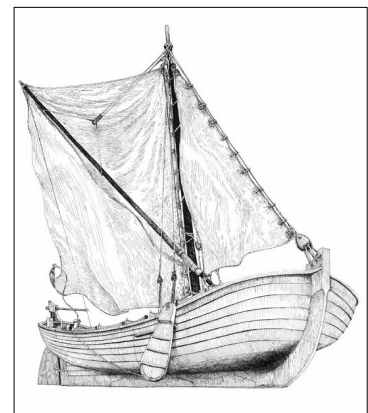
Jock McAndrews reported that on three or more occasions a Red-tailed Hawk (*Buteo jamaicensis*) perched in campus trees, once with a small passerine in its beak. It seemed to perch indiscriminately on trees of both native Green ash (*Fraxinus pennsylvanica*) and the exotic Amur cork tree (*Phellodendron amurense*), Turkish hazel (*Corylus corluna*) and wych elm (*Ulmus glabra*).

McAndrews reported that on August 30, 2009 near Codrington, Ontario, he saw a hen turkey followed by two newly hatched chicks. This seems rather late in the season for breeding.

Helen Juhola spied a mink near Rockport on the St. Lawrence River, just east of the Thousand Islands Bridge, and a 12-inch catfish, twice. She has also seen monarch butterflies on the Toronto waterfront, but in very low numbers.

Oliver Bertin has often seen mink on the breakwall at the foot of Bathurst St. in Toronto. There were four living there last year, but only one in evidence this summer. An otter also showed up two years ago, and the occasional beaver and muskrats in previous years. Not surprisingly, he has noticed an inverse relationship between the number of mink and the number of cormorants and nesting ducks on the wall.

Bertin mentioned evidence that John, son of the famous explorer Henry Hudson, was taken in by the Cree and subsequently the Algonquins after a shipboard mutiny in James Bay in 1611. Hudson, his 15-year-old son and seven crew members were cast adrift in a small shallop, possibly about 28 feet long (see pic above). According to one story, the starving Hudson and his men landed on the



shores of James Bay and attempted to steal food from the local Cree, were killed and scalped. The only survivor was John Hudson, who was traded to the Algonquins along with the scalps. Samuel de Champlain apparently heard about a Caucasian boy near James Bay and went looking for him without success. There is evidence of a European dwelling on Danby Island, 60 km northeast of Moosonee, near where Hudson over-wintered in the months before the mutiny. According to testimony at the mutineers' trial in 1618, several of the crew were killed by the Inuit on East Digges Island, in Hudson Strait just off the northernmost part of Quebec.

Bertin said his son's best friend, Daniel Hughes, 29, went mountain biking just north of North Vancouver in May. Part of his femur and some torn clothes were found three weeks later on the slopes of Mount Seymour, 1.5 miles north of the city limits, apparently killed or scavenged by a bear or cougar. According to the autopsy, there was not enough bone left to identify the cause of death.

The meeting adjourned at 9:29 pm.

Trees in British Columbia

By Yorke Edwards

Our Western Correspondent

There are many kinds of trees in the forests of British Columbia. Many live on low and flat lands while others live high up on the mountains.

On some places on our mountains, there are small groups of **Whitebark Pine**. Most are a few feet high, but some are a bit higher.

Ponderosa Pine live beside B.C.'s small bit of dry desert, at the USA's edge. Those pines are tall, and the bark has a reddish colour.

Sitka Spruce trees live in forests about 50 miles inland from the sea. In the past world war, sitka wood was used for making aircraft.

Alpine Fir trees are scattered high up in the B.C. mountains. Up there, they are just small alpine bushes that live in a few small places.

Yellow Cedar trees live miles inland from the sea. For hundreds of years, the First People's have built homes, boats and many other things of cedar.

Dwarf Junipers are scattered shrubs that sometimes live along on the ground. These trees live around the northern world.

Garry Oak trees in Canada live only on the south end of our Vancouver Island. Just a few are scattered about in our dry and almost treeless area.

Arbutus (Madona in USA) is a small tree with a smooth red trunk of thin bark that falls away from its wood. The bark has a rare medicine for us.

Red Alder trees were used by First People because its orange wood and bark were good for making homes, canoes, paddles, dishes and many other things.

Western Hemlock trees live far up into southern Alaska. Young ones grow from seeds that have fallen into old stumps or logs that are soft and wet.

Cascara is a small tree with large leaves and small red berries. In its bark is a drug, Cascara Sagrada, that is much used. Not many are in B.C.

Douglas Maple, trees are scattered about in B.C. They make poor apples, but their leaves are the shape of the "Maple Leaf of Canada."

NEXT MEETING:

The next meeting will be held at 7:30 pm on Oct. 20 in Room 432 of the Ramsay Wright Zoological Laboratories. The speaker will be Martin Daly, professor of psychology at McMaster University, who will talk on the "Social Ecology of Lethal Competition in Homo sapiens."

And don't forget to volunteer for the numerous club positions – including Secretary.

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