



THE 1,019TH MEETING OF THE BRODIE CLUB

The 1,019th Meeting of the Brodie Club was held at 7:30 pm on March 18, 2008 in the Ramsay Wright Laboratories of the University of Toronto.

Chairman: John Riley

Secretary: Ed Addison

There were 24 members and 2 guests, who included:

- Eleonora Bertin, wife of former member Leonard Bertin, guest of Oliver Bertin
- Sharon Hick, guest of Jock McAndrews

Richard Joos was welcomed as a member.

John Speakman made one correction to last month's minutes to read that John Speakman reported a golden eagle to have been seen by others on the Beaverton bird count.

NEW BUSINESS:

- Ann and Bruce Falls will talk on "Small Mammals of Algonquin Park" at the April meeting.
- The May meeting has been moved to May 6. John Casselman will be the speaker - "Eels at the Edge: An ancient and valued species and resource in unprecedented decline".
- Rosemary Addison reported as Ontario Nature rep:
 - Bird Studies Canada has sent information on the Bailey Birdathon and the Lakes Loon Survey.
 - Club has received two copies of the "Nature Directory", a compilation of Nature clubs, their contact information and location by region. Sandra Eadie to place one copy in the archives; Addisons to hold the other.
 - Ontario Nature has launched "Nature Network". It can be accessed at <http://www.ontarionature.org/network/index.html> and contains information on the Nature Network Regions, Nature Groups, News and Events, and a Conservation Directory. The "Nature Almanac" provides information of hikes, workshops, meetings and other nature events in Ontario at <http://www.ontarionature.org/network/naturealmanac.php>
 - EARTH HOUR: <http://www.earthhour.org/about>. Started in Sydney, Australia last year to raise awareness of energy consumption and to encourage each of us to make a small difference. All citizens encouraged to reduce energy consumption between 8-9 p.m., Saturday March 29.

- RED DOT CAMPAIGN. Canada Post has an eco-friendly Consumer Choice option to say ‘no’ to unaddressed advertising materials. Info at www.reddotcampaign.ca
- LCBO. Ontario Nature has coin boxes by the cash registers in Liquor Stores across the province for the entire month of March and will receive all proceeds collected. The money collected will be used to protect and restore nature in Ontario.



Bruce Falls introduced Jim Bendell. Bruce and Jim have known one another since graduate student days in Algonquin Park during the 1940s.

SPEAKER:

Life in the Ottawa Valley

Jim and Yvonne live on 100 acres in the Ottawa Valley. Jim continues to work on his major career interest that started with a summer job at the Wildlife Research Station in Algonquin Park in 1946. The job arose when Jim replaced a forestry student who drowned in a canoeing accident. Jim’s career interest and topic of the evening was factors affecting fluctuations in animal populations, specifically grouse. Jim has worked with ruffed, spruce and blue grouse. The talk emphasized his 50+ years of collaborative work with his colleague, Fred Zwickel, on blue grouse. Their work has produced 30 graduate theses, two books and many reports.

Adult blue grouse are 2 or more years of age. They are very much a mountain bird of conifer ecosystems. The size of the prominent neck patch and the width of the white band on the tip of the tail both vary geographically. There are two distinct races of blue grouse.

The abstract of the talk is:

1. populations vary in density and trend
2. populations are affected by the extrinsic environment and intrinsically different adaptations of different types of animals
3. spacing behaviour is fundamental to population density and trends
4. spacing behaviour of resident individuals determines recruitment of young
5. females are the primary ‘drivers’ of grouse populations
6. production of young is usually adequate to replace adult mortality
7. food supply of females limits reproduction.

Jim noted differing responses of blue grouse populations to cutting of mature forests. The mature forests supported relatively stable and low densities. In areas of a fresh forest cut, some populations rose a little, some quite a bit more, and some a huge amount. With

regeneration a drop in densities to levels similar to 'pre-cut' densities or lower, even to extinction, was observed. In the Lower Quinsan, B.C. study area in 1962, there were 90 grouse/km² whereas in two other Vancouver Island study areas [at different times] the densities were less than 15 grouse/km².

How do the grouse sustain themselves in old growth forests?

Why do they reach varying densities following a cut?

The variation in response to cuts would likely not be due to the vast size of our cuts because natural fires have produced similar sizes of young growth.

The highest densities of blue grouse observed post-cut [3.6 pairs/ha] far exceeded the densities of spruce grouse in Chapleau in 1981 [0.8 pairs/ha] and ruffed grouse on the Bendell Ottawa Valley property [0.2 pairs/ha].

Following a winter in conifers, in spring some birds migrate up into sub-alpine zones to breed while others migrate down to flats in the valley bottoms to breed. After moving, males continue to eat conifers. However, females shift to the higher quality nutrient in deciduous vegetation. This suggests that the higher nutritional plane of the deciduous plants may be necessary to produce eggs and young.

To measure the impact of quality of food on densities of grouse, Jim and Fred had a study where they distributed urea fertilizer to promote increased growth and quality of vegetation. West coast soils are limited in their nitrogen; hence the seeding of urea readily increased the vegetation and nitrogen in vegetation.

The birds did not respond as anticipated. There may have been a limited number of birds come into the fertilized areas but those that came in did not stay. Was it the intrinsic qualities of the birds rather than the extrinsic aspect of the increased nitrogen that was having a dominant role?

In cut areas in summer, there are lots of grouse but few in adjacent uncut areas.

In one study area, there were many yearlings in the open cut areas and none in the adjacent old growth uncut areas. Perhaps the absence of yearlings in conifers in summer is due to expulsion by resident adult birds.

They have conducted seven studies where they have removed resident adult birds and they observed yearlings filling the vacancies. When residents are removed, the overall response is an increased density of grouse the next year and it is the yearlings that are causing the increase.

The group entered into studies of behaviour. Taped calls of females and mirrors on display logs were used to assess male behaviour. The researchers noticed that behaviour of males varied with the density of the blue grouse populations. In dense populations, males were wary in their responses whereas in sparse populations, males were very

aggressive and knocked mirrors to the ground. Perhaps in dense populations, the birds have accommodated to co-exist with others in close quarters.

Studies were implemented that compared the behaviour of wild and captive birds at both high and low densities. In the aviary, as in the wild, males were much more aggressive at sparse densities. In the aviary, females, like males, were much less aggressive when at high densities.

At high densities in both the field and the aviary, eggs hatched earlier and chicks had a higher hatch weight and grew more slowly than when the grouse were at low densities in the field and aviary.

Jim continued his talk with some description of the Ottawa Valley area. He noted the varied nature of the Canadian Shield in the area, and showed pictures taken at a calcite mine north of Perth where Precambrian calcium carbonate deposits are located.

Almonte was once the 'textile capital of Canada' with mills established to obtain power where the river crosses over limestone faults.

Fossil stromatolites, a unique natural history feature, can be seen both in Almonte and just off the Champlain Bridge as you go from Ottawa to Gatineau (with cooperative water levels).

The area has an abundance of glacial till, giving settlers a lot of rocks to remove from their fields. In addition, since the area was at one time covered by the Champlain Sea, remains of marine life such as porpoises are encountered on occasion.

Jim described the immense engineering challenges and accomplishments of John By and his staff who constructed the Rideau Canal system. Commissioned in 1826, the system is 132 miles long with 46 locks. The canal utilized 3 rivers. They accomplished as much of the connectivity as possible by raising water levels with dams.

Other features of the area include the dinosaur exhibit at the Museum of Natural history, an abundance of wild turkeys, the Purdon fen with its thousands of showy lady's-slippers and a forest structure that still reflects in some areas the impact of the major ice storm 10 years ago.

QUESTIONS:

Have the coastal and inland types of blue grouse been recognized as two species? Yes, they have been separated based on molecular data. However, Fred Zwickel has pointed out that the samples for molecular study were only from areas away from where the distributions of the two types meet. Interbreeding does occur between the two types.

Are there more woodpeckers in the Ottawa Valley since the ice storm? Jim doesn't think so.

How do you trap spruce grouse? You place a loop of nylon line on the end of a fishing pole and you place the loop over the bird's head while the bird is directing its attention to the bird dog on point. Sometimes spruce grouse can be driven along the ground into a net but the noose pole is the 'tool of choice'.

Do you still work in Gogama? Last year may be the last time. We were surveying for insects. Caterpillars are a sought after food of grouse chicks.

John Speakman thanked the speaker. John spent the summer of 1945 with Doug Clark and others at Lake of Two Rivers in Algonquin Park.

NOTES AND OBSERVATIONS:

- Oliver Bertin noted that there was little evidence of birds at his feeders.
- Sandra Eadie reported a large number of starlings at the dog kennels near South River.
- Yvonne Bendell said they get only one or two starlings each year. They came in last week, which seemed strange with the snow still there.
- Kevin Seymour had sparrows at his feeder all winter but about five days ago they were all gone. At Long Point on the weekend there were thousands of swans – more than in most years. Some swans were on the water but most were in the fields, even sitting and sleeping in the fields. There were also many sandhill cranes.
- Rose Addison noted that Harry Lumsden's swans left two days ago and only one has returned. Harry is concerned as there is a lack of open water and his birds do not have muscle fitness.
- Richard Joos observed about 100 robins on a south slope of the Niagara River. The Little Gulls have returned. Richard would expect about 100 Bonapartes for every Little Gull, but there were equal numbers.

Fred Bodsworth reported that his daughter in Scarborough has had a rose-breasted grosbeak on and off since Christmas. It has male plumage. Fred's neighbour had a small owl land over her head and took a digital picture of it. It had little "ear knobs" like a juvenile. Fred wondered if it could be a young bird. Glenn Coady replied that it is too early. Fred's daughter-in-law in Sioux Lookout took a photo of a lynx in her front yard. *"Picture was taken by my daughter-in-law Lois Mombourquette March 17th from their sunroom window as it ran across their yard about 50 feet away on the outskirts of Sioux Lookout in NW Ontario. It was still nearby crying that night. I am not sure (would have to check) but I think it is the first lynx they have seen there in 25 years."* email correspondence from Fred.



- There was a discussion of this year's field trip. The Bendell's have invited the club to visit their corner of the Ottawa Valley. Rose Addison offered to look into cost of bussing. Torrance Barrens near Bala was suggested as an alternative. Decision to be made at next month's meeting.

Meeting was adjourned at 9:25 p.m.

Mammals Not Often Seen

By Yorke Edwards

Our Western Correspondent

Below is a list of mammals, dead or alive, that I have seen just once through my years.

- **Mountain Beaver** – Once, in B.C.'s Manning Park, I saw one run out of a hole by a small stream. It ran down the forest on a mountain.
- **Water Shrew** – I once was on a flat and treeless top of a mountain with a tiny river, and in it was a dead one floating by.
- **Southern Flying Squirrel** – Once, when young, I saw one near the small river a bit north of Toronto, where there was a house with food for it.
- **White Whale** – Once, on a big boat crossing the St. Lawrence River, I looked down to see below a few white whales travelling beside the boat.
- **Wolverine** – Once, I saw one running across the road ahead of me. I was driving through the area of B.C.'s almost treeless landscape.
- **Douglas Fir** – Trees are big all through the city, while by the seashore near my house there is a small thick group of them only six feet high.
- **Long Point, Ont.** – I was sleeping on the ground and found in the night that I was sleeping on small sharp bits of cactus.
- **Opossum** – Once, driving a small truck, I saw one dead beside the road, near Vancouver, only a mile or two from the United States.
- **Badger** – Once, in B.C.'s central landscape, I saw one running across the road with a few scattered trees on both sides on rather open fields.
- **Rattlesnake** – Once, in B.C. in the southern treeless area, I was going up a steep slope and met two rattlesnakes coming down. We all stopped.
- **Black Rat** – One night walking on a city sidewalk, I looked up at a light above and saw a black rat walking along the wire, going my way.
- **Bobcat** – Once, driving near the edge of Vancouver, I saw a big cat above, sitting and looking down at the few cars going by.
- **Striped Skunk** – Once, one was often walking along the edge of trees by Vancouver's big college area beside the sea.
- **Bushy-tailed Woodrat** – One night in an old wooden shack, we had lively woodrats running about all night above us and below us.

