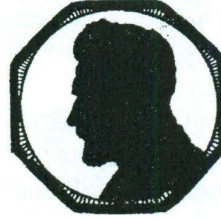


THE
BRODIE
CLUB



ROYAL ONTARIO
MUSEUM OF ZOOLOGY

THE 969th MEETING OF THE BRODIE CLUB

The 969th meeting of the Brodie Club was held on Oct. 14, 2002 in Room 432 of the Dept. of Zoology of the University of Toronto.

Chairman: Jock McAndrews

Secretary: Oliver Bertin

Attendance: 19 members and 10 guests

Hugh Henry, recent PhD graduate at the UofT Zoology dept, guest of Ken

Abraham;

Rosemary Addison, wife of Ed Addison;

Eleonora Bertin, mother of Oliver Bertin;

Kathryn Falls, daughter of Bruce Falls;

Ellen Larsen of UofT zoology department, guest of Falls;

Isabel Boardman and Henry Selles, guests of Ann Fowle;

Alberto Marcone, visiting mathematics professor from Italy, guest of Jean Iron;

Natalie Griffiths of UofT botany department, guest of Marc Johnson;

Sharon Hick & Mark McAndrews, wife and son of McAndrews, guests of Fred Bodsworth;

Falls gave a short eulogy for Bill Carrick who died in a tragic accident on Oct. 7. He was the longest serving member of the Brodie Club and a very active participant in the meetings. "We will miss him terribly."

James Carrick, a member and Carrick's son, was in attendance. He is on home leave from his diplomatic posting in New Delhi.

The next meeting, on Nov. 19, will be devoted to a retrospective of Carrick's life. Members are invited to reminisce and to watch some of his documentary films.

A moment's silence was held in his memory.

NEW BUSINESS:

The following positions were acclaimed for 2002-2003:

Treasurer: Jennifer Young

Secretary: Oliver Bertin

Chairman of the Program Committee: Bruce Falls

FON Representative: George Bryant

All current committee members will continue in their current roles.

Bertin suggested that members may like to volunteer as recording secretary for meetings they are knowledgeable about or interested in.

Falls said the program committee was open to suggestions for future meeting topics.

Norm Martin offered two plant presses and ancillary supplies to any member who would like them. Johnson took up his offer.

SPEAKER:

The speaker was Johnson, a member since early 2001 and a doctoral candidate in UofT's Botany department.

Exploring nature's wonders:
Around the world and back again

Johnson recently returned from an eight-month naturalist's trip around the world, observing the flora and fauna of western Europe, the Middle East, India, Thailand, Australasia, Easter Island and mainland Chile.

He travelled with a long-standing friend Carl Rothfels and his fiancée, Reagan Szabo, equipped with butterfly nets and collecting jars for a voyage of natural exploration, concentrating on 13 localities.

His first stop was England, where John Reynolds, a past member and professor at East Anglia University, gave him a tour of several bird and wildlife reserves. Then he went to France for a hiking tour of the Pyrenees, where he saw a rare ungulate, the izard, and to Italy for an extended hike down the northwest coast, visiting mountainside fishing villages. In Greece, he dropped into Athens, visited the temple of the Oracle of Delphi and climbed to the peak of Mt. Parnassus, one of the most famous of the ancient Greek holy spots.

One of the most memorable sidetrips was a three-day cross-country drive over the deserts of the United Arab Emirates. Johnson had never seen a desert before and it definitely impressed him. There were sand dunes everywhere with spotty vegetation, but that vegetation sheltered a highly diverse specialist fauna. He found a relative of our own milkweed (*Calotropis procera*) in the desert, complete with latex and an endemic community of butterflies, bees, birds, herbivores and lots of spring flowers.

"We followed spring around the world," he said. "We saw spring flowers everywhere we went."

Back to Heathrow for a flight to New Delhi and a visit with member James Carrick, a senior diplomat at the Canadian High Commission. Carrick suggested he visit a national park at Bharatpur, once the private park of a maharajah but now one of the richest bird reserves in India. Even though it was a poor time of year for birdwatching, he saw egrets, herons, ducks, cranes, storks and a group of macaques, including one large male that lunged at him.

The park "was full of wildlife," he said.

One of the most dramatic areas of the many he visited was the Himalayas, both for the natural history and the cultural life. He dropped into the Buddhist temple of the Dalai Lama, the deposed head of Tibet, where congregants spin huge cylindrical prayer wheels as they pass by as part of their religious practices.

One of the most common native plants in the area was marijuana (*Canabis sativa*), the very same species found in Canada. The locals rub their hands up the plant and wipe off the hashish oil. That was just one of the local plants that bore an uncanny resemblance to Canadian native species. He also saw Himalayan Pines (*Pinus wallichiana*), a species that resembles our own White Pine, as well as anemones (*Anemone rivularis*, to name one), and congeners of our Jack in the Pulpit (*Arisimae tortuosum* and others).

The birds were "quite spectacular" in the Great Himalayan National Park. He saw yellow-billed Blue Magpies on the lush mountain slopes and old world vultures that were very different from our own varieties.

After dark, he felt a light touch on his face and found a huge sphynx moth busy lapping salt off his nose and mouth with its three-inch proboscis. "They use us as salt licks," he said. Oversized rhinoceros beetles clambered over the ground and walking stick insects grew to eight inches long.

The wonderful insect diversity continued into northern Thailand, where he saw two-inch weevils with bright orange backs, massive Atlas moths with a wingspan of about one foot and two-inch cicadas, which made a deafening sound. He also tried fried ants with sweet and sour sauce. "They were quite good."

The Thai-Malay Peninsula is a very rich area with steep karst formations that remain from an ancient barrier reef. There were at times 200 species of tree per acre and a diverse variety of epiphytes. Lizards were abundant and butterflies were everywhere, often lapping up solutes from the edge of streams. He was less pleased to see land leeches that followed him everywhere, honing in on the heat of his body.

Rothfels and Johnson decided to search out a herd of wild Asian elephants in one nature reserve, despite the dire warnings of the local inhabitants. They found many recent traces of the elephants in five hours of hiking, including recent feces, fresh spoor and broken down trees where the elephants had barged their way through the forest. But they didn't see any elephants and decided to retire to the local beach instead to round out their month in Thailand.

Australia was extremely beautiful with an unearthly flora and fauna. He seemed most impressed by the sheer diversity of marsupial animals, from the secretive platypus which he found splashing in a pond behind his tent, to a huge array of wallabies, bush-tailed possums and kangaroos. It was clear that many of the marsupials had converged to fit a role similar to that of many North American mammals. A noteworthy example was a squirrel glider which looked and glided much like our flying squirrel.

Many of the marsupials were nocturnal, including the long-nosed bandicoot and the extremely abundant flying foxes that spend their days hanging from trees in Sydney.

Birds were as spectacular as they were in the Himalayas. He saw -- and heard -- raucous kookaburras, cockatoos and parrots. Satin Bowerbirds were his favourite because of their unique courtship behaviour. They appeared to attract females by building elaborate bowers on large platforms, dressing them with bits of coloured material they scrounged from elsewhere, including nearby concession stands.

Megapodes - strange turkey-like birds - had their own convenient method of tending to their eggs. They lay them in mounds of rotting vegetation, letting the heat of fermentation warm the eggs.

Eucalyptus trees were everywhere. Johnson didn't see all 900 species, but he did observe many examples of the famous Banksia plants and grasses that had adapted themselves to withstand the periodic fires.

Lamington National Park was another high point, a place where Lewis' Honey-eater literally grabbed crackers out of Rothfels' hand as he was eating and a Crimson Rosella was so tame that it sat on Szabo's head. Johnson climbed into the tree canopy in the park, 50 meters above the ground, where he could watch insects buzzing at the tips of branches.

The much-fabled New Zealand was almost an anti-climax after the wonders of Australia, but it was majestic and fascinating in its own right. He travelled to the west coast of the South Island to see huge mountains and the terminus of a glacier that was receding so rapidly, it had moved two kilometers in the past 200 years, leaving huge moraines on top of the ice, at the end and on the sides. On the North Island, he climbed over the edge of a volcano that was five years overdue on its 30-year eruption cycle.

The flora and fauna were wonderful, but not nearly as diverse as in Australia. One of the most interesting bushes had a network of spiny branches on the outside, protecting the leaves within, an adaptation that reportedly protected it from the now-extinct Moa birds.

Like the Moa, many New Zealand species are extinct or threatened, vanquished by a host of imported species and loss of habitat. So many species are in danger that naturalists have created a wildlife refuge on a group of islands, including one that Johnson visited near Auckland. The rats and cats and other imported predators have been eradicated and about 11 native bird species have been re-introduced. Among them is a flightless bird similar to North America's Purple Moorhen but three times the size, a bird that is so rare only 200 are left.

Johnson's next stop was Easter Island, a place with a fascinating cultural history. The island is famous for its massive stone statues called moai. Nobody knows how they got there, but they were somehow transported to their present locations from the sides of a volcano up to 15 km. away.

Easter Island is notable for its low diversity of animal life. Johnson saw only five species of land birds - all introduced - and a few sea birds. While on the island, he and his companions studied the insects: 126 species of imported insects are known from the island, but there are reportedly no endemic insects at all. To test that hypothesis, Johnson, Rothfels and Szabo set insect traps in a peat bog and his collaborator at Guelph is currently mounting his finds.

His last stop was Chilean Patagonia, a region of flat lands and contorted granite rocks. He saw foxes and a skunk, and Darwin's Lesser Rhea, to name a few. The Rhea is noteworthy because Darwin unearthed the type specimen from the garbage after a sumptuous meal. Until then, the species had been rumoured but never seen by European taxonomists.

Further south, Johnson saw seals, King Cormorants, geese and 60,000 breeding pairs of Magellanic Penguins. They were timid, but so curious they couldn't resist a peak at a passing human.

QUESTIONS:

- Johnson saw just over 900 species of bird on his trip around the world, while Rothfels saw 980. He saw numerous species of plants and insects but did not keep a tally.
- McAndrews noted that the moraine was slipping off the top of the New Zealand glacier, rather than being pushed in front of it.
- Johnson spent eight months preparing for his trip, mainly by-mailing his contacts. He chose to visit 13 places, many of them boyhood dreams. The preparation involved lots of negotiations, lots of contacts and a dose of practicality.
- There were a few places where he was scared or miserable, but he never felt in danger. Rothfels disappeared off a mountain ledge in the Himalayas, but luckily fell only six feet. And tracking the Malayan elephants was nerve-racking. New Zealand was not as novel as expected after the wonders of Australia, but it was nonetheless a very interesting place.
- There are no fossils on Easter Island because of its volcanic history. He suspects the endemic insects disappeared due to human exploitation through the years. They may also have been eradicated by guppies, which were introduced to kill off disease-carrying insects in the wetlands.
- Easter Island used to have palm trees, but is now treeless. The trees were wiped out in prehistoric times.
- There are between 2,000 and 4,000 people on the island, a mix of Chileans and native Polynesians. Many of the endemic people were carried to Peru as slaves.
- McAndrews noted that the endemic peoples were literate, but their writings have not yet been deciphered.
- How much did the trip cost? Transportation and insurance cost about \$5,500. The entire trip cost about the same as a year in university, or \$10,000 to \$15,000.

The speaker was thanked by Abraham.

OBSERVATIONS:

Ron Scovell had up to six deer at one time in his backyard in Thistleton near the west branch of the Humber River. He saw two bucks there at the same time, a first in the 40 years he has lived there. He has two fox dens in his yard, one with seven cubs.

Jean Iron saw 100 Turkey Vultures and 30 to 40 Red-tailed Hawks flying over her Don Mills home on Thanksgiving Day. The hawk numbers appear to be very low this year on the north shore of Lakes Ontario and Erie, although they appear to be abundant in Michigan. Some observers attribute the low numbers in Ontario to the scarcity of northwest winds.

Johnson wondered why young beech trees keep their leaves until spring, while adult trees lose them. The members did not have an explanation.

Bodsworth saw rusty blackbirds and a late Field Sparrow on a recent trip to Bala.

Falls agreed that hawk numbers were down on the hawk watch this year. Vultures greatly outnumbered Broadwings. He walked down an abandoned railway line near his Don Mills home and saw a variety of sparrows and finches. With Scovell, he saw a Red Phalarope in Hamilton.

McAndrews took his students on their annual walk through the Humber floodplain south of Bloor St., and saw his first beaver in many years. He also noted the absence of Purple Loosetrife this year. Bryant suspects that an imported predator beetle may be killing them off.

NEXT MEETING:

The next meeting will be held in Room 432 of the Ramsay Wright Zoology Laboratories at 8 pm on Nov. 19. The evening will be dedicated to a retrospective of the life of Bill Carrick.