

THE BRODIE CLUB

Date and Place of Next Meeting (Note Change of Location): April 21, 1987
@ 8 p.m., Ichthyology Classroom, Floor 2B, Curatorial Centre, ROM
(South Entrance, beside the Planetarium).

Speaker: Mary Smith, Department of Ichthyology, Royal Ontario Museum

Topic: A Treasure from the Deep

MINUTES OF THE 830TH MEETING OF THE BRODIE CLUB

Held Tuesday, March 17, 1987, at the Faunal Lab, University of Toronto. Falls acted as Chairman, Aird as Secretary. Present were 11 members and 4 guests (Margaret Bodsworth and Verna Higgins, guest of Bodsworth; Ann Falls, guest of Falls; and Suzanne Barrett, speaker and guest of the Club). McKay-Kuja, Martin (Norma), Reading, Tasker and Young sent regrets.

Savage offered an elk humerus and a walrus baculum for use as a gavel. The Chairman called the meeting to order with the elk humerus.

The minutes of the 829th meeting were read by Carrick and duly adopted.

Announcements

Varga announced a public meeting April 10 to support the preservation of a unique wilderness, Monteverde, a forest in the clouds of Costa Rica, to be held at Convocation Hall, co-sponsored by the University of Toronto's Botany Conservation Group and the Naturalists Society.

Martin announced the forthcoming Young Naturalists Camp organized by the Federation of Ontario Naturalists.

Bodsworth announced the special pre-publication offer of the Norfolk Field Naturalists for "Natural Areas Inventory of the Regional Municipality of Halton and Norfolk."

Speaker of the Evening

Bodsworth introduced Suzanne Barrett, noting her professional connections with Environmental Studies at York University and as Program Director, Amazon National Park, Brazil.

The Amazon, many images: one of the last great wildernesses, one of the last frontiers, with about one third of the world's forests and one fifth of the world's water, the longest river in the world, draining 40% of South America, with the world's largest spider and biggest snake.

The explorers reported on the hot, steamy jungles, jaguars, piranha and fierce natives. But in the last 20 years, the pressure for agricultural development has resulted in one quarter to one third of the forest being cleared. Estimates suggest the total loss of Brazil's forests by 2030. They have an area equivalent to Canada, and a harvest equivalent to Newfoundland each year. The species diversity is very high. There are 5 MM total species in the world, 2 MM are in the Amazon region.

Geologically, the Amazon basin was an inland sea draining westward, but when the Andes emerged, it drained east. Only 4% is fertile enough for agriculture. 6 MM people, size of Sahara, and same density of people. 204 rainy days/year. 7 different phytogeographic regions.

The upland forests contain 200 to 300 species of trees/ha. The forest's nutrient circulation system is defined as "leak proof", the nutrients released and recycled without loss. There is much trade in wildlife for pets, zoos and research. The savannahs, white sand drained by black-water rivers, also have a high diversity of species.

In the flood plains, many fish are fruit eating and distribute tree seeds. In flood periods, they feed on certain tree species, and then the fish feed the people, but this cycle is adversely affected by deforesting, which affects the frequency and severity of floods.

Fish grow to enormous sizes. The Manatee and giant river otter are on the world's endangered list. Fourteen mammals, 6 reptiles, 3 birds, and many insects and plants are on the endangered list.

Extensive roads are being developed to claim the land for agriculture, exploration and economic development. 100 km on either side of the road is reserved for colonization; 10 for peasants, 90 for agribusiness.

The film "Bye Bye Brazil" describes the people leaving the northeast for the Amazon for jobs and richness — but they are afraid of the forest. They lived in the open savannahs.

On the Jari estate, Daniel Ludwig bulldozed the forest to create a new forest and rice empire. 38% of deforestation is by large companies for cattle ranching, 31% by peasants, 7% for plantation forestry. Deforestation changes shade, albedo, erosion, water retention, flooding, heat balance, impact on climate (regional and perhaps global), effect on temperatures and rainfall, and causes shortage of fish. The big cats are very rare — valuable skins — jaguar and ocelot. The Harpy eagle is also very rare. But only one fifth of the Amazon's species are described.

Questions and Comments

They are slowing down the massive development projects. The Ford Motor Co. went to the Amazon to collect rubber, but experienced trouble with disease.

The great variety of tree species are not sought after, though they have removed the valuable rose wood. Most development has burned or cleared the land.

Shifting agriculture is useful; it restores the nutrients, but bulldozing doesn't.

Suzanne was involved with the creation of a management plan for the Amazon park — in 1973, the park was started. They chose 1 MM ha where the land was not of much value.

The native Indian population has been reduced substantially. Politicians claim that the Indians "should not stand in the way of progress."

Varga thanked the speaker, followed by hearty applause.

Members Notes

Bendell reported a doe on Petrocan property in Mississauga, which joins the Petrocan fox; a grackle mid-March in Gogama, with minus 26°C @ night; a robin in Pointe au Baril mid-February.

Speakman provided a Pileated woodpecker update — wrapped tin around tree; as daylight progresses, they're later to bed; went out @ 5:10, and he was in bed, but head out — unusual; female didn't come back; out again at 5:20, and he flew to top off beech tree, dead spike, and started to drum. The female came down and dove in her hole. Male stayed 1 minute, and then to his own hole, and went to bed. Male went to bed early, and worried? Normally they arrive together. At 6:30 in morning, they're off, 1 to 1 1/2 miles range, in Beaverton region.

Aird reported on growing use of warfarin in maple stands in Quebec to control squirrels destroying plastic tubing.

Martin reported on the serious impact of acidic precipitation on Maple Industry in Quebec.

Higgins reported a red tail on a balcony, about the 14th floor. A house finch tried to nest on a high rise too, laid eggs, but then abandoned them.

Falls reported northeast of Apsley, about 1 month ago, cold, snowy, 2 red squirrels seen nibbling bark on underside, and then licking the sap, both doing the same, one in front of house, one behind. Similar observation was reported by Aird at Brodie Club meeting within the last year.

Speakman reported that maple taps on the south side of trees produce more sap.

Bendell reported that CO₂ in sap expands with rising air temperatures, which contributes to the sap pressure.

Meeting adjourned.