

Boissonneau chaired the meeting and Riley acted as recording secretary. Twelve members and eight guests were present. Guests were K.Lindsay guest of Riley, J.Young guest of Young, F.deMatteis guest of Carrick, M.Bodsworth guest of Bodsworth, and K.Seymour, K.Kavanagh and M.Stabb guests of Varga. Melanie Watt was a guest of the Club.

Minutes of the previous meeting were read by A.Falls and adopted as read.

Bodsworth advised that his New York publisher was remaindering "Last of the Curlews", and autographed copies were offered at \$4.00CAN. He also noted the donation of a complete set of Bent's Life Histories of North American Birds to the Toronto Ornithological Club, for auction at their next meeting.

Savage remarked on a telephone call from the wife of Mr. O.E.Devitt, who became a Club member in 1935 and is now in poor health. She forwarded Club newsclippings and photos from the 1930's and 1940's, as well as copies of the first 15 issues of "The Brodie Club". Savage also provided members with "Another Decade of Brodie Club Speakers and their Topics", this listing to cover Sept.'68 to May'78.

B.Falls introduced Melanie Watt as the evening's speaker, on the topic "Jaguars of Belize: the Year of the Jaguar". She had undertaken this work as part of her M.Sc. at the Dept. of Zoology, University of Toronto, where she is currently pursuing a Ph.D. focussing on the development of DNA analysis of jaguar scat for research of jaguar populations, relationships and diets.

The speaker first introduced the jaguar of Belize as among the smallest of New World jaguars, rarely weighing up to 250 lbs, while South American jaguars can reach 350 lbs in weight. Jaguars are most readily distinguished from other cats, such as leopards, by the dark dots in the rosette patterns of their fur. Various colour morphs occur, but pure black jaguars have never been found in Belize.

The speaker worked in the Cockscomb Forest Reserve and Jaguar Preserve, inland west of Dangriga in the Mayan Mountains of Belize. This is the area in which Oltec culture venerated the jaguar, and a jaguar temple was shown. The speaker identified slash and burn agriculture, followed by erosion, as the major habitat pressure in Belize. Poaching is less of a problem, although skins and teeth are valuable. Jaguars are more or less fearless but have no history of human attacks in Belize, so they are considered as 'pests' and are often hunted as such. Jaguars hunt by ambush, relying on great front leg power, and have been known to split a cow skull with a single forepaw blow.

The conservation objective of the speaker's work was to inform local residents that jaguars are threatened and extirpated elsewhere in their range, and to generate sufficient interest, publicity and funding to sustain a jaguar research and education facility in the Forest Reserve.

The Reserve is a 150 sq.mi. area of extremely dense, post-cut bush. It protects major water sources, and is reserved from hunting. The speaker's studies of the jaguar worked largely from tracks, scat collections and scrapes (small, frequent clearings of mineral soil thought to mark territory). She constructed clean sand tracking areas baited with caged pigs, using a raised platform nearby as a vantage point. Infrared beam trip-photography and pressure release trip-photography was also used.

Based on scat analysis of both bones and hair, jaguar's favoured prey was armadillo, a plentiful, easy prey forming  $\frac{1}{4}$  of their diet. Pacas, small rodents which freeze when frightened, are also relatively easy prey. These were illustrated with slides, as were other dietary items such as collared peccary, birds such as curassows and nightjars, turtles, iguana, and snakes such as the black tail snake(?).

In addition to the impressive photography of jaguars and the Forest Reserve, the speaker illustrated the fauna and flora of the area with slides of skunks, opossum, caravans of leaf-stripping tree caterpillars, toucans, parrots, cockroaches, banded geckos, scorpion, and others.

To publicize the jaguar of Belize, the speaker entered Belize's annual 144 mile bicycle race, the first woman ever to do so. She finished the race competitively, raising funds for her jaguar work. The car company, Jaguar Canada Inc., through World Wildlife Canada, have donated \$100,000 over three years for jaguar research. Some of these funds were used to repair an abandoned logging camp for use as a study base and educational centre, the latter especially for children. Funds also purchased a truck for use by Forest Reserve wardens. Prince Philip and the president of Jaguar Canada Inc. visited the camp to assist with publicity, and additional fundraising efforts are underway to ensure continuing jaguar research and conservation.

Questions following the talk focussed on member's thoughts on alternate methods of attracting and tracking jaguars to document their life cycle. These included baiting through smell, catnip, mating calls and pigs on tether rather than in cages, and tracking by dog and radiotelemetry. However, the speaker convinced members that her current DNA analysis of scat had the greatest potential as a research technique. Another question related to the range of jaguar elsewhere, such as in Mexico where the distribution is spotty and threatened, and in the southern U.S. where jaguar was extirpated in this century. The speaker regretted that her work on jaguar to date documented neither the density of jaguars nor of their population size in the Forest Reserve

The speaker was thanked by Bendell, who expressed the member's appreciation of the real difficulties of this type of research and the real courage of the speaker in undertaking it. Hearty applause followed.

Members observations:

Savage reported a 6-month old, 430 lb bison gored to death by other bison, from the Rattlesnake Point Conservation Area.

Bendell reported a crushed painted turtle on a residential road near his home. About eight eggs were extruded, each about half the size of mature eggs. Being so late in the year, he speculated that the turtle was a liberated pet.

Carrick showed members the recent newsclippings of his Canada Geese, now imprinted on Bill Lishman, a sculptor living south of Lake Scugog who exercises the geese with flights of his ultralight aircraft. They ride the pressure ridge ahead of the wing tips, and follow in V-formation in the slipstreams behind them. Carrick also showed photos of Trumpeter Swans following a boat, for use in a 3-D IMAX film for Japanese sponsors.

Falls commented on recent work on imprinting, which documents specific "recognition of the individual". Carrick offered observations in support of this.

Bodsworth passed on news from Dufferin Island in the Niagara River of a Yellow-throated Warbler, an infrequent Ontario visitor curiously known most commonly from winter visits.

Speakman bemoaned the domestic perils of squirrel infestation of his home, admiring their persistence and lauding the skill of his dog Sammy. Watt, Boissonneau and Bodsworth all commiserated.

Stabb asked members to speculate on the coincidence of recently observed Bluebirds in the Rouge Valley, wheeling around a dead snag, and a flying squirrel later noted at the same snag.

deMatteis noted Bewick's Wren in his backyard near Sheppard Avenue in Toronto.

Boissonneau noted the sophistication of tourism brochures for Cape Breton, which go so far as to note the breeding status of bird species.

The meeting adjourned at 10:15 pm.