

MINUTES OF THE 922nd MEETING OF THE BRODIE CLUB  
May 20, 1997

The Meeting was held in the Ramsay Wright Bldg. U. of T. Room 430. Sixteen Members and 4 guests were present.

Chair: Dave Fowle

Meeting Recorder: Mike Boyer

Attendance: 16 Members and 4 Guests  
Mary Tasker guest of Ron Tasker  
Mary Boswell " Bruce Falls  
Paula Rapley " Bill Rapley  
Vicky Draper " Dave Fowle

Minutes of the Previous Meeting - Accepted, no corrections

**ANNOUNCEMENTS:**

Ken Abraham was welcomed as a new member.

**GUEST PRESENTATION**

Our speaker was Dr. Bill Rapley, Director, Biology and Conservation at the Metro Zoo, and a fellow member of the Brodie Club. The subject was Komodo Dragons -Modern Dinosaurs, illustrated with slides, video and overheads, a truly multi-media presentation.

Dr. Rapley attended a world conference on the Komodo Dragons at Taman Safari Bogor, Indonesia in 1996 under the auspices of the International Species Survival Commission (ISSC). World conservation organizations and major zoos were represented.

The Komodo dragon or Indonesian monitor is a threatened species. Belonging to the family Varanidae they are the largest of the terrestrial reptiles with exceptional individuals up to 80 kg and 4m in length.

By way of introduction, Dr. Rapley reported that a breeding pair of the reptiles had arrived at the Zoo the previous week, a gift from the president of Indonesia. In addition a larger specimen is on loan from the Cincinnati Zoo for promotional purposes. The exhibit will have its opening May 20, 1997.

## 2.

### Habitat of the Komodo Dragons

The reptiles are confined to four small islands east of Java and falling within the Australasian faunal zone, 400k east of Wallace's line. Population estimates for the island were given:

Komodo	1600
Rinca	1100
Gili Motang	70
Flores	<u>2000</u>
	4770

A fifth island, Padar is under consideration for species re-introduction.

Total population is probably around 5000 including those held at several major zoos.

The islands have an exotic flora and fauna representative of both the Oriental and Australasian faunal zones. Some of the animals and plants mentioned besides the monitor, included, Timor deer, megapods or brush turkeys, blue-tailed bee eaters, kites, rhinos, orangutans and Palmaro palms. The islands are of volcanic origin, quite high, and geographically diverse, supporting several vegetation zones, including beaches, monsoon rain forests, savanna slopes and cloud forests.

### Ecology

The animals spend a great deal of time in the monsoon forest but also bask frequently on the savanna slopes. They are predators and quite able to capture wild pigs, goats or timor deer, their preferred food. Large deer bitten by the reptiles generally succumb in a matter of days to toxins present in the saliva of the dragons. The reptiles then scavenge the carcass. Monitors are capable swimmers and the extent to which the island populations are isolated is a topic of current research.

### Reproduction

While much is known about the reproductive processes of the Komodo dragons, much remains to be discovered. Sexes are not easily differentiated but males are generally larger. Eggs are deposited in the often extensive mounds of the ground-nesting megapods. Breeding adults excavate and enlarge the interior of the mounds displacing or eating the eggs of the Brush Turkeys and depositing their own. Young, when hatched, rapidly climb trees to avoid predation by parents or adults.

### 3.

Since several of the zoos have active breeding programs, considerable information has accrued on sexual behaviour in captivity.

#### Growth

Growth is initially about 30 cm a year followed by a period of rapid enlargement when the animal expands to its adult dimensions.

#### Future Work

The aim of the conference was to consolidate the existing extensive information on Komodo dragons and co-ordinate and promote further research efforts. Made evident by the speaker, was the tremendous dedication and enthusiasm of those involved and their commitment to the successful completion of the project. The Indonesian Government has given the undertaking its full support.

Dr. Rapley reported he is involved specifically in developing a managerial scheme for Komodo National Park, located on Komodo Island. Other priorities include;

- 1) modelling the population following an accurate field assessment of numbers;
- 2) re-introductions: first experiments on re-introducing the species to natural environments are to be conducted on Pidar Island;
- 3) Sex ratios: the ratio of 3.4 males to 1 female appear in natural populations. Preliminary studies on the role of incubation temperatures on sex ratios are proposed;
- 4) DNA analysis of populations to determine their genetic makeup;
- 5) Site management: control of deleterious factors, such as feral dogs and rats.

With regard to zoo populations there is need for a more extensive exchange of existing information among those carrying out breeding programs and also for the development of a stud book to assure the maintenance of genetic quality in captive populations.

In summation Dr. Rapley pointed out that the monitor is considered a "flagship species" that is one whose successful protection assures the survival of an entire ecological system. To achieve this in one of the most densely populated areas of the world will be an accomplishment indeed.

#### Questions

- Q. Are humans adversely affecting the reptiles? A. A considerable black market in live specimens exists.
- Q. Do Monitors vocalize? A. Yes, they make a hissing noise.

4.

- Q. How are they able to capture game? A. They are very fleet-footed and can easily outrun people.
- Q. What teeth do they have? A. The dental formula is available. The teeth are very sharp and project backwards in the mouth so they are capable of tearing the flesh of their prey.
- Q. How are the blood samples obtained? A. The animals can be restrained or confined if they can be tranquilized.
- Q. Do they use their tails as a weapon? A. Yes and they can be highly dangerous.
- Q. Can they leap? A. Perhaps, they can certainly climb.
- Q. Are they territorial? A. Yes, at least at breeding time.

### Notes and Observations

Bruce Falls commented (as did others) on the delayed bird migration over the Victoria Day week-end (May 17-19) at Rondeau, Pelee and Long Point, as well as other parts of Ontario. Numbers began to improve on Monday. Highlight was a Sharp-tailed Sparrow.

Janet Cooper participated with the Toronto Bird Observatory in banding Golden-winged Warblers on Muggs Island over the Victoria Day weekend. As many as 60-70 a day were banded.

Hugh Currie reported that birding was outstanding at Point Pelee on Monday May 19, rain grounding the birds. Highlight was a Western Tanager.

Ron and Mary Tasker participated in a disappointing birdathon on Manitoulin Island Sunday May 18. Some Thrushes and first Warblers. Highlights were two pairs of Hawk Owls, a Western Meadowlark (formerly more common here) Merlins and a Bald Eagle.

Ron Scovell counted 36 species of birds in his own yard. Highlight was an Orange-crowned Warbler. He also saw a female fox playing with her kits in front of his window.

Bill Carrick reported on the Trumpeter Swans - two released pairs nesting at the Metro Zoo and six pairs at Wye Marsh.

Meeting was adjourned at: 10:30 PM

5.

The Field Day at the Metro Toronto Zoo was held as planned on May 31st. Dr. Rapley gave a talk on the Zoo's organization, structure and conservation activities. After lunch a conducted tour of the Zoo site was arranged including a ride on the Zoomobile.

The 923rd Meeting of the Brodie Club will be held on Tues. Sept. 16th 8:00 PM in the Ramsay Wright Building, U. of T. Room 107 - St. George and Harbord  
Please Note - Room number change.

#### MEMBER'S NIGHT

There will be no formal speaker. Members and Guests are invited to speak on their summer's activities or any other subject of interest.

Elections will also be held and dues collected.

#### DR. HOWARD SAVAGE

A Memorial Service for Dr. Savage will take place in Trinity College Chapel on Saturday Sept. 27 at 1:00 PM.

The Brodie Club has been asked to provide a speaker to deliver a five minute or less talk on Dr. Savage's relationship and contribution to the Brodie Club.

The Secretary will welcome suggestions for content and a volunteer speaker.

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