

STATUS OF PRIMATOLOGY IN BELIZE

Dr. Robert H. Horwich*

* RD 1, Box 96. Gays Mills, WI 54631. USA

PRIMATE INSTITUTIONS

Although selectively logged, much of Belize is still forested. Belize is in the process of developing a parks system, but there are no groups specifically concerned with primates, no professional scientific journals, no primate colonies maintained for research, and no primatological collections, except for a few living specimens at the Belize Zoo and a couple of skeletons at the Community Baboon Sanctuary Museum.

The Community Baboon Sanctuary ("baboon" is the Creole word referring to howler monkey), which I helped form in 1985, is the only institution specifically concerned with a primate species. It is established on about 12,000 acres of private lands with the cooperation of 75 landowners and 8 villages. It is under the auspices of the Belize Audubon Society and is run by a local staff under Mr. Fallet Young, the Sanctuary Manager. Its formation and functions have been documented and described (1, 2, 3, 4, 5, 6, 7). We have gathered data at the sanctuary on troop size, home range, roaring (8), breeding (9), infant development (10), and seasonal ecology of the black howler (*Alouatta pigra*). We are continuing to gather data on behavior, ecology, and population changes.

To my knowledge, only one other primatologist Jeremy Dahl is currently working in Belize, on *Alouatta pigra*. Dahl (11) earlier conducted a primate survey within Belize. Another primate survey was recently carried out (12) and a past study was conducted on *Alouatta pigra* within the current boundaries of the Community Baboon Sanctuary (13).

PRIMATE SPECIES IN BELIZE

Belize has only two documented species of primates within its national boundaries. There are informal reports indicating potentially 2 or 3 additional species. The range of *Alouatta pigra* has been documented (14, 15) while additional information on it and a subspecies of spider monkey (*Ateles geoffroyi yucatanensis*) have been recorded (11, 12).

Information on other primate species is very indefinite. McCarthy (16) has indicated Belize as the northern most range of the white faced capuchin (*Cebus capucinus*) by its presence in the south of Belize but additional surveys (11) have not confirmed it despite informant's reports.

Prior to 1970 *Alouatta palliata* and *Alouatta pigra* were considered to be the same species. They have since been separated by physical (17) and behavioral (18) characteristics. The occurrence of the golden mantled howler has not been confirmed in Belize but was thought to occur on the Guatemala side of the Sarstoon River, the southern boundary of Belize (14). Recent reports of Peace Corps Volunteers from that area in Guatemala confirm a population of *A. palliata* north of the Rio Dulce, as well as *A. pigra* south of the Rio Dulce but the distributions of the two species there have not yet been worked out (Brown & Curdts, pers. comm.).

The status of spider monkeys in Belize is intriguing but still hypothetical. Informants have suggested to me the presence of 3 types of spider monkeys in western Belize. They have noted a large black type, a large white form and a smaller brown monkey. The larger forms supposedly occur in the same groups but do not associate with the small brown monkeys. I have seen the small brown form, which are thought to be *Ateles geoffroyi yucatanensis* (19), in Lagoon Bank and on the Bladen River (11) which is being considered as a protected area. I have seen a captive large black form with a white belly and photo of a large silver form which must be *A. g. vellerosus* (19). There is thus the distinct possibility that the two subspecies of spider monkeys in western Belize are acting like species.

COURSES AND MEETINGS HELD IN BELIZE

World Wildlife Fund-U.S. has held at least two training sessions for various wildlife employees. The first was a general three day symposium held in 1986. It was a general symposium to simulate interest in Belize wildlife and begin thinking about a general resource plan for Belize. In 1987 a second symposium was run more specifically for practical experience for people working in wildlife management. Its main emphasis was in composing and writing an operational plan for Cockscomb Basin Sanctuary. CATIE of Costa Rica ran a training course for Latin American wildlife workers in December, 1987. It included some Belizeans while in the country. Recently REDES (Red Regional de Organizaciones Conservacionistas No Gubernamentales para el Desarrollo Sostenido de Centroamerica), a group committed to interrelate Central American conservation ran a training session in March, 1988.

AGENCIES, BIOLOGICAL STATIONS, CONSERVATION AREAS AND THEIR CONSERVATION INTERESTS IN BELIZE

The Community Baboon Sanctuary (Fallet Young, Sanctuary Manager)
 c/o Belize Audubon Society
 P.O. Box 1001
 Belize City, Belize. Central America.

This is the only institution in the country whose main emphasis is primates. Management research and basic ecology and behavior data are being collected on the black howler monkey (*Alouatta pigra*). Research is also being carried out on river forest succession following slash-and-burn agriculture, reproductive biology of the Central American River turtle (*Dermatemys mawii*), conservation concepts of villagers, and Creole kinship. A guide book in English (5) is available from the autor for \$5. US post-paid. The sanctuary is working to expand the sanctuary boundaries to connect with Crooked Tree Sanctuary and Mussel Creek which is a prospective wildlife area.

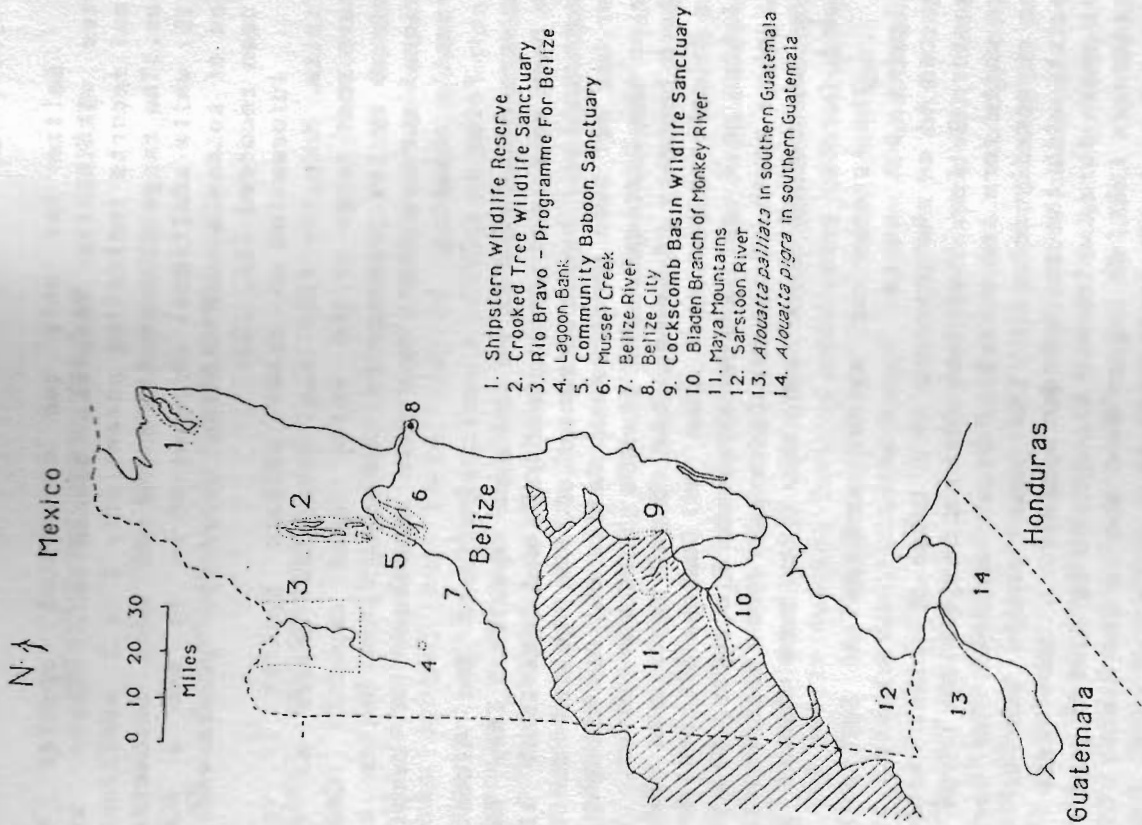


Figure 1. Map of Belize indicating protected areas.

Belize Audubon Society (Walter Craig, Executive Director;
Dr. Victor Gonzalez, President)
P.O. Box 1001, 49 Southern Foreshore
Belize City, Belize. Central America.
Tel. (02) 7369

BAS is working with the Government of Belize to help establish a national park system. Thus far only one protected area, Crooked Tree, has primates. There are two small populations of howler monkeys (*A. pigra*) which occur close to the village of Crooked Tree on an island within the reserve area and along Black Creek on the southern boundary of the sanctuary. Crooked Tree has been created to protect waterbirds so its boundaries mainly encompass lands directly adjacent to water bodies. The Cockscomb Basin Sanctuary (Jaguar Sanctuary) was recently created and was commonly believed to support howlers and spider monkeys which were hunted to extinction within the area. I have written a proposal for the Cockscomb Sanctuary to reintroduce howler monkeys into that recently created park. The Cockscomb Basin incorporates nearly 4000 acres of restricted reserve and 50,000 acres which will be used for selective logging. BAS publishes a newsletter on their activities.

Programme For Belize (Bill Burley, Director of Planning)
5736 Lottie Waight St.
Belize City, Belize. Central America.
Tel. 45984

This group is working with the Government of Belize to create a sanctuary centered around lands donated by Coca Cola. Although no one has yet done an adequate survey of the area, these lands have both howlers and spider monkeys and encompass areas where the 2 spider monkey subspecies may overlap. This area of the country including adjacent lands now under private control is the most critical area for spider monkeys in the country. The Rio Bravo area being set up by PFB encompasses 150,000 acres with another 150,000 buffer zone.

The Belize Zoo (Sharon Matola, Director)
P.O. Box 474, Belize City, Belize. Central America.

The Belize Zoo has 3 howler monkeys and two spider monkeys (*Ateles geoffroyi*) and has done some promotion of primate conservation in Belize.

Belize Center for Environmental Studies (Lou Nicolait, Director)
P.O. Box 785, 55 Eve Street, Belize City, Belize, Central America.

This institute is attempting to coordinate conservation efforts and information in Belize. They have the most information on mapping of natural resources and about researchers working in the country. Ms. Nicolait was involved in the preparation of the Belize Country Profile (20) which is the most extensive reference on natural resources of Belize.

U. S. Peace Corps (Lou Miller)
P. O. Box 487, 35 Gabourel Lane, Belize City, Belize, Central America.
Tel. 44096

The Peace Corps has placed volunteers in the various sanctuaries under the BAS.

Shipstern Wildlife Reserve
Bartaneja, Corozal District, Belize, Central America.

Shipstern is creating a biological station which presently is breeding butterflies for butterfly zoos. Howlers were thought to once occur in the area and the reserve has volunteered as a second reintroduction site for howlers. There are no primates presently on the site.

JOURNALS AND MAGAZINES IN BELIZE

There are no journals or magazines which publish articles on primatology. The Environmental Center is hoping to put out a popular magazine to publish research

articles from Belize. The tuesday edition of the Beacon newspaper, a biweekly newspaper, deals with tourism and conservation articles (Meb Cutluk, editor). Recently a bibliography (21) and a directory (22) of environmental sciences in Belize has been compiled (Ed Boles, Rt. 1 Box 130-E, Raymond, Mississippi 39154, USA).

PRIMATOLOGIST WORKING IN BELIZE AND ADJACENT SOUTHERN GUATEMALA.

Dr. Jeremy F. Dahl
Yerkes Regional Primate Research Center
Emory University, Atlanta, GA 30322, USA.

Distribution of primates in Belize and behavior of the black howler.

Dr. Robert Horwich
RD 1, Box 96, Gay Mills, WI 54631
(608) 735-4717

Ecology, social behavior, infant development of the black howler.

Michelle H. Brown, Thomas Curdts (and Jack Bucklin)
Cuerpo de Paz, 6a Avenida, 1-46, Zona 2
Guatemala, Guatemala Centro América.

Distribution of *A. palliata* and *A. pigra* in southern Guatemala.

REFERENCES

1. Horwich, R. H. A community baboon sanctuary in Belize. Primate Conservation, 7:15 (1986).
2. Horwich, R. H. Community-based sanctuary for the black howler monkey. In: Spirit of Enterprise the 1987 Rolex Awards. D.W. Reed (ed.), Van Nostrand Reinhold, Berkshire, UK. pp:436-438 (1987).
3. Horwich, R. H. The geographic distribution of the black howler monkey (*Alouatta pigra*) in Central

America and efforts to conserve it in Belize. In: Primatología en México: Comportamiento, Ecología, Aprovechamiento y Conservación de Primates no Humanos en México. A. Estrada (ed.), UNAM. In Press (1989).

4. Horwich, R. H., J. Lyon. Development of the 'Community Baboon Sanctuary' in Belize: An experiment in grass roots conservation. Primate Conservation, 8:32-34 (1987).
5. Horwich, R. H., J. Lyon. Community Baboon Sanctuary Belize. Orang-utan Press, Gays Mills, Wisconsin, 110pp (1987).
6. Horwich, R. H., J. Lyon. An experimental technique for the conservation of primate lands. J. Med. Primatol., In Press (1988).
7. Gradwohl, J., R. Greenberg. Saving the tropical forests. Earthscan Publ. Ltd., London (1988).
8. Horwich, R. H., K. Gebhard. Roaring rhythms in black howler monkeys (*Alouatta pigra*) of Belize. Primates, 24:290-296 (1983).
9. Horwich, R. H. Breeding behaviors in the black howler monkey (*Alouatta pigra*) of Belize. Primates, 24:222-230 (1983).
10. Horwich, R. H., K. Gebhard. Relation of allomothering to infant age in howlers, *Alouatta pigra*, with reference to old world monkeys. In: Current Perspectives in Primate Social Dynamics, vol 1, D. M. Taub, F. A. King (eds.), Van Nostrand Reinhold, NY., pp. 66-88 (1985).
11. Dahl, J. F. Conservation of primates in Belize. Central America Primate Conservation, 8:119-121 (1987).
12. Hubrecht, R. C. Operation Raleigh Primate Census in the Maya Mountains, Belize. Primate Conservation, 7:15-17 (1986).
13. Bolin, I. Male parental behavior in black howler monkeys (*Alouatta pigra*) in Belize and Guatemala. Primates, 22:349-360 (1981).
14. Horwich, R. H., E. Johnson. Geographic distribution and status of the black howler, *Alouatta pigra*. IUCN/SSC Primate Group Newsletter, March (4):25-27 (1984).

15. Watts, E. S., V. Rico-Gray, C. Chan. Monkeys of the Yucatan Peninsula, Mexico: Preliminary survey of the distribution and status. *Primate Conservation*, 7: 17-22 (1986).
16. McCarthy, T. J. *Chronectecs, Cyclops, Cabassous* and probably *Cebus* in southern Belize. *Mammalia*, 46:397-400 (1982).
17. Smith, J. D. The systematic status of the black howler monkey, *Alouatta pigra* Lawrence. *J. Mammal.*, 51:358-369 (1970).
18. Horwich, R. H. Species status of the black howler monkey, *Alouatta pigra*, of Belize. *Primates*, 24:288-289 (1983).
19. Konstant, W., R. A. Mittermeier, S. D. Nash. Spider monkeys in captivity and in the wild. *Primate Conservation*, 5:82-109 (1985).
20. Hartshorn, G. et al. Belize Country Environmental Profile. US AID (1984).
21. Boles, E. Bibliography of Environmental Sciences Literature. (1988).
22. Boles, E. Directory of Persons and Organizations Involved in Environmental Projects in Belize. (1988).