

Howler Monkey



George H.H. Huey



The small country of Belize covers just 23,000 square kilometres in Central America, on the south-eastern side of the Yucatan Peninsula. The Yucatan, once home to the now departed Mayan civilization, contains some of the most northerly large expanses of tropical forest in the world. While human population densities in southern Mexico and Guatemala, which shares an extensive border with Belize, are high, placing considerable and growing pressure on natural

environments, those in Belize are strikingly low by Central American standards, averaging only around 8 people per square kilometre. Indeed the human population here is believed to be much lower now than it was at the height of the Mayan civilization, some twelve hundred years ago. A direct consequence of this is the fact that Belize has a higher proportion of its land area under forest cover than any other Central American country.

Although they are less diverse than the more equatorial rainforests of northern South America, Belize's forests still provide a refuge for a wide range of animals many of which are becoming increasingly rare elsewhere, such as the Jaguar *Panthera onca* and the Central American Tapir *Tapirus bairdii*. Among these are three species of monkey, all in the New World family the Cebidae. Two of these – the White-faced Capuchin *Cebus capucinus* and Geoffroy's Spider Monkey *Ateles geoffroyi* are widespread species, ranging through much of Central America and, in the case of the former, through northern South America. The third, however, the Black Howler Monkey *Alouatta pigra* is a much more narrowly distributed animal, found only in Belize, Guatemala and adjacent parts of Mexico. This animal, known locally in Creole as the Baboon and in Spanish as the Saraguato, is something of an object of pride amongst Belizeans, and has become the focal point of an innovative community-based conservation project.



George H.H. Huey

The Black Howler Monkey *Alouatta pigra* is a narrowly distributed species, found only in Belize, Guatemala and adjacent parts of Mexico. Adult males can easily weigh 8 kg, with a head and body length of around 80 cm. Females are generally considerably smaller. The prehensile tail serves as a fifth limb and is so strong that the animal can suspend itself entirely from it. It can even check the monkey's fall in mid-flight.

A New World genus

The Black Howler Monkey is one of six currently recognized species of howler monkey in the genus *Alouatta*, which is found from southern Mexico through central and south America as far south as northern Argentina. Elsewhere in Central America, the Black Howler Monkey's place is taken by a very similar species, the Mantled Howler *Alouatta palliata*. Indeed, for many years the Black Howler was merely considered a race of the Mantled Howler, although it is now generally accepted that there are sufficient differences in anatomy and behaviour to justify regarding the two as separate species.

Howler monkeys are among the largest New World monkeys. An adult male Black Howler may easily weigh 8 kg, with a head and body length of around 80 cm and a tail approaching a metre in length. Females are generally considerably smaller. They have a stocky, powerful build with a thickset neck and a notably large lower jaw. This, combined with a low forehead, gives them a rather stern, forbidding appearance. The strong, prehensile tail is naked along the final third of its underside which greatly enhances its grip. As befits their common name, their fur is en-



George H.H. Hickey

The Black Howler Monkey is almost exclusively arboreal. It is a vegetarian, and its diet includes a high proportion of leaves. It also feeds on fruits, flowers and buds.

tirely black although the males have conspicuous pinkish-white genitals.

The Black Howler is widespread in Belize at low elevations, usually below 300 metres, although it has been recorded at up to 650 metres in the northern part of the Maya Mountains in the south of the country. It seems to be most abundant in forests along the major rivers, particularly the Belize River and its tributaries. It typically lives in small family groups, of four to eight individuals, usually with one adult male and one or more females and their young. Often groups consist merely of an adult pair and their young and it is rare to find two adult males in the same group. This is in marked contrast to the closely related Mantled Howler, which is found normally in groups of ten or over, and sometimes as many as 35 individuals, usually with several adult males in a group.

There is some evidence that Black Howlers are territorial, actively defending their home ranges against other troops. The size of the territory is very variable, but seems to be rarely greater than one square kilometre and may be only a quarter of this.

Making their presence felt

One way in which the troops signal their presence to adjacent groups is by calling, the activity that has given the genus its common name. An enlarged hyoid

bone in the throat and large lower jaw enable them to emit a remarkable noise for animals of this size. The call has been likened to a deep howl or a loud growl or roar similar to but louder than that made by a lion. This noise can be heard by people over 3 km away in the forest and more than 5 km away over water. Generally the male does most of the howling, although the females will join in, often with shorter, higher barks. As well as the howls, the monkeys make a series of less penetrating noises, including grunts and wails, which appear to facilitate communication within the group. Monkeys may howl at any time of day or night, but show distinct patterns in when they



George H.H. Hickey

most often call. In Belize during the dry season, Black Howlers call most around 6 a.m., just after dawn, and then again at around 6 p.m., before sunset. During the rainy season, there are less marked peaks at these times and more calling during the middle of the day. Many Belizeans believe that howlers calling during the day signal the arrival of rain.

Howler Monkeys are almost exclusively arboreal and are extremely adept, if noisy, climbers, crashing from branch to branch with seemingly carefree ease. The tail truly serves as a fifth limb and is so strong that it can check an animal's fall in mid-flight if it can catch

and nursed by her. As soon as it appears, the young becomes an object of great fascination to the other female members of the troop, although for the first week it is carried only by the mother. Once it is a week old, it is regularly carried by other females in the troop – who will generally be its older sisters or aunts. Soon the young starts to spend most of its time clinging to the back rather than front of its mother or one of the other females. Even the adult males will allow the young to ride on their backs for short periods of time – such tolerance is rarely displayed in other primate species. The mother continues to suckle the



George H.H. Huey

Black Howler Monkeys are born normally as single young following a gestation period of around 180 to 194 days. For the first week of life they permanently cling to their mother's front, but once they are a week old, they are also regularly carried by other females in the troop.

hold of a tree-branch. They are vegetarians, feeding on a wide range of trees and shrubs both native and introduced, including figs *Ficus* spp., Roseapple *Syzygium jambos*, Trumpet *Cecropia* spp., Hogplum *Spondias mombin* and Sapodilla *Manilkara zapota*. They include a high proportion of leaves, particularly young tender shoots, in their diet – more than any other New World monkey, but they also feed on fruits, flowers and buds. From studies of other howler monkey species it seems very likely that the Black Howler plays an important role in the dispersal of the seeds of a wide range of forest trees.

Breeding may take place throughout the year, although there seem to be fewer births during the beginning of the wet season. The gestation period is around 180-194 days and normally only one is born, although twins have been recorded. The newborn clings to its mother's front and is frequently groomed

young until it is around 10 months old, although it begins to take solid food much earlier than this.

Sexual maturity is reached at about three to four years in females and at five years in males, although the latter rarely get the opportunity to breed until they are several years older. Once adult, a howler monkey may easily live for sixteen years, sometimes considerably longer.

Deadly males

As they approach maturity, individuals of both sexes are likely to leave the troop to establish themselves elsewhere. Females may be accepted into an existing group, or may form a bond with a newly independent male. Males themselves may attempt to take over an existing troop by driving the dominant male away. If



George H.H. Huey

Black Howler Monkeys appear to be territorial, actively defending their home ranges against all conspecifics. One way in which the troops signal their presence to adjacent groups and roaming individuals is by howling – the activity that has given them their common name.

a male succeeds he will often kill the young who are already present in the troop. This has the effect of causing the females to come into oestrous, that is, become capable of conceiving. In this way the new dominant male ensures that the offspring who will comprise the next generation carry his genes, rather than those of the vanquished male. This, to us brutal, behaviour has been recorded in a number of mammals which live in family groups, including a range of primates and the Lion *Panthera leo*. In one study of the Red Howler, *Alouatta seniculus* it was found that nearly half of all deaths of monkeys less than a year old was a result of infanticide by older males.

Apart from older individuals of the same species, the Black Howler's principal natural enemies are the larger species of wild cat found in the region, notably the Jaguar, Ocelot *Leopardus pardalis* and Margay *L. wiedii* and large birds of prey, notably the magnificent Harpy Eagle *Harpia harpyja*, one of the few raptors capable of tackling an animal as large as an adult howler. The monkeys are also susceptible to disease and in the 1950s an epidemic of sylvatic yellow fever is believed to have had a dramatic effect on populations in Belize as well as in Mexico and Guatemala. Numbers have fortunately recovered well since then.

In the long term, of course, the future of the Black Howler, as of so much of the world's fauna and flora, depends on the activities of mankind. Through much of Central and South America, indiscriminate hunting

and the loss of habitat through logging and clearance for agriculture have led to marked and sometimes catastrophic declines in the populations of many species. In Belize the situation to date has been somewhat different. Although a high proportion of the country has been logged in the past century, this logging has often been selective so that much of the original forest cover has remained. There has also generally been much less subsequent clearance for agriculture than in other parts of Central America. In addition, the largely Creole population, particularly in the north of the country, does not generally hunt monkeys.

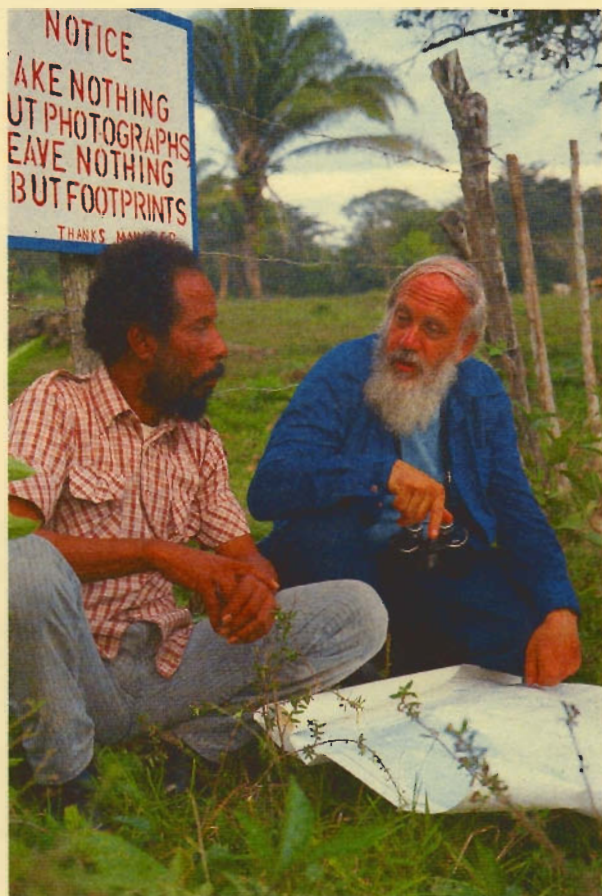
However this situation seems unlikely to last for ever. The human population of Belize is growing at a rate of over 3% a year, new roads are being built and logging and land clearance are on the increase. Clearly forward planning is needed to try to ensure that Be-



George H.H. Huey

The Black Howler Monkeys are found mostly at low elevations, usually below 300 metres, and they seem to be most abundant in forests along major rivers. The picture shows typical Howler monkey habitat within the 50 square kilometre Community Baboon Sanctuary on the lower course of Belize River.

lize's rich wildlife can survive these ever increasing development pressures. One approach is to set aside tracts of land as reserves. This has been carried out in the Cockscomb Basin region, where a large reserve has been created primarily for the conservation of the jaguar, but which also benefits other wildlife. Ultimately, however, unless such areas bring real benefit to local people, the pressure to transform them to other forms of land-use will grow.



George H.H. Huey

Dr Robert Horwich (right), initiator of the Community Baboon Sanctuary on Belize River, confers with Mr Fallet Young, the local sanctuary manager. 75 landowners, mostly subsistence farmers, cooperate in this community-based conservation project, demonstrating that they care for what is, in the end, their land and their natural heritage – and also that the needs of humans and wildlife are not necessarily irreconcilable.

Local conservation efforts

An alternative and potentially far more promising approach is to involve local people in the conservation of what is, in the end, their land and their natural her-

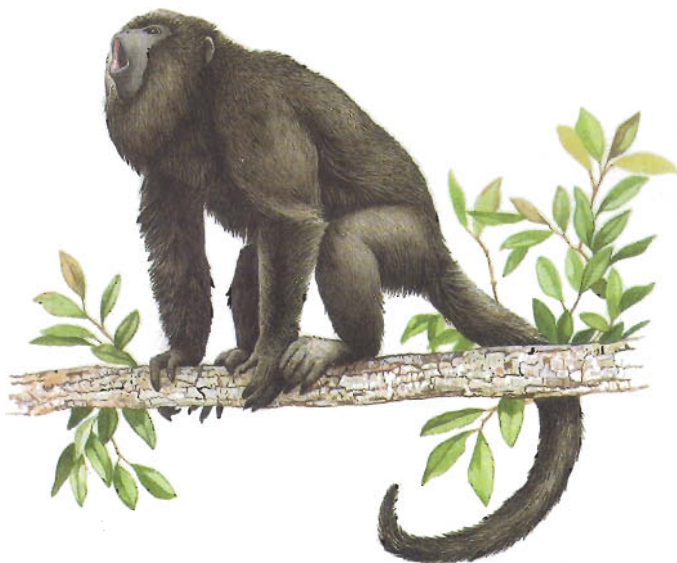
itage. This has been instigated in Belize with considerable success in a Community Baboon Sanctuary established in 1985 around the village of Bermudian Landing on the Belize River. The sanctuary was initiated by an American primatologist, Dr Robert Horwich, with the cooperation of 12 landowners and the village and the financial support of WWF. Since then it has grown to include 75 landowners and 8 villages and encompasses just under 50 square kilometres of riverine forest which contain in total a population of some 900 Black Howler Monkeys.

The landowners have voluntarily pledged to abide by a plan to manage lands in accordance with the needs of the howlers and other wildlife. This includes leaving forest strips along the river-banks, between property boundaries and across large cleared areas. Landowners have also agreed to leave particular food-trees standing for the monkeys. Most of the landowners are subsistence farmers whose land is their major and sometimes only means of livelihood. As part of the project a small local museum has been set up and educational materials produced. Visitors from Belize City, some two and a half hours away, are encouraged to come and observe the monkeys and stay in the village, bringing much needed supplementary income.

In this way it is being demonstrated that the needs of humans and wildlife are not necessarily irreconcilable. With luck this pattern of community-based conservation will be repeated elsewhere, helping to preserve not only Belize's "baboons" but forest wildlife throughout the tropics.







World Wide Fund For Nature
Official First Day Cover

©.1986 Copyright WWF WWF Registered Trade Mark Owner



World Wide Fund For Nature
Official First Day Cover

©.1986 Copyright WWF WWF Registered Trade Mark Owner



WWF®

World Wide Fund For Nature
Official First Day Cover

©,1986 Copyright WWF WWF Registered Trade Mark Owner



WWF®

World Wide Fund For Nature
Official First Day Cover

©,1986 Copyright WWF WWF Registered Trade Mark Owner

