

Developments in Primatology: Progress and Prospects

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Howler Monkeys

Adaptive Radiation, Systematics,
and Morphology



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*M.K.: To Mariana and Bruno,
and to my parents and sisters*

*P.A.G.: To Seymour, Sylvia, Jenni, Sara,
and of course Chrissie*

L.C.O.: To Paloma, Tommy, and Tom

B.U.: To my family, to my mentors, to Padmini

*D.Y.: To Evangelos (Sr. and Jr.), Alexandra,
and Ioanna*

Foreword

It is a privilege to be able to study wild howler monkeys, and an honor to have been invited to write the foreword to this volume of collected papers about them. Thank you to the howlers—everything I know, I learned from you—and thank you to the volume editors for this invitation and to all of the Latin American countries which so generously enabled me carry out research on howler monkeys in their forests.

Alouatta is considered the most successful New World primate genus in terms of ecological dominance as defined by overall biomass. Howler monkeys have a wide geographical distribution, which extends from southern Mexico through Central and South America and into northern Argentina. Their great success as a genus stems in large part from their ability, unusual in a neotropical primate, to use leaves as a primary food source. Fruits and flowers are also popular howler foods but it is their ability to survive for long periods on diets consisting largely of leaves that underlies their great ecological success. This ability has enabled howler monkeys to occupy a tremendous diversity of habitat types throughout the neotropics and to survive in small forest fragments that could not support other primates.

Despite being known for the loud sonorous howling vocalization produced by adult males, howler monkeys are quite subtle, secretive, and quiet monkeys most of the time. They spend a high percentage of their daylight hours throughout the year quietly resting or sleeping to conserve energy—this inactivity is an important feature of their overall foraging strategy. I have studied howler monkeys now for more than 40 years and to me they remain endlessly complex, fascinating, and endearing study subjects. I remember my parents asking me, after a decade or so of howler research and many missed holidays and family celebrations, if I hadn't answered just about all the questions that could possibly be asked about howler monkeys. But as the collection of papers in this volume clearly shows, there is thankfully no end in sight to the array of interesting questions that can be posed about members of the genus *Alouatta*.

Because of howlers' wide distribution and abundance, it's no surprise that over the decades an unusually large number of primatologists have carried out research on wild howler monkeys such that, today, it is considered one of the best studied of all primate genera. Indeed, though perhaps not well appreciated, the first successful

systematic naturalistic study of *any* wild primate anywhere in the world was carried out on howler monkeys. In the early 1930s, C. Ray Carpenter travelled from the USA to Panama to begin a field study of mantled howler monkeys (*Alouatta palliata*) on Barro Colorado Island (BCI). Carpenter was motivated to study wild monkeys because he was convinced that a better understanding of primate behavior in the natural environment would provide important insights into key features of human biology and behavior. Though earlier attempts had been made to try and study wild chimpanzees and mountain gorillas, these study subjects proved elusive and little information was compiled. In contrast, Carpenter was able to spend long periods of time both in 1932 and 1933 observing howler monkeys at close range and amassed a wealth of detailed behavioral information. He also collected and identified many important howler food species and censused all individuals in every howler group on BCI two times during his fieldwork—providing invaluable baseline data for future studies of howler monkey population dynamics at this site. Carpenter produced an excellent and meticulously organized scholarly monograph from his field study, one filled with original information about howler monkey behavioral ecology—information as valid and interesting today as it was in 1934 when his original monograph *A Field Study of The Behavior and Social Relations of Howling Monkeys* was published. To say Carpenter was decades ahead of his time does not begin to do him justice.

After Carpenter's pioneering field study, world events intervened, leading to a hiatus in howler monkey research. But in the 1950s and 1960s, a number of young researchers followed in Carpenter's footsteps and travelled to BCI to observe howler monkeys—though generally only for short periods of time. During this period, field studies were also begun on red howlers at Hato Masaguaral in Venezuela and in 1972 on mantled howler monkeys at La Pacifica in Costa Rica. My howler monkey research began in 1974. Barro Colorado Island was an ideal study site because I was interested in dietary questions and by that time, a considerable amount of information was available on features of the BCI forest and the island had an excellent herbarium—essential tools for a dietary study. During my initial fieldwork, there were no other primate researchers on the island. But by 1978, a few short years later, primate field studies had begun to take off and so many graduate students began arriving on BCI to examine one or another attribute of howler monkeys that often we had to take turns collecting data on the more popular study groups near the laboratory buildings.

Though we now know a great deal more about howler monkeys than we did in the Carpenter's day, we still have much to discover about this engaging New World primate. Answering important questions about the ecology and behavior of living systems generally involves a long investment of time and effort and many years of continuous study at particular research sites. It is ironic that as this fact has become more apparent, funding to support long-term field studies has become increasingly difficult to secure. If our knowledge of living systems such as howler monkeys is to progress, researchers must not only ask the interesting questions but also have the time to compile the data needed to answer them. To enable the relevant studies to be carried out, however, our first task is to ensure the successful conservation of howler

monkeys and their habitats throughout the neotropics. Without the habitats and monkeys, funding will not be necessary as there will be nothing left for us to study.

Editors Martín Kowalewski, Paul Garber, Liliana Cortés-Ortiz, Bernardo Urbani, and Dionisios Youlatos are to be commended for this timely and informative two-volume series on the genus *Alouatta*. What is particularly special and impressive about this and its companion volume is the international roster of countries represented by the volume's contributors and, in particular, the welcome contribution of so many Latin American scholars. This cohort of productive and dedicated Latin American primatologists represents the single most profound change that has occurred in my 40 years of studying wild howler monkeys. Every country in Latin America but Chile and perhaps Uruguay hosts at least one species of *Alouatta* and some countries are host to two, three, or more howler species. The conservation future of howlers and their habitats depends on the knowledge and expertise of these local Latin American scholars, who are in the best position to validate the importance of howler conservation and who understand the politics and policies of their own countries. Their influence is necessary to develop those policies and implement those decisions about conservation areas which will serve to ensure the survival of all howler monkey species into the indefinite future.

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