

History and Aims of the Lomas Barbudal Monkey Project

History. The Lomas Barbudal Monkey Project began in 1990, with Susan E. Perry's graduate dissertation work at the University of Michigan, where she focused on the social behavior of a single group of white-faced capuchin monkeys residing in or near the Lomas Barbudal Biological Reserve, Guanacaste, Costa Rica. Following up with continuous observations for more than twenty-five years, the project now follows the histories of twelve monkey groups, and requires maintenance of a field facility continually staffed by 1-3 managers, 2-3 Costa Rican employees, 1-4 graduate students and/or post-doctoral fellows, and 3-12 volunteer research assistants. The monkeys are followed on foot in arduous 13-hour days as the free-ranging monkeys move through the Reserve, two neighboring private ranches, and contiguous forested areas.

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Aims of the Lomas Barbudal Monkey Project:

1) Research

The primary on-going aim of the Project is the collection and analysis of a long-term behavioral, genetic and hormonal database on white-faced capuchin monkeys. A critical endeavor for a long-term research program is the unbroken collection of the behavioral, genetic and hormonal reference data that are the basis for understanding the demographics of the study population. This enables direct quantification of factors that in short-term studies remain speculative, on such topics as the reproductive consequences of particular behavioral strategies (e.g., the number of offspring produced who survive to reproductive age themselves) – data that are key to understanding the evolution of these strategies. Continuity of researcher presence also is vital for the protection of the monkey groups being studied, so that they do not fall prey to the pet trade and recreational hunters, and to help assure that their unique habitat is protected from harmful encroachment by extractive forestry and mining activities.

Current research focuses on numerous topics illuminated by the long-term data base: the nature of capuchin social behavior, life history strategies, cognition, ranging behavior, behavioral endocrinology, feeding ecology, demography of the population, and conservation biology of white-faced capuchin monkeys. Research methods are non-invasive (e.g., monkeys are not captured or handled); they are observed and data are gathered on their activities entirely in their natural condition in the wild. The welfare of the monkeys is a primary consideration at all times.

This Work will enable us to answer questions of general significance:

- How do life history strategies, demographics, early life experience, and personality shape decisions made by monkeys later in life?

- What are the hormonal correlates of different life history stages and social or ecological circumstances?
- How do social factors influence patterns of learned traits?
- How do monkeys communicate goals and needs without language?
- Are there predictable patterns in the formation of coalitions and alliances?
- How will climate change, which is predicted to be extreme in the zone inhabited by these monkeys, affect the population dynamics of the monkeys and the fruiting schedules in the tropical dry forest where they live?

2) Education of the scientific and lay public

As of 2015, 45 people have published articles based on data generated by the project, and many more scientists have works already in progress with the monkeys. An important function of the Wild Capuchin Foundation is to help the project disseminate its research findings to a global audience beyond academia, so as to increase public appreciation of these monkeys and their habitat. This is accomplished in part by using social media to reach non-academic audiences and by collaborating with film-makers who are creating educational nature documentaries. Monkey project members give talks to Costa Rican K-12 schools as well as adult communities (e.g. policy makers, ranch owners, and educators in Costa Rica). The project also partners with the Costa Rican park service and educational tour agencies to educate groups of people that are visiting the forest to help with community service or reforestation.

The Lomas Barbudal Monkey Project has always served an important function as a training center for individuals who need fieldwork and research experience prior to embarking on Masters and PhD programs in biological anthropology, zoology, animal behavior, psychology, or conservation biology. In the past, the project has provided such training to 145 individuals, 66 of whom applied and were admitted to graduate school in a closely related field.

(3) Conservation.

Dr. Perry and collaborating scientists serve as volunteer consultants to the Costa Rican government (the national park service and the branch of the government responsible for development), as well as to nonprofit organizations in the United States and elsewhere concerned with wildlife conservation and land use, particularly when asked for data relevant to the preservation of tropical forests and monkey conservation. The monkey project assists the national park service and other public and nonprofit organizations in efforts to reforest human-damaged portions of the monkeys' home ranges. Assistance includes scientific consultation regarding appropriate tree types, assistance in collecting seeds or caring for saplings before they are ready to be planted, planting trees, and providing logistical assistance to groups of volunteers (both local and foreign) who help with the planting.

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