

Life history database aids wild primate studies

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A group of scientists who have studied the life history of primates for decades got to thinking about their own life histories and decided they had better do something to preserve their work for posterity.

The conversation started after University of Wisconsin-Madison anthropologist Karen Strier experienced the unexpected deaths of two friends and academic colleagues - one a UW-Madison professor, the other a Brazilian graduate student. She approached Susan Alberts, a Duke University professor of biology and [evolutionary anthropology](#), who has more than 30 years of data on baboon society in Kenya. Together they began to map out a plan to standardize and preserve their field data.

With support from the Wenner Gren Foundation for Anthropological Research and the National [Evolutionary Synthesis](#) Center (NESCent) in Durham, N.C., the five-year effort has resulted in the Primate Life History Database (<http://plhdb.org/>). It's a collaborative and comprehensive database containing life history data collected from long-term field studies of seven species of lemurs, monkeys and apes.

In addition to preserving and standardizing data from some of the longest-running field studies of their kind -- ranging from 24 to 45 years in duration -- the database will facilitate comparative analyses of [primate evolution](#) and ecology.

It's also a huge personal relief for Strier, who has 28 years of data on a

wild population of northern muriqui monkeys in the Brazilian Atlantic Forest.

The deaths of her colleagues had highlighted the vulnerability of life and, potentially, one's professional legacy. "It occurred to me that parts of my research, especially these long-term data, were irreplaceable," Strier says. "If I died, would someone else be able to extract and interpret all of the information from my computer?"

Pooling their data also allows the researchers to do interesting comparisons across species.

"We decided to build this database with the idea that we could answer questions with our comparative data that none of us could answer by ourselves," says Strier.

The design and development of the database, undertaken in partnership with NESCent, is described in a paper published online Apr. 22 in the new journal *Methods in Ecology and Evolution*.

"It was a joint effort between people with very different perspectives ranging from primate biology to informatics to demography. We spent a lot of time working out a common vocabulary, and really produced an exciting resource as a result," says Alberts, who is also the associate director for science and synthesis at NESCent.

The Primate Life History Database currently contains information for more than 3,300 individual monkeys and apes. The data were collected over several decades by researchers at UW-Madison, Duke, Princeton University, the University of North Carolina-Charlotte, Iowa State University, Columbia University, the University of Calgary, the Dian Fossey Gorilla Fund International and the Atlanta Zoo, and the Institute of Primate Research at the National Museums of Kenya. The researchers

are all members of the Primate Life History Database Working Group and co-authors of the new article.

Long-term life history data are extremely difficult to obtain but are incredibly valuable and can tell scientists a great deal about other primate species, including humans, Strier says. Current analyses are exploring mortality patterns and variations in fertility across multiple species, with implications for both conservation and human evolution.

Jointly funded by NESCent and the National Center for Ecological Analysis and Synthesis (NCEAS), the database provides a way to share and synthesize data with collaborators but in a way that does not relinquish ownership of the information, a key concern when sharing raw data.

"By putting this database together, we've shown that principal investigators of these long-term studies can collaborate and that these data now exist in a format that goes beyond each one of us, protecting the data for perpetuity," Strier says. "It's an amazing step forward."

Provided by Duke University

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