

MS Thesis
Department of Environmental Science and Policy
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Title: Comparing Traditional Ecological Knowledge and Scientific Census Data on Primate Populations in the Sucusari Community, Peruvian Amazon

Thesis Director: Dr. Michael P. Gilmore

Committee: Dr. Mark Bowler, Dr. Susan Crate, and Dr. Elizabeth Freeman

ABSTRACT

Similar to other ecosystems around the world, the Amazon rainforest is threatened by a wide variety of anthropogenic activities. The urgent need for conservation often requires arduous, long, and expensive fieldwork. Primates are one of the groups most difficult to study due to their mobility, agility, and arboreal lifestyle. They are one of the species most affected by human activities within tropical rainforests mainly due to habitat degradation and hunting pressure. Indigenous people possess valuable knowledge obtained through experience with the environment and passed down through generations, known as traditional ecological knowledge (TEK). The aim of this study is to compare the TEK of the community of Sucusari in the Peruvian Amazon to scientific primate census data, ultimately determining if TEK can be used to help enhance or even replace high cost conservation surveys of primates. Primate diversity, group size, and habitat use of all primate species found during field surveys were compared with data obtained through 50 semi-structured interviews. Transects were performed on a parallel trail system (22 trails that are approximately 4 km each) located within the Sucusari River basin. The results suggest that the reliability of TEK compared to scientific data improves with larger-sized and cultural important primates. In conclusion, TEK is an important tool to enhance high-cost and time-intensive scientific sampling methods, especially for large-bodied primate populations and those significant to local cultural traditions. It should be used cautiously and target local community experts.