



CSRS SCIENTIFIC SEMINAR N° 15

Thursday, December 2nd 2010 (Norbert Behi Lecture Hall, CSRS, Km17 Adiopodoumé) 01:00 pm

Theme: Hunting, effective law enforcement and African primate conservation

PAUL K. N'GORAN^{1,2,3,4}, CHRISTOPHE BOESCH^{1,3}, ROGER MUNDY¹, ELIEZER K. N'GORAN⁵, ILKA HERBINGER³, ADAMA TONDOSSAMA⁶, and HJALMAR KÜHL¹

¹ Department of Primatology, Max-Planck-Institute for Evolutionary Anthropology, Deutscher Platz 6, 04103 Leipzig, Germany.

² Centre Suisse de Recherches Scientifiques en Côte-d'Ivoire, 01 BP 1303 Abidjan 01, Côte d'Ivoire

³ Wild Chimpanzee Foundation s/c CSRS 01 BP 1303 Abidjan 01, Côte-d'Ivoire.

⁴ UFR Sciences de la Nature, Université d'Abobo-Adjamé, 02 BP 801 Abidjan 02, Côte-d'Ivoire

⁵ UFR Biosciences, Université de Cocody, 01 BP V34 Abidjan 01, Côte-d'Ivoire.

⁶ Office Ivoirien des Parcs et Réserves, Direction de Zone Sud-Ouest, BP 1342 Soubré, Côte d'Ivoire,

Abstract:

Protected area management is frequently confronted with human impact through hunting which negatively affects wildlife. Implementing effective law enforcement to reduce this impact is a major challenge. Linking law enforcement and regular, systematic wildlife monitoring can potentially guide law enforcement to critically threatened locations and assess the impact humans have on wildlife populations. We evaluated the usefulness of such combined law enforcement and systematic monitoring effort in the Taï National Park, Côte d'Ivoire, known for its high primate diversity. We conducted intense primate and human impact surveys throughout the park, collecting information on current human impact, data on monkey presence and abundance as well as on law enforcement patrols within the park. Using spatial modeling techniques, we then evaluated the relative contribution of several potentially threatening or protective variables on the abundance and distribution of the investigated primate species. First, we found that ecological monitoring effectively guided law enforcement patrols into zones of higher illegal hunting pressure. Second, we demonstrated a positive effect of long-term presence of research which creates zones of considerably reduced human impact, serving as refugia for most threatened primate species. Our analysis also revealed a strong signature in primate species' distributions and abundances according to hunting pressure. Nonetheless, the park still harbors a large and diverse primate population with an estimated 361 768 individuals belonging to eight different species. The close collaboration between the Wild Chimpanzee Foundation supervising the primate survey with the park authority ('Office Ivoirien des Parcs et Réserves') is a critical step in the development towards more effective and evidence-based park management. Informed through the use of ecological monitoring, the improvement of oriented conservation actions, such as law enforcement and long-term presence of research projects, contributes to the gradual reduction of hunting signs that makes possible a resulting increase in primate populations.

Key-words: Spatial distribution, protected areas, Taï National Park, gradient, density, population size, evidence-based.

