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Introduction to the International Symposium on African Great Apes

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This special issue consists of selected papers presented to the international symposium entitled 'African Great Apes: Evolution, Diversity and Conservation' held at Kyoto on 3–5 March 2004. It was organized as a part of the 21st century COE program of Kyoto University (A 14) "Formation of a strategic base for the multidisciplinary study of biodiversity." The goal of this program is threefold: to promote world-class research by unifying traditional field research at Kyoto University with new developments in molecular biology; to construct a basic academic discipline of "Biodiversity Science;" and to implement postgraduate education under a unified system of macro- and micro-biology.

The aim of this symposium was to evaluate our current knowledge of the African great apes from recent and ongoing field research and to consider its relevance to evolutionary anthropology. This symposium was based on two previous conferences sponsored by the Wenner-Gren Foundation. One is "The Great Apes" organized by Jane Goodall and David Hamburg and held at Burg Wartenstein, Austria in 1974. The other is "The Great Apes Revisited" organized by William McGrew, Linda Marchant, and Toshisada Nishida, and held at Cabo San Lucas, Mexico in 1994. The first conference provided the first reliable information on the social organization of the great apes using newly acquired results from field studies of habituated subjects. Data on chimpanzees and gorillas were limited to a single species from Gombe, Mahale, and the Virunga Volcanoes. Field research on bonobos had just been initiated and was introduced in preliminary reports. The

second conference included new information from various study sites and different subspecies. Special topics such as party size, mating, positional behavior, nesting, and laterality were compared within and between species. Studies of sympatric chimpanzees and gorillas were first reported and discussed in terms of ecological competition and niche differentiation.

Since then, new study sites have been established to facilitate inter-group, inter-regional, and inter-species comparisons, while methodological advances have yielded new insights into African great ape ecology and behavior. For example, Global Positioning Systems (GPS) have permitted us to monitor populations more precisely over larger geographic areas. Genetic analyses have allowed us to determine the paternity of individuals, sometimes with surprising results not predicted by behavioral observations. Despite these advances, the recent collapse of the economies and volatile political situations of countries that harbor the great apes in Africa have resulted in a prominent increase in habitat destruction and poaching. Frequent civil wars and disease outbreaks, such as Ebola, have caused a significant decline in ape populations in Central Africa. The African great apes are now in danger of extinction and worldwide conservation measures are needed to save them.

Six topics were selected for discussion in this symposium: (1) Behavioral diversity and origins of human culture; (2) Sympatry and coexistence of African great apes; (3) Natural environments and evolution of African great apes; (4) The significance of *Pan* social behavior; (5) Contributions of African great apes to biodiversity; and (6) Great apes as the World Heritage Species. Talks focused on how studies of the African great apes contribute to the field of evolutionary anthropology and on conservation planning for their survival. Old and new topics were discussed and compared with previous conferences. We hope that the papers in this special issue will add to our understanding of the African great apes as well as human beings and will promote our coexistence with them, our closest evolutionary relatives.

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