

441-S

THE EVOLUTION OF GIBBONS: MOLECULAR GENETICS, MORPHOLOGY, BEHAVIOR, AND THE FOSSIL RECORD

U. H. Reichard¹, C. Barelli², H. Hirai³

¹Department of Anthropology, Southern Illinois University, Carbondale, United States, ²Department of Reproductive Biology, German Primate Center, Göttingen, Germany, ³Primate Research Unit, Kyoto University, Inuyama, Aichi, Japan

Organizers' Email: ureich@siu.edu, cbarelli@dpz.eu, hhirai@pri.kyoto-u.ac.jp

Living gibbons and siamangs of the family Hylobatidae are characterized by a 'small' body mass and several other unique anatomical and behavioral features compared to other apes. They live widespread throughout South and Southeast Asia where they occupy such diverse habitats as tropical swamps and temperate mountain forests. Although recently more has become known about gibbon biogeography and taxonomy at the molecular level, important questions still remain with regard to the family's evolutionary history, their great species diversity, current adaptations, and the emerging recognition of socio-ecological flexibility. With this symposium we aim to promote ongoing discussions about hylobatid evolution by synthetically incorporating the recent and ongoing studies of molecular genetics, morphology, paleontology, and behavioral ecology. To focus the symposium, we seek to address specific questions about hylobatid evolution: (1) what are the causes and consequences of hylobatid size reduction (i.e., dwarfism); (2) what does the sparse gibbon fossil record suggest about gibbon ancestors and the divergence of gibbons from the ancestral hominoid lineage; (3) what is the current consensus of gibbon phylogenetic reconstruction; (4) what do morphology and social behavior contribute to the understanding of hylobatid evolution and adaptation; and (5) how do gibbons and siamangs fit into current models of the evolution of the Hominoidea? By merging current and traditional approaches to the study of hylobatid evolution, we hope to establish a comprehensive interpretive framework through this symposium with state-of-the-art knowledge that will bring us one step closer to understanding the specific place and importance of hylobatids in primate evolution.

Keywords: Gibbon Evolution, Hominoidea, Phylogeny, Dwarfism