

COEXISTENCE AND CONSERVATION OF SYMPATRIC PRIMATES IN THE FRAGMENTED HABITAT OF THE HOLLONGAPAR GIBBON WILDLIFE SANCTUARY, ASSAM, NORTHEASTERN INDIA

N. Sharma^{1,2}, M.D. Madhusudan², A. Sinha^{1,2}

¹*National Institute of Advanced Studies, Bangalore, India*, ²*Nature Conservation Foundation, Mysore, India*

Presenter's Email: narayansharma77@yahoo.co.uk and narayansharma77@gmail.com

An intriguing problem in behavioural ecology is the ability of several congeneric species to exist sympatrically, especially under conditions of resource limitation. Competing for the same resources, such species may have evolved a variety of behavioural mechanisms to reduce competition; such adaptations could often provide clues to also design effective conservation strategies for these species. The highly fragmented, tropical lowland rainforests of the Upper Brahmaputra Valley of northeastern India harbour several, highly endangered, primate species, the ecology of which remain virtually unknown. A 22-month, intensively observational study was conducted from March 2008 to December 2009 on three congeneric species, the rhesus macaque, pig-tailed macaque and stump-tailed macaque, and two other species, the capped langur and Western hoolock gibbon, in one such fragment less than 20 km² in area, the Hollongapar Gibbon Wildlife Sanctuary. Our results indicate that interspecific differences in habitat utilisation, home ranging and daily movement patterns, food resource use, social organisation, and intra- and inter-specific interactions have allowed for restricted niche partitioning and the continued co-existence of some of these species in the fragment. The apparent local extinction of the once-common Assamese macaque in this fragment over the last five years of the study, however, calls for the immediate implementation of ecologically-sensitive conservation strategies for the primates of this and the other last remaining fragments of this rich ecosystem.

Keywords: Fragmentation, niche partitioning, co-existence, local extinction