



Project description

Population genetics of the two Mentawai macaques *Macaca siberu* and *Macaca pagensis*

Little is known about the Mentawai macaques due to their endemic occurrence on the remote Mentawai islands (Whitten & Whitten, 1982; Abegg & Thierry, 2002). Until recently all Mentawai macaques were considered to be close relatives of *Macaca nemestrina* living on mainland Sumatra and although the morphology of macaques from Siberut differs clearly from the macaques of the southern Mentawai islands (Sipora, N- and S-Pagai), they were classified as closely related subspecies. It was only recently, that two studies based on molecular genetic data showed that the two forms of Mentawai macaques have a paraphyletic origin and that the macaques from Siberut are more closely related to *Macaca nemestrina* on Sumatra than to the macaques from the neighbouring islands of the Mentawai archipelago (Roos et al., 2003; Ziegler et al. 2007). Consequently it was suggested to reclassify the Mentawai macaques into two taxa on full species level.

In the present study we will investigate structural differences in loud calls of Mentawai macaques to find out whether they can support the proposed reclassification. A recent meta-analysis over the primate order (Which & Nunn 2002) suggests that loud calls mainly serve to defend resources and to attract mates. Interestingly, only few macaques' species produce such loud calls and it is not known why they developed only in these species. From our observations we know that both Mentawai macaques use regularly loud calls. We know from former studies on other primate species, like gibbons (Konrad & Geissmann, 2006, Thinh et al. in press), that loud calls can be useful to confirm phylogenetic relationships. To which extent this is also true for macaque loud calls is unclear until now, because there is only a limited knowledge on species-specific differences in macaque loud calls (Muroyama & Thierry 1998). The aims of the study are i) to compare structural features and usage of loud calls in macaques from different Mentawai islands, ii) to clarify the taxonomic relationship of *Macaca siberu* and *Macaca pagensis* at a biological level and iii) to evaluate the role of loud calls in the progress of speciation.