



Project description

Feeding Ecology and Food Competition in Siberut Macaques (*Macaca siberu*)

Ecological conditions are known to influence the social structure of most animal species. The extent and complexity of this influence and the characteristics of such an interaction are, however, not yet fully understood. Food resources and their properties (e.g. distribution, quality and abundance) play a central role in the interaction between ecology and sociality as they are the shaping factors of all types of food competition, one of the major costs group-living animals are facing. Primate species show pronounced differences in both their social structure and habitat ecology and are thus appropriate taxa for such investigations.

The present study aims to contribute to the understanding of these questions by investigating the feeding ecology and patterns of food competition in Siberut macaques (*Macaca siberu*), an endangered species endemic to the small island of Siberut (Indonesia), which is part of one of the biodiversity hotspots in the world. Specifically, we will investigate i) the influence of food resource characteristics on the mode of feeding competition and its social consequences, ii) how seasonality in the habitat affects seasonality in reproduction, and iii) how nutritional and social conditions affects physiological stress levels.

After the habituation of two groups, detailed behavioural data (e.g. agonistic interactions, group spread, home range size, feeding party composition) and ecological data (e.g. food resource distribution, abundance, quality and phenology) will be collected, accompanied by chemical analysis of food items and hormonal data on stress levels, physical condition and female reproductive success. Results of this study will provide the first detailed description of ecological characteristics of the habitat of Siberut macaques, and are thus an important basis for conservation plans of this endangered primate species. Results of this study will also help to explain and understand the interactions between ecology and social structure and thus further the development of general theoretical concepts.