Inter-group variations in the dietary habits of Javan lutungs (Trachypithecus auratus): Effects of forest structure, food availability, and seasonality<br>Yamato Tsuji ${ }^{1^{*}}$, Masazumi Mitani ${ }^{2}$, Kanthi Arum Widayati ${ }^{3}$, Bambang Suryobroto ${ }^{3}$, and Kunio Watanabe ${ }^{1}$<br>${ }^{1}$ Primate Research Institute, Kyoto University, Inuyama, Aichi, Japan (*corresponding author)<br>${ }^{2}$ Institute of Natural and Environmental Sciences, University of Hyogo, Sanda, Hyogo, Japan<br>${ }^{3}$ Department of Biology, Bogor Agricultural University, Bogor, West Java, Indonesia

Most of the studies on regional variations in primate feeding tend to compare dietary habits across study sites, paying little attention to within-site variation; nonetheless, this sometimes exceeds inter-site variation. For up to 16 months, we conducted behavioral observation of three different-sized, neighboring groups of wild Javan lutungs (Trachypithecus auratus) in Pangandaran Nature Reserve, West Java, Indonesia, to address between-group differences in dietary habits and their seasonality and the relationship with forest structure and availability of main diets. Category-based dietary overlaps among the three groups were high (range: 86-96\%): The lutungs in Pangandaran fed mainly on young leaves (60-72\%), but the contribution of flowers (8-10\%) and fruits ( $1-24 \%$ ) was also considerable. However, species-level dietary overlaps were surprisingly low (42-45\%), even within a single study site whose flora was the same and the main food species of each group was a plant species with greater crown volume within the home range. The responses to environmental fluctuations varied among the groups: in the large-sized group, dietary seasonality was affected by availability of the main diet, while this relationship was unclear in the small-sized group (Spearman's correlation test, alpha $=0.05$ ); this may be probably because of the lower intensity of within-group competition over food resources. We should pay more attention to finer-scale variations in their feeding behavior.

