

FROM A PRISTINE FOREST INTO A PLANTATION: DIETARY DIFFERENCES IN WILD ORANGUTANS (*PONGO ABELII*)

M.E. Hardus¹, G.A. Campbell-Smith², A.R. Lameira¹, S.A. Wich^{3,4}

¹*Behavioural Biology, Utrecht University, Utrecht, the Netherlands;* ²*Durrell Institute of Conservation and Ecology, University of Kent, Canterbury, UK;* ³*Anthropological Institute & Museum, University of Zurich, Zurich, Switzerland;* ⁴*PanEco, Foundation for Sustainable Development and Intercultural Exchange, Berg am Irchel, Switzerland Irchel, Switzerland*

Presenter's Email: madeleine@orangutan.nl

During recent decades, large areas of pristine orangutan habitat have been lost or degraded. Development of agriculture, legal and illegal timber extraction have been the main drivers behind this process. How non-human primates react to such anthropogenic factors is imperative for their future survival. Here we report on a small orangutan population of 16 individuals comprising three generations that were born in an agroforest system in Sumatra. For over 25 years, this population has been completely isolated from more extensive natural forests, including its presumed source population located within the protected area of the Leuser Ecosystem. This setting allowed the opportunity to study the behavioural flexibility of orangutans in human-dominated landscapes. Here we focus on diet since that forms an important basis of orangutan behavioural ecology. We compared the diet of this isolated population with that of a well-studied population in pristine forest (60km away) for two synchronous years (2007/2008). Our results show that, irrespective of including agricultural crops, the diet of the population living in a disturbed landscape consisted of a smaller number of species, but a larger number of plant parts per species, contained a higher percentage of inner bark, less insects, and individuals even ignored several available fig species, than their forest counterparts. Diet overlap between individuals in both populations suggests that individual/social factors may play a role in determining dietary differences besides ecology. These results indicate that orangutans can flexibly adapt to strong habitat changes by drastically modifying their diet.

Keywords: great ape, diet, habitat degradation, behavioural flexibility