

## **Development and behavior of wild infant-juvenile East Bornean orangutans (*Pongo pygmaeus morio*) in Danum Valley**

### **Abstract**

Orangutans have a long period of immaturity and the longest inter-birth interval (IBI) of all mammals, which can be explained by their solitary life style, preventing the mother from rearing two offspring simultaneously (solitary life hypothesis) [corrected]. We collected data on mother-offspring dyads living in a primary lowland forest in Danum Valley, East Borneo in an effort to examine the developmental and behavioral patterns of the subspecies *Pongo pygmaeus morio*. We analyzed developmental changes in mother-offspring distance, contact, and activity budgets in orangutans ranging from 1 to 7 years of age. The results indicated decreased resting and playing with increasing age, whereas feeding, traveling and social play all increased significantly. Mothers' feeding and traveling time were good predictors of their offspring's feeding and traveling activities. Mother-offspring contact lasted longer in resting contexts; contact during traveling was almost non-existent after 4 years of age. Comparisons with previously published data on the Sumatran species *Pongo abelli* revealed no fundamental differences in these behavioral measures. However, a shorter association time with the mother after behavioral independence is documented for this East Bornean population in comparison to Sumatran populations. These results are best explained by the solitary life hypothesis, in agreement with previous studies. We suggest that environmental constraints in Bornean forests, as well as a lower population density, should be considered when interpreting the differences between Sumatran and Bornean orangutans in both the period of association with mother and the IBI.