

The 2nd International Seminar on Biodiversity and Evolution

Title:

**Habitat Use Pattern of Bonobos in Wamba, Democratic Republic of the Congo:
Utilization of Habitat Heterogeneity**

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Abstract (294 words)

We examined yearly use of habitat by bonobos at Wamba, Luo scientific reserve, Democratic Republic of the Congo (DRC). We created a vegetation map of the habitat using satellite images by classifying each pixel as one of three forest-types: 1) primary forest, 2) secondary forest with cultivated land or 3) swamp forest. For a group of bonobos, we examined frequencies of ranging, feeding and sleeping-site use within each forest-type respectively, using map and GPS data recorded during group tracking over a year (2007-2008). For all three activities the group most often used primary forest and least often secondary forest with cultivated land. When we considered the frequency of ranging in proportion to the ranging area within each forest-type, frequency of ranging was higher in primary than secondary forest. However, the relative proportion of feeding frequency to ranging frequency was higher in secondary and lower in swamp than in primary forest. Bonobos fed mainly on herbaceous vegetation in secondary forest, but on a wider variety of foods in the other two forest-types. Further, in the swamp forest only, they also ate a lot of fungi. Sleeping sites were observed mainly in primary forest, to some extent in swamp forest, but rarely in secondary forest. We also monitored the monthly fallen-fruit abundance and investigated interaction with habitat use. We found a negative correlation between fruit abundance in primary forest and feeding frequency in secondary forest. These results suggest that not only primary forest, but all three forest-types have important uses for bonobos. While unsuitable for sleeping, secondary forest appears to function as a resource of fallback food and swamp forest supplies some special food such as fungi. We conclude that bonobos use diverse habitats, highlighting the importance to sustaining bonobo population density of conserving habitat heterogeneity.