White, F. J. and R. W. Wrangham. Feeding competition and patch size in the chimpanzee species Pan troglodytes schweinfurthii and Pan paniscus.

We present a comparison of ecological data from field studies of Pan troglodytes schweinfurthii in Tanzania and Pan paniscus in Zaire. Both species display a fission-fusion social organization. However, foraging parties in P. paniscus are built around a stable core of associated females, whereas in P. troglodytes, foraging parties change membership more frequently and males form the more stable long-term associations. We test the hypothesis that this contrast in social structure is related to reduced feeding competition in larger food patches for P. paniscus. Patches include fruit trees, trees with young leaves, Haumania vines, and insect foraging substrates. Food availability in a patch was estimated by the total feeding time; for P. paniscus, total feeding time was strongly correlated with tree trunk or crown diameter. Total feeding time per patch by parties of P. paniscus were significantly greater than for parties of P. troglodytes, suggesting that the latter species has less food available per patch. The proportion of individuals in a travelling party that feed together in a tree crown is similar for both chimpanzee species.

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