FOOD DISTRIBUTION AND SOCIAL COHESION IN HAMADRYAS BABOONS: TESTING THE ASSUMPTIONS BEHIND THE EVOLUTION OF HAMADRYAS SOCIAL STRUCTURE

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Hamadryas baboons (*Papio hamadryas*) differ from other members of the genus *Papio* in having a flexible, multi-level social structure in which large groups (bands) break into smaller foraging parties (one-male units and clans). The evolution of this social structure has been attributed to the scarce and widely dispersed distribution of resources in hamadryas habitats. Here we summarize results from a long-term field study of a band of ~200 hamadryas baboons at the Filoha outpost of Awash National Park, Ethiopia in which we systematically investigated how the distribution and abundance of resources influences hamadryas social structure and cohesion. The Filoha site is an appropriate place at which to investigate these questions as it contains palm forests, hot springs, and swamps, in addition to the *Acacia* scrublands and open grasslands typical of hamadryas range, allowing comparisons of the influence of various habitat types on hamadryas social groupings. The baboons split into one-male units and clans each day despite the resource-rich environment at Filoha, suggesting that hamadryas social structure may be constrained by its evolutionary history. The band and clan sizes, however, are substantially larger than those reported at other hamadryas sites. Furthermore, while there was no clear relationship between social cohesion and habitat type at the OMU-level, clans were more cohesive when foraging in palm forests than *Acacia* scrublands. These results can be attributed to the presence of doum palm fruit, a preferred food resource that is available much of the year at Filoha but not in other areas of hamadryas range.

Keywords: hamadryas baboons, multilevel social structure, one-male unit, resource distribution