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GROUP COMPOSITION OF GUINEA BABOONS (*PAPIO PAPIO*) AT A WATER PLACE SUGGESTS A FLUID FISSION-FUSION SOCIAL ORGANIZATION

A. Patzelt[1,2], G. Fickenscher[1], S. Diedhou[3], B. Camara[4], D. Zinner[1], and J. Fischer[1,2]

[1]Cognitive Ethology, German Primate Center, Göttingen, Germany; [2]Courant Research Center Evolution of Social Behavior, Göttingen, Germany; [3]Institut Supérieur de Formation Agricole et Rurale (I.S.F.A.R) de Bambey; Sénégal; [4]Parc National de Niokolo Koba, Sénégal

Presenter's Email: apatzelt@dpz.eu

In primates, baboon social systems are amongst the most studied, and solid knowledge of the hamadryas and savannah baboon systems has now been accumulated. Less attention has been paid to their West African congenerics, the Guinea baboons, *Papio papio*. To fill this gap we recently initiated a long-term study of a population ranging in the Niokolo Koba National Park in Senegal. As a first means of estimating variability in group size and composition we counted individuals and observed group sex and age composition changes from a fixed point in an open area that the baboons frequent daily for resting, socializing, drinking or traversing. As habituation was still in the beginning, a more fine-grained analysis was not yet possible. We found a social organization where subgroup size and composition were highly variable on a not only daily, but also seasonal basis. 45.9% of the arriving groups did not leave the open area in the same composition. Only once within three months did we record identically composed groups passing through on two consecutive days. Subgrouping is highly flexible within the observed troop, which would qualify the social organization as an atomistic rather than as a molecular fission-fusion society. The former implies that individuals represent social entities (e.g. chimpanzees), whereas in the latter independent subgroups are the social entities (e.g. one-male units in hamadryas baboons) that fission or fuse with each other. The next challenge is to investigate the individual decision-making process underlying this complex fluid system.

Keywords: Guinea baboons, Papio papio; social organization; fission-fusion