Fighting back: Population recovery and expansion of the range size of the Mitumba chimpanzee community in Gombe National Park, Tanzania

Deus C. Mjungu¹, Michael L. Wilson²³, Steffen Foerster⁴, and Anne E. Pusey⁴

¹the Jane Goodall Institute, Gombe Stream Research Center, ²Department of Ecology, Evolution and Behavior, University of Minnesota, ³Department of Anthropology, University of Minnesota, ⁴Department of Evolutionary Anthropology, Duke University.

Presenter’s email: dmjungu@janegoodall.or.tz

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Chimpanzees (Pan troglodytes) compete aggressively for territory with their neighbors. Results from playback experiments and observations of naturally occurring intergroup interactions indicate that success in territorial competition depends mainly on the number of adult males on each side. Communities with more males are therefore expected to win more intergroup contests and, as a result, expand their range. Demography is thus expected to play a decisive role in intergroup competition. Testing this hypothesis, however, has proven difficult. Most studies have focused on a single community, so that the actual number of males is known for only one side. Additionally, because chimpanzees reproduce and grow slowly, many years of data are needed to test the effects of demographic change on territorial behavior. Here we report on 20 years of data from two habituated neighboring communities. We found that numerical advantage plays an important role in territorial competition. During the first part of the study period, the Mitumba community suffered a demographic decline. As a result, males from the larger Kasekela community won the majority of intergroup interactions and expanded their range deep into areas previously used by Mitumba. However, during the last five years, the Mitumba community increased in size, and subsequently recovered a substantial portion of their range from the Kasekela chimpanzees. This study highlights the importance of long-term studies for understanding territorial dynamics.