

TOOL-ASSISTED PREDATION ON CAMPONOTUS ANTS BY GOMBE CHIMPANZEES.

R.C. O'Malley¹, B. Wallauer², C.M. Murray³

¹*University of Southern California, Los Angeles, CA, United States*, ²*Jane Goodall Institute, Arlington, VA, United States*, ³*Lester E. Fisher Center for the Study and Conservation of Apes, Lincoln Park Zoo, Chicago, IL, United States*

Presenter's Email: romalley@usc.edu

Over the last two decades, tool-assisted predation ('ant-fishing') on several species of *Camponotus* ants has been observed among the Kasakela and Mitumba chimpanzee communities of Gombe Stream National Park, Tanzania. We provide the first account of ant-fishing, drawing on direct observations and long-term records, and discuss evidence for the cultural transmission of this behavior. RCO observed sixteen predation sessions by Kasakela chimpanzees on *Camponotus* over nine months in 2008-2009. Thirteen sessions involved twig or grass tools, which were inserted into tree holes to provoke ants into biting the tool or emerging onto the surface. Eight sessions occurred in a single *Anisophyllea pomifera* tree. Sessions lasted from <1 minute to 122 minutes (median=3) and involved 1-6 individuals (median=1.5). Immature chimpanzees (<10yo) were the most frequent predators. No adult males were observed to eat *Camponotus* or to show interest when others did so. The caloric benefits of consuming *Camponotus* seem negligible, though like other insects they are high in protein and might be a source of vitamins or minerals otherwise limited in the diet. The Kasakela community has been studied continuously since 1960, but ant-fishing was documented only in 1994. Long-term records suggest a Mitumba immigrant introduced ant-fishing in 1991. Of the current Kasakela community (n=61), twenty-six chimpanzees have been observed to ant-fish...but with one exception, ant-fishing in Kasakela is practiced *only* by immigrant females and by chimpanzees born after 1981. The appearance, spread, and establishment of ant-fishing in recent generations is a likely example of cultural transmission between communities.

Keywords: *Pan troglodytes*, tool-use, culture, insectivory