

Title	<Note> Fongoli chimpanzee ( <i>Pan troglodytes verus</i> ) eats banded mongoose ( <i>Mungos mungo</i> )
Author(s)	S.L. Bogart; J.D. Pruetz; D. Kante
Citation	Pan Africa News (2008), 15(2): 15-17
Issue Date	2008-12
URL	<a href="http://hdl.handle.net/2433/143498">http://hdl.handle.net/2433/143498</a>
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Type	Article
Textversion	publisher

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**<NOTE>**

**Fongoli chimpanzee (*Pan troglodytes verus*) eats banded mongoose (*Mungos mungo*)**

*S.L. Bogart<sup>1,2</sup>, J.D. Pruetz<sup>1,2</sup> and D. Kante<sup>3</sup>*

*1. Department of Anthropology, Iowa State University*

*2. Ecology and Evolutionary Biology Interdepartmental Program, Iowa State University*

*3. Fongoli Savanna Chimpanzee Project, Kedougou, Senegal*

**INTRODUCTION**

We provide the first evidence of a chimpanzee (*Pan troglodytes verus*) preying upon a banded

mongoose (*Mungos mungo*). A subadult female was observed consuming a banded mongoose at the Fongoli savanna chimpanzee study site, Senegal. This recording provides new data and adds a small carnivore to the list of animal prey known for the chimpanzee diet.

Banded mongooses are found throughout sub-Saharan, central, and eastern Africa<sup>1</sup>. They are usually found in savanna woodland, habitually staying near water sources<sup>1</sup>, but they are found in open savanna habitats at Fongoli, Senegal. The banded mongoose resides in groups greater than 35 individuals, which retire at night into dens, usually located in termite mounds<sup>1</sup>. The banded mongoose diet consists mainly of insects, worms, larvae, and small vertebrates<sup>1</sup>.

The Fongoli study site is located in southeastern Senegal (12°39' N, 12°13' W), and the chimpanzee community has been observed since 2001. The number of chimpanzees fluctuates annually, but 33–36 individuals usually comprise the community. The chimpanzees at Fongoli are semi-habituated to human observers in that some of the adult females are still nervous in the presence of observers. The community has a home range of more than 63 square kilometers<sup>2</sup>. Fongoli is a mosaic environment including both open and closed canopy habitats, such as woodland and gallery forest<sup>2</sup>. Chimpanzees here are similar to those studied elsewhere in that their diet can be considered omnivorous, containing everything from seeds to other animals<sup>3</sup>. In general, the chimpanzee diet is comprised mostly of fruit (60%) with animal prey accounting for 8% (averaged from 12 sites including Fongoli)<sup>2</sup>. Animal prey does not constitute a high proportion of the chimpanzee diet. However, it can provide essential nutritional components that vegetation resources lack<sup>3,4</sup>.

## OBSERVATION

The banded mongoose at Fongoli are observed on average in every month of the year and range in group size from two to 24 individuals with a mean group size of 5.6 individuals (N=203 individuals, 36 sightings over 22 months from 2005–2008) and found in open savanna and closed forested habitats within the year of this study. On August 20, 2006, a group of more than five banded mongooses were seen on the plateau at Djendji water hole at 1503 hours; they then traveled into the gallery

forest. Several days later, August 25, 2006, at the same locale, a chimpanzee was observed feeding on a mongoose.

At 1620 hours, Tia, a sub-adult female estimated to be about 13 years old, obtained an animal that did not resemble any of the three monkey species known at Fongoli. The capture was not witnessed so it is not known how she acquired the animal. Enough of the prey's body was intact to determine that the kill was recent and to allow identification of the animal as a banded mongoose. At one point, she did give some pieces of meat to a sub-adult male. Tia fed on the mongoose until 1636 hours, at which time she moved out of sight. When we located Tia again at 1650 hours (12°40.069N, 12°11.130W), the prey's head was gone, but the black dorsal stripes that characterize the banded mongoose were still visible. Tia ate the meat with leaves from an unidentified tree until 1750 hours when she again moved out of sight. When we attempted to follow her, Tia could not be found again within the group. The group made beds at 1820 hours; we attempted to find Tia the next morning in an effort to find the carcass of the mongoose, but we were unsuccessful.

There has never been any record of mongoose in the diet of the Fongoli chimpanzee, in feces nor in observation. Additionally, there has never been any report of the banded mongoose as a prey item at any other chimpanzee site in Africa, where banded mongooses are known to exist (Assirik, Senegal; Gombe and Mahale, Tanzania; Kibale, Uganda)<sup>5</sup>. Elsewhere in Tanzania, chimpanzees have been recorded to consume the white-tailed mongoose (*Ichneumia albicauda*)<sup>6</sup>.

## DISCUSSION

This instance of mongoose eating is anecdotal<sup>7,8</sup>, but continuous study may reveal that this prey item is more common. Given that adult males are targeted for study, and certain females are relatively shy around human observers, further evidence is needed to determine whether the banded mongoose is a regular food source for the Fongoli chimpanzees or if it is an opportunistic prey species. Most likely this occurrence was the result of an opportunistic hunting event by the sub-adult female, since it has never been observed until now. This community has been observed hunting the

nocturnal lesser bushbaby (*Galago senegalensis*) with fashioned tools<sup>9</sup>, and Tia ranks among the top five bushbaby hunters in the community. Since the capture of the mongoose was not observed it cannot be said whether a tool was used or not. However, given the behavior of the mongoose relative to a *Galago*<sup>1</sup>, there is no reason to presume that tools were used. The capture of the mongoose may have been similar to techniques used in acquiring monkeys or even squirrels, which are chased along branches or the ground (Pruetz, unpublished data).

This is the first report of a chimpanzee feeding on a banded mongoose. Our findings may be an example of cross-cultural differences in diet among chimpanzee communities<sup>3,10</sup>, but this hypothesis has yet to be tested with reference to the Fongoli chimpanzees. The inclusion of the banded mongoose in the diet may also be due to environmental constraints, such as the lack of mongooses at some of the other chimpanzee sites. Moreover, the faunal prey sources at Fongoli are limited to only three monkey species (*Papio hamadryas papio*, *Chlorocebus aethiops*, *Erythrocebus patas*), one nocturnal prosimian, bushbucks (*Tragelaphus scriptus*), squirrels (*Heliosciurus gambianus*), and warthogs (*Phacochoerus aethiopicus*). The Fongoli chimpanzees have been observed to pursue all but the warthog. The absence of red colobus (*Procolobus badius*), one of the main prey species at many chimpanzee sites, may explain the low occurrence of meat eating at Fongoli (5.4% of diet)<sup>2,9</sup>. It also may be that the low variety of prey species leads to the consumption of other small mammals, like the banded mongoose, at Fongoli.

**Acknowledgements.** S. Bogart thanks Wenner-Gren Foundation, Individual Research Grant for funds. J. Pruetz was supported by The Leakey Foundation and the National Geographic Society. We thank M. Camera, A. Quinn, J. Quinn, and S. Macdonald for assistance in the field and A. Quinn for comments on the manuscript.

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