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Responses of Chimpanzees to a Python

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INTRODUCTION

Chimpanzees in captivity have been known to show fear response to snakes¹, and wild chimpanzees in Gombe,

Tanzania, showed not only fear and avoidance responses (e.g., leaping back, moving away) but also aggressive behavior (e.g., hitting the snake, chasing and stamping on the ground, shaking saplings) toward live snakes (*Causus rhombeatus*, *Philothamnus* spp, etc.)². Wild chimpanzees have also been known to express a “waa” bark² and a “huu” (“hoo”) call^{2,3} when they saw snakes. However, few observations of the reactions of chimpanzees to snakes have been made in the wild.

African pythons (*Python saba*) have been thought to be among the potential predators of juvenile and infant chimpanzees⁴. Only one case involving the reactions of

wild chimpanzees to a half-dead python has been reported under experimental conditions in Gombe². However, no reports on encounters between wild chimpanzees and wild pythons have been published. In this study, I will report on the response of wild chimpanzees to a live python.

METHODS

I conducted field work from November to December 2008 in the Mahale Mountains National Park in Tanzania. I observed the members of M group⁵, which was consisted of 59 chimpanzees during the study period. I occasionally used a video camera (SONY, DCR-PC105) to record behavior.

OBSERVATIONS

I observed a party consisting of seven chimpanzees (two adult females: GW, RB; two adult males: AL, PM; two young females: PF, RC; and one infant: RB07) at 12:04 on December 15, 2008. At this time, they were resting in the forest near the Mpila River in the northern part of the home range of M group. At 12:07, I heard “wraa” calls from a few hundred meters east. RB then visually searched for the direction from which the “wraa” calls came and for the location of her offspring (RC and RB07); she alternated between these two search patterns. The “wraa” calls were uttered continuously by one chimpanzee. At 12:10, GW and her adopted offspring (PF) traveled eastward, and RB followed them with her offspring. The two adult males did not move immediately; however, 2 minutes later, PM (*alpha* male) also went eastward, and AL (*beta* male) and I followed him.

At 12:18, we arrived at a bush with thick woody vines and met another seven chimpanzees (three adult females: CA, FT, LD; two juvenile females: FV, CR; and two infants: FM, LD07). The party now consisted of 14 chimpanzees, but only one chimpanzee gave “wraa” calls. Eleven chimpanzees watched the bush from a distance of 3 meters. Four juveniles (CR, FV, PF, and RC) climbed a 2-meter-high woody vine, but the adults (AL, PM, and GW) and the mothers ventrally carrying infant offspring (LD and LD07, RB and RB07) sat on the ground. These observers waited and watched events occurring near the bush. At 12:22, AL shook a woody vine quietly and leaped back, but the others did not move and did not show

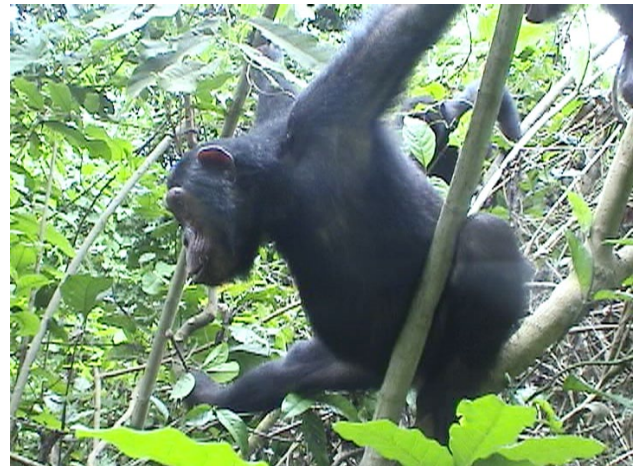


Figure 2. PF watched the python intently from the woody vine.

surprise. Next, PM approached and sat on a woody vine about 1 meter from the bush and shook the vines both aggressively and gently.

At 12:25, PM stopped shaking the vines and sat on the ground; he glanced at the bush and leaped back when he noticed the head of python sticking out of the bush (Figure 1, Video 1: available online at [mahale.main.jp/PAN/18_2/18\(2\)_01.html](http://mahale.main.jp/PAN/18_2/18(2)_01.html)). The python lay motionless for several seconds but then started to come toward me. I moved away on my hands and knees, and 10 seconds later, I looked back and saw the python slithering on the ground about 5 meters away from me. The chimpanzees watched the python intently (Figure 2). We observed the python for about 1 minute until it hid in another bush. Twenty seconds later, PM tracked the python quietly on foot, but he stopped, turned to look at AL, and grimaced (Figure 3). AL immediately approached PM; RB, who was carrying her infant ventrally, and RC followed, and they all tracked the python (Figure 4). Two minutes later, GW, FV, and CA approached this group, which now surrounded the bush the python had entered. “Huu” calls were uttered by one or two chimpanzees during the 2 minutes after the python had appeared, but “wraa” calls were not heard.

At 12:35, AL stopped waiting for the python and left; PM followed him. I heard pant-hoots from their direction, and these were met by pant-hoots uttered by many other



Figure 1. A python sticking out of the bush.



Figure 3. PM grimaced tracking the python.



Figure 4. PM (left), AL, RB carrying her infant ventrally, and RC (right) tracked the python.

members of M group, who were a few hundred meters from their location. Some of the females of the focal party remained near the bush for more than 30 minutes, but the python did not appear again.

According to estimates based on the video recording, the python was about 2.8 meters long and 0.08 meter in maximum diameter, and moved at a speed of about 0.27 m/s (= 1.0 km/h).

DISCUSSION

Chimpanzees in Gombe showed fear and avoidance responses (rushing away, climbing trees) accompanied by loud “wraa” and soft “huu” calls when they detected a nearly dead python placed within the observation area². Chimpanzees in Mahale also expressed “wraa” and “huu” calls, but after watching the python, only “huu” calls, which express puzzlement, surprise, or slight anxiety directed toward such phenomena as small snakes, rustling noises made by unidentified creatures, and so on⁶ were heard. Chimpanzees in Mahale also showed fear and avoidance responses (leaping back, climbing on vines, grimacing) to a python, but they were thought to be more interested in the python because they spent more time waiting, watching, and tracking it. Even a mother with her infant held ventrally and a juvenile followed the python despite its status as a potential predator of juvenile and infant chimpanzees⁴.

Many species of primates face a risk of predation from snakes. It has been hypothesized that the need to avoid snakes shaped the evolution of the primate visual system⁷. This hypothesis has been supported by experiments on Japanese monkeys (*Macaca fuscata*) reared with no experience with snakes who rapidly detected a picture of a snake⁸. Wild chimpanzees have been shown to detect and avoid pythons, but they also expressed interest in and approached these creatures. Although many researchers have studied chimpanzees in Mahale over the course 40 years, this is the only case of an encounter between chimpanzees and a python that has been reported. Because the chimpanzees of Mahale may not have been exactly sure about the nature of a python due to their lack of experience with this species, they may have been attracted to and puzzled by it.

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<NOTE>

Chimpanzee Pith-Folding at Toro-Semliki Wildlife Reserve, Uganda

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INTRODUCTION

Chimpanzees daily make and use tools, and most of their tool manufacturing transforms vegetation by stripping, peeling, splitting, crushing, clipping, etc. In habituated populations, behavioural data accompany the artefacts, so that observers see precisely how the tools are made and why. However, chimpanzees also modify detached vegetation when not making tools, and these activities may leave behind puzzling artefacts.

Such are the ‘wedges’ (or ‘quid’) of the pith of the wild date palm, *Phoenix reclinata*, which we analyse in detail here. The artefact is obvious when encountered: A straight stem is bent repeatedly to alternating sides, concertina-style, so that it has a series of folds at acute angles (see Figure 1). These objects are the spat-out products of buccal compression, from which juices have been extracted by squeezing them between tongue and palate.