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<NOTE>

A Juvenile Chimpanzee Played with a Live Moth

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INTRODUCTION

Although it is not common for chimpanzees (*Pan troglodytes*) to capture and toy with small mammals or birds without eating them, several reports have indicated that this does sometimes occur (e.g., Hirata *et al.* 2001; Zamma 2002; Carvalho *et al.* 2010). These reports compared such incidents with chimpanzees' hunting behaviors because it seems puzzling that the chimpanzees did not eat the meat. However, it is possible that a chimpanzee may show an interest in a living organism for its animacy *per se*, with no intention of eating it.

This paper reports the case of a juvenile female chimpanzee at Mahale that captured and played with a live moth (Lepidoptera). Although chimpanzees frequently prey on several insect species (mostly social insects) (e.g., McGrew 1992; Fuse 2013), Mahale chimpanzees eat moths only rarely (Nishida & Uehara 1983).

OBSERVATION

The observation focused on chimpanzees in the M group at the Mahale Mountains National Park (see Nishida 2012 for details of the study site). At 09:19 a.m. on 12 October 2004, two adult female chimpanzees and their offspring had been taking a rest under a dense bush since 08:54 a.m. when Ichiro (IH: a 1-year-old male) emitted a slight *huu* call and was observed to be watching something on the ground. When IH touched the object with his finger, it moved, and I could then see that it was a large moth, about 5–6 cm in size and beige in color. Its body was thick, and its forewings were much longer than its hindwings. IH's mother, Ikocha (IK), immediately approached him, put him on her belly, moved away, and sat about 1 m away from the moth. Soon, IH's older sister, Imani (IM: a 6-year-old female), went to where the moth lay and started to investigate it. Because my initial view was largely obstructed by dense bush, I moved to the side to gain a better view and started to take a video.

IM captured the moth without killing it and started to play with it, sometimes vigorously, sometimes calmly. Given her occasional play face and play pant, IM's series of behaviors was regarded as playful. I summarize the behavioral patterns observed during IM's play in Table 1 (see Video 1: available online at mahale.main.jp/PAN/20_2/20(2)_03 .html). The moth sometimes fluttered its wings while being pinched between IM's fingers or lips. Although IM frequently put the moth in her lips or touched it with her lip, she did not try to eat it.

While IM was playing with the moth, IH approached her twice, and she responded playfully to him. At 09:25, IM put the moth in her groin pocket and slowly walked away into the bush; at 09:26, I lost sight of her because I could go no further into the bush. When she was observed

again 4 min later, she no longer had the moth

DISCUSSION

Unfortunately, I could not collect the moth or identify the species. However, from its appearance and size, I suspect that it was probably a hawk moth (family Sphingidae). Although Nishida & Uehara (1983) listed unidentified moths (larvae and imagoes) in the food list of Mahale chimpanzees, with no description as to how they ate them, IM's behaviors described here did not look like a feeding attempt.

The total observation time during which IH and IM showed interest in and interacted with the moth was only about 7 min, but there were some similarities between their behaviors and chimpanzees' play with small vertebrates. For example, as Zamma (2002) reported in a case of a chimpanzee playing with a live squirrel, it seemed that IM too was enjoying the response of the moth, which sometimes fluttered. When the moth was motionless, she sometimes put her lower lip on it as if she were trying to activate the moth's movement again. She was careful enough in her handling of the moth not to flatten it, but because she finally tore off a part of a wing, it is difficult to say that she had no intention of killing the moth.

Unfortunately, I did not observe what finally happened to the moth, but since the moth had already become weak, I suspect that it soon became inactive, and thus IM might have lost interest and abandoned it. This differs from former observations of mammalian and avian play toys, in which the interest of the chimpanzees was main-



Figure 1. IM putting a forewing of the moth between her lips while lying prone (image taken from video footage).

tained for much longer, and they sometimes groomed or treated the animals like dolls even after the animals were dead (Hirata *et al.* 2001; Zamma 2002; Carvalho *et al.* 2010). Such differences may be due to differences in the sizes and shapes of the target animals.

Interestingly, although it was the infant, IH, who first showed interest in the moth, his mother immediately took him away from the insect. Some insects are poisonous or spiny, so the mother may have been protecting her young son from such potential dangers.

Table 1. IM's behaviors toward the moth in relation to her body postures.

Behavior towards the moth	Body posture
Puts the moth on the ground and hits it with her hands	Sitting
Throws the moth with one hand	Standing on all fours
Puts a fore wing of the moth between her lips (Figure 1), sometimes shaking her head	Sitting, lying supine, lying prone, rolling sideways, turning head over heels
Grabs the moth together with fallen leaves and lays her body on a pile of leaves	Sitting, lying prone
Pinches the moth with her hand or foot and holds it up in the air	Lying supine
Pinches the moth with her hand and brings it close to her nose or mouth	Sitting, lying supine
Kicks the moth backwards with her foot	Standing on all fours
Puts the moth in her groin pocket	Lying supine
Walks with the moth in her groin pocket	Standing on all fours
Pinches the moth's forewings with both hands and pulls slowly, tearing one wing (Figure 2)	Lying supine
Puts the moth between her arm and the side of her body	Lying on her side
Touches the moth with her foot	Standing on all fours



Figure 2. IM pinching both wings of the moth with both hands and slowly pulling it apart on the soles of her feet while lying supine (image taken from video footage).

It is common for human children to capture, play with, and sometimes kill still-living insects with no apparent purpose. It is possible that both humans and chimpanzees, especially youngsters, share a common inclination to become interested in, and sometimes enjoy playing with, an animate object.

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<NEWS>

The 1st MWCS Scholarship Student Awarded Diploma

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I am pleased to announce that Mr. Butati R. Nyundo, a grantee of the MWCS Special Scholarship, successfully completed a two-year course programme for ordinary diploma in wildlife management at the College of African Wildlife Management, Mweka (CAWM), Tanzania and attended the graduation ceremony taking place on the 25th of October, 2013 in order to get his diploma (Photo 1). This was MWCS's first attempt to offer an opportunity for high education to a prospective young person eager for wildlife conservation at Mahale. We will examine how it will work and what we can do to contribute to the community-based conservation in this area, while keeping in touch with Mr. Nyundo and giving him support, if necessary. We hope conservational efforts will thrive at Mahale in the hands of the Tongwe, the indigenous people there. Mr. Nyundo himself aspires to work for the Mahale Mountains National Park and to contribute to protection of the natural environments from any kind of harmful factors.

The following is his report on his three-month activities as a volunteer teacher at Buhingu Secondary School and Katumbi Primary School. Such activities had been assigned him by MWCS as an extended programme of the scholarship. Acknowledgements are due to all those who have supported our aims and activities as members and/or donors.



Photo 1. Mr. Butati R. Nyundo after graduation ceremony.

My teaching experience at my hometown

Butati R. Nyundo

Mahale Mountains National Park

As soon as I completed my studies at CAWM, I went