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Scientific note

Praying mantis (*Tarachomantis confusa*) preying on a Bright-Eyed Frog (*Boophis luteus*) in eastern Madagascar

(Insecta, Mantodea and Amphibia, Mantellidae)

Frank Glaw, David Prötzel & Lalaina O. Randriamanana

Praying mantises (order Mantodea) are predominantly insectivorous predators but are also known to consume a variety of vertebrates including fishes, amphibians, reptiles, birds and mammals (e. g., Ridpath 1977, Ehrmann 1992, Prete & Wolfe 1992, Dale 2005, Nyffeler et al. 2017, Battiston et al. 2018).

On a rainy evening of 26 December 2015 we discovered a praying mantis of 68 mm length (field number FGZC 5070), which was later identified by Bruno Meriguet as a female *Tarachomantis* (*Madamantis*) *confusa* Giglio-Tos, 1912. The insect was feeding on an adult male of the mantellid frog *Boophis luteus* (Boulenger, 1882) of 37.5 mm snout-vent length (ZSM 125/2016 [FGZC 4975]) in secondary vegetation, ca. 1.5 m above the ground, close to a river in Vohimana in eastern Madagascar (18°55'14.73''S, 48°30'49.97''E, ca. 790 m a. s. l.). When encountered at 6:18 pm the praying mantis was hanging head downwards in the vegetation holding the frog's hindlimbs (Fig. 1). The insect had already gnawed away most of the muscles and other soft tissue from the right hindlimb and foot to the bone and was continuing feeding on the left thigh. Parts of the intestines were hanging out from the right flanks. Although the frog did not show any movements for most of the time, it suddenly kicked his front legs and opened its mouth at 6:35 pm most likely more than 20 minutes after its capture (see Supplementary Video 1). Both the frog and the praying mantis were preserved and are deposited in the Zoologische Staatssammlung München (ZSM). This rare observation of an arthropod feeding on a vertebrate species confirms that praying mantises may not even specifically kill large prey such as frogs but simply eat them alive.

Supplementary Video 1: YouTube video taken by D. Prötzel: https://youtu.be/SaZ4yRbB8eA.

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Fig. 1. Praying mantis (*Tarachomantis confusa*) preying on the frog *Boophis luteus*.

References

Battiston, R., Puttaswamaiah, R. & Manjunath, N. 2018. The fishing mantid: predation on fish as a new adaptive strategy for praying mantids (Insecta: Mantodea). Journal of Orthoptera Research 27 (2): 155–158.

Dale, S. 2005. Praying mantis preying on vertebrates. Western Australian Naturalist 24: 247–249.

Ehrmann, R. 1992. Wirbeltiere als Nahrung von Gottesanbeterinnen (Mantodea). Entomologische Zeitschrift 102: 153–162.

Nyffeler, M., Maxwell, M. R. & Remsen, A. V. 2017. Bird predation by praying mantises: A global perspective. The Wilson Journal of Ornithology 129: 331–344.

Prete, F. R. & Wolfe, M. M. 1992. Religious supplicant, seductive cannibal, or reflex machine? In search of the praying mantis. Journal of the History of Biology 25: 91–136.

Ridpath, M. G. 1977. Predation on frogs and small birds by *Hierodula werneri* (Giglio-Tos) (Mantidae) in tropical Australia. Journal of the Australian Entomological Society 16: 153–154.

Frank Glaw (corresponding author), Zoologische Staatssammlung München (SNSB–ZSM), Münchhausenstr. 21, 81247 München, Germany; e-mail: glaw@snsb.de

David Prötzel, BIOTOPIA – Naturkundemuseum Bayern, Botanisches Institut, Menzinger Str. 67, 80638 München, Germany

Lalaina O. Randriamanana, Mention Zoologie et Biodiversité Animale, Université d'Antananarivo, BP 906, Antananarivo, 101 Madagascar

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