

**PANG SING TYAN**, No. 1282 Lorong Damai, Jalan Damai, 91007 Tawau, Sabah, Malaysia (e-mail: tyanpang@gmail.com); **ELVIA CHONG QI ERN**, No. 51, Jalan Bukit Mewah 3, Taman Bukit Mewah, 43000 Kajang, Selangor, Malaysia (e-mail: elviacqe@gmail.com); **INDRANEIL DAS**, Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia (e-mail: idas@unimas.my).

**DIBAMUS VORISI. DIET.** Lizards of the genus *Dibamus* are fossorial, nearly legless and eyeless, and found throughout Southeast Asia, Wallacea, the southern Philippines, and Western Papua (Čerňanský 2019. Zool. J. Linn. Soc. 187:782–799). Little is known about these lizards' natural history and diet, but their anatomical and ecological similarities to other small, fossorial lizards and scolecophidian snakes suggest that they may feed on eggs, larvae, and pupae of eusocial insects; correspondingly, dibamids are often found in the nests of eusocial insects (Kliuik et al. 2023. Zootaxa 5380:3012–320; Krone, pers. obs.). *Dibamus vorisi* is one of ten dibamid species considered “lost” by the IUCN (Lindekin et al. 2023. Glob. Change Biol. 30:e1707), known only from the holotype collected in primary forest 5 cm below the soil in a tree buttress and one paratype collected under leaves (Meiri et al. 2017. Divers. Dist. 24:262–273); no other ecological information is known. Here, I report the partial gut contents of the paratype specimen of *D. vorisi* collected in 1990 from the Danum Valley forest reserve (5.3816°N, 116.9139°E; WGS 84; 95 m elev.) in Sabah, Malaysia (Borneo) (Das and Lim 2003. Raff. Bull. Zool. 51:137–141).



FIG. 1. Three beetle larvae (cf. Elateridae) found in the gut of a *Dibamus vorisi* from Sabah, Malaysia.

While attempting to extract liver tissue for genetic analysis from the type specimen, I ruptured the specimen's gut and ten small, maggot-like arthropod larvae tumbled out. More larvae were seen in the gut, but to minimize additional damage to the specimen I did not attempt to extract them. Those larvae that fell out were immediately placed in 70% EtOH and later imaged with a Keyence VHX digital microscope at 50× magnification. They were subsequently returned to the Field Museum of Natural History to be accessioned in the entomological collections. The length of the larvae ranged from 4.5–7.2 mm (Fig. 1) and were tentatively identified as larvae of an unidentified elaterid beetle (Elateridae), which are commonly found in soil and rotting wood (Hopwood et al. 2021. Farming with Soil Life. The Xerces Society for Invertebrate Conservation, Portland, Oregon. 128 pp.).

To my knowledge, this is the first record of food items in *D. vorisi* and the only detailed record of diet for the family Dibamidae (Rodda 2020. Lizards of the World Natural and Taxon Accounts. Johns Hopkins University Press, Baltimore, Maryland. 801 pp.), although one species from the Nicobar Islands, *D. nicobaricum*, was noted to eat insects (Tikader and Sharma 1992. Handbook of Indian Lizards. Zoological survey of India, Calcutta, India. 307 pp.). The paratype I examined was collected under leaf litter where elaterid beetle larvae can be found (Das and Lim 2003, *op. cit.*), and my findings demonstrate that insect larvae are taken as prey by dibamids and suggests that the animals' association with insects is likely due to predation.

I thank Dr. Peter T. Oboyski for his help identifying the prey items.

**ISAAC W KRONE**, Museum of Vertebrate Zoology, 3101 Valley Life Sciences Building, Berkeley 94720, California, USA; e-mail: isaacwkrone@gmail.com.

**DIPORIPHORA SUPERBA (Superb Dragon). DIET.** Australian agamid lizards are mostly insectivorous, although a switch to omnivorous diets including plant material has been seen in the larger species such as *Pogona* spp. and *Intelligama lesueurii* (Melville and Wilson 2019. Dragon Lizards of Australia: Evolution, Ecology and a Comprehensive Field Guide. Museums Victoria Publishing, Melbourne, Australia. 406 pp.). *Diporiphora superba* is a species found on foliage along sandstone gorges in the northwestern Kimberley region of Western Australia, and like other members of the genus, this species is only known to eat insects (Weigel 1989. Internat. Zoo Yearbook 28:122–126; Rodda 2020. Lizards of the World: Natural History and Taxon Accounts. Johns Hopkins University Press, Baltimore, Maryland. 801 pp.). Here, I report an observation of herbivory in *D. superba*.

On 26 June 2022, at ca. 1000 h, I observed an adult *D. superba* in a low shrub (Fig. 1) among sandstone rocks near Little Mertens Creek in Mitchell Falls National Park (14.824°S, 125.712°E; WGS 84; 180 m elev.), Kimberley region, western Australia. The lizard was slowly moving through the shrub among sandstone and at one point stopped and consumed two leaves from the shrub or another plant entangled in the shrub (Fig. 2). Each one only took 2–6 sec to be swallowed, and both were eaten consecutively. I am not certain if the shrub where the lizard fed was composed of one or more species, but I observed flowers of *Hypoestes floribunda* var. *distans* (Acanthaceae). To my knowledge this is the first observation of herbivory in *D. superba* and the first such report for the genus *Diporiphora*.

PHOTO BY DAMIEN ESQUERRÉ



FIG. 1. *Diporiphora superba* on a low shrub among sandstone at Mitchell Falls National Park, Kimberley region, western Australia.

PHOTO BY DAMIEN ESQUERRÉ



FIG. 2. *Diporiphora superba* eating leaves while in the shrub *Hypoestes floribunda* var. *distans*. Note leaf on the left side of the lizard's mouth.

I would like to thank Constanza Leon for assistance in the field and Kevin Keneally for help with identification of the plant species.

**DAMIEN ESQUERRÉ**, School of Earth, Atmospheric and Life Sciences, University of Wollongong, Wollongong 2522, NSW, Australia; e-mail: esquerré.damien@gmail.com.

**GONATODES HUMERALIS (South American Clawed Gecko). HYPERTROPHY OF THE ENDOLYMPHATIC SACS.** Endolymphatic sacs are present in many geckos (Bauer 1989. *J. Herpetol.* 23:172–175) and are believed to play a role in inner ear processes, immune response, sound transmission and calcium storage



FIG. 1. Enlarged endolymphatic sacs in a female *Gonatodes humeralis* (arrow heads) collected in Bacanga Park, Maranhão, Brazil, in dorsal (A–C) and ventral (D) views.

(Mangione and Montero 2001. *J. Herpetol.* 35:524–529; Laver et al. 2019. *J. Morphol.* 281:213–228). The use of these structures for calcium storage has been observed in several genera of geckos, such as *Eurydactylodes*, *Gonatodes*, *Hoplodactylus*, *Lepidodactylus*, *Lygodactylus*, *Nautinus* and *Phelsuma* (Bauer 1989, *op. cit.*; Lamb et al. 2017. *Bull. Peabody Mus. Nat. Hist.* 58:17–29), and is evident by substantial enlargement of the endolymphatic sacs in females during reproduction (Bauer 1989, *op. cit.*). The extent of this endolymphatic sac among geckos is still incomplete, and here, we report hypertrophied endolymphatic sacs in *Gonatodes humeralis* from Brazil.

On 18 November 2023, we captured a gravid female *G. humeralis* (75 mm total length, 34 mm SVL, 0.39 g) at Bacanga Park, São Luís Municipality, Maranhão, Brazil (2.5835°S, 44.2771°W; WGS 84; 38 m elev.). This female possessed extracranially hypertrophied endolymphatic sacs that formed a large bulge on both sides of the head (Fig. 1). The endolymphatic sacs were so large they extended beyond the lizard's head width, although not affecting its movement directly.

To our knowledge this is the first record of hypertrophied endolymphatic sacs in female *G. humeralis* and also the second species in the genus with this condition, in addition to *G. antillensis* from the Antilles (Lamb et al. 2017, *op. cit.*). The role of calcium reserves in the endolymphatic sacs of geckos is important for reproduction and has been suggested to be linked to the development of oviductal eggs (Ineich and Gardner 1989. *J. Herpetol.* 23:414–418). Further studies are needed to evaluate the hypertrophy of this structure and its relationship with eggshell formation, embryonic bone growth and calcification in *G. humeralis*.

Animal handling and care were permitted by the Instituto Chico Mendes de Conservação da Biodiversidade (acronym ICMBio, SISBIO license number 87347-1).

**AMANDA L. M. ROSA**, Programa de Pós-Graduação em Parasitologia, Universidade Federal de Minas Gerais, Belo Horizonte 31279-901, Minas Gerais, Brazil; **SAMUEL C. GOMIDES**, Autonomous Research, Belo Hori-