

woody debris near aquatic habitats (Steen et al. 2013. *Herpetol. Rev.* 44:208–213). Other observations of overland movement have been noted during times of drought or periods of increased rainfall (Hellman and Telford 1956. *Copeia* 1956:257–258; Willson et al. 2006. *Wetlands* 26:1071–1078). Across the southeastern United States, *F. abacura* overland movements average 62 m from the nearest body of water (range: 26–1288 m; Steen et al. 2013, *op. cit.*). Here, we contribute to the few observations documenting overland movement of *F. abacura* in Texas.

On 19 June 2019, in Trinity County, Texas (31.3050°N, 94.9362°W; WGS 84; 75 m elev.), one male *F. abacura* (475 mm SVL, 59 mm tail length, 63 g) was captured in a boxtrap located 159 m from a permanent pond. This pond is located on a crest of a hill in an upland that is adjacent to an ephemeral drainage (31.3027°N, 94.9375°W; WGS 84; 75 m elev.). The boxtrap was located north of the pond at the hill's toe-of-slope near a dry stream bed. The surrounding understory vegetation consists of *Callicarpa americana* (American Beautyberry), *Rubus* spp. (Blackberry), *Liquidambar styraciflua* (American Sweetgum), *Myrica cerifera* (Southern Wax Myrtle), as well as a diversity of herbaceous vegetation and woody debris. With this observation, it can be noted that this *F. abacura* was well over the average distance of 62 m from a waterbody (Steen et al. 2013, *op. cit.*). Also, the temporal window of this observation was consistent with prior observations of terrestrial movements of *F. abacura* in east Texas (Steen et al. 2013, *op. cit.*). In this case, this observation adds to the growing observations on the terrestrial ecology of this semiaquatic snake.

DYLAN W. THOMPSON (e-mail: thompsondw@jacks.sfasu.edu), **CONNOR S. ADAMS**, and **CHRISTOPHER M. SCHALK**, Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, Texas 75965, USA.

FOWLEA PISCATOR (Checkered Keelback). DIET. *Fowlea piscator* (formerly *Xenochrophis piscator*; Purkayastha et al. 2018. *Zootaxa* 4514:126–136) is a medium-sized natricine snake that occupies the majority of southern and southeastern Asia (Uetz et al. 2019. The Reptile Database. <http://www.reptile-database.org>, accessed 3 Aug 2019). It is known to primarily feed on fish, amphibians, and arthropods (Hossain 2016. *Bangladesh J. Zool.* 44:153–161) but will also occasionally eat rodents and birds (Whitaker and Captain 2004. *Snakes of India, The Field Guide*. Draco Books, Chennai, India. 495 pp.). Herein, I report observations of *F. piscator* feeding on the eggs of *Rhacophorus malabaricus* (Malabar Gliding Frog), a species endemic to the Western Ghats.

Rhacophorus malabaricus is a tree frog that reproduces by constructing foam nests over standing water (Kadavevaru and Kanamadi 2000. *Nature Science* 79:377–380). During the monsoon season (June–August), many pairs of *R. malabaricus* spawn on the walls of a 3 × 1 m rectangular water trough at the Agumbe Rainforest Research Station in Agumbe, Karnataka, India (13.5182°N, 75.0888°E; WGS 84). At ca. 2230 h on 23 June 2019, I observed an *F. piscator*, ca. 30 cm in length, predating a foam nest on the wall of the water trough. The snake had its forebody extended upward out of the water and it was feeding on *R. malabaricus* eggs with its head in the foam. When I shined my flashlight on it, it retracted its head from the foam, at which point I took a photograph (Fig. 1). To my knowledge, this behavior has only been observed once before, in Amboli, Maharashtra, India (V. Giri, pers. comm.). Here, an *F. piscator* was seen climbing a small branch of a tree, which was overhanging a small puddle, ca. 1 m above the water's surface. The snake eventually went to feed



FIG. 1. *Fowlea piscator* with a *Rhacophorus malabaricus* foam nest that it was predating in Karnataka, India.

on an egg nest of *R. malabaricus*. When the observer decided to take a photo of this behavior, the snake dove into the water.

The nests of *R. malabaricus* represent a seasonal food source for Lion-tailed Macaques (*Macaca silenus*) and many species of arthropods (Vasudevan and Dutta 2000. *Hamadryad* 25:21–28) and likely represent the same for opportunistic predators like snakes. Further studies may potentially reveal that other Indian snake species take advantage of this food source as well, in much the same way that Neotropical snakes of the genera *Leptodeira* and *Leptophis* predate the eggs of *Agalychnis callidryas* (Caldwell et al. 2010. *Anim. Behav.* 79:255–260.). Whether the eggs of *R. malabaricus* have evolved to hatch early in response to snake predation, as have the eggs of Neotropical frogs (Warkentin 2005. *Anim. Behav.* 70:59–71), remains unknown.

I thank the Madras Crocodile Bank Trust for supporting the research carried out at the Agumbe Rainforest Research Station. I also thank V. B. Giri for including his observation and extending his guidance.

YATIN KALKI, Agumbe Rainforest Research Station, Agumbe, Karnataka 577411, India; e-mail: yatin.kalki@gmail.com.

GLOYDIUS SAXATILIS (Rock Mamushi). DICEPHALISM. Dicephalism has been documented in numerous snake species (Wallach 2007. *Bull. Maryland Herpetol. Soc.* 43:57–95). In the



FIG. 1. Dorsal (A) and ventral (B) views of the dicephalic juvenile *Gloydius saxatilis* (EWNHM-ANIMAL 6454).

genus *Gloydus*, dicephalism has been reported in *G. blomhoffi*, *G. brevicaudus*, and *G. halys* (Paik et al. 1999. Snakes. Jiseongsa Press, Seoul, Korea. 197 pp.; Wallach 2007, *op. cit.*). Here we present, to the best of our knowledge, the first reported case of dicephalism in *G. saxatilis*. The specimen (Ewha Womans University Natural History Museum Herpetology Collection [EWNHM-ANIMAL] 6454; Fig. 1) was a juvenile snake measuring 226.4 mm total length (194.8 mm SVL, 22 dorsal scale rows, 149 ventrals). The two heads were not completely bifurcated but instead were fused halfway down the inner lateral sides. The label for this specimen was completely missing, and therefore the origin of this specimen is unknown. We thank the staff of the EWNHM for giving us the opportunity and workspace to examine this specimen. Supported by the National Research Foundation of Korea (2017R1A2B200357).

YUCHEOL SHIN and **YIKWEON JANG**, Division of EcoScience, Ewha Womans University, Seoul 03760, Republic of Korea; **AMAËL BORZÉE**, College of Biology and the Environment, Nanjing Forestry University, Nanjing 210037, People's Republic of China (e-mail: amaelborzee@gmail.com).

GLOYDIUS USSURIENSIS (Ussuri Mamushi). DISEASE. Ulcerative stomatitis is an infectious disease frequently affecting captive snakes, mainly caused by viral, bacterial, and fungal pathogens (Schumacher 2006. J. Exot. Pet. Med. 15:18–24). Severe infections of the gums and jawbones can impair a snake's ability to hunt and feed, eventually leading to death. Although an outbreak of fungal stomatitis has been reported in a free-ranging population of *Sistrurus miliarius barbouri* in Florida, USA (Cheatwood et al. 2003. J. Wildl. Dis. 39:329–337), records of this disease in wild snakes are generally lacking.

At 1410 h on 29 July 2019, we captured an adult *Gloydus ussuriensis* near a forest on Gulbong Mountain, Chuncheon-si, Gangwon Province, Republic of Korea (37.8309°N, 127.5572°E; WGS 84; 102 m elev.). This individual had a noticeably swollen left maxillary fang when viewed dorsally (Fig. 1A). Upon closer inspection, the fang sheath was infected and severely inflamed (Fig. 1B) with several small ulcers visible. Both maxillary fangs were intact and the infection and inflammation were localized. Other parts of the mouth seemed to be unaffected by the infection (Fig. 1C). Although the precise cause and pathogen responsible for infection could not be determined, this observation is the first record of ulcerative stomatitis occurring in *Gloydus*

ussuriensis. It also adds valuable knowledge on diseases in wild reptiles. Supported by the National Research Foundation of Korea (2017R1A2B200357).

YUCHEOL SHIN and **YIKWEON JANG**, Division of EcoScience, Ewha Womans University, Seoul 03760, Republic of Korea; **AMAËL BORZÉE**, College of Biology and the Environment, Nanjing Forestry University, Nanjing 210037, People's Republic of China (e-mail: amaelborzee@gmail.com).

GONYOSOMA OXYCEPHALUM (Red-tailed Green Rat Snake).

DIET and HABITAT USE. *Gonyosoma oxycephalum* is a widespread, southeast Asian rat snake that is generally distributed throughout the Philippines in a wide variety of habitats (Brown et al. 2013. ZooKeys 266:1–120). On 1 August 2019, three juvenile *G. oxycephalum* were encountered in the twilight zones of Ilihan Cave, Barangay Bonifacio, Uson, Masbate, Bicol Peninsula, Philippines (12.1667°N, 123.7121°E; WGS 84). The first individual *G. oxycephalum* (Fig. 1A) encountered accidentally fell down from the cave ceiling where a large roost of Common Bent-wing Bat



FIG 1. Adult *Gloydus ussuriensis* showing symptoms of ulcerative stomatitis from Gangwon Province, Republic of Korea.

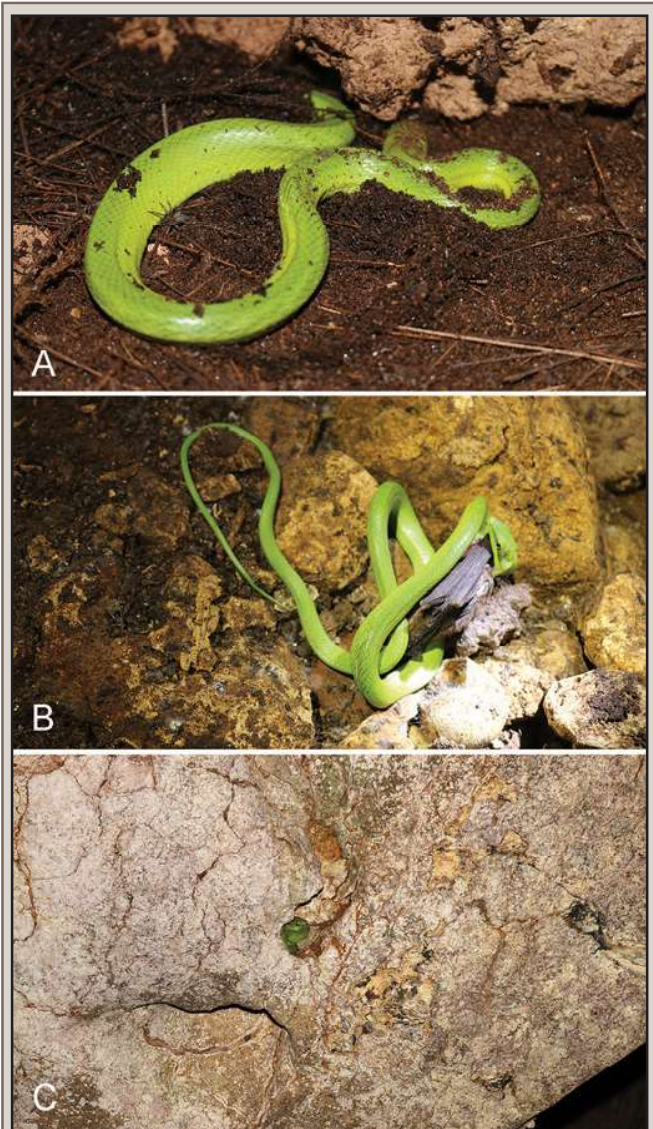


FIG. 1. A) juvenile *Gonyosoma oxycephalum* on the cave floor; B) *G. oxycephalum* in the process of consuming a *Miniopterus schreibersii*; C) *G. oxycephalum* observed coiled and resting on a cave wall.

PHOTOS BY C. J. P. DELA CRUZ