

Resources, and the Ontario Ministry of Transportation. All research was conducted under an approved Laurentian University Animal Care Committee protocol, and authorized by Magnetawan First Nation's Chief and Band Council and the Ontario Ministry of Natural Resources.

**JAMES BAXTER-GILBERT** (e-mail: [jx\\_baxtergilbert@laurentian.ca](mailto:jx_baxtergilbert@laurentian.ca)), **JULIA L. RILEY** (e-mail: [jx\\_riley@laurentian.ca](mailto:jx_riley@laurentian.ca)), **JACQUELINE D. LITZGUS** (e-mail: [jlitzgus@laurentian.ca](mailto:jlitzgus@laurentian.ca)), Laurentian University, Sudbury, Ontario, P3E 2C6 Canada.

**STORERIA DEKAYI (Dekay's Brownsnake). DIET.** *Storeria dekayi* is a small natricine snake of the eastern United States that feeds primarily on slugs and earthworms. Slug species reported to have been consumed by *S. dekayi* include *Arion hortensis*, *Deroceras laeve*, and *D. reticulatum* (Judd 1954. *Copeia* 1954:62–64; Fitch 1999. *A Kansas Snake Community: Composition and Changes over 50 Years*. Krieger Publ. Co., Malabar, Florida. 165 pp.); earthworms have not been identified to either genus or species. In addition to its preferred prey, *S. dekayi* has also been reported to consume snails, insects, isopods, mites, spiders, small fish, and amphibians (Judd, *op. cit.*; Wright and Wright 1957. *Handbook of Snakes of the United States and Canada*, Vol. 2. Cornell Univ. Press, Ithaca, New York. 441 pp; Langlois 1964. *Ohio J. Sci.* 64:11–25). Herein I report observations regarding the diet of *S. dekayi* from western Pennsylvania, USA, including the inaugural documentation of millipedes as a food item, as well as the first account specifically identifying *Lumbricus rubellus* (Red Marshworms) as having been consumed by *S. dekayi*.

While studying a population of *S. dekayi* at a site along the Hwy 832 bridge in Erie Co., Pennsylvania, USA (42.09375°N, 80.14180°W; datum WGS84), several observations were made regarding the species' diet. At 1950 h on 24 August 2012 a juvenile female *S. dekayi* (SVL = 145 mm; 2.5 g) was discovered under a panel of particle board on a slope dominated by herbaceous vegetation. While being measured, the snake disgorged the following slugs: *Arion hortensis* complex (N = 1), *Arion* sp. (N = 1), *Deroceras* sp. (N = 2), and one unidentified slug. Also disgorged were two millipedes of the order Julida. The combined mass of the prey items was 0.12 g.

Between 31 May 2012 and 19 September 2012, dietary data were gathered from an additional eight *S. dekayi* (SVL = 114–225 mm; 1.5–7.5 g). Two *S. dekayi* had each consumed a single *L. rubellus*, while another disgorged an unidentified earthworm. The remaining five *S. dekayi* had consumed slugs, three each disgorged a single slug: *Arion* sp., *Deroceras* sp., and *D. reticulatum*, respectively. The remaining two *S. dekayi* regurgitated multiple slugs: one disgorged three *D. reticulatum*, the other disgorged two *Arion* sp., one *Deroceras* sp., and an unidentified slug.

Of the nine *S. dekayi* that disgorged prey, seven were found between 1838–2000 h. Three of these snakes disgorged prey that were still alive; two slugs and a *L. rubellus*. Ernst and Ernst (2003. *Snakes of the United States and Canada*. Smithsonian Books, Washington, DC. 668 pp.) noted that *S. dekayi* forage most often in the early evening or at night. The fact that live prey was disgorged in the evening suggests that this may be the case at the Erie Co. site as well. The remaining two *S. dekayi* were found in the morning between 0921–1124 h and only contained dead prey.

To my knowledge, this is the first report of millipedes in the diet of *S. dekayi*. The millipedes consumed by the *S. dekayi* captured on 24 August might have been consumed incidentally. Mucus secreted by *Arion* slugs during routine handling was especially sticky (pers. obs.). Millipedes were plentiful under cover

objects with slugs and snakes, and it is foreseeable that nearby invertebrates could adhere to a slug being manipulated during predation. It is possible that the remains of insects and mites observed by Judd (*op. cit.*) might have also been ingested accidentally. Although earthworms have previously been reported in the diet of *S. dekayi*, this is the first report specifically identifying *L. rubellus* as a prey item. *Lumbricus rubellus* is a European exotic earthworm usually found in surface litter or under debris (Reynolds 1977. *The Earthworms [Lumbricidae and Sparganophilidae] of Ontario*. Life Sci. Misc. Publ., Royal Ontario Museum, Toronto, Canada. 141 pp.). Like *L. rubellus*, the slugs (*Arion* sp. and *D. reticulatum*) consumed by *S. dekayi* at the Erie Co. site were European exotics. Although it was not possible to identify most of the disgorged *Arion* slugs to species, *A. subfuscus* was the most prevalent species found at the site. Likewise, *D. laeve* was found at the site in very small numbers, while *D. reticulatum* was much more abundant. Snakes were released at the site of capture; prey items were preserved and will be deposited in the invertebrate collection of the Natural History Museum at the Tom Ridge Environmental Center, Erie, Pennsylvania, USA.

I wish to offer my gratitude to both Jeff Beane and George Pisani for suggestions and comments that improved the manuscript.

**BRIAN S. GRAY**, Natural History Museum at the Tom Ridge Environmental Center, 301 Peninsula Drive, Erie, Pennsylvania 16505, USA; e-mail: [brachystoma@hotmail.com](mailto:brachystoma@hotmail.com).

**ZAMENIS SITULA (Leopard Snake). DIET AND FEEDING BEHAVIOR.** On 22 August 2012, at 0053 h, one of us (PC) observed an adult female *Z. situla* (SVL = 590 mm; tail length = 140 mm; 52 g) preying on a subadult *Mus musculus* (House Mouse). The observation took place on a roadside separated from an olive grove by a blackberry bush, ca. 1 km SW of the town of Cavallino, Lecce Province, southeastern Italy (40.30°N, 18.18°E, datum WGS 84; elev. 41 m). The snake was not preserved, but its morphological examination leaves no doubt as to its specific identity (2 pre-ventrals + 231 ventrals, anal scale divided; 75 subcaudals, divided except for the first six; pupil round; dorsals smooth, vertebral row not enlarged; 25 dorsal scale rows at midbody; 8 supralabials on each side, 4<sup>th</sup> + 5<sup>th</sup> contacting the eye; 9 infralabials, 1 loreal, 1 preocular and 2 postoculars on each side; spotted dorsal pattern). The snake was released at the place of capture and the mouse was deposited in the collections of the Museo di Storia naturale del Salento. Rare and poorly known, *Z. situla* is reputed to be diurnal or occasionally crepuscular (Fattizz 1996. *Anfibi e Rettili della Penisola Salentina*. Physis Ed., Latiano. 125 pp.; Rugiero et al. 1998. *J. Herpetol.* 32:626–630). Our observation seems to represent the first reported case of nocturnal feeding by this snake in the wild.

We thank Antonio Durante (Cavallino) for his hospitality during our field work.

**PIERO CARLINO**, Museo di Storia naturale del Salento, via Europa 95, 73021 Calimera, Italy (e-mail: [piero.carlino@msns.it](mailto:piero.carlino@msns.it)); **OLIVIER S. G. PAUWELS**, Département des Vertébrés Récents, Institut Royal des Sciences naturelles de Belgique, Rue Vautier 29, B-1000 Brussels, Belgium (e-mail: [osgpauwels@yahoo.fr](mailto:osgpauwels@yahoo.fr)).