



FIG. 1. Male kestrel passes *Podarcis* lizard to young. Photograph by Deborah Allen.

reported to predate *Podarcis*, but they have been reported to consume *Anolis* lizards (Adolph and Roughgarden 1983 *Oecologia* 56: 313–317) and *Sceloporus occidentalis*, *S. graciosus*, and *Elgaria coerulea* (Balgooyen 1976 *Univ. California Publ. Zool.* 103:1–87). The natural range of *P. siculus* is restricted almost entirely to Italy. There *Podarcis* spp. are preyed upon by *Falco tinnunculus* (Eurasian Kestrel) (Martín and López 1990. *Smithson. Herpetol. Info. Serv.* No. 82, pp. 1–43; Costantini et al. 2005. *Behaviour* 142:1409–1421), but *P. siculus* has not specifically been positively identified as *Falco* prey.

This is the second report of predation by a native predator on *Podarcis* in New York (see Mendyk 2007 *Herpetol. Rev.* 38:82); introduced *Podarcis* in Kansas are preyed upon by Great Plains Skinks (*Eumeces obsoletus*) and Blue Jays (*Cyanocitta cristata*) (Burke and Deichsel, *op. cit.*). Should populations of *Podarcis siculus* expand, it is likely the list of species that prey on this non-native lizard will increase.

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SCELOPORUS CLARKII (Clark's Spiny Lizard). **AQUATIC BEHAVIOR.** Several terrestrial lizard species have been observed attempting to escape potential predators by submerging their bodies underwater, including *Cnemidophorus sexlineatus* (Dillon and Baldauf 1945. *Copeia* 1945:174; Trauth et al. 1996. *Herpetol. Rev.* 27:20), *Crotaphytus collaris* (Burt and Hoyle 1934. *Trans. Kansas Acad. Sci.* 37:193–216), and *Scincella lateralis* (Akin and Townsend 1998. *Herpetol. Rev.* 19:43). Herein, we report an observation of similar behavior in *Sceloporus clarkii*, a non-aquatic, typically arboreal, lizard.

On 30 June 2008 at 0823 h, we observed an adult *S. clarkii* sprinting across bedrock in the bottom of a deeply-incised canyon in the Rincon Mountains east of Tucson, Arizona (32.16271°N, 110.69902°W, WGS84). The lizard disappeared under a rock ledge below us, and moments later we heard a splash. We found the lizard completely submerged in a shallow pool of water with a gravel-lined bottom (ca. 60 mm deep) under the rock ledge. The lizard remained underwater for approximately three minutes, lifted its head out of the water and took a breath, and then submerged its head and body completely for several more minutes. The lizard then lifted its snout and eyes above the surface of the water and remained in this position for more than 10 minutes, after which we stopped observing to avoid disturbing the lizard any more than necessary. The use of water as a refuge from predators has not been widely reported for terrestrial lizards, probably due to the thermodynamic costs associated with submergence. In this case, however, the lizard may have tolerated prolonged submergence because the water temperature was relatively high due to elevated ambient temperatures (>32°C) and the shallow depth of the pool.



FIG. 1. Adult *Sceloporus clarkii* partially submerged in shallow canyon pool in southern Arizona, USA.

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STENOCERCUS DOELLOJURADOI (NCN). **CLUTCH SIZE.** *Stenocercus doellojuradoi* (Tropiduridae) is a Chaco endemic species of Argentina, and regarded as a vulnerable species associated with Chaco forests (Pelegrin et al. 2006. *Herpetozoa* 19(1/2):85–

86). The Chaco ecoregion is a vast woodland that covers more than 1.2 million km², including portions of Argentina, Bolivia, and Paraguay, ranging from tropical (18°S) to subtropical (31°S) latitudes. The southernmost portion of the Chaco (Dry Chaco) is characterized by having lower temperatures and rainfall (Bucher 1982. *Ecological Studies* 42:48–79). Although *S. doellojuradoi* is a common species within its limited distribution, its natural history has been poorly studied, and there is no available information on its reproductive biology. In the context of an ecological study on lizard assemblages in the Dry Chaco of Córdoba, Argentina (30.37°S, 65.43°W), we recorded females with oviductal eggs in November, January, and February; one female (SVL = 77 mm, 18 g) from November was found to be carrying six eggs (mean length \pm SD = 13.33 \pm 1.37 mm). This is the first report of reproductive data for this species.

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TROPIDURUS HISPIDUS (Calango). **PREY**. Lizard species of the widely distributed South American genus *Tropidurus* (Rodrigues 1987. *Arq. Zool.*, São Paulo 31:105–230) are sit-and-wait ambush predators that feed predominantly on arthropods (Fialho et al. 2000. *J. Herpetol.* 34:325–330; Van Sluys 1993. *J. Herpetol.* 27:347–351; Vitt 1991. *J. Herpetol.* 25:79–90). Some species also are known to prey on vertebrates such as mammals, lizards, and frogs (Gasparini and Peloso 2007. *Herpetol. Rev.* 38:464). Sauriphagy is already recorded for species of *Tropidurus*, be these conspecifics (Araújo 1987. *Rev. Brasil. Biol.* 51:857–865; Dias and Rocha 2004. *Herpetol. Rev.* 35:398–399; Kiefer and Sazima 2002. *Herpetol. Rev.* 33:136; Kohlsdorf et al. 2004. *Herpetol. Rev.* 35:398) or other lizard species (Galdino and Van Sluys 2004. *Herpetol. Rev.* 35:173; Kiefer 1998. *Herpetol. Rev.* 29:41; Kiefer et al. 2006. *Herpetol. Rev.* 37:475–476; Teixeira and Giovanelli 1999. *Rev. Brasil. Biol.* 59:11–18). *Tropidurus hispidus* has a wide distribution and is locally abundant (Rodrigues, *op. cit.*). This species is considered a generalist, its diet consisting primarily of arthropods (Vitt and Carvalho 1995. *Copeia* 1995:305–329), although there are records of predation on frogs (Vitt et al. 1996. *J. Trop. Ecol.* 12:81–101) and an attempt of predation on the gekkonid lizard *Hemidactylus palaichthus* (Rojas-Runjaic et al. 2006. *Herpetol. Rev.* 37:474). Here we present two instances of sauriphagy and one of anurophagy in a coastal population of *T. hispidus*. Several individuals of this species were caught in April and May 2006, during a study carried out in a restinga habitat (characterized by sand dunes and sparse vegetation) on the beach of Panaquatira (2.561944°S, 44.054167°W), São José de Ribamar municipality, State of Maranhão, Brazil. One hundred and eleven specimens were dissected for gut content investigation; these specimens and their prey are in the Museu de Zoologia “Prof. Dr. Adão José Cardoso” (ZUEC), Universidade Estadual de Campinas. An adult male (ZUEC REP 03193; 85.3 mm SVL; 25 g) contained a partially digested juvenile (ca. 50.66 mm SVL) teiid lizard *Cnemidophorus ocellifer*; another adult male (ZUEC REP 03194; 83.9 mm SVL; 19 g) contained one adult (ca. 48 mm SVL) of the gymnophthalmid lizard *Colobosaura modesta*, and a female (ZUEC REP 03195; 80.4 mm SVL; 15.5 g)

contained a skull bone (12.14 mm) of an unidentified frog. The two lizard prey items were partly digested, however, the head to the anterior part of the tail remained nearly intact. Further, the heads of each lizard were positioned in the anterior part of the stomach, thus indicating that both lizards were probably swallowed tail-first. *Cnemidophorus ocellifer* and *Colobosaura modesta* are active foragers (Bergallo and Rocha 1994. *Austral. J. Ecol.* 19:72–75; Rocha 1994. *In* Nascimento et al. [eds.], *Herpetologia no Brasil* 1, pp. 39–57. PUC-MG: Fundação Biodiversitas: Fundação Ezequiel, Belo Horizonte), whereas *T. hispidus* is a territorial sit-and-wait predator (Van Sluys et al. 2004. *J. Herpetol.* 38:606–611; Vitt and Carvalho, *op. cit.*). Active foragers are on the move and thus are exposed to risk of predation by sit-and-wait predators (Pianka 1986. *Ecology and Natural History of Desert Lizards*. Princeton University Press, Princeton, New Jersey. 208 pp.). Our observations on the positions of the two lizards in the stomachs of each *T. hispidus*, in addition to a record of a *C. ocellifer* also ingested tail-first by the conspecific *T. torquatus* (Kokubum and Lemos 2004. *Herpetol. Rev.* 35: 270–271) indicate that all three lizard prey were chased down by the predator and swallowed as they were caught. The occurrence of lizards among the prey items sampled was of low frequency (1.8%), which suggests that sauriphagy in *T. hispidus* is opportunistic. Predation on frogs by *T. hispidus* (0.9%) is even lower in our sample and also seems to be opportunistic as recorded for other populations of the same species (Vitt et al., *op. cit.*). Predation on *C. ocellifer* and *C. modesta* presented here are the first records of sauriphagy for *T. hispidus*.

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TUPINAMBIS LONGILINEUS (NCN). **ENDOPARASITES**. *Tupinambis longilineus* is the smallest and least known species of its genus, with distribution records for only four localities documented from the Brazilian states of Amazonas, Pará, Rondônia and Mato Grosso (Costa et al. 2008. *Check List* 4[3]:267–268). No records of parasites are published for this species. Here, we report the nematode *Physaloptera retusa* infecting the stomach of an adult male *T. longilineus* (MZUFV 564; 230 mm SVL) from Aripuanã, Mato Grosso State, Brazil (10.16°S, 59.47°W; datum: WGS84) housed in the herpetological collection of Museu de Zoologia João Moojen, Universidade Federal de Viçosa, municipality of Viçosa, Minas Gerais State, Brazil. Six adult *P. retusa* were recovered while we conducted a dietary study. The nematodes were deposited at Coleção Helminológica de Referência do Instituto de Biociências da UNESP-Botucatu (CHIBB 4006).