

Herpetol. Rev. 35:131–134; Montanucci 1989. *Herpetologica* 45:208–216; Pianka and Parker 1975. *Copeia* 1975:141–162).

On 3 August 2008, Ian M. Recchio, Chris M. Rodriguez, Brett Baldwin, and Carlos Martinez collected 4 male and 2 female sub-adult (mean SVL = 50.0 mm) *P. asio* in tropical deciduous forest in Municipio de Ixtlahuacan, Colima, Mexico (19.03°N, 103.779°W). All six individuals were observed in late afternoon between 1400 and 1700 h, associated with secondary growth clearings adjacent to primary tropical deciduous forest, resting near or underneath bunchgrass. Fecal samples were obtained while the lizards were held prior to export. While being transported for export, the feces from the lizards were preserved for content analysis. Fecal samples were preserved in 75% isopropyl alcohol and examined for contents. The grouped fecal samples contained the remains of the following insect taxa: 56 *Aphaenogaster ensifera* (Formicidae, Myrmicinae), 23 larvae of an undetermined species of tortoise beetle (Chrysomelidae, Cassidinae), over 400 termites (Isoptera), three toad bugs (Gelastocoridae, *Nerthra fuscipes*), a single dung beetle (Scarabaeidae, Scarabaeinae, *Canthon* sp.), and several pieces of unidentifiable insect material. Our sample shows *P. asio* feeds on a variety of terrestrial insects including, but not limited to, ants and termites. This is consistent with previous studies.

All research and collecting were done under the authority of SEMARNAT scientific research permit SGPA/DGVS/03804 issued to IR.

Submitted by **IAN M. RECCHIO**, Reptile/Amphibian Department, Los Angeles Zoo and Botanical Gardens, 5333 Zoo Drive, Los Angeles, California 90027, USA (e-mail: ian.recchio@lacity.org); **JAMES N. HOGUE**, Department of Biology, California State University, Northridge, 18111 Nordhoff St., Northridge, California 91330-8303, USA (e-mail: james.n.hogue@csun.edu); and **DAVID LAZCANO**, Universidad Autónoma de Nuevo León, Facultad de Ciencias Biológicas, Laboratorio de Herpetología, Apartado Postal-513, San Nicolás de los Garza, Nuevo León, C.P. 66450, México (e-mail: dlazcanov@hotmail.com).

**PHRYNOSOMA CORNUTUM** (Texas Horned Lizard). **REPRODUCTION.** We observed copulation between *Phrynosoma cornutum* on multiple occasions. On 3 May 2008 at 1250 h in Oklahoma Co., Oklahoma, USA, while conducting radiotelemetry observations on a male (61.0 mm SVL) *P. cornutum*, one of us (MTC) observed copulation with a radio-transmitted female (62.9 mm SVL) (Fig. 1). Both individuals were fitted with Holohil model BD-2 transmitters (0.9 g, male; 1.5 g, female), with transmitters attached to the dorsal surface using silicone sealant and secured around the neck by an elastic collar. The same male was observed copulating with another female (70.0 mm SVL) on 16 May 2008 at 0715 h and with a third female (69.5 mm SVL) on 20 May 2008. The latter two females were not fitted with transmitters.

These observations are significant in that they confirm that our technique of transmitter attachment does not prevent coitus in our study animals, and also provides direct evidence for the polygynous mating strategy of male *P. cornutum*.



FIG. 1. Copulating pair of radio-transmitted *Phrynosoma cornutum*. Photograph by Megan T. Cook.

Submitted by **VICTOR BOGOSIAN III** and **MEGAN T. COOK**, Cooperative Wildlife Research Laboratory, Southern Illinois University, Carbondale, Illinois 62901-6504, USA (e-mail: vicbogoss@siu.edu); and **RAYMOND W. MOODY**, 7701 Arnold Street Suite 109, United States Air Force, Tinker Air Force Base, Oklahoma 73145-9100, USA.

**PODARCIS BOCAGEI** (Bocage's Wall Lizard). **SPINAL FRACTURE.** Pathologic spinal fractures can occur in reptiles as the result of metabolic bone disease (Bennett and Mehler 2006. *In* Mader [ed.], *Reptile Medicine and Surgery*, 2<sup>nd</sup> ed., pp. 244–245. Saunders Elsevier, St. Louis, Missouri), but in some cases they have also been reported to result from spinal osteopathies (Bennett and Mehler, *op. cit.*; Fitzgerald and Vera 2006. *In* Mader [ed.], *op. cit.*, pp. 909–910 and periosteal newbone formation due to undetermined causes (Fitzgerald and Vera, *op. cit.*). Reptiles with spinal cord fractures may present paralysis (Mader 2006. *In* Mader [ed.], *op. cit.*, p. 847) and reptiles with spinal cord injury generally have a loss of panniculus response caudally to the site of injury and a loss of tail or vent stimulation reflex (Bennett and Mehler, *op. cit.*). In some cases, hypertonia occurs cranial to the site of the injury (Bennett and Mehler, *op. cit.*). A reptile with paralysis and spinal fracture can lose its ability to urinate and defecate (Mader, *op. cit.*). Here, we report on a case of spinal fracture in a wild lacertid lizard from Portugal.

During the radiographical examination of specimens of *Podarcis* undergoing experiments on locomotor performance, we detected an adult female *P. bocagei* (55.9 mm SVL) with a conspicuous spinal fracture. The lesion affected the thoracic vertebrae, next to the front limbs (Fig. 1) and we observed evidence of reossification of the vertebrae cranially and caudally the fracture.

This female had been collected 26 days earlier in São Mamede do Coronado, near Trofa, northwestern Portugal (41.2853°N, 8.5745°W; datum: WGS 1984; elev. 50 m), in a habitat consisting of agricultural fields separated by granite formations where lizards found refuge and attained high densities. The female displayed no obvious locomotor deficiencies before or after the radiographies. In fact, before being submitted to the x-ray revealing the malformation, this individual had participated in several

experiments consisting of different locomotion trials. Nonetheless, during preliminary analysis of the data (video footage), a slight difference in this individual's running pattern was noted, consisting of a "wriggling" or undulating movement different from all other specimens (N = 26) included in the study. Currently, detailed quantification of the locomotion parameters is being carried out, which may provide more information on the exact impact of the injury on the locomotor capacities of the lizard. While the lizard was kept in the laboratory (for total period of 27 days), we detected no differences in drinking, feeding, defecating, or urinating habits between this individual and remaining lizards. Radiographs of the 26 other specimens (14 males, 12 females) from the same population revealed no fractures or anomalies of any kind. X-rays from a previous study that included 162 *P. bocagei* and 168 *P. carbonelli* (Kaliontzopoulou et al. 2008. *Amphibia-Reptilia* 29:288–292) also revealed no individuals with fractures or malformations.

Though other kinds of vertebral malformations have frequently been observed in lizards, mostly are related to the metabolic bone disease suffered by many captive bred reptiles and usually result in either scoliosis/lordosis or bone demineralization (Grogan 1976. *J. Herpetol.* 10:262–263; Ahboucha and Gamrani 2001. *Metabolic Brain Dis.* 16:219–226; Mitchell and Georgel 2005. *Herpetol. Rev.* 36:183–184). The fracture we observed could be a case of spinal osteopathy or trauma, but we can not assess these hypotheses through radiography (all the individuals used were released to their place of capture after the experiment was completed). However, independent of its exact cause, this represents an exceptional case of recovery from a fracture that typically would have become lethal, either directly by causing a fracture in the spinal cord or indirectly by causing paralysis and consequently making the lizard unable to carry on its normal activities. The low frequency with which such a fracture was observed (only one out of more than 300 individuals of two closely related species of the genus) might indicate that such fractures typically are lethal and rarely seen in free-ranging animals.

Special thanks to H. Fernandes from Park & Zoo Santo Inácio who provided X-rays, and W. Grogan for providing references related to vertebral anomalies in reptiles.

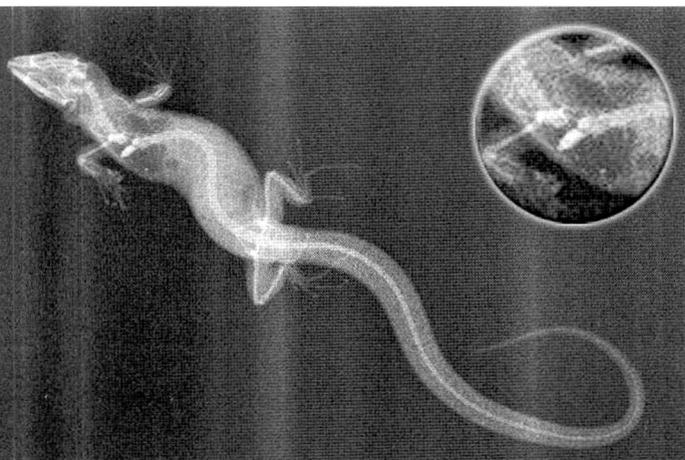


FIG. 1. X-ray of an injured female *Podarcis bocagei*. Detail of the fractured vertebral area can be seen in the round inset at upper right. The 36 Kv X-ray was taken with an exposure of 3mA/sec for 0.03 sec.

Submitted by **VICTOR BANDEIRA**, Universidade de Aveiro, Departamento de Biologia, Campus Universitário de Santiago, 3810-193 Aveiro, Portugal (e-mail: victor.bandeira@ua.pt); **ALEXANDRE AZEVEDO**, Park & Zoo Santo Inácio, Rua 5 de Outubro n° 4503, 4430-809 Avintes, Portugal; **ANTIGONI KALIONTZOPOULOU**, CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, Campus Agrário de Vairão, 4485-661 Vairão, Portugal / Departament de Biologia Animal (Vertebrats), Facultat de Biologia, Universitat de Barcelona, Avda. Diagonal 645, 08028 Barcelona, Spain; and **MIGUEL A. CARRETERO**, CIBIO, Centro de Investigação em Biodiversidade e Recursos Genéticos, Campus Agrário de Vairão, 4485-661 Vairão, Portugal.

**PRISTIDACTYLUS SCAPULATUS (NCN). SAUROPHAGY.**

*Pristidactylus* are generally considered to be insectivorous (CeI1993. *Reptiles del Noroeste, Nordeste y Este de la Argentina. Mus. Reg. Sci. Nat. Torino Monogr.* 14:1–949), but specific diet data are lacking for most species. Hence, here we report an observation of saurophagy in *P. scapulatus*.

At 1213 h on 13 December 2007, we observed an adult male *P. scapulatus* (100 mm SVL; 26 mm mouth width) attack and start to eat an adult (51 mm SVL) male *Liolaemus ruibali* at the Reserva Uso Multiple Don Carmelo, Sierra de la Invernada, Departamento Ullum, San Juan, Argentina (30.5862°S, 69.0964°W; datum: WGS84; elev. 3100 m). The habitat where the observation was dominated for shrubs of *Adesmia subterranea*, *Adesmia horrida* and *Lycium chañar*, this is vegetation typical to the Puna (M. Almirón, pers. comm.). When captured, the *P. scapulatus* released the *L. ruibali*, which was unable to move and died soon thereafter. To our knowledge, this is the first record of attempted saurophagy for any species of *Pristidactylus*.

We thank M. Jordán for permission to conduct research at the Reserva Don Carmelo (permit N° 1204-2235-070), R. Espinoza and F. Lobo for assistance in the field, and M. Almirón for identification of the vegetation.

Submitted by **EDUARDO A. SANABRIA** (e-mail: sanabria\_ea@yahoo.com.ar.), and **LORENA QUIROGA**, Departamento de Biología e Instituto y Museo de Ciencias Naturales, F.C.E.F. y N., Universidad Nacional de San Juan, Avenida España 400 (N) C.P. 5400, San Juan, Argentina.

**SCELOPORUS MAGISTER (Desert Spiny Lizard). PREY.**

Members of the *Sceloporus magister* species group (Schulte et al. 2006. *Mol. Phylogen. Evol.* 39:873–880) are often reported to be generalized feeders (Parker and Pianka 1973. *Herpetologica* 29:143–152; Vitt and Ohmart 1974. *Herpetologica* 30:410–417). However, studies show that invertebrates are far more representative in the diet than vertebrates. Documented prey items include insects (especially Hymenoptera [mostly ants], Coleoptera, Hemiptera, and various larvae), spiders, and other invertebrates (Hotton 1955. *Am. Midl. Nat.* 53:88–114; Johnson 1966. *Am. Midl. Nat.* 76:504–509; Parker and Pianka 1973, *op. cit.*; Tanner and Krogh 1973. *Great Basin Nat.* 33:133–146; Vitt and Ohmart 1974, *op. cit.*). Vegetation is also reported in the diet in these studies, but it