

**LEPIDOBLEPHARIS XANTHOSTIGMA** (Orange-tailed Gecko). **ENDOPARASITES.** *Lepidoblepharis xanthostigma* is a small diurnal gecko that inhabits leaf litter and occurs from south-eastern Nicaragua, northwestern Costa Rica to northern Colombia (Savage 2002. *The Amphibians and Reptiles of Costa Rica: A Herpetofauna Between Two Continents, Between Two Seas*, University of Chicago Press, Chicago, 934 pp.). To our knowledge, no reports exist of endoparasites from this species. The purpose of this note is to report the presence of a larval acanthocephalan in a *L. xanthostigma* from Costa Rica.

Ten female *L. xanthostigma* (mean SVL = 33 mm  $\pm$  4 SD, range: 28–40 mm) from the herpetology collection of the Natural History Museum of Los Angeles County (LACM), Los Angeles (LACM 148083–084, 148092, 148105, 148107, 148109–113), collected in Guanacaste and Puntarenas provinces, Costa Rica in 1964, 1965, and 1973 were examined for helminths. The esophagus, stomach, small and large intestines were opened and separately examined for helminths under a dissecting microscope. The body cavity was also examined. One acanthocephalan cystacanth was found in the stomach of LACM 148083. The cystacanth was cleared in a drop of undiluted glycerol on a glass slide, examined with a compound microscope and assigned to the family Oligacathorhynchidae. Prevalence (infected lizard/lizards examined  $\times$  100) was 10%. The cystacanth was deposited in the United States National Parasite Collection, Beltsville, Maryland as (USNPC 93433).

Lizards are known as paratenic (transport) hosts of species of the acanthocephalan family Oligacathorhynchidae (Schmidt 1985. *In* Crompton and Nickol [eds.], *Biology of the Acanthocephala*, pp. 273–305. Cambridge University Press, Cambridge, UK). Development to the adult acanthocephalan occurs when the lizard is eaten by a predator. A list of lizards serving as paratenic hosts for oligacathorhynchid cystacanths is in Bolette (1997. *Southwest. Nat.* 42:232–236). *Lepidoblepharis xanthostigma* feeds primarily on spiders as well as isopods and mites (Lieberman 1986. *Acta Zool. Mex.* 15:1–72). Infection likely occurs when *L. xanthostigma* ingests prey containing acanthocephalan larvae. An oligacathorhynchid cystacanth in *L. xanthostigma* is a new host record.

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**LEPIDOPHYMA SYLVATICUM** (Madrean Tropical Night Lizard). **REPRODUCTION.** Tropical night lizards (genus *Lepidophyma*) are rarely seen, so data on their natural history is sparse. Available information indicates that members of this genus are viviparous, have litters of 1–8, display peak reproductive activity in winter, carry developing young during winter and spring, and give birth in early summer (Bezy and Camarillo 2002. *Contrib. Sci. Los Angeles County Mus. Nat. Hist.* 493:1–41). Here, we augment the few reproductive data on *Lepidophyma* with the first report for *L. sylvaticum*.

On 28 April 1998, LCM collected a gravid female *L. sylvaticum* (98.7 mm SVL, tail 62.0 mm [40.0 mm regenerated]) in the Sierra

Norte de Puebla, ca. 2 km S of San Miguel Tzinacapan, Municipality of Cuetzalan del Progreso, Puebla, Mexico (20°00.603'N, 97°32.485'W; elev. 1140 m). The female was collected under large rocks in an open area on a hill within disturbed cloud forest. After being maintained in captivity, this female gave birth to five young on 24 June 1998. These averaged 33.4 mm SVL (SD 0.5 mm, range: 33.0–34.2) and 0.64 g (SD 0.02 g, range: 0.62–0.66). Despite the nearly two-month captive interval, the parturition date and litter size are within the known range of variation for other species of *Lepidophyma*.

The female (EBUAP 2061) was deposited in the herpetological collection of Benemérita Universidad Autónoma de Puebla, México. Support for field work was provided by grant from CONABIO (number FB444/L283/97) to G. Gutiérrez-Mayén, and SEMARNAT provided the necessary collecting permits.

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**NANNOSCINCUS GRACILIS** (New Caledonian Gracile Dwarf Skink). **VOCALIZATION.** Among lizards, complex vocalizations including distinctive advertisement and distress calls are largely restricted to gekkotans (Gans and Maderson 1973. *Amer. Zool.* 13:1195–1203; Frankenberg and Werner 1992. *Acta Zool. Lilloana* 41:45–62). Among autarchoglossan families, vocalization has been reported for scattered representatives in several families, and in the case of certain lacertids, it may be used in territorial interactions (Böhme et al. 1985. *Bonn. Zool. Beitr.* 36:337–354). In the family Scincidae, only defensive vocalizations have been reported. Loud emphatic vocalizations have been reported for the New Guinea crocodile skink *Tribolonotus gracilis* (Cogger 1972. *Zool. Meded.* 47:202–210; O'Shea 1991. *Brit. Herpetol. Soc. Bull.* 37:15–17) and have been linked to parental defense of young (Hartdegen et al. 2001. *Contemp. Herpetol.* 2001[2] [<http://dataserver.calacademy.org/herpetology/herpdocs/ch/2001/2/index.htm>]). Less dramatic defensive squeaks have been reported in a few other skink species (e.g., *Euprepes* [formerly *Mabuya*] *bensonii*; Barbour and Loveridge 1930. *In* Strong [ed.], *The African Republic of Liberia and the Belgian Congo*, pp. 769–785. Harvard University, Cambridge, Massachusetts), although the validity of some records has been questioned (Mertens 1946. *Abh. Senckenberg. Naturf.* 471:1–108) and in other species, distress vocalizations appear to be rare (e.g., *Chalcides ocellatus*; Frankenberg and Werner 1992, *op. cit.*). Most records of skink vocalization, however, derive from Pacific region lygosomines, including representatives of the Australian genera *Ctenotus*, *Egernia*, *Eremiascincus*, *Eulamprus*, *Gnyptoscincus*, and *Saproscincus* (Greer 1976. *Aust. Nat. Hist.* 18:428–433; Covacevich and McDonald 1980. *Mem. Qld. Mus.* 20:95–101; Annable 1983. *Herpetofauna* 14:80–82) and the New Zealand genus *Oligosoma* (Werner 1973. *Israel J. Zool.* 22:204–205; Thomas 1985. *In* Grigg et al. [eds.], *Biology of Australasian Frogs and Reptiles*, pp. 17–22. Surrey Beatty, Chipping Norton). We here report another in-

stance of scincid defensive vocalization in a New Caledonian endemic, *Nannoscincus gracilis*.

*Nannoscincus gracilis*, the largest species (to 49 mm SVL) in a genus of small skinks, is a cryptic form found in humid forests up to 1100 m elevation in central New Caledonia (Bauer and Sadlier 2000. The Herpetofauna of New Caledonia. Society for the Study of Amphibians and Reptiles, Ithaca. xii + 310 pp.). Thirteen *N. gracilis* were collected underneath logs and stones in montane forest at 950–1040 m on Pic Ningua, 17.0 km south of Nakaré, Province Sud, New Caledonia (21°44'S, 166°09'E) on 26–27 September 2002. Specimens from this locality are morphologically distinctive and may be specifically distinct from other populations. All specimens made faint but distinctive squeaks when handled. Vocalizations were elicited by grasping or handling the body and were accompanied by writhing and occasional biting, both typical in the genus. Squeaking was noted both at initial capture and subsequently when specimens were handled in the laboratory.

Whether vocalizations are employed to deter potential predators (large arthropods, birds, larger skinks and geckos) or they function in intraspecific interactions is unclear. That most skinks known to vocalize are lygosomines occurring in Australia or on Pacific islands implies some underlying phylogenetic and/or ecological commonality. However, the species for which vocalization has been documented do not form a monophyletic group, and this behavior has been too poorly documented to attribute any special meaning to this apparent geographical bias.

*Nannoscincus* specimens were collected under permit 6034-2075/DRN issued by the Direction des Ressources Naturelles of the Province Sud, New Caledonia and exported under permit 6034-2330/DRN of the same authority. Specimens (Field numbers AMB 7338–7344, 7373–7378) will be deposited in the California Academy of Sciences and Australian Museum collections.

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**NOROPS PENTAPRION** (Lichen Anole). **ENDOPARASITES.** *Norops pentaprion* is a small to moderate-sized anole (adult males 70–79 mm standard length, adult females 57–63 mm standard length) found in lowland forest zones from the Isthmus of Tehuantepec, Mexico to Colombia (Savage 2002. The Amphibians and Reptiles of Costa Rica: A Herpetofauna Between Two Continents, Between Two Seas, University of Chicago Press, Chicago. 934 pp.). To our knowledge, no reports exist of endoparasites from this species. The purpose of this note is to report the presence of two species of nematodes in *N. pentaprion* from Costa Rica.

Four (1 female, 3 males) *N. pentaprion* (mean SVL = 66 mm ± 3 SD, range: 63–70 mm) were examined for helminths from the

herpetology collection of the Natural History Museum of Los Angeles County (LACM), Los Angeles: LACM 148382–383, 148392–393, collected in Puntarenas and Guanacaste provinces, Costa Rica in 1967, 1980, 1973, and 1974, respectively. The esophagus, stomach, small and large intestines were opened and separately examined for helminths under a dissecting microscope. The body cavity was examined as well. The only infected anole was LACM 148383. Four *Skrjabinelazia intermedia* were found in the stomach; 32 *Cyrtosomum longicaudatum* were found in the large intestine. Prevalence (infected lizard/lizards examined X 100) was 25%. The nematodes were deposited in the United States National Parasite Collection, Beltsville, Maryland as *Skrjabinelazia intermedia* (USNPC 93507) and *Cyrtosomum longicaudatum* (USNPC 93508).

*Skrjabinelazia intermedia* is previously known from *Tropidurus spinulosus* and *T. torquatus* from Brazil (Vicente 1981. Atas Soc. Biol. Rio de Janeiro 22:7–18). *Norops pentaprion* represents a new host record for *S. intermedia*. Costa Rica is a new locality record. *Cyrtosomum longicaudatum* is previously known from *Ctenosaura similis* from Costa Rica (Brenes and Bravo-Hollis 1960. Sobretiro del Libro Homenaje al Dr. Eduardo Caballero y Caballero, pp. 451–464, Mexico, D.F.) and from Honduras and Mexico (Caballero Deloya 1971. An. Inst. Biol. Univ. Nac. Autón. México 42:29–33). It has also been found in *Anolis equestris*, *A. luteogularis*, *A. baracoae*, *Chamaeleolis chamaeleonides*, *C. porcus*, *Leiocephalus cubensis*, *L. stictigaster*, *L. carinatus*, and *Hemidactylus brooki* from Cuba (Barus and Coy Otero 1968. Folia Parasit. 15:41–45; Barus and Coy Otero 1969. Helminthologia 10:329–346; Coy Otero and Barus 1973. Folia Parasit. 20:297–305; Coy Otero and Barus 1979. Acta Sci. Nat. Brno 13:1–3) and *Anolis garmani* from Jamaica (Bundy et al. 1987. J. Helminthol. 61:77–83). *Norops pentaprion* represents a new host record for *C. longicaudatum*.

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**SCINCELLA LATERALIS** (Ground Skink). **PREDATION.** Accounts of spiders preying on vertebrates are infrequent. However, some spiders are known to take lizards. For example, Cokendolpher (1977. J. Arachnol. 5:184) observed an *Argiope aurantia* eating a *Eumeces laticeps*, and Corey (1988. J. Arachnol. 16:392–393) found an *Anolis carolinensis* in the chelicerae of a *Lycosa ammophila*. This note details the first observation of a wolf spider feeding on the Ground Skink, *Scincella lateralis*.

At 1330 h on 15 March 2003, we encountered a small (ca. 4 cm SVL) *S. lateralis* struggling with a *Hogna carolinensis* (ca. 3 cm head–abdomen length) under a piece of tin at the Old Sabine Wildlife Management Area, Smith County, Texas (32°35'33"N, 95°21'26"W). The spider held the skink by the neck with its fangs. The two animals wrestled for ca. 5 min before the skink stopped moving. When the spider released the skink, we discontinued observations. About 30 min later, we returned to the site and the spider was still near the dead skink.

Don Killebrew verified the identity of the spider.