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SCINAX AURATUS. PREDATION. Anurans are often preyed by vertebrates and invertebrates at all stages of their life cycle (Duellman and Trueb 1986. *Biology of Amphibians*. McGraw-Hill, New York, New York. 670 pp.; Wells 2007. *The Ecology and Behavior of Amphibians*. University of Chicago Press, Chicago, Illinois. 1148 pp.). Among the invertebrates, spiders are efficient predators (Menin et al. 2005. *Phyllomedusa* 4:39–47; Pombal Jr. 2007. *Rev. Bras. Zool.* 24:841–843), with predation documented in the Hylidae by spiders in the families Ctenidae (Abarca et al. 2018. *Herpetol. Rev.* 49:726–727), Lycosidae (Villanova et al. 2015. *Herpetol. Rev.* 46:412–413), Nephilidae (Souza et al. 2019. *Herpetol. Rev.* 50:112), Pisauridae (Bernarde et al. 1999. *Biociências* 7:199–203), Trechaleidae (Zina 2006. *Herpetol. Rev.* 37:440), Theraphosidae (Ramírez-Castaño et al. 2014. *Herpetol. Rev.* 45:304), and Theridiidae (Tinoco et al. 2016. *Herpetol. Rev.* 47:641–642).

Scinax auratus is a small, arboreal hylid, usually associated with bromeliads, shrubs, and grasses in the Atlantic Forests of northeastern Brazil (Bokermann 1969. *Rev. Bras. Biol.* 29:159–162; Alves et al. 2004. *Rev. Bras. Biol.* 21:315–317). On 15 December 2018 at 1848 h in Parque Nacional Serra de Itabaiana, Sergipe State, Brazil (11.30722°S, 37.58222°E; WGS 84), we found a spider, *Avicularia* sp. (Theraphosidae), grasping a *S. auratus* within a bromeliad. The spider had its chelicerae inserted in the frog's left hindleg and some of the frog's viscera was exposed (Fig.



FIG. 1. Adult *Scinax auratus* preyed upon by *Avicularia* sp. in Parque Nacional Serra de Itabaiana, Sergipe State, Brazil.

1). Spiders in the genus *Avicularia* attacking toads (*Adenomera hylaedactyla*) has been reported (Tavares-Pinheiro et al. 2019. *Herpetol. Rev.* 50:110–111), but this is the first documented predation of *S. auratus* by a spider in the genus *Avicularia*.

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SPEA BOMBIFRONS (Plains Spadefoot). LEUCISM. On visits in July and August 2014, July 2017, and June 2018, we detected leucistic *Spea bombifrons* tadpoles among normal-pigmented individuals (see Fig. 1) in Yellowstone National Park (YNP). Leucistic individuals were entirely white to mostly white on the ventral and dorsal surfaces, with some individuals exhibiting a marbling pattern of the dark and light pigments; all had normal, dark-colored eyes. On 19 June 2018 (Fig. 1), most of the individuals were between Gosner Stages 26–36 with various stages of hind limb development. Although leucistic *S. bombifrons* have been detected multiple times since 2014, leucistic individuals were not observed every year. For example, a recent visit in June 2019 did not detect any leucistic *S. bombifrons* among the dozens of normal-pigmented larvae present at the breeding site.

In spadefoots, leucism has seldom been documented. Leucistic adults have been documented in *Scaphiopus huerterii* (McKnight and Ligon 2013. *Herpetol. Rev.* 44:131–132) and both adults and tadpoles have been documented in *Scaphiopus holbrookii* (Gibson and Sattler 2010. *Catesbeiana* 30:73–81). An internet post informally documented a leucistic adult *Spea bombifrons* (<http://snakeymama.blogspot.com/2011/08/arizona-epic-part-4.html>) and a single adult *S. bombifrons* specimen was preserved in conjunction with a master's thesis conducted in Iowa, USA (Mabry 1984. *The Distribution and Reproduction of the Plains Spadefoot Toad, Scaphiopus bombifrons*, in Iowa. Master's Thesis. Drake University, Des Moines, Iowa. 49 pp.). To our knowledge, these accounts represent the only informal documentation of this morphological anomaly in *S. bombifrons*.

Our observations of *S. bombifrons* leucism were near Lower Geyser Basin, which is the only known breeding area for this species in YNP (Schneider et al. 2015. *Northwest. Nat.* 96:227–229). The primary known breeding site for this population is a shallow, sparsely-vegetated, and geothermally-influenced wetland characterized by high water conductivity (range across the pond 1245–2230 $\mu\text{S}/\text{cm}^2$ on 17 June 2019) and variable pH (range 6.8–9.1). High conductivity waters reflecting varying



FIG. 1. Leucistic *Spea bombifrons* from Lower Geyser Basin in Yellowstone National Park, Wyoming, USA.

degrees of geothermal influence may represent important breeding sites for some of YNP's amphibians (see Klaver et al. 2013. West. N. Am. Nat. 73:184–197).

We regard it noteworthy that additional examples of leucism in amphibians have been documented in northern YNP. Peterson and Patla (pers. comm.) found a metamorphosed *Ambystoma mavortium* in Rainy Lake on 12 July 1999. McMenamin (2009. Yellowstone Sci. 17:19–21) reported a pond population of *A. mavortium* in which almost every larva lacked nearly all pigmentation.

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SPHAEROTHECA ROLANDAE (Roland's Burrowing Frog) and **UPERODON GLOBULOSUS** (Indian Balloon Frog). **INTER-SPECIFIC AMPLEXUS**. Amplexus may vary within species geographically and temporally according to population density (Wells 2007. The Ecology and Behavior of Amphibians. University of Chicago Press, Chicago, Illinois. 1148 pp.). Amplexus normally occurs between a single male and female of the same species, but sometimes deviations can be seen such as multiple-individual amplexus (Ayres 2008. North-West J. Zool. 4:327–330; Mollov et al. 2010. Biharean Biol. 4:121–125; Oliveira et al. 2014. Herpetol. Notes 7:119–120). Heterospecific amplexus in anurans is well known from the New World (Marco and Lizana 2002. Ethol. Ecol. Evol. 14:1–8). The behavior may arise due to a lack of available females for male anurans, such that they will engage in amplexus with almost anything, from dead conspecifics (Ayers 2010. Herpetol. Rev. 41:192–193), the fingers of human observers, or inanimate objects (Streicher 2008. Herpetol. Rev. 39:75). However, the phenomenon is scarcely reported from India.

At 2330 h on 31 July 2018, during the recent biodiversity assessment program at North Orissa University Campus, Baripada, Odisha, India, we found a male *Sphaerotheca rolandae* mounted on a female *Uperodon globulosus* (21.9257°N, 86.7699°E; WGS 84) (Fig. 1). The male had gripped the female in axillary amplexus. However, the amplexus was not followed by release of gametes. *Uperodon globulosus* is a widely distributed species in India and neighboring regions in Bangladesh, Bhutan, and Nepal (Garg 2018. Zootaxa 4384:1:1–88). *Sphaerotheca rolandae* is a secretive species in the Eastern Ghats, spending most of its time underground. They are mostly seen at night, especially after rain (Deuti 2014. Rec. Zool. Surv. India 114:119–144). Although both are common species in Odisha and occur in similar habitats, interfamilial amplexus between these two species has not been reported (Dutta 1997. Amphibians of India and Sri Lanka [Checklist and Bibliography]. Odyssey Publishing House, Bhubaneswar, India. 342 pp.).

To date, only intraspecific and interspecific amplexus has been reported for these species (Bhattarai et al 2018. IRCF Rept. & Amph. 25: 29–30; Sayyed and Nale 2018. IRCF Rept. & Amph. 24:193–196) and the present observation is the first record of



FIG. 1. Interfamilial amplexus between a male Roland's Burrowing Frog (*Sphaerotheca rolandae*) and a female Indian Balloon Frog (*Uperodon globulosus*) from Odisha, India.

interfamilial amplexus between anurans in the Microhylidae and Dicroglossidae from India.

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TESTUDINES — TURTLES

ACTINEMYS MARMORATA (Northern Pond Turtle) and **ACTINEMYS PALLIDA** (Southwestern Pond Turtle). **SPECTACLE RETENTION**. The retention of eye caps, eye shields, or spectacles is not unusual in some reptilian groups. Snakes, particularly those housed in sub-optimal conditions for the species, may retain these spectacles for long periods, occasionally requiring intervention for removal (Kahn and Scott 2011. The Merck Veterinary Manual. Merck & Co., Whitehouse Station, New Jersey). Turtles, which do not retain spectacles as adults, do possess them while in the egg. These structures likely protect the eye while the turtle is developing, but under normal conditions, these spectacles are shed prior to hatching or during the hatching process.