

In the only record of albinism in *R. cascadae* we were able to find, Altig and Brodie (1968. *Wasmann J. Biol.* 26:241–242) reported 13 albino larvae from 1965 and five from 1966 at a small pond “near Three Creek Lake, Deschutes County, Oregon.” We were unable to confirm the exact pond through review of the museum records or communication with the authors. *Rana cascadae* breed in at least three lentic sites within 1.5 km of our site (C. Brown, unpubl. data: BM, pers. obs.). Nonetheless, our observations suggest the presence of albinos within a frog population > 35 years after original description. Our literature survey revealed only one report of albinism in the same anuran population in > 1 year (*Pseudacris triseriata* in two consecutive years; Corn 1986. *J. Hered.* 77:164–168).

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**RANA CATESBEIANA** (American Bullfrog). **LITHOPHAGY.** Gravel, sand, and plant matter have been documented in *R. catesbeiana* stomachs during numerous diet studies. Korschgen and Moyle (1955. *Amer. Midl. Nat.* 54[2]:332–341) documented a variety of plant material and a small amount of gravel in *R. catesbeiana*. In Arkansas, McKamie and Heidt (1974. *Southwest. Nat.* 19:107–111) found a 15.9 g rock and plant matter in 28% of the stomachs examined. Plant material, rocks, and gravel are likely ingested accidentally.

On 8 June 2006, an adult *R. catesbeiana* was collected ca. 15 mi. SE of Mena, Arkansas, USA in a mineshaft ca. 18 m from the entrance. Upon collection it was apparent that it had a full stomach. Dissection revealed a single salamander skeleton (presumably *Plethodon caddoensis*), a small piece of wood, and inorganic matter including rocks and grit. The wood’s mass was 0.07 g. The inorganic material ranged from tiny grains to large pebbles. There were 34 rocks totaling 12.27 g. Average mass was 0.36 g/rock (range 0.05–1.63 g) not including the fine grit.

This frog likely ingested the gravel while attempting to feed on salamanders that frequent the mineshaft. The specimen is deposited in the herpetology collection at the Arkansas State University Museum of Zoology (ASUMZ 30143).

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**RANA CLAMITANS** (Bronze Frog). **RANID AGGRESSION AND INTERSPECIES AMPLEXUS.** On 3 July 2007, we observed and video-recorded inter- and intra-specific aggressive be-

havior of two male Bronze Frogs (*Rana clamitans clamitans*) and a male-female pair of Southern Leopard Frogs (*R. sphenoccephalus*) in amplexus. The interactions occurred in the shallows of a slow moving creek in Santa Rosa County, Florida, USA, at ca. 1300 h and lasted for > 45 min. We first observed the behavior when the two Bronze Frogs began calling with increased frequency and then noticed one Bronze Frog aggressively moving (i.e., chasing) towards the pair of leopard frogs. The pair of leopard frogs submerged and crawled along the bottom of the creek, apparently to avoid the male Bronze Frog. However, each time they emerged, the Bronze Frog would reinitiate aggressive chasing and calling. After 12 min, the second male Bronze Frog moved toward the attacker and both frogs began grappling and ramming their heads together. Every 1–10 sec they would vocalize and jump between aggressive behaviors. After ca. 46 sec, the first Bronze Frog (and the larger of the two) retreated. The second, smaller Bronze Frog then chased the leopard frogs, which continued submerging and emerging to evade the aggressor. After another 50 sec of chase, the Bronze Frog amplexed the pair of leopard frogs (i.e., the male) using axillary amplexus. Next, the male leopard frog emitted a release call while the female leopard frog crawled along the bottom of the creek, carrying both males. The Bronze Frog remained amplexed for 96 sec before the first Bronze Frog returned and physically removed the amplexed Bronze Frog from the leopard frogs. Finally, the leopard frogs traveled a few more feet and the female slowly began depositing her eggs while the Bronze Frogs resumed their intra-specific aggression. After another 120 sec, the egg deposition ceased, and the larger Bronze Frog again chased the pair of leopard frogs. The leopard frogs quickly separated and retreated in different directions and the Bronze Frog eventually abandoned his pursuit and left the area.

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**SPEA HAMMONDII** (Western Spadefoot). **PREDATION AND USE AS BURROW DECORATIONS.** During 19–22 April 2004, I observed two breeding pairs of Western Burrowing Owls (*Athene cunicularia hypugaea*) located 20 m apart within a vernal pool system near Goshen, Tulare Co., California, USA (36.3451°N, 119.3991°W, NAD83/WGS84, 88 m elev.). Each pair used a network of burrows clustered 1–3 m apart. The primary burrow used by the pair at each cluster was decorated with domestic sheep dung, skunk (*Mephitis mephitis*) fur, and desiccated remains of *Spea hammondi*. The entrances of the burrows in each cluster exhibited 3–5 toads in various states of disarray. Hindquarters were present without the head or thoracic cavity, and nearby were the heads and upper bodies either still attached or in separate pieces. The soft organs of the thoracic cavity were missing. Both the Western Spadefoot and Western Burrowing Owl are species of special concern in California.

Burrowing Owls commonly decorate their burrows with a variety of items, such as dung, grass, paper, cotton, and dried moss (Levey et al. 2004. *Nature* 431:39; Smith and Conway 2007. *Anim. Behav.* 73:65–73). Flattened mummified remains of the Southern

Toad (*Bufo terrestris*), assumed to be roadkills, have been found at Burrowing Owl burrows as well (D. Levey, pers. comm.). The *S. hammondii* were readily available to the Burrowing Owls because their burrows were within a vernal pool system, a habitat where spadefoots commonly occur.

The Burrowing Owl has been infrequently reported to prey on toad species (Haug et al. 1993. Burrowing Owl. *Athene cunicularia*. In A. Poole and F. Gill [eds.], The Birds of North America, No. 61. Academy of Natural Sciences, Philadelphia, and American Ornithologists' Union, Washington, D.C.). Although toads commonly have toxins in their dorsal surfaces, owls and other predatory birds are able to avoid these toxins by consuming the vulnerable ventral portions (Olson 1989. Copeia 1989:391–397). Ervin et al. (2007. Herpetol. Rev. 38:197–198) were the first to report Burrowing Owl predation on Western Spadefoot adults, however, only the tongues were consumed in those cases. In this instance, the Burrowing Owl may have captured and consumed portions of *S. hammondii* and then used their remains as burrow decorations.

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## TESTUDINES – TURTLES

**DERMOCHELYS CORIACEA** (Leatherback Sea Turtle). **NESTING.** *Dermochelys coriacea* is currently classified by the Brazilian Ministry of the Environment and the IUCN (World Conservation Union) as critically endangered. Although occasional nesting has been observed on the Brazilian coast (see Barata and Fabiano 2002. Marine Turtle News. 96:13–16), the only site reporting regular Leatherback nesting is located in a restricted area on the northern coast of the state of Espírito Santo, with an extent of ca. 200 km (18.35°S, 39.67°W and 20.07°S, 40.17°W) (Marcovaldi and Marcovaldi 1999. Biol. Conserv. 91:35–41). Here, we present the first record of *D. coriacea* nesting on the Brazilian northern coast. On 17 July 2004 at about 1800 h, within the limits of the Environmental Protection Area of the Delta do Parnaíba, Arrombado beach, Luís Correia city, state of Piauí (02.9097°S, 41.5325°W; 3 m elev.; Datum SAD69 IBGE/BR), we observed one *D. coriacea* deposit a clutch of 108 eggs. The nest was monitored after oviposition; 96 hatchlings emerged after an incubation period of 58 days (Fig. 1). Local fishermen also have reported the sporadic presence of *D. coriacea* nesting along Piauí's beaches. Although this species may be expected in Piauí state, considering its distribution in the neighboring states of Ceará and Maranhão (Barata et al. 2004. J. Mar. Biol. Assoc. U.K. 84:1233–1240), this is the first documented record of this species nesting in Piauí state.

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Fig. 1. Infrared photography of newborns of *Dermochelys coriacea* leaving the nest after sunset at about 1800 h. Photo by Daniel Loebmann.

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**GLYPTEMYS INSCULPTA** (Wood Turtle). **HATCHLING BEHAVIOR.** Hatchlings of *Glyptemys insculpta* typically emerge from the nest in late summer and early fall (Buech et al. 2004. Herpetol. Rev. 35:54; Harding and Bloomer 1979. Bull. New York Herpetol. Soc. 15:9–26; Tuttle and Carroll 2005. Northeast. Nat. 12:331–348), even at the northern limits of their range (Brooks et al. 1992. Can. J. Zool. 70:462–469; Walde et al. 2007. Herpetol. Conserv. Biol. 2:49–60). In New Hampshire, newly-emerged hatchling *G. insculpta* were observed to migrate long distances (up to 445 m), spending several days and nights on land before reaching aquatic habitats where they are presumed to hibernate (Tuttle and Carroll, *op. cit.*). Parren and Rice (2004. Northeast. Nat. 11:229–233) reported a suspected terrestrial overwintering by a neonatal *G. insculpta* in Vermont.

As a follow up to a study of the nesting ecology of *G. insculpta* (Walde et al. 2007, *op. cit.*), hatchlings were tracked using fluorescent pigments (Butler and Graham 1993. Herpetol. Rev. 24:21–22) as they dispersed from nests in August through October 1997.