chemical aposematism, to warn potential predators that it is unpalatable (Williams et al. 2004. Appl. Herpetol. 2:47–82). Since capsaicin functions as an irritant to prevent animals from eating *Capsicum* fruits, it is possible that *T. petasatus* has evolved this odor as a form of chemical mimicry. The odors of many treefrog secretions resemble plants, while other species are noted to have earthy or musky odors. This may be chemical camouflage, enabling them to be indistinguishable from their immediate environment or to mislead predators that are highly reliant on smell (Williams et al. 2004, *op. cit.*).

In some species of casque-headed frogs, including *Corythomantis greeningi*, *Aparasphenodon brunoi* and *Argenteohyla siemersi*, phragmosis co-occurs with the production of a secretion. These species not only produce secretions from over the entire body when threatened, they also use bony spines on the skull to pierce the skin in areas highly concentrated with granular glands, in order to deliver lethal secretions to potential predators. The potency of the toxins varies between species but can be several times greater than those of pitvipers in the genus *Bothrops* (Jared et al. 2015. Curr. Biol. 25:2166–2170; Cajade et al. 2017. J. Zool. 302:94–107).

The odoriferous secretions of anurans are an understudied area of research. Further studies are required on *T. petasatus* to explore the characteristics of its secretions, its toxicity, and the potential for it to possess similar venom delivery mechanisms to other casque-headed frogs.

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TESTUDINES — TURTLES

***ACTINEMYS MARMORATA* (Northern Pond Turtle). NESTING AFTER INJURY.** A recent taxonomic split in the Western Pond Turtle (*Actinemys marmorata*) has created two recognized species (*A. marmorata* and *A. pallida*), both of which are species of special concern in California (Spinks et al. 2014. Mol. Ecol. 23:2228–2241; Thomson et al. 2016. California Amphibian and Reptile Species of Concern. University of California Press, Berkeley, California. xv + 390 pp.). Bury et al. (2012. Northwest Fauna 7:1–128), and Thomson et al. (2016, *op. cit.*) have attributed population declines in both species to aspects of the nesting ecology, including destruction or loss of nesting habitat, absence of protections for nesting sites, and a putative lack of information on nesting ecology. Aspects of nesting ecology have been reported recently, including a review (Bury et al. 2012, *op. cit.*), predation potential for nest sites (Alvarez et al. 2014. Herpetol. Rev. 45:307–308), atypical nesting behavior (Alvarez and Davidson 2018. Herpetol. Rev 49:101–103), and nest site selection (Riensche et al. 2019. Northwest. Nat. 100:90–101; Davidson and Alvarez 2020. West. Wildl. 7:42–49), all of which have increased our understanding of the nesting ecology of this species. Herein, I report on the successful nesting by a female *A. marmorata* with a rear limb amputation.

As part of a long-term turtle-nesting ecology study that was conducted between 2013 and 2019 at Moorhen Marsh, Martinez, California, USA, a group of biologists followed female *A. marmorata* and co-occurring *A. pallida* from aquatic refuge sites to presumed nesting locations. When nesting females were located, data on these nesting locations was collected, a protective cage was placed over the nest, and the nest was monitored until hatching (Davidson and Alvarez 2020, *op. cit.*). On 14 June 2017, at ca. 1600 h, I followed an adult female *A. marmorata* to its selected nesting location and sat 50 m away to observe its behavior. The turtle appeared to be excavating a nest and laying eggs, and subsequently began to leave the site ca. 2.5 h after beginning the presumed nesting process. At this point the turtle was collected. The goal of the collection was to determine if it had a marginal scute marking, and to collect morphometric data following egg deposition. The unmarked turtle was marked (as #81) on its marginal scutes, measured, and inspected for anomalous characteristics (i.e., scars, injuries, etc.). The left rear limb showed a healed injury that included the amputation of all metatarsals and likely the tarsals as well (determined through palpation). The turtle was released, and a protective cage was installed over the nest. Notes on the caged nest included the suggestion that the nest was likely not viable due to the leg injury.

The nest was monitored every two weeks from June through February. No emergence was noted in February, at a time when other nest emergence was observed, nor in March. On 1 April 2018 the nest was excavated. Five dead neonates were uncovered in various states of decay. Veterinary examination concluded that the neonates had been predated while in the underground nest, likely by a rodent (unknown species), and had been dead for at least 2 mo. Based on Alvarez and Davidson (2018, *op. cit.*), the nest was declared to be an "obscured predated nest". The presence of neonates in the nest chamber, within a nest that was completely covered by metal mesh since the date of construction, strongly suggests that the female (#81) was capable of constructing a nest with an amputated foot and laying viable eggs that, if not predated, could have emerged as neonates.

This observation suggests a high level of behavioral and anatomical resilience for *A. marmorata*. For a long-lived species like *A. marmorata*, recovery from injuries is evolutionarily advantageous. We have noted other seriously injured turtles at Moorhen Marsh, which also recovered and continue as part of the population at that site (Alvarez et al. 2017. West. Wildl. 4:81–85). Turtles found with older injuries, that otherwise appear healthy, should be allowed to maintain a role in the population.

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***CARETTA CARETTA* (Loggerhead Sea Turtle). REPRODUCTIVE LONGEVITY.** Age estimates from skeletochronology suggest that female *C. caretta* nesting in the Northwest Atlantic may be capable of reproduction for up to 46 years following the onset of sexual maturity (Avens et al. 2015. Mar. Biol. 162:1749–1767). The combination of high tag loss and fisheries mortality during early years of many saturation tagging projects around the world have constrained the ability to empirically confirm such long reproductive lifespans. Nevertheless, reproductive longevity of up to 32 years has been recorded in Brazil (Baretto et al. 2019. Mar. Turt. Newsl. 157:10–12), and a female with a 33-yr nesting history was documented in Greece (Margaritoulis et al. 2020. Chelon. Conserv. Biol. 19:133–136).

Herein, we present a 36-yr nesting history for a *C. caretta* on the Georgia, USA coast. At 0024 h on 25 June 2006, BMS