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Anolis sagrei. Cannibalism.

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these lizards fed on the eggs of ants and in some cases the ants bit the lizards, principally in the mouth. We suggest that the wound caused by the ant bites could provoke the swelling and then infection leading to abscess. After eight months the lizard could not feed by itself and was fed manually.

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ANOLIS SAGREI (Brown Anole). CANNIBALISM. *Anolis sagrei* is native to the Bahamas and Cuba, but has been introduced to many tropical regions around the world (Kolbe et al. 2004. *Nature* 431:177–181). Although *A. sagrei* primarily eats invertebrates, it will sometimes consume other anoles (Losos 2009. *Lizards in an Evolutionary Tree: Ecology and Adaptive Radiation of Anoles*. University of California Press, Berkeley. 528 pp.). For example, adult *A. sagrei* are more likely to consume hetero-specific juveniles than conspecifics given a choice (Gerber and Echternacht 2000. *Oecologia* 124:599–607). Nevertheless, cannibalism does occur in *A. sagrei* (Nicholson et al. 2000. *Herpetol.*

Rev. 31:173–174), but in most other documented cases of *Anolis* cannibalism, the cannibalistic adult was a male rather than a female. Cannibalism by females is rare and has only been reported twice among anole species, once each in *A. cristatellus* and *A. whitemani*. One record was based on an autotomized tail found in stomach contents of a female, yet anoles will consume their own and others' shed tails (Gerber 1999. *In* Losos and Leal [eds.], 1999. *Anolis Newsletter* V, pp. 28–39). Additionally, a laboratory experiment demonstrated that adult female anoles ignore juveniles, whereas adult males attempt cannibalism more frequently (Stamps 1983. *Behav. Ecol. Sociobiol.* 12:19–33).

During our research on spoil islands in the Matanzas River near Palm Beach, Florida, USA (29.64°N, 81.21°W; WGS84), we collected an adult female *A. sagrei* that regurgitated a partially digested juvenile *A. sagrei* with only the posterior half of the abdomen, the hind legs, pelvic region, and partial tail remaining. The adult female was measured (mass = 2.63 g; SVL = 48 mm; TL = 78 mm) but the remnants of the carcass precluded accurate measurement of the cannibalized juvenile (Fig. 1). However, we identified the juvenile as female based on the absence of enlarged post-cloacal scales. To our knowledge, this is the first report of cannibalism by an adult female *A. sagrei*.

Past studies of *Anolis* suggest that competition is the primary selective force in island populations, whereas predation is more prominent in mainland populations (Calsbeek and Cox 2010. *Nature* 465[7298]:613–616). Depending on the frequency of cannibalism in *A. sagrei* populations, both forces may be at work because predation on young individuals by adults can influence future competition, and hence impact community structure and population dynamics (Gerber and Echternacht 2000. *Oecologia* 124:599–607). Thus, the role of cannibalism in driving ecological and evolutionary processes in *A. sagrei* may be particularly strong, and warrants more study.

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ANOLIS SAGREI (Brown Anole). EGG PREDATION. *Anolis sagrei* is native to many islands throughout the West Indies, and invasive populations have expanded throughout Florida primarily over the last half-century (Kolbe et al. 2004. *Nature* 431:177–181). Similar to other anoles, *A. sagrei* produces a single-egg clutch and oviposits at regular intervals (about every 7–10 days) throughout the reproductive season (Cox and Calsbeek 2010. *Evolution* 64[5]:1321–1330). At present, little is known about anole oviposition behaviors, but laboratory studies suggest that females choose oviposition sites with suitable conditions for embryo development (Socci et al. 2005. *Herpetologica* 61:233–240; Reedy et al. 2013. *Behav. Ecol.* 24:39–46). Although females tend to select sites with proper ambient conditions, some eggs still succumb to mortality. Predation could be a major factor driving variation in egg mortality in the field. For example, studies of *A. limifrons* demonstrate that leaf litter invertebrates (*Solenopsis* ants, *Salasiella* snails) contribute to egg mortality (Andrews 1982. *Herpetologica* 38:165–171; Chalcraft and Andrews 1999. *Oecologia* 119:285–292). Here, we report that marsh crabs may be another important predator of *Anolis* eggs.



FIG. 1. Regurgitated carcass of a juvenile *Anolis sagrei* (A), and the cannibalistic adult female (B).