

**OSTEOPILUS SEPTENTRIONALIS (Cuban Treefrog).**

**PREDATION.** There are numerous reports of spider predation on vertebrates, many involving nursery web spiders of the family Pisauridae (Nyffeler and Gibbons 2022. J. Arachnol. 50:121–134). Pisaurid spiders are known to feed on many vertebrates, including fishes (Nyffeler and Pusey 2014. PLoS ONE 9:e99459), reptiles (Nyffeler and Gibbons 2021. J. Arachnol. 49:1–27), and amphibians, particularly anurans (Nyffeler and Altig 2020. J. Arachnol. 48:26–42). For example, Baba et al. (2019. J. Arachnol. 47:154–158) observed the pisaurid *Dolomedes orion* (Okinawan Fishing Spider) preying on *Rana ulma* (Ryukyu Brown Frog; Ranidae) in Japan and Patrikeev (2022. Herpetol. Rev 53:288–289) observed a *D. triton* (Six-spotted Fishing Spider) consuming a *Hyla femoralis* (Pine Woods Treefrog; Hylidae) in Virginia, USA. Species of pisaurid spiders are not web-spinning and, like most other families of frog-eating spiders, are cursorial hunters (Nyffeler and Altig 2020, *op. cit.*). In a review, Nyffeler and Altig (2020, *op. cit.*) reported 28 events where pisaurid spiders were observed preying upon frogs of the family Hylidae, more than any other frog family.

*Osteopilus septentrionalis* is a large hylid frog native to Cuba (Meshaka 2001. The Cuban Treefrog in Florida: Life History of a Successful Colonizing Species. University Press of Florida, Gainesville, Florida. xxiii + 191 pp.) that first arrived in the USA in the Florida Keys in the 1920s (Barbour 1931. Copeia 1931:140) and has since become widespread throughout the state (Krysko et al. 2019. Amphibians and Reptiles of Florida. University of Florida Press, Gainesville, Florida. xvi + 706 pp.). Across Florida, several species of birds (e.g., *Egretta caerulea*, *Quiscalus quiscula*, *Tyto alba*) and both native (e.g., *Agkistrodon*, *Coluber*, *Pantherophis*, *Thamnophis*) and non-native squamates (e.g., *Gekko*) have been observed consuming postmetamorphic *O. septentrionalis* (Meshaka 2001, *op. cit.*; Krysko and Love 2016.

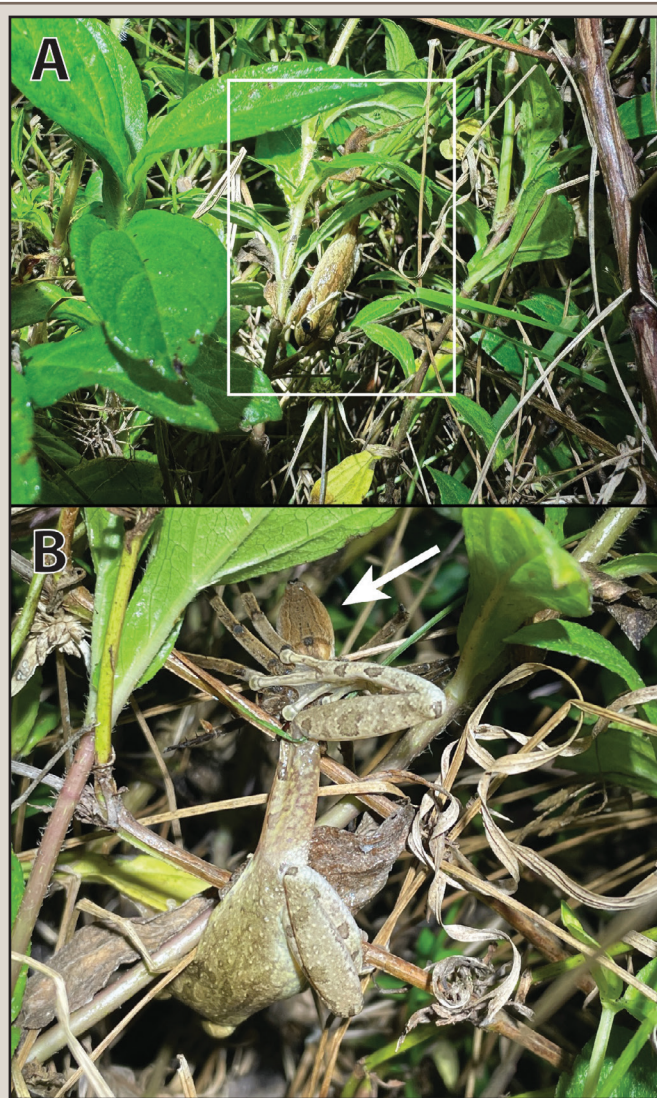


FIG. 1. An adult *Dolomedes triton* that captured a subadult *Osteopilus septentrionalis* in Miami-Dade County, Florida, USA: A) lateral view of the predation event (white box) showing the *O. septentrionalis* oriented downwards within creeping-oxeye (*Sphagneticola* sp.); B) dorsal view of the predation event showing the *D. triton* (white arrow) holding the *O. septentrionalis* and anchored within the vegetation.

Rept. Amphib. 23:44–45). Additionally, cannibalism has been recorded in the species as well, with mature individuals known to consume subadults (Meshaka 2001, *op. cit.*). Predation on *O. septentrionalis* by invertebrates is limited, with only three observations of predation by jumping spiders (Salticidae) reported (Nyffeler et al. 2017. *J. Arachnol.* 45:238–241). Here, we describe an additional spider predator of introduced *O. septentrionalis* in Florida.

At 2302 h on 11 March 2024, we observed an adult *D. triton* that had captured a subadult *O. septentrionalis* (4.0 g, 44 mm SVL) at Glenn Garrett Memorial Park, Miami-Dade County, Florida, USA (25.39717°N, 80.57288°W; WGS 84). As we were hiking along a mowed-grass trail, we heard an anuran emitting a distress call, which we then investigated. Within a stand of creeping-oxeye (*Sphagneticola* sp.) ca. 1 m in height, we discovered this predation event taking place. The *D. triton* had ahold of the *O. septentrionalis* near its right knee; the frog was oriented downward, unsuccessfully attempting to escape the

spider (Fig. 1). After observing this predation event for ca. 10 min, we collected both specimens and deposited them at the Biodiversity Collections, The University of Texas at Austin (*O. septentrionalis*: TNHC 117391 [DRD 11459]; *D. triton*: UTIC 310956). Although we did not observe direct mortality and consumption of the *O. septentrionalis*, we strongly believe that if we had not interfered, the *D. triton* would have killed and consumed the frog, given the numerous reported predation events on anurans by this spider family (Nyffeler and Altig 2020, *op. cit.*). Pisaurid spiders have a relatively large body size (up to 3.7 cm; Ubick et al. [eds.] 2005. *Spiders of North America: an Identification Manual*. American Arachnological Society. v + 377 pp.) and strong venom, both of which make them effective at immobilizing and killing vertebrate prey (Blackman and Lotz 1987. *Anim. Behav.* 35:641–651). To our knowledge, this is the first reported predation of *O. septentrionalis* by the pisaurid spider *D. triton*.

The collection of non-native species is not regulated by the Florida Fish and Wildlife Conservation Commission, and collection methods followed an approved ENMU IACUC protocol (2023-DAV-005). Funding was provided, in part, by an ENMU Faculty Research and Instructional Development Grant awarded to DRD. We thank Travis J. LaDuc and Alex Wild for accessing these specimens and members of the Davis Herpetology Lab for helpful comments on this manuscript.

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