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Boiga Irregularis (Brown Treesnake)

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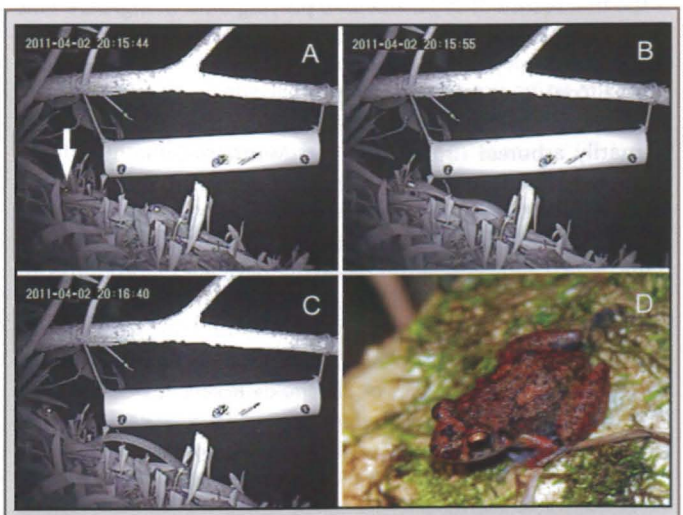
***BOIGA IRREGULARIS* (Brown Treesnake). DIET.** The invasive *Boiga irregularis*, having decimated most of the native species it preyed on in Guam, now preys heavily on other invasive vertebrates. *Eleutherodactylus planirostris* (Greenhouse Frog), which has recently become established on Guam (Christy et al. 2007. Pac. Sci. 61:469–483), may provide the snake with an additional food source because the frogs are active nocturnally and can attain high densities (12,500 frogs ha^{-1} in Hawaii; Olson 2011. Unpubl. dissertation. Utah State University, Logan. 116 pp.). *Boiga irregularis* consume *E. planirostris* in captivity (unpubl. data in Christy et al. 2007. Pac. Sci. 61:469–483), but it is unknown whether they take them in the field. Others have suggested that *B. irregularis* are unlikely to prey upon anurans because of learned avoidance after attempting to take a poisonous species, *Bufo marinus*, which is also introduced and common throughout Guam.

On 2 April 2011, during the course of video recording of nocturnal snake activity in roadside vegetation at U.S. Naval Computer and Telecommunications Station Guam (13.574758°N, 144.834967°E; datum WGS84), we observed two *E. planirostris* moving about on a moss and fern-covered log approximately 1 m above the forest floor. This location is approximately 7.7 km north of the discovery site for this recently-arrived species (Christy et al., *op. cit.*) At 2015 h, a juvenile Brown Treesnake (ca. 600 mm SVL) appeared on the side of the log approximately 10 cm from one of the frogs, which quickly leapt off of the log. The snake



PHOTOS BY TOM MATHIES

FIG. 1. *Boiga irregularis* feeding sequence on an *Eleutherodactylus planirostris*, northern Guam, USA. A. Snake approaches frog (arrow indicates eye-shine of frog); B. Snake lunging toward frog. C. Snake swallowing frog; D. *Eleutherodactylus planirostris* at study site.

rapidly swung around to face the direction of the departed frog, but did not follow. Soon after, the second frog emerged from cover and took a few steps toward the snake (Fig. 1A). The snake then moved toward the frog, paused, and then lunged at the frog (Fig. 1B), catching it in its mouth and consuming it immediately thereafter (Fig. 1C). To verify whether the frogs on our video recording were *E. planirostris*, we returned to the site the following night. A cursory visual search of a 1.5 × 4.5 m strip of forest floor beneath the log revealed approximately 15 small *E. planirostris* (Fig. 1D). If juvenile *B. irregularis* are taking substantial numbers of frogs as prey, the snake may become more difficult to control than at present. Moreover, large populations of *E. planirostris* (both on Guam and elsewhere) may facilitate the establishment of *B. irregularis* in new areas, such as Hawaii or other Pacific Islands.

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