



Alvarado’s Webfooted Salamander, *Bolitoglossa alvaradoi* (Taylor 1954): Activity, Hunting Behavior, and Prey Selection in Costa Rica

Jonathan Vega Coto

Biology Department, Lapa Verde Wildlife Refuge, Sarapiquí, Heredia, Costa Rica (johnnyasper@gmail.com)

Alvarado’s Webfooted Salamander (*Bolitoglossa alvaradoi*) is endemic to the Atlantic Slope of Costa Rica. Fragmented populations exist throughout lowland and premontane forest from near sea level to at least 1,100 m (Savage 2002; Leenders 2016; IUCN SSC Amphibian Specialist Group 2020). These salamanders occupy the forest canopy, where they especially exploit bromeliad microhabitats (Wake 1987).

At 2000 h on 11 February 2024, following protocols for handling amphibians (Lizana Avia 2015), I encountered and captured an adult *B. alvaradoi* (Fig. 1) about 1.5 m above the ground on a bush near a small lagoon at Lapa Verde Wildlife Refuge, Sarapiquí, Heredia, Costa Rica (10.460751,

-84.056876; elev. 65 m asl). I brought this individual to the gardens of the Lapa Verde Biological Station (10.454774, -84.058182; elev. 75 m asl), where I observed its foraging behavior for one hour every third night (on average) for one month. To avoid affecting its behavior, I used only a red flashlight during observations.

This *B. alvaradoi* was most active from 1800 to 2200 h, especially during humid nights after rain, which provide the best conditions for hunting prey (Savage 2002). Foraging through bushy vegetation at heights of 0.3–1.5 m above the ground, it searched for insects, especially small moths in the families Tineidae, Crambidae, and Pyralidae, and also was observed preying on ants in the genera *Atta* and *Acromyrmex*. It was not, however, seen eating other kinds of small ants that were present in the vegetation. When the salamander encountered an insect, it moved quickly to within 1.5 cm before projecting its tongue, capturing and ingesting the prey in approximately 3 sec.

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Figure 1. An Alvarado’s Webfooted Salamander (*Bolitoglossa alvaradoi*) searching for prey in vegetation at Lapa Verde Wildlife Refuge, Sarapiquí, Costa Rica. Photograph by Alexander Moya Valverde.