



# The Osa Caecilian (*Osaecilia osae*): New Localities, Elevational Record, and Predation by a Common Black-Hawk (*Buteogallus anthracinus*)

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The family Caecilidae contains 43 mostly South American species in two genera (*Caecilia* and *Osaecilia*), both of which occur in Costa Rica (Leenders 2016; Kubicki 2017). The principal distribution of the genus *Osaecilia* is in northwestern South America, with only three of the nine currently recognized species occurring in southern Central America (Köhler 2011).

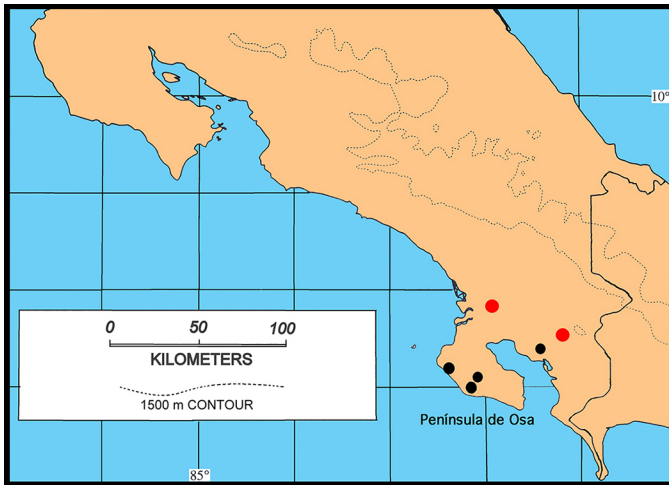
The Osa Caecilian (*Osaecilia osae*) (Fig. 1) was first discovered in a flooded grassy airstrip at the Sirena Ranger Station in Corcovado National Park in 1984 but was not formally described until 1992 (Lahanas and Savage 1992). The species was known only from the Península de Osa in southwestern Costa Rica at elevations of 3–40 m asl (Savage 2002; Bolaños et al. 2008) until Huber (2010) provided the first report from outside the Península de Osa at the Tropical Research Station La Gamba (Fig. 2) and documented the first known predator of the species, the Arrow-headed Coralsnake (*Micrurus alleni*).

At 1520 h on 30 September 2016, R. Nuñez encountered a 15-cm long Osa Caecilian (Fig. 1) at Sierpe (8°50'44.2"N, 83°28'37.7"W) at an elevation of 46 m asl (Fig. 2). At 1530 h on 6 September 2020, H. Sandi encountered a 45-cm long Osa Caecilian at Llano Bonito (8°73'43.68"N, 83°06'67.04"W) at an elevation of 500 m asl (Fig. 3). These observations represent the second and third localities outside the Península de Osa, the northernmost record for the species, and extend the elevational range of the species to 500 m asl.

The inner layer of skin of caecilians contains poison glands, the secretions of which can be toxic to predators, including humans (Wake 1986). Consequently, few predators are known to feed on caecilians, although Taylor (1968) indicated that snakes and carnivorous birds undoubtedly do so. Neotropical coralsnakes (*Micrurus* spp.) are the most frequently documented snakes that include caecilians in their diet (Gower et al. 2004). Eleven species of coralsnakes have been reported to feed on caecilians, including two species of *Osaecilia* (Roze 1996;



Fig. 1. An Osa Caecilian (*Osaecilia osae*) from Sierpe, the northernmost locality known for the species. Photographs by Raby Nuñez Escalante.



**Fig. 2.** Map of Costa Rica showing the known localities for Osa Caecilians (*Oscaecilia osae*). Previously recorded localities are indicated by black dots, the two new mainland records are marked by red dots.



**Fig. 3.** An Osa Caecilian (*Oscaecilia osae*) from Llano Bonito. At 500 m asl, this is the highest elevation recorded for the species. Photograph by Henry Sandi Amador.



**Fig. 4.** A Common Black Hawk (*Buteogallus anthracinus*) consuming an Osa Caecilian (*Oscaecilia osae*) near the beach in San Pedrillo, Corcovado National Park. Photographs by Raby Nuñez Escalante.

Campbell and Lamar 2004; Huertas and Solórzano 2014). Herein, I report a new locality for *O. osae* outside the Península de Osa and predation by a Common Black Hawk (*Buteogallus anthracinus*). This is the first record of this predator on this species and of this prey in the hawk’s diet.

At 1145 h on 28 November 2017 near the beach in San Pedrillo, Corcovado National Park, I photographed a Common Black-Hawk capturing an Osa Caecilian on the ground, flying to a nearby tree, and consuming it (Fig. 4). This is the third known predator of *O. osae*. In addition to the Arrow-headed Coralsnake (Huber 2010), Nuñez Escalante

and Barrio-Amorós (2014) recorded predation by a White-nosed Coati (*Nasua narica*).

Common Black Hawks are closely tied to bodies of water and their diet varies seasonally and throughout the species’ range and generally reflects the availability of prey (Thiollay 1994). Along the Pacific Coast of Mexico, 86% of the diet is comprised of fish (Thiollay 1994), whereas in Costa Rica, Common Black Hawks feed mainly on crabs (Stiles and Skutch 1989). That this opportunistic predator (e.g., Herrera and González 2017; Solórzano and Sasa 2017) would capture and consume a caecilian is not surprising.



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