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First report of predation by a caiman (*Paleosuchus trigonatus*, Crocodylia: Alligatoridae) on a caecilian (*Caecilia marculsi*, Gymnophiona: Caecilidae)

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Caecilians (Gymnophiona) are very secretive burrowing tropical amphibians (VITT & CALDWELL 2009), representing probably the least understood order of extant vertebrates (NUSSBAUM & WILKINSON 1989, 1995). At least 15 species occur in Brazilian Amazonia (MACIEL & HOOGMOED 2011). *Caecilia marculsi* WAKE, 1985 is one of these, found in lowland Bolivia (Cochabamba and El Beni), Brazil (states of Acre, Mato Grosso, and Rondônia) (MACIEL & HOOGMOED 2011). It is capable of adapting to secondary habitats, and its breeding habits are unknown (CORTEZ et al. 2004).

Crocodylians are semiaquatic predators with predominantly nocturnal activity (VITT & CALDWELL 2009). The smooth-fronted caiman, *Paleosuchus trigonatus* (SCHNEIDER, 1801), is found principally in the rivers and streams of heavily forested habitats, and many aspects of its life history remain uninvestigated (MAGNUSSON & CAMPOS 2010).

Data herein reported were obtained during a survey for amphibians and reptiles in riparian habitats along streams in primary forest at the Fazenda Experimental Catuaba, municipality of Senador Guiomard, state of Acre, Brazil (Fig. 2). Vouchers (UFAC-RB 6112 and UFA-RB 0100; collecting permit SISBIO #27290-3) are deposited at the Coleção Herpetológica da Universidade Federal do Acre (UFAC), Rio Branco, Acre, Brazil.

An unsexed juvenile of *Paleosuchus trigonatus* (250.0 mm snout–vent length; Fig. 1) was observed preying upon a specimen of *Caecilia marculsi* in a small pond on the right bank of the Igarapé Floresta (a small tributary of the Igarapé Quinauá, belonging to the Acre-Purus Riv-

er Basin; 10°04'56" S, 67°37'33" W), at 18:00 h on 27 April 2013. The caecilian (6.8 mm in largest diameter after fixation) was grasped in the anterior and medial portion of the body by the caiman, which succeeded with pulling it out of the muddy soil after few minutes. When handled for collection, the caiman did not release its prey. The caecilian and the caiman were preserved in 10% formalin and transferred to ethanol 70% for permanent storage 72 hours later.

Predation on caecilians has never been reported previously for caimans (for the diet composition of *Caiman crocodilus*, *Melanosuchus niger* and *Paleosuchus* see MAGNUSSON et al. 1987, CAMPBELL Jr. 1993 and THORBJARNARSON 1993). Although this is the first record of a caecilian as prey of a caiman, it is possible that these secretive amphibi-



Figure 1. *Paleosuchus trigonatus* preying upon *Caecilia marculsi*.

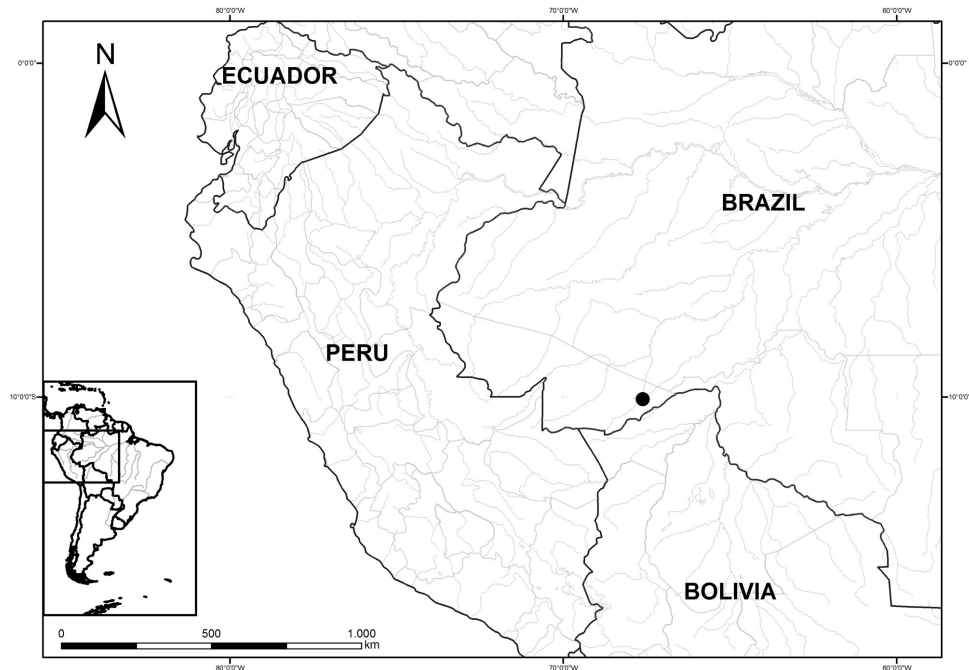


Figure 2. Map showing the location of the Fazenda Experimental Catuaba, municipality of Senador Guiomard, Acre, Brazil.

ans account for a more important portion of the food spectrum of the small forest caimans of the genus *Paleosuchus*. We are confident that more accurate studies on caiman species could contribute to elucidation of this question.

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References

- CAMPBELL Jr., K. E. (1993): Habitat notes on *Paleosuchus trigonatus* (Schneider) in Peru. – *Journal of Herpetology*, **7**: 318–320.
- CORTEZ, C., S. REICHLÉ, I. DE LA RIVA & M. WILKINSON (2004): *Caecilia marculsi*. – in: IUCN 2012. IUCN Red List of Threatened Species. Version 2012.2. <www.iucnredlist.org>. Accessed on 03 June 2013.
- MACIEL, A. O. & M. S. HOOGMOED (2011): Taxonomy and distribution of caecilian amphibians (Gymnophiona) of Brazilian Amazonia, with a key to their identification. – *Zootaxa*, **2984**: 1–53.
- MAGNUSSON, W. E., E. V. SILVA & A. P. LIMA (1987): Diets of Amazonian crocodylians. – *Journal of Herpetology*, **21**: 85–95.
- MAGNUSSON, W. E. & Z. CAMPOS (2010): Schneider's Smooth-fronted Caiman *Paleosuchus trigonatus*. – pp. 43–45 in: MANOLIS, S. C. & C. STEVENSON (eds.): *Crocodyles. Status Survey and Conservation Action Plan*. – Third Edition, Crocodile Specialist Group: Darwin.
- NUSSBAUM, R. A. & M. WILKINSON (1989): On the classification and phylogeny of Caecilians (Amphibia: Gymnophiona), a critical review. – *Herpetological Monographs*, **3**: 1–42.
- NUSSBAUM, R. A. & M. WILKINSON (1995): A new genus of lungless tetrapod: a radically divergent caecilian (Amphibia: Gymnophiona). – *Proceedings of Royal Society of London, B*, **261**: 331–335.
- THORBJARNARSON, J. B. (1993): Diet of the Spectacled Caiman (*Caiman crocodilus*) in the central Venezuelan llanos. – *Herpetologica*, **49**: 108–117.
- VITT, L. J. & J. P. CALDWELL (2009): *Herpetology: an introductory biology of amphibians and reptiles*. – Third edition, Academic Press, New York, 720 pp.