



**HAL**  
open science

# Paleosuchus trigonatus (Smooth-fronted Caiman) Predation

Rosanna Mangione, Jérémy Lemaire, Andrius Pasukonis

► **To cite this version:**

Rosanna Mangione, Jérémy Lemaire, Andrius Pasukonis. Paleosuchus trigonatus (Smooth-fronted Caiman) Predation. HERPETOLOGICAL REVIEW, 2020, 51. hal-02995810

**HAL Id: hal-02995810**

**<https://hal.science/hal-02995810v1>**

Submitted on 21 Nov 2020

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

nest attendance by wild *C. siamensis*. Kanwatanakid-Savini et al. (2012, *op. cit.*) found a female concealed in dense grass beside a nest in Kaeng Krachan National Park, Thailand that fled from researchers, and Bezuijen et al. (2013, *op. cit.*) stated that a nest in Laos was “guarded fiercely by a female of TL 2.8–2.9 m”. Third, although female crocodylians are known to attend nests after the clutch has been removed (Grigg and Kirshner 2015, *op. cit.*), our observation appears to be the only reported instance of a female crocodylian actively defending a nest well beyond the date when the clutch should have hatched. Our observation thus raises interesting questions regarding the cues responsible for terminating nest attendance by female crocodylians.

Our counterparts at the Provincial and District Offices of Forestry and Agriculture are thanked for facilitating fieldwork in Savannakhet Province. Funding for this project was provided by MMG, Critical Ecosystem Partnership Fund, Virginia Zoo, Detroit Zoo, and St. Augustine Alligator Farm. Troy Hansel, Santi Saypanya, and Christopher Holmes provided critical administrative oversight and logistic support through the Wildlife Conservation Society Lao Program. Deb Levinson and Ruth Elsey are thanked for providing literature, and insightful comments by Lewis Medlock improved an early draft of this manuscript. Finally, the Community Conservation Cadres in Noa Neua deserve special mention for their enthusiasm and field assistance, sharing their traditional beliefs, and continuing dedication to crocodile conservation in Laos. This paper represents technical contribution number 6826 of the Clemson University Experimental Station.

**STEVEN G. PLATT**, Wildlife Conservation Society and Turtle Survival Alliance - Myanmar Program, No. 12, Nanrattaw St., Kamayut Township, Yangon, Myanmar (e-mail: sgplatt@gmail.com); **OUDOMXAY THONGSAVATH** (e-mail: othongsavath@wcs.org) and **CHRISTOPHER D. HALLAM**, Wildlife Conservation Society - Lao Program, P.O. Box 6712, Vientiane, Laos (e-mail: cdhallam77@gmail.com); **THOMAS R. RAINWATER**, Tom Yawkey Wildlife Center & Belle W. Baruch Institute of Coastal Ecology and Forest Science, Clemson University, P.O. Box 596, Georgetown, South Carolina 29442, USA (e-mail: trrainwater@gmail.com).

**PALEOSUCHUS TRIGONATUS** (Smooth-fronted Caiman). **PRE-DATION.** *Paleosuchus trigonatus* is a small caiman present in French Guiana where it occupies rainforest and wetlands habitats. With a primarily nocturnal lifestyle, as well as a preference for burrows and caves for shelter, daytime observations of their behavior are rare (Magnusson and Lima 1991. *J. Herpetol.* 25:41–48; Lemaire et al. 2018. *Crocodyle Specialist Group Newsl.* 37:18–21). *Paleosuchus trigonatus* has a diverse diet that includes a variety of arboreal and terrestrial species such as monkeys, porcupines, agoutis, armadillos, fish, lizards, and snakes, but there is little information on the snake species consumed (Magnusson et al. 1987. *J. Herpetol.* 21:85–95; Moldowan et al. 2016. *S. Am. J. Herpetol.* 11:176–182). Here, we report an adult *P. trigonatus* feeding on an adult *Corallus caninus* (Emerald Tree Boa).

On 21 April 2014 at 1145 h, we observed a *P. trigonatus* at the edge of the Arataye River, close to Nouragues Ecological Research Station in the Nature Reserve Les Nouragues, French Guiana (4.04°N, 52.67°W; WGS 84; 30 m elev.). Initially submerged under water on a shallow sandy bank of a small river island, the caiman emerged on the bank with an adult individual of *C. caninus* in its jaws (Fig. 1) that appeared freshly killed or possibly still alive. After a few minutes, the caiman retreated back into the river and disappeared under water with the prey. *Corallus caninus* is primarily an arboreal boid snake (Henderson et al. 2013. *Biol.*

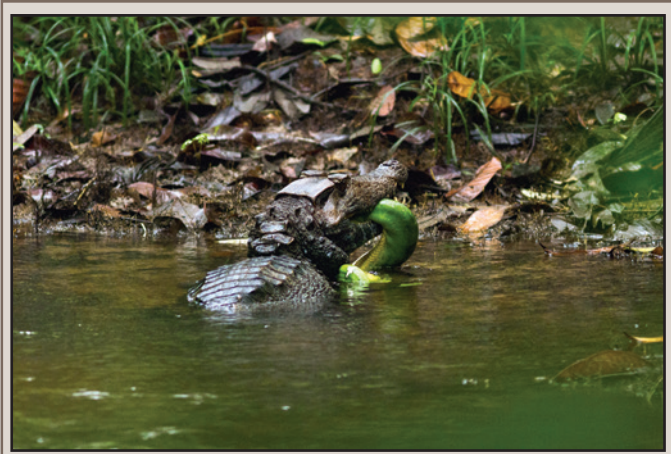


FIG. 1. A large *Paleosuchus trigonatus* feeding on a large *Corallus caninus* in the Nature Reserve Les Nouragues, French Guiana.

PHOTO BY ANDRIUS PASUKONIS

*J. Linn. Soc.* 109:466–475), that is occasionally found on the ground. Both *P. trigonatus* and *C. caninus* are regularly observed in this area, and to our knowledge this is the first observation of *P. trigonatus* preying on *C. caninus*.

We thank the Nouragues Ecological Research Station (managed by CNRS) which benefits from “Investissement d’Avenir” grants managed by Agence Nationale de la Recherche (AnaEE France ANR-11-INBS-0001; Labex CEBA ANR-10-LABX-25-01).

**ROSANNA MANGIONE**, Haus des Meeres Aqua Terra Zoo GmbH, Fritz Grünbaum Platz 1, 1060 Vienna, Austria (e-mail: rosanna.mangione@haus-des-meeres.at); **JÉRÉMY LEMAIRE**, Centre d’Études Biologiques de Chizé (CEBC) U.M.R. 7372 CNRS & La Rochelle Université, 405 route de Prissé la Charrière, 79360 Villiers en Bois, France (e-mail: jeremy.ca.lemaire@gmail.com); **ANDRIUS PASUKONIS**, Department of Biology, Stanford University, 371 Jane Stanford Way, Stanford, California 94305, USA (e-mail: apasukonis@stanford.edu).

#### SQUAMATA — AMPHISBAENIANS

**AMPHISBAENA VERMICULARIS** (Wagler’s Worm Lizard). **PRE-DATION.** *Amphisbaena vermicularis* is a small (up to 325 mm total length) fossorial amphisbaenid that is rarely observed above ground with a distribution from northeastern Brazil to Bolivia (Gans 2005. *Bull. Am. Mus. Nat. Hist.* 289:1–130). The Burrowing Owl, *Athene cunicularia*, ranges from western North America to Tierra del Fuego in South America (Weick 2006. *Owls [Strigiformes] Annotated and Illustrated Checklist*. Springer-Verlag, Berlin. 384 pp.) and are well-known reptile predators. For example, *A. cunicularia* feed on colubrid and blind snakes (Herse 2016. *Southwest. Nat.* 61:341–348; Cláudio et al. 2017. *Herpetol. Notes.* 10:429–431) and lizards of many different families from temperate arid and desert habitats (Carevic et al. 2012. *J. Arid. Environ.* 97:237–241; Herse 2016, *op. cit.*) to dry tropical regions (Vieira and Teixeira 2008. *Bol. Mus. Biol. Mello Leitão* 23:5–14; Cadena-Ortiz et al. 2016. *Rev. Bras. Ornitol.* 24:122–128). Until now, there was no record of *A. cunicularia* predation on an amphisbaenid.

At 1020 h on 10 June 2013, at the Universidade Estadual de Feira de Santana, Feira de Santana, Bahia, Brazil (12.26666°S, 38.96666°W; WGS 84; 223 m elev.), we observed an adult *A. cunicularia* perched in a tree ca. 5 m above ground with an *A. vermicularis* in its talons. The *A. vermicularis*, which appeared to be an adult, was writhing as it tried to escape from the owl.