

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/323760017>

MELANOSUCHUS NIGER (Black Caiman) and CAIMAN CROCODILUS (Spectacled Caiman). NESTING.

Article in *Herpetological Review* · March 2018

CITATIONS

0

READS

91

2 authors:



[Kelly Torralvo](#)

Instituto Nacional de Pesquisas da Amazônia

3 PUBLICATIONS 10 CITATIONS

[SEE PROFILE](#)



[Rafael Rabelo](#)

Instituto Nacional de Pesquisas da Amazônia

20 PUBLICATIONS 78 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Niche separation between two sympatric frugivorous Neotropical primates [View project](#)



Determinants of distribution and cultural importance of Neotropical butterflies [View project](#)

was charged with possession of a dangerous animal. The investigating Natural Resource Police officer believes that the man was responsible for both releases and most likely released the deceased *A. mississippiensis* in the fall (pers. comm.). This release of a large non-native reptile into a sensitive ecosystem has multiple ramifications; most obviously, the unnecessary death of the *A. mississippiensis* that could have been easily prevented. Other impacts may have included the spread of invasive pathogens from the pet trade to the wild, and the potential predation of a declining sensitive species (e.g., *Clemmys guttata* [Spotted Turtle]). Alternately, if the *A. mississippiensis* was released into a deeper wetland (the wetland was < 1.2 m deep) and the winter weather remained warmer (as it is likely to do as temperatures continue to increase), it might have persisted into the next season and continued to negatively impact the local ecosystem.

HUNTER J. HOWELL, Department of Biological Sciences, Towson University, 8000 York Road, Towson, Maryland 21252-0001, USA; e-mail: hhowell1@students.towson.edu.

MELANOSUCHUS NIGER (Black Caiman) and CAIMAN CROCODILUS (Spectacled Caiman). NESTING. As far as we know, the only report of caiman nesting in Amazonian fluvial islands was

described by Da Silveira et al. (1997. J. Herpetol. 31:514–520), who found a *Melanosuchus* nest during a decade of caiman monitoring in the archipelago of Anavilhanas National Park, Brazil. These islands are seasonally flooded by a mixture of nutrient-poor black waters of the Rio Negro and sediment-laden water from the Rio Branco. Despite finding only one nest, the authors suggested that river islands of the Anavilhanas are used as successful nesting areas, given the common occurrence of hatchling groups of *Melanosuchus niger* and *Caiman crocodilus* (Spectacled Caiman) there. Herein we report additional observations of nesting on Amazonian river islands by *M. niger* and *C. crocodilus*.

From September to November 2014, we conducted surveys along line-transects across 15 forested islands (Fig. 1) located in the Solimões-Japurá interfluvium (64.4–65.4°W; 2.2–3.5°S), in Central Amazonia. Unlike the Anavilhanas, these islands are seasonally flooded only by nutrient-rich white-water rivers. We found 11 caiman nests (six of *M. niger* and five of *C. crocodilus*) occurring on six islands. Island size varied from 166 to 2109 ha, and minimum distances from island edges to river margin varied from 65 to 1479 m. Distances from nests to the nearest water body were < 5 m for *M. niger*, and > 12 m for *C. crocodilus*. One of six *M. niger* nests was attended by an adult, presumably a female, and two had evidence of predation based on the patterns

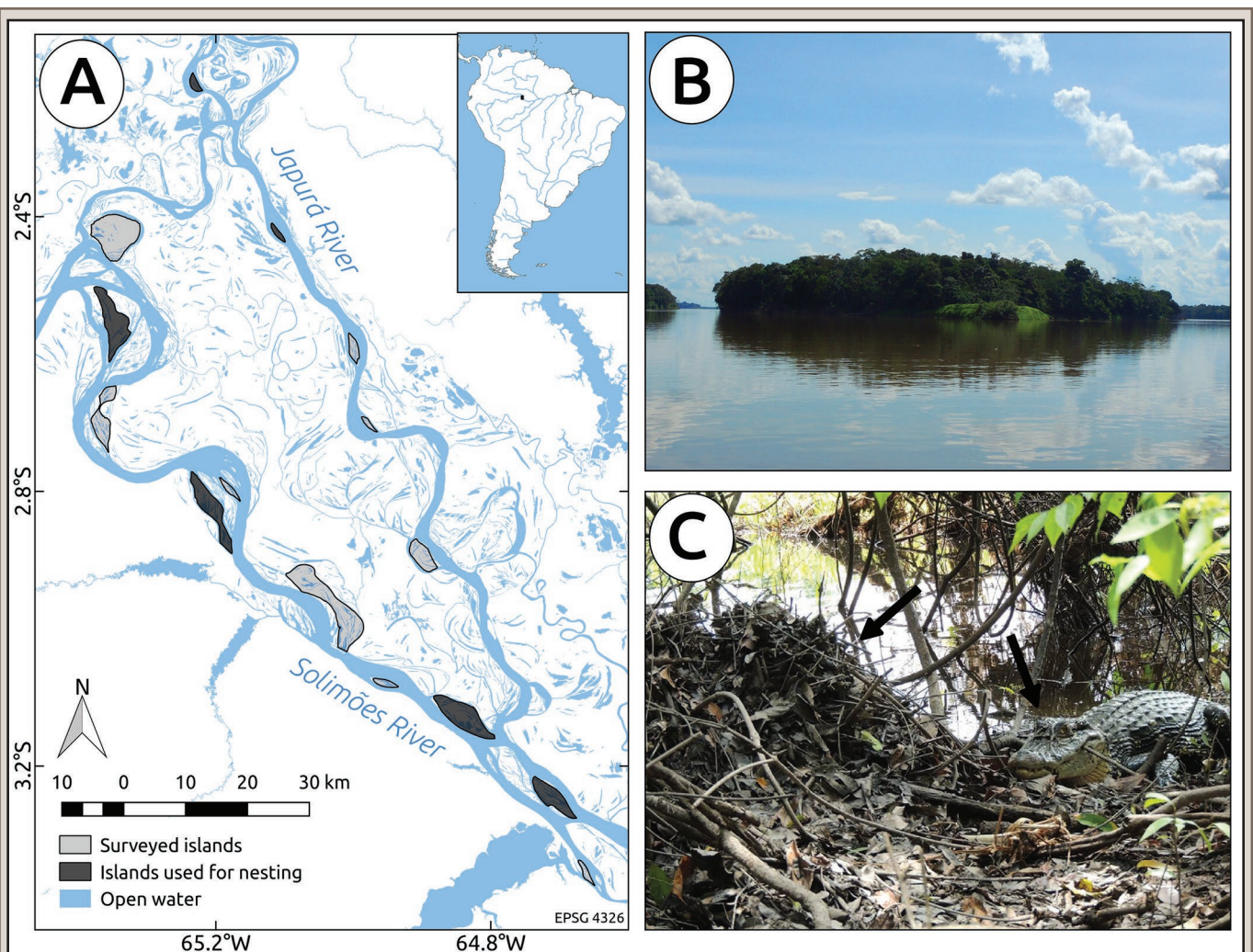


FIG. 1. A) Location of survey islands in the Solimões-Japurá interfluvial region; B) one of the islands used by nesting caimans; and C) a nest of *Melanosuchus niger* attended by an adult (arrows).

of nest predation described by Torralvo et al. (2017. PLoS ONE 12:e0183476), one by *Panthera onca* (Jaguar) and the other by *Tupinambis teguixim* (Black-and-white Tegu). We found no evidence of predation on the five *C. crocodilus* nests, and four of them were attended by an adult.

One of the most frequent causes of caiman egg mortality during incubation is predation (Torralvo et al., *op. cit.*). The occurrence of predator species, such as capuchin monkeys and jaguars, may be lower on islands than on the mainland (Rabelo et al. 2017. J. Biogeog. 44:1802–1812), so these river islands are potentially successful nesting sites for caiman species. Our findings provide new evidence for the use of river islands as reproductive sites for caiman species in the Amazon, highlighting the importance of these islands for the conservation of these species.

We thank Jonei Brasil, André Neves, and Jairo Neves for field assistance. We thank Bill Magnusson for his revision on a draft of this note. This research was funded by Instituto de Desenvolvimento Sustentável Mamirauá (IDS-M/OS/MCTI). RMR thanks the Brazilian National Research Council for research fellowships (CNPq, #313108/2016-1, #142352/2017-9).

KELLY TORRALVO (e-mail: kellytorralvo1@gmail.com) and **RAFAEL M. RABELO**, Programa de Pós-Graduação em Ecologia, Instituto Nacional de Pesquisas da Amazônia, Av. Efigênio Sales, 2239, 69060-020, Manaus, Amazonas Brazil; and Instituto de Desenvolvimento Sustentável Mamirauá – Estrada do Bexiga, 2584, 69553-225, Tefé, Amazonas, Brazil (e-mail: rmarbello@gmail.com).

SQUAMATA — LIZARDS

ABRONIA MIXTECA (Mixtecan Arboreal Alligator Lizard). MATING BEHAVIOR. *Abronia mixteca* is an arboreal anguillid that inhabits oak and pine-oak forests in mountains of Oaxaca and Guerrero, Mexico, at elevations of 2134–2400 m (Campbell and Frost 1993. Bull. Amer. Mus. Nat. Hist. 216:1–121; Casas-Andreu et al. 1996. Acta Zool. Mex. 69:1–35; Canseco-Márquez and Gutiérrez-Mayén 2010. Anfíbios y Reptiles del Valle de Tehuacán-Cuicatlán. CONABIO, Cuicatlán A.C., BUAP, México, D.F. 302 pp.). Existing information about the biology and reproduction is limited to only three species in the genus (*A. graminea*, *A. lythrochila*, and *A. oaxacae*; Greer 1967. Herpetologica 23:94–99), and most observations have been under captive conditions (Schmidt-Ballardo and Mendoza-Quijano 1999. Herpetol. Rev. 30:96; Langner 2014. TERRARIA/Elaphe 45:28–34; Gonzáles-Porter et al. 2015. Rev. Dig. E-BIOS 1:1–9; Clause et al. 2016. Herpetol. Rev. 47:231–234). Observations of secretive behaviors such as mating are difficult because *A. mixteca* is arboreal. Herein we report the first observations of mating in *A. mixteca* in the wild.

At 1110 h on 22 July 2014, we observed mating in the vicinity of La Cofradia, during herpetofauna research conducted in logging areas in San Pedro el Alto community, Zimatlán district in Oaxaca (16.74504°N, 97.11253°W, WGS 84; 2818 m elev.). The pair was on the trunk of a *Pinus oaxaca*. Distinctive courtship behavior was displayed by the male, which consisted of taking the temporal region of the female's head with the jaws and rubbing against the body, while attempting to align the vent to copulate (Fig. 1A, B). Copulation lasted for about 35 min.

Subsequently, at 1635 h on 30 July 2015, a second pair was recorded in copulation in a community conservation area known as La Yerbabuena (16.75469°N, 97.11203°W, WGS 84; 2768 m elev.). This pair was on a *Pinus pseudostrobus* trunk, 170 cm above the ground. Both pairs displayed the posture of the male holding the



FIG. 1. Pairs of *Abronia mixteca*, showing courtship (A and B) and copulation (C and D).

female's head in its jaws (Fig. 1C, D). Copulation ended 50 min. after detection, but the pair was mating when found.

Copulation times in captivity can extend up to 18 h (Schmidt-Ballardo et al. 2015. Mesoam. Herpetol. 2:192–194). Longer mating periods in captivity may reflect the lack of predation risk or competition for food or other resources. Our observations are the first records of mating in *A. mixteca* in nature.

The Consejo Nacional de Ciencia y Tecnología de México provided a scholarship for postgraduate studies for the first author, and the Instituto Politécnico Nacional de México provided financial support for the development of the project.

CÉSAR T. ALDAPE-LÓPEZ (e-mail: yesca23fum@hotmail.com) and **ANTONIO SANTOS-MORENO**, Laboratorio de Ecología Animal, Centro Interdisciplinario de Investigación para el Desarrollo Integral Regional, Unidad Oaxaca, Instituto Politécnico Nacional, Hornos 1003, Noche Buena, Santa Cruz Xoxocotlán, Oaxaca, 71230, Mexico (e-mail: jsantosm@ipn.mx).

ANOLIS CAROLINENSIS (Green Anole). INTERSPECIFIC MATING. *Anolis carolinensis* is the only anole native to the United States, and occurs throughout the southeast portion of the country (Powell et al. 2016. Field Guide to Reptiles and Amphibians of Eastern and Central North America, 4th ed. Houghton Mifflin Harcourt Publishing Company, New York, New York. 512 pp.). However, several *Anolis* spp. have been introduced to the United States, with the Brown Anole (*Anolis sagrei*) being the most widespread (Powell et al., *op. cit.*).

At 1136 h on 12 June 2017, a male *A. carolinensis* was observed mating with a female *A. sagrei* at the Archie Carr Sea Turtle House in Brevard County, Florida (Fig. 1; 28.0131°N, 80.5326°W; WGS