

CROCODYLIA

CAIMAN LATIROSTRIS (Broad-snouted Caiman) **COURTSHIP BEHAVIOR.** The reproductive biology of the broad-snouted caiman has been studied in association with its ranching (Larriera 1988, *Rev. Arg. Prod. Anim.* 8:429–432) and farming (Verdade 1995. *In* Larriera and Verdade [eds.], *Conservación y Manejo de los Crocodylia de America Latina*, Vol. 1, Santo Tomé, Santa Fe, Argentina: Fundación Banco Bicaprograms) programs. However, little is known about its reproductive behavior.

Courtship behavior of crocodylians might be as intricate and complex as that exhibited by some birds, although not as many studies have been conducted with this group. Eight distinct behavioral components have been described for the American alligator (*Alligator mississippiensis*) (Vliet 1989, *Amer. Zool.* 29:1019–1031): A) elevated posture; B) head oblique tail arched posture; C) subaudible vibrations; D) headslap; E) jawclap; F) growl; G) inflated posture; and, H) tail wag. Among them, subaudible vibration has been described only for males, generally preceding headslap. Some vocalization (e.g., jawclap and growl) might also be associated with these displays. While the reproductive behavioral components are well known for the American alligator, they have never been described for the broad-snouted caiman. Although some differences are clear, some of the social displays listed above might also apply for the broad-snouted caiman, as our observations suggest.

On 23 October 2000, at 1030 h we observed the following behavior in one of the breeding groups (one male: four females) of the captive colony of *Caiman latirostris* at the University of São Paulo (22°42.557'S, 47°38.246'W) in Piracicaba, State of São Paulo, Brazil. The male (109 cm SVL), swimming slowly, approached the group of females basking at the edge of the pool. Still in the water, the male exhibited a head oblique tail arched posture (similar to B, above). He then assumed an elevated posture (similar to A, above) remaining this way for ca. 1 min. He then turned to the head oblique tail arched posture (B) and contracted his trunk slightly, shaking his head and producing a subaudible vibration (similar to C, above) that lasted for ca. 2 min. Although not a "water dance" (as described by Vliet 1989, *op. cit.*), the water sprinkling caused by vibration was visible, the 1.2 m high brick wall 2 m from him vibrated simultaneously as an effect of the caiman's subaudible vibration. The male did not produce any sound like headslap, jawclap, or growl either during or after vibrating, but the females did growl (similar to F, above) in response to him. After that, the male assumed an inflated posture (similar to G, above), but did not show any tail movement like tail wag (H). After 23 October, the head oblique tail arched posture (B) was observed in association with copulation attempts, but with neither subaudible vibration nor the other behavioral act components described by Vliet (1989, *op. cit.*).

Vocalizations in crocodylians seem to be associated with habitat (Lang 1987. *In*: Webb, Manolis, and Whitehead [eds.], *Wildlife Management: Crocodiles and Alligators*, Surrey Beatty, Chipping Norton, Australia). Species that inhabit vegetated areas tend to be

more vocal than species that live in open rivers. The broad-snouted caiman is essentially a palustrine and not a riverine species (Verdade and Sarkis-Gonçalves. *In press. In* Larriera and Verdade [eds.], *Conservación y Manejo de los Crocodylia de America Latina*. Vol. 2. FEALQ, Piracicaba, São Paulo, Brazil), whereas the American alligator lives in both open river and swamps. Notwithstanding, the behavior described above suggests that *Caiman latirostris* presents a less elaborate courtship and less vocal behavior than the American alligator.

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