XENOPUS LAEVIS (African Clawed Frog). **BEHAVIOR**. *Xenopus laevis* is frequently regarded as being totally aquatic at all stages of its life history. In both natural and introduced populations, this species has been observed to rapidly colonize isolated ponds (McCoid and Fritts 1980. Southwest. Nat. 25:272–275). Observations of adult mass migrations have been made during torrential rain (Tinsley et al. 1996. *In* Tinsley and Kobel [eds.], The Biology of *Xenopus*, pp. 35–59), and mark-recapture studies have documented movement of individual animals (Measey and Tinsley 1998. Herpetol. J. 8:23–27), but conditions under which these individual movements are made remain unknown.

On the evening of 26 September 2001, we sampled rodents in agricultural fields around Santiago, Chile (La Platina 33°34'04.2"S, 70°37'13.9"W) using Sherman traps. One trap was placed in a dry irrigation canal, and the following morning it contained a juvenile (SVL 36.4 mm) *X. laevis* (Museo Nacional de Historia Natural de Chile MNHNC-3368). A thorough inspection of the area revealed a dam, with a known population of *X. laevis* 1500 m from the capture site. From the dam, a number of irrigation canals run throughout the area. Flow is regulated by a system of gates, and the nearest ditch with standing water was 170 m from the capture site.

The use of *X. laevis* in a laboratory context has provided misleading conclusions about its natural history, especially with regard to terrestrial behavior. This finding corroborates observations of Measey and Tinsley (*op. cit.*) that individual *X. laevis* move overland. Further, we are able to add that movements are nocturnal and that animals may not be inhibited by dry conditions. This observation is important in studies of population dynamics and gene flow in this species. It is particularly important in relation to the management of invasive populations, currently known from UK, Chile, and USA.

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TESTUDINES

CHRYSEMYS PICTA PICTA (Eastern Painted Turtle). **PREDATION**. On 1 August 2000 at 0900 h, I observed a northern harrier (*Circus cyaneus*) attacking a juvenile *Chrysemys picta picta* at Sandy Experimental Farm, Clarke County, Virginia, USA. The turtle was on land in a mowed clearing ca. 60 m from a drying pond. The harrier was accidentally flushed, thereby aborting the attack, by my approaching vehicle. I do not know whether the harrier would have been successful. Aside from superficial scratches on the carapace, the turtle appeared unharmed. Body mass and plastron length were 102 g and 81.2 mm, respectively. The turtle was released at point of capture. Several raptors have been reported to occasionally prey upon *C. picta* (Ernst et al. 1994. Turtles of the United States and Canada, Smithsonian Institution Press, Washington D.C. 578 pp). To my knowledge, predation by northern harrier on *C. picta* has not been previously documented (Sherrod 1978. Raptor Res. 12:49–121).

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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 crocodilians 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 crocodilians 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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CAIMAN LATIROSTRIS (Broad-snouted Caiman). **THERMOREGULATION.** It has been demonstrated that increasing body temperature (fever) is a common response to infection among crocodilians (Lang 1987. *In* G. J. W. Weeb, C. Manolis and P. J. Whitehead [eds.], Wildlife Management: Crocodiles and Alligators, Surrey Beatty and Sons, Chipping Norton, New South Wales. 552 pp.). Deakins (1980. *In* J. B. Murphy and J. T. Collins [eds.], Reproductive Biology and Diseases of Captive Reptiles, SSAR, Lawrence, Kansas. 277 pp.) reported that parasitic infections in snakes can be treated by increasing environmental temperature. On the other hand, decreasing temperatures often exacerbates viral and bacterial infections, making reptiles more susceptible to disease (Marcus 1980. *In* Murphy and Collins, *op cit.*). This is the first report of fever behavior in *Caiman latirostris*.

Observations were made at the breeding facility of "Granja la Esmeralda," Santa Fe, Argentina, a naturalistic facility comprised of large ponds enclosed by fence. The facility is operated for educational and research purposes (not production), so animal densities are kept low. At the beginning of the breeding season for broad-snouted caimans in Santa Fe (31°42'S, 60°44'W; December through March), females and males struggle for a suitable place in the breeding pool. In December 1997, a young female (ca. 1.5 m) sustained an injury to her back and legs while fighting with a larger female. After the fight, the young female behaved normally, but two days later colleagues and I observed that the caiman's wounds were inflamed and showed signs of infection and, later, necrosis. At this point, she increased the time spent basking. At noon and early evening, when the other animals in the enclosure were in shaded water, she was observed basking; this behavior is consistent with fever behavior as reported by Lang (1987, *op. cit.*). She basked continuously, including the hottest part of the day (ca. 1600 h). Body temperature was not measured, but temperature of water and shade in the pool was recorded during the breeding season with two calibrated Hobo Temp Data Loggers (Onset Computer Corp., Pocasset, Massachusetts, USA). Average temperatures were: 25.8°C (water) and 24.8°C (air). Temperature differences between shade and sun averaged 10°C during the day. Lang (1987, *op. cit.*) reported that the mean difference in body temperature between infected animals and controls (mean of 30.1°C) was 4.9°C with a maximum difference of 7.4°C. The young female of this report continued her heat-seeking behavior for 10 days and then reassumed typical behavior, acting similar to the rest of the animals of the enclosure.

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LACERTILIA

CYCLURA NUBILA NUBILA (Cuban Iguana). **CARRION FEEDING.** West Indian iguanas of the genus *Cyclura* feed almost exclusively on vegetation (Alberts [ed.] 2000. West Indian Iguanas: Status Survey and Conservation Action Plan. IUCN, Gland, Switzerland. 111 pp.; Auffenberg 1982. *In* Rand and Burghardt [eds.], Iguanas of the World: Their Behavior, Ecology, and Conservation. Noyes Publications, Park Ridge, New Jersey. 472 pp.; Wiewandt 1977. Ecology, Behavior, and Management of the Mona Island Ground Iguana, *Cyclura stejnegeri*. Unpublished Doctoral Dissertation, Cornell University. 338 pp.). Animal matter typically constitutes less than 5% of the diet of *Cyclura*, consisting primarily of slow moving arthropods, such as lepidopteran larvae, and other prey that are easily captured (e.g., Wiewandt 1977, *op. cit.*). Predation of vertebrates is not known in *Cyclura*, but feeding on vertebrate carrion (fish and birds) has been described for *C. carinata carinata* in the Turks and Caicos Islands (Iverson 1979. Bull. Florida State Mus., Biol. Sci. 24:175–358). Here, we report observations of vertebrate carrion feeding for *C. nubila nubila* at the United States Naval Base at Guantanamo Bay, Cuba.

At 1030 h on 23 July 2000, three of us (GPG, TDG, and ACA) observed an adult female *C. n. nubila* (ca. 35 cm SVL) crossing the Ridgeline Trail Road carrying a dead bird in its jaws (Fig. 1). The iguana was followed and observed for fifteen minutes. During this time, the iguana stopped several times to feed on the carcass. Each time, the iguana grasped the bird in the edge of its jaws and shook its head to tear loose some feathers and presumably flesh, which were swallowed. After the fourth such feeding bout, the iguana was chased away before it could pick up the bird again so that the carcass could be examined and identified. The bird was identified by one of us (MAH) as a nestling mourning dove, *Zenaida macroura*. Due to the condition and odor of the carcass, it was clear that the bird had been dead for at least a day. Iverson

FIG. 1. Adult female *Cyclura nubila nubila* with a dead *Zenaida macroura* in its jaws.