glands, so it is typically considered freshwater-dwelling (Platt and Thorbjarnarson 2000. Biol. Conserv. 96:21–29). Hence, here we provide observations indicating that C. moreletii may be more salinity tolerant than previously recognized.

During nocturnal crocodile surveys of La Mancha Lagoon, Veracruz, Mexico (19.5896°N, 96.3872°W; datum: NAD27; elev. 0 m) in March 2007, we recorded the size range of C. moreletii in relation to water salinity. We measured salinity using a multi-

parameter US18. Following Platt and Thorbjarnarson (op. cit.), we classified crocodiles based on total length (TL) as hatchlings (TL < 29.5 cm), yearlings (TL = 30–50 cm), juveniles (TL = 51–

100 cm), subadults (TL = 101–150 cm), and adults (TL > 150 cm). We observed 10 crocodiles, four yearlings, three juveniles, two subadults and one adult. Hutchings were observed in 3.4 parts per thousand (ppt), juveniles in 10.8 ppt, subadults in 22.7 ppt, and adults in 21.4 ppt.

Talpin (1988. Biol. Rev. 63:333–377) suggested that C. moreletii tolerates heavily brackish water (> 20.0 ppt). However, in coastal Mexico and Belize where Morelet’s and American crocodiles (C. acutus) occur in macrophytmy, the former is generally confined to freshwater, whereas the latter is found in saline habitats (Cedeh-Vázquez et al. 2000. Herpetol. Nat. Hist. 10:17–30). Our observations compliment the earlier report of Meerman (1992. Occ. Pap. Belize Nat. Hist. Soc. 1:1–5) from Chetumal Bay where fisherman captured an adult C. moreletii in heavily brackish water (22 ppt). Collectively, these data suggest that C. moreletii is physiologically capable of tolerating moderately saline conditions. Hence, its general absence from brackish coastal habitats may arise from conditions other than a limiting saline environment, such as those resulting from the poorly understood intertidal interactions with C. acutus.

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RHYNCHOCEPHALIA — TUTARAS

Sphenodon Punctatus (Common Tuatara). PREY DETECTION. Sphenodon punctatus are generally regarded as nocturnal visual hunters that rely on movement to detect and capture prey (Dawbin 1962. Endeavour 21:16–24; Walls 1981. New Zealand J. Ecol. 4:89–97). They feed primarily on orthopterans, beetles, and arachnids (Oosterbeek 1999. New Zealand J. Zool. 26:117–125), but are also known to eat the eggs (Gaston and Scofield 1995, Notomi 42:27–41) and chicks (Walls, op. cit.) of Fairy Prions (Pachyptila turtur), small burrowing seabirds that occur at high densities on many S. punctatus-inhabited islands. As S. punctatus and P. turtur often use the same burrows (Newman 1987. Herpetologica 43:336–344), S. punctatus are likely to occasionally encounter prion chicks when entering a burrow, and they may opportunistically consume them as well as any eggs present in the burrow. However, in the absence of movement cues, detection of certain food items such as carrier or isolated eggs may be more readily accomplished via olfaction (Walls, op. cit.). Here we report an observation of a male S. punctatus feeding on a P turtur egg during which time it displayed behavior consistent with olfaction.

At ca 1200 h on 28 November 2006, an intact P. turtur egg was observed on a concrete slab at the base of a small bank on Stephens Island, Cook Strait, New Zealand (40.675S, 174.004W; elev. 215 m). The egg had likely been laid in one of the burrows dug into the side of the bank, and may have been displaced by the burrowing activity of a S. punctatus or seabird, whereupon it rolled out of the burrow and onto the slab. Though the eggshell was intact, it had evidently not been viable for some time as its odor was easily detectable to human observers. Importantly, we observed no flies near the egg at this point. At 1400 h, a male S. punctatus was observed and video-recorded consuming the egg. He broke the eggshell in his jaws and then proceeded to chew up and swallow the shell fragments. During this process, yolk dripped onto the concrete slab and spread out in a thin layer over about 5 cm², attracting numerous flies that swarmed around the yolk and the face of the S. punctatus. After having eaten all of the shell fragments, the S. punctatus proceeded to probe at the ground with his snout and the tip of his lower jaw and appeared to be searching for additional material that could be consumed. He probed first in the vicinity of the spilled yolk, and then moved in a zig-zag pattern, first outward from the yolk and then down the poorly understood intertidal interactions with C. acutus.
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SQUAMATA — LIZARDS


At 23:15 h on 3 September 2003 during a nocturnal herpetofaunal survey, we observed a young male A. uniformis (29 mm SVL) swallowing a very small (ca. 9 mm SVL) leaf litter frog (Craugastor sp.). The event occurred on the leaf of a medium-sized plant in a small bamboo and tropical rain forest remnant in the Los Tuxtlas region, Veracrúz, México (18.6072°N, 95.1437°W; datum: WGS84; elev. 650 m). The anole was collected and deposited in Colección Nacional de Anfibios y Reptiles, Instituto de Biología, Universidad Nacional Autónoma de México (CNR IBH 21138).

From September 2006 to July 2007, we also collected and dissected 30 A. uniformis adults at the Laguna Escondida rainforest remnant at Los Tuxtlas region (18.5909°N, 95.0883°W; elev. 150 m) as a part of a parasitological study. Examination of stomach and intestinal contents revealed only arthropod remains, mostly terrestrial and flying insects (flying Diptera, Hymenoptera, Hemiptera; terrestrial Orthoptera) and a few spiders. We found no amphibian remains in this sample.


Our 2003 observation indicates that A. uniformis can prey on small amphibians and that it may sometimes feed at night.

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CTENOSAURA PECTINATA (Spiny-tailed Iguana).

POPULATION STATUS. Ctenosaura pectinata is native to the west coast of México and ranges from mid-Sinaloa to south Oaxaca, at elevations below 1000 m (Burghardt and Rand 1982. Iguanas of the World: Their Behavior, Ecology, and Conservation. Noyes Publ., Park Ridge, New Jersey. 504 pp.). During the last century, C. pectinata was introduced into Brownsville, Texas as well as south Florida (Conant and Collins 1998. A Field Guide to the Reptiles and Amphibians, Eastern / Central North America. Houghton Mifflin Co., Boston, Massachusetts. 616 pp.). Both populations have been established for nearly 40 years (Smith and Kohler 1978. Trans. Kansas Acad. Sci. 80:1–24; Mshaka et al. 2004. Exotic Amphibians and Reptiles of Florida. Krieger, Malabar, Florida. 155 pp.). The population in south Florida has been discussed in the literature numerous times (see Mshaka et al., op. cit. for a review) but little has been published about the Brownsville population. Here, we document the persistence of C. pectinata in Brownsville and their use of artificial microhabitat.

From 6–16 June 2007, we conducted eight searches for C. pectinata at the Gladys Porter Zoo (GPZ), Brownsville, Texas, USA (97.4952°W, 25.8831°N; datum: WGS84; elev. 6 m) and vicinity. Searches were conducted between 0800–1400 h, when iguanas would be basking. We searched the GPZ by slowly walking along exhibits, allies, and buildings for ca. 3 h during each search. We also chose areas of the surrounding neighborhood that were within 0.5 km of the GPZ, and searched them by slowly walking along sidewalks and allies for ca. 1 h. We used binoculars and digital photo equipment to find, observe, and record observations of C. pectinata. Photos and videos were reviewed to distinguish multiple sightings of an individual from sightings of several individuals based on coloration, markings, and head shape. Captures could not be made due to facility restrictions. We used a Garmin eTrex Vista C GPS unit to georeference C. pectinata locations (accurate to within ~5 m). GPZ staff assisted us in locating areas where C. pectinata were known to occur.

Though the GPZ staff has received reports of C. pectinata elsewhere in south Texas, the only known breeding population is centered at the GPZ in Brownsville. The GPZ (est. 1971) is a 10.5-ha facility dominated by open-area exhibits bordered by fences and artificial rivers and lagoons, and interconnected by artificial rock walls and sidewalks. Nine islands, some with artificial rock structures, have been built to exhibit zoo animals.

Reviews of photographs, videos, and GPS waypoints revealed a total of nine adult (ca. 1 m TL) C. pectinata and one juvenile (ca. 20 cm TL) within the zoo grounds. These individuals were located near or inside exhibits that were bordered with artificial