

CROCODYLIA

CAIMAN LATIROSTRIS (Broad-snouted Caiman). **NEW POPULATIONS and UNDESCRIBED HABITAT.** In the coastal regions of southeastern Brazil, the presence of *C. latirostris* often is associated with mangroves (IUCN 1982. The IUCN Amphibia - Reptilia Red Data Book. Part 1. IUCN. Gland, Switzerland; Vanzolini 1993. *Papéis Avulsos Zool.* 38:107-154). Until 1990, at least six isolated populations were known to occur along the coast in the state of São Paulo (Carretero et al. 1996. In Mateos and Mañosa (eds.), *Memoria de Resultados del Segundo Viaje de Reconocimiento Científico a Regiones poco Conocidas del Parque Estadual Intervalles, Estado de São Paulo, Brasil.* Universitat Barcelona). In 1991, a population was reported from a flooded depression surrounded by lowland Atlantic rainforest close to the Serra de Paranapiacaba at Funil, Parque Estadual Intervalles, 70 km from the Atlantic coast (Guix et al. 1992. *Grupo Estud. Ecol. Ser. Doc.* 4:38-94). Nevertheless, there are no reports of populations from any mountain zone of the Serra do Mar Chain, an area covered by hillside Atlantic rainforest.

From 1-12 August 1994, the population of *Caiman latirostris* in the Funil area was monitored, and a new population was found in the Alecrim region, also in Parque Estadual Intervalles.

The Alecrim region is part of a V-shaped valley located in the southwest part of Parque Estadual Intervalles (24°20'S, 48°15'W; 38,356 ha). This is traversed by the Pilões River (also called Rio Formoso by local people), and ranges from 70-1046 m. Vegetation formations include lowland Atlantic rainforest (between 70 and 100/150 m), and hillside Atlantic rainforest (between 100/150 and 1046 m); both mature and secondary forests occur in the area.

At the Alecrim site, adult and juvenile caimans were seen active (water temperatures of 19-28°C) by day and night in a lagoon formed in 1986 by the opening of a forest road which dammed a 1.5 m wide clear-water stream. The lagoon has a surface area of 400 m² and is situated at an elevation of 200 m. It is surrounded by old growth secondary Atlantic rainforest on the hillsides and is bordered by dense vegetation composed of *Merostachys* sp., bamboo (Poaceae), shrubs (e.g., *Miconia* sp., *Leandra* sp., Melostomataceae) and trees. The lagoon had no dense aquatic vegetation, but there were many fallen branches and trunks in the water, and the bottom was covered by thick leaf litter.

The maximum number of individuals seen simultaneously in the lagoon was 13, distributed as follows: 4 adults (size range 120–150 cm total length); 2 sub-adults (60–80 cm); and 7 juveniles (30–40 cm). Only juveniles and subadults were seen basking outside the water, on semi-submerged trunks. No individuals were found in the surrounding rivers and streams (total distance sampled: 7 km).

The Funil Region is part of a broad sedimentary valley (Vale do Ribeira) and is close to the hillsides of the Serra de Paranapiacaba, in the southeast part of Intervalles. The main river is the Rio Felipe (also called Rio Braço Grande). Elevations range from 40 to 200 m. Vegetation consists of secondary lowland Atlantic and mature hillside Atlantic rainforests.

At the Funil site, juveniles and adults were active by day and night in two small lagoons (about 210 and 400 m², respectively; elevation 40 m). The first of these is within the Park and the second one is 17 km ESE from the former. Both were bordered by dense vegetation (e.g., *Chusquea bambusoides* [Poaceae], *Scleria* spp. [Cyperaceae], and small herbaceous plants). Another juvenile caiman was seen in a pool of 140 m² sited 24 km ESE from the first one and near a small township. The vegetation surrounding these lagoons was composed of successional shrubland with scattered trees and young secondary lowland Atlantic rainforest. Five individuals were observed at the Funil site, as follows: 2 adults, 2 subadults, and 1 juvenile.

No caimans were seen in the rivers and streams inside and outside the reserve (total distance sampled: 20 km). However, their presence was reported by local people one month before the expedition.

The presence of juveniles implies the presence of breeding adults at both Alecrim and Funil. Nevertheless, the number of adults detected was very low and it is possible that both populations are too small to survive by themselves, in the absence of connections to other nearby populations. The Alecrim and Funil localities are separated by 37 km straightline. The Funil population could be connected with others in the Ribeira Valley region, which is large (ca. 3000 km²) and contains many rivers and streams suitable for caimans.

Caiman latirostris has long been known to occur in eutrophic lagoons and rivers surrounded by subtropical semi-deciduous forests within the Paraná basin (IUCN, *op. cit.*). However, the Atlantic rainforest of coastal Brazil is evergreen and the mountain streams and rivers are oligotrophic. In Alecrim, no open areas around the lagoon were available.

Finding *C. latirostris* in a small lagoon at 200 m altitude on a hillside covered by Atlantic rain forest is of special interest. First, it opens the possibility that the Serra do Mar coastal chain of mountains of eastern Brazil does not necessarily represent a barrier for the dispersion of this species. Second, the presence of a reproductive population in a new habitat confirms the great capability of this species to colonize both fresh and brackish waters in tropical and subtropical regions along a latitudinal gradient from 5° to 34° S (see also IUCN, *op. cit.*). Third, the conditions at these sites provide an interesting ecological context for analyzing the natural history traits of this species in the region.

Thanks are due to Fundação Florestal for logistic support and to William E. Magnusson (INPA) and Carlos Yamashita (IBAMA) for comments and suggestions in the earlier draft of the manuscript.

Submitted by JUAN C. GUIX, XAVIER SANTOS, ALBERT MONTORI, GUSTAVO A. LLORENTE, and MIGUEL A. CARRETERO, Departamento Biología Animal (Vertebrats), Facultat de Biologia, Universitat de Barcelona, Av. Diagonal, 645, E-08028 Barcelona, Spain.