

Caiman latirostris

Common names: Broad-snouted caiman, Jacaré overo, Jacaré de papo amarelo, Caiman de hocico ancho, Ururan

Range: Argentina, Brazil, Bolivia, Paraguay, Uruguay

Revised by Luciano Verdade



Conservation overview

CITES: Appendix II (ranching) Argentina, Appendix I in all other countries

CSG Action Plan:

Availability of Survey Data – Poor

Need for Wild Population Recovery – Variable throughout distribution range (moderate to high)

Potential for Sustainable Management – Variable throughout distribution range (low to high)

1996 IUCN Red List: Not listed (LRlc Lower Risk, least concern)

Principal threats: Habitat destruction, illegal hunting.

Ecology and natural history

The broad-snouted caiman is a medium-sized crocodylian. Although its maximum reported size is 3.5m, animals longer than 2.0m are presently rare in the wild. This species' geographic distribution includes the drainages of the Paraná and Sao Francisco River systems, spreading over regions of northeast Argentina, southeast Bolivia, Paraguay, and northern Uruguay. It also includes a large number of small Atlantic coast drainages from Natal, at the eastern tip of Brazil, to northeast Uruguay. Although this species is broadly sympatric with *C. yacare*, Medem (1983) reported that *C. latirostris* was generally found in more densely vegetated, quieter waters. In Paraguay, Scott *et al.* (1990) found *C. latirostris* to be a habitat generalist, but when in sympatry with *C. yacare* it tended to be found in more ephemeral habitat, and was a better colonizer of isolated cattle stock ponds. This kind of man-made habitat has been also reported to be colonized by the species in Brazil (Verdade and Lavoretti, 1990) and Argentina (Venturino 1994). *C. latirostris* has also been found in mangroves of coastal islands of southeast Brazil (Moulton 1993). According to Morato (1992), the broad-snouted caiman can be found

from sea level up to 600m of altitude in the state of Paraná in Brazil.

Due to a lack of field studies, little is known about the behavior and ecology of this species. Much of what is known about reproduction has come from individuals in captivity. *C. latirostris* is a mound nester, laying 18–50 eggs during the wet season. The broad-snouted caiman, as its name implies, has, proportionally, the broadest snout of any crocodylian. Although it has a very generalized diet, in some parts of its range it feeds to a large extent on ampullarid snails (Diefenbach 1979).

Conservation and status

The broad-snouted caiman has well-developed ventral osteoderms; however, its skin is considered better for manufacturing goods than that of the other species of the genus *Caiman* (King and Brazaitis 1971 and Brazaitis 1987). Commercial hunting began in the 1940s and 1950s throughout most of the range of this species, although according to Medem (1983) *C. latirostris* was never hunted commercially in Uruguay. Although still occurring in some places, illegal hunting is no longer the major problem for this species possibly because of a combination of reduced density, improved protection, increased cost of illegal hunting, and legal skins becoming more attractive to traders. On the other hand, habitat destruction has significantly increased in recent years.

Surveys for the broad-snouted caiman have been conducted in Argentina and Paraguay. In these countries, most of the original habitats of the species still remain and healthy populations have been found. Populations of this species are considered to be severely depleted in Bolivia, which is on the limit of its natural range. No recent survey data are available in Uruguay, although some reports suggest that the populations of this species are in decline in that country due to habitat destruction. Most of the natural wetlands of the Paraná

and Sao Francisco River systems have been dammed for the construction of large hydroelectric stations in Brazil. Vast areas have also been drained for agricultural purposes and pollution has been a considerable problem in rivers that flow through big cities. Studies on the impact of the construction of large hydroelectric stations on the dynamics of broad-snouted caiman populations are underway (Campos and Mourao 1995, Mourao and Campos 1995).

The successful initial results of the experimental ranching program carried out in Santa Fe, Argentina (Larriera 1993a and 1994), are demonstrating the great potential for the establishment of sustainable programs for the conservation and management of this species. A second generation (F₂) has been obtained in captivity at the University of Sao Paulo, in Brazil (Verdade and Oliveira, in press). The proceedings of regional workshops held in Brazil and Argentina (Verdade and Santiago 1991; Verdade and Lavorenti 1992; Verdade *et al.* 1993; Larriera *et al.* 1994; Larriera *et al.*, in press), and the first volume of *La Conservacion y el Manejo de Caimanes y Cocodrilos de America Latina* (Larriera and Verdade 1995) present good information about the biology, management and conservation of the broad-snouted caiman and other Neotropical crocodilians.

Priority projects

High priority

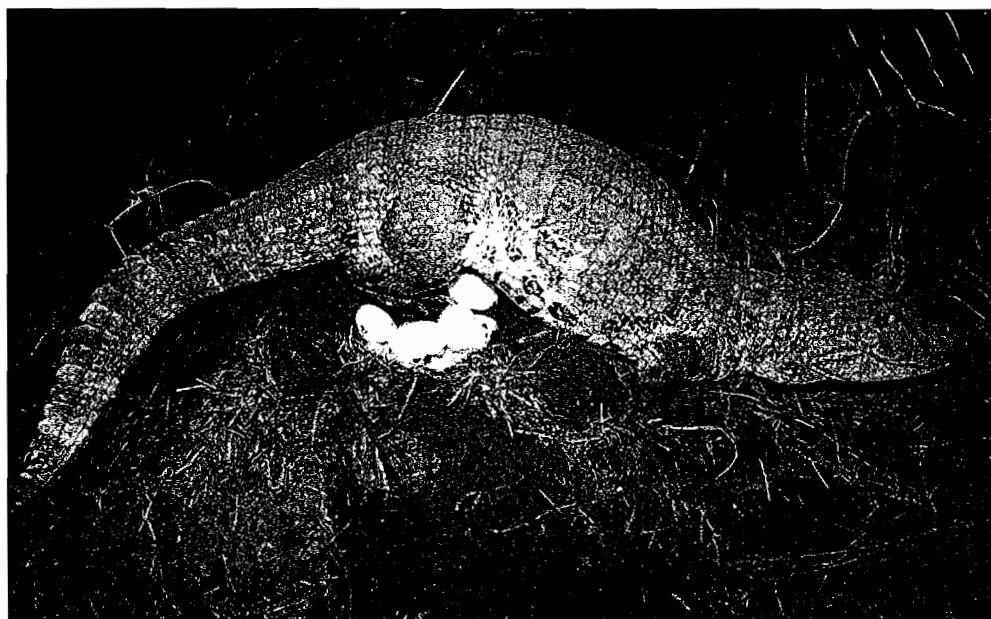
Survey of status and distribution in Brazil: The largest part of the range of the broad-snouted caiman is located within Brazil but only scanty information is available concerning the species status in that country. Hydroelectric dams,

wetlands drainage for agriculture, and pollution are still affecting large portions of its geographic distribution in that country, possibly affecting the whole species. This scenario should be considered in the planning of conservation and management of this species in Brazil. The utilization of Geographic Information Systems (GIS) and satellite imagery might help to survey the remnant habitats still available and the actual distribution of this species.

Ranching program in Argentina: The successful initial results of the experimental ranching program in Santa Fe, Argentina, should guide the establishment of similar programs in other provinces of that country, where original habitats still remain and considerable wild populations still can be found. This sustainable yield management program might reach a commercial scale in a few years.

Investigations of population biology: Few studies of the behavioral-ecology of this species have been undertaken. Its capacity to colonize man-made habitats in response to original habitat destruction should be studied to guide future conservation and management programs on areas of fragmented habitats. Molecular genetics might be used to determine how habitat alterations have affected reproduction and dispersal patterns of this species. Long-term behavioral-ecological studies should guide the establishment of sustainable management programs as well as the establishment of conservation areas.

Implementation of conservation and management programs in Bolivia, Brazil, Paraguay, and Uruguay: The wide geographic distribution of this species resulted in different scenarios for its management and



Broad-snouted caiman, *Caiman latirostris*, captive at Gator Jungle, Florida, USA; female laying eggs.

B. Shwedick

conservation. In some regions, where original habitats still remain, sustainable programs might be implemented, like the one that is in progress in Santa Fe, Argentina. In some other regions, there is considerable demand for increasing habitat conservation or even restoration and/or reclamation before implementing ranching programs. The development of successful management programs should include conservation of habitats, public education, professional training, caiman husbandry research, the adaptation of local existing tanning industries, the utilization of a hide marking system, and the stimulation of local caiman meat consumption.

Moderate priority

Survey status and distribution in Bolivia: The few data available show that *C. latirostris* populations are highly endangered in Bolivia. Information about the status and actual distribution of this species in that country are essential to the establishment of conservation programs.

Survey status and distribution in Uruguay: Populations of *C. latirostris* are known from Uruguay, but no recent survey data are available. Some reports suggest that habitat destruction is the main cause of population decline of this species in that country.