

French Guyana

BLACK CAIMANS (*MELANOSUCHUS NIGER*) IN THE KAW SWAMPS NATURAL RESERVE, FRENCH GUIANA: A FIRST YEAR SURVEY. The 4 species of guianan caimans: *Paleosuchus palpebrosus*, *P. trigonatus*, *Caiman crocodilus* and *Melanosuchus niger*, are present in the Kaw swamps (north French Guiana). Despite its interest, this disjunct black caiman population had still not been studied, and only anecdotal reports referred to this area. After a preliminary work in December 1999 (Ouboter et al. CSG Newsletter Vol 19 (2):13-15), caimans surveys have been undertaken in order to assess the black caiman distribution and the space and temporal variations in habitat use, and to observe the impact of former harvest.

From February 2000 to January 2001, a monthly count was conducted on the Gabrielle creek, a tributary of the Mahury river, on the lower Approuague and the Kaw river (map). The last river comprised 3 distinct habitats: a swamp, a gallery forest, and a mangrove down to the sea; it served as principal study area. This river has been disturbed by a strong hunting pressure until the early 1980's, and is now facing a strong tourist pressure. Cattle breeding is also located in the swamp. Surveys were done monthly by 3 persons equipped with 4.5V and 6V headlights from a 4m motorized aluminum boat. Three additional surveys have been made in 20 to 50 ha ponds in the center of the swamps. Since these areas are inaccessible by boat, a small aluminum canoe and 4 persons were dropped by helicopter for 2 days in each site.

First, the survey highlighted the difference of density of *M. niger* between the accessible areas formerly hunted (0.1 to 0.5 individual / km on the Kaw river), and non-disrupted areas (25 to 48 individuals / km in the ponds). On the west side of the reserve (Gabrielle creek), the black caiman has been observed only twice, and may actually be considered as extirpated. Adults (size > 2 m) were also much more frequent in the inaccessible parts (15 % of the sample, vs. less than 5% on the Kaw river). In pristine areas, caimans were much less shy than those of the river. Secondly, on the Kaw river, the black caiman was more particularly observed in wooded areas, mostly during the wet period, as opposed to the spectacled caimans which were more abundant in the swamps. This spatial repartition may be a adaptive behavior to the past hunting pressure (Behra 1997; da Silveira 2000).

A supposed breeding area was identified in the swamp: at the end of the dry season (December), we located during a helicopter flight about 50 large adults *Melanosuchus* (from 4 to 6 m) together in a small pond (approx. 3000 m²). Caimans were nervous and aggressive, trying to bite the helicopter when passing at low altitude. Three days before, and 7 later, no caimans was present on this pond. Two laying spots (> 30 animals together, 20 cm length) have been located, one in an inaccessible area and one on the Approuague river, both at the beginning of the wet season (February).

After Ouboter (2000), we assume that the size of this habitat and the inaccessibility of its main part has permitted the maintenance of a important black caiman population, despite dramatic decreases on the edges of the swamp. This first survey year raises many questions such as the relationship between the laying spot from the River Approuague and the Kaw Swamp, the dispersion of individuals into and from the inaccessible areas, and the ability of recolonization from refuges to depleted areas. For this last point, control of the tourist pressure should be an urgent concern for the Natural Reserve. *Acknowledgments.* This first study year was funded by the "association Arataï", managing the Kaw-Roura swamps natural reserve. — Michel Blanc & Benoît de Thoisy, Kwata NGO "Study & Conservation of French

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