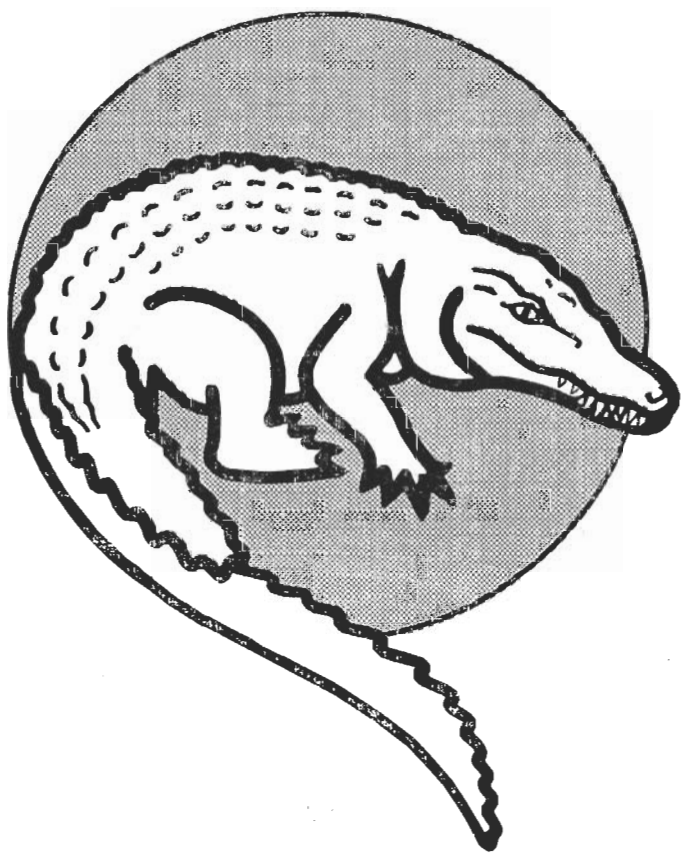
Crocodilian Biology and Evolution Conference

PROGRAMME AND ABSTRACTS



July 8-10 1998

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Paleoenvironments of the Brazilian Cretaceous notosuchians

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Notosuchians were terrestrial small-sized crocodilomorphs from the Gondwana biota. They have been found especially in Cretaceous rocks of South America and Africa. This fossil group showed a specialized heterodonty that probably indicates omnivorous and carnivorous diets, according to different taxa. In Brazil they have been found in Araripe, Parnaiba and Bauru basins. The first is a rift basin of small area and the last two are wide intracratonic basins, with a high thickness of Cretaceous continental sediments. Apparently the occurrences of notosuchians in Brazil are limited to rocks from Aptian to Upper Cretaceous strata (? Campanian). From the Araripe Basin (Northeastern Brazil, Ceará State) comes *Araripesuchus gomesii*, found at an Aptian-Albian sequence (Santana Formation) in carbonate nodules, which are interpreted to have been originated in shallow, fresh to brackish water ponds, lying along the coast in a hot and dry climate. There is an unique species of notosuchian from Parnaiba Basin (Northeastern Brazil, Maranhao State), *Candidodon itapecuruense*, from the Albian Itapecuru Formation. The sequence of siliciclastic strata, where this fossil was found, indicates a channel of a meandering river system. Palynological data suggests a hot and humid climate in that area. The Bauru Basin notosuchians (Southeastern Brazil, Sao Paulo State) occur in siliciclastic Upper Cretaceous sediments (Adamantina Formation). The fine quartzose sandstones and siltstones, of probable Coniacian to Campanian age, are interpreted as deposited by braided rivers through a wide alluvian plain with temporary lakes. The climate was hot and dry, in a semi-arid environment. The many environmental settings where notosuchians have been found, meandering river floodplain, braided alluvial plain and shallow ponds, could explain the diversity of this peculiar crocodylomorph group in Brazil.