

syrix devoted to sound production, the crocodilian vocal tract has no specific sound production structures. To what extent does structural variation of the crocodilian vocal apparatus due to size, sex, age and/or species affect modifications in the acoustic structure of vocalizations?

(4) It has been suggested that crocodilians are capable of infrasonic vocalizations, but the presence and role of such infrasonic communication awaits experimental confirmation.

(5) The nervous pathways involved in the motor control of vocalizations production require identification, for example is there fine control by telencephalic nuclei?

(6) Whether crocodilians can localize a sound source accurately has not been properly investigated. The mechanisms involved are still unknown.

(7) The auditory pathways of birds and crocodilians share many features. Do crocodilians also possess, as in birds, interconnected telencephalic zones involved in cognitive processes such as the recognition of specific vocalizations?

(8) In spite of the paucity of available data on crocodilians, it is clear that birds and crocodiles share several important traits regarding acoustic communication: they both have a vocal repertoire, with signals that fit different functions; and their auditory apparatus and the neurophysiological processing of sounds is similar. Is it possible that these similarities arise from an ancestral origin of archosaurian vocal communication?

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