

Gerais. Unpublished Master's Thesis. Universidade Federal de Minas Gerais, Belo Horizonte. 147pp.

MOLECULAR PHYLOGENY OF THE CALLITRICHINAE

In September 1995, Carmem Barroso defended her doctoral thesis on the molecular phylogeny of the subfamily Callitrichinae (*sensu* Rosenberger, 1981) for the postgraduate course in Biological Sciences (specialization in Genetics and Molecular Biology) of the Federal University of Pará, Belém. The study was supported by the Federal University of Pará, Belém, the Brazil Science Council (CNPq), and Wayne State University, Detroit, Michigan. The thesis was supervised by Dr. Horacio Schneider. The following is a summary.

DNA sequences encompassing the intron 1 of the IRBP gene, with approximately 1800 base pairs, were obtained for the following species: *Saguinus midas*, *S. bicolor*, *Leontopithecus rosalia*, *Callimico goeldii*, *Callithrix jacchus*, *C. geoffroyi*, *C. argentata*, *C. humeralifera* and *Cebuella pygmaea*. The sequences were added to the IRBP data base created for the remaining ceboid genera by Harada *et al.* (1995). An in-tandem alignment was constructed with this data along with the epsilon-globin data of Schneider *et al.* (1993). The arrangements observed confirm the monophyly of the family Cebidae; demonstrate that *Saguinus* is the most primitive of the Callitrichinae; and place *Cebuella* unequivocally as a member of the genus *Callithrix*, in the group "pygmaea", equivalent to the "argentata" and "jacchus" groups. A model of callitrichine evolution is proposed based on the phylogenetic evidence from this study. According to this model, the ancestral population of *Leontopithecus* and *Callimico-Callithrix* (or *Leontopithecus-Callimico* and *Callithrix*) would have arisen from proto-*Saguinus* stock. The proto-lion tamarins would have migrated eastwards, where they were isolated in refugia, becoming the genus *Leontopithecus*. The stock remaining in Amazonia gave rise to present-day *Callimico* and *Callithrix*. The latter genus occupied a vast geographic area, giving rise to the "argentata" and "pygmaea" groups in Amazonia, and the "jacchus" group in central and eastern Brazil.

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VOCAL COMMUNICATION STUDIES AT THE UNIVERSITY OF SÃO PAULO

A doctoral thesis "Vocal Interactions in the Muriqui (*Brachyteles arachnoides*)" was defended in April 1995, at the Department of Experimental Psychology of the University of São Paulo (USP), by Francisco Dyonísio Cardoso Mendes, under the supervision of Dr. César Ades (USP), and with the collaboration of Dr. Charles Snowdon and Dr. Karen Strier (University of Wisconsin, Madison). It represented the first systematic study on the vocal communication of the muriqui, and the first thesis on primate vocalizations produced in Brazil. As a result, Dr. Ades and Dr. Mendes have established the "Laboratório de Comunicação Acústica" at USP, with the acquisition of digital equipment for acoustic analysis of animal sounds. The laboratory will allow further analyses of muriqui vocalizations, as well as other studies on the vocal communication of different neotropical species.

Vocal interactions in the muriqui (*Brachyteles arachnoides*)

The major interest of the thesis was the interactional aspect of vocal signals. Observations and recordings of spontaneous vocalizations were carried out at the Biological Station of Caratinga, Minas Gerais. Vocal and contextual data were obtained through focal animal samplings and *ad libitum*. Contextual data included information on the identity of the caller, its behavior, social referents, and vocal and non-vocal