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Systematic Relationships of Rhinolophid Bats, Based on Hyoid Morphology

Jennifer L. Garner
Illinois Wesleyan University

Thomas A. Griffiths, Faculty Advisor
Illinois Wesleyan University

Poster Presentation 7

SYSTEMATIC RELATIONSHIPS OF RHINOLOPHID BATS, BASED ON HYOID MORPHOLOGY

Jennifer L. Garner and Thomas A. Griffiths*
Department of Biology, Illinois Wesleyan University

Using standard microdissection techniques, the morphology of the hyoid apparatus and musculature was examined in two species of rhinolophid bats. A cladistic analysis of the data revealed that there were thirteen derived characters which could be used in the study. As expected, hyoid data support the traditional grouping of the family Rhinolophidae with the bat families Hipposideridae, Megadermatidae and Nycteridae. However, the results show, surprisingly, that these four families were on a line at the base of the microchiropteran tree, with all other bat families grouped in a clade above them. This study is the first to suggest that the rhinolophid clade is the basal line of the microchiropteran tree.