



Illinois Wesleyan University Digital Commons @ IWU

John Wesley Powell Student Research
Conference

1998, 9th Annual JWP Conference

Apr 18th, 9:00 AM - 10:30 AM

Systematic Relationships of Rhinolophid Bats, Based on Hyoid Morphology

Jennifer L. Garner

Illinois Wesleyan University

Thomas A. Griffiths, Faculty Advisor

Illinois Wesleyan University

Follow this and additional works at: <http://digitalcommons.iwu.edu/jwprc>

Jennifer L. Garner and Thomas A. Griffiths, Faculty Advisor, "Systematic Relationships of Rhinolophid Bats, Based on Hyoid Morphology" (April 18, 1998). *John Wesley Powell Student Research Conference*. Paper 7.
<http://digitalcommons.iwu.edu/jwprc/1998/posters/7>

This Event is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

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.