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Apr 27th, 12:00 PM - 4:30 PM

The Anatomy of the Hyoid Region of *Molossus Molossus* and its Implication in Systematics

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THE ANATOMY OF THE HYOID REGION OF *MOLOSSUS MOLOSSUS* AND ITS IMPLICATION IN SYSTEMATICS

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The hyoid musculature and hyoid apparatus of a bat, *Molossus molossus* (Chiroptera: Molossidae) is dissected and described. A comparison is made with the hyoid structures of bats of the genera *Rhinopoma*, *Emballonura*, *Nycteris*, *Megaderma*, *Rhinolophus*, *Pteronotus*, *Phyllostomus*, and *Eptesicus*, which were previously described by my sponsor Griffiths and associates. In *Molossus*, the geniohyoid and sternohyoid insertions, as well as the hyoglossus origin, have lifted off the basihyal bone and jointly retain a direct attachment to the basihyal bone and jointly retain a direct attachment to the basihyal via a small tendon. The hyoglossus is split into three distinct bellies: the most superficial originates from the basihyal raphe, the second originates from the basihyal bone, and the third originates from a very reduced thyrohyal bone. A part of the mylohyoideus has broken away from the main muscle, retaining its insertion on the basihyal -- it is termed the mylohyoid profundus. The jugulohyoid muscle is absent, as is the stylohyoideus. The styloglossus muscle is split into two distinct bellies by the hyoglossus muscle. A cladistic analysis of these data gives preliminary support to Koopman's proposal in 1984 for a separation of the superfamilies Emballonuroidea and Rhinolophoidea from the superfamilies Phyllostomoidea and Vespertilionoidea. These data provide the first compelling support for Koopman's taxonomic group Yangochiroptera, comprising the superfamilies Phyllostomoidea and Vespertilionoidea.