

Abstract **1499**, Date **1:00 PM, Sunday February 22, 2004 (24 hours)**  
Session **D12:Auditory Brainstem: Comparative**

Hearing in the Ruby-throated Hummingbird (*Archilochus colubris*:  
Trochilidae)

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While there are numerous physiological and behavioral studies of auditory sensitivity in small birds, there have been no studies of hearing in hummingbirds to date. Hummingbirds are especially interesting because they are one of the three groups of birds (Passeriformes, Psittaciformes, and Apodiformes: Trochilidae) in which it has been shown that vocal learning occurs. The present study examined auditory sensitivity in the ruby-throated hummingbird (*Archilochus colubris*) using the auditory brainstem response (ABR), measured subdermally, as a means of estimating hearing thresholds. Subjects were presented with both rectangular-pulse clicks and tone burst stimuli. Clicks were 0.1 ms in duration and were presented in ascending order from 50 -110 dB SPL. Tone bursts were 5 ms in duration with a 1 ms rise/fall, and were presented in ascending order from 45 -105 dB SPL at frequencies ranging from 500 - 23,000 Hz. Thresholds were computed from latency-intensity and amplitude-intensity functions at all frequencies. Results suggest that ruby-throated hummingbirds are most sensitive between 2,000 - 3,000 Hz, and that sensitivity falls off rapidly outside this range when compared with the hearing of other small birds. [Work supported by NIH].