

Auditory sensitivity in woodpeckers (A)

J. Acoust. Soc. Am. Volume 107, Issue 5, pp. 2785-2785 (May 2000)

Issue Date: May 2000

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While there are numerous behavioral and physiological studies of hearing in small birds, there are no studies of hearing in woodpeckers. Woodpeckers are particularly interesting because they exhibit a variety of cranial adaptations that may influence auditory sensitivity. The present study examined auditory sensitivity in small woodpeckers using the cochlear microphonic (measured subdermally and in the cochlea) 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 30–100 dB SPL. Tone bursts were 5 ms in duration with a 1-ms rise/fall, and were presented in ascending order from 30–100 dB SPL at frequencies ranging from 500–8000 Hz. Thresholds were computed from latency-intensity and amplitude-intensity functions at all frequencies. Results suggest that hearing abilities of woodpeckers are similar to those of other small birds. [Work supported by SERDP.]