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**Air and bone conduction evoked potential audiometry in the
northern elephant seal**

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Elephant seals (*Mirounga angustirostris*) are the largest and most aquatic of the pinnipeds, spending up to eight months of the year at sea diving to depths as great as 1600 m. The pinna is absent in the elephant seal and the middle ear cavity and auditory canal are lined with a cavernous tissue, both of which are likely adaptations to deep diving. Elephant seals demonstrate a greater sensitivity to low frequency sounds than do other pinnipeds and an overall greater sensitivity to underwater sound than to airborne sound. The relative importance of sound conduction pathways in the elephant seal is undetermined, although it has been speculated that bone conduction pathways are important to underwater hearing in this species. To compare the sensitivity of the elephant seal to both air and bone conducted stimuli, auditory evoked responses were recorded in seals exposed to signals presented through headphones and via a bone vibrator. In comparison to airborne stimuli, bone conduction methods provide an opportunity to more effectively study sensitivity to low frequency sounds, but are challenged by a lack of reference equivalent threshold sound pressure levels. Future efforts should compare bone conduction and direct field audiometry results obtained within the same individual.