

## **The costs of lost auditory awareness for wildlife and park visitors**

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Hearing provides omnidirectional environmental awareness in most animal species, and the auditory systems of many species enable them to fully exploit the quietest conditions that routinely occur in their environments. Although it is straightforward to compute reductions in alerting distance or listening area due to elevated noise in a particular frequency band, more work is needed to develop standardized methods for estimating masking effects when the noise sources and environmental signals have different spectral and temporal properties. Habituation, or learned deafness, also merits further investigation. Failure to notice environmental acoustic cues from either cause can have substantial consequences for survivorship, foraging efficiency, and reproduction. For park visitors, wildlife will be less likely to occur at times and places that are noisy, their behavior patterns will be less natural, and they will likely be less tolerant of human presence. Furthermore, visitors will be less likely to detect wildlife if they cannot hear subtle acoustic cues.