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**Anthropogenic sounds - Potential effects on fish**

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There is concern that human-generated sounds may have deleterious effects on fish. This paper will review some of what is currently known about these effects, and consider the questions that have to be answered before developing models to enable "prediction" of sound effects on particular fish species. A major restriction is that there are few peer-reviewed data on effects of anthropogenic sources on fish. Extrapolation from these results is further confounded since experiments differ in many ways, each of which may alter the resultant impact on fish. For example, studies vary in sounds types tested (e.g., pile driving vs. ship noise), signal parameters (intensity, number of repetitions), species used, fish age, etc. Moreover, a singularly important issue is that while many of the issues and impact mechanisms are potentially amenable to experimental lab study, the ultimate questions regarding the effects of sound on fish behavior need to field based and require long-term observations where behaviour of wild fish is not constrained. Only by observing fish in the wild will we ultimately understand if, and how, anthropogenic sounds impact fish both during exposure and, more importantly, for extended periods after the termination of the sound.