The following supplement accompanies the article

Characterizing anthropogenic noise to improve understanding and management of impacts to wildlife

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Table S1: Overview and relationships of the properties of sound in air and water

Example acoustic signal (at 1 m)	In air	In water
Acoustic Pressure (*p*) units: µPa (kg/ms^2) force per unit area	0.2 Pa 200000 µPa	0.2 Pa 200000 µPa
Frequency (f) units: cycles per second (Hz)	10 Hz	10 Hz
Properties of the medium (at 20°C)		
Density (ρ) units: kg/m^3	1.20 kg/m^3	998.20 kg/m^3
Elasticity (E) units: Pascal (kg/ms^2)	141,649.00 Pa	2,225,036,712.00 Pa
Characteristics of motion		
Speed of Sound (c) units: m/s $c = \sqrt{E/\rho}$	343.57 m/s	1,493.00 m/s
Wavelength (λ) units: m $\lambda = c/f$	34.36 m	149.30 m
Acoustic Impedance (Z) units: kg/sm^2 $Z = \rho * c$	412.28 kg/sm^2	1,490,312.60 kg/sm^2
Quantative descriptions of acoustic signals		
Acoustic Intensity (I) units: $Watts/m^2$ (power per unit area in a stated direction) $\| I \| = Pa^2/Z$	9.70E-05 $Watts/m^2$	2.68E-08 $Watts/m^2$
Reference Intensity (I_{ref}) units: $Watts/m^2$ (power per unit area in a stated direction) $\| I_{ref} \| = (Pa_{ref}^2)/Z$	9.70E-13 $Watts/m^2$	6.71E-19 $Watts/m^2$

Sound Intensity Level (dB) dimensionless ratio $dB = 10\log_{10}(I/I_{ref})$	80 dB re 20 µPa	106 dB re 1µPa
Reference Pressure (Pa_{ref}) units: µPa or Pa (kg/ms^2) force per unit area	0.00002 Pa 20 µPa	0.000001 Pa 1 µPa
Sound Pressure Level (dB) dimensionless ratio $dB = 10\log_{10}(\mu Pa^2/\mu Pa_{ref}^2)$	80 dB re 20 µPa	106 dB re 1 µPa
Difference from reference pressure	$dB_{water} - dB_{air}$	26.00 dB
Difference from impedance	$10\log_{10}(Z_{water}/Z_{air})$	35.58 dB
Total difference		61.58 dB