

Supplementary Material

Table S1. AIC values for sigmoidal (2 and 3 parameters), linear, exponential and logarithmic models of acoustic attenuation for the seven tested transmitters type at the three locations.

Bold figures indicate the lowest AIC for each transmitter

Location	Transmitter	Sigmoidal (2 parameter) (r)	Sigmoidal (3 parameter) (r)	Linear (r)	Exponential (r)	Logarithmic (r)
Jurien	V13-1L	-587.8	-618.2	38.3	-619.9	-309.0
	V13-1H	-547.5	-567.2	38.3	-563.1	-151.1
	V16-6L	-840.4	-849.3	-34.5	-847.0	-541.7
Ocean Reef	V7-4L	-9834.8	-10000.5	-5085.5	-8685.7	7312.2
	V9-2L	-4358.9	-4461.8	-3758.1	-3614.4	7803.7
	V9-2H	-8369.1	-8368.3	-6223.9	-6521.0	6151.8
	V13-1H	-11.8	-544.1	2.4	118.0	492.7
Stragglers Reef	V7-4L	-1851.8	-1863.8	420.4	-1541.0	761.9
	V16-4L	-1801.5	-988.5	-1187.9	-629.1	761.9

Table S2. *p*-value and sign of the coefficient for the environmental parameters (when significant) in the sigmoidal model of acoustic range

(+ = positive, - = inverse relationship with increasing variable value).

Variable	Parameter	V7-4L	V9-2L	V9-2H
Overall	p_{\max}	< 0.001 (+)	< 0.001 (+)	< 0.001 (+)
	D_{50}	< 0.001 (+)	< 0.001 (+)	< 0.001 (+)
	D_{95}	< 0.001 (+)	< 0.001 (+)	< 0.001 (+)
Relative Water Movement	p_{\max}	0.289	0.195	< 0.001 (+)
	D_{50}	< 0.001 (-)	< 0.001 (-)	< 0.001 (-)
	D_{95}	< 0.001 (-)	< 0.001 (-)	< 0.001 (-)
Water Temperature	p_{\max}	0.001 (-)	0.360	0.017 (-)
	D_{50}	0.662	< 0.001 (-)	0.990
	D_{95}	< 0.001 (-)	< 0.001 (-)	< 0.001 (-)
Lunar Phase	p_{\max}	0.676	< 0.001 (+)	0.007 (-)
	D_{50}	< 0.001 (+)	0.0826	< 0.001 (+)
	D_{95}	< 0.001 (+)	< 0.001 (+)	0.066
Time of Day	p_{\max}	0.965	0.005 (+)	0.330
	D_{50}	< 0.001 (+)	0.272	< 0.001 (+)
	D_{95}	< 0.001 (+)	< 0.001 (+)	< 0.001 (+)