## Appendix 6A. Severity scoring table from Miller et al (2012)

**Table 1.** The Southall et al. (2007) severity scale with modifications used in this study; brief < minor < moderate < prolonged in terms of both duration and severity of the behavioral change, where moderate has a duration roughly equal to the duration of the exposure.

Score	Behavioral responses	
0	No observable response	
1	Brief orientation response	
2	<ul><li> Moderate or multiple orientation responses</li><li> Brief or minor changes in respiration rates</li></ul>	Brief cessation/modification of vocal behavior
3	<ul> <li>Prolonged orientation behavior</li> <li>Minor change in locomotion (speed/direction) and or dive profile but no avoidance of sound source</li> <li>Minor cessation/modification of vocal behavior</li> </ul>	<ul><li>Individual alert behavior</li><li>Moderate change of respiration rate</li><li>Brief change in group distribution</li></ul>
4	<ul> <li>Moderate change in locomotion (speed/direction) and or dive profile but no avoidance of sound source</li> <li>Brief avoidance of sound source</li> </ul>	<ul> <li>Minor shift in group distribution</li> <li>Moderate cessation/modification of vocal behavior</li> </ul>
5	<ul> <li>Extended change in locomotion (speed/direction) and or dive profile but no avoidance of sound source</li> <li>Minor avoidance of sound source</li> </ul>	<ul> <li>Moderate shift in group distribution</li> <li>Change in inter-animal distance and/or group size</li> <li>Prolonged cessation or modification of vocal behavior</li> </ul>
6	<ul> <li>Moderate avoidance of sound source</li> <li>Extended cessation or modification of vocal behavior</li> <li>Visible startle response</li> <li>Moderate cessation of feeding</li> <li>Prolonged shift in group distribution</li> </ul>	<ul> <li>Brief or minor separation of female and dependent offspring</li> <li>Aggressive behavior related to noise exposure</li> <li>Brief cessation of reproductive behavior</li> <li>Moderate cessation of resting behavior</li> </ul>
7	<ul> <li>Prolonged cessation of feeding</li> <li>Moderate separation of female and dependent offspring</li> <li>Severe and or sustained avoidance of sound source</li> </ul>	<ul> <li>Extensive or prolonged aggressive behavior</li> <li>Clear anti-predator response</li> <li>Moderate cessation of reproductive behavior</li> </ul>
8	<ul> <li>Obvious aversion and/or progressive sensitization</li> <li>Long-term avoidance of area</li> </ul>	<ul> <li>Prolonged or significant separation of female and dependent offspring with disruption of acoustic reunion mechanisms</li> <li>Prolonged cessation of reproductive behavior</li> </ul>
9	<ul> <li>Outright panic, flight, stampede, attack of conspecifics, or stranding event</li> </ul>	Avoidance related to predator detection

Original responses as described and scored in the Southall et al. (2007) table. Behavioral changes in *italic* type were described in the Southall et al. table but were never scored in this study. Behavioral changes in **bold** type were amendments or modifications made to the scale.