



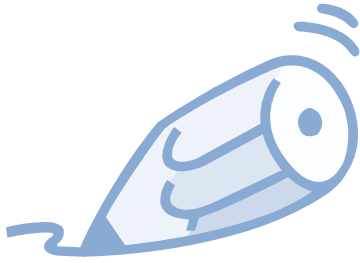
Underwater Acoustic Sound Monitoring

Middle School Scientists Curriculum

Video Questions

Before watching the video try to answer these questions. Watch the video and take notes on the answers given by the researchers. Compare answers.

1. What is underwater acoustic monitoring?
2. What animals can you hear underwater?
3. What else do you hear underwater?
4. How can you record underwater sounds?
5. Why is studying underwater sounds so important?



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Vocabulary

Acoustics	The study of sound.
Ambient noise	In acoustics, ambient noise is any sound in the background other than the sound being monitored.
Anthropogenic	Of, relating to, or resulting from the influence of human beings on nature.
Decibel (dB)	The unit of measure of sound intensity, abbreviated dB. The faintest sound most people can hear is 0 dB.
Echolocation	A sensory system in bats and dolphins in which sounds are emitted and echoes interpreted to determine the direction and distance of objects. See Sonar.
Frequency	The number of times an object vibrates per second.
Hydrophone	A microphone designed to be used underwater for recording or listening to underwater sound.
Infrasonic sound	Having or relating to a frequency below the audibility range of the human ear.
Pitch	The highness or lowness of a sound, which is determined by the frequency of the sound waves.
Sonar	(Originally an acronym for S O und N A avigation A N d R A nging) is a system that uses transmitted and reflected underwater sound waves to detect and locate submerged objects or measure the distances underwater.
Sound	The sensation stimulated in the organs of hearing by such vibrations in the air or other medium.
Sound receiver	A device that listens to, and may record sounds.
Sound source	An object that causes waves to be transmitted through a medium that leads to the sensation of hearing.
Time of arrival difference	The difference in time from when a sound arrives at one sound receiver to when it arrives at another sound receiver.
Triangulation	One method for calculating the position of a sound source in the ocean by determining its distance from three or more listening systems.
Ultrasonic sound	Refers to anything above the frequencies of sound audible to humans.