

US Naval Research Laboratory plans to use an Acoustic Zooplankton Fish Profiler (AZFP) to conduct ecosystem research

The US Naval Research Laboratory has purchased an Acoustic Zooplankton Fish Profiler (AZFP, Figure 1) autonomous echosounder to conduct observations of small zooplankton for ecosystem research. The internally-powered scientific echosounder will store acoustic backscatter data and will be mounted to an apparatus that will move the instrument up and down the water column in order to observe the dynamic behavior of zooplankton. The technology employed by this echosounder uses multiple high frequencies to ensoufy the small particle sizes of the zooplankton (Figure 2).

The Navy will use the instrument to support ongoing research in coupled, ecosystem-circulation modeling, underwater optics and remote sensing.



Figure 1: A high-frequency (455, 769, 1200 and 2000 kHz) Acoustic Zooplankton Fish Profiler (AZFP) autonomous echosounder to conduct observations of small zooplankton for ecosystem research.



Figure 2: An example of zooplankton (Amphipod) to be observed by the AZFP.

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