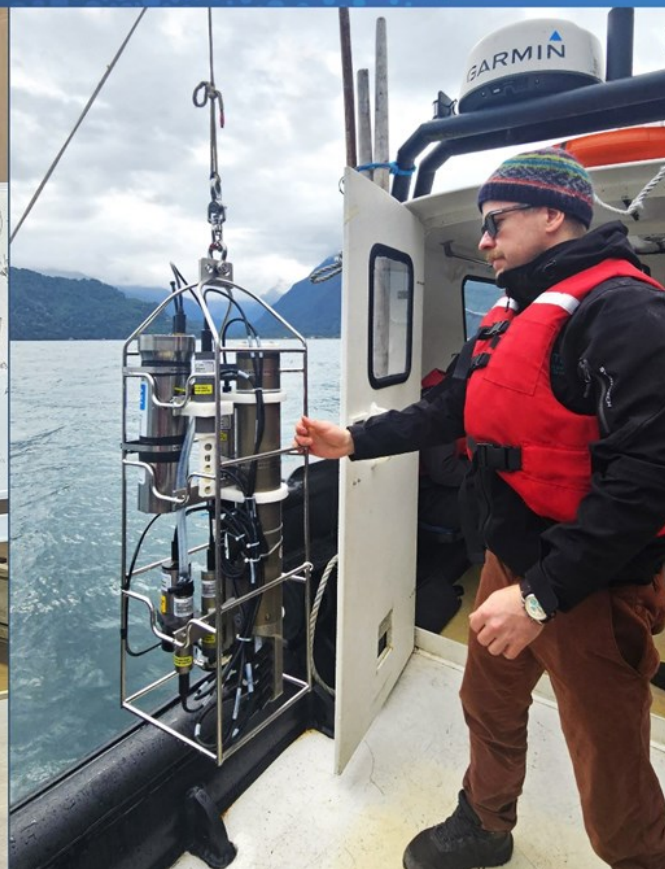# ASL's 2025 Award Early Career Scientist Contest

AZFP-nano

ASL invites applications for the 2025 Early Career Scientist Award to win the use of the new AZFP-nano autonomous acoustic profiler for three months.

The goal of this program is to support early career trainees in the oceanographic and limnological research community by lending, free of charge, a calibrated battery-powered Acoustic Zooplankton Fish Profiler™ (AZFP™)-nano with a 200 kHz single beam transducer for a three-month period along with the technical and analytical support from ASL's team of experts. This instrument loan program is open to early career scientists and engineers, graduate students, post-doctoral fellows and others involved in aquatic research.

The AZFP-nano is a newly developed, autonomous instrument that can gather backscatter data for scientists on a budget. The instrument comes with a 200 kHz narrow beam transducer that can be configured for various deployment types, including short-term moorings (one to two months) or as a continuous profiling instrument on a standard lowered oceanographic sensor package. Equipped with nine off-the-shelf D-cell batteries, it has enough power to ping every 10 seconds for a period of 30 days or provide over 150 hours of continuous one second profiling.

ASL can offer two versions of the AZFP-nano. One has a depth rating of 2000 m, making it suitable for deep ocean studies. The second version has a depth rating of 350 m, making it suitable for shallow water studies.

The AZFP-nano enables the study of the following:

➢ Oceanic scattering layers (zooplankton, pelagic fish);

➢ Individual target movement, abundance, and behavior of fish and plankton;

➢ Acoustic targets (fish, zooplankton, sediments, bubbles) without a large research vessel;

➢ Biological activity throughout a full tidal cycle at a study site;

➢ Physical processes like sediment transport, internal waves, and mixing;

➢ Acoustic targets from a CTD rosette sampler; and

➢ Other related applications.

The AZFP is a powerful tool for scientific research and environmental monitoring in oceans, lakes and rivers. For more details on the AZFP-nano, refer to our product brochure here: (https://www.aslenv.com/azfp-nano.html).

To apply to this program, send a summary proposal (maximum length four pages plus figures and references) for your study and description on how it would benefit from the use of the AZFP's capabilities. The selection criteria involve a number of factors including the following:

• Relevance of the project: the measurements obtained should advance the understanding of physical and/or biological phenomena of importance to the aquatic environment ;

• Innovation of the project including scientific merit ; and

• An outline of the workplan to deploy and recover the instrument.

Interested applicants may send proposals before March 31st, 2025 to ASL Environmental Sciences Inc at jbuermans@aslenv.com.