

### Comparison of ASL's Acoustic Instruments

Here's a side-by-side comparison chart for the **AZFP**, **AZFP-nano**, **AZFP-ice**, **IPS** and **SWIP** to help highlight their unique features and research applications:

<b>Feature &amp; Specification</b>	<b>AZFP</b>	<b>AZFP-nano</b>	<b>AZFP-ice</b>	<b>IPS</b>	<b>SWIP</b>
Applications	Long-term, multi-frequency ecosystem monitoring	Short-term studies in confined or shallow environments	Long-term, multi-frequency, under-ice ecosystem monitoring with ice draft measurements	Long-term, high accuracy, ice draft measurements with high temporal sampling	Shallow water ice draft measurements
Ideal Use Cases	Monitoring of Ecosystem changes including fish and zooplankton distribution at remote sites	Focused studies on small-scale marine changes, lab research. Interfaces with Sofar real-time monitoring system.	Monitoring of under-ice ecosystem changes including fish and zooplankton distribution at remote sites	Ice measurements in ice infested waters such as the Arctic or Antarctic	Ice draft measurements at less than 20m range
Size and Portability	Standard size, suitable for multi-year autonomous deployments or AUV mounting	Compact, ultra-portable for smaller-scale autonomous studies and mounting on small underwater vehicles	Standard size, suitable for multi-year deployments	Standard size, suitable for multi-year deployments or underwater vehicles.	Two sizes: Standard size or compact
Battery Life	Extended battery for long deployments	2 to 3 months battery life, suited for limited-duration research	Extended battery for multi-year deployments	Extended battery for multi-year deployments	Extended battery for long deployments or shorter for the compact version
Frequency Range	Multi-frequency, fisheries frequencies options	Single frequency, optimized for specific studies	38, 120, 200 and 420 kHz the 420 kHz is narrow beam for ice draft measurements.	420 kHz narrow beam	A low and high frequency version
Website	<a href="http://www.aslenv.com/azfp.html">www.aslenv.com/azfp.html</a>	<a href="http://www.aslenv.com/azfp-nano.html">www.aslenv.com/azfp-nano.html</a>	<a href="http://www.aslenv.com/azfp-ice.html">www.aslenv.com/azfp-ice.html</a>	<a href="http://www.aslenv.com/ips.html">www.aslenv.com/ips.html</a>	<a href="http://www.aslenv.com/swip.html">www.aslenv.com/swip.html</a>
Pamphlet	<a href="http://www.aslenv.com/assets/files/AZFP.pdf">www.aslenv.com/assets/files/AZFP.pdf</a>	<a href="http://www.aslenv.com/assets/files/AZFP-nano.pdf">www.aslenv.com/assets/files/AZFP-nano.pdf</a>	<a href="https://aslenv.com/assets/files/AZFP-ice.pdf">https://aslenv.com/assets/files/AZFP-ice.pdf</a>	<a href="http://www.aslenv.com/assets/files/IPS-Brochure.pdf">www.aslenv.com/assets/files/IPS-Brochure.pdf</a>	<a href="http://www.aslenv.com/assets/files/SWIP.pdf">www.aslenv.com/assets/files/SWIP.pdf</a>

This comparison emphasizes each Instrument's strengths and suitable research contexts, aiding scientists in selecting the right tool for their needs.