

March 2013

Ocean Business Preview

Product Spotlight: ZPS

Zooplankton studies are part of ecological monitoring programs around the Globe. Links between prey production, availability, and climate variability in relation to predator and fishery demands continue to provide key scientific data.

The McLane Zooplankton sampler (**ZPS**) traps and preserves up to 50 in situ individual zooplankton specimens. Velocity and light gradients are minimized to avoid triggering organism escape responses.



Sample collection is determined by a user-defined time-series. Samples are rolled onto a mesh collection belt and preserved in a fixative solution. Fluid volume, fluid rate, back

flush and time series collection are all user-defined.

Download a [ZPS datasheet](#) for more information about this sampler, or visit our Ocean Business stand (A13) in April to see an operational ZPS on display at [Ocean Business 2013](#).

Instructional Videos Available

Ocean Business 2013 Schedule: McLane Highlights

Share your questions, requests, and deployment news in person, at [Ocean Business 2013, Southampton, UK April 9-11](#).

- Stop by our exhibit **Stand A13** which will feature an operational Zooplankton Sampler (**ZPS**). Learn more about this time-series, in-situ sampler, and preview our newest sampler, the Imaging Flow Cytobot (**IFCB**).
- Attend the **hands-on demonstration** of [profiler](#) and [sampler](#) adaptive sampling firmware by Michael Mathewson at 1500 (3pm) **April 10** in the John Swallow 054/06 room. Attendees will receive a special edition McLane gift.
- [Contact](#) us to set up an appointment for a personal meeting during the conference.

[Contact](#) McLane if you are not planning to travel to Southampton but would like to meet with your [McLane representative](#). You are also welcome to [visit](#) anytime here at our headquarters.

Bore Hole WTS-LV Deployed in Antarctic

The McLane [Bore Hole model WTS-LV](#) recently contributed to interdisciplinary field work on the subglacial environment at Subglacial Lake Whillans. The Whillans Ice Stream Subglacial Access Research Drilling project (WISSARD) used a variety of tools including a Bore Hole WTS-LV to explore Subglacial Lake Whillans and the nearby grounding zone, on the southeastern edge of the Ross Sea.

The Bore Hole WTS-LV collected samples onto filters for 16S RNA-based microbial community analysis using DNA and reverse transcribed RNA. This WTS-LV model fits down a 30cm borehole to collect samples from the hydrological liquid water system that lies below the



The McLane instructional video [library](#) is available on our website. The example shown here features a guided video for installing the cover and intake of a zooplankton sampler (ZPS). The ZPS will be featured at McLane Stand A13 at [Ocean Business 2013](#) in Southampton.

Photos from the Deck

McLane trades photos for t-shirts so [send us](#) your best shots!



Photo: Prof. Jonathan Sharples, University of Liverpool

Above, Charlotte Williams and Claire Mahaffey (University of Liverpool) and Jo Hopkins (National Oceanography Centre) deploy [RAS](#) samplers in the Celtic Sea.

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Photo: Brent Christner, Louisiana State University

Antarctic ice sheets. The WTS-LV includes a 4L/min pump, with the ability to pump water (in tandem) through membrane filters of 3 different pore sizes to partition particulates based on size. The sampler is designed to operate to depths of 5,000 meters.

First Article OOI Profilers Delivered

McLane has [delivered](#) the first article [moored profilers](#) to Woods Hole Oceanographic Institution (WHOI) and Scripps Institution of Oceanography (SIO) for the Ocean Observatories Initiative (OOI) Coastal and Global arrays.



Coastal Profiler

The two types of wire following profilers delivered by McLane for use in OOI differ in their scientific mission and deployment area.

The OOI, a project funded by the National Science Foundation, is planned as a networked infrastructure of science-driven sensor systems to measure the physical, chemical, geological and biological variables in the ocean and seafloor.

As a fully integrated system, OOI will collect and disseminate data on coastal, regional and global scales, and will make ocean observing data available through a unique cyber infrastructure to anyone with an internet connection.

New McLane Sampler Now Available

The newest McLane sampler is the Imaging FlowCytobot ([IFCB](#)), an in-situ automated

submersible imaging flow cytometer that generates images of particles in-flow taken from the aquatic environment.

The IFCB uses a combination of flow cytometric and video technology to capture high resolution images of suspended particles. Download an [IFCB datasheet](#) or visit Stand A13 at [Ocean Business 2013](#) for more details.



Imaging FlowCytobot