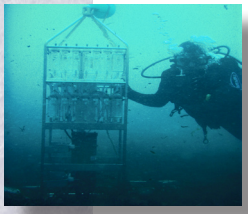
McLANE RESEARCH LABORATORIES, INC.

FALL 2009 NEWSLETTER

CSIRO Investigates Algae Phenomenon in Perth



Dr. M. Lourey Dives with a RAS

Scientists from CSIRO, Australia are using the McLane RAS sampler to investigate an abnormal phyto-plankton bloom in Perth. Although the coastal waters of Perth are oligotrophic, an unusual winter phytoplankton bloom has been occurring. This coastal bloom differs from summer blooms found in the Western margins. Scientists are examining samples from a coastal, reef-sheltered lagoon to discover the source of nutrients feeding the thriving algae.

Photo: Dr. G. Symonds

James McLaughlin, Dr. Martin Lourey-CSIRO

Researchers are studying whether the algae consume a single nutrient or a combination of sources in the water column, (such as suspended nutrients in sediment interstitial pore-waters), to learn more about the winter-plankton bloom phenomenon.

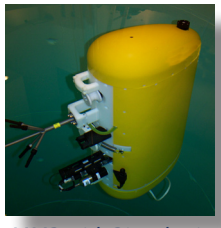
For investigations this winter, the RAS samplers will collect fine scale temporal water samples in shallow (7-10m) deployments and from the bottom of the lagoon. Collection duration is 30 days or less. When possible, samples are taken during storm events to determine if, when and where nutrient pulses originate and at what levels they occur.

New Sampler and Profiler Options Available

This spring and summer McLane delivered several instruments with new options. Projects included an upright WTS-LV model with 30L/min pump head for JAMSTEC (Japan) and an Ice Tethered Profiler (ITP) with a Nobska MAVS Acoustic Current Meter, recently deployed by scientists from Woods Hole Oceanographic Institution (WHOI). For Canada, McLane delivered a Moored Profiler (MMP) with Seabird CTD and DOX, Seapoint Fluorometer and Turbidity and Biospherical PAR sensors. An MMP with this sensor array is also in production for WHOI for fall 2009 delivery. The WHOI MMP will have a MAVS ACM.

WTS-LV with 30L/min Pump

ITP with MAVS and FSI CTD



MMP with Biospherical PAR , SBE CTD, Seapoint Fluorometer, Turbidity

Customer Support News

The WTS-LV, RAS and Sediment Trap now use firmware that supports multiple configuration options with a single version. Contact McLane for more information about this firmware for your sampler. The most current documentation and product information is always available on our web site.

Photos from the Deck

Wanted: Great deployment photos to trade for McLane t-shirts! Email pictures to mclane@mclanelabs.com.

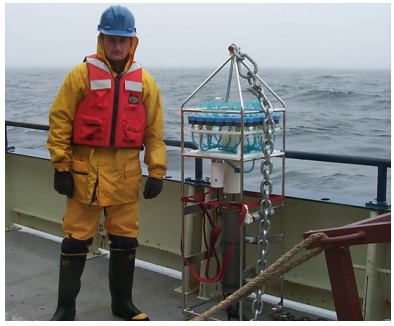


Photo: Dr. Cindy Pilskaln

PPS Deployment, Gulf of Maine

Photo: Dr. Federico Giglio

ISMAR-CNR Mooring, Antarctica

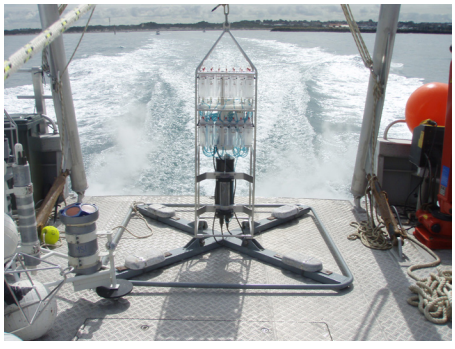


Photo: James McLaughlin

RAS Deployment, Australia

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Hobart Scientists Use McLane Samplers in Groundbreaking Collaboration

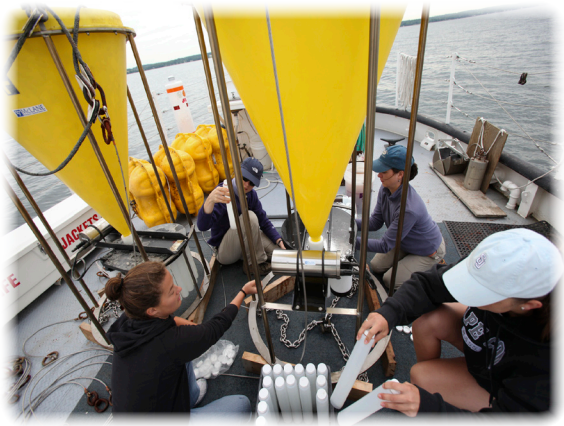
Scientists from Hobart and William Smith Colleges, Geneva NY, selected McLane Sediment Traps for a unique project in Lake Seneca. A collaborative team of biologists, geoscientists and computer scientists are collecting year-round samples for studies in ecology, limnology and meteorology. McLane sediment traps and flotation are among the NSF-funded equipment in a new 7-site network. This study is the first of its kind providing year-round support to such a diverse research team. For 2 years, the Sediment Traps will be recovered and redeployed on a rotating schedule. Scientists are pleased with the 'smooth operation' and sample quality of the Sediment Traps, in use since spring 2009.

In one study, Professor Meghan Brown and her team are analyzing an invasive water flea species that consumes vital zooplankton needed by juvenile fish [*Brown M. & Balk M. (2008) (New York, USA) Aquatic Invasions 3(1):28-34*]. Data will help prevent negative impacts of the fleas.

At right: Female Cercopagis (Photo Dr. Meghan Brown)

At the same time, other Hobart scientists will be studying meteorological conditions, internal currents and sedimentation processes. Archived data from the Seneca Lake network will be on the internet in fall 2009.

(Photo: Kevin Colton, Hobart and William Smith Colleges)



Hobart Researchers T. Curtin, B. Bashaw, M. Brown, and J. Popp Deploy McLane Traps and Floats, Lake Seneca

2009 Conferences

Oceans '09
October 26-29
Biloxi, MS, USA
Booth #531

Martech '09
November 12-13
Barcelona, Spain
McLane Rep: Grafinta

ArcticNet '09
December 8-11
Victoria, BC, Canada
McLane Rep: ROMOR