# PRESS RELEASE

## SPECTRAL EVOLUTION participates in 2017 Microbial Diversity Course at the Marine Biological Laboratory at Woods Hole, MA

## Spectroradiometer capabilities used to analyze microbial colonies by absorption and reflectance measurements in the lab and *in situ*.

*Lawrence, MA – September 25, 2017–* The Marine Biological Laboratory's Summer Education Program attracts a large crowd of graduate students, professors and established researchers. This year, SPECTRAL EVOLUTION participated by providing an SR-1900 spectroradiometer for use by course participants in the investigation of microbial colonies in the field and in the lab. The SR-1900 has been used in the course since 2014.

Dr. Kurt Hanselmann of the Microbial Diversity Faculty once again used the SR-1900 for field and laboratory experiments. "Every year we add a few more applications. This year we collected spectra of colonies on agar plates directly and on microscopy slides," Dr. Hanselmann said. "We improved the optical set-up by focusing the light through pinholes rather precisely to a small object and collected transmitted light with 2° and 4° lenses attached to the instrument's fiber optic cable," he explained. "In this way we could collect high resolution spectra of pigmented organisms."

Also for the first time they conducted kinetic measurements. "We did kinetic measurements over short (seconds) and longer (24 hours) periods of time and recorded reduction and oxidation directly in pigmented cells as well as in colored extracts," according to Dr. Hanselmann. " The combination of the SR-1900 for absorbance measurements in turbid samples in tubes, bottles and well plates, for individual colonies on agar plates and slides, reflectance measurements of mats in the environment and of iridescent biofilms in the lab, as well as transmission light spectroscopy where we made spectra and photographs at the same time of 50-100 micrometer-sized smears and

aggregates, makes the SR-1900 an extremely versatile and simple instrument for many microbiological applications."

The SR-1900 field spectroradiometer has a spectral range of 350-1900nm using a 512-element UV-enhanced silicon photodiode array and a 256-element extended InGaAs photodiode array. It is ideal for use in the field or in the lab and also includes DARWin SP Data Acquisition software.

For more information on spectroradiometers for microbial diversity projects:
http://www.spectralevolution.com/applications_microbial_diversity.html

**About SPECTRAL EVOLUTION**
Established in 2004, SPECTRAL EVOLUTION is a leading manufacturer of laboratory and handheld portable spectrometers, spectroradiometers and spectrophotometers. SPECTRAL EVOLUTION spectrometers are used worldwide for many mission-critical lab and field applications in mining, remote sensing, vegetative studies, ground truthing, environmental and climate studies, developing satellite calibrations, and more, due to their reliable, robust, rugged design and user-friendly one-touch features.

SPECTRAL EVOLUTION maintains a facility in Lawrence, Massachusetts which houses design, prototyping, manufacturing and service facilities for the instruments that it markets and sells worldwide, either through direct sales, OEM sales or through distributor agents. EZ-ID and oreXpress are trademarks of SPECTRAL EVOLUTION.

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