



Reporter

The Biological Field Station is a facility of the State University of New York College at Oneonta

Bill Butts: a profile

William L. Butts is an Emeritus Professor now working at the BFS. He received his B.S. from Wilmington College, his M.S. and PhD at The Ohio State University. He joined the SUNY Oneonta faculty in 1966 after having offered courses in the Department of Entomology at Purdue University for their program in Urban and Industrial Pest Control as well as courses in Medical Entomology and Immature Insects. His research during that time centered on the biology and control of subterranean termites and insecticide-resistant cockroaches. At that time he and Lee C. Truman authored "A Scientific Guide to Pest Control Operations" which still serves as the basic text for a correspondence course in Pest Control Technology. From 1966 – 1995 he taught courses in General Physiology, Human Physiology, Entomology, Medical Entomology and Ornithology



Professor William L. Butts

at SUNY Oneonta. He has conducted research on mosquito populations as well as surveys of blowfly and tick populations at sites on the Biological Field Station and the Greenwoods Conservancy since 1967, having at least one research contribution in every BFS Annual Report to date.

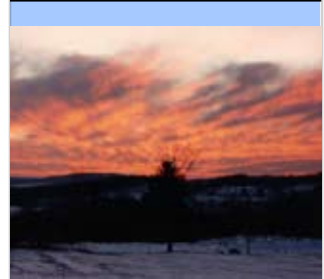
Since retirement in 1995 his research has been continued on a volunteer basis. Up until about 5 years ago the closest relative to deer ticks,

the carriers of Lyme disease, he found were woodchuck ticks. Since then every tick in the genus *Ixodes* seen has been a deer tick. According to local health authorities the incidence of Lyme disease has been increasing locally. It behooves those who spend a lot of time in the out-of-doors to take preventative measures to prevent ticks from biting. We have found permethrin used to spray clothing and 100% DEET used on skin work well. 🐾

We are now routinely posting Otsego Lake water quality updates on our web page (www.BFS.Oneonta.edu) as well as that of the OCCA: www.OCCAinfo.org.

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Located in Cooperstown and founded in 1968, the Biological Field Station is a unique facility serving the Upper Susquehanna Watershed, Otsego County and the immediate Cooperstown area. It is primarily a teaching and research center for undergraduate and graduate students from across New York, the United States, and Canada. Directed by Dr. Willard Harman and staffed with talented, experienced professionals, the Biological Field Station is presently the focal point for information about issues affecting Lake Otsego and the Susquehanna River.



Zebra Mussels

Otsego Lake Zebra Mussel Update

We have continued to make anecdotal observations of zebra mussel settling patterns and densities in an attempt to provide timely information to lake-side residents and lake users that wish to protect their personal property from negative impacts of zebra mussels. They are not meant to provide detailed documentation of the distribution and abundance of zebra mussels throughout the lake. A new product for the control of zebra mussels has recently been announced (Zequanox™). It targets only mussels and is being tested for use in open water environments. We will keep you informed of its status.

Last summer and fall Otsego Lake zebra mussels grew several millimeters and many colonized new surfac-

es. Most metal and wooden structures are now covered with two or three year classes of mussels, particularly near natural substrates. We have not observed many mussels on fiberglass boat hulls or surfaces exposed to wave action, though they were found on aluminum, with the greatest densities along seams and rivets. Density along the keel of a BFS john boat in the water for about one month averaged 80 per 10 cm² (about 7,400 per ft²). Their average length was 2.5 mm, though two distinct size classes were apparent. The density of mussels that settled on artificial Plexiglas® substrates since June was about 48,000 per m² (4,500 per ft²). Those less than 1 mm were not included in the count, but were

numerous. Links to information and measures you can take to protect people and infrastructure can be found on the BFS web page.

Last summer the BFS Volunteer Diver team assisted the Village of Cooperstown in keeping the Village's potable water intake free of zebra mussels. They periodically opened the end where water is drawn from Otsego Lake. Water treatment plant staff then used their water pumps to push a large rubber "pig" from the plant to the intake which scrubbed zebra mussels from inside the pipe. About a quart of zebra mussels were removed from the pipe during recent cleanings. The long-term plan is to use potassium permanganate to prevent zebra mussel attachment and growth.

A new introduction to Oneida Lake, the bloody red mysid
(Photo credit R. Offermans)



Proposed MS in Lake Science

Ken Wagner and **Bill Jones** visited the College campus in Oneonta and the BFS in November as external reviewers for a proposal by the Biology Department to develop a Master of Science in Lake Management program in which we at the BFS will be actively involved. As proposed, the degree would qualify students for consideration as Certified Lake Managers (CLMs) or Lake Professionals (CLPs) by the North American Lake Management Society (NALMS). Ken is a Water Resources Manager for AE-COM Global Environment, an international consulting firm. He works out of Willington, CT. Bill is a Clinical Professor in the School of Public and Environmental Affairs at Indiana University in Bloomington, IN. Both are CLMs, past Presidents of NALMS and have been involved in lake and watershed management for many years. We are pleased that they feel that the BFS facilities are “world class” and (when the Main

Lab renovations are complete) will be comparable to any “big name” field station in the United States. 🐼

Updates, cont. from p.4 planning to re-occupy the building before next Christmas.

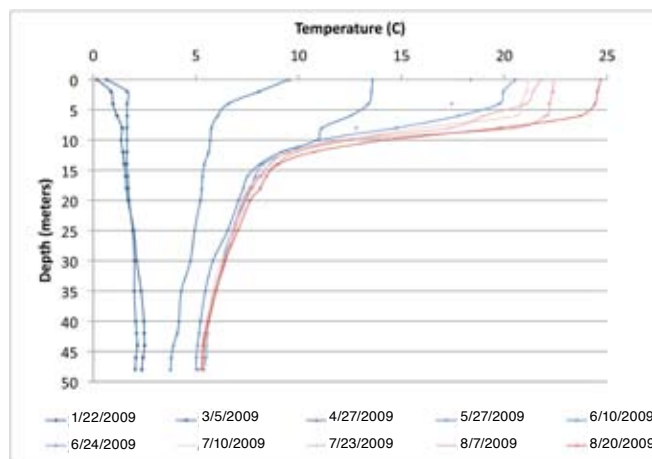
➡ Updates on Otsego Lake Water Quality Data and Interpretation have been posted on the BFS website by **Holly Waterfield** following each monitoring event from July 2009 through the present and will continue as monitoring is conducted. Datasets presented thus far include temperature and dissolved oxygen profiles and Secchi disk transparency. Updates

also include interpretation of available habitat for sensitive species and zebra mussel densities measured on boat hulls. The site will continue to develop over the course of the winter with added nutrient data, and characterization of the zooplankton and algae communities. Check it out at www.Oneonta.edu/academics/biofld.

➡ **Holly Waterfield** began a 3-year term as NALMS Region II Director in November. She represents members and affiliate organizations within the region at Board of Director’s meetings. She also serves on the Student Membership

and Marketing committees. Goals for the term include increasing membership within the region, focusing on Faculty and Students at regional colleges and universities, as well as increasing the visibility of NALMS in the lake management arena. Region II includes New York, New Jersey, Puerto Rico, and the US Virgin Islands. For more information go to www.NALMS.org.

The **bloody-red mysid**, *Hemimysis anomala*, (see photo above), a shrimp-like zooplankton reaching up to about 13mm (½ inch) in length, has been found in Oneida Lake. It first appeared in the Great Lakes in 2006. Unlike anything now in Otsego, no one knows what changes it could bring. It prefers to live near hard bottoms. This mysid feeds on everything in the water column from algae and water fleas to aquatic insects, depending on individual’s sizes. Their life span is about 9 months reproducing 2 to 4 broods of up to 70 embryos annually. 🐼



Otsego Lake temperature profiles illustrating the 2009 progression from winter ice-on through full thermal stratification, as observed on 20 August, during 2009.

Updates



*You think we have problems!
These are Asian Carp in the
canal between the Mississippi
River and Lake Michigan.”
Photo credit N. Michaels AP*

➤ **Bill Harman** has recently been appointed to the NYS Invasive Species Advisory Committee by Governor David Patterson. The Committee was created to provide recommendations to the NYS Invasive Species Council regarding action priorities and allocation of resources for coordinated and comprehensive defense against invasive species by coordinating the activities of 13 state agencies and NGOs involved in the management of aggressive invasives. The NYS Dept. of Environmental Conservation, in turn, has divided the State into regions for the purpose of developing Partnerships for Regional Invasive Species Management (PRISMs) that include a diversity of contributors from concerned groups in each region. Our local region is represented by CRISP, the

Catskill Regional Invasive Species Panel.

➤ **Dave Warner** 99' is a Fisheries Biologist with the US Geological Survey's Great Lakes Science Center in Ann Arbor, MI. His research on Otsego evaluated the then newly established alewife population and its trophic wide impacts on Otsego Lake. His research on the impact of the fish-hook water flea (*Cercopagis*), an exotic zooplankton, in Lake Ontario is documented in a recent issue of "Twineline" a New York Sea Grant publication.

➤ BFS Occasional Paper # 45, the reproduction of a thesis "The use of radium isotopes and water chemistry to determine patterns of groundwater recharge to Otsego Lake, Otsego County, New York" by **Elias J. Moskal** of the Earth

Sciences Department is available on the BFS web page. Eli used BFS resources to conduct his thesis research.

➤ We moved into the Hop House in the spring when renovations on the Main Laboratory near Cooperstown began. Although **Dale Webster** is still completing finishing touches, most everything except the floors is done. Our flooring will be salvaged local ash and butternut from the Farm along with some southern pine.

➤ Work at the Main Laboratory near Cooperstown continues. At this time most of the rooms are laid out and utilities are being installed. Outside insulation and siding are being added. New spaces, an aquaculture lab, offices and conference spaces are just beginning to take shape. We are **Cont. on p.3**

The work of the Biological Field Station is strengthened and enhanced by private financial support from individuals, foundations, businesses, corporations and civic organizations. In fact, these contributions are necessary for the continued success of the Biological Field Station and all of the services provided to the community. For more information, call or write:

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As an academic program within the State University College at Oneonta, the Biological Field Station receives fund raising services through the College at Oneonta Foundation, a nonprofit charitable organization. All gifts and grants for the BFS are tax deductible. They are managed by the Foundation and used expressly for the purposes for which they were given. Estate planning gifts such as bequests and trusts are also sought and appreciated. More information is available by contacting:

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