

# REPORTER

Summer 1994

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## **Spotlight on Beth Wheat**

Beth Wheat is a senior from Mount Markham High School in West Winfield. She worked last summer as a New York Academy of Sciences Science Research Trainee studying the organisms that live on the bottom of Otsego Lake along the shoreline. Since 1968, several studies of this type have been done by BFS researchers. Beth's study compares the present fauna with that of the past to see if the kinds of animals and the abundance of each (biodiversity) have changed. Preliminary analysis indicates that lake-wide macroinvertebrate biodiversity has been considerably reduced since the lake was first studied in the 1930's. This is a concern for a host of reasons, including the ability of the lake to respond favorably to the stresses of nutrient loading and exotic introductions while maintaining its quality (ecological integrity and environmental sustainability.).



## **Progress Noted on Stream Projects**

Information and expertise from the BFS is being used for stream improvement projects on Leatherstocking Creek and Willow Brook. Through the combined efforts of property owners, the Otsego County Conservation Association, and the Otsego Soil and Water Conservation district, the bureaucratic procedures for

implementation of erosion, sediment, and nutrient control have been completed. Trees and shrubs were planted along Leatherstocking Creek last summer. Native plants were chosen based on the likelihood that they existed in the stream corridor before it was cleared for past

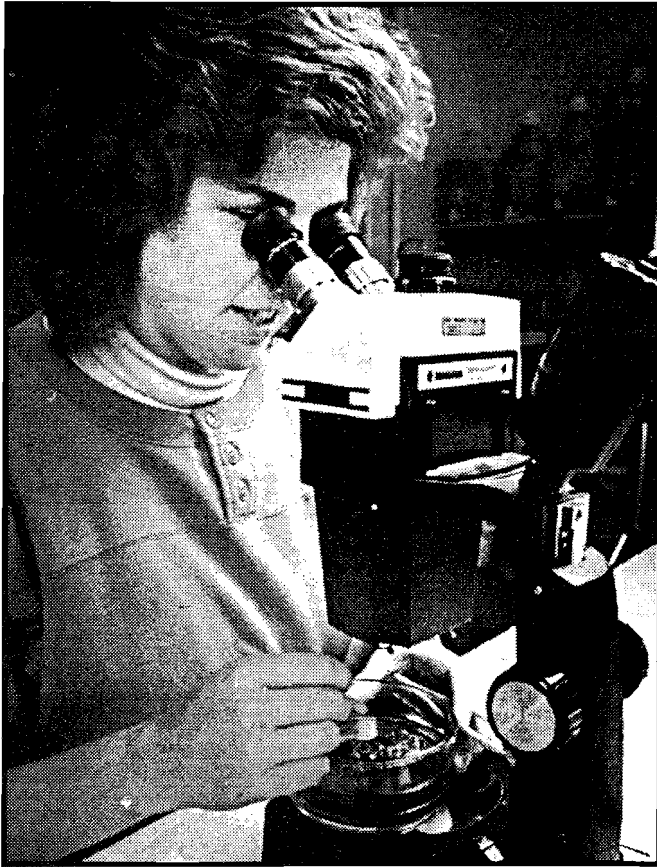
(Continued on page 3.)

Do we have your correct address?

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 in the Upper Susquehanna?

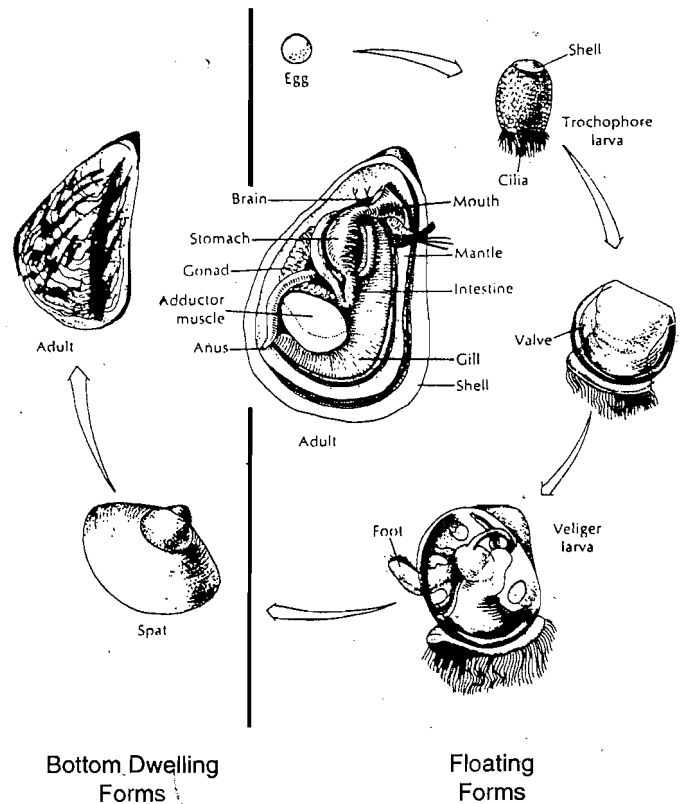


Stef Komorowski with Zebra Mussels

In fall 1991, and again in the springs of 1992-93, zebra mussel larvae (veligers) were collected in the Susquehanna River at Johnson City at NYSEG's Goudy Power Station. Immediately after the first sighting, we began cooperating with Pennsylvania's Department of Environmental Protection (DER) by monitoring the river for mussels from Cooperstown to Sayre, PA at several stations on the river and its tributaries. The DER is monitoring throughout Pennsylvania. No adult zebra mussels have been found in the river. No veligers have been found by us or anyone else except the NYSEG consultants at Johnson City where the original larvae were encountered. BFS researchers have received a grant from the NY Sea Grant Institute to do some intensive work in the Johnson City area. The findings will be very important to all water users down to the Chesapeake and will be reported to the Susquehanna River Basin Commission

### Progress Noted on Stream Projects, cont.

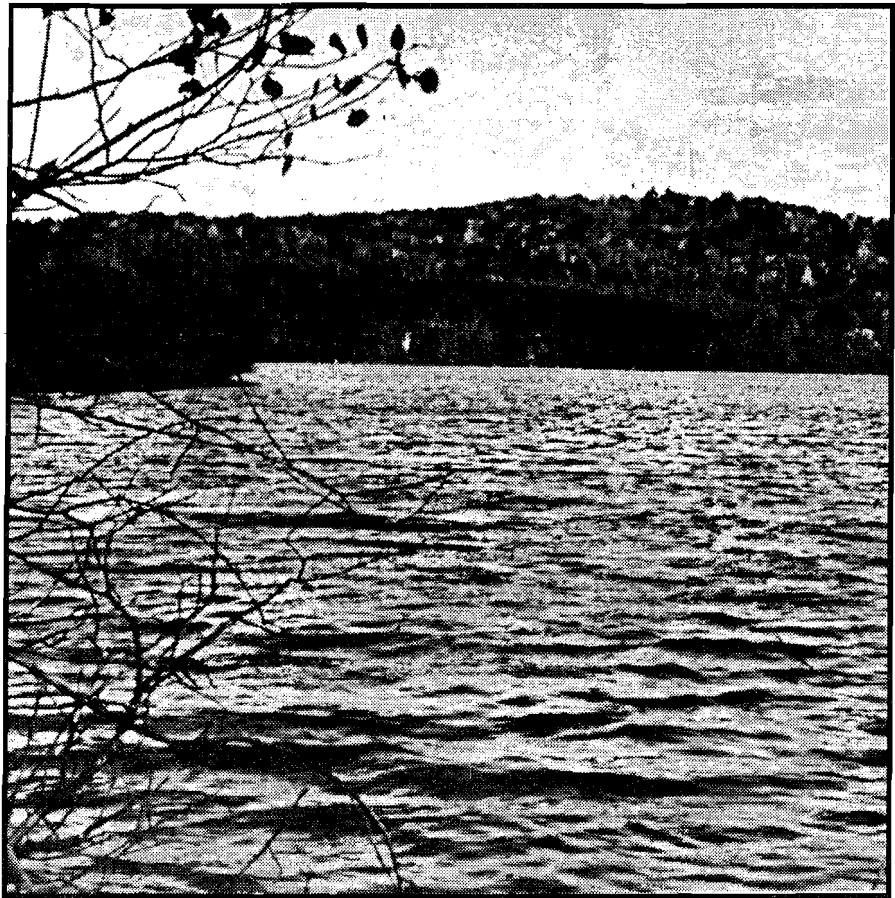
agricultural uses. Such efforts protect streams from overintensive land use and restore shade, keeping temperatures cool for trout. These actions improve water quality in the streams as well as in Otsego Lake. Research conducted in these areas has been used by the Otsego County Water Quality Coordinating committee in addressing and prioritizing water quality problems. County water quality strategy calls for action to be taken on Willow Brook to correct non-point source pollution problems. Periodic monitoring will be continued in the future. Results are expected to provide insights into changes resulting from such restoration.



Life Cycle of a Zebra Mussel

## Our Natural Resources: Moe Pond Research Area

Fondly known as the "Upper Site," this 360 acre parcel — including Moe Pond and its watershed — has been part of the Biological Field Station since its inception in 1968. This gift from the Clark Foundation is composed primarily of northern hardwoods on mesic sites, old field and conifer plantations, and several beaver ponds — one containing an extensive floating Sphagnum mat. Most slopes face the southwest. That, coupled with the fact that the site is the lowest elevation of any of our major parcels, renders it the most moderate climatologically. There has been no harvesting of timber for at least 50 years. This area therefore has the greatest biodiversity of all of our research sites. Our field laboratory, a wood-frame building overlooking Moe Pond, contains 480 square feet of floor space, including cooking and sleeping facilities.



## BFS Visiting Researchers

Each summer since 1976, the Otsego County Conservation Association has provided a matching grant annually to support visiting faculty. Starting in that year, **Paul Godfry**, then a recent Ph.D. from Cornell, worked two years on algal productivity in Otsego Lake. His meticulous surveys serve as a basis for our understanding of their local biodiversity.

In 1978 **Dr. Randall Fuller**, a faculty member at Colgate University in Hamilton, NY, worked with algal productivity in major tributaries to Otsego Lake.

**Dr. Robert C. MacWatters** served from 1979 until his death in 1986. During that time he was the head of SUNY Cobleskill's

Agricultural and Technical College's fisheries and Wildlife Technology program. He and his students contributed greatly to our knowledge of the Otsego Lake fisheries. When **Dr. John New** died in 1983, it left the Biology Department at Oneonta without fisheries expertise. Since then, the visiting researcher position has been used to continue competency in that area.

After Bob MacWatters' death, Cobleskill hired **Dr. John Foster** to lead their Fisheries and Wildlife Technology program. John's background includes extensive experience in salmonoid management and cold-water fish culture. He has held the visiting researcher's position since 1988.

# Updates

- **Steven Foster** from Cobleskill won first place in SUNY Cobleskill's High School Day biology contest last fall. 2047 students from 55 high schools were involved in the day's activities. Steven believes that information he learned while enrolled in Bio 184, An Introduction to Aquatic Biology, at the Field Station last summer was an important factor in his success.
- The BFS is involved in the **Susquehanna River Watch**, a volunteer river monitoring program with the following groups: Southern Tier East Regional Planning and Development Board, Susquehanna River Basin commission, Union-Endicott High School, Waterman Conservation Center, Broome-Tioga BOCES, Tioga County Soil and Water Conservation District, Otsego County Soil and Water Conservation District, Otsego Water Quality Coordinating Committee, Discovery Center for the Southern Tier, Cornell Cooperative Extension of Broome County, New York State Soil and Water Management Council, Chenango Valley State Park, and the Sierra Club.
- **The OCCA waterwatch boat** will be powered by a 35 HP Honda 4-stroke "nonpolluting" engine this summer. This vessel, manned by volunteers from the BFS and the community, will be on the lake for the 26th year to help boaters, remove navigational hazards, and in general keep an eye on Otsego.
- **Sarah Hojnacki** was named Oneonta High School's student of the month in December 1993. For the last three summers Sarah has worked at the BFS; either taking a class, as an intern, or volunteering.
- The OCCA Annual **Otsego Lake cleanup day** is scheduled for **August 7** this year. BFS faculty, staff, students, and boats will be used for the 26th year to facilitate the activity.
- **Stef Komorowski** recently successfully completed her MA in Biology. While at the BFS she was supported by an OCCA, Mr. & Mrs. Willis D. Hadley graduate research assistantship. She worked to characterize algal productivity in streams tributary to Otsego Lake and how land use in each of their watersheds affects it. Her work contributes to the USEPA sponsored Otsego Lake Phase I Diagnostic/Feasibility study.
- The 23-minute video "**Eye on Otsego**" is available for loan to groups interested in current concerns regarding environmental problems on Otsego Lake.
- **Other videos** available for short-term loan include:
  - Pointless Pollution: America's Water Crisis
  - America's Wetlands
  - Our Disappearing Forest
  - Acid Rain
  - Into the River, Into the Bay
  - Living on the Edge
  - Chesapeake Horizons

Fiscal challenges in recent years have constrained the work of the Biological Field Station. Private gift support from individuals, foundations, and corporations is essential and an investment in the Biological Field Stations' continued success and services to the community. For more information, call or write:

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The College at Oneonta Foundation receives and manages gifts for the Biological Field Station. All gifts are used expressly for the purposes for which they are given and they are tax-deductible. Information is available through:

**FIELD STATION MISSIONS**  
The BFS is a facility of the SUNY College at Oneonta. The next few issues will cite various of our missions as specified by the College.

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