

REPORTER

Fall 1994

In this Issue

- **Spotlight on High School Interns and Volunteers**
- **Our Natural Resources: Rum Hill**
- **Sponsored Research**
- **Goodyear Swamp Walkways Reopened**
- **Environmental Monitoring**
- **Updates**

Do we have your correct address?

Spotlight on '94 High School Interns and Volunteers



This summer nine students worked at the Station providing the human resources necessary for us to carry out our research programs.

OCCA FHV Mecklenburg conservation fellows were **Darcy King** from Cherry Valley/Springfield High and **Kristen France** from Oneonta High. Darcy was involved in a survey of the terrestrial plants at Greenwoods (Cranberry bog). Kristen studied the transport of sediments from the shoreline to the deepest parts of the Otsego Lake basin. Funded by the Village of Cooperstown, OCCA chose **Colleen Moriarity** from Oneonta High to evaluate water quality in the upper reaches of the Susquehanna River. The New York Academy of Science High School Trainees were **Tavis Austin** from Cooperstown, **Ann Mary Meyers** from Owen D. Young Central, and **Brooke Baker** from Oneonta. Tavis conducted a botanical survey of the shoreline of Weaver Lake at Maumee Swamp. Ann Mary

Continued on page 3

Sponsored Research

This summer's research involved the last year of a three-year program working on a US Environmental Protection Agency Phase I Diagnostic/Feasibility Study of Otsego Lake, a National Aeronautics and Oceanic Administration Sea Grant Program to ascertain the presence of Zebra Mussels in the New York reaches of the Susquehanna; and a State Uni-

versity of New York-Office of Educational Technology program to develop environmentally-oriented teaching modules for high school students.

The Field Station's contribution to the latter work will include a module entitled *Life in Troubled Waters: The Limnology of an Inland Lake*, using

Continued on page 2.

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

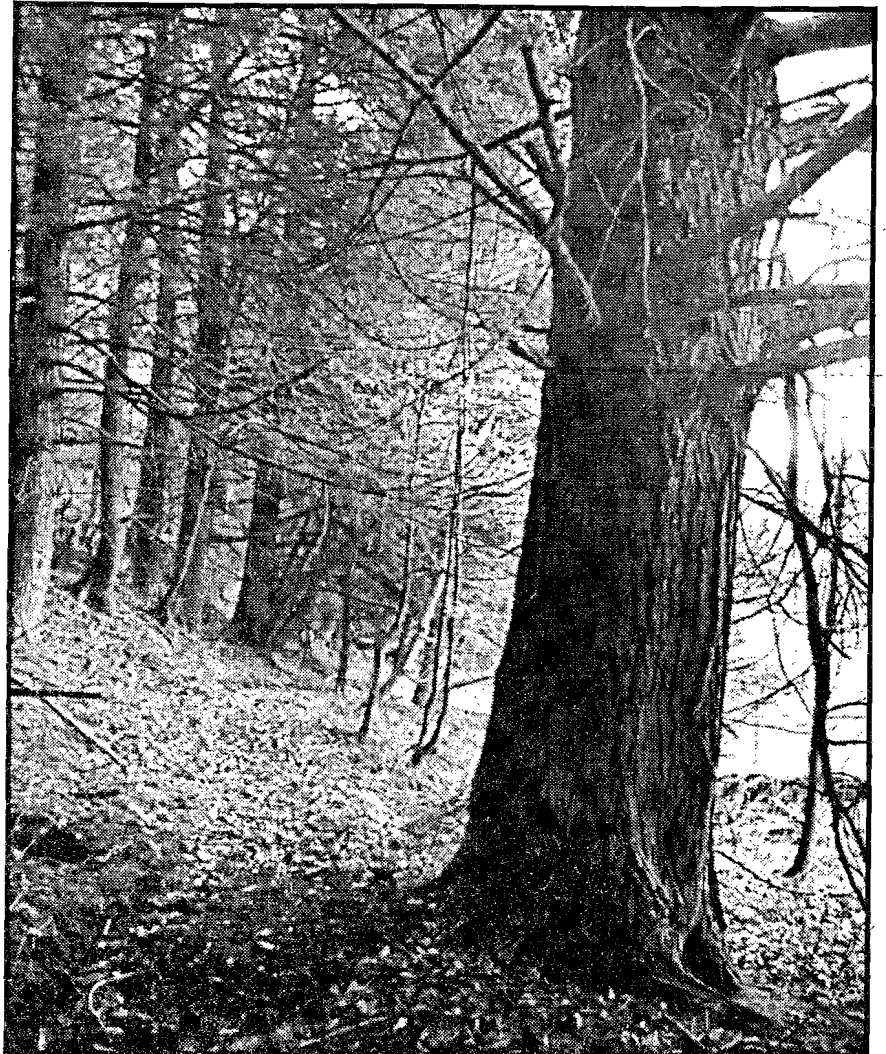
students from across New York, the United States, and Canada. Directed by Dr. Willard Harman and staffed with talented, experienced professionals, the Biological Field Station is presently the focal point for information about issues affecting Lake Otsego and the Susquehanna River.

Our Natural Resources: Rum Hill

In 1984 **Rufus J. Thayer** gave the Field Station 302 acres of Appalachian and northern hardwoods, old fields, and beaver ponds on Rum Hill overlooking Otsego Lake.

The hill is over 2,100 feet high, the highest in Otsego County. It faces northeast, making it the coldest and driest of our terrestrial research areas.

The Thayer family resided on the land for several generations leaving ample evidence of their activities. Before them, rock outcrops were used as shelters by Native Americans. Students are provided with a rich history of the effects of human occupation on land use and the water quality of Otsego Lake. Over four miles of trails provide access for research and education. These lands encompass the headwaters of White Creek, one of the lake's major tributaries, thereby protecting it from further development. 🦎



Sponsored Research, cont.

Otsego Lake as a case study. The module will consist of a new version of the 1992 video *Eye on Otsego*, the development of an extinction game (for both board and computer) based on Otsego Lake food web characteristics, and the production of networked real-time, interactive seminars discussing the above items.

We received funds from Otsego County Conservation Association for several special projects including support for **Paul Baumann**, SUNY Oneonta Geography Department, to prepare maps regarding the suitability of local soils to support traditional waste disposal (septic tank/leach field) systems using the OCCA Otsego Lake Watershed Geographic Information System (OLWGIS). 🦎

A Field Practicum

It is a common practice for students majoring in foreign studies, whether language, art, or political and economic systems, to travel because on-site experiences enhance their familiarity with the subject. Young biologists, however, rarely are offered similar experiences with living biotic communities.

Experts agree that hands-on field research is the most effective technique for attracting talented students to careers in ecology. They further state that too few such experiences are available.

The Biological Field Station has been providing on-site study opportunities for a quarter of a century. In addition, our program provides an important bonus: the chance for students to see their own research used to solve environmental problems. 🦎



Environmental Monitoring

In 1988, the Biological Field Station, conducting a study funded by the U.S. Environmental Protection Agency, developed and implemented a monitoring program for Otsego Lake. That study will end this year. It is essential that some level of monitoring should continue to protect the lake. However, there is no funding for such a program. We need your help!

Why monitoring?

It is difficult to *prove* the extent of the degradation of a resource such as Otsego Lake due to whatever cause, even when it's obvious to the concerned citizen. A consistent program of periodic resource monitoring is vital in establishing to the scientific and legislative communities the character of a resource and changes that occur to it, so that strategies may be implemented to protect it from further degradation. Monitoring also allows us to judge previous management actions and modify ongoing activities for best results.

Monitoring's Efficiency


Monitoring programs save time and money. It takes time to awaken a community's concern about a stressed resource, to develop a scientific case, to implement the appropriate political and legislative strategy and fund the right programs. Monitoring will shorten, if not eliminate, this time lag in a cost-effective manner. The bottom line is that monitoring will prevent the roadblocks that frequently slow or stop effective action being taken to protect the environment because of the lack of baseline information.

What We Do

Under faculty supervision, high school and college students will be hired as interns to do the monitoring. The field station will also purchase supplies and equipment for field and laboratory to collect and analyze data for the program.



Spotlight, cont.


studied the vegetation around Cranberry Bog. Brooke was involved in Otsego Lake water monitoring. **Erin Stock** worked with us via the Herkimer-Oneida BOCES School for Excellence program contributing importantly to our efforts. **Alexi Olson** from Miami, FL and **Jim Nash** from Buffalo, NY volunteered their services. They helped with all of the above work plus research involving zebra mussel monitoring from Cooperstown along the Susquehanna River to Sayre, PA. 

Goodyear Swamp Walkways Reopened



Goodyear Swamp

In 1992, **Mrs. Bradley Goodyear** gave the Field Station five acres of wetlands adjacent to Otsego Lake. It has served as a refuge for unique plants and animals, protected the environmental quality of Otsego Lake, and been used for education and research.

During the summers of 1983-84, more than 1/4 mile of trails and raised walkways were constructed and opened to the public. Since then, more than 4,000 people from all over the world have visited the site. However, by 1993 the original walkways came under such disrepair that they had to be closed. A generous gift from OCCA provided for their renovation. The work was completed this summer by **Don Denmead**, **Phil DeBlaise**, and **Ken Beckering**, biology majors from SUNY Oneonta. 

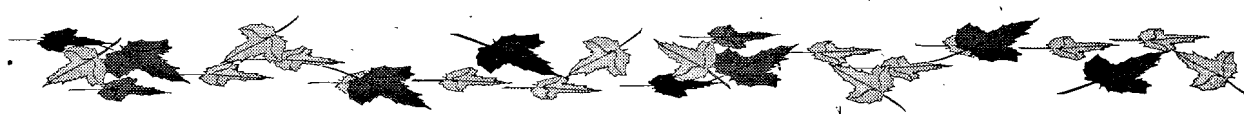
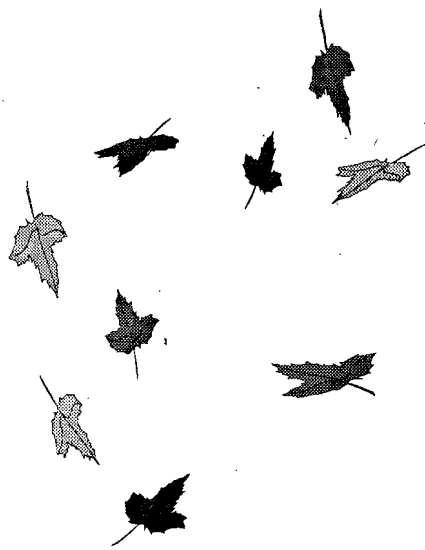
Updates

- Mr. and Mrs. M.T. McDonough, William and Edward Smith, W.T. Sampson Smith Boatyards, and the Mary Imogene Bassett Hospital donated major items of equipment over the summer. Many thanks.
- Bruce Dayton taught *Bio. 108. An introduction to field biology and ecology* to selected high school students this summer. Tuition and fees were paid by the OCCA via Louis B. Hager Conservation Education Fellowships.
- This year's boat census tallied **1287 boats** on Otsego Lake and along its shorelines.
- We are now computing with the **VAX mainframe** on the SUNY Oneonta campus.

● New books:

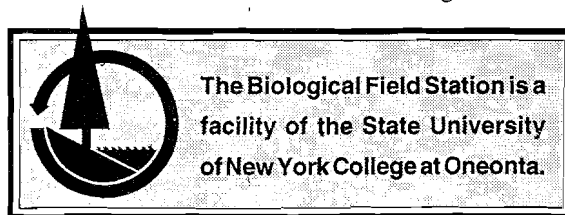
- ⌘ Andrus, *Sphagnaceae (Peat Moss Family) of New York State*
- ⌘ Anon., *Proceedings: Watershed '93, a National Conference on Watershed Management*
- ⌘ Brook, *The Biology of Desmids*
- ⌘ Giller, Hildrew, and Raffaelli, *Aquatic Ecology: Scale, Pattern, and Process*
- ⌘ Hutchinson, *A Treatise on Limnology, Vol. 4 The Zoobenthos*
- ⌘ Lieb and Spacie, *Biological Monitoring of Aquatic Systems*
- ⌘ National Audubon Society, *Field Guide to North American Mushrooms*
- ⌘ Resh and Rosenberg, *The Ecology of Aquatic Insects*

- ⌘ Vogel, *Life in Moving Fluids*
- ⌘ Wisconsin Sea Grant, *Proceedings, Fourth International Zebra Mussel Conference '94*
- ⌘ Woodley, Kay, and Francis, *Ecological Integrity and the Management of Ecosystems*



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:

Dr. Willard Harman
Professor and Director
RD#2 Box 1066
Cooperstown, NY 13326
(607) 547-8778



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:

The College Foundation Office
Netzer Administration Building
SUNY College at Oneonta
Oneonta, NY 13820
(607) 436-2535.