

TWINE LINE

The educational newsletter of Ohio Sea Grant, covering issues, events, and research related to Lake Erie and the Great Lakes

2000 Program Highlights

by Dr. Jeffrey M. Reutter, Director

The Ohio Sea Grant College Program, including Stone Laboratory, the Center for Lake Erie Area Research, and the Great Lakes Aquatic Ecosystem Research Consortium, would like to take this opportunity to wish all of our program participants, volunteers, and readers a wonderful holiday season and a Happy New Year! *This has been a great year for the program.*

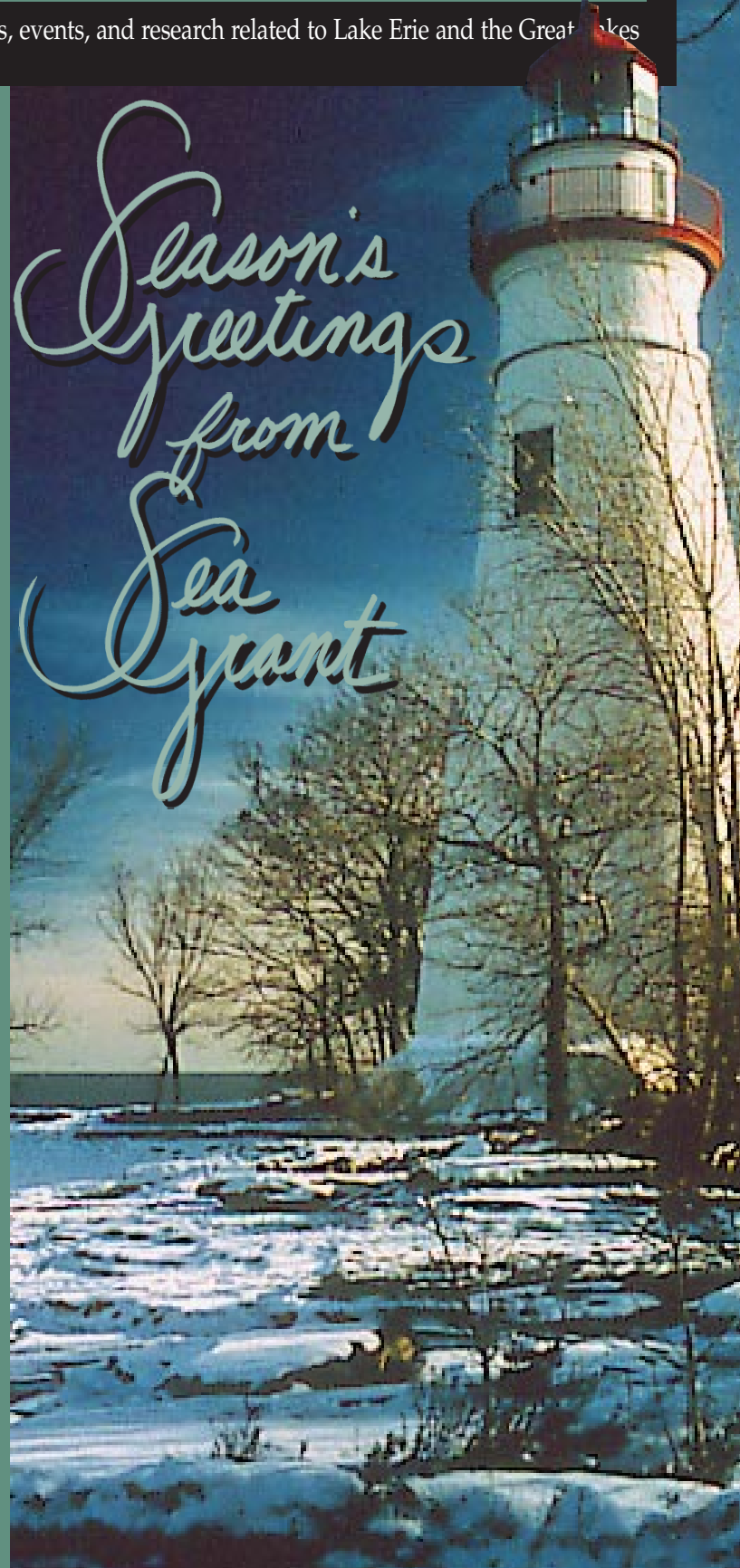
Below I have summarized some of our accomplishments and some of our plans for 2001, but first let me say that none of this would have been possible without the hard work of our extremely dedicated and talented staff. Our staff was aided by the best Sea Grant Advisory Committees in the country and the outstanding people in the Friends of Stone Laboratory. Finally, Ohio is fortunate to have an extremely talented pool of research scientists poised to address the critical issues we face, and university administrators, elected officials, and state agency leaders eager to assist us and collaborate with us.

Strategic Plan

One of our most important accomplishments this year was the completion of our Strategic Plan for 2000 - 2005 and our Implementation Plan for 2000 - 2002. This plan covers the entire program including our research, education, and outreach efforts on the environment, the economy, and education, and will require even more collaboration between academia, the private sector, and government to be successful. We have outlined a series of goals and objectives that will certainly stretch our capabilities, but should result in huge gains for Ohio and Lake Erie.

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Season's Greetings from Sea Grant



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Special Insert: 2001 Calendar

www.sg.ohio-state.edu

Photo by Pat O'Connell



ASK Your Agent

A column devoted to frequently asked or interesting questions fielded by Ohio Sea Grant agents

Walter Williams, Cleveland

How can Developers and Environmentalists Work Together?

by Walter Williams, Ohio Sea Grant Extension

As part of my work in the Cleveland Metropolitan area, I find myself working with both developers and environmentalists on various urban growth issues. Several times I've been asked how it's possible to bring both groups "to the table" to work on addressing a particular issue, especially when these groups seem to have divergent views. Specifically, how do I champion environmental issues while working cooperatively with a Chamber of Commerce that focuses on development, job creation and new investment?

The Chamber and the Ohio Sea Grant College Program create alliances with businesses and communities. These alliances create win-win situations for communities and businesses expanding or entering the area. It is our belief that if we encourage a win-win scenario for tackling environmental issues, the more "strident" environmentalists will favor our procedures for development.

Specifically:

- We teach businesses how to be good neighbors. Businesses that are good neighbors believe that they are part of the community and are stakeholders. Their success is directly tied to the success of the community.
- We educate businesses on our environmental standards and practices. We thoroughly explain what regulatory action items are needed prior to opening for business.
- We link economic incentives with pollution prevention/elimination objectives. This integration of economic development incentives with policy provides substance to our pollution prevention objectives. In addition this ensures that there are sufficient starting guidelines or ground rules for the process of local negotiations.

In contrast to these objectives, if we fail to get businesses to become good neighbors or adhere to the community's environmental standards, environmentalists would possibly rally together to become a powerful force in blocking expansions or a relocations, or even threatening operations of an existing plant. In this instance both the community and the business would lose. In addition, the community would acquire a reputation as being anti-business, which will ultimately hinder the attraction, and retention of businesses.

It's in everyone's best interest to bring their ideas and views "to the table" and through discussion find a way to meet on common ground. Good development is not for self-interest, but incorporates the interest of a community into the project.

FYI—For Your Information

October Water Levels

Lake Erie's level declined seasonally during October. The mean level was 571.00 feet which is 0.26 foot lower than last month's mean level and 0.04 foot above normal. The 2000 level is 0.17 foot higher than the October 1999 level and 1.80 feet above the Low Water Datum elevation reference system. **TL**

Knauss Fellows

On February 1, 2000, Jennifer Skidmore, a Master's candidate from Case Western Reserve University, and Samantha Romanello, a Ph.D. candidate from Ohio State, began a year in Washington, D.C. as John Knauss/National Sea Grant Fellows. In October we learned that Sapna Batish and Melissa Haltuch, both Ph.D. candidates in the Environmental Sciences Program at Ohio State, were selected as fellowship winners for 2001. **TL**

Krieger New Board Member for GLAERC

Dr. Ken Krieger is the new Institutional Representative on the Board of the Great Lakes Aquatic Ecosystem Research Consortium (GLAERC) from Heidelberg College. Ken is replacing Dave Baker who has retired. **TL**

New Component of Coastal Management Program to Reduce Nonpoint Pollution

The Ohio Department of Natural Resources (ODNR) and Ohio Environmental Protection Agency (OEPA) recently completed work on a new and important component of Ohio's Coastal Management Program, the "Coastal Nonpoint Pollution Control Program" (Coastal Nonpoint Program). This new program will provide state and local resource managers with a powerful tool to reduce nonpoint source pollution to Lake Erie. The Coastal Nonpoint Program provides opportunities for securing federal funding and technical assistance in order to protect and enhance local natural resources and support community goals. Download a copy of the Coastal Nonpoint Program Plan from the following web site: www.dnr.state.oh.us/odnr/soil+water/downloads.htm. For more information, contact Greg Nageotte at 419.626.7984. **TL**

Boat Show Announcements

Be sure to visit the Ohio Sea Grant booth at the Cleveland Mid-America Sail and Power Boat Show (International Exposition Center, Berea, Ohio) on January 19-28, 2001, and at the Columbus Dispatch Charities Sports, Vacation & Boat Show on February 8-11, 2001 at the Ohio State Fairgrounds. For more information, call the Sea Grant office at 614.292.8949. **TL**

Twine Line (ISSN 1064-6418) is published bi-monthly six times a year by the Ohio Sea Grant College Program at The Ohio State University, 1314 Kinnear Rd., Columbus, OH 43212-1194. A 1-year subscription is \$6.00 (use the form on back to order). The opinions expressed are those of the authors only. Please contact the office to obtain permission before reprinting articles or graphics. Ohio Sea Grant is a statewide program that supports greater knowledge and stewardship of Lake Erie and the Great Lakes. It is part of the National Sea Grant College Program (NOAA grant NA86R60053, project MP-2), which includes 29 state programs. Support of Ohio Sea Grant is provided by National Sea Grant, the State of Ohio, The Ohio State University, Ohio State University Extension, and participating universities, agencies, and businesses. The North Coast Newsletter is provided by the Ohio Lake Erie Commission as a special promotion. It is a funded feature highlighting Lake Erie as Ohio's most valuable resource.

Case Study:

Cooperative Ventures Bring Lake Erie Information to Thousands

by Frank Lichtkoppler, Ohio Sea Grant Extension



Thousands of people get first-hand Lake Erie information from Ohio Sea Grant agents each year, thanks to a cooperative venture between Sea Grant and The Cleveland Mid-America Sail and Power Boat Show and the American/ Canadian Sport, Outdoor and Travel Show (Sport Show) in Cleveland. The shows attract hundreds of thousands of visitors annually, and Sea Grant has participated for almost two decades.

Sea Grant objectives in participating in the shows are to: 1) respond to citizens' questions on Lake Erie resource topics; 2) distribute Sea Grant publications to Lake Erie resource users; and 3) add to an ongoing database of values and priorities held by Lake Erie resource users concerning boating, angling, and environmental issues.

Patrons of the Boat Show and the Sport Show have been surveyed by Sea Grant Extension for their opinions and priorities on Lake Erie environmental issues since 1992. Each year, items of specific interest to the

show management are included in the surveys.

Recreational show managers need information on patron attitudes and demographics to help understand market needs, to be informed on emerging issues, and to aid in planning future shows. Trends in data may show significant attitude changes in a key resource user group that Ohio Sea Grant is trying to assist. Researchers can be guided in developing applied research efforts to address critical questions posed by resource users.

Each year approximately 1,000 patrons viewing the Sea Grant exhibit respond to the survey. Boat Show survey data provided to the Lake Erie Marine Trades Association were instrumental in their successful 1999 campaign to have more of the state boating fuel tax allocated to access development. The effort boosted funding for public access by roughly \$3 million. The opinions and values revealed in the data help establish Ohio Sea Grant education and research priorities. Show managers also have used the data to improve their events.

This polling effort provides significant feedback to the Ohio Sea Grant College Program from approximately 1,000 citizens each year and assists in focusing the program's priorities to address public concerns.

In addition to the opinion surveys, thousands of people find direct answers to their questions about Lake Erie from agents and volunteers. A total of over 7,500 fact sheets are distributed at the ten-day long Boat Show and nine day Sport Show each year. The shows enable Ohio Sea Grant communications, Extension, and research to jointly provide Lake Erie education and information and to obtain valuable public input on Lake Erie environmental issues.

Managers of both the Boat Show and Sport Show donate 200 square feet of exhibit space in favorable locations to the Ohio Sea Grant College Program each year. This space is valued at approximately \$2,500 annually. **TL**



LAKE ERIE PROGRAMS



Program Review

Six experts from around the country came to Ohio for a week at the end of September to review our entire program as part of a review required by the National Sea Grant College Program and The Ohio State University. We are pleased to announce that our program received the highest possible rating. Our relationships with our users and our collaborative and cooperative programs involving academia, the private sector, and government were recognized as truly outstanding and a model for the country.

Enrollment at Stone Laboratory

During the summer of 2000, a total of 201 students from 29 colleges and universities and 64 high schools took college courses at Stone Laboratory. During the 1990s students from 71 colleges and universities and 260 high schools took college courses at Stone Laboratory. Average annual enrollment exceeded 200 compared to 55-60 during the 70s and 80s.

Cooke Castle

With support from the State Legislature championed by Senator Robert Latta we were able to complete the exterior phase of the renovation of Cooke Castle on Gibraltar Island by completing the repointing of the masonry and the reconstruction of the north and south porches. We are currently attempting to raise the final \$1.5 million dollars to complete the renovation. When completed the Castle will serve as a science education and conference center for Stone Laboratory and Ohio Sea Grant.

Gibraltar III

We completed the purchase and transfer of the *Explorer* from the Ohio Department of Natural Resources, Division of Wildlife, and renamed the boat the *Gibraltar III*. This 42-ft research vessel became part of our fleet in September and will greatly increase our research, education, and outreach capabilities on Lake Erie. We have operated with only one research vessel, the 50+ year-old *BioLab*, since the *Gibraltar II* was decommissioned three years ago.

Workshops, Field Trips, Conferences, and Tours at Stone Laboratory

The final tally for our spring and fall workshop/field trip/conference/tour program for 2000 is not yet complete, but it appears that we will surpass the record of 173 groups and 5,560 people that was set during 1999. Participants ranged in age from grade 4 to adults and included the Council of Great Lakes Research Managers of the International Joint Commission, the Board of Directors of the Great Lakes Protection Fund, the Great Lakes Aquatic Ecosystem Research Consortium, and the Old Woman Creek NERR Advisory Committee.

Lake Erie Award

The Ohio Sea Grant College Program was very honored to receive the 2000 Organizational Lake Erie Award from the Ohio Lake Erie Commission.

Communication Technology

With the help of the UNITS program, the Office of Research, the Office of Physical Facilities, and the Office of Housing and Food Services, a T1 line was installed at Stone Laboratory with 14 new computers. Every dormitory room, classroom, and office now has a telephone and sonnet connection for e-mail and high speed Internet access. All calls between Columbus and Put-in-Bay are local calls. The number for the main office in Bayview is now 614.247.6500. A new laptop computer and LCD projector provided by the Office of Research allow students and scientists to make live web site and Power Point presentations in classroom lectures and research seminars.

New Courses in 2001 at Stone Laboratory

Six new courses will be offered during the summer of 2001: Natural History of Ohio and Watershed, Estuarine and Coastal Ecology—both undergraduate/graduate, 5-week courses; Outdoor Recreation Behavior, Waterfowl Ecology, and Stream Ecology for Teachers—undergraduate/graduate, 1-week courses; and Ichthyoplankton Identification Workshop—a 1-day workshop/course.

12th State Legislature/ Congressional Day

This nationally recognized educational program on Lake Erie for elected officials was held on 21 July and over 30 offices (both federal and state) were represented.

Web Site and Electronic Reports

Our web site (www.sg.ohio-state.edu) was significantly improved in 2000 to make it more useful to students, teachers, scientists, elected officials, and the general public. The site contains copies of *Twine Line*, many of our publications, information on courses and programs at Stone Laboratory, and summaries of all of our research projects.

New Office in 2001

For those of you who have complained about the quality of our offices in Columbus, help is on the way. In November, construction started on a project to renovate office space for Sea Grant, Stone Laboratory, CLEAR, and GLAERC. Our new offices should be completed in March 2001 and will be located in the front of the building where we currently reside. Be sure to visit us, whether in person or electronically in the new year. **TL**

Twine Line Survey Results

by Karen Ricker, Ohio Sea Grant Communications

This past summer, we conducted a survey to evaluate our program and the *Twine Line* newsletter. A random sample of 500 individuals was selected from the newsletter mailing list, follow-up postcards were sent, and a return rate of 34 percent was generated for the survey.

The results showed that the average age of respondents was 39, ranging from 17 to 92 years. Most (85%) were Ohio residents, and female (52%). The majority of those surveyed were employed full-time (52%) and 35% had graduate degrees.

The survey found that the respondents' main contact with our program within the *past year* was through *Twine Line*. On average, most have received our newsletter for 3.6 years, ranging from less than one year to over 20 years. An average of 2.6 people read each issue, and most (75%) of respondents keep each issue for reference. Respondents were very positive about the writing (4.47 out of 5.00), overall content (4.46), combined newsletter format (4.20), and design (4.13). When asked to rank order each section of the newsletter from most to least favorite, the top two sections were the "Feature Stories" and "Research Review." The "Research Review" is a newer section that began two years ago.

When asked what topics readers would like to see covered in the newsletter, the average response for many items was greater than 4.0 out of 5.0 (see "Top 10 List"). Less than half the respondents (41%) knew *Twine Line* was available through the Ohio Sea Grant web site. Of these readers, 23% read the newsletter on-line. When asked how they wished to receive *Twine Line* in the future, 93% (146) respondents stated that their first preference would be as a hard copy through the mail versus electronically.

As a result of reading *Twine Line*, respondents stated that they learned more about Lake Erie (83%), made better informed decisions on Lake Erie (43%), used the information in an educational setting (40%), and used the information in their work (40%). In addition, one respondent wrote that as a result of reading *Twine Line* "[my] parents donated preservation of wetlands on Middle Bass Island-East Point."

The survey results document the status of the newsletter and the results will be used to determine future newsletter articles, and improve service to you. For more information about the survey, contact me at ricker.15@osu.edu, or 614.292.8949. TL

"*Twine Line* provides regular, local Great Lakes information that is objective, understandable, and concise."

Comment from survey respondent

Top 10 Topics of Interest

1. Aquatic Nuisance Species
2. Current Research
3. Water Quality
4. Pollution
5. Wetlands
6. Natural History
7. Stone Lab Courses
8. Contaminants in Fish
9. Lake Erie Area History
10. How-to Features

Sea Grant Recent Publications

Selected Titles from Ohio Sea Grant

Ohio Sea Grant produces a wide range of publications ranging from fact sheets and brochures to more technical publications such as journal reprints (based on Ohio Sea Grant funded research) and technical reports. A list of some recent publications is included below; other titles are contained on the back page order form. For a complete publication list, contact our office (see ordering information below) and request a publications brochure. Some of our materials are also available on our web site (www.sg.ohio-state.edu). If you have a question about a particular item, feel free to call us at 614.292.8949.

Brochure

B-051 Stone Laboratory Summer 2001 Course Brochure

Technical Summary Report

TS-026 Assessment of the Relative Economic Impacts of the Sport and Commercial Fisheries on Ohio's Lake Erie.
Leroy Hushak. 2000. \$2.00.

Journal Reprints

- RS-248 Potential of High Resolution Satellite Imagery for National Mapping Products.
Rongxing Li. 1998. Photogrammetric Engineering & Remote Sensing, vol. 64 (12):1165-1169.
- RS-249 Habitat Shift in Invading Species: Zebra and Quagga Mussel Population Characteristics on Shallow Soft Substrates.
Paul Berkman and others. 2000. Biological Invasions, vol. 2: 1-6.
- RS-255 The Aquatic Macrophyte Community at Put-in-Bay, Ohio. David More. 2000. Great Lakes Research Review, vol. 5 (1): 37-42..
- RS-257 Intentional Introductions of Nonindigenous Species: A Principal-Agent Model and Protocol for Revocable Decisions. Michael Thomas and Alan Randall. 2000. Ecological Economics, vol. 34: 333-345.

Ordering Information

When ordering any Ohio Sea Grant publication, send your request to the address below, or e-mail your order to publications at cruickshank.3@osu.edu. Include the publication title and the item number. Publications are free unless noted otherwise. If a price is indicated, prepayment by check or money order (payable to The Ohio State University) must be included. Prices include shipping and handling.

Ohio Sea Grant Publications
1314 Kinnear Road
Columbus, OH 43212-1194



Michael McBride

FRIENDS OF STONE LABORATORY

OHIO S LAKE ERIE LABORATORY SINCE 1895



Flotsam & Jetsam

Once again, Stone Lab was one of the beneficiaries from the **Esther L. Stewart Memorial Golf Classic**. Esther was the daughter of Dr. Thomas Langlois, a previous Stone Lab Director and renowned researcher. The Stewart family hosts the annual tournament to support causes they feel strongly about. Stone Lab received \$4,500 this year.

Dr. Michael A. Hoggarth of Otterbein College, has been selected as the Outstanding Visiting Professor at Stone Laboratory for the summer of 2000. Dr. Hoggarth has been teaching Field Zoology at the Laboratory since 1995. This is the tenth anniversary for this award created by the Friends of Stone Laboratory in 1991. Dr. Hoggarth also received the award in 1997.

On a sad note, we pass along the news of the death of **James P. Haub**. Jim was a colorful and legendary character of both Stone Lab and Put-in-Bay. Jim worked on the R/V Hydra during the 1970s.

Karen Jennings, Mike Heniken, and Jeff Reutter represented the Friends at the College of Food, Agriculture and Environmental Sciences' "**Share the Vision**" campaign closing reception and dinner, September 21. The college successfully raised in excess of \$78 million for the various programs. The Friends of Stone Laboratory occupied a prominent position within the program booklet, which was distributed to everyone. Thanks to all for continuing to financially support Stone Lab.

The following FOSL Board members, Joan Bradley, Lauren Bradley, Karen Jennings, Michael McBride, and Mike Heniken, represented both FOSL and Stone Lab itself, during the **Sea Grant Program Assessment Team (PAT) visit**, September 25-29. The PAT conducted an external review of the Ohio Sea Grant Program to measure how effectively the Ohio program meets and applies the goals of the national program. (See Page 4 for more information on our PAT review.)

Many thanks to those of you who participated in the recent **Twine Line readers survey**. The survey was mailed to a random sample of *Twine Line* subscribers. We appreciate those who gave specific comments regarding the FOSL Newsletter portion of the publication. We will strive to continue to improve the newsletter using your ideas and suggestions. (See article on Page 5).

Be sure to check out the Ohio Sea Grant web site, www.sg.ohio-state.edu, for lots of new and up-to-date information on both Stone Laboratory and the Friends of Stone Lab. There are plenty of pictures showing the various Stone Lab classes in action, as well as pictures, newsletters, and other information from the FOSL. **FOSL**

Dear Friends,

Autumn has arrived and another successful year at Stone Lab has come to an end. That does not mean that work has stopped. The island facility is being winterized and the entire staff begins preparing for the new year and the hundreds of students that will be attending the spring workshops.

Likewise, the new year for the FOSL Board of Directors has begun with the addition of some new faces. Dick Lorenz has taken the position of Vice President (another recycled President) and will be joining new members Larry Cooper, Debbie Hawthorne and Lauren Bradley. Returning members include Mike Heniken (Past President and newsletter editor), Joan Bradley (Secretary for life!), John Tripp (Treasurer), Dr. Paul Stromberg, Matt Thomas, and Bill Edwards.

This coming year is also a milestone for FOSL, as it is our 20th anniversary. Twenty years you say? Already? To some members, it seems only yesterday, that they felt compelled to form FOSL to help support the lab, its programs. New and active members are always welcome and needed, in order to sustain our success, drive, influence, and camaraderie.

Our first function of the year (still to be scheduled) is the winter lecture. It is generally scheduled near the end of February on main campus. Look for the time, date, and details in the next issue of the newsletter. Please e-mail any questions to me at mpmcb@aol.com.

Sincerely,
Michael McBride
FOSL President

Stone Lab Welcomed All

The weekend of August 26, 2000 saw Stone Lab throwing open its doors for the Third Annual Open House to the general public, as well as the annual FOSL members weekend. Saturday afternoon had over 850 people attending the various activities provided by Stone Lab. The *Biolab* was running continuously carrying visitors back and forth from the research dock on South Bass Island to Gibraltar.

Visitors availed themselves of guided tours of Gibraltar, viewing Cooke Castle through the library windows (due to construction, no access was permitted), hands-on learning in the laboratory building, learning about the Ohio Sea Grant and Stone Lab web sites, and just hanging out in the Adirondack chairs on a beautiful afternoon. Many people also visited the South Bass Island lighthouse, which was also open for this annual event.

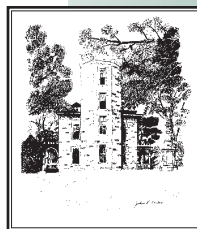
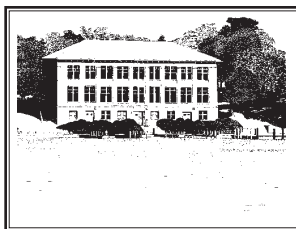
We wish to thank all of the staff, faculty, and FOSL volunteers who assisted in putting on the Open House. It took over 30 volunteers to set up and run this year's event. The dedication of these people helps showcase all of the allied Lake Erie programs to the public.

Friends Gather on the Rock

Once the open house activities were completed, Gibraltar reverted back to its "exclusive" status and FOSL gathered for their annual membership meeting and activities. Everyone gathered at the Waldock Gazebo for refreshments, conversation, and brief presentations of the highlights from the past year. An annual report of FOSL activities and status was distributed to all so that the presentations could be kept short. (The annual report can be viewed on the FOSL pages of the Sea Grant web site.)

Numerous people were recognized for their outstanding support of Stone Laboratory and FOSL. Honorary deeds were presented as Board Awards to Karen Jennings, Scyld Anderson, Ray Bowers, and Dave Thrush for completion of their terms of service on the FOSL board. Honorary deeds were presented to Nancy Cruickshank and Cindy Hayter, from the Ohio Sea Grant office, for outstanding assistance in developing a computerized membership database and designing FOSL fundraising materials, respectively. Charles Smith and Cathy Maupin, Ohio State Physical Facilities, were also honored with deeds, for supplying trees and shrubs, which were planted during the spring work weekend. John Hageman, Lab Manager of Stone Lab, was given an artist's print from the Crites collection to express the appreciation of FOSL for the many years of support and assistance he has provided to both Stone Lab and FOSL. Jeff Reutter presented a Stone Lab Distinguished Service Award to Capt. John Hartsock, of the University Police, for his many years of service to the faculty, staff, and students on Gibraltar. (Hartsock retired at the end of the summer). Jeff also presented Stone Lab Superior Leadership Awards to Karen Jennings and Mike Heniken. Karen and Mike have each served two terms as President of FOSL and have been instrumental in its development and success of its organization and of Stone Lab.

The meeting was adjourned so that everyone could enjoy a delicious dinner prepared by Housing and Food Service. Immediately following dinner, the annual Carp Cup rowboat race was held. This entertaining event was moved from Sunday morning to Saturday evening. This year's race continued the illustrious history and color that has come to be expected. If you have never seen the Carp Cup, or even better, participated in it, you need to come to next year's annual meeting and experience it for yourself. Some light rain dampened the remainder of the evening's activities. However, anytime FOSL members gather together, there are always plenty of stories to tell and many people passed the evening hours doing just that. *FOSL*



Prints & T-Shirts

The FOSL have released the third limited edition print, illustrated, and contributed by Dr. John Crites. This series of pen and ink drawings presents three unique and distinct buildings of Stone Laboratory. The recent release shows a bayside view of the Research Building on South Bass. This print joins the previously released prints of the Stone Laboratory building and a historic view of Cooke Castle. A donation of \$250, or more, to the John L. Crites Research Fellowship, qualifies the donor for one of these handsome prints. Further information regarding the prints can be obtained at the Stone Laboratory web site, or calling the Columbus office.

Have you updated your closet with the newest Stone Lab T-shirt? A new edition of this wardrobe basic is now available. The shirt is available in M, L, XL, and XXL sizes. The shirt is only available in a beige color. The cost per shirt is \$13.00, including postage. Send your checks (made out to The Ohio State University) along with the number and sizes of shirts requested, to the Columbus office.

FOSL

Stone Lab Information Sessions

Find out about the Stone Laboratory Summer 2001 Programs by attending one of these slide presentations on the Columbus campus.

Wednesday, January 17, 2001
301 Botany & Zoology Building
1735 Neil Avenue
12:00 noon

Wednesday, February 21, 2001
243 Arps Hall
1945 North high Street
7:30 p.m.



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Columbus, OH 43212-1194

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TWINE LINE VOLUME 22/NUMBER 6



Ohio Sea Grant College Program

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Subscription Information

Twine Line is published six times a year by Ohio Sea Grant Communications. To subscribe for one year, send \$6.00 to the Columbus office.

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The opinions expressed are those of the authors only. Contact the office before reprinting articles or graphics. Ohio Sea Grant is a statewide program that supports greater knowledge and stewardship of Lake Erie and the Great Lakes. It is part of the National Sea Grant College Program (NOAA grant NA86RG0053, project M/P-2), which includes 29 state programs. Support of Ohio Sea Grant is provided by National Sea Grant, the State of Ohio, The Ohio State University, Ohio State University Extension, and participating universities, agencies, and businesses.

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Ohio Sea Grant Information & Twine Line Subscriptions 11/00

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Please send me the following

- ___ *Twine Line* Newsletter6 issues for \$6.00
- ___ Publications Brochurefree
- ___ Guide for Put-in-Bay\$4.00
- ___ Technical Publications Brochurefree
- ___ General & Education Publications Brochurefree
- ___ Artificial Reef Fact Sheetsfree
- ___ Guide to Lake Erie Western Basin\$3.00
Fishing Reefs (GS-001)
- ___ Guide to Fishing Central Lake Erie (GS-008)\$3.00
- ___ Wetlands and Fisheries (FS-063)free
- ___ Aquatic Nuisance Species Fact Sheetsfree
- ___ Lake Erie Cookbook (GS-005)\$4.00
- ___ FOSL T-Shirt\$13.00

I have enclosed \$ _____ (U.S. dollars).
Make checks payable to The Ohio State University.
 I am a Friend of Stone Lab
 I am a new subscriber to *Twine Line*

Name _____
Address _____
City _____
State _____ ZIP _____



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STONE LABORATORY

OHIO'S LAKE ERIE LABORATORY SINCE 1895

F. T. Stone Laboratory

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Franz Theodore Stone Laboratory, Ohio's Lake Erie laboratory, offers intensive, hands-on university field courses from June to August in biology, geology, education, and natural resources. Workshops and group field studies are offered from mid-April through October. Research in aquatic, terrestrial, and island sciences has been conducted year round since 1895. Stone Laboratory's association with other programs based at The Ohio State University—the Ohio Sea Grant College Program, the Great Lakes Aquatic Ecosystem Research Consortium (GLAERC), and the Center for Lake Erie Area Research (CLEAR)—has made it an important research facility. Stone Laboratory is located on Gibraltar Island, across the harbor from Put-in-Bay.

Stone Laboratory Staff

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The Friends of Stone Laboratory (FOSL) began in 1981 as a support group to "bring Stone Laboratory into the 21st century with the best possible facilities, equipment, and professors, and make this an unequaled learning experience available to all outstanding students." Members of the Friends provide a way for former students to support the facility by raising awareness and funds for scholarships, research, and equipment.

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