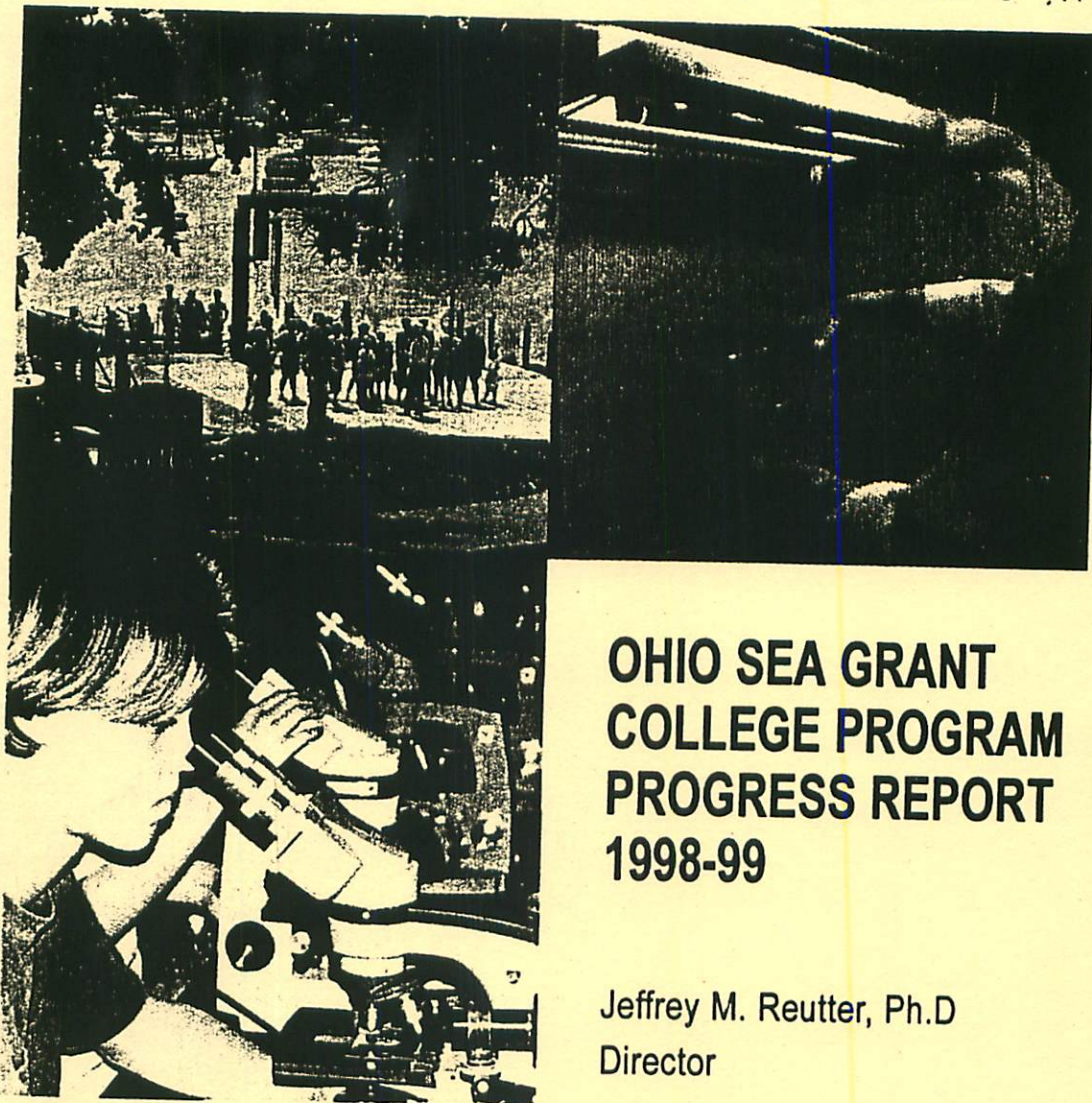


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E D U C A T I O N

**OHIO SEA GRANT
COLLEGE PROGRAM
PROGRESS REPORT
1998-99**

Jeffrey M. Reutter, Ph.D
Director

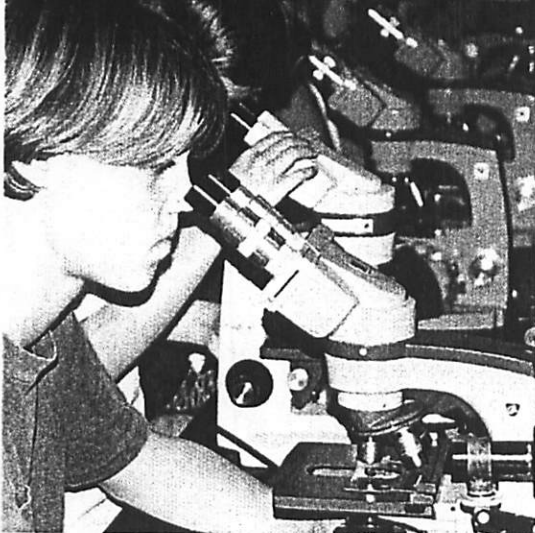
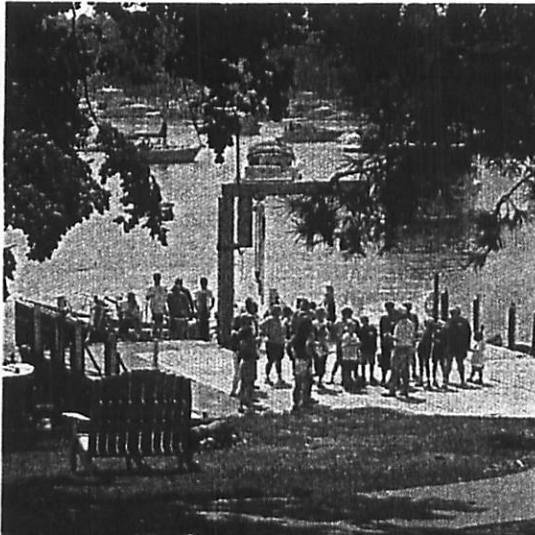
Grant Number NA86RG0053
OHSU-TB-047

December 1999



Ohio Sea Grant College Program
1314 Kinnear Road
Columbus, Ohio 43212-1194
614.292.8949 • Fax 614.292.4364

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**OHIO SEA GRANT COLLEGE PROGRAM
PROGRESS REPORT 1998-99
December 1999**

Special Outreach Activities

The past two years have been very productive for the Ohio Sea Grant College Program with a number of special outreach activities.

- In February 1998 we completed the 30th Anniversary Brochure for the National Sea Grant College Program and a series of special posters to use at the reception. One year later we converted the brochure into a new National Brochure and developed new posters and awards for the 20th Anniversary of the Knauss/Sea Grant Fellows Program. The National Brochure later received a special award as the outstanding brochure produced by the Sea Grant Network.
- In August 1998, we hosted the First Annual Stone Laboratory Open House with the Friends of Stone Laboratory and the National Park Service. Over 700 people attended the all day event. The program was repeated in August 1999, again with over 700 in attendance and with the Ohio Divisions of Wildlife and Geological Survey serving as co-hosts.
- In February 1999 we hosted the first Sea Grant/Stone Laboratory Winter Lecture Series in Columbus. The lectures covered results from two Ohio Sea Grant research projects and an historical talk on Jay Cooke's Castle.
- In July 1999 we hosted The Ohio State University Board of Trustees at Stone Laboratory for the first time in 17 years. The meeting included the President of the University and all of the Vice Presidents.
- In July 1999, we also hosted our 11th Ohio Sea Grant State Legislature/Congressional Day on Lake Erie. This all-day event commemorated the 30-year anniversary of the burning of the Cuyahoga River and the many improvements that have occurred on Lake Erie. Over 160 people attended including Dr. Ronald Baird, Director of the National Sea Grant College Program, and Dr. Frank Kudrna, Chair of the National Sea Grant Review Panel.

Program Improvements (Random Order)

We have worked closely with the Ohio Division of Wildlife and reached an agreement to take possession of their Lake Erie research vessel. This 49-foot vessel will be docked at Stone Laboratory and will greatly increase our research and outreach capabilities beginning in 2000.

In 1999 a T1 line and improved communication package was put in place at Stone Laboratory. This includes over 50 new telephones and Internet connections. This will be completed in early 2000 and will eliminate long distance calls between Columbus and Put-in-Bay and will greatly improve our ability to communicate and transfer research results via the Internet.

In 1999 we completed construction of an electronic reporting section in our web site for our principal investigators on Ohio Sea Grant research projects. All reporting of research results

can now be done on line and results can be analyzed much more quickly. Research results for the period of this report can be found at this site—www.sg.ohio-state.edu/Project

Our extension program is using two new reporting systems. For all activities they are using an Excel file to track all agent activities. To track their accomplishments, they are using a new database that is updated quarterly and covers the preceding 12 months. Results are now reported using the National Sea Grant Priorities as the template.

In 1999, Jack Waldock, a member of the Director's Advisory Council and former chair of our Northwest Ohio Sea Grant Advisory Committee, donated \$10,000 to match a similar donation from the Sandusky-Erie County Community Foundation to create two small endowments—one to support Ohio Sea Grant efforts to better inform elected officials and one to enhance opportunities for Erie County students at Stone Laboratory. Also in 1999 the total value of our Stone Laboratory endowments surpassed \$500,000.

The format and layout of *Twine Line* was changed to improve its appearance and our ability to reproduce high quality photographs. The changes have been very well received and the newsletter was selected at the best in the country at Sea Grant Week in June 1999.

The University has designated \$585,000 to renovate new space for the program in the Research Center on campus. The plans have been approved and construction should be completed by summer 2000.

Roof and window replacement was completed in 1998, and in 1999 the State Legislature appropriated a second \$500,000 to continue our renovations of Jay Cooke's Castle at Stone Laboratory on Gibraltar Island. This mansion was constructed in 1865 and has been designated a "National Historic Landmark." The Ohio Sea Grant outreach program at Stone Laboratory consisting of workshops, tours, and conferences set records for the number of groups (151) and the number of participants (5,246) in 1998 surpassing the previous records by 40 groups and over 1200 participants. When renovated, the Castle will be used as an educational conference facility for corporate groups and decision-makers within the region. The focus will be on Lake Erie research and management. In 1998, the Cooke family held their first reunion on Gibraltar Island with approximately 100 guests.

In April 1998, the 5000-volume Stone Laboratory Library was moved from the main Stone Laboratory office in Bayview on South Bass Island to the third floor of the Stone Laboratory classroom building on Gibraltar Island, by volunteers from the Friends of Stone Laboratory. This was a huge improvement for our students.

In 1998, former professor and Stone Laboratory Associate Director, John L. Crites, donated numbered pen and ink prints and watercolors of Laboratory buildings to be used as a fundraiser to support research opportunities for students.

In 1999, Stone Laboratory, with the assistance of the Friends of Stone Laboratory, set records for the number of scholarships awarded (49) and the total value of the scholarships (\$14,860) awarded to students taking courses at the Laboratory.

In 1999, collaboration between Stone Laboratory, Ohio Sea Grant, US EPA, and the EPA Great Lakes National Program Office resulted in the offering of a new 1-week course for teachers aboard EPA's 180-ft research vessel, the *Lake Guardian*. We are negotiating to repeat this twice in 2000.

Fellowships

This year, 1999, we were very fortunate to have two Ohio State University students and a Case Western Reserve University student selected as Knauss Fellows. One of the Ohio State students will delay her fellowship until next year. We have also received funding for the third year of a very successful Industrial Fellowship with Procter and Gamble and GLERL.

Appointments--State, Regional, National and International Leadership

The following information on appointments is presented to demonstrate the program's impact and influence on state, regional, national, and international issues in science. In 1999 Dr. Reutter completed a 3-year term as the US Co-Chair of the IJC Council of Great Lakes Research Managers, where he has been a member since 1989 and will remain a member. He was re-appointed by the Governor to a two-year term as one of Ohio's two representatives on the Board of Directors of the Great Lakes Protection Fund. He served as Co-Chair of the 30th Anniversary Committee of the National Sea Grant Association, in addition to numerous other appointments with the Lake Erie Commission, the Great Lakes Commission, Sigma Xi (President 1998-99, he led the Ohio State Chapter to one of the 10 outstanding chapter awards during his presidency—there are over 500 chapters), the Ohio EPA, and the Water Resources Center, among others. In 2000, he will become the Chair of the Great Lakes Sea Grant Network.

The State of the Program

From the brief section on "Program Improvements" above, it should be clear that the four programs, Ohio Sea Grant, Stone Laboratory, CLEAR and GLAERC, are in very good shape and continue to grow. Federal support and state support from the Ohio Board of Regents remains very strong. Support for the National Sea Grant College Program within Congress remains strong, and federal budgets look good. Donations have been strong and records are being set for the value of our endowments.

Outreach Activities

Outreach is a major portion of these programs and we have six extension agents and a full-time communications staff. As a result we often conduct several hundred outreach activities each year--far more than we can list in this summary. Therefore, this proposal will simply summarize our capabilities and some of our larger efforts. Our newest agent is John Hageman,

Laboratory Manager at Stone Laboratory. In 1998 John led over 150 field trips/workshops/conferences/tours with 5,246 participants at Stone Laboratory for students (4th grade) to adults.

Each of the Sea Grant agents has a private-sector advisory committee, Dr. Reutter has a Director's Advisory Council, and Stone Laboratory is supported by the Friends of Stone Laboratory (FOSL). Ohio Sea Grant publishes a newsletter, *Twine Line*, six times per year, and beginning with the December 1997 issue, the last two pages of *Twine Line* were the FOSL Newsletter. This was supported financially by FOSL and increased the readership of *Twine Line* by approximately 1,200. *Twine Line* is also supported by the Ohio Lake Erie Commission and includes a four-page insert from the six state agencies that make up the Commission. This newsletter received the outstanding newsletter award in June 1999 at Sea Grant Week. We also distribute hundreds of thousands of copies of our fact sheets, refereed publications, technical summaries, technical bulletins, guides, and books. Many of the fact sheets were reproduced as a donation from the private sector.

This office also develops and disseminates fliers and brochures for Stone Laboratory to over 20,000 people annually. Our interactions with the FOSL are supported by FOSL. Funding for Sea Grant outreach activities comes from the National Sea Grant College Program, the Ohio Board of Regents, Ohio State University Extension, the Greater Cleveland Growth Association, donations to our endowment in the OSU Development Fund, Stone Laboratory, the FOSL, and contributions from individuals and businesses.

We have developed two new reporting systems for extension. One system reports all agent activities. This listing can be viewed as an appendix in the Extension Proposal. The second system goes into more detail on accomplishments. It is a complete listing using the National Sea Grant Priorities as a template. It is updated quarterly and covers the preceding 12 months. Many of these accomplishments are documented in our Ohio Sea Grant Extension proposal

PROGRAM PLANS

Below you will see our 5 top action items from the last omnibus proposal two years ago followed by the result of our work.

- 1) We have received funding to begin renovation of Jay Cooke's Castle at Stone Laboratory to create a library and conference center. We want to complete roof and window replacement in 1998 and raise additional funds for interior renovations.

Result: Roof and windows have been replaced. The State Legislature appropriated \$500,000 to continue the renovation process.

- 2) We want to arrange the transfer of a 49-foot research vessel from ODNR to Stone Laboratory and Ohio Sea Grant.

Result: The transfer was completed in November 1999.

- 3) We want to hire a new Assistant Director/Communicator.

Result: Karen Ricker was hired in January 1998 and the Communications program has subsequently won two awards--"30th Anniversary Brochure" and "Twine Line."

- 4) We want to complete the combining of the FOSL Newsletter and *Twine Line*. This should be very beneficial to both programs.

Result: The FOSL newsletter is now included as the last two pages of "Twine Line." Sea Grant costs are down due to support from FOSL and the mailing list increased by 1,200.

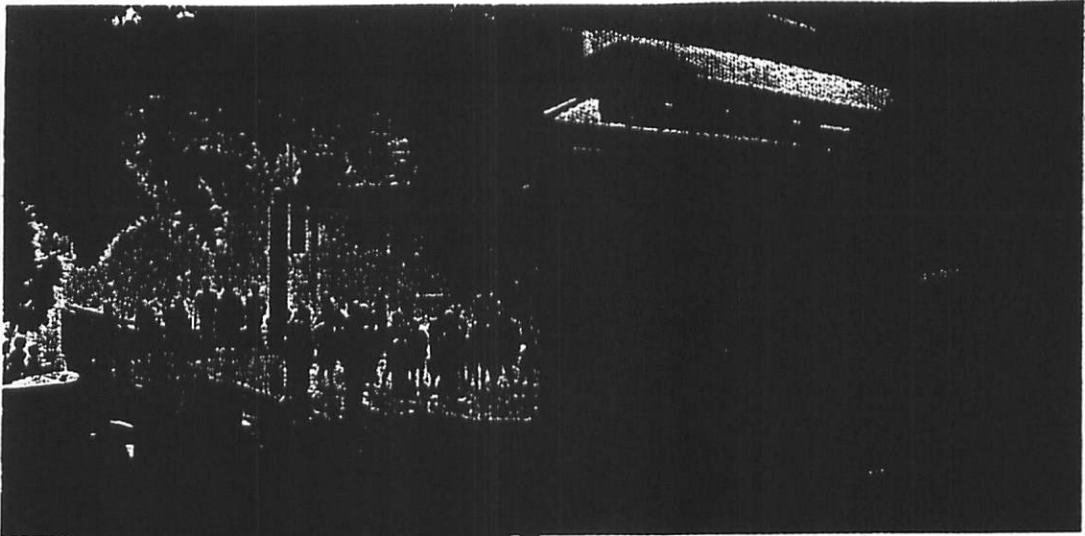
- 5) We are trying to receive funding from the Ohio Board of Regents to renovate our Research Building at Stone Laboratory.

Result: In 1999 we made the final list but were not supported. However, a T1 line for communication was installed with over 50 new telephones and the first internet access at Stone Laboratory. Two new proposals have been developed and submitted to the Ohio Board of Regents.

Some of our top action items for the next two years include:

- 1) Renovate the Research Building at Stone Laboratory.
- 2) Obtain the funds to complete the renovation of Cooke's Castle and implement a new and improved outreach program for decision-makers using the facility.
- 3) Prepare for and complete successfully our PAT in September 2000.
- 4) Make modification to our new research boat and put it in service.
- 5) Conduct our State Legislature/Congressional Day two years in a row and successfully make the transition to even numbered years.
- 6) Increase the size of our state line item significantly.
- 7) Enter into a cooperative plan with the Ohio Division of Wildlife regarding Lake Erie fisheries research and management.

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E D U C A T I O N

APPENDIX A Program Funding



APPENDIX A

PROGRAM FUNDING (ALL SOURCES)—1998 & 1999

Federal Sea Grant Funding—Grant No. NA86RG0053

\$935,000	Omnibus 1 March 1998
97,139	Marine Biotechnology Competition
83,588	NOAA Partnership Competition
29,836	Industrial Fellows
20,000	NOAA Partnership from National Geodetic Survey
952,000	Omnibus 1 March 1999
99,604	Marine Biotechnology Competition
99,467	NOAA Partnership Competition
29,301	Industrial Fellows
20,825	Web Sites for Teachers
14,655	ANS
<u>20,000</u>	NOAA Partnership from National Geodetic Survey
\$2,401,415	Total Federal 1998-99

Matching Support from Universities

\$638,226	Omnibus 1 March 1998 (includes Biotech and Partnerships)
<u>661,606</u>	Omnibus 1 March 1999 (includes Biotech and Partnerships)
\$1,299,832	

State Line Item (1 July 1998 to 30 June 2000)

FY 99	\$299,940
FY 00	<u>299,940</u>
Total	\$599,880

Ohio State University Support (Operating Budgets)

	<u>FY99</u>	<u>FY00</u>	<u>2 Year Total</u>
Sea Grant/CLEAR	\$103,659	\$108,442	\$212,101
Stone Laboratory	<u>226,373</u>	<u>231,861</u>	<u>458,234</u>
Total	\$330,032	\$340,303	\$670,335

Private Sector Contributions

\$61,400	Proctor and Gamble, Industrial Fellows
\$22,000	Approximate total for our 11 th State Legislature Day, 9 July 1999
<u>\$10,000</u>	Approximate value of booth space at boat shows and sport shows
\$93,400	Total

Endowments

Our educational and research endowments created by the Friends of Stone Laboratory (FOSL) have done extremely well in 1998 and 1999. The principal in the FOSL 6 original endowments (2 for scholarships, equipment, visiting professors, research, and the wetlands course) surpassed \$500K reaching \$529,993 on 30 June 1999. The total for deferred gifts now exceeds \$2.5 million.

New Funds. In 1998, the FOSL, using original artwork done by former Associate Director John L. Crites, initiated a campaign to create our 7th endowment, the **John L. Crites Graduate Research Fund**.

In 1999, Jack Waldock, past-chair of our Northwest Ohio Advisory Committee and a current member of the Director's Advisory Council, created two new endowments for us in the Sandusky/Erie County Community Foundation. Jack's gifts of \$5,000 for each endowment were matched by the Foundation and the Great Lakes Protection Fund to give us two \$10,000 endowments (**\$20,000 total**). Income from the first endowment, "**The Legislators Lake Erie Environmental Education Fund**," will be used to help with educational efforts for elected officials and decision-makers, e.g. Ohio Sea Grant's State Legislature/Congressional Days on Lake Erie. Income from the second endowment, "**The Stone Laboratory Educational and Research Fund**," will be used to enhance our educational and research programs at the Laboratory—specifically those that benefit Erie County students.

Jay Cooke's Castle on Gibraltar Island is a National Historic Landmark. We are in the process of renovating the building to serve as an education/conference center to enhance our outreach program. The **Cooke Castle Renovation Fund** was established in 1999 to support this effort.

Capital Improvements and Equipment

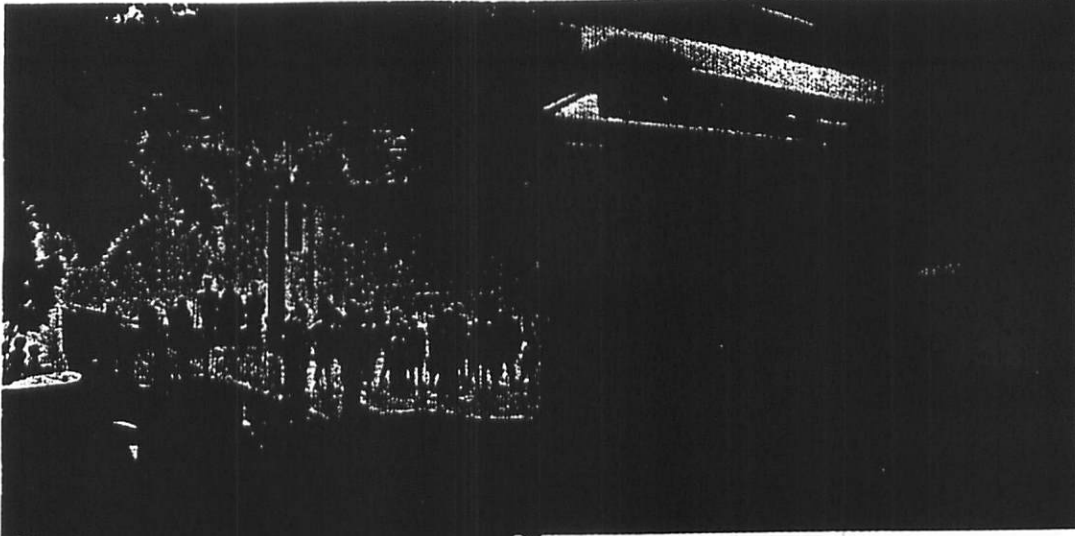
\$500,000	Ohio State University renovation of Cooke Castle—1998
500,000	State Legislature renovation of Cooke Castle—1999
585,000	Renovation of space for main office in Columbus—1999
50,000	Equipment funds from Office of Research, Ohio State University—1998
<u>30,000</u>	New telephone system for Stone Laboratory (T1 line)
\$1,665,000	Total

Scholarships at Stone Laboratory

\$13,632	43 scholarships in 1998
<u>14,860</u>	49 scholarships in 1999
\$28,492	1998-99 Total

These figures do not include contributions to the FOSL general operating account, the Director's Discretionary Fund, or any of the 3 earnings account used by the program for publications, Stone Laboratory workshops, and CLEAR/Sea Grant.

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APPENDIX B Institutions Involved



APPENDIX B

TABLE B-1

INSTITUTIONS INVOLVED—1998-99

Institutions are involved with the Ohio Sea Grant College Program in many different ways including:

1. Receiving funding from the program
2. Participating in our Great Lakes Aquatic Ecosystem Research Consortium
3. Conducting research at Ohio Sea Grant's Lake Erie Laboratory, Stone Laboratory
4. Teaching at Stone Laboratory
5. Sending students to Stone Laboratory for courses (Tables B-2 and B-3)

Institutions Receiving Funding from Ohio Sea Grant

Bowling Green State University
Case Western Research University
Cleveland State University
Kent State University
Miami University
Ohio State University
Ohio Division of Geological Survey
Penn State University
University of Akron
University of Toronto
University of Windsor
Wright State University

Participants in the Great Lakes Aquatic Ecosystem Research Consortium

Bowling Green State University
Case Western Reserve University
Cleveland State University
Heidelberg College
John Carroll University
Kent State University
Miami University
Mount Union College
Ohio State University
Ohio University
University of Toledo
Wright State University

Teaching at Stone Laboratory

American Museum of Natural History, NY
Bowling Green State University
Georgia Institute of Technology
Kent State University
Miami University
Ohio State University
Otterbein College
Penn State University
US Environmental Protection Agency
Utica College of Syracuse University
Wittenberg University

Conducting Research at our Lake Erie Laboratory, Stone Laboratory

Colleges and Universities

Bowling Green State University
Case Western Reserve University
Heidelberg College
Loyola University
Miami University
Northern Illinois University
Ohio State University
Penn State University
Utica College of Syracuse University
University of Michigan
Wright State University

Federal and State Agencies

Great Lakes Environmental Research Laboratory (GLERL)
Ohio DNR
 Division of Geological Survey
 Division of Wildlife
Ohio EPA
Ottawa National Wildlife Refuge
USFWS

Public and Private Institutions

Aquilon
Cleveland Museum of Natural History
Eco Sphere
Lake Bywa Research Lab, OTSU Japan
Toledo Zoo

TABLE B-2: Home Institutions of College-Level Students at Stone Laboratory 1990-99

YEAR	90	91	92	93	94	95	96	97	98	99
Percentage of NonOSU students	19.6	22.5	33.1	19.2	28.7	20.5	12.7	14.3	19.3	16.7
<u>In State</u>										
Ashland College	1				2	1	1			1
Baldwin-Wallace College	1		1		1		1	1		
Bluffton College	1									
*Bowling Green State Univ	2	1	2	3	2	2	4	1	3	6
Capital Univ			1							
Case Western Reserve Univ			1		1					
Cedarville Coll			1							
*Cincinnati State Tech & Comm Coll								1	1	1
*Cleveland State Univ			2		2				1	2
College of Mount St. Joseph										
College of Wooster	1									1
Columbus Coll Art and Design			1							
Columbus State Comm Coll				1		1				
*Cuyahoga Community Coll	1	2	3	1	3		1			
Defiance College								1		
Heidelberg College			1					1		
*Hocking Tech Coll					1					1
John Carroll Univ		1	2	1						1
*Kent State Univ	2	3	3		1	1		1	4	
Lake Erie College				1	1					
*Lakeland Community College				1	1					
*Miami University	4	7	6	6	3	10	3	2		1
North Central Tech Coll	1	1								
Oberlin College		1								
Ohio Northern Univ					1				1	
*Ohio State University	74	77	89	122	107	101	*110	*114	113	125
*Ohio University	1	1	4	2	2	3			1	
Ohio Wesleyan Univ	1					1		1	1	
Otterbein College			1				1	1		1
*Univ of Akron	1	1		1	1		1	1	1	1
*Cincinnati			1	1	1			1		
*Findlay			1						2	
*Toledo		1	5		2	1				2
Urbana College			1							
Ursuline College				1						
Wilmington College					1				1	
Wittenberg College	1			1	1	1		1	2	
*Youngstown State Univ	1	2	2	2	1			1		
*Wright State Univ		1			4	3	1	1	3	2
Xavier University								1		1
<u>Out of State</u>										
Allegheny College							1	1		
Ambassador Coll			1							
Amherst Coll					1					
Asbury Coll								1		
Ball State Univ		1	1							
Beloit College									1	
Berry College					1					
Carnegie Mellon					1					
Cardinal Stritch Univ									1	
Culver Academies		1								
Cumberland Coll					2					
Indiana Univ			1	2	1					
Jacksonville Univ					1					
Loyola Univ of Chicago								1		
Mary Washington College, VA										1
Morehead State Univ									1	
Rollins College				1						
San Francisco State Univ, CA										1
State Univ of New York				1						
St. Bonaventure Univ, NY										1
St. Lawrence Univ		1		1						
St. Mary's College						1	1			
Southern Ill Univ		1								
Univ of Kentucky					1					
Univ of Maine				1						
Univ of Michigan						1			1	
Univ of Minnesota- Duluth										
Univ of Notre Dame			1		2		1	1		
Univ of SC Coastal Carolina College				1						
Washington Univ, MO										1
West Virginia Univ				1						
TOTAL # of different colleges	14	17	25	20	30	13	12	19	19	18
Cumulative # of universities/coll	14	23	36	44	54	57	58	62	67	71

*includes 1 workshop participant

* state-assisted institution of Ohio

TABLE B-3: Home Institutions of Concurrent Enrollment (High School) Students 1990-99

YEAR	90	91	92	93	94	95	96	97	98	99
•Ambridge Area HS, Baden PA	-	-	-	1	-	-	-	-	-	-
Anderson HS, Cincinnati	-	-	-	-	-	-	-	-	1	-
Anna HS, Anna	-	-	-	1	-	-	-	-	-	-
Anthony Wayne HS, Whitehouse	-	1	-	-	-	-	-	-	1	-
Arlington HS, Findlay	-	-	-	-	2	-	-	-	-	-
Ashland HS, Ashland	-	-	-	-	-	-	2	-	1	3
Austintown Fitch HS, Youngstown	-	1	1	-	-	-	-	-	-	-
Avon HS, Avon	-	-	-	-	-	-	-	-	2	-
Avon Lake HS, Avon Lake	-	1	1	1	-	2	-	-	-	-
Badger HS, Kinsman	-	-	-	1	-	-	-	-	-	-
Barnesville HS, Barnesville	-	-	-	-	-	-	-	1	-	-
•Bartlett HS, Anchorage AK	-	-	-	-	1	-	-	-	-	-
Bath HS, Lima	-	-	1	-	-	-	-	-	-	-
Bay HS, Bay Village	-	1	-	-	-	-	-	-	-	-
Beaumont School, Cleveland Hts	-	1	2	1	-	1	-	-	1	-
Beavercreek HS, Beavercreek	-	-	-	1	-	-	-	-	-	-
Beechcroft HS, Columbus	-	1	1	1	2	-	-	-	-	-
Bellefontaine HS, Bellefontaine	-	-	-	-	-	1	-	-	-	-
Bellevue Sr. HS, Bellevue	-	-	-	-	-	-	-	-	1	-
Benjamin Logan HS, Bellefontaine	-	-	-	-	-	1	-	-	-	-
Berea HS, Berea	-	1	-	-	-	-	-	-	-	1
Bethel HS, Tipp City	-	-	-	-	1	-	-	-	-	-
Bexley HS, Bexley	-	-	1	-	2	-	-	2	-	1
Big Walnut HS, Sunbury	-	-	-	1	1	-	1	1	2	2
Bishop Ready HS, Columbus	-	-	-	1	2	1	-	1	1	1
Bishop Rosecrans HS, Zanesville	1	-	-	1	1	-	-	-	-	-
Bishop Watterson HS, Columbus	-	-	-	-	-	-	-	-	1	-
Bloom Carroll HS, Carroll	1	1	-	-	-	-	-	-	-	-
Brecksville-Broadview HS, Broadview Ht	-	1	-	-	-	-	-	-	-	-
Briggs HS, Columbus	-	-	-	-	-	-	-	1	1	-
Brookhaven HS, Columbus	-	-	-	-	-	-	1	-	-	-
Brookside HS, Sheffield	1	-	-	-	-	-	-	1	-	-
Buckeye HS, Medina	-	-	-	2	1	-	-	-	-	-
Buckeye Valley HS, Delaware	-	-	-	-	-	-	2	-	-	2
Bucyrus HS, Bucyrus	-	1	-	-	-	-	-	-	-	2
Celina Sr. HS, Celina	-	-	-	-	-	-	-	-	1	-
Centennial HS, Columbus	-	-	-	1	-	1	-	-	-	-
Centerville HS, Centerville	-	-	-	-	-	-	1	-	1	-
Central Catholic HS, Toledo	-	-	-	-	-	-	-	1	1	-
Chagrin Falls HS, Chagrin Falls	2	-	-	-	-	-	-	-	-	-
Chaminade Julianne HS, Dayton	-	1	-	-	-	-	-	-	-	-
Chardon HS, Chardon	-	-	-	-	-	-	-	-	1	-
Cincinnati Hills Christian Academy, Cinc.	-	-	-	-	-	-	-	-	2	-
Circleville HS, Circleville	-	-	-	1	-	-	-	-	-	-
Clear Fork HS, Bellville	-	-	-	-	-	-	-	-	-	1
Cleveland Hts HS, Cleveland Hts	-	-	-	-	-	-	-	-	1	-
Colonel Crawford HS, North Robinson	-	-	-	-	1	-	-	-	-	-
Columbiana HS, Columbiana	-	-	-	1	-	-	-	-	-	-
Columbus Academy, Gahanna	-	-	-	-	-	-	-	1	-	-
Columbus AcademicHS 2000, Columbus	-	-	-	-	-	-	-	-	3	2
Columbus Alternative HS, Columbus	-	-	1	2	-	1	9	2	1	-
Columbus Grove HS, Columbus Grove	-	-	-	-	-	-	-	1	-	-
Columbus School for Girls, Columbus	-	1	-	-	-	-	1	-	-	-
Copley HS, Copley	-	-	-	1	-	-	-	-	-	-
Coshocton HS, Coshocton	-	-	-	-	-	-	-	-	-	1
Crestview HS, Columbiana	-	-	-	-	-	-	-	-	2	1
Crestwood HS, Mantua	-	-	1	-	1	1	-	-	-	-
Crooksville HS, Crooksville	-	-	-	-	-	1	1	-	-	-
Defiance HS, Defiance	-	-	-	-	-	-	-	1	-	-
Delaware Hayes HS, Delaware	-	-	-	-	-	-	-	1	-	-
Dublin HS, Dublin	-	-	1	-	1	-	-	-	-	-

TABLE B-3: Home Institutions of Concurrent Enrollment (High School) Students 1990-99

YEAR	90	91	92	93	94	95	96	97	98	99
Eaton HS, Eaton	-	-	-	1	-	-	-	-	-	-
East HS, Columbus	-	-	-	-	3	1	3	1	1	-
East Liverpool HS, East Liverpool	-	1	-	-	-	-	-	-	-	-
East Tech HS, Cleveland	-	-	-	-	-	-	-	-	-	1
Eastmoor HS, Columbus	-	-	-	-	-	-	-	-	2	-
Elgin HS, Marion	-	-	-	-	1	-	-	-	-	-
Elida HS, Elida	-	1	-	-	-	-	-	-	-	-
Elyria HS, Elyria	-	-	-	1	1	1	4	1	2	1
Elyria West HS, Elyria	-	1	-	-	-	-	-	-	-	-
Euclid HS, Euclid	-	-	1	-	-	-	1	-	-	1
Fairbanks HS, Milford Center	-	-	-	-	1	-	-	-	-	-
Fairfield Union HS, Lancaster	-	-	1	-	-	-	-	-	-	-
Fairland HS, Proctorville	-	-	-	-	-	1	1	-	-	-
Fairview HS, Fairview Park	-	1	-	2	-	1	-	2	-	-
Fairview Park HS,	-	-	-	-	-	-	-	-	1	-
Federal Hocking HS, Stewart	-	-	1	-	1	-	-	-	1	-
Findlay HS, Findlay	-	-	-	-	-	-	-	1	-	-
Fireland HS, Oberlin	-	2	1	-	-	1	-	-	-	-
Firestone HS, Akron	-	-	1	-	-	-	-	-	1	-
Fort Hayes HS, Columbus	-	1	2	5	2	1	1	5	1	-
Fort Jennings HS, Fort Jennings	-	-	-	-	-	-	1	-	-	-
Franklin Heights HS, Columbus	-	-	-	1	1	-	-	-	-	2
Fremont Ross HS, Fremont	-	1	-	-	-	1	-	-	-	-
Gahanna Lincoln HS, Gahanna	1	-	-	2	-	-	-	-	1	-
Galion HS, Galion	-	-	-	-	-	1	-	1	-	-
Gallia Academy HS, Gallipolis	-	-	-	-	-	-	1	-	-	-
Geneva HS, Geneva	1	3	-	-	-	-	-	-	1	2
Genoa Area HS, Genoa	-	-	2	1	-	-	-	-	-	-
Georgetown Village HS,	-	-	1	-	-	-	-	-	-	-
Gibsonburg HS, Gibsonburg	-	-	-	-	-	-	-	-	1	-
Gilmour Academy, Gates Mills	-	-	1	-	-	-	-	-	-	-
GlenOak HS, Canton	-	-	1	1	-	-	-	-	-	-
Grandview Heights HS, Columbus	-	-	-	2	2	-	1	3	2	1
Granville HS, Granville	-	-	-	-	-	-	1	1	1	2
Green HS, Greensburg	-	7	4	-	-	-	-	-	-	-
Greenhills HS, Cincinnati	-	1	-	-	-	-	-	-	-	-
Greenville Senior HS, Greenville	-	1	-	-	-	-	-	-	-	-
Grove City HS, Grove City	-	-	-	-	-	-	1	1	-	-
Hamilton HS, Hamilton	-	-	-	-	-	-	-	-	-	1
Harrison HS, Harrison	-	-	-	1	-	-	-	-	-	-
Hawken High, Gates Mills	-	1	-	-	-	-	1	-	-	-
Highland HS, Medina	-	-	-	-	-	-	-	-	-	1
Hilliard HS/Hilliard Davidson HS beg '97	-	-	-	-	-	1	-	-	-	1
Hilliard Darby HS, Hilliard	-	-	-	-	-	-	-	-	-	1
Hillsboro HS, Hillsboro	-	1	-	-	-	-	-	-	-	-
Holy Name HS, Parma Heights	-	-	-	-	-	-	-	1	-	-
Hudson HS, Hudson	-	-	-	-	-	-	1	-	-	-
Hughes Center, Cincinnati	-	-	-	-	-	-	-	1	-	-
Huron HS, Huron	-	-	1	1	-	2	-	-	-	-
Indian Hill HS, Cincinnati	1	-	2	-	-	-	-	-	-	-
Indian Valley HS, Gnadenuhthen	-	1	-	-	-	-	-	-	-	-
Ironton HS, Ironton	-	-	1	-	-	-	-	-	-	-
James A. Garfield HS, Garrettsville	-	-	1	-	-	-	-	-	-	-
James F. Rhodes HS, Cleveland	-	-	-	-	-	-	-	-	1	-
Jewett-Scio HS, Scio	-	-	-	-	-	-	-	-	1	-
John Glenn HS, New Concord	-	-	-	-	-	-	-	1	-	-
John Marshall HS, Cleveland	-	-	-	-	-	-	-	2	-	2
Kenton Senior HS, Kenton	-	1	-	1	-	-	-	-	-	-
Kettering Fairmont HS, Kettering	-	-	-	-	1	-	-	-	-	-
•Lake Braddock Secondary Sch, Burke VA	-	-	-	-	-	-	1	-	-	-
Lake Ridge Academy, North Ridge	-	-	-	1	-	1	1	-	-	-

TABLE B-3: Home Institutions of Concurrent Enrollment (High School) Students 1990-99

YEAR	90	91	92	93	94	95	96	97	98	99
Lakeshore HS, Stevensville MI	-	-	1	-	-	-	-	-	-	-
Lakewood HS, Lakewood	-	-	-	-	-	-	-	-	1	1
Lakota HS, Kansas	1	-	-	-	-	-	-	-	-	-
Lehman HS, Sidney	-	-	-	-	-	-	1	-	-	-
Leipsic HS, Leipsic	-	-	-	-	-	-	-	1	-	-
Lexington HS, Lexington	-	-	-	-	1	-	-	1	-	-
Liberty Union HS, Baltimore	-	-	1	-	-	-	-	-	-	-
Lima Central Catholic HS, Lima	-	-	-	-	-	1	-	-	-	-
Lima Senior HS, Lima	-	-	-	-	-	1	-	1	-	-
Lincoln HS, Gahanna	-	1	-	-	-	-	-	-	-	-
Lincoln West HS, Cleveland	-	-	-	-	-	-	-	-	-	1
Linden McKinley HS, Columbus	-	-	-	-	-	-	-	-	1	-
London HS, London	-	-	-	-	2	-	-	-	-	2
Lorain Catholic HS, Lorain	-	-	-	1	-	-	-	-	-	-
Lorain Co. Joint Vocat. School, Oberlin	-	-	-	-	-	-	-	1	-	-
Lordstown HS, Warren	-	-	1	-	-	-	-	-	-	-
Loudonville HS, Loudonville	-	-	-	-	-	-	-	1	1	-
Louisville HS, Louisville	-	-	-	1	-	-	-	-	-	-
Lucas HS, Lucas	-	1	-	-	-	-	-	-	-	-
Madeira HS, Cincinnati	-	-	-	-	1	-	-	-	-	-
Madison HS, Madison	-	-	-	1	-	-	-	-	-	-
Magnificat HS, Rocky River	-	2	1	-	2	-	1	-	-	-
Mansfield Senior HS, Mansfield	-	-	2	-	1	-	-	-	2	-
Maple Heights HS, Maple Heights	-	1	1	5	-	-	-	-	-	-
Mapleton HS, Ashland	-	-	-	-	-	-	-	1	-	-
Marburn Academy, Columbus	-	-	-	-	1	-	-	-	-	-
Margaretta HS, Castalia	-	-	-	1	-	-	-	-	1	-
Marion L. Steele HS, Amherst	-	-	-	-	-	-	-	1	-	-
Marion-Franklin HS, Columbus	-	-	-	-	-	1	5	2	1	2
Marlington HS, Alliance	-	-	-	1	-	-	-	-	-	-
Marysville HS, Marysville	1	-	1	-	-	-	1	-	-	-
Maumee HS, Maumee	-	-	-	-	-	1	-	1	-	-
Maumee Valley Country Day School, Toledo	-	-	-	-	-	-	-	-	-	1
Mayfield HS, Mayfield	-	1	-	-	-	-	-	-	-	1
McAuley HS, Cincinnati	-	-	-	1	1	-	-	-	-	-
Meadowdale HS, Dayton	-	-	-	1	-	-	-	-	-	-
Medina HS, Medina	-	-	-	1	1	-	-	-	-	-
Miami Trace HS, Washington	-	-	-	-	-	-	-	1	-	-
Miamisburg HS, Miamisburg	-	-	-	-	-	-	-	-	1	-
Mifflin HS, Columbus	-	-	-	2	-	2	-	1	-	2
Milford HS, Milford	-	-	-	1	1	1	-	-	-	-
Miller City HS, Miller City	-	-	-	-	-	-	1	-	-	-
Minerva HS, Minerva	-	-	-	1	-	-	-	-	-	-
Minster HS, Minster	-	-	-	-	-	-	-	-	1	1
Morgan HS, McConnelsville	-	1	-	-	-	-	-	-	-	-
Mountoursville Area HS, Montoursville PA	-	-	1	-	-	-	-	-	-	-
Napoleon HS, Napoleon	-	-	-	2	-	-	-	-	-	-
New Albany HS, New Albany	-	-	-	-	-	-	-	-	-	1
New Philadelphia HS, New Philadelphia	1	-	-	-	1	-	-	-	-	-
Newark HS, Newark	-	-	-	-	-	-	3	-	-	-
Newark Catholic HS, Newark	-	-	1	-	2	-	-	-	-	-
Newton Falls HS, Newton Falls	2	-	1	4	1	3	6	2	-	1
North Olmsted HS, North Olmstead	-	-	2	2	-	-	-	-	-	-
Northeastern HS, Springfield	-	-	-	-	1	-	-	-	-	-
Northland HS, Columbus	2	-	-	-	-	1	1	2	2	-
Northmont HS, Clayton	-	1	-	-	-	-	-	-	-	-
North Ridgeville HS, North Ridgeville	-	-	1	-	-	-	-	-	-	-
Norwood HS, Norwood	-	-	-	-	-	-	-	-	1	-
Notre Dame Academy, Toledo	-	-	-	-	-	-	-	-	1	-
Oak Harbor HS, Oak Harbor	-	1	-	-	-	-	-	-	-	-
Oak Hills HS, Cincinnati	-	-	1	-	-	-	-	-	-	-
Olentangy HS, Lewis Center	-	-	-	-	-	-	1	-	-	1

TABLE B-3: Home Institutions of Concurrent Enrollment (High School) Students 1990-99

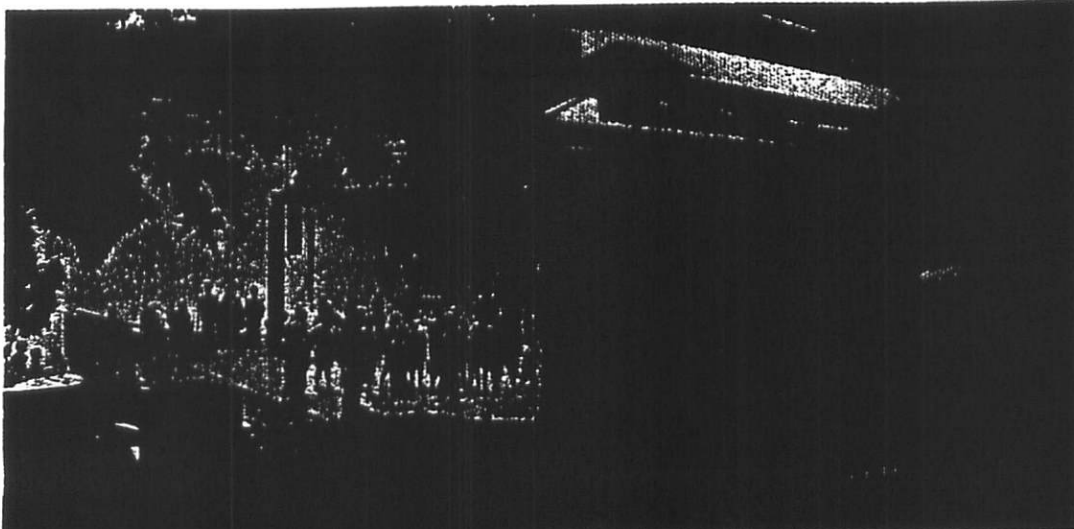
YEAR	90	91	92	93	94	95	96	97	98	99
Olmsted Falls HS, Olmsted Falls	-	-	1	-	-	-	1	-	-	-
Ontario HS, Mansfield	-	-	-	-	-	-	-	-	1	-
Ottawa-Glandorf, Ottawa	-	-	-	-	1	-	-	-	-	-
Parma Senior HS, Parma	-	-	2	2	-	-	-	-	-	1
Padua Franciscan HS, Parma	-	-	-	-	-	2	-	-	-	-
•Peoria Notre Dame HS, Peoria Hts IL	-	-	-	-	-	-	1	-	-	-
Perry HS, Perry	-	-	-	1	-	-	-	-	-	-
Perrysburg HS, Perrysburg	-	-	-	2	-	2	-	-	-	-
Pickerington HS, Pickerington	-	-	-	-	-	-	1	-	-	1
Port Clinton HS, Port Clinton	-	-	2	-	-	-	-	-	-	-
•Pulaski County HS, Eubank KY	-	-	-	-	1	-	-	-	-	-
R.B. Chamberlin HS, Twinsburg	-	-	1	-	-	-	1	-	1	1
Ravenna HS, Ravenna	-	-	-	1	-	-	-	-	-	-
Revere HS, Richfield	-	-	1	-	-	-	-	-	-	-
Reynoldsburg HS, Reynoldsburg	-	-	-	-	-	1	-	-	1	1
Riverside HS, Degraff	1	-	-	-	-	-	-	-	-	-
Robert Taft HS, Cincinnati	-	-	-	-	-	-	-	1	-	-
Rocky River HS, Rocky River	-	-	-	-	-	-	-	-	-	3
Ross HS, Hamilton	-	-	-	-	-	-	-	-	1	-
Seven Hills Upper HS, Cincinnati	-	-	-	-	-	-	-	1	-	-
Shelby Sr. HS, Shelby	-	-	-	-	-	-	-	-	1	-
Solon HS, Solon	1	-	-	-	-	1	-	1	2	-
South Point HS, South Point	-	1	1	-	2	1	-	-	-	-
Southern Local HS, Salineville	-	-	-	-	1	-	-	-	-	-
Springboro HS, Springboro	-	1	-	-	-	-	-	-	-	-
Springfield HS, Akron	-	-	-	1	-	-	-	-	-	-
Springfield North HS, Springfield	-	-	1	-	-	-	-	-	-	-
St.Charles Prep School, Columbus	-	-	-	-	-	-	-	1	1	1
St.Clairsville HS, St. Clairsville	-	-	-	-	-	-	1	-	-	-
St.Francis DeSales HS, Columbus	-	-	-	-	1	-	-	-	1	1
St.Ignatius HS, Cleveland	-	1	2	-	-	-	-	-	-	-
St.Joseph Academy, Cleveland	-	-	2	-	-	1	-	-	1	-
St.Joseph Cent. Catholic HS, Fremont	-	-	-	-	-	-	-	1	1	-
St.Joseph HS, Proctorville	-	-	-	-	-	-	-	1	-	-
St.Thomas Aquinas HS, Louisville	-	-	-	-	-	-	-	-	-	1
St.Ursula Academy, Toledo	-	-	1	-	-	-	-	-	-	-
Stebbins HS, Dayton	-	-	-	1	-	-	-	-	-	-
Streetsboro HS, Streetsboro	-	1	-	-	-	-	-	-	-	-
Strongsville HS, Strongsville	1	-	-	1	2	-	-	-	-	-
Swanton HS, Swanton	-	-	1	-	-	-	-	-	-	-
Sylvania Northview HS, Sylvania	-	-	-	-	-	1	-	-	-	-
Talawanda HS, Oxford	-	-	-	-	1	-	-	-	-	-
•The Wellington School, Columbus	-	1	-	-	-	-	-	-	-	-
Theodore Roosevelt HS, Kent	-	-	-	1	-	2	-	-	-	-
Tiffin Columbian HS, Tiffin	-	-	-	1	1	-	-	-	-	-
Tinora HS, Defiance	-	-	-	-	-	-	-	-	-	1
Tippecanoe HS, Tipp City	-	-	1	-	-	-	-	-	-	-
Toronto HS, Toronto	-	-	-	-	-	-	1	1	-	-
Tri-Valley HS, Dresden	-	-	-	-	-	1	-	-	-	-
Union Local HS, Belmont	-	1	-	-	-	1	-	-	-	-
Upper Arlington HS, Upper Arlington	1	1	1	2	-	2	1	3	-	4
Upper Sandusky HS, Upper Sandusky	-	-	-	-	-	-	-	1	1	-
Urbana HS, Urbana	1	-	-	-	-	-	-	-	-	-
Ursuline Academy, Cincinnati	-	-	-	-	-	-	-	-	1	-
Valley Forge HS, Parma Heights	-	-	1	1	2	-	-	-	-	-
•Vanguard HS, Ocala FL	-	-	-	-	-	-	-	-	-	1
Vermilion HS, Vermilion	-	1	-	-	-	-	-	-	-	-
Walnut Ridge HS, Columbus	-	-	-	-	1	-	-	1	-	1
Wapakoneta HS, Wapakoneta	-	-	-	-	1	-	-	-	-	-
Watkins Memorial HS, Pataskala	-	-	-	-	-	-	-	1	1	-
Wauseon HS, Wauseon	-	-	1	-	-	-	-	-	-	-
•Waverly HS, Waverly	-	-	1	-	-	-	-	-	-	-

TABLE B-3: Home Institutions of Concurrent Enrollment (High School) Students 1990-99

YEAR	90	91	92	93	94	95	96	97	98	99
West HS, Columbus	-	-	2	-	7	-	1	-	-	2
West Branch HS, Beloit	-	-	-	1	-	-	-	-	1	-
West Carrollton HS, West Carrollton	-	-	-	-	-	-	-	-	1	-
West Geauga HS, Chesterland	-	-	-	-	-	1	1	-	-	1
West Holmes HS, Millersburg	-	2	-	-	-	-	-	-	-	-
West Liberty-Salem HS, West Liberty	-	-	-	-	-	-	-	1	-	-
Westerville North HS, Westerville	1	1	1	1	2	2	-	-	-	-
Westerville South HS, Westerville	-	-	-	-	1	1	-	2	-	-
Westlake HS, Westlake	-	-	-	2	-	-	-	1	-	1
Westland HS, Galloway	-	1	-	-	-	-	-	-	-	-
Whetstone HS, Columbus	-	-	-	1	-	-	1	6	3	1
Wm. Fisher Catholic HS, Lancaster	-	-	2	-	-	-	-	-	-	-
Wm. Henry Harrison HS, Harrison	1	1	1	-	1	1	-	-	-	2
Wm. Mason HS, Mason	-	-	-	-	-	-	-	1	-	-
Winton Woods HS, Cincinnati	-	-	-	-	-	1	-	-	-	-
Wooster HS, Wooster	-	1	-	-	-	-	-	-	-	-
Worthington HS, Worthington	-	-	-	-	-	-	2	-	-	-
Worthington Kilbourne HS, Columbus	-	-	1	1	-	-	-	-	1	-
TOTAL # of High Schools/year	19	48	57	60	50	44	42	53	60	52
Cumulative # of High Schools	19	62	102	141	163	179	198	225	251	265
Cumulative # of Out-of-State Schools			1	2	4		6			7

• = Out-of-State

O U T R E A C H • R E S E A R C H



E D U C A T I O N

APPENDIX C

Projects Supported



APPENDIX C

TABLE C-1

PROJECTS SUPPORTED IN OMNIBUS PROPOSAL 1998-00

Fisheries and Aquatic Ecology

Substrate and Zebra Mussels: Controls and Impacts on Fish Reproductive Habitat—
Western Basin Reefs

Scudder Mackey, Kenneth Baker, Michael Bur, and Edward Roseman, **R/ZM-28**

Spatial Dynamic Modeling of Large Lake Lower Trophic Level Dynamics: Effects of
Zebra Mussels and Nutrient Loading

David Culver, Murray Charlton, John Coakley, Paul Hamblin, Mark Loewen, **R/EM-20**

Benthic-Pelagic Coupling: Community Responses to Round Goby Predation on Zebra
Mussels

Jeffrey Miner and Rex Lowe, **R/NIS-3**

Effects of Zebra Mussels on Benthic Microbial Activity: Field and Laboratory Tests of
the Hypothesis that *Dreissena polymorpha* Feeding Activity Increases Benthic Microbial
Processes

Robert Heath and Joseph Balczon, **R/ER-43**

Genetic Characterization of Walleye Stocks Based on Mitochondrial and Nuclear DNA
Sequences

Carol Stepien, **R/LR-4**

Wetlands Ecology

Strategies to Control Exotic Invasive Plant Species in Great Lakes Coastal Wetlands: A
Field Evaluation

David Francko, **R/ER-39**

Aquaculture

Development of a Non-Destructive Molecular Probe for Whole-Body Fat Stores in
Largemouth Bass

Richard Londrville, **R/A-10**

Fish Genetic Resources Bank - Biodiversity and Superior Fish in Aquaculture

Konrad Dabrowski, David Stetsen, and Greg Toth, **R/A-11**

Application of New Biotechnology of Micro-Encapsulation

Konrad Dabrowski, Sagiv Kolkovski, and Curt Thies, **R/A-12**

Social Sciences

Valuing Great Lakes Beach Recreation: An Economic Assessment of the Recreational Value of Freshwater Beaches

Brent Sohngen, Mary Bielen, and Frank Lichtkoppler, R/ME-19

Coastal and Ocean Engineering

Development of a Microprocessor-Based Joint Tracking and Operation Guidance System for Underwater Welding

Chon Tsai, R/OE-14

Coastline Mapping and Change Detection Using 1-meter Resolution Satellite Imagery

Rongxing Li, Lewis Lapine, Millington Lockwood, Nicholas Schmidt, and Cindy Fowler, R/NP-1

Biotechnology and Molecular Biology

Biocomplexation of Heavy Metals by Engineered Algae

Richard Sayre, Sam Traina, Terry Gustafson, and Lada Malek, R/BT-4

Education

Development of Internet-Linked Instructional Materials and Teacher Education Research for Earth Systems Education about the Great Lakes

Rosanne Fortner and Victor Mayer, E/TER-1

Extension Program

Ohio Sea Grant Extension Program

Leroy Hushak and John Rohrer, A/EP-1

Communications Program

Ohio Sea Grant Communications Program

Jeffrey M. Reutter, M/P-2

Management and Development

Ohio Sea Grant Program Management, M/P-1

Ohio Sea Grant Program Development - Regular, M/D-1

Ohio Sea Grant Program Development - Regional, M/D-1

Jeffrey M. Reutter

APPENDIX C

TABLE C-2

PROJECTS SUPPORTED IN OMNIBUS 2000-02

I. Economic Leadership

A. Advanced Technology for Commercial Products and Processes

R/BT-6, Heavy Metal Bioremediation Using Genetically Altered Biomass
Richard Sayre, Samuel Traina, and Lada Malek

B. Seafood Production

R/LR-4, Genetic Characterization of Walleye Stocks Based on Mitochondrial and Nuclear DNA
Carol Stepien

R/LR-5, Genetic Structure of Smallmouth Bass Populations from Nuclear and Mitochondrial DNA Sequences (to begin 1 March 2001)
Carol A. Stepien

C. Coastal Economic Development

R/ME-24, A Comparison of Recreation and Amenity Values in the Lake Erie Basin (to begin 1 March 2001)
Brent Sohngen and Leroy Hushak

R/OE-15, Development of a Robust Underwater Welding Process Using the "Smart Shroud" System for Permanent Offshore Structure Repairs
Chon L. Tsai and Baojian Liao

II. Coastal Ecosystem Health and Public Safety

A. Coastal Ecosystem Health

R/PS-25, Advancing Tissue Residue-Based Risk Assessment: Field and Laboratory Tests of the Critical Body Residue Hypothesis
Susan W. Fisher

R/PS-26, Sonochemical Desorption of Mercury Laden Sediments
Linda K. Weavers, Samuel J. Traina, and Patrick G. Hatcher

R/NIS-7, Effects of Round Goby on Yellow Perch-Amphipod Interactions Within Zebra Mussel Colonies and Macrophyte Beds
Maria J. Gonzalez

R/ER-55, Modeling Smallmouth Bass Consumption of Round Goby in Lake Erie: Implications for Predator Growth and Contaminant Transfer
Roy A. Stein and Elizabeth A. Marschall

R/ME-25, Understanding the Links Between Policy and Patterns of Land Use Change in Urbanizing Watersheds: A Spatial Economic Model of Land Use Conversion
Elena Irwin

B. Public Safety

R/CE-5, Monitoring Lake Level Changes Using Satellite Altimetry and GPS-Buoys
C.K. Shum and Christopher Jekeli

R/CE-6, Sea Grant Technology Program: A CFD Model for Wave Transformation and Breaking in the Surf Zone
Thomas C. Lippmann and John E. Richardson

III. Education and Human Resources

B. Marine Advisory Service

A/EP-1, Ohio Sea Grant Extension Program
Frank Lichtkoppler, Fred Snyder, and John Rohrer

C. Communications

M/P-2, Ohio Sea Grant Communications Program
Karen T. Ricker

IV. Program Management

A. Program Administration

M/P-1, Ohio Sea Grant Program Management
Jeffrey M. Reutter

B. Program Development

M/D-1, Ohio Sea Grant Program Development – Regular
Jeffrey M. Reutter

APPENDIX C

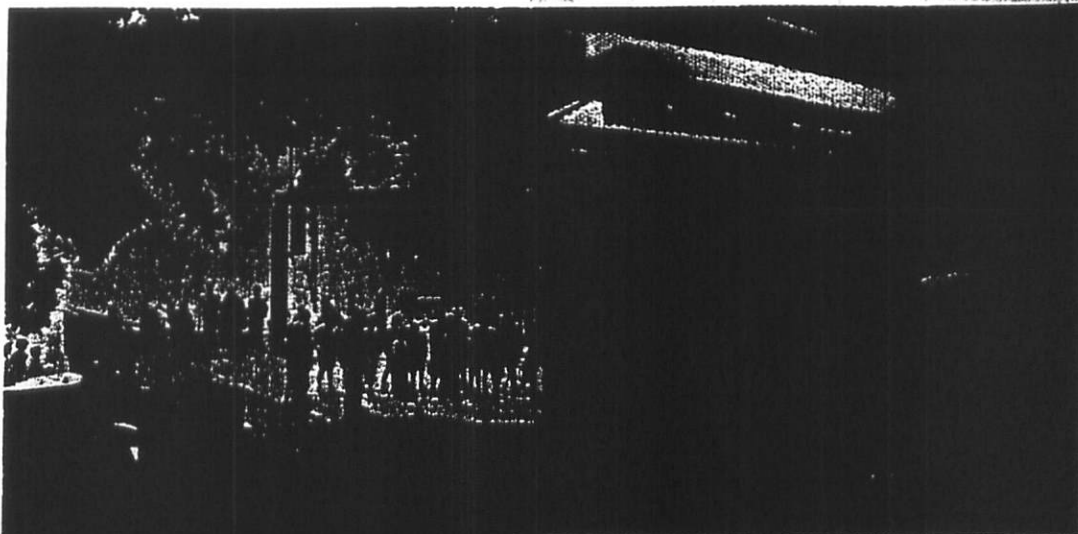
TABLE C-3

Development Fund Projects: 3/1/98 to Present

<u>Project Number</u>	<u>Project Title</u>	<u>Initiation Date</u>	<u>Principal Investigator</u>
R/ER-48-PD (Regional Funding)	Population Dynamics of Coral Reef Fish: Consequences of the Pelagic to Demersal Phase Transition on Juvenile Recruitment Success	4/1/98	Elizabeth Marshall, OSU
R/ER-49-PD (Regional Funding)	Identifying Factors that Constrain Phytoplankton Growth and Standing Crop in the Laurentian Great Lakes: Trace Metals Revisited	6/1/98	Michael McKay, BGSU
R/ME-22-PD	Ohio Sea Grant Extension Program	6/1/98	Leroy Hushak, OSU
R/A-14-PD	Yellow Perch Aquaculture Consultation in Wuhan, People's Republic of China	10/1/98	David Culver, OSU
E/MP-2-PD	Development of the Lake Erie Shipwreck Center	1/1/99	Charles Herdendorf
R/ER-50-PD	Evaluation of Molecular Markers for the Identification of Nitrogen Fixing Cyanobacteria	2/1/99	Susan Barnum, Miami
R/ER-51-PD	Identification of Hexagenia (Ephemeroptera Ephemeridae) Species in Western Lake Erie	3/1/99	David Berg, Miami
R/NIS-6-PD	Genetic Variability and Relationships of Dreissenid Mussels in North American and Eurasian Populations, Based on Nuclear DNA Markers (Regional Funding)	3/1/99	Carol Stepien, CWRU
A/AS-8-PD	IAGLR 99 Media Outreach	3/1/99	Frank Lichtkoppler, OSU
R/NIS-110-PD	Vocalizations of Round Gobies (<i>Neogobius melanostomus</i>) and Mottled Sculpins (Regional Funding)	4/1/99	Jerry Downhower, OSU
A/AS-9-PD	Lake Erie Geographic Information System Products	5/1/99	Paul Berkman, OSU
R/ZM-30-PD	Metabolic Costs of Spawning in Zebra and Quagga Mussels (Regional Funding)	6/1/99	Ann Stoeckmann, Penn St.
R/CE-3-PD	Mapping of the Stadium Artificial Reefs in the Central Basin of Lake Erie	6/1/99	Scudder Mackey, ODNR

Project Number	Project Title	Initiation Date	Principal Investigator
R/CE-4-PD	Mapping of the Lorain and Lakewood Artificial Reefs in the Central Basin of Lake Erie	6/1/99	Scudder Mackey, ODNR
R/ER-52-PD	The NWRI Lake Erie Central Basin Mooring: A Unique Opportunity to Study Phytoplankton Fe Nutrition	7/1/99	Michael McKay, BGSU
A/AS-10-PD	Student Enrichment Opportunity and Technology Dissemination Workshop on Underwater Welding at The Ohio State University's Franz Theodore Stone Laboratory	8/1/99	Chon Tsai, OSU
R/ER-54-PD	Phragmites australis: Response to Wave Exposure Gradients, Substrate Characteristics, and Its Effect on the Diversity of Shoreline Vegetation in a Lake Erie Coastal Marsh	8/1/99	Craig Davis, OSU
R/BT-5-PD	Identification of Small Molecular Weight Factors that Bind Heavy Metals in Algae	9/10/99	Richard Sayre, OSU

O U T R E A C H • R E S E A R C H



E D U C A T I O N

APPENDIX D

Publications and Media Coverage



APPENDIX D

Publications Produced by Ohio Sea Grant January 1998 – December 1999

The following table lists the number of publications in each series produced by Ohio Sea Grant for 1998 and 1999. A complete list of all titles is provided after the table.

Table D-1. Publications Produced by Ohio Sea Grant¹

	B	EP	FS(new)	FS(revised)	GS	PR	N	RS	TB	TS	TD	Total per Year
1998 ²	2	7	9	9	1	2	6	31	4	0	7	78
1999	7	2	3	1	1	4	6	12	5	3	6	50
Total for Both Years:	9	9	12	10	2	6	12	43	9	3	13	128

¹ Key: B=Brochures; EP=Education Publications; FS=Fact Sheets; GS=Guide Series; PR=Public Relation Materials; N=Newsletter; RS=Reprint Series; TB=Technical Bulletins; TS=Technical Series; TD=Theses/Dissertations.

² The figures for 1998 are higher because several publications were developed during the previous year but were not added to our publication series until the beginning of 1998.

Publications List (titles are listed in order by number)

Brochures

- Ohio Sea Grant Publications Brochure. (old version, no number)
- B-050 Sea Grant, Science Serving the 21st Century: 30 Years of Progress (the National Sea Grant 30th Anniversary Brochure)
- B-051 Stone Lab Summer 1999 Course Brochure
- B-052 Sea Grant Great Lakes Directory.
- B-053 National Sea Grant Brochure "Science Serving the 21st Century"
- B-054 Aquatic Science Workshops and Field Trips at Stone Laboratory
- B-055 Lake Erie Programs brochure. (revised with new text and format).
- B-056 Ohio Sea Grant Publications brochure (revised with new text and format)
- B-057 Ohio Sea Grant College Program Education and Research Projects Initiated between 1994 – 1999.

Education Publications

- EP-081 Great Lakes Solution Seeker: Environmental Data and Activities for Teaching about the Great Lakes.
- EP-082 Earth Systems – Education Activities for Great Lake Schools: Land & Water

Interactions in the Great Lakes

- EP-083 Earth Systems – Education Activities for Great Lake Schools: Climate & Water Movement.
- EP-084 Earth Systems – Education Activities for Great Lake Schools: Great Lakes Shipping.
- EP-085 Earth Systems – Education Activities for Great Lake Schools: Life in the Great Lakes.
- EP-086 Earth Systems – Education Activities for Great Lake Schools: Great Lakes Environmental Issues.
- EP-087 The Geological Setting of Lake Erie.
- EP-088 LAKERS Observe Coastweeks.
- EP-089a/089b Great Lakes for Kids: Ages 3 and up; and Ages 8 and up

Fact Sheets (new)

- FS-068 Personal watercraft: Affordable, Fun, and Potentially Dangerous.
- FS-069 Mayflies and Lake Erie: A Sign of the Times.
- FS-070 Providing Public Access in Coastal Areas: Options for Landowners.
- FS-071 Brownfields and their Redevelopment.
- FS-072 Locating and using Lake Erie's Artificial Reefs.
- FS-073 Ohio's Great Lakes Charter Fishing Industry in 1994.
- FS-074 Wisconsin's Great Lakes Charter Fishing Industry in 1994.
- FS-075 Minnesota's Lake Superior Charter Fishing Industry in 1994.
- FS-076 Illinois-Indiana's Lake Michigan Charter Fishing Industry in 1994.
- FS-077 Education in Ohio Sea Grant.
- FS-078 The Value of Lake Erie Beaches.
- FS-079 South Bass Island Lighthouse

Fact Sheets (revised)

- FS-005 Is it a White Bass or a White Perch?
- FS-010 Finding Maps and Charts.
- FS-012 Marine-Related Careers: Options and Resources.
- FS-021 Lake Erie's Artificial Reef Program: A Synopsis of Ohio Sea Grant's Demonstration Project.
- FS-040 Lake Erie Water Quality: 1970s to mid-1980s.
- FS-041 The Development of Areas of Concern (AOC).
- FS-043 Booking a Lake Erie Charter Fishing Trip: What to Ask and What to Expect.
- FS-045 Zebra Mussels in North America: The Invasion and its Implications.
- FS-054 Boaters: Take Action against Zebra mussels.
- FS-064 Ruffe: A New Threat to our Fisheries.

Guide Series

- GS-019 Western Lake Erie waterfront guide to public waterfront access, charter fishing, marinas, and boating excursions. (revised in 1998 and 1999)

Ohio Sea Grant Newsletter

Twine Line, the educational newsletter of Ohio Sea Grant, covering issues, events, and research related to Lake Erie and the Great Lakes. Published bi-monthly: Jan/Feb; Mar/Apr; May/June; July/Aug; Sept/Oct; and Nov/Dec. (Note: For the time period reported here, 12 issues were produced).

Public Relations

- PR-001 1997 Media Coverage: Ohio Sea Grant College Program.
- PR-002 Lake Erie Programs at The Ohio State University: Media Coverage January to July 1998.
- PR-003 Lake Erie Programs at The Ohio State University: Media Coverage 1998.
- PR-004 NewsWaves: A Sea Grant Extension Newsletter for Economic Development and Environmental Enhancement.
- PR-005 Pen and Ink Prints: Scenes at Stone Laboratory.
- PR-006 Lake Erie Programs at The Ohio State University: Media Coverage January - June 1999.

Reprint Series

- RS-201 Ecosystem-Level Effects of Zebra Mussels (*Dreissena polymorpha*): An Enclosure Experiment in Saginaw Bay, Lake Huron.
- RS-202 Effects of Zebra Mussels (*Dreissena polymorpha*) on Bacterioplankton Evidence for both Size-Selective Consumption and Growth Stimulation.
- RS-203 Effects of the Zebra Mussel, *Dreissena polymorpha*, on Community Nitrogen Dynamics in Saginaw Bay, Lake Huron.
- RS-204 Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Gene Expression and Diversity of Lake Erie Planktonic Micro-organisms.
- RS-205 Applications of Eukaryotic Algae for the Removal of Heavy Metals from Water.
- RS-206 Valuing Risk-Reducing Interventions with Hedonic Models: The Case of Erosion Protection.
- RS-207 P-NMR Analysis of Lethal and Sublethal Lesions Produced by KCl-Intoxication in the Zebra Mussel, *Dreissena polymorpha*.
- RS-208 Measurement of phosphomonoesterase activity with a radio-labeled glucose-6-phosphate: Role in phosphorus requirement of phytoplankton and bacterioplankton in a temperate mesotrophic lake.
- RS-209 Effect of Freezing on Germination of *Nelumbo lutea* (Willd.) Pers. Seeds.
- RS-210 Nitrogen and Phosphorus Recycling by the Zebra Mussel (*Dreissena polymorpha*) in the Western Basin of Lake Erie.
- RS-211 Recovery of Buirowing Mayflies (Ephemeroptera: Ephemeridae: *Hexagenia*) in western Lake Erie.
- RS-212 Benefits, Costs, and the Safe Minimum Standard of Conservation.
- RS-213 Effects of Zebra Mussels (*Dreissena polymorpha*) on Seston Levels and Sediment Deposition in Western Lake Erie.
- RS-214 The Distribution of Protozoa across a Trophic Gradient, Factors Controlling their Abundance and Importance in the Plankton Food Web. RS-215 Reproductive

- Physiology of Yellow Perch (*Perca flavescens*): Environmental and Endocrinological Cues.
- RS-215 Reproductive Physiology of Yellow Perch (*Perca flavescens*): Environmental and Endocrinological Cues.
- RS-216 Importance of the Nonindigenous Species/Aquatic Nuisance Species Issue.
- RS-217 Binding of Pyrene to Aquatic and Commercial Humic Substances: The Role of Molecular Weight and Aromaticity.
- RS-218 Uptake of Nickel and Zinc by the Zebra Mussel *Dreissena Polymorpha*.
- RS-219 Ohio's Lake Erie Charter Fishing Industry: 1985-1994.
- RS-220 Allelopathic Potential of *Nelumbo lutea* (Willd.) Pers. to Alter Growth of *Myriophyllum spicatum* L. and *Potamogeton pectinatus* L. RS-221 Effects of the Exotic Zebra Mussel (*Dreissena polymorpha*) on Metal Cycling in Lake Erie.
- RS-222 Distribution of the Floating-Leaf Macrophyte *Nelumbo lutea* (American Water Lotus) in a Coastal Wetland on Lake Erie.
- RS-223 Bacterial Productivity and Protistan Bacterivory in Coastal and Offshore Communities of Lake Erie.
- RS-224 Effects of Temperature and Photoperiod on Reproduction of Female Yellow Perch *Perca flavescens*: Plasma Concentrations of Steroid Hormones, Spontaneous and Induced Ovulation, and Quality of Eggs.
- RS-225 Plasma concentrations of steroid hormones in male yellow perch, *Perca flavescens*; the effect of age and photothermal manipulation.)
- RS-226 Molecules and morphology in studies of fish evolution.
- RS-227 The utility of mitochondrial DNA control region sequences for analyzing phylogenetic relationships among populations, species, and genera of the percidae.
- RS-228 A seasonal energy budget for zebra mussels (*Dreissena polymorpha*) in western Lake Erie.
- RS-229 Sea Grant: Enhancing K-12 education.
- RS-230 Genetic identity, Phylogeography, and Systematics of Ruffe *Gymnocephalis* in North American Great Lakes and Eurasia.
- RS-231 Zebra Mussels Invade Lake Erie Muds.
- RS-232 Population Genetic Structure, Phylogeography and Spawning Philopatry in Walleye (*Stizostedion vitreum*) from Mitochondrial DNA Control Region Sequences.
- RS-233 Body Pool and Synthesis of Ascorbic Acid in Adult Sea Lamprey (*Petromyzonmarinus*): An Agnathan Fish with Gulonolactone Oxidase Activity.
- RS-234 Tandemly repeated sequences in the mitochondrial DNA control region and phylogeography of the pike-perches *Stizostedion*
- RS-235 Artificial Reefs in Lake Erie: Biological Impacts of Habitat Alteration.
- RS-236 The Economic Value of the Lorain County, Ohio, Artificial Reef.
- RS-237 Genetic structure of *Quadrula*: Little variation across large distances.
- RS-238 Effects of recent ecosystem changes on the recruitment of young-of-the-year fish in western Lake Erie.
- RS-239 Diagnostic Genetic Markers and Evolutionary Relationships among Invasive Dreissenoid and Corbiculoid Bivalves in North America: Phylogenetic Signal from Mitochondrial 16S rDNA.
- RS-240 Lethal and Sublethal Body Residues for PCB Intoxication in the Oligochaete, *Lumbriculus variegatus*.

- RS-241 Lethal Body Residues for Pentachlorophenol in Zebra Mussels (*Dreissena polymorpha*) under Varying Conditions of Temperature and pH.
- RS-242 Environmental Awareness and Attitudes of Ashtabula County Voters Concerning the Ashtabula River Area of Concern: 1996-1997.
- RS-243 Abundance of Planktonic Virus-Like Particles in Lake Erie Subsurface Waters.

Technical Bulletins

- TB-032 Chemistry, Temperature, and SECCHI Disc Data for Hatchery Bay, Western Lake Erie.
- TB-033 Development of a Smart Underwater "Wet" Welding Process.
- TB-034 Franz Theodore Stone Laboratory: Program Summary, 1995-1997.
- TB-035 The Steamer Adventure and the Kelly's Island, Ohio Limestone Industry.
- TB-036 A Cost Effective Trap to Remove Carp and Bullhead from Diked Wetlands.
- TB-037 Coastline mapping and change detection using one-meter resolution satellite imagery.
- TB-038 F.T. Stone Laboratory 1998 Program Review.
- TB-039 The Value of Day Trips to Lake Erie Beaches.
- TB-040 Recreational Boating in Ohio: An Economic Impact Study

Technical Summaries

- TS-027 Outdoor recreation at Lake Erie.
- TS-028 Zebra Mussel Control Costs in Surface Water Using Facilities.
- TS-029 CD-ROM Guide to Lake Erie GIS: Bathymetry, Substrates, and Mussels.

Theses and Dissertations

- TD-066 Development of an Arc Voltage Control Mechanism for Underwater Wet SMAW Process.
- TD-067 The Vegetation Dynamics of a Freshwater Estuary on Lake Erie: The Old Woman Creek State Nature Preserve and National Estuarine Research Reserve, Huron, Ohio.
- TD-068 *Mitochondrial* DNA control region sequences of the ruffe percid fish (*Gymnocephalus cernuus*): A comparison of the North American invasive population versus European sites.
- TD-069 A Genetic Comparison of Two Exotic Fishes – the Ruffe (*Gymnocephalus cernuus*) and the Round Goby (*Neogobius melanostomus*) from Great Lakes versus Eurasian Populations.
- TD-070 Recruitment of young-of-the-year fishes in western Lake Erie.
- TD-071 Assessing the needs for teacher education of selected water topics based on the priorities of and self-reported knowledge of fifth and ninth grade teachers in northeast Minnesota.
- TD-072 Population genetics, biogeography, and phylogenetics of walleye (*Stizostedion vitreum*)
- TD-073 The Influence of Nutrient Recycling on the Stability of Planktonic Ecosystems.
- TD-074 Developing geographic information system applications in analysis of responses to Lake Erie shoreline changes.
- TD-075 Modeling expansion of exotic mussels on Lake Erie sediment using geographic information system (GIS).
- TD-076 Horizontal accuracy assessment of the new generation of high resolution satellite

imagery for mapping purposes.

TD-077 Evaluation and analysis of underwater "wet" welding processes.

TD-078 The Effects of Zebra and Quagga Mussels (*Dreissena* spp.) on Survival, Growth, and Condition of Burrowing Mayflies (*Hexagenia* spp.) in Western Lake Erie.

TABLE D-2

MEDIA COVERAGE FOR 1998

- Winter 97/98. "Sea Grant Program." *THE GAZEBO, OSU EXTENSION*.
- Winter 97/98. "Volunteers Make Difference ." *THE GAZEBO, OSU EXTENSION*.
- 01/01/98. "Eco Corner." *POWER & MOTORYACHT*.
- 01/05/98. "New Fish May Control Mussels." *PITTSBURGH POST-GAZETTE*.
- 01/06/98. "Cleveland Weighs Reef from Rubble." *EPA WASTE NEWS*.
-
- 02/10/98. "Invading ZMs on Sediments." *NATURE SCIENTIFIC CORRESPONDENCE*.
- 02/11/98. "Committee to Discuss Hunting Ban." *CLEVELAND PLAIN DEALER*.
- 02/15/98. "No ice? No problem! Call it Icy Fishing." *AKRON BEACON JOURNAL*.
- 02/21/98. "Exhibits Impress." *OSU LANTERN*.
- 02/21/98. "Ruffe Invasion a Bust." *ENVIRONMENTAL NEWS NETWORK*.
- 02/27/98. "Antique Lures on Display in Akron." *CLEVELAND PLAIN DEALER*.
- 02/27/98. "Ready for Erie." *CLEVELAND PLAIN DEALER*.
- 02/27/98. "Survey Shows Emphasis on Lake Erie, River." *STAR BEACON*.
- 02/28/98. "Lake Erie's Phosphorus Levels Creating a Stir." *THE NEWS HERALD*.
-
- March 1998. "Stadium Lives on in Lake Erie." *NATIONAL FISHING TACKLE RETAILER*.
- March 1998. "Cleveland Reef Draws New Crowd." *GREAT LAKES OUTDOORS*.
- 03/04/98. "Cleveland Show to Feature Fishing." *DAYTON DAILY NEWS*.
- 03/06/98. "Ohio Sea Grant/RAP Results are in." *THE SENTINAL*.
- 03/08/98. "Is Old Foe Phosphorus a Friend of Lake Erie?" *THE TOLEDO BLADE*.
- 03/09/98. "Lack of Pollutant in Lake Erie Concerns Scientists." *THE VINDICATOR*.
- 03/09/98. "Too Much of a Good Thing?" *CLEVELAND PLAIN DEALER*.
- 03/10/98. "Marina Remains Focus in Mentor." *NEWS HERALD*.
- 03/12/98. "Bounty on the Beach." *LAKE COUNTY NEWS HERALD*.
- 03/12/98. "New Great Lake = Less \$ for Ohio." *FREMONT NEWS MESSENGER*.
- 03/12/98. "RAP Responds to Survey Results." *STAR BEACON*.
- 03/15/98. "Big Business." *OMAHA WORLD-HERALD*.
- 03/18/98. "Sun Bathers Bring in Cold Cash to County." *THE NEWS HERALD*.
- 03/19/98. "Lake Phosphorus Curbs may be Mistakes." *THE TOLEDO BLADE*.
- 03/21/98. "Looking to the '98 Fishing Season." *PORT CLINTON NEWS HERALD*.
- 03/29/98. "Concerns Grow as Mussels Muscle in." *AKRON BEACON JOURNAL*.
- March/April 1998. "Great Lakes Program Series." *EARTH CENTER NEWSLETTER*.
- Spring 1998. "Cleveland's Artificial Reefs Completed." *LAKE ERIE WALLEYE*.
- Spring 1998. "Water Hazard." *GREAT LAKES FISHERY COMMISSION*.
-
- April 1998. "Early Forts on Sandusky Bay." *MID-AMERICA BOATING*.
- April 1998. "GPS for Navigation & Land Users." *MID-AMERICA BOATING*.
- 04/01/98. "Architect of Artificial Reefs." *THE FISHWRAPPER*.
- 04/01/98. "Kelch Heads up Artificial Reef Program." *THE FISHWRAPPER*.
- 04/01/98. "State Study Takes Closer Look at Beaches." *THE FISHWRAPPER*.

04/01/98. "The Early Forts on Sandusky Bay." *TRADER GAZETTE*.
 04/03/98. "Lake Erie Smallmouth Bass Fishing." *CLEVELAND PLAIN DEALER*.
 04/03/98. "Talk on Lake Erie." *CLEVELAND PLAIN DEALER*.
 04/10/98. "Fish Kills Occurance More Frequent." *FREMONT NEWS MESSENGER*.
 04/11/98. "Warm Air Cold Water Spawn Fishing." *FREMONT NEW MESSENGER*.
 04/11/98. "Warm Air Cold Water Spawn Fishing." *PORT CLINTON NEWS HERALD*.
 04/12/98. "Erie Changes." *CLEVELAND PLAIN DEALER*.
 04/14/98. "Mild Winter Could Result in More Dead Fish." *ELYRIA CHRONICLE*.
 04/14/98. "Mild Winter May Mean More Erie Dead Fish." *DAYTON DAILY NEWS*.
 04/14/98. "More Fish Kills Predicted in Lake." *PORT CLINTON NEWS HERALD*.
 04/20/98. "What's up with Lake Erie." *RURAL – URBAN RECORD*.
 04/22/98. "Talk on Lake Erie." *THE PLAIN DEALER*.
 04/27/98. "Boats no Longer Needed for Books." *THE TOLEDO BLADE*.
 04/28/98. "OSU Delivers Books to Gibraltar Island." *AKRON BEACON JOURNAL*.
 April/May 1998. "The Fish and Phosphorus Debate" *LAKE ERIE SHORE LINES*.

05/06/98. "Zebra Mussels." *NPR's ALL THINGS CONSIDERED*.
 05/07/98. "Friends Moved Library Book-by-Book by Boat." *OnCAMPUS*.
 05/07/98. "Zebra Mussels Invade Lake Erie Muds." *NATURE*.
 05/07/98. "Zebra Mussels Prove they can Colonize Sand and Mud." *UNISCI NEWS*.
 05/09/98. "Muscling in." *NEW SCIENTIST*.
 05/11/98. "Zebra Mussels Cling to Grains of Sand." *THE WASHINGTON POST*.
 05/11/98. "Zebra Mussels Colonize Sand and Mud." *SCIENCE DAILY MAGAZINE*.
 05/12/98. "Zebra Mussels Tighten hold on Lakes." *CHARLOTTE OBSERVER*.
 05/13/98. "Port Clinton Plan for Mayflies." *PORT CLINTON NEWS HERALD*.
 05/15/98. "Zebra Mussels Flourish in Sand." *ENVIRONMENTAL NEWS NETWORK*.
 05/18/98. "Defense Drawn for Dreaded Mollusks." *THE TOLEDO BLADE*.
 05/19/98. "Fishing for Lake Erie Dollars." *THE NEWS HERALD*.
 05/19/98. "Musseling in on the Bottom." *NEWSDAY*.
 05/22/98. "Big Mayfly Invasion Predicted." *PORT CLINTON NEWS HERALD*.
 05/22/98. "Study Shows Zebra Mussels can Colonize Sand and Mud." *RESEARCH*.
 05/31/98. "Reefs Producing." *AKRON BEACON JOURNAL*.
 May/June 1998. "Is the Ruffe Less of a Threat." *LITTORAL DRIFT*.

06/03/98. "Fishermen Back Water Sale Fight." *LORAIN COUNTY JOURNAL*.
 06/03/98. "Lake Water Sales Face Opposition." *CHRONICLE-TELEGRAM*.
 06/04/98. "Newsbrief." *PORT CLINTON BEACON*.
 06/05/98. "Going Buggy? Calm Before the Swarm." *LORAIN COUNTY JOURNAL*.
 06/08/98. "Towns Brace for Arrival of Mayflies." *THE TOLEDO BLADE*.
 06/16/98. "Lights Out! It's Mayfly Time." *COLUMBUS DISPATCH*.
 06/16/98. "Mayflies Begin Annual Invasion." *FREMONT NEWS MESSENGER*.
 06/16/98. "Mayflies Begin Annual Invasion." *PORT CLINTON NEWS HERALD*.
 06/18/98. "Mayfly Hatches." *THE BUFFALO NEWS*.
 06/25/98. "Renovating Cooke Castle, Preserving History." *LAKE FRONT NEWS*.
 06/25/98. "Study Shows Zebra Mussels can Colonize Sand and Mud." *OnCAMPUS*.
 06/26/98. "Freshwater Drum Recipes." *CHRONICLE-TELEGRAM*.

06/26/98. "Steve Should Have Kept Sheephead." *CHRONICLE-TELEGRAM*.
Summer 1998. "Lake Erie Smallmouth Bass Capital of World." *OHIO SPORTSMAN*.
Summer 1998. "Mayflies Back in Lake Erie." *GL FISHERIES FORUM*.
Summer 1998. "Mentor Lagoons Study." *OSU COMMUNITY DEVELOPMENT*.
Summer 1998. "The Ohio Sea Grant College Program." *EECO*.
Summer 1998. "Ohio State Management for ANS" *DREISSENA*

July 1998. "Lake Erie Related Publications." *OHIO ACADEMY OF SCIENCE*.
July 1998. "A Gift From the Sea, Sea Grant at 30." *BOAT US MAGAZINE*.
July 1998. "1998 Stone Lab Guest Lecture Series." *LAKE FRONT NEWS*.
July 1998. "Cleveland's Artificial Reefs: A Tribute." *MID-AMERICA BOATING*.
07/05/98. "Lake Erie's Isle of Learning." *CLEVELAND PLAIN DEALER*.
07/06/98. "Zebra Mussels Remain Threat." *GREAT LAKES RADIO CONSORTIUM*
07/21/98. "George Wiczulis, Supported Lake Erie." *PLAIN DEALER*.
07/22/98. "Lakes are Healthier, for Now." *COLUMBUS DISPATCH*.
07/22/98. "Mayflies are a Sign that Lake Erie is Cleaner." *EARTHWATCH RADIO*.
07/29/98. "What About Wildlife." *ENVIRONMENTAL NEWS NETWORK*.
July/August 1998. "Back to the Lake." *AAA's HOME & AWAY*.
July/August 1998. "Taking the Pulse of a Wetland." *LAND AND WATER*.

08/03/98. "ODNR: Throw Small Perch Back." *FREMONT NEWS MESSENGER*.
08/03/98. "ODNR: Throw Small Perch Back." *PORT CLINTON NEWS HERALD*.
08/05/98. "Let the Little Fish Go to Increase Size." *FREMONT NEWS MESSENGER*.
08/08/98. "What They Said." *FREMONT NEWS MESSENGER*.
08/16/98. "Ohio State University's F.T. Stone Lab." *COLUMBUS DISPATCH*.
08/20/98. "Island Residents Safeguard Water Snakes in Lake." *TOLEDO BLADE*.
08/27/98. "Microcystis Algae Bloom." *FOX TV CHANNEL 8 CLEVELAND*.
08/27/98. "Poisonous Algae Again Emerges in Lake Erie." *TOLEDO BLADE*.
08/29/98. "Stone Laboratory Research." *NPR AFFILIATE WOSU AM RADIO 820*.
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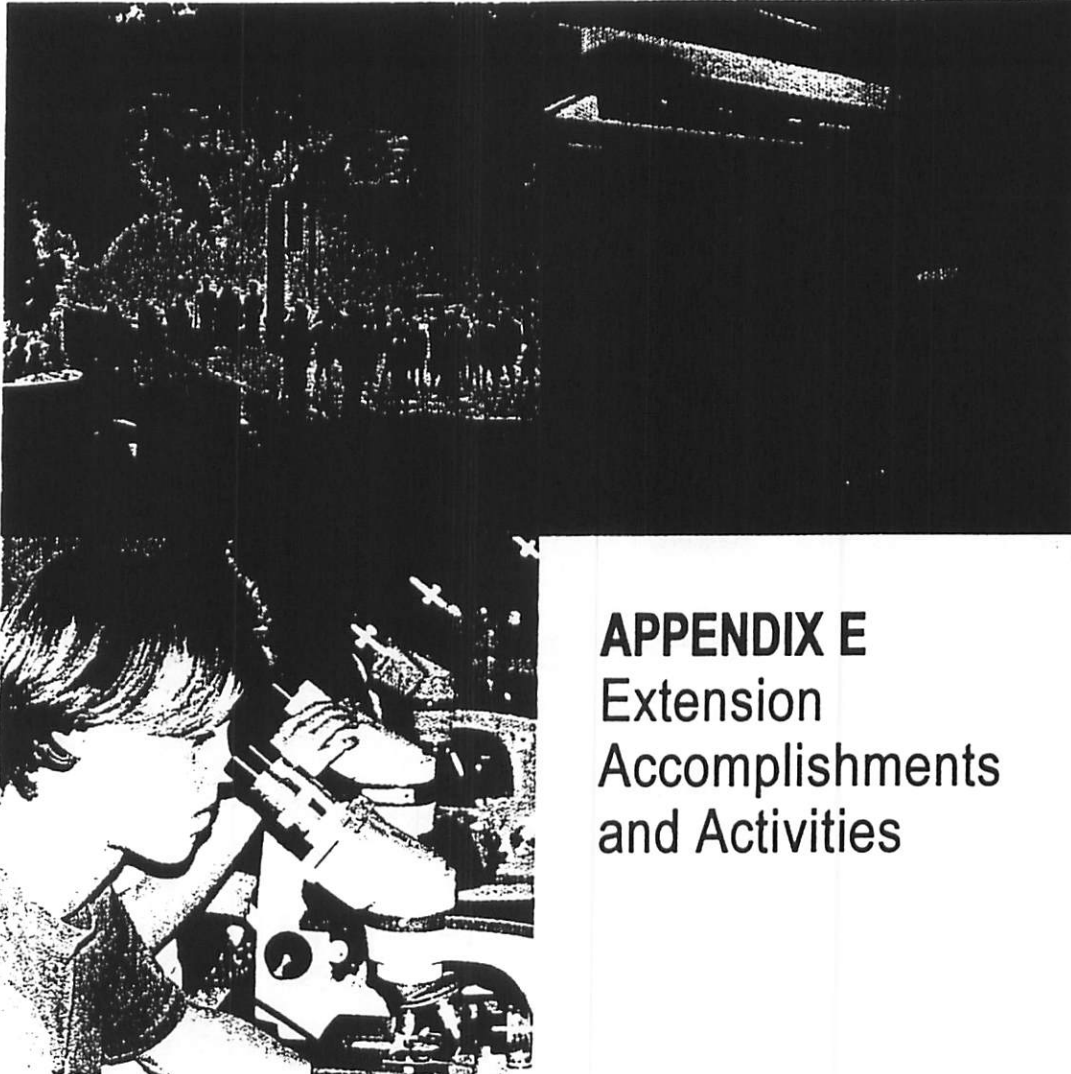
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O U T R E A C H • R E S E A R C H



E D U C A T I O N

APPENDIX E

Extension Accomplishments and Activities



APPENDIX E

EXTENSION ACCOMPLISHMENTS

January 1998 to June 1999

The Ohio Sea Grant Extension Program works on national issues with local needs-based projects and initiatives. In 1999, Ohio Sea Grant Extension reworked its plan of work and reporting system to better reflect the National Sea Grant College Program priorities, 1995-2005. Beginning with the 1998 calendar year, the Ohio Sea Grant Extension effort reporting system follows the national outline.

In this section we present the plan of work submitted for the period January 1, 1998 to June 30, 1999 and accomplishments to date on those objectives and actions from January, 1998 (when the plan of work was revised) to the present. Particularly noteworthy accomplishments in the coastal business component include the efforts initiated from the Toledo area R&E program, initiation of the Ohio Boat Sales Reporter newsletter, public development of the Mentor Lagoons property, and teaching of small business excel to marina operators and other coastal businesses. In the tourism component we note publishing of the Western Lake Erie Waterfront Guide and the construction of artificial reefs using concrete rubble from the old Cleveland Stadium. In Coastal Ecosystem Health and Public Safety are the securing of substantial funds to establish the Lake Erie Buffer Initiative and actions to prevent property loss and damage during episodes of abnormally high and low lake levels.

I. Economic Leadership

A. Advanced Technology for Commercial Products and Processes

1. Commercial Biotechnology

Objective: Transfer research results on industrial, economic and social impacts of zebra mussels and other aquatic nuisance species on recreational and industrial use of Great Lakes water to those who need this information.

Action (New): F. Snyder will work with the City of Port Clinton and other areas affected by the mayfly to develop improved methods of removing and composting the Mayfly. He will also assist the City and other affected areas to secure funds to help develop these methods and to carry them out.

Result: F. Snyder assisted the City of Port Clinton, Ohio in planning and developing the country's first licensed mayfly composting facility, and in proposal writing which won a \$25,592 Lake Erie Protection Fund grant. This project will improve sanitation and reduce nuisance odor in the city during heavy mayfly emergence. The District Specialist continues to serve as the technical advisor on this project.

Result: F. Snyder presented, "Usefulness of Commercial Anti-Fouling Coatings Against Zebra Mussel Fouling of Boats and Engines," at the Southern Region Zebra Mussel Conference April 20-22, 1998 in Chattanooga, TN. D. Kelch and F. Lichtkoppler were co-authors.

2. Environmental Technology

Objective: Extend the results of artificial reef research with implications for other reef structures to the artificial reef task force and to other communities.

Action: D. Kelch will assist communities exploring artificial reef structures in assessing the feasibility of reefs in their locations.

Result: D. Kelch presented "Artificial Reefs in Lake Erie: Biological Impacts of Habitat Alteration," an invited paper and D. Kelch was a co-author for "Economic Value of a Great Lakes Artificial Reef in Lorain County, Ohio," presented by L. Hushak at the 128th annual meeting of the American Fisheries Society (AFS) in Hartford, Connecticut, August, 1998.

Action (New): D. Kelch will assist the City of Cleveland in locating and constructing two artificial reefs using rubble from the old Cleveland Stadium, and in adding appropriate waste materials from other sources to these artificial reef sites in the future.

Result: D. Kelch assisted the City of Cleveland in planning, developing and constructing three artificial reefs. These reefs were constructed with concrete rubble from the old Cleveland Stadium. Reefs were constructed during late October and November 1997.

Action (New): D. Kelch and F. Snyder will develop a monitoring and research program for the Cleveland Stadium reefs to explore adaptation as habitat by fish before, during and after placement of materials.

Result: D. Kelch is co-author with F. Snyder, J. Reutter and L. Hushak of two chapters in the American Fisheries Society book, *Essential Fish Habitat and Rehabilitation*.

Result: D. Kelch presented, "Artificial Reefs in Lake Erie: A Synopsis of Ohio Sea Grant's Artificial Reef Demonstration Project", at the 128th Annual Meeting of the American Fisheries Society in Hartford, CT. F. Snyder and J. Reutter were co-authors.

Action: D. Kelch and F. Snyder will investigate the feasibility of a multi-purpose deep water artificial reef in Lake Erie to be used primarily for scuba diving and secondarily for fishing.

Result: D. Kelch worked with ODNR/Geological Survey geologists in the 1st quarter of 1999 to plan a detailed mapping project of the artificial reefs. D. Kelch will serve as Co-PI for the project.

B. Seafood Production

1. Commercial Fisheries

Objective: Maintain a liaison with the commercial fishing industry in Ohio and assist in the development of opportunities.

Action: Search for business opportunities for underutilized species.

2. Sustainable Aquaculture

Objective: Provide outreach education for Ohio's aquaculture producers on the feasibility of producing and marketing selected species.

Action: F. Snyder and F. Lichtkoppler will work with the Piketon Research and Extension Center to assist in the production of educational material and programs for aquaculturists in Ohio.

Action (New): All agents will assist those interested in growing fish and other aquatic products to obtain needed information and put them in contact with the Piketon Research and Extension Center.

Result (New): F. Snyder assisted two new aquaculturists in Lorain and Williams counties in developing crayfish culture operations. Both new ventures are now marketing their products annually.

3. Seafood Technology

Objective: Develop outreach education programs on Hazard Analysis Critical Control Point (HACCP) procedures, fish contaminants, and other seafood issues as part of revised food safety procedures as they apply to seafood.

Action: D. Kelch will continue leadership for HACCP and attend a Seafood Safety Alliance sponsored training program to become knowledgeable about HACCP procedures.

Result: Nineteen commercial fishermen and fish processors received USFDA certification as HACCP-trained seafood handlers (Hazard Analysis Critical Control Point) through a three-day training program planned and conducted by District Specialists F. Snyder and D. Kelch. The commercial fishermen and processors now are using approved handling methods to increase seafood safety and have come into compliance with FDA rules.

Action: D. Kelch will provide fact sheets and other educational materials as appropriate to seafood industry participants about seafood safety procedures.

Result: D. Kelch presented “Seafood Safety Issues—What’s New” at a national, From Farm to Table: Safe Food For America Symposium, sponsored by The Ohio State University and Ohio State University Extension, September 27-29, 1998, in Columbus, Ohio.

Action: D. Kelch will develop a fact sheet and other educational materials as appropriate to inform consumers about fish contaminants and other seafood safety issues.

C. Coastal Economic Development

1. Coastal Business Development

- Fishing

Objective: Support the Lake Erie charter boat industry.

Action: F. Snyder will continue to organize the annual Charter Business Conference.

Result: Over 200 attendees at the 18th Annual Ohio Charter Captains Conference gained knowledge of tax planning, marketing, legal issues and Lake Erie fishery stocks. Snyder conducted a survey of the conference’s value to captains attending for more than one year. 75 percent said that conference information had increased their profits. 83 percent said they improved their operating practices by using conference information. 95 percent claim they implement conference information into their charter businesses. This business-oriented conference is the largest one-day educational program for charter captains held in the United States. Stemming from the success of this program, F. Snyder made invited presentations on charter fishing issues to the Western Basin Charterboat Association (Monroe, Michigan), and Michigan Sea Grant’s Regional Fisheries conference in Bridgeman, Michigan.

Result: 43 charter captains learned new marketing strategies at a special charter business program hosted by the Ottawa County Visitors Bureau and presented by F. Snyder.

Result: D. Kelch worked with ODNR/Division of Wildlife biologists in the 1st quarter of 1999 to expand the ongoing DOW smallmouth bass tag/recapture research effort to include three Lake Erie artificial reef sites. D. Kelch will serve as the PI for the Sea Grant funded portion of this study.

- Coastal Recreation

Objective (Revised): Provide outreach education and assistance to county visitor’s bureaus in the marketing and development of tourism on Ohio’s North Coast.

Action (New): D. Kelch will develop a new angling brochure for the Lorain CVB. He will write the text, provide photos and all other materials as in past angling brochures.

Result: D. Kelch developed the context, wrote the text and provided the photos for a new angling tourism brochure for the Lorain County Visitors Bureau. The first printing has been distributed over a 7-state area.

Result: D. Kelch conducted a series of 5 educational seminars at the Lake Erie Nature and Science Center and 5 seminars during the 1998 Cleveland Boat Show. Post program surveys of the 450+ participants indicated an average of 90% learning more about Lake Erie issues.

Action New): D. Kelch is chairing a sub-committee of the Lorain County Convention and Visitors Bureau (CVB) Board which is developing a visitor tracking instrument for hotels/motels to be implemented during 1998-99.

Result: D. Kelch continued to assist the Lorain County CVB in the development and implementation of a visitor tracking survey. This survey, will begin during January of 1999, will help to determine why visitors come to the county.

Action: All Sea Grant Extension agents will develop formal linkages with the visitors bureaus in their respective counties, and assist the directors of these bureaus in the development of marketing strategies.

Result: W. Williams is working with Dr. Virginia Benson, Professor at Cleveland State University, to identify tour sites along Ohio's Lake Erie coastline that would provide educational and recreational benefits to citizens of the State as well as visitors from abroad.

Result: M. Bielen collaborated with F. Lichtkoppler and Brent Sohngen, Assistant Professor and Principal Investigator, Ohio State University, Department of Agricultural Economics on a study of the recreational value of beaches. A Lake Erie Protection Fund and Ohio Sea Grant development grant for \$7,500 was obtained in 1997 to survey patrons at two beaches, Maumee Bay State Park Beach and Headlands State Park Beach.

Result: M. Bielen and F. Lichtkoppler assisted Brent Sohngen with editing a fact sheet about the Maumee Bay/Headlands State Park beach study. The Ohio Agricultural Research and Development Center, Ohio State University, featured the results of the 1997 Maumee Bay/Headlands State Park beach study in their 1998 Annual Report. "The Press" newspaper, based in Oregon, Ohio, published a feature story on the Maumee Bay beach study in March 1999.

Result: The Maumee Bay/Headlands State Park beach study (B. Sohngen, M. Bielen, and F. Lichtkoppler) provided the basis for a \$80,000 Sea Grant College Program research project conducted in 1998 by the same investigators to estimate the economic value of all Ohio's Lake Erie beaches. This work will provide the data on the direct economic impact, recreational value, and visitor characteristics of each of Ohio's Lake Erie beaches.

Result: F. Lichtkoppler is a member of the Ashtabula County Convention and Visitors Bureau (1997 - 1998) and the Lake County Visitors Bureau (1993-1998).

Result: D. Kelch serves as vice-chair for the Lorain County CVB Board of Directors and chair of the policy subcommittee of the Lorain County CVB.

Objective: Support the Lake Erie marine trades industry, and other tourism related businesses.

Action (New): M. Bielen will continue to work with Ohio State university (OSU) researchers to secure funding to study the economic value of the Ottawa River and the economic impact of income and employment of marine related businesses bordering the Ottawa River. In addition to supporting the marine businesses on this river, this information could potentially be used to justify and gain financial support for future dredging of the Ottawa River.

Action: F. Snyder will provide marina operators with current and appropriate in-water weed control procedures through personal contact, publications and workshops, as appropriate.

Result: F. Lichtkoppler taught 25 commercial landscape maintenance professionals aquatic weed control at the Holden Arboretum on March 2, 1999. The program was well received and helped 3 people meet state aquatic pesticide certification requirements.

Action: As fishing activity decreases, D. Kelch will assist fishing businesses to refocus on the development of new business activities focused on non-fishing such as dinner cruises, island cruises, scuba diving, snorkeling, etc.

Result: F. Lichtkoppler identified the need for a one-day fishing license as the Ohio charter industry's most important issue in a 1994 charter captains survey. In 1998, the State of Ohio ODNR created a one day fishing license in response to charter industry needs.

Action: F. Lichtkoppler and the program leader will collaborate with the Lake Erie Marine Trades Association and the Division of Watercraft of ODNR to assist the marine trades industry of Ohio to obtain improved information on boat demand.

Result: F. Lichtkoppler identified key boating issues and work topics for the Ohio Lake Erie Office as part of the lakewide recreational boating focus group.

Result: F. Lichtkoppler presented, "Great Lakes Environmental Priorities of Cleveland Sport and Boat Show Patrons: 1992-1997," at the 41st Conference of the International Association for Great Lakes Research, May 18-22, 1998 in Hamilton, Ontario, Canada. D. Kelch, F. Snyder, W. Williams and A. Berry were co-authors.

Result: F. Lichtkoppler, D. Kelch, F. Snyder, W. Williams and J. Hageman surveyed 639 patrons in 1998 and 510 patrons of the 1999 Mid America Sail & Power Boat Show (Jan. 12-21) on issues of concern to show management. The agents manned the Ohio Sea Grant College Program exhibit (developed with the Ohio Sea Grant Communications Program) and responded to scores of questions from citizens. They distributed over 5,000 Sea Grant fact sheets to interested boaters and anglers.

Result: F. Lichtkoppler, D. Kelch, F. Snyder, W. Williams and J. Hageman surveyed 468 patrons in 1998 and over 500 patrons of the 1999 Cleveland Sport, Travel and Outdoor recreation Show (March 13-21). Survey respondents provided data on Lake Erie environmental issues, their willingness to pay for PCB cleanup and their use of the Cleveland artificial reefs. The agents manned the Ohio Sea Grant College Program exhibit (developed with the Ohio Sea Grant Communications Program) and responded to scores of questions from show visitors. They distributed over 7,500 Sea Grant fact sheets to interested citizens.

Result: F. Lichtkoppler responded to dozens of angler questions about Lake Erie resources and distributed over 1,100 Sea Grant Fact sheets at the two day Eastlake Fishing Symposium in February 1998 and February 1999.

Action: W. Williams and F. Lichtkoppler will provide information on boat and boat buyer characteristics needed by bank loan officers to increase their knowledge about making loans to boat buyers through personal contacts, publications and workshops.

Action: W. Williams will work with the Division of Watercraft, ODNR, and the Personal Watercraft Industry Association (PWIA) to increase knowledge of personal watercraft safety, and boater safety in general, by personal watercraft operators.

Action (Revised): Each Sea Grant agent will assist marinas, charter fishing firms, dive shops, and other interested businesses in the use of the Great Lakes Forecasting System (GLFS), an on-line system providing hydrological and meteorological information about the Great Lakes, and Coastwatch. Coastwatch is an on-line weather forecasting information system developed by the Great Lakes Environmental Research Laboratory (GLERL) and the Great Lakes Sea Grant Network and managed by Michigan Sea Grant.

Result: F. Lichtkoppler initiated successful Ohio Sea Grant participation on the Great Lakes Coastwatch program on the internet allowing hundreds of anglers, charter captains, citizens, and educators to learn more about Lake Erie surface temperatures and weather.

Result: F. Lichtkoppler was one of a team of four Great Lakes Sea Grant agents who received the Great Lakes Sea Grant Network Program Leaders Award for Outstanding Program, Coastwatch, June 1998.

Action (New): M. Bielen will assist the Toledo Area CVB in the development and publication of the "Waterfront Guide for Boaters", currently in its 2nd edition.

Result: M. Bielen has developed and had published, with the assistance of Ohio Sea Grant communications, three editions (1996, 1997, 1998) of the "Western Lake Erie Waterfront Guide." The fourth edition (1999) of the guide is underway. To date, over \$10,000 has been raised from local businesses and community organizations to cover printing costs. A 20 percent increase in the number of copies printed in 1998 was made possible by an increase in financial support from businesses and sponsors. The Greater Toledo Convention and Visitors Bureau distributed 12,000 copies of the guide in 1998.

- Marine Trades

Objective: Provide outreach education for local leaders to support the design of local economic development strategies for coastal (tourist, convention, power, municipal, and other) businesses on Ohio's North Coast.

Action: Each Sea Grant Extension agent will initiate contact with County Commissioners, Mayors, Township Trustees, Chambers of Commerce, Community Improvement Corporations, Planning Commissions etc. to provide informal outreach education and to assist in providing formal outreach relating to coastal economic development.

Action (New): W. Williams and F. Lichtkoppler will be active members of the Small Business Excel team and conduct at least one Excel program for Marina managers each year. Excel teaches basic business management skill for small business managers.

Result: W. Williams taught the planning, and controlling sections of the Small Business Excel program, on February 3, 1999. 18 business owners from Harrison County participated in this workshop.

Result: W. Williams taught the planning, staffing and controlling sections of the Small Business Management (SBM) Excel program. 18 business owners from the Fairfax Business Association participated in the SBM Excel workshops in 1998.

Result: F. Lichtkoppler organized an SBM Excel class and taught staffing for 10 marina operators (Feb 25, March 4,11,1998). W. Williams taught controlling at the same workshop.

Result: F. Lichtkoppler team taught staffing at an SBM Excel class for 12 Campground Owners, April 14, 21, & 28, 1998.

Action (New): M. Bielen will continue working with several Toledo neighborhood Community Development Corporations to develop a waterfront plan for a portion of North Summit Street (north of downtown Toledo). Her role is to provide technical assistance on waterfront development and to identify potential funding sources.

Result: A fiscal and economic impact study of Ottawa River boating and the marine trades industry and the economic valuation of the Ottawa River as a recreational resource

is being undertaken by Leroy Hushak, Sea Grant Economist and Principal Investigator in collaboration with M. Bielen, Co-Principal Investigator. A \$10,000 grant from the Lake Erie Protection Fund, Ohio Sea Grant and the Ottawa River Action Group has been secured by M. Bielen and L. Hushak to finance this research.

Result: M. Bielen assisted L. Hushak with questionnaire design for three surveys for the Ottawa River Boating and Marine Trades Study. 600 Ottawa River area boaters and 76 Ottawa River area marine businesses were surveyed between October 1998 and March 1999.

Result: Preliminary results of the Ottawa River boater's survey conducted by Leroy Hushak in collaboration with M. Bielen, revealed the average Ottawa River boater household spends \$197.39 per trip to the Ottawa River area. These expenditures include fuel, meals, groceries, fishing and other supplies.) Also, the average Ottawa River boater household spends \$3,162 annually in boat-related maintenance, fees and repairs and \$7,427 annually in boat-related purchases. A 1999 project timeline for preparing and presenting the final report was developed and distributed to the Action Group.

2. Coastal Community Development

Objective: Develop educational assistance for local leaders in addressing site re-development issues.

Action: M. Bielen and W. Williams will assist economic development professionals in their respective counties in developing procedures for targeting businesses most able to use aging industrial and warehousing buildings.

Result: W. Williams was invited to facilitate a meeting between the City of Olmsted Falls, Olmsted Township and the Olmsted City School District, on March 9, 1999. It was agreed that the mayor for the city, township trustees chairperson and school superintendent would identify three members to be part of a study committee. Ohio State University Extension/Sea Grant will facilitate this study committee. The study committee will research three economic development ideas.

Result: M. Bielen received the 1998 OSU Extension Northwest District Achievement Award in recognition of her Community Economic Development work. The award is given to one Extension agent in each of Ohio's five geographic districts based on a vote of peers in the agent's program area.

Result: M. Bielen, as one of 180 delegates attending the All-America City Competition, was publicly recognized by Toledo Mayor Carleton Finkbeiner at the Mayor's "State of the City Address" in January, 1999. The 180 delegates were also honored as Toledo "Citizens of the Month" in July 1998 and received official Mayors' Proclamations.

Result: M. Bielen worked in collaboration with Dr. Dave Kraybill and Dr. Leroy Hushak

software for economic development professionals. In 1999, she authored chapters on conducting business interviews and on leading the community to action.

Result: M. Bielen worked in collaboration with Dr. Dave Kraybill, and Dr. Leroy Hushak to plan and teach a one-day workshop on using the "Continuous Business R&E" computer training software program. 25 Extension economic development professionals attended the March 1999 workshop.

Result: M. Bielen organized a speakers panel on "Follow-up to Urban R&E Programs" for the Business Retention and Expansion International Annual Conference, Roanoke, Virginia, June 10-12, 1998.

Result: M. Bielen started a column called "Urban Corner" in the Business Retention and Expansion International (BREI) newsletter and also started an e-mail listserv for members (and non-members) interested in discussions about urban business R&E. The listserv currently has 30 subscribers.

Result: M. Bielen provided teaching support for a University of Toledo Business R&E program. M. Bielen oriented neighborhood groups to the program, trained volunteers and provided guidance on business follow-up and action planning. As a result of the R&E program the Toledo Department of Development has taken new interest in the concerns of 58 small industrial businesses located in six neighborhoods adjacent to the downtown. All 58 businesses are users of Lake Erie water and electric power generated using the Lake. Two companies, planning to move out of the central city, expanded near their current locations and were retained as a result of the program.

Result: As a result of a Hospitality Business R&E program, coordinated by M. Bielen in 1995, local business community and city officials have been giving more support to the local visitor industry. Between 1996-1998, five major attractions have opened on or near the Maumee riverfront in renovated buildings and are doing well. During the same time two existing Toledo businesses relocated to the downtown. Hotel occupancy increased by 20 percent in 1996 and continues to grow annually.

Result: Five new recreational boating and cruising ventures were initiated between 1996-1998 as a result of increased support for the visitor industry resulting from the Hospitality Business R&E program, coordinated by M. Bielen in 1995.

3. Revitalize Marine Infrastructure

Action: M. Bielen and W. Williams will work with the economic development community in their respective counties to develop educational information on brownfield site re-development, to include sources of funding and technical assistance.

Result: M. Bielen is providing technical assistance on redeveloping a brownfield site located in the Maumee River watershed. The five-acre site, the former location of an auto

transmission plant, is under consideration for development of a hydroponics operation or warehouse facility. A Phase I environmental assessment has been completed for the site.

Result: M. Bielen is providing technical assistance on redeveloping a second brownfield site located in the Maumee River watershed. This former auto spark plug plant will be demolished for construction of a new business venture. Phase I & II environmental assessments have been completed and building demolition and remediation are estimated to be in the range of \$750,000. The City is currently working on finding additional funds to carry out the demolition and cleanup.

Result: M. Bielen is providing technical assistance on redeveloping a third brownfield site located in the Maumee River watershed. This sixteen-acre site, which includes a former railroad property, with wetlands, is being developed for an industrial park. Design on the industrial park is now underway as a result of M. Bielen assisting the North River Development Corporation, the owners of 13 acres of the property, in reviewing and scoring proposals from five consulting firms proposing to undertake industrial park planning and design services for this site.

Action: M. Bielen and W. Williams will write or revise two Fact Sheets and other publications for developers, lenders and businesses on Ohio laws governing reuse of brownfield sites, on model brownfield site risk assessment procedures, and on how to measure risk at brownfield sites.

Result: M. Bielen is currently working on two fact sheets regarding brownfield redevelopment that will be published in 1999 as part of the Industry Attraction Series, Community Development, OSU Extension. A previous fact sheet on brownfields written by M. Bielen has been distributed to all Ohio county extension offices and to members of the Ohio Development Association.

Result: M. Bielen is also preparing a case study of a brownfield redevelopment project for a National Extension Curriculum on Sustainable Community Development.

Result: M. Bielen and L. Hushak authored an article entitled "Reclaiming Brownfields: Will it Save our Farmlands" for the Fall 1997 issue of *Ohio's Challenge: The Magazine of Agricultural Economics*.

Result: M. Bielen authored a 1998 Twine Line "Ask Your Agent" column on the subject of financing Brownfield Redevelopment.

Action: Sea Grant Extension agents will be involved with the R&E programs conducted within their counties of responsibility.

Result: M. Bielen organized a speakers panel on "Follow-up to Urban R&E Programs" for the Business Retention and Expansion International Annual Conference, Roanoke, Virginia, June 10-12, 1998.

Result: M. Bielen started a column called "Urban Corner" in the Business Retention and Expansion International (BREI) newsletter and also started an e-mail listserv for members (and non-members) interested in discussions about urban business R&E. The listserv currently has 25 subscribers.

Result: M. Bielen is working with David Kraybill, Associate Professor, Ohio State University, Department of Agricultural Economics on a revised R&E program that can largely be conducted without the assistance of an organized local task force and the University. The program is being designed by Kraybill and will be utilized by M. Bielen in developing further interest on the part of the City of Toledo and the Growth Partnership in conducting business R&E Programs.

Result: W. Williams lead a task force to retain Finast Supermarkets within the inner city. Earlier incidents of thefts and security problems in these Finast stores, in addition to a new management team not familiar with operating inner city locations forced management to reevaluate their commitments to Cleveland's inner city neighborhoods. After Finast received commitments from local development corporations, the management reaffirmed their commitments to these store locations.

Result: W. Williams business outreach efforts helped attract or retain 163 full time and 20 part time jobs with 3 new and 2 existing firms in the Cleveland metropolitan region in 1998.

Objective: Assist in the conduct of the Ohio Business Retention & Expansion (R&E) Programs in coastal counties.

Action (Revised): M. Bielen will continue to interest and assist the City of Toledo, neighborhood community development corporations and the Growth Partnership in establishing ongoing R&E programs.

Result: M. Bielen is working with the Cherry-Bancroft-Summit Corridor Coalition of neighborhood organizations on a Maumee River waterfront development plan for Summit Street. The group has received \$35,000 in private grant funds for development of this waterfront plan. M. Bielen assisted them with preparing their Request for Proposals (RFP) and developed a list of consulting firms to solicit proposals from.

Objective: Provide assistance to non-profit organizations seeking to strengthen their ability to attract visitors to the community.

Action: M. Bielen will organize at least one workshop per year on boardmanship, marketing, and fund raising for museums and other non-profit organizations which seek to improve their ability to attract visitors. The workshop objectives will be to assist these officials on boardmanship, to prepare marketing plans, and to write proposals and facilitate interaction with grant sponsors.

Result: M. Bielen is currently working on developing curriculum for a course she has designed called "Management Excel for Nonprofits," which focuses on management

topics for executive directors of nonprofit organizations. The expected date of completion is early 2000.

Result: M. Bielen served as a member of the planning team for the Ohio Historic Preservation Office Annual Conference, Toledo, June 1998, attended by 350 nonprofit organizations. The theme of the conference was "Building Successful Communities."

Result: M. Bielen presented a paper entitled "Know thy audience: Customer surveys as marketing tools" at the annual meeting of The Ohio Museums Association, Toledo, May, 1997, attended by 250 nonprofit museum professionals.

Result: With the Ottawa County Visitors Bureau, J. Hageman is leading activities to support two off-season bird watching events in spring 1999 via participation in an area-wide Lake Erie Wing Watch and an Island Bird-a-Thon.

Result: Two dozen travel writers learned of lake tourism opportunities for writing markets in several states and Canada when they were hosted by J. Hageman, F. Snyder and J. Reutter as part of an Island Getaway Tour, sponsored by the Ohio Department of Travel and Tourism.

Result: As part of the annual Coastweeks celebration, J. Hageman initiated and co-sponsored an underwater cleanup attended by approximately 200 SCUBA divers who removed nearly a ton of trash from Lake Erie's water.

Result: Nearly 1,500 guests learned about Lake Erie research and issues from J. Hageman when they were accommodated for tours of Gibraltar Island and the F.T. Stone Laboratory, Ohio's Biological Field Station on Lake Erie.

Result: D. Kelch assisted in planning and conducting the fourth Outdoor Writers Invitational May 20-22, 1998. 21 prominent outdoor writers from a seven-state area participated in this three-day awareness event. This activity generated publicity estimated in excess of \$20,000 for the bureau. The bureau has recognized this event as one of the most important for increasing angler-related tourism in Lorain County.

Action: M. Bielen and W. Williams will work with neighborhood or area organizations and develop cluster groups, telephone marketing surveys, and other tools into urban R&E program procedures.

Result: W. Williams organized volunteers for a phone survey of members of the Economic Development Network (EDN), on March 16, 1999. Over 60% (52 of 86) of EDN members responded. EDN members found the forums informative and meeting time convenient. EDN members requested guest speakers from other municipalities that have a creative approach to economic development.

Result: W. Williams organized and participated in the March 16, 1999 Economic Development Network (EDN) meeting. They focused on resources available from the County's Department of Development. 43 EDN members participated.

Result: W. Williams organized and participated in Lorain County's Expansion Resource Show, on March 25, 1999. 30 business owners in Lorain County learned about available business sites and resources.

Result: W. Williams organized 10 volunteers for a phone survey of 244 minority owned businesses on the impact of the cancellation of Ohio's Minority Set aside program, on January 12, 1999. The survey revealed that 67% of the surveyed companies derived a portion and 37% generated 50% of their revenues from Ohio's set-aside program. The Council of Smaller Enterprises, OSU Extension and the Cleveland Regional Minority Purchasing Council are creating workshops to help firms decrease their dependence on set-aside programs.

Result: W. Williams organized 10 volunteers for a phone survey of 260 companies in Lorain County to determine if the companies had any expansion plans or financing needs, on March 25, 1999. The survey identified 47 companies with expansion plans needing financial assistance.

Result: W. Williams organized volunteers for a phone survey of 80 companies within the WIRE-NET industrial area, on March 18, 1999. The purpose of this event was to arrange a visit by a retention specialist.

Result: W. Williams presented a model to Enterprise Development Inc. (February 19, 1999) on how to identify minority firms interested in purchasing firms for sale. W. Williams informed the participants that the Chamber has access to firms wishing to sell assets or divest departments. Historically, when these opportunities became available no databases of interested minority firms were available. Enterprise Development Inc. pledged to assist W. Williams in developing this database.

Result: W. Williams's business attraction efforts resulted in 4 projects for the first quarter of 1999. These projects involved 41 jobs and over \$2.3 in new investment.

Result: W. Williams helped organize a meeting with businesses located in the Collinwood area, on January 26, 1999 in order to reinvigorate the non-profit organization representing this area and to initiate infrastructure development adjacent to Interstate 90. Local businesses have prioritized the need for infrastructure improvements for this area.

Result: 28 Executive Volunteers participated in a National TeleBlitz, February 18, 1999. These volunteers contacted 344 businesses, and identified 34 expansion projects.

Result: W. Williams gave a presentation entitled, "How To Attract Firms to your City" at the Economic Development Network meeting, January 19, 1999. 47 Economic Development Network members attended this event.

Result: W. Williams assisted the Small Business Environmental Center's development of an ISO 1400 video.

Result: W. Williams surveyed businesses within the Working for Community Empowerment Inc. services area to determine the companies' contribution to the Cleveland economy. The Broadway-Kinsman Transportation study surveyed 130 businesses. The data from these surveys helped persuade public officials to allocate \$6 million for the Bessemer Street Extension.

Result: W. Williams surveyed businesses in the City of Broadview Heights and identified constraints to business expansion. W. Williams organized a forum for local developers and Broadview Heights city officials to help both groups understand each other's concerns.

Result: The Cleveland Growth Association in 1998 increased W. Williams' program budget to \$26,700.

Result: W. Williams has been requested to provide business outreach expertise for programming needed by the Lorain County Chamber of Commerce, the City of Solon, the Cleveland Regional Purchasing Council, and the City of Olmsted Falls.

Result: W. Williams presented "From Cluster Groups to Industry Association Retention Programs that are Effective in an Urban Environment" at the Annual Meeting of the Business Retention and Expansion International in Roanoke Virginia in May 1998.

Result: W. Williams co-chaired the Society of Automotive Engineering Show in Detroit Michigan, March 1-5, 1999. W. Williams was responsible for scheduling visits with Ohio based companies attending the show.

Result: W. Williams coordinated the Ohio Economic Development Council's headquarter calls during the International Machine Tool Show in Chicago in September, 1998.

Action: W. Williams will publish the quarterly newsletter "Development Notes" with a focus on economic development and environmental issues of concern to Cleveland area businesses

Result: W. Williams publishes a quarterly economic development newsletter, "Growing News" and distributes it to 320 economic development specialists in Northeast Ohio. W. Williams edited and authored the lead article in the first quarter 1999 issue of Growing News.

Result: W. Williams writes a "Watts Wise" column that is distributed to 69,000 Cleveland Public Power users each month.

Action (New): M. Bielen will publish the quarterly newsletter "News Waves" on sustainable development topics for economic development professionals.

Result: M. Bielen wrote the premier issue of News Waves, developed a mailing database, and distributed the newsletter to 500 economic development professionals, small business organizations, County Commissioners, Mayors, Chambers of Commerce, Community Improvement Corporations, and Planning Commissions in northwest Ohio in December 1998. A pre-test of the reading audience was conducted to measure their initial attitudes toward sustainable development topics and practices. \$2,000 from the Lake Erie Protection Fund (LEPF) was received to support printing and mailing of this economic development newsletter.

Objective: Minimize adverse economic impacts on infrastructure maintenance of Lake Erie ports due to reduced budgets of the U.S. Army Corps of Engineers, Coast Guard and other agencies.

Action (New): F. Lichtkoppler will work with the City of Mentor to develop a best public use plan for the Mentor Lagoons property recently acquired by the City.

Result: F. Snyder assisted lakeshore residents along the Toussaint River on dredging issues. As a result, the residents have created a formal association, retained legal counsel, have received a funding pledge from the Army corps of Engineers and are in negotiation with elected leaders. Success by this association will reverse the loss of marine businesses in a large portion of western Ottawa County.

Result: F. Snyder presented information on channel dredging needs to U.S. Rep. Paul Gillmor at a public meeting in Port Clinton. Gillmor later worked with other federal legislators to appropriate funds for maintenance dredging on the Toussaint River.

Result: F. Lichtkoppler lead the Mentor Lagoons Advisory Committee in a discussion of the Urban Land Institute (ULI) Report on the Mentor Lagoons Park and Marina. The Committee voted at their March 1999 meeting to accept the report and forward it on to Mentor City Council. The Committee also voted to continue to its input and assistance to the City of Mentor and asked City Council to proceed with a detailed planning effort using the ULI Report as a framework for moving forward.

Result: F. Lichtkoppler wrote "Mentor Lagoons, A Case Study in Helping Communities Make Land Use Decisions" for the Vol. 1, Issue 2, Summer 1998 issue of Ohio State University Extension Community Development Newsletter, *The Gazebo*.

Result: F. Lichtkoppler continued work with the City of Mentor on the strategic plan for Mentor Lagoons Marina and Park at several meetings of the Mayor's Mentor Lagoons Advisory Group. The City has purchased an additional 75+ acres of upland contiguous woods at a cost of over \$1,000,000 in 1998.

Result: F. Lichtkoppler provided information to the City of Mentor that helped in obtaining a \$70,000 grant that resulted in the Urban Land Institute's development of a master strategic plan for the Mentor Lagoons Preserve.

Result: F. Lichtkoppler worked with City of Mentor, Mentor Lagoons Planning Committee facilitating strategic planning, idea generation, vision development and other baseline work. He provided information to the Urban Land Institute's Strategic Plan/Vision for the Mentor Lagoons Preserve.

Action (New): M. Bielen will continue working with the Wood County Extension Office and the Ohio Agricultural Research and Development Center to secure funding for research to study the feasibility of applying dredge material on farmlands and to assist researchers in communicating results to local policymakers.

Action (New): M. Bielen will continue to work with the City of Toledo to secure funding to test the possible re-classification of "Nu-Soil" so the product can be more widely marketed.

Action (New): M. Bielen will continue to assist OSU researchers in interpreting the analysis of costs and benefits of various soil conservation practices in the Maumee River basin to stakeholder groups and local policymakers.

II. Coastal Ecosystem Health and Public Safety

A. Coastal Ecosystem Health

1. Coastal Ecosystems

Objective: Develop educational programs and materials on zebra mussels and other aquatic nuisance species and serve as the "Aquatic Nuisance Species Information Center" for Ohio.

Action: Our "Aquatic Nuisance Species Information Center" will be located in the Sea Grant office on The Ohio State University campus. Coordination and communication will be developed with other agencies to avoid duplication of effort. We will provide the communication link between researchers and the private sector.

Result: F. Snyder represents Ohio Sea Grant and Ohio State University Extension on the Aquatic Nuisance Species (ANS) Steering Committee, organized by the Ohio Dept. of Natural Resources. Efforts by this committee produced Ohio's first State Management Plan for Aquatic Nuisance Species. This plan awarded \$10,000 to Ohio Sea Grant's Communications and Advisory Service programs to develop education and outreach activities and materials.

Action: F. Snyder will be responsible for determining which fact sheets and other publications relating to zebra mussels and other aquatic nuisance species are to be developed or revised.

Action: F. Snyder will organize the 1998 workshop on zebra mussel mitigation and control for inland water users in collaboration with Illinois-Indiana Sea Grant and TVA. Additional workshops and seminars will be organized as needed.

Result: Over 140 power and water plant operators and scientists learned zebra mussel control methods at the Southern Region Zebra Mussel Conference in Chattanooga, the first major zebra mussel control program to be held in the Tennessee Valley Authority region. Ohio Sea Grant working with the Illinois-Indiana, Louisiana and Alabama-Mississippi Sea Grant programs along with federal agencies cosponsored this conference.

Result: As F.T. Stone Laboratory Manager, J. Hageman assisted some 70 visiting researchers from 20 different institutions working on non-indigenous species, water quality, macroinvertebrate community interactions, alga dynamics and other topics at the Stone Laboratory.

Objective: Reduce the probability of future introductions of aquatic nuisance species.

Action (New): F. Snyder will work with the Great Lakes Network project to develop HACCP like procedures for bait and fish transfer which minimize the danger of transferring aquatic nuisance species to new waters. He will work with the Ohio portion of a survey of live bait and other fish transporters, collect baitfish samples from Ohio dealers and analyze for NIS and non-bait organisms, and assist in writing the HACCP-style manual and hazards guide.

Result: A program to identify and stop aquatic nuisance species movement throughout Ohio via live fish shipments was developed and initiated by F. Snyder, as part of a Great Lakes Network effort. Grants of \$21,363 (National Sea Grant – 2 years) and \$3,000 (Ohio Division of Wildlife – 1 year) were secured to develop this effort. The District Specialist currently is identifying shipping patterns for live baitfish, scanning shipments to determine the frequency of contamination by nuisance species, and developing critical control point criteria to enable the industry to police itself.

Action (Revised): F. Snyder will assist in the development of new knowledge about aquatic nuisance species introductions. He will take the lead in developing outreach education to train Ohio citizens to monitor inland waters for zebra mussels and all waters for the Eurasian Ruffe and the Round Goby.

Result: F. L. Snyder presented “Transportation of Fishery and Aquaculture Products as Vectors of Aquatic Nuisance Species” at the Eighth Annual Zebra Mussel and Aquatic Nuisance Species Conference in Sacramento, CA.

Result: F. L. Snyder presented the poster “Live Fish Shipments as Potential Pathways for Aquatic Nuisance Species” at the 38th Annual Ohio Fish and Wildlife Conference, Columbus, OH.

Action: All Sea Grant agents will assist the research efforts of zebra mussel and other aquatic nuisance species researchers in data collection activities where appropriate and transfer research findings to recreational and industrial clientele on the Great Lakes and on inland waters.

Result: D. Kelch and F. Lichtkoppler assisted Dr. Ken Krieger of Heidelberg College with his mayfly observation and research project. They identified volunteers for the collection of mayfly adults, larvae and casings, and also assisted in the collection of specimens for Dr. Krieger.

2. Coastal and Great Lakes Habitats

Objective: Assist local Remedial Action Plan (RAP) Councils and the Ohio Environmental Protection Agency in the Remedial Action Plan process for Ohio Areas of Concern.

Action (Revised): All Sea Grant Extension agents will participate as appropriate with Remedial Action Plan Councils and provide RAP Council numbers with information that will advance the remedial work of each council.

Result: M. Bielen continues her involvement with the Maumee River RAP through her work with the Ottawa River Action Group, a sub-committee of the Maumee RAP.

Result: F. Lichtkoppler continued work with the Ashtabula River Partnership (ARP) by reviewing progress on the Comprehensive Management Plan and Environmental Impact Statement. He assisted in editing the latest ARP slide show on the status and progress of the ARP cleanup effort.

Result: D. Kelch serves on the Black River Remedial Action Planning (RAP) and Coordinating Committee, and serves on the science and education sub committees. The Black River RAP is in its stage two process, which involves impairment-related studies and inventories.

Result: F. Lichtkoppler and T. Blaine wrote, "Environmental Awareness and Attitudes of Ashtabula County Voters Concerning the Ashtabula River Area of Concern: 1996-1997" and submitted it to the Journal of Great Lake Research on September 11, 1998. Lichtkoppler, F., 1998, Ohio Sea Grant Ashtabula RAP Council 1997 Citizens Survey Key Findings. Draft report.

Action: All agents will assist RAP Councils in developing justification and obtaining resources for proposed actions.

Result: F. Lichtkoppler provided information to the 312b Subcommittee of the Ashtabula River Partnership for the successful drafting of a United States Army Corps of Engineers (USACE) 312b report. This was the first time that a Section 312b has been developed by

the USACE. This allowed the ARP to keep work on the clean up plan for the Ashtabula River on time and within budget.

Action: All agents will assist in the development of educational materials to inform citizens about the goals and potential of the RAP process.

Result: F. Lichtkoppler surveyed 390 citizens by mail in September, October and November 1997 for the Ashtabula River Partnership. He processed the data, drafted a report and presented the results to the RAP Council and Outreach Committee of the Ashtabula River Partnership in spring of 1998.

Objective: Conduct educational programs on the role of wetlands in emergence of new habitat, mitigation of pollutants, and in the citing of substitute wetland sites.

Action: F. Snyder will work with groups concerned with wetland management, including wildlife related, to identify optimum management approaches for coastal wetlands.

Result: J. Hageman provided technical support for the Friends of Hanck's Pond's successful effort to acquire and preserve a 22-acre Middle Bass Island wetland.

Result: F. Lichtkoppler initiated work on the Mentor Marsh Board long-range plan by holding several subcommittee meetings and brainstorming ideas for marsh mitigation efforts. That began the process of bringing diverse stakeholders (developers, citizens and agency staff) together in one place to discuss wetland mitigation in Mentor Marsh. They identified the potential for obtaining a \$40,000 in lieu fee Mentor marsh wetland mitigation project for the Cleveland Museum of Natural History.

Objective: Provide educational information on alternatives for phosphorus reduction from agricultural run-off.

Action: Agents will serve on phosphorus reduction committees as opportunities permit.

Result: As a founding member of the Lake Erie Buffer Team, F. Snyder is developing public service announcements slide programs to promote the Lake Erie Buffer Initiative among agricultural landowners. This initiative aims to decrease sedimentation, eutrophication and soil loss through filter strip development on streams and ditches.

Result: The Lake Erie Buffer Team was successful in convincing Ohio legislators to pass a \$4 million appropriation that provides incentives to farmers to install filter strips along streams and ditches. The Ohio governor announced his intentions to use these funds as leverage to obtain an additional \$20 million in federal grants to further this watershed protection program.

Result: At the request of the Toledo Metropolitan Council of Governments and an Ottawa County Commissioner, F. Snyder became a member of the Portage River Basin Council. The Council's role is to promote land use practices that will protect the Portage River

watershed. Snyder now leads the Council's effort to develop wildlife resources and recreational access on the Portage River.

3. Sustainable Development

Objective: Assist with the development of proactive strategies for improved water quality in Lake Erie.

Action (New): F. Lichtkoppler will work with OSU Extension agents trained at the 1997 NEMO (Non-point Education for Municipal Officials) workshop to bring the Connecticut Sea Grant developed NEMO training to interested OSU Extension agents and to Lake Erie coastal government agencies.

Result: F. Lichtkoppler taught Nonpoint Education for Municipal Officials (NEMO) concepts to local Lake County Soil and Water District staff and OSU Extension agents. The SWCD is incorporating NEMO ideas in its 1999 plan of work and OSU Extension received a 319 grant to put one agent on Ohio NEMO program development.

Result: L. Dorworth and F. Lichtkoppler wrote "GIS: A Tool to Help Coastal Communities" as a Great Lakes Sea Grant Network fact sheet printed in February 1998.

Result: M. Bielen is on the Sustainable Communities Team, a group of Extension Community Development Agents, District and State Specialists who develop a program for local communities to use to balance economic development and environmental enhancement. A planning retreat was held in July and the team is on the way to accomplishing its goals.

Action: W. Williams and M. Bielen will develop a survey of businesses in the Ohio Lake Erie Basin, which use surface water or have water discharge permits (these include industrial, electric power and municipal water), about surface water quality and water discharge issues. They will use this information to develop an outreach education program focused on key issues identified by these businesses, and target the types of businesses which can increase activity in the Basin without exceeding Basin discharge limits. Initial focus will be in Cuyahoga and Lucas counties.

Result: W. Williams helped finish the hazardous waste hauler survey and it revealed the need for a recycling facility for small businesses generating small amounts of waste.

Action: Explore potential partnerships with other organizations in conducting waste water minimization studies of several types of industries and disseminate the research results to these industries in order to interest them in water quality improvement and potential cost savings for businesses.

Result: D. Kelch works with the marinas along Beaver Creek to establish a maintenance-dredging program. During 1998, the specialist met with marina owners and Congressman Sherrod Brown to review the potential of federal assistance. Currently the

specialist is working with marina owners to establish an annual dredge maintenance fee for boat owners. These dollars would be used for dredging of the main channel until federal assistance is obtained.

Result: On July 2, 1998, D. Kelch was appointed by Ohio Governor George Voinovich to serve on the Governor's Submerged Lands Advisory Committee. The committee has received grant funding for an archaeological study of the wreck of the Adventure during 1997 and also for a wreck adjacent to the Adventure during 1998. D. Kelch serves on the buoying and educational sub-committees, and chairs the 'Intentional Sinking / Artificial Reefs' subcommittee.

B. Public Safety

1. Coastal Hazards

Objective (New): Lead efforts to increase awareness of hazards associated with low lake levels among government officials, property owners, marine businesses and boaters.

Action: F. Snyder will employ the news media and clientele meetings to educate these audiences about the causes of low lake levels, the hazards involved, and the potential need for maintenance dredging.

Result: F. Snyder's media campaign received nationwide coverage and pulled other agencies into the public awareness effort. Dozens of Lake Erie marinas now are conducting or have completed maintenance dredging. The community of Put-in-Bay is currently preparing to deepen its access channels.

Objective (New): Educate shoreline landowners, realtors, appraisers, loan officers, and other interested citizens about Ohio's new Coastal Zone Management (CZM) Plan.

Action (New): All agents collaborate with ODNR to inform those concerned about Ohio's new CZM plan.

Result: F. Snyder assisted local emergency management personnel in two counties in maintaining awareness of impending flood conditions and disseminating emergency information to the public during lakeshore flood events in June 1998.

Result: F. Lichtkoppler shared Lake Erie Coastal Erosion maps for Lake and Ashtabula Counties and taught 5 property owners how to use the maps for shoreline erosion interpretation.

Objective: Educate shoreline landowners, realtors, appraisers, and loan officers about the causes of high water and changes in Lake Erie's water levels, about low-cost coastal erosion abatement options, and about the implications of these for real property in the coastal zone.

Action: F. Snyder will increase awareness of flood-prone property owners of the need for federal flood insurance, especially during periods of elevated lake levels.

Result: News releases were used by F. Snyder to generate newspaper and radio interviews focusing on the need for flood insurance. One Port Clinton insurance agency reported that over 150 new policies were written following this effort.

Action: Produce news releases, exhibits at sport shows and distribute fact sheets concerning water level fluctuations and shore erosion.

Action: F. Lichtkoppler will work with the Lake Erie Unit of the Geological Survey, Ohio Department of Natural Resources (ODNR), on coastal erosion information dissemination.

Result: The Lake Erie Unit of the Division of Geologic Survey within the ODNR distributes six Ohio Sea Grant Fact sheets concerning coastal erosion developed by F. Lichtkoppler to coastal property owners.

Action (New): All agents, as appropriate, conduct workshops to inform local action agencies and interested citizens about increased potential for flooding and erosion under high water conditions.

Action: W. Williams and F. Lichtkoppler will develop an educational program for coastal real estate appraisers, realtors and loan officers about the effects of coastal erosion on the expected life of real properties and the implications for pricing such property.

Result: F. Lichtkoppler worked with the ODNR Coastal Management Program and local officials to help scope out a Coastal Services Center (CSC) coastal erosion project for Lake and Ashtabula Counties.

2. Safety at Sea

III. Education and Human Resources

A. Provide a Technically Trained Workforce

1. Scientists and Engineers

Objective (NEW): We will work to educate future scientists, engineers, and teachers on Lake Erie issues, environmental concerns and opportunities.

Action (NEW): All agents will support the educational mission of the OSU College of Food, Agriculture and Environmental Science and other Ohio colleges by assisting with classes where requested.

Result: F. Snyder represents Ohio Sea Grant Extension on the Lake Erie Millennium Plan committee, developing an international conference for 1999.

Result: F. Snyder taught an intensive, one week, three credit hour college course entitled, Introduction to Aquatic Biology (Zoology 125), to 16 college and advanced high school students at the F.T. Stone Laboratory.

Result: J. Hageman was an invited lecturer for the Terra Community College Elder college class, speaking about Stone Laboratory/Stone Lab research and zebra mussels.

Result: J. Hageman was an invited lecturer for Lourdes College Elder College class, speaking about Stone Laboratory and current Lake Erie research.

Result: J. Hageman, as manager of the F.T. Stone Laboratory, provided some 200+ college students enrolled in the program with equipment and technical and logistical support toward the fulfillment of their coursework obligations.

Result: F. Lichtkoppler taught field trips and workshops on the Northeast Ohio Coastline/Lake Erie Issues for Lake County Ecotrek (6/26/98 and 7/13/99); Ohio State University Coastal Ecology Class (8/12/98); Kent State University Lake County Coastline Class (7/10/98); and Lakeland Community College Economic Geography Class (5/6/98 and 5/10/99).

Result: In 1998 we offered 8 upper-level courses for juniors, seniors, and graduate students, 5 one-week introductory courses for freshmen, sophomores, and superior high school students and 5 one-week courses for teachers at Stone Laboratory. Since 1990 these courses have attracted students from 40 Ohio colleges and universities, 27 out-of-state schools, and 251 high schools. In 1998 214 students took courses for college credit at Stone Laboratory.

Action (NEW): F. Lichtkoppler and F. Snyder will assist extension coworkers in the OSU promotion and tenure process.

Result: F. Lichtkoppler team-taught 35 OSU Extension faculty and staff Tips and Tools for the OSU Extension Promotion and Tenure Process march 24, 1999. Direct observation of the class and post class feedback from the faculty indicated that the program was very helpful to participants.

Result: F. Lichtkoppler reviewed 25 dossiers and was one of nine full professors on the College of Food, Agricultural and Environmental Science (FAES) Promotion and Tenure (P&T) Committee. He represented the Department of OSU Extension on the College of FAES P&T Committee in 1998-99.

Result: F. Snyder served on the Northwest Extension District Promotion and Tenure committee, evaluating the vitae of junior faculty members and assisting them in professional development.

Action (New): All agents will continue to upgrade their technical skills.

Result: F. Lichtkoppler completed the Ohio State University course, Agricultural Economics 531D, Environmental Economics via distance learning on the internet spring, 1998 with a grade of A.

Result: F. Snyder was certified under the Seafood Hazard Analysis and Critical Control Point (HAACP) Alliance in Seafood HACCP Theory and Practical Application.

Result: D. Kelch participated in the OSU Extension Power Point training seminar.

Result: F. Lichtkoppler participated in University of Wisconsin Docks and Marinas Workshop, October 22-24, 1998 in Madison, Wisconsin and shared some of the information learned with the City of Mentor.

2. Resource Managers

Objective (NEW): Educate and inform resource managers and key decision-makers of the most up-to-date research based information on Lake Erie.

Action (NEW): All agents will help inform resource managers on current Lake Erie issues, problems and opportunities.

Result: J. Hageman, F. Snyder, D. Kelch, J. Reutter, K. Ricker, J. Jentes and F. Lichtkoppler developed networks and contacts to promote interagency public outreach collaboration and cooperation at the Great Lakes Environmental Research Laboratory/ Great Lakes Sea Grant Network Outreach Meeting February 8-10, 1999 in Ann Arbor, MI

Result: Eighty-two of Ohio's 88 county recorders learned about Lake Erie issues and Sea Grant activities during a special presentation by F. Snyder at their annual conference.

Result: F. Snyder led 48 local elected officials and business leaders in a discussion of water quality issues and Sea Grant activities at the Sandusky County Water Resources Institute.

Result: Over 270 Northwest/Northeast Ohio Water Environment Association members were given a Lake Erie/Stone Laboratory research update by J. Hageman at their annual meeting held at Put-in-Bay.

Result: The Lorain County Extension Office participated in a team building Lake Erie awareness day aboard the M/V BIOLAB, participating in a science cruise led and resourced by J. Hageman.

Result: The Northwest District Extension Office participated in a science cruise to gain insight on the status of Lake Erie's exotic species, water quality improvement and sediment loading, led and resourced by J. Hageman.

Result: The Officers of the Ohio Board of Regents learned about Lake Erie research and issues through a Stone Laboratory research overview by J. Hageman during a Gibraltar Island visit.

3. Technical Training

Objective (NEW): Educate and inform citizens of the most up-to-date research based technical information on Lake Erie.

Action (NEW): All agents will help inform citizens on current Lake Erie technical issues, problems and opportunities.

Result: Snyder taught farm pond management skills to over 200 northwest Ohio farm pond owners through pond clinics and personal calls.

Result: Ten board members from the Garrett Square Development Corporation and the Miles Ahead Development Corporation participated in W. William's Innovative Board Training Program.

Result: W. Williams teaches business retention topics at the bimonthly meetings of the Economic Development Network. These meetings attract between 30 to 60 economic development specialists every other month.

Result: W. Williams reinvigorated his volunteer pool for the TeleBlitz events using e-mail to increase volunteer communication. New volunteers from banks and real estate firms were recruited by promoting TeleBlitz programs as an excellent training opportunity for new account officers. TeleBlitz volunteers enhance their communications skills with potential clients and prospects.

B. Assure an Environmentally and Scientifically Informed Citizenry

1. Pre-college Education

Objective: Provide general information about coastal/aquatic resources, events, opportunities, educational programs, governmental actions and research to the public.

Action: Sea Grant Extension agents will continue to work closely with Communications to prepare articles for publication in TWINE LINE and to prepare news releases, fact sheets, guides and brochures.

Result: F. Snyder taught aquatic science topics and career opportunities to over 1,100 K-12 youth during conservation tours, career days and gifted and talented programs.

Result: F. Snyder served as a merit badge counselor for the Boy Scouts of America, leading over 75 youth in work toward achievement of Environmental Science, Fish and Wildlife Management and Fishing merit badges.

Result: J. Hageman ran the F.T. Stone Laboratory Aquatic Science Workshop Program, attracting over 4,000 elementary through high school students from over 90 Ohio schools and additional schools from Indiana, Michigan and Pennsylvania.

4. Informal Education

Objective: Conduct awareness programs of current issues affecting Lake Erie and the coastal area for county, township and municipal officials, and local chambers of commerce and other organizations.

Action: Each Sea Grant agent will maintain contact with appropriate local elected officials and organizations to keep them aware of current issues in the coastal area.

Objective: Assist Lake Erie anglers, old and new, to have more productive, enjoyable, and safe outings on Lake Erie and thereby increase utilization of the resource.

Action: F. Snyder and D. Kelch will continue investigations of the effects of increasing cormorant populations on the Lake Erie ecosystem, focused on impacts within the fish community structure.

Action: F. Snyder, D. Kelch and F. Lichtkoppler will continue to write TWINE LINE articles and fact sheets of interest to sport anglers. At least one article in every issue of TWINE LINE will deal with this topic, since a recent survey of readers listed it as the number one priority.

Action: F. Snyder wrote articles for TWINE LINE on sport fishery responses to ecosystem changes and the role of filter strips in reducing agricultural runoff to tributaries.

Result: F. Lichtkoppler wrote an article for TWINE LINE on the 1997 Ohio Sea Grant / Ashtabula River Remedial Action Plan Council citizen survey explaining our results.

Result: F. Snyder resourced a two-hour nationwide Internet chat room discussion on Lake Erie fishery resources on [www. walleye central .com](http://www.walleye central .com).

Result: F. Snyder authored a three-part historical series entitled *The Early Forts on Sandusky Bay* For Twine Line, Ohio Sea Grant's newsletter. This became the year's most frequently requested Twine Line reprint. A separate article was authored on Lake Erie Water levels.

Action (Revised): D. Kelch and F. Snyder will conduct seminars about recent changes in Lake Erie and how these changes impact the fishery, fish behavior, and fishing techniques. Other potential topics include fishery biology, fishery management updates, exotic species impacts, and fish consumption advisories. Specialists from ODNR and sportfishing organizations will be invited to participate.

Result: F. Snyder presented Lake Erie resource information and Sea Grant activities to 665 persons attending 14 presentations to service clubs, forums and special interest groups.

Result: D. Kelch made educational presentations to 28 different groups concerning: artificial reefs, exotic species, fish contaminants, changes in Lake Erie and other lake related issues. Over 1640 participants indicated learning more from these seminars.

Action (New): D. Kelch and F. Snyder will use the "fish-eye remote camera" to observe fish behavior as vessels pass overhead, the meaning of sonar marks when fish don't bite, etc. to provide new information to anglers.

Result: D. Kelch made an underwater video of the shipwreck 'ADVENTURE' off shore of Kelleys Island. This video will be used for teaching future youth groups, and has been used for an archaeological course at Bowling Green State University.

Action: D. Kelch and F. Lichtkoppler will take the lead in organizing Sea Grant Extension displays at the Cleveland Boat Show, Cleveland Sport Show, and other shows as appropriate.

Result: See section I. C. 1. Coastal Recreation on page 9.

Action: F. Lichtkoppler, F. Snyder and D. Kelch will write and mail periodic news releases on Lake Erie issues and sport fisheries to key leaders, outdoor writers and local media contacts.

Result: F. Lichtkoppler received a \$1,512 Ohio Sea Grant Development Fund grant to conduct media awareness efforts for the International Association for Great Lakes Research Conference (IAGLR 99) held at Case Western Reserve University (CWRU) in May. He coordinated media efforts with the CWRU Office of Media Relations and the Ohio Sea Grant Communications Program. A total of 32 IAGLR 99 news messages and articles appeared in regional and national electronic and print media as a result.

Result: F. Snyder provided 14 newspaper interviews and two television interviews on Lake Erie sport fishery topics.

Result: D. Kelch was interviewed and appeared on five local television broadcasts (TV stations 5, 8 and 43 from Cleveland) and two non-local television broadcasts relating to Lake Erie issues. One non-local television interview was done with TV 10 from Miami, Florida, concerning the new Cleveland Stadium Artificial Reef Project. Jim Hanley of

New York Out-Of-Doors, a weekly cable television show, interviewed the specialist regarding the artificial reefs.

Result: D. Kelch appeared on five radio programs (WCPN-Cleveland, WOBL-Elyria, WRFD-Columbus) regarding the topics of exotic species, artificial reefs, changes in Lake Erie, lake levels and pond weeds.

Result: J. Hageman resourced both the Cleveland Boat show and the Cleveland Sport & Travel Show with the Ohio Sea Grant Display updating visitors about Lake Erie issues.

Result: J. Hageman was interviewed for the National public Radio and gave two television interviews that aired in Cleveland and Toledo.

Objective: Provide up-do-date information to the Ohio State Legislature and Ohio's Congressional Delegation regarding the importance of Lake Erie to Ohio.

Action: All agents will work closely with our contacts in the Legislature to develop the 1999 and 2001 State Legislature/ Congressional Days on Lake Erie. We will also strive to increase state support of Ohio Sea Grant in the 1999-2001 biennium.

Result: F. Lichtkoppler's Northeast Ohio Sea Grant Extension Advisory Committee cosponsored a successful Local Government Day / Ashtabula River Partnership update for state and local officials, August 28, 1998.

Action: All agents will work with local legislative offices on issues related to Lake Erie, coastal and economic development.

Result: F. Snyder participated in OSU Extension legislative breakfasts to present Lake Erie issues To Ohio Reps. Darrell Opfer, Randy Gardner and Ohio Sen. Bob Latta.

Action: All agents will respond to requests for information from legislative offices.

Result: D. Kelch was invited by Congressman Sherrod Brown to serve as an information specialist for news media during two press conferences in June and September. They dealt with the concern over the sale of Great Lakes' water to foreign countries. As a result of Congressman Brown's press conferences, and of the information provided by the specialist, the congressman co-sponsored a resolution to prohibit the sale of Great Lakes water. Congress passed this resolution on October 21, 1998.

Result: D. Kelch was asked by Congressman Sherrod Brown to provide input during a public hearing conducted on 3/17/99 by the IJC in Cleveland, Ohio. The specialist made an oral presentation at the hearing, and also submitted the presentation as a written document. The specialist was interviewed by two radio stations (WTAM 1100 - Cleveland, and WCPN 90.3 FM - Cleveland) and one television station (TV 5 - Cleveland) regarding Lake Erie water levels, and the potential impact of increased water diversions and sales.

Result: F. Lichtkoppler worked with the Lake County Land & Water Committee to develop a \$50,000 grant for the establishment of a Center for Land Use Education (CLUE) at the county planning commission.

Result: W. Williams participated in the National Extension Leadership Development (NELD) seminar in Washington, D.C. May 13-18, 1998.

Objective: Assist OSU Extension in the continued development of summer Sea Camp programs at the 4-H camp on Kelleys Island.

Action (Revised): D. Kelch will continue to support Sea Camp and Advanced Sea Camp through teaching segments of the camp and through acquiring support resources from donors.

Result: D. Kelch developed 6 outdoor education teaching outlines and curriculums for the naturalist at the Erie County 4-H Camp at the request of camp director Bob Holmes.

Result: D. Kelch developed a new educational activity for the 4-H Sea Camp and other youth groups at the Kelleys Island 4-H camp. The activity involves snorkeling a near shore wreck from 1903, and learning more about the history of that era.

Result: D. Kelch serves on the Ohio Sea Camp planning committee, and teaches about Lake Erie during the camp. D. Kelch worked with the Sea Camp Planning Committee to plan/develop the 1999 Ohio 4-H Sea Camp.

Action: D. Kelch will conduct a survey of past Sea Camp participants to estimate long term benefits of Sea Camp participation.

Action: D. Kelch will serve on the Erie County 4-H Camp Board which oversees the 4-H camp on Kelleys Island and the Sea Camp program.

Result: D. Kelch serves on the Board of Directors for the Erie County/Kelleys Island 4-H Camp, providing direction for lake related activities and needs for the camp.

Objective: Increase opportunities for students and teachers in aquatic and global change education.

Action: F. Lichtkoppler will work with local groups to teach middle and high schoolteachers about global change education.

Action (New): D. Kelch will work with the Lake Erie Nature and Science Center (LENSC) in the development of a permanent Sea Grant exhibit within their new building. In addition, he will continue to conduct educational programs at the LENS facility, and assist with teacher education programs at the center.

Result: D. Kelch worked with the Lake Erie Nature and Science Center, to develop a permanent display for Sea Grant Extension in the center's new addition. The display features Lake Erie related topics. The first topic was artificial reefs and the second is exotic invaders.

Result: D. Kelch and Cindy Hayter, from the Ohio Sea Grant Communications Program, developed a new OSG exhibit at the Lake Erie Nature & Science Center in February of 1999.

Result: F. Snyder presented a seminar Lake Erie's historical and economic development to 60 members of the Ohio Society of Interpretive Naturalists.

Result: D. Kelch developed, planned and began a series of 6 educational seminars with the Lake Erie Nature and Science Center. These seminars began in February 1999 and will continue through June. Sea Grant Advisory Committee members, experts in their fields participate in these seminars as subject matter speakers

Result: D. Kelch presented education information to the annual 'Naturalists Workshop' that was held at the Lake Erie Nature & Science Center. Over 75 naturalists from lake bordering counties learned more about the 'Changes in Lake Erie' during the 1-1/2 hour presentation.

Action: Sea Grant Extension agents will continue to assist at workshops for students, teachers and public interest groups.

Result: In 1998, J. Hageman hosted 15 environmental and education meetings and conferences at Stone Laboratory with 392 participants.

Result: In 1998, J. Hageman and others efforts to develop educational tours of Gibraltar Island were rewarded with 48 tours and 1,481 participants.

Result: J. Hageman informed 50 OSU School of Natural Resources students of Stone Lab educational and employment opportunities at the school's Intern Awareness Day.

Result: J. Hageman met with over 130 teachers individually to explain educational opportunities available at Stone Lab for grades 5 through college at the Science Educators Council of Ohio Meeting in Dayton.

Result: D. Kelch set up an artificial reef display; including TV/VCR, at the 1999 OSG Stone Lab Winter Open House on 2/27/99 at Kottman Hall on campus. Made a presentation during the open house 'lecture series' on the artificial reef program.

Administration

1. **Objective:** Strengthen coordination of Ohio Sea Grant Extension.

Action: Quarterly meetings will be scheduled with the program leader, Sea Grant Extension agents, the Communicator and other appropriate personnel.

Result: Quarterly program meetings have led to more complete information sharing among Sea Grant agents and administrator and have resulted in improved reporting systems on initiatives, activities and accomplishments.

2. **Objective:** Increase communication between Sea Grant agents, their advisory committees and researchers.

Action: All Sea Grant agents will continue to review research proposals and work with their advisory committees to identify research needs. Meetings with researchers will be fostered at the quarterly staff meetings. Agents will continue to assist with the collection of research data.

3. **Objective:** Develop external sources of funds for operation of Ohio Sea Grant and related programs, including Sea Grant Extension.

Action: Add at least \$5,000 to the F.T. Stone Laboratory Scholarship Fund.

Action: At least \$5,000 per year will be added to the Ohio Sea Grant Advisory Service Endowment. A program to solicit donations from individuals and companies will be developed.

Action: Proposals will be developed to secure at least two new items per year to enhance the program from non-core Sea Grant funds.

4. **Objective:** Maintain high quality and active advisory committees.

Action: Much of the strength and vitality of our program is due to our outstanding advisory committees. Sea Grant agents will continue to encourage and cultivate these groups. Membership of key people within local communities will be solicited. The Sea Grant Extension Program Advisory Committee is composed of the chair and vice-chair of the agent advisory committees.

Result: F. Snyder and the NW Ohio Sea Grant Advisory Committee developed contributions and support for the 1999 State Legislator's/Congressional Day on Lake Erie.

Action: Agent advisory committees will meet at least three time per year; the Extension program advisory committee will meet at least once per year.

Result: F. Lichtkoppler led the NE Ohio Sea Grant Extension Advisory Committee effort to adopt new / revised committee guidelines that conform to the OSU Extension model for citizen advisory committees. The new guidelines were adopted in March 1999.

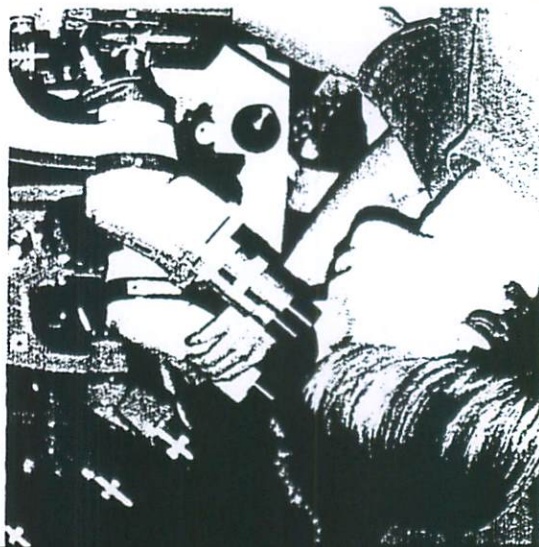
Action: Agents will provide data to their respective committees in a timely manner. This will allow the committees to be proactive on lake-wide issues.

5. Objective: To participate in the Great Lakes Sea Grant Network committees during 1998-2001 in all program areas and to promote Great Lakes Sea Grant Extension agent professional improvement.

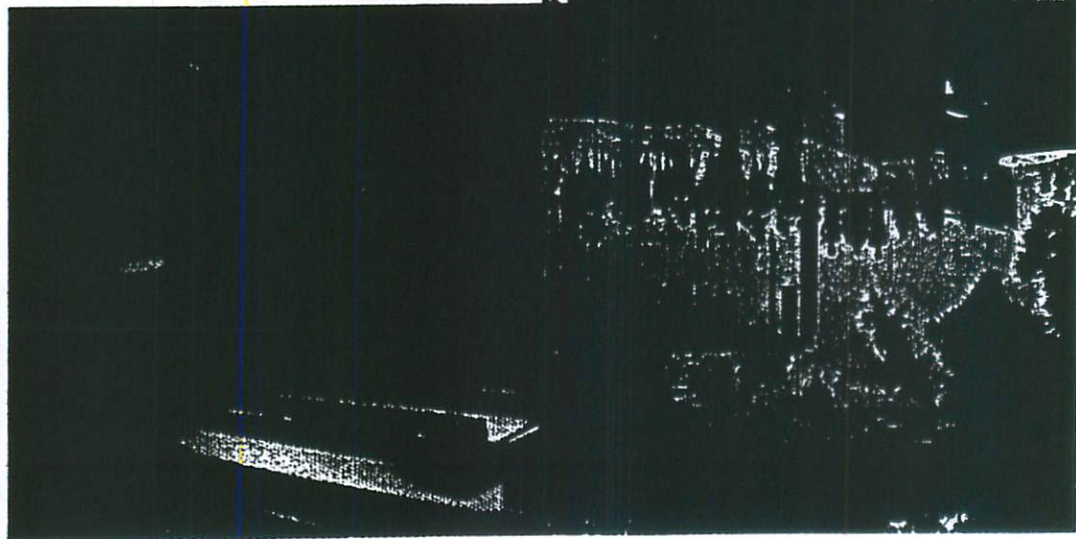
Action: Ohio Sea Grant, including Extension agents, Program Leaders and Communicator, will be represented on as many program development committees as possible.



E D U C A T I O N



Extension Activities



O U T R E A C H • R E S E A R C H

Ohio Sea Grant Extension Activities: 01/Jan/98 to 30/Jun/99

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	1	6	F. Lichtkoppler	Coll. Of FAES Faculty Council Ex.Com.	Conference Call	Agenda Planning	4		1		
1998	1	7	F. Lichtkoppler	ARP Coordinating Committee	Ashtabula	Remedial Dredging Planning	20		1		
1998	1	7	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	Sea Grant Display meeting & planning	8				
1998	1	8	Kelch	LCVB Angling Brochure Com. Mtg.	Lorain	planning meeting for angling brochure	10	1			
1998	1	8	Kelch	LCVB Outdoor Writer Invitational Mtg.	Lorain	planning mtg. For outdoor writer invit.	7	1			
1998	1	8	Kelch	Erie Cty. 4-H Camp Bd. Mtg.	Sandusky	Lake recreation activities/programs	19				
1998	1	8	Snyder	Ohio ANS Task Force Steering Comm.	Columbus	Program Planning	8		1		
1998	1	8	Snyder	Ottawa Co. Charter Captains	Port Clinton	Charter Marketing	56				
1998	1	9	F. Lichtkoppler	ARP 312b Subcommittee	Ashtabula	Environmental Dredging	14		1		
1998	1	9	F. Lichtkoppler	College of FAES Faculty Council	Columbus	Faculty Governance Issues	15		1		
1998	1	9	Williams	Small Business Environmental Ctr.	Cleveland	Board mtg.					16
1998	1	12	Kelch	Black River RAP Committee Mtg.	Elyria	RAP planning and updates					25
1998	1	13	Kelch	Extension In-Service: Windows 95	Wooster	attend training session					15
1998	1	14	Williams	Business Resource Pannel	Cleveland	Economic Development	15				
1998	1	15-25	F. Lichtkoppler	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	16-25	Kelch	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	17	Williams	Cleveland Boat show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	20	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	Sea Grant Display meeting & planning					
1998	1	20	Williams	Economic Development Network	Independence	Economic development Specialist				53	
1998	1	21	Hageman	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	21	Snyder	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	21	Williams	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	22	Hageman	N. W. District Extension Office Conf.	Findlay	Monthly Meeting				12	
1998	1	22	Snyder	NWD Office Staff	Findlay	Office Conference				9	
1998	1	22	Snyder	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	22	Williams	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	23	Snyder	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	25	Williams	Cleveland Boat Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	1	27	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	Set up Sea Grant display: art. Reefs	2				
1998	1	27	Snyder	Great Lakes Network Exotics Comm.	Port Clinton	Conference Call	8		1		
1998	1	28	Hageman	O.S.U. Natural Resources Students	O.S.U. Kottman Hall	Intern Awareness Day	25				
1998	1	28	Kelch	LCVB Board of Directors Mtg.	Lorain	Board meeting: update on brochure	18				
1998	1	29	Snyder	GLSGN HACCP Baitfish Comm.	Port Clinton	HACCP Bait Study Conference Call	7		1		
1998	1	30	F. Lichtkoppler	Lake County Extension Staff	Perry	Staff Development Workshop	14		1		
1998	2	2	Hageman	Erie-Ottawa Community Foundation	Sandusky	Organizational Meeting	25				
1998	2	2	Snyder	Ohio ANS Task Force	Columbus	Statewide ANS Plan	22		1		
1998	2	3	Hageman	Sea Grant Staff	Columbus	Quarterly Meeting				12	
1998	2	3	Snyder	Sea Grant Staff	Columbus	Quarterly Meeting				12	
1998	2	3-7	Williams	NELD	Orlando	Extension Workshop				185	
1998	2	4	F. Lichtkoppler	ARP 312b Subcommittee	Ashtabula	Environmental Dredging	15		1		
1998	2	4	Hageman	Ottawa Nat'l Wildlife Refuge	Oak Harbor	Partners in Diversity Committee	10				
1998	2	5	F. Lichtkoppler	Lake Co. Extension Advisory Committee	Perry, OH	Extension Program Update	12		1		
1998	2	5	Kelch	Sea Camp conference call	Elyria	Planning for 1998 Sea Camp	10				
1998	2	5	Kelch	Erie County 4-H Camp Bd. Mtg.	Sandusky	Lake recreation activities/programs	15				
1998	2	5	Snyder	NWD Director	Findlay	Program Evaluation			3		
1998	2	6	F. Lichtkoppler	WJW TV Channel 8	Painesville Twp.	Lake Erie Shore Erosion					XX
1998	2	9	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Park & Marina Planning	10		1		
1998	2	9	Kelch	Rocky River Kiwanis	Rocky River	Fish Contaminants/Fish Consumption	39				
1998	2	10	Williams	National TBZ	Cleveland	Business Attraction			28		
1998	2	11	F. Lichtkoppler	Small Business Management Excel	Columbus	Management Excel Teaching	6		1		
1998	2	12	F. Lichtkoppler	Coastal Agency Officials	Painesville Twp.	Coastal Hazards Scoping Meeting	30				
1998	2	12	Kelch	Westlake Sportsmans Club	Westlake	Changes in Lake Erie/Exotic species	65				
1998	2	12	Snyder	Toussaint River Residents	LaCarne	River Dredging	5		1		
1998	2	13-15	F. Lichtkoppler	Eastlake Fishing Symposium	Eastlake	Lake Erie Angling Issues	250				
1998	2	16	Kelch	WEOL Radio Interview, Elyria	Elyria	Fish contaminants/fish consumption					XX

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	2	17	F. Lichtkoppler	Blackbrook Audubon Society	Kirtland	Exotic Species / Zebra Mussels	28				
1998	2	17	Kelch	LCVB Tracking sub-committee	Lorain	Planning mtg.: visitor tracking study	11				
1998	2	17	Snyder	GLSGN HACCP Baitfish Comm.	Port Clinton	HAACP Bait Study Conference Call	8		1		
1998	2	19	Hageman	Science Educators Council	Akron	Annual Conference	50				
1998	2	19	Snyder	Ohio EPA, Port Clinton Mayor	Port Clinton	Mayfly Composting	4		1		
1998	2	20	Hageman	Ohio Fish & Wildlife Conference	Columbus	Annual Meeting				300	
1998	2	20	Hageman	Ohio Wildlife Management Assoc.	Columbus	Annual Meeting				450	
1998	2	20	Snyder	Ohio Fish & Wildlife Conference	Columbus	Annual Meeting				300	
1998	2	21-22	Kelch	ODNR/DOW Hunter Safety Program	Elyria	Teach hunter education principles	90	1	1		
1998	2	23	Kelch	LCVB Angling Brochure Com. Mtg.	Lorain	Review brochure/maps for brochure	8	1	1		
1998	2	23	Snyder	Ottawa Co. Recorder	Port Clinton	Program Planning			2		
1998	2	23-26	Williams	SAE show	Detroit	Business Attraction		60			
1998	2	24	F. Lichtkoppler	FEMA / Lake County Disaster Services	Mentor	Perry Nuclear Safety Test	60				
1998	2	24	Snyder	Ottawa Co. Officials	Oak Harbor	Soil & Water Program Review	45				
1998	2	25	F. Lichtkoppler	ARP Project Committee	Ashtabula	Remedial Derdging	12				
1998	2	25	F. Lichtkoppler	ARP 312b Subcommittee	Ashtabula	Environmental Dredging	14		1		
1998	2	25	F. Lichtkoppler	Chagrin River Salmon Association	Eastlake	Lake Erie Water Quality	31				
1998	2	25	Kelch	LCVB Board of Directors Mtg.	Lorain	Board mtg.: update on tracking/brochure	18				
1998	2	25	Kelch	Small Business Excel: Marina Owners	Lorain	Chair SB-Excel Mtg.: Lake Erie info.	15				
1998	2	25	Snyder	GLSGN HACCP Baitfish Comm.	Port Clinton	Angler Survey Conf. Call	6				
1998	2	25	Williams	Marina Excel program	Lorain	Small Business Mgt.	17				
1998	2	26	F. Lichtkoppler	Lake Co. Land & Water Committee	Painesville	Land & Water Issues	6		1		
1998	2	26	Snyder	NWD Office Staff	Findlay	Office Conference				10	
1998	2	27-28	Kelch	ODNR/DOW Hunter Safety Program	Elyria	Teach hunter education principles	90	1	1		
1998	3	2-4	Snyder	Ohio Comm. Fishermen & Processors	Port Clinton	HACCP Seafood Safety Training	60		1		
1998	3	2-4	Kelch	Ohio Comm. Fishermen & Processors	Port Clinton	HACCP Seafood Safety Training	60	1	1		
1998	3	3	Hageman	Great Lakes Sci. Vessel Coordinators	Ann Arbor, MI	Workshop				80	
1998	3	4	F. Lichtkoppler	SBM Excel Class	Lorain	SBM Staffing	10	1	1		
1998	3	4	Hageman	Remotely Operated Vehicle Committee	Columbus	Protocol Meeting				7	
1998	3	4	Snyder	Akron Beacon-Journal	Akron	Zebra Mussel Interview					XX
1998	3	5	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	Walleye Angling & Biology Seminar	70	1	1		
1998	3	5	Kelch	T.V. 5 Cleveland at LENS: interview	Cleveland	TV 5, Lake Erie fishery, angling tourism					XX
1998	3	5	Snyder	State Legislators	Huron	Education Program Needs	22				
1998	3	7	Kelch	Fin-Feather-Fur Outfitters Store	Ashland	Walleye Angling & Biology Seminar	60				
1998	3	7	Snyder	Sandusky Co. Bow Benders	Fremont	Youth Outdoor Programs	35				
1998	3	9	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Park & Marina Planning	8		1		
1998	3	9	Hageman	Pheasants-Forever Chap. 291 Board	Sandusky	Banquet Planning	11				
1998	3	9	Snyder	Ohio ANS Task Force Steering Comm.	Columbus	Proposal Review & Development	8				
1998	3	11	F. Lichtkoppler	SBM Excel Class	Lorain	SBM Staffing	10	1	1		
1998	3	11	Williams	Business Resource Pannel	Cleveland	Business retention	15				
1998	3	12	F. Lichtkoppler	ODNR Focus Group	Sandusky	Watercraft Issues & Priorities	11				
1998	3	13	Bielen	North River Econ. Devel. Committee	Toledo	North River Development Projects	8				
1998	3	13	Snyder	Exchange Club	Fremont	Trends in Lake Erie Sportfishing	43				
1998	3	13	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	13-22	F. Lichtkoppler	Cleveland Sport Show	Brook Park	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	14-22	Kelch	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	14	Hageman	Pheasants-Forever Membership	Sandusky	Annual Banquet	400		1		
1998	3	14	Snyder	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	16-19	Snyder	International ANS Conference	Sacramento, CA	ANS Transport Vectors	120			200	
1998	3	17	Bielen	Ottawa River Action Group	Toledo	Ottawa River Boating/Marine Trades Stu	14				
1998	3	17	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	17	Williams	Economic Development Network	Independence	Economic development Specialist				48	
1998	3	19	Bielen	Cherry/Bancroft/Summit Corridor Coalitid	Toledo	Corridor Coalition Projects				17	
1998	3	19	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	20	Snyder	Port Clinton News-Herald	Port Clinton	Lake Erie Fishery Outlook					XX
1998	3	20	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	21	Snyder	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX

Ohio Sea Grant Extension Activities: 01/Jan/98 to 30/Jun/99

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	3	21	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	21-22	Hageman	Cleveland Sports Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	22	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	23	Williams	Cleveland Sport Show	Cleveland	Ohio Sea Grant Exhibit -Lake Erie Info					XX
1998	3	24	Bielen	Toledo Community Leaders	Toledo	Toledo 20/20 Plan				500	XX
1998	3	24	Kelch	WCPN Rdio, Cleveland, Interview	Cleveland	GPS navigation on Lake Erie					XX
1998	3	24	Snyder	Sandusky Co. Middle School Students	Fremont	Aquatic Science Careers	60				
1998	3	24	Snyder	GLSGN HACCP Baitfish Comm.	Port Clinton	Survey Planning Conf. Call	7		1		
1998	3	25	F. Lichtkoppler	Extension Faculty & Students	Columbus	Ag. Econ. 513D Class	6			6	
1998	3	25	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	GPS Navigation Seminar, teach	75	1	1		
1998	3	25	Snyder	Fremont News-Messenger	Fremont	Walleye Outlook Interview					XX
1998	3	28	Hageman	Ohio Charter Captains Conference	Sandusky	98 Lake Erie Information	225				
1998	3	28	Snyder	Ohio Charter Captains Conference	Sandusky	Charter Business Information	225	1	1		
1998	3	31	Bielen	Dredge Alternatives Team	Toledo	Land Application of Dredging			10		
1998	4	1	Bielen	NW District Community Devel. Agents	Findlay	Planning Meeting	20		1		
1998	4	2	Hageman	Kenwood Elementary	Bowling Green	Workshop Overview	72		1		
1998	4	2	Hageman	Educators Symposium	Perrysburg	Stone Lab Overview	8				
1998	4	2	Kelch	Erie Cty. 4-H Camp Board Mtg.	Sandusky	Lake related programs for 1998 camp	15				
1998	4	3	F. Lichtkoppler	Coll. of FAES Faculty Council ExCom	Conference Call	Faculty Council Agenda	4		1		
1998	4	4	Kelch	LENSC new bldg. Opening Luncheon	Cleveland	Presentation: OSG activities at LENSC	150				
1998	4	7	F. Lichtkoppler	Ohio Sea Grant Staff	Columbus	Staff Conference	10		1		
1998	4	7	Kelch	Sea Grant Staff	Columbus	Planning Meeting for OSG	15				
1998	4	7	Snyder	Sea Grant Staff	Columbus	Planning Meeting for OSG	15				
1998	4	7	Williams	Client site visit, Columbus	Columbus	business attraction	2				
1998	4	8	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	Smallmouth Bass Seminar: teach	80	1	1		
1998	4	8	Snyder	Port Clinton News-Herald	Port Clinton	Lake Erie Fish Kill Interview					XX
1998	4	9	Bielen	Maumee RAP Committee	Toledo	Maumee RAP Projects				30	
1998	4	9	Kelch	West Cleveland Walleye Association	Cleveland	Update on OSG/Art Reef research	55				
1998	4	9	Snyder	Sandusky Co. Water Resources Comm.	Fremont	WRI Program Planning			13		
1998	4	10	F. Lichtkoppler	College of FAES Faculty Council	Columbus	Faculty Governance	16		1		
1998	4	10	Kelch	LCVB Angling Brochure Com. Mtg.	Lorain	Finalize Angling Tourism Brochure	8	1			
1998	4	11	Snyder	General Public at Wal-Mart	Fremont	Lake Erie Fishery Outlook	120				
1998	4	13	Hageman	Sacred Heart Elementary	Gibraltar Island	Aquatic Science Workshop			13		
1998	4	13	Snyder	Associated Press	Toledo	Lake Erie Fish Kill Interview					XX
1998	4	13	Snyder	WTVG-TV	Toledo	Lake Erie Fish Kill Interview					XX
1998	4	13	Snyder	WNWO TV	Toledo	Lake Erie Fish Kill Interview					XX
1998	4	14	Hageman	Marysville High School	Gibraltar Island	Aquatic Science Workshop			18		
1998	4	14	Kelch	Cleveland Woods & Waters Club	Cleveland	Changes in Lake Erie presentation	85				
1998	4	15	F. Lichtkoppler	ARP Outreach Committee	Ashtabula	Public Awareness of the ARP	6		1		
1998	4	15	Hageman	Perrysburg High School	Gibraltar Island	Aquatic Science Workshop			64		
1998	4	15	Williams	WECO survey	Cleveland	Business retention	22				
1998	4	16	Hageman	Jonathan Alder High School	Gibraltar Island	Aquatic Science Workshop			15		
1998	4	16	Snyder	Port Clinton Mayor & Staff	Port Clinton	Mayfly Composting	5		1		
1998	4	17	Hageman	Ohio Sea Grant Extension Agents	Columbus	Quarterly Meeting				9	
1998	4	17	Hageman	University of Toledo Geology Dept.	Gibraltar Island	Stone Lab Tour	14		1		
1998	4	20	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Park & Marina Planning	11		1		
1998	4	20	Hageman	Shaker Heights I Middle School	Gibraltar Island	Aquatic Science Workshop			55		
1998	4	20	Kelch	LCVB Policy Committee Mtg.	Lorain	Develop new visitor bureau policy	8	1			
1998	4	20-22	Snyder	Power & Water Engineers, Agencies	Chattanooga, TN	Southern Region Zebra Mussel Conf.	125	1	1		
1998	4	21	Bielen	Extension Sustainable Development Tea	Columbus	Sustainable Development Process	12				
1998	4	21	Hageman	Shaker Heights II Middle School	Gibraltar Island	Aquatic Science Workshop			49		
1998	4	21	Williams	Fairfax Business Excel Program	Cleveland	Small Business Mgt.	42				
1998	4	22	F. Lichtkoppler	ARP Project and Organizing Committees	Ashtabula	Remedial Dredging Planning	18		1		
1998	4	22	Hageman	Shaker Heights III Middle School	Gibraltar Island	Aquatic Science Workshop			50		
1998	4	22	Hageman	Sarah Whitson	Gibraltar Island	"Shadow Student", Bowling Green H.S.	1		1		
1998	4	22	Kelch	LCVB Board of Directors Mtg.	Lorain	Board mtg., update on angling brochure	19				
1998	4	22	Kelch	LENSC Teachers Workshop Seminar	Cleveland	Presentation: exotic species/changes	45				

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1998	4	22	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	What's Up With Lake Erie seminar	78	1	1		
1998	4	23	Hageman	Kenwood Elementary I	Gibraltar Island	Aquatic Science Workshop			39		
1998	4	24	Hageman	Kenwood Elementary II	Gibraltar Island	Aquatic Science Workshop			40		
1998	4	24	Kelch	WCPCN Rdio, Cleveland, interview	Cleveland	Interview: Changes in Lake Erie					
1998	4	24	Snyder	Port Clinton Mayor & Staff	Port Clinton	Mayfly Composting	4		1		XX
1998	4	24-25	Hageman	Mansfield City T.A.G. Program M.S.	Gibraltar Island	Aquatic Science Workshop			20		
1998	4	25-26	Hageman	Friends of Stone Lab. Work Weekend	Gibraltar Island	Work Weekend			43		
1998	4	27	Hageman	N. W. District Extension Office Conf.	Findlay	Monthly Meeting			12		
1998	4	27	Hageman	Wynford High School	Gibraltar Island	Aquatic Science Workshop			44		
1998	4	27-28	Hageman	Clintonville Academy Middle School	Gibraltar Island	Aquatic Science Workshop			37		
1998	4	28	Bielen	North River Economic Development Com	Toledo	North River Development Projects	8				
1998	4	28	Snyder	OSU Faculty	Columbus	Promotion & Tenure Workshop				35	
1998	4	28-29	Hageman	McCord & Perry Middle School	Gibraltar Island	Aquatic Science Workshop			63		
1998	4	29	Snyder	Sandusky County Board of Education	Fremont	Gifted & Talented Opportunities	8				
1998	4	29	Williams	Save Finast Supermarkets	Cleveland	Community leaders	17				
1998	4	29-30	Hageman	Toth Elementary	Gibraltar Island	Aquatic Science Workshop			69		
1998	4	30	Bielen	Cherry/Bancroft/Summit Corridor Coalitio	Toledo	Corridor Coalition Projects				20	
1998	4	30	F. Lichtkoppler	NE Ohio SEA Grant Advisory Committee	Ashtabula	Sea Grant Outreach Issues	9	1	1		
1998	4	30	Hageman	Karee Kimple	Gibraltar Island	"Shadow Student" Rogers H.S.	2		1		
1998	4	30	Hageman	Vern Hauge	Gibraltar Island	"Shadow Student", Northwood M. S.	1		1		
1998	4	30	Snyder	Fulton Co. Pond Owners	Wauseon	Pond Management Education	65				
1998	4	30	Williams	Executive Tour	Cleveland	Business Attraction	23				
1998	5	1	Hageman	Grizzel Elementary	Gibraltar Island	Aquatic Science Workshop			42		
1998	5	1	Snyder	NWD Ext. Co. Chairs & Specialists	Findlay	Program Development				20	
1998	5	2-4	Hageman	O.S.U. Plankton Class / College	Gibraltar Island	Aquatic Science Workshop			31		
1998	5	4-5	Hageman	Mills School I 6th Grade	Gibraltar Island	Aquatic Science Workshop	51		1		
1998	5	5	Hageman	Sarah Weinreich & Ryan Bunetta	Gibraltar Island	"Shadow Students, Padua Franciscan	2		1		
1998	5	5-6	Hageman	Mills School II 6th Grade	Gibraltar Island	Aquatic Science Workshop	48		1		
1998	5	5	Bielen	Ottawa River Project Personnel	Toledo	Ottawa River Tour			3		
1998	5	6	F. Lichtkoppler	Lakeland Community College Class	Mentor	Lake Erie Economic Geography	26				
1998	5	6	Kelch	WRFD/ A.M. 880 Radio	Columbus	Interview: pond weed control					XX
1998	5	6-7	Hageman	Mills School III 6th Grade	Gibraltar Island	Aquatic Science Workshop	53		1		
1998	5	7	Hageman	Terra Com. College, Elder College	Fremont	Stone Lab/Research/Zebra Mussels	22				
1998	5	7-8	Hageman	Mills School IV 6th Grade	Gibraltar Island	Aquatic Science Workshop	42		1		
1998	5	7	Kelch	Sea Camp Conference call	Elyria	98 Sea Camp planning				12	
1998	5	7	Kelch	Erie Cty. 4-H Camp Board Mtg.	Sandusky	Camp board mtg., Adventure wreck	17				
1998	5	8	F. Lichtkoppler	OSU Extension Faculty and Staff	Columbus	Spring Conference				701	
1998	5	8	Kelch	OSU Extension Spring Conference	N.W. District	Attend OSU-E Spring Conference				125	
1998	5	8	Snyder	NED Extension Staff	Akron	Extension Spring Conference				80	
1998	5	8	Williams	Spring conference	Akron	Extension Spring Conference				80	
1998	5	9	F. Lichtkoppler	Extension Faculty & Students	Columbus	Ag. Econ. 513D Class Final Presentatio	6				
1998	5	10	F. Lichtkoppler	Ohio Sea Grant Staff	Columbus	Sea Grant Programming	10				
1998	5	11	Williams	Future Search retreat	Cleveland	Extension			10		
1998	5	11-12	Hageman	Mills School V 6th Grade	Gibraltar Island	Aquatic Science Workshop			46		
1998	5	12	Snyder	Port Clinton Mayor & Staff	Port Clinton	Mayfly Composting	3				
1998	5	12	Williams	Business Retention & Expansion Int.	Cleveland	Conference call	15				
1998	5	12-13	Hageman	Mills School VI 6th Grade	Gibraltar Island	Aquatic Science Workshop			44		
1998	5	13	Hageman	John Reese	Gibraltar Island	"Shadow Student", West Holmes H.S.	1		1		
1998	5	13	Hageman	American Red Cross Educ. Services	Toledo	Aquatic Sci. Opportunities/Stone Lab	8				
1998	5	13	F. Lichtkoppler	ARP Outreach Committee	Ashtabula	ARP Public Education	6		1		
1998	5	13-14	Hageman	Mills School VII 6th Grade	Gibraltar Island	Aquatic Science Workshop			40		
1998	5	14	Bielen	Maumee RAP Committee	Toledo	Maumee RAP Projects				30	
1998	5	14	F. Lichtkoppler	Mentor Marsh Board	Mentor	Long Range Plan Implementation	10		1		
1998	5	14	Snyder	Senior Citizens at Terra College	Fremont	Lake Erie and the Economy	25				
1998	5	14	Hageman	Northwood Junior High	Gibraltar Island	Gibraltar Tour			100		
1998	5	14-15	Hageman	Mills School VIII 6th Grade	Gibraltar Island	Aquatic Science Workshop			43		
1998	5	14-16	Williams	NELD	Washington DC	Conference				114	

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	5	15	Hageman	Rogers High School - J. Calderenella	Gibraltar Island	Aquatic Science Workshop			15		
1998	5	15	Hageman	Rogers High School -Youth Treatment	Gibraltar Island	Aquatic Science Workshop			32		
1998	5	15-16	Hageman	Southmoor Junior High	Gibraltar Island	Aquatic Science Workshop			24		
1998	5	18	Snyder	High School Students	Port Clinton	Ottawa NWR Fisheries	19				
1998	5	18	Snyder	Sea Grant Staff	Northwood	Program Planning	2		1		
1998	5	18-19	Hageman	Rittman I Middle School	Gibraltar Island	Aquatic Workshop			46		
1998	5	19	Bielen	Ottawa River Action Group	Toledo	Ottawa Riv. Boating/Mar. Trades Study	14				
1998	5	19	Snyder	Port Clinton News-Herald	Port Clinton	Mayflies					XX
1998	5	19-20	Hageman	Rittman II Middle School	Gibraltar Island	Aquatic Science Workshop			47		
1998	5	19-21	Hageman	Deep Ocean Engineering	Oakland, CA	R.O.V. Training				4	
1998	5	19-22	F. Lichtkoppler	International Association for Great Lakes	Hamilton, Ontario, Canada	Lake Erie Issues	30			400	
1998	5	20	Bielen	Cherry/Bancroft/Summit Corridor Coalitic	Toledo	Corridor Coalition Projects				18	
1998	5	20	Williams	OEADC trade show planning	Columbus	Economic Development	20				
1998	5	20-21	Hageman	New Albany I	Gibraltar Island	Aquatic Science Workshop			51		
1998	5	20-22	Kelch	LCVB: Outdoor Writer Invitational	Lorain	Presentations, host, info. To writers	35				
1998	5	21	Kelch	LCVB: Outdoor Writer Invitational	Lorain	Presentation, art. Reefs, L.E. fishery	80				
1998	5	21	Snyder	NWD Office Staff	Findlay	Office Conference				10	
1998	5	21-22	Hageman	New Albany II	Gibraltar Island	Aquatic Science Workshop			53		
1998	5	22	Bielen	Ottawa River Project Personnel	Toledo	Ottawa River Tour			2		
1998	5	26	Hageman	Davey I Middle School	Gibraltar Island	Aquatic Science Workshop			55		
1998	5	26-27	Hageman	Toledo Patterson Gifted & Talented I	Gibraltar Island	Aquatic Science Workshop			51		
1998	5	27	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Park & Marina Planning	10		1		
1998	5	27	Kelch	LCVB Board of Directors Mtg.	Lorain	Board mtg., update on outdoor writer	14				
1998	5	27	Snyder	Internet Discussion Group	www.walleycentral.com	Lake Erie's Walleye Fishery					XX
1998	5	27-28	Hageman	Toledo Patterson Gifted & Talented II	Gibraltar Island	Aquatic Science Workshop			53		
1998	5	28	F. Lichtkoppler	Agency Officials	Ashtabula	ARP Boat Tour	12		1		
1998	5	28	Kelch	Grafton Elementary School	Grafton	Teach basic angling, pond biology	65				
1998	5	28	Snyder	Sandusky Co. Water Resources Comm.	Fremont	WRI Program Planning	12		1		
1998	5	28	Williams	Community Development Mtg.	Crawford County	Economic Development	16				
1998	5	28-29	Hageman	Englewood Elementary	Gibraltar Island	Aquatic Science Workshop			24		
1998	5	29	Snyder	Toledo Blade	Toledo	Lake Erie Fish Names Interview					XX
1998	5	29	Snyder	Cong. Giltmor, USACE, Gen. Public	Port Clinton	Toussaint River Dredging				42	
1998	5	31	Williams	Great Lakes Sea Grant Network Conf.	Duluth MN.	Great Lakes Sea Grant Programs				60	
1998	5	29	Hageman	Springfield South High School	Gibraltar Island	Aquatic Science Workshop			15		
1998	5	29-30	Hageman	Woodside Middle School, Ft Wayne IN	Gibraltar Island	Aquatic Science Workshop			28		
1998	5	29-30	Hageman	Brookside Ecology Club, High School	Gibraltar Island	Aquatic Science Workshop			18		
1998	5	30-31	F. Lichtkoppler	Great Lakes Sea Grant Network Conf.	Duluth, MN	MN Sea Grant Aquaculture Programmin	2		1		
1998	6	1	Hageman	Whiteford (MI) Middle School	Gibraltar Island	Aquatic Science Workshop	83		1		
1998	6	1-3	Snyder	Great Lakes Sea Grant Network Conf.	Duluth, MN	Great Lakes Sea Grant Programs	58				
1998	6	1-3	F. Lichtkoppler	Great Lakes Sea Grant Network Conf.	Duluth, MN	Great Lakes Sea Grant Programs	58				
1998	6	2	Kelch	Congressman Brown press conference	Lorain	Presentation on lake levels, water sale	45				
1998	6	2	Hageman	Cooke Castle Pre-Construction	Gibraltar Island	Pre-Construction Meeting				15	
1998	6	2	Hageman	Davey II Middle School	Gibraltar Island	Aquatic Science Workshop			58		
1998	6	2	Kelch	T.V. 8 Cleveland Interview	Lorain	Lake levels, water sales & diversions					XX
1998	6	2	Kelch	WOBL Radio, Elyria interview	Lorain	Lake levels, water sales & diversions					XX
1998	6	2-3	Hageman	Buckeye Valley Middle School	Gibraltar Island	Aquatic Science Workshop			42		
1998	6	3-4	Hageman	Wickliffe Alternative Elementary	Gibraltar Island	Aquatic Science Workshop			66		
1998	6	4	Snyder	Lake Erie Buffer Team	Toledo	Program Development	19		1		
1998	6	4-5	Hageman	Jones Middle School	Gibraltar Island	Aquatic Science Workshop			35		
1998	6	5	Bielen	Ohio Historic Preservation Professionals	Toledo	Historic Preservation Topics	30				
1998	6	5	Hageman	Whittier Middle School	Gibraltar Island	Aquatic Science Workshop			32		
1998	6	8	Hageman	Holden Arboretum	Gibraltar Island	Aquatic Science Workshop			22		
1998	6	8	Kelch	Congressman Brown/Beaver Creek mtg	Lorain	Discuss dredging problem	14	1			
1998	6	9	Bielen	Cherry/Bancroft/Summit Corridor Coalitic	Toledo	Corridor Coalition Projects	12		1		
1998	6	9	Kelch	LCVB Angling Brochure Com. Mtg.	Lorain	Finalize angling tourism brochure	8	1	1		
1998	6	9	Williams	Small Business Environmental Ctr.	Cleveland	Board mtg.				16	
1998	6	10	Kelch	WCPN Rdio, Cleveland, interview	Cleveland	Zebra mussels, fishery, changes					XX

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/NO.	CHAIR/NO.	ORGANIZE/NO.	PARTICIP/NO.	MASS MEDIA
1998	6	10-12	Bieten	Business Retention and Expansion Int.	Roanoke, VA	Business Retention and Expansion	30			150	
1998	6	11	F. Lichtkoppler	Pennsylvania Sea Grant Staff	Roanoke, VA	Business Retention and Expansion					
1998	6	11	Snyder	Ohio County Recorder's Association	Painesville	New Program Orientation	4			1	
1998	6	11	Snyder	Buffalo Evening News	Sandusky	Lake Erie Overview	85				
1998	6	12	Hageman	Lorain Co. Extension Office	Buffalo, NY	Aquatic Science Workshop	19			1	XX
1998	6	15	Snyder	LCVB Tracking sub-committee	Lorain	Visitor tracking survey planning	6	1			
1998	6	15	Williams	Port Clinton News-Herald	Port Clinton	Mayflies					XX
1998	6	16	Snyder	Port Clinton News-Messenger	Fremont	Mayflies					
1998	6	16	Snyder	Fremont News-Messenger	Fremont	Mayflies					
1998	6	16	Snyder	Fremont Lion's Club	Fremont	Mayflies				1	XX
1998	6	17	F. Lichtkoppler	General Public	Fremont	Lake Erie Overview	35				
1998	6	18	Hageman	Visitors for Fred Miller-Guest Lecture	Gibraltar Island	Stone Lab Tour				4	150
1998	6	18	Hageman	Fred Miller, OSU School Nat. Resource	Gibraltar Island	Stone Lab Guest Lecture	4				
1998	6	19-21	Bieten	All-America City Delegates	Gibraltar Island	Stone Lab Guest Lecture				54	
1998	6	23	Hageman	Perry's Monument Staff	Gibraltar Island	Stone Lab Tour	3				840
1998	6	24	F. Lichtkoppler	Connaut Park Board	Connaut	Beach Restoration	6				
1998	6	24	F. Lichtkoppler	ARP Organizing Committee	Ashtabula	Comprehensive Management Plan (CM)	10				
1998	6	24	Kelch	LCVB Board of Directors Mtg	Lorain	Board meeting	8			1	15
1998	6	25	F. Lichtkoppler	IAGLR 98 Conference Planning Commit	Cleveland	Public Outreach for IAGLR 99					
1998	6	25	Hageman	Chris Goddard, Great Lakes Fish Com.	Gibraltar Island	Stone Lab Guest Lecture				50	
1998	6	25	Kelch	Stadium Reef UW video attempt	Cleveland	Office Conference	5				
1998	6	25	Snyder	NWD Office Staff	Findlay	Office Conference					12
1998	6	26	F. Lichtkoppler	High School Students	Grand River	Lake Erie Boat Tour					
1998	6	29	Kelch	LECBA Handicapped fishing outing	Port Clinton	Mentor	4				
1998	6	29	Hageman	Debbie Snook, Cleveland Plain Dealer	Gibraltar Island	Stone Lab Tour	45				
1998	6	29	Snyder	GLSGN HACCP Baitfish Comm.	Gibraltar Island	Stone Lab Tour	1				
1998	6	30	F. Lichtkoppler	Lake Erie Protection Fund	Port Clinton	Survey Planning Conf. Call	9			1	
1998	6	30	Snyder	Sandusky Co. Water Resources Comm.	Fremont	WRI Program Planning	11				
1998	7	1	Hageman	Jim and James Harding	Gibraltar Island	Stone Lab Tour	2				
1998	7	1	Hageman	Visitors for John Kieberg-Guest Lecture	Gibraltar Island	Stone Lab Tour	74				
1998	7	1	F. Lichtkoppler	John Kieberg, OSU Business Admin.	Gibraltar Island	Stone Lab Guest Lecture - 2 Lectures	138			1	
1998	7	7	Snyder	Sea Grant Staff	Grand River	Lake Erie Boat Tour	14				4
1998	7	7	Kelch	Ohio 4-H Sea Camp, Kelleys Island	Kelleys Island	Teach angling, fishery, watercraft basics	80			1	
1998	7	7	Kelch	Ohio 4-H Sea Camp, Kelleys Island	Kelleys Island	Attend camp, assist with leadership	80				95
1998	7	7	Kelch	Boy Scouts - Black Swamp Council	Kelleys Island	Teach snorkeling, biology, wreck tour	80			1	
1998	7	7	Hageman	Robert Latta Family, State Senator	Gibraltar Island	Environmental Science	60				
1998	7	7	Hageman	Henderson Family	Gibraltar Island	Stone Lab Tour	4				
1998	7	7	F. Lichtkoppler	ARP Outreach Committee	Ashtabula	Ashtabula River Remediation	10			1	
1998	7	7	Hageman	Visitors for Jane Forsyth-Guest Lecture	Gibraltar Island	Stone Lab Tour	48			1	
1998	7	7	Hageman	Jane Forsyth, B.G.S.U.	Gibraltar Island	Stone Lab Guest Lecture				98	
1998	7	7	Snyder	Sea Grant Staff	Ashtabula	Program Planning	10			1	
1998	7	7	F. Lichtkoppler	Sea Grant Advisory Committee	Ashtabula	Program Planning					
1998	7	7	F. Lichtkoppler	Kent State University Students	Old Woman Creek	Assoc. Director Interview	20				8
1998	7	7	Kelch	Erie County 4-H Camp Board mtg	Kelleys Island	Beach Ecology and Coastal Geology					
1998	7	7	Kelch	Attend bd. Meeting: Sea Camp update	Kelleys Island	Beach Ecology and Coastal Geology	35				
1998	7	7	Bieten	Chem/Bancroft/Summit Corridor Coalit	Toledo	Corridor Coalition Projects	12				
1998	7	7	Kelch	Stadium Reef UW video attempt	Cleveland	Attempt to run fishery UW camera	5				
1998	7	7	Snyder	Stadium Reef UW video attempt	Cleveland	Attempt to run fishery UW camera	5				
1998	7	7	Hageman	American Red Cross Enhancement Prog.	Gibraltar Island	Aquatic Science Workshop				15	
1998	7	7	Hageman	Fred Ouwleien Family	Gibraltar Island	Stone Lab Tour	6			1	

Ohio Sea Grant Extension Activities: 01/Jan/98 to 30/Jun/99

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	7	18	Hageman	Green Co. Park District	Gibraltar Island	Aquatic Science Workshop			8		
1998	7	16	Hageman	Visitors for Randy Sanders-Guest Lect.	Gibraltar Island	Stone Lab Tour	16		1		
1998	7	16	Hageman	Randy Sanders, ODNR Div. of Wildlife	Gibraltar Island	Stone Lab Guest Lecture			66		
1998	7	18	Bielen	Cherry/Bancroft/Summit Corridor Coalitio	Toledo	Corridor Coalition Projects				18	
1998	7	16	Kelch	OSU-Extension computer training	Wooster	Attend power-point computer training				15	
1998	7	21	Bielen	Ottawa River Action Group	Toledo	Ottawa River Boating/Marine Trades Stu	14				
1998	7	21	F. Lichtkoppler	Grand River partners	Kirtland	Grand River Protection	30				
1998	7	21	Kelch	CSU/Cleveland Museum of Nat. Hist.	Cleveland	Presentation: exotic species: teachers	25				
1998	7	21	Snyder	Lake Erie Buffer Team	Toledo	Program Development			17		
1998	7	22	F. Lichtkoppler	ARP Coordinating Committee	Columbus, OH	Ashtabula River Remediation	30				
1998	7	22	Snyder	Gov. Voinovich, Sen. Latta & Agencies	Port Clinton	Governor's Day on Lake Erie	25				
1998	7	22	Hageman	Chief Budzik, Assist. Chiefs Gray/Fritz	ODNR Hatchery, P-I-B	Open House				80	
1998	7	23	Hageman	Dedication Keuhle Wildlife Area	Middle Bass Island	Dedication Ceremony				20	
1998	7	23	Snyder	Sandusky Co. Gov. & Bus. Leaders	Fremont	Water Resources Institute	55			97	
1998	7	23	Snyder	NWD Office Staff	Stone Lab	Office Conference					
1998	7	24	Hageman	N.W. District Extension Office	Put-In-Bay	Monthly Meeting	18			20	
1998	7	24	Hageman	Qua Cho Chen, OSU Public Radio	Gibraltar Island	Stone Lab Tour	1		1		
1998	7	27	Hageman	Barberton High School Teachers	Gibraltar Island	Stone Lab Tour	6		1		
1998	7	27-28	Bielen	Extension Sustainable Development Tea	Salt Fork	Sustainable Development Process	12				
1998	7	28	F. Lichtkoppler	Mentor Marsh Board	Mentor	Mentor Marsh Long Range Plan	3		1		
1998	7	28	Snyder	Lake Erie Charter Captains	Catawba Island	Sea Grant Activities	85				
1998	7	28	Williams	Ohio Economic Development Council	Columbus	Economic Development				35	
1998	7	28	Hageman	Port Clinton Garden Club	Gibraltar Island	Stone Lab Tour	23		1		
1998	7	28	Hageman	Rosemarie Sanous	Gibraltar Island	Stone Lab Tour	4		1		
1998	7	28	Hageman	Jim Harding, Cooke Castle Descendant	Gibraltar Island	Stone Lab Tour	1		1		
1998	7	29	Hageman	G.L.A.E.R.C.	Gibraltar Island	Conference	38		1		
1998	7	29	Hageman	G.L.A.E.R.C.	Gibraltar Island	Stone Lab Tour	38		1		
1998	7	29-30	Hageman	Jim and Ann Harding & Nan Card	Gibraltar Island	Stone Lab Tour	3		1		
1998	7	29-30	Hageman	Jim and Ann Harding & Nan Card	Gibraltar Island	Cooke Family Reunion Meeting	3		1		
1998	7	30	Hageman	Visitors for Dr. Herdendorf Lecture	Gibraltar Island	Stone Lab Tour	24		1		
1998	7	30	Hageman	Dr. Herdendorf, Stone Lab Dir Emeritus	Gibraltar Island	Stone Lab Guest Lecture			74		
1998	7	30-31	Hageman	Larry Rommel and Alan Goodrich	Gibraltar Island	Stone Lab Tour			2		
1998	8	3	Bielen	Summit Street Planning Committee	Toledo	Developing Requests for Proposals	8				
1998	8	3	Hageman	Ohio Sea Grant Staff	Port Clinton	Program Planning	7				
1998	8	3	F. Lichtkoppler	Ohio Sea Grant Staff	Port Clinton	Program Planning	8		1		
1998	8	3	Kelch	Ohio Sea Grant Staff	Port Clinton	Program Planning	8		1		
1998	8	3	Snyder	Ohio Sea Grant Staff	Port Clinton	Program Planning	8		1		
1998	8	3	Williams	Ohio Sea Grant Staff	Port Clinton	Program Planning	8		1		
1998	8	4	F. Lichtkoppler	College of FAES Faculty Council	Mt. Vernon	Faculty Governance Issues	16		1		
1998	8	5	Hageman	Bill & Melody Ascroft, Author	Gibraltar Island	Stone Lab Tour	2		1		
1998	8	5	Hageman	Open House at Dr. Herdendorf's	Put-In-Bay	"The Late, Great Lake Erie"	8				
1998	8	5	Hageman	Mary Ann Koral	Gibraltar Island	Stone Lab Tour	8		1		
1998	8	6	Hageman	Don Anderson, Dir. OH Dept of Nat. Res	Gibraltar Island	Stone Lab Guest Lecture			50		
1998	8	6	Kelch	Stadium Reef u/w video attempt	Cleveland	attempt to run Fisheye u/w camera	5				
1998	8	7	Hageman	Bob Shubert Family	Gibraltar Island	Stone Lab Tour	8		1		
1998	8	8	Hageman	Sandy Ausmundson Family	Gibraltar Island	Stone Lab Tour	8		1		
1998	8	8	Hageman	Julie West, Workshop Asst. Applicant	Gibraltar Island	Stone Lab Tour	1		1		
1998	8	9-15	Snyder	Aquatic Biology Students	Gibraltar Island	Zoology 125 - 3 Credit Hours	17	1			
1998	8	11	Hageman	Walkden Family	Gibraltar Island	Stone Lab Tour	6		1		
1998	8	11	Hageman	Dick Martin, N.W. District Extension	Gibraltar Island	Stone Lab Tour			1		
1998	8	11	Hageman	Paul Genzman, P-I-B Science Teacher	Gibraltar Island	Stone Lab Tour	1		1		
1998	8	11	Hageman	Valerie Lyons Family	Gibraltar Island	Stone Lab Tour	14		1		
1998	8	11	Williams	State Tourism Team	Columbus	State Tourism				7	
1998	8	12	F. Lichtkoppler	Ohio State University Students	Mentor	Lake Erie Coastal Geology	18				
1998	8	13	Hageman	Visitors for Bobby Moser Lecture	Gibraltar Island	Stone Lab Tour	10		1		
1998	8	13	Hageman	Bobby Moser, OSU College of Ag.	Gibraltar Island	Stone Lab Guest Lecture			80		

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1998	8	14	Hageman	NW/NE Dist. of Ohio Water Eniv. Assoc	Put-In-Bay	1998 Stone Lab Research	270				
1998	8	16	Snyder	Sandusky Co. SWCD 50th Anniversary	Fremont	Biological Tours on Sandusky River	180				
1998	8	16-23	Kelch	OSG Display: Lorain Cty. Fair	Wellington	Set-up static display at fairgrounds					
1998	8	17	Hageman	Kellman Family	Gibraltar Island	Stone Lab Tour	3		1		XX
1998	8	17	Snyder	NWD Peer Review Committee	Findlay	Promotion & Tenure Vita Review			7		
1998	8	18	Hageman	Jones Middle School Faculty	Gibraltar Island	Workshop	13		1		
1998	8	18	F. Lichtkoppler	IAGLR 99 Conference Planning Committ	Cleveland	IAGLR 99 Conference Planning	8		1		
1998	8	19	Kelch	Stadium Reef u/w video attempt	Cleveland	Attempt to run Fisheye u/w camera	5				
1998	8	20	Bielen	Cherry/Bancroft/Summit Corridor Coalitio	Toledo	Corridor Coalition Projects				14	
1998	8	20	F. Lichtkoppler	Mentor Marsh Board	Mentor	Marsh Management	12		1		
1998	8	21	Hageman	Travel Writers & Ohio Office of Tourism	Gibraltar Island	1998 Stone Lab Overview	35				
1998	8	21	Hageman	Travel Writers & Ohio Office of Tourism	Gibraltar Island	Tour (Travel Writers)	35				
1998	8	21	Snyder	Travel Writers & Ohio Office of Tourism	Gibraltar Island	Lake Erie Tourism Opportunities	35				
1998	8	25	F. Lichtkoppler	CWRU Professors	Painesville	Fish and Land Use	6			6	
1998	8	25	Snyder	Sea Grant Staff	Cleveland	Stadium Reef Video			3		
1998	8	25-28	Kelch	American Fishery Society Conference	Hartford, CT	Attend AFS National Conference	135			1000	
1998	8	26	Bielen	Summit Street Planning Committee	Toledo	Developing Requests for Proposals	8				
1998	8	27	Hageman	Cleveland Channel 8 (Fox) TV	Put-In-Bay	Microcystis Algae Bloom Interview					XX
1998	8	27	F. Lichtkoppler	ARP Partners	Ashtabula	Annual Meeting			60		
1998	8	27	F. Lichtkoppler	ARP Coordinating Committee	Ashtabula	CMP/EIS Remedial Dredging			30		
1998	8	27	F. Lichtkoppler	ARP Project Committee	Ashtabula	Remedial Dredging			40		
1998	8	27	Snyder	NWD Office Staff	Findlay	Office Conference				10	
1998	8	27-28	Hageman	Hathaway Brown High School	Gibraltar Island	Aquatic Science Workshop			57		
1998	8	28	Hageman	Nueman Boat Line Captain	Gibraltar Island	Stone Lab Tour	1				
1998	8	28	F. Lichtkoppler	Agency Officials	Ashtabula	Sea Grant Lake Erie Boat Tour	20		1		
1998	8	29	Snyder	Stone Lab Open House- General Public	Stone Lab	Lake Erie Fishes	75				
1998	8	29	Hageman	Friends of Stone Lab Open House	Gibraltar Is. and Lighthouse	Tours/Workshops	790		1		
1998	8	31	Hageman	Kathy Shank Family	Gibraltar Island	Stone Lab Tour	10		1		
1998	9	2	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Park & Marina Planning	10				
1998	9	2-3	Hageman	Highland High School	Gibraltar Island	Aquatic Science Workshop			53		
1998	9	3	Kelch	Erie County 4-H Camp Board mtg.	Sandusky	Attend camp board meeting				18	
1998	9	3	Williams	CIRI Reps.	Cleveland	Trade Show				8	
1998	9	3	Hageman	Tom Henry & Lori King, Toledo Blade	Gibraltar Island	Stone Lab Tour	2		1		
1998	9	3-4	Hageman	West Carrollton Middle School	Gibraltar Island	Aquatic Science Workshop			47		
1998	9	4	Snyder	Ohio ANS Task Force Steering Comm.	Columbus	Statewide ANS Plan			9		
1998	9	4	Snyder	Fremont News-Messenger	Fremont	Microcystis in Lake Erie					XX
1998	9	8-12	Williams	IMTS show Chicago	Chicago	Trade Show		75			
1998	9	8-9	Hageman	Hilliard Station I Middle School	Gibraltar Island	Aquatic Science Workshop			38		
1998	9	9-10	Hageman	Hilliard Station II Middle School	Gibraltar Island	Aquatic Science Workshop			39		
1998	9	10	Hageman	Erie-Ottawa Community Foundation	Gibraltar Island	Aquatic Science Workshop	39		1		
1998	9	10	Hageman	Erie-Ottawa Community Foundation	Gibraltar Island	Stone Lab Tour	28		1		
1998	9	10	Hageman	Jim and Ann Harding	Gibraltar Island	Conference				20	
1998	9	10	F. Lichtkoppler	Mentor Marsh Board & Developer	Put-In-Bay/Gibraltar Island	Final Cooke Family Reunion Planning					
1998	9	10-11	Hageman	Mentor	Mentor	Mentor Marsh Long Range Plan	9		1		
1998	9	10-11	Hageman	Hilliard Station III Middle School	Gibraltar Island	Aquatic Science Workshop			39		
1998	9	11-13	Hageman	Jay Cooke Family Reunion	Gibraltar Island	Aquatic Science Workshop			71		
1998	9	11	Bielen	North River Economic Development Con	Toledo	North River Development Projects	10				
1998	9	11	Snyder	All Ottawa County 5th Graders	Ottawa Nat. Wildlife Ref.	Aquatic Life in Wetlands	650				
1998	9	14	Bielen	Cherry/Bancroft/Summit Corridor Coalitio	Toledo	Corridor Coalition Projects				18	
1998	9	14	F. Lichtkoppler	Summit Sport Anglers	Akron	Lake Erie Angling Issues	25				
1998	9	14	Kelch	Lee Anne Buras meeting, OSU-Ex.	Wooster	Meeting with new extension director	1				
1998	9	14	Hageman	Jefferson Elementary	Gibraltar Island	Aquatic Science Workshop			59		
1998	9	15-16	Hageman	Bexley Middle School	Gibraltar Island	Aquatic Science Workshop			53		
1998	9	15	Bielen	Great Lakes Commission Dredging Conf	Toledo	Beneficial Uses of Dredged Material				150	
1998	9	15	Bielen	Ottawa River Action Group	Toledo	Ottawa River Boating/Marine Trades Stu	18				
1998	9	15	Snyder	Sandusky County 4th Graders	Fremont	Aquatic Organisms & Ecology	225				
1998	9	15	Williams	Small Business Environmental Ctr.	Cleveland	Board mtg.			16		

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1998	9	16	Bielen	Point Place Business Association	Toledo	Ottawa River Boating/Marine Trades Stu	50				
1998	9	16	Kelch	Stadium Reef u/w video attempt	Cleveland	Attempt to run Fisheye u/w camera	5				
1998	9	16	Snyder	Live Bait Dealers	Ottawa County	ANS Screening in Bait Tanks	13				
1998	9	16	Snyder	NWD Extension Staff	Findlay	Web Page Design Class				25	
1998	9	17-18	Hageman	Wellington I	Gibraltar Island	Aquatic Science Workshop			29		
1998	9	17	F. Lichtkoppler	Wellington II	Gibraltar Island	Aquatic Science Workshop			29		
1998	9	17	Williams	Fairport Rod & Reel Association	Grand River	Lake Erie Angling issues	68				
1998	9	18	Kelch	Executive Tour	Cleveland	Business Attraction			23		
1998	9	18	Snyder	Stadium Reef u/w video attempt	Cleveland	Attempt to run Fisheye u/w camera	5				
1998	9	18	Williams	Live Bait Dealers	Lucas & Sandusky Cos.	ANS Screening in Bait Tanks	16				
1998	9	19	Hageman	Garrett Square Board mtg	Cleveland	New Business Investment			8		
1998	9	21	Hageman	Heidelberg Ichthyology Class, College	Gibraltar Island	Aquatic Science Workshop	9		1		
1998	9	21	Hageman	West Holmes High School	Gibraltar Island	Aquatic Science Workshop			18		
1998	9	21	Hageman	Avon High School	Gibraltar Island	Aquatic Science Workshop			17		
1998	9	21	Hageman	7th Annual P-I-B underwater Clean Up	Put-In-Bay	Lake Erie Update	240		1		
1998	9	22	F. Lichtkoppler	Toledo Channel 24 (NBC), TV Interview	Put-In-Bay	Value of Underwater Clean Up					XX
1998	9	22	F. Lichtkoppler	Grand River Partners	Perry	Grand River Corador Preservation	30				
1998	9	22	Hageman	General Public	Painesville	Land Use and Walleye	12		1		
1998	9	23	Hageman	St. Marys of the Falls Middle School	Gibraltar Island	Aquatic Science Workshop			25		
1998	9	23	Hageman	Portage Elementary	Gibraltar Island	Aquatic Science Workshop			55		
1998	9	23	Bielen	Ottawa River Stakeholder Groups	Toledo	Profiling the Ottawa River				125	
1998	9	23	F. Lichtkoppler	ARP Outreach Committee	Ashtabula	Public Education on the ARP	6		1		
1998	9	23	F. Lichtkoppler	Ohio Lake Erie Commission	Ashtabula	Lake Erie Water Quality	20			20	
1998	9	23	F. Lichtkoppler	ARP Coordinating Committee	Ashtabula	CMP/EIS Development	12		1		
1998	9	23	Kelch	LCVB Board of Directors Mtg.	Lorain	Attend board meeting				14	
1998	9	24	F. Lichtkoppler	OLEC Lake Erie Conference	Ashtabula	Annual Meeting & Report				150	
1998	9	24	Kelch	OLEC Lake Erie Conference	Astabula	Annual Meeting & Report				150	
1998	9	24	Hageman	Bataan Elementary	Gibraltar Island	Aquatic Science Workshop			45		
1998	9	24	Williams	Hotel development with developer	Cleveland	New investments			3		
1998	9	24-25	Hageman	Edgewood Middle School	Gibraltar Island	Aquatic Science Workshop			21		
1998	9	25	Hageman	McCormick Elementary	Gibraltar Island	Stone Lab Tour	132		1		
1998	9	25	Snyder	GLSGN HACCP Baitfish Comm.	Port Clinton	Survey Planning Conf. Call	6				
1998	9	25-26	Hageman	Park Street Middle School	Gibraltar Island	Aquatic Science Workshop			70		
1998	9	28	Bielen	Business R&E Master Consultant Trainin	Carbondale, IL	Business R&E Master Consultant Traini	1			25	
1998	9	28	Kelch	OSU-E National Food Safety Confer.	Columbus	Presentation: fish contaminant/ HACCP	85				
1998	9	28-29	Hageman	Hudson I Middle School	Gibraltar Island	Aquatic Science Workshop			49		
1998	9	29-30	Bielen	Business R&E Master Consultant Trainin	Carbondale, IL	Business R&E Master Consultant Traini	50				
1998	9	29-30	Hageman	Hudson II Middle School	Gibraltar Island	Aquatic Science Workshop			53		
1998	9	30	Snyder	Port Clinton News-Herald	Port Clinton	Gobies in Lake Erie					XX
1998	10	1	Hageman	Owens Community College	Gibraltar Island	Aquatic Science Workshop			11		
1998	10	1	Snyder	Lake Erie Buffer Team	Toledo	Program Development			18		
1998	10	1-2	Williams	Extension program	Cleveland	Future Search				56	
1998	10	2	Hageman	Willis Middle School	Gibraltar Island	Aquatic Science Workshop			24		
1998	10	2	Kelch	Lorain County Ducks Unlimited Banquet	Lorain	Lake Erie waterfowl and wetlands	195				
1998	10	2	Williams	Extension program	Cleveland	Future Search				56	
1998	10	2-3	Hageman	Granville High School	Gibraltar Island	Aquatic Science Workshop			20		
1998	10	2-3	Hageman	Mt. Union College	Gibraltar Island	Aquatic Science Workshop			11		
1998	10	3	Williams	Extension program	Cleveland	Future Search				56	
1998	10	5	Kelch	OSU-E Computer Training	Elyria	Attend computer training, our office				12	
1998	10	5	Snyder	Live Bait Dealers	Mercer & Logan Counties	ANS Screening in Bait Tanks	23				
1998	10	5-6	Hageman	Worthingway Middle School	Gibraltar Island	Aquatic Science Workshop			59		
1998	10	6	Hageman	Laurel Elementary	Gibraltar Island	Aquatic Science Workshop			39		
1998	10	7	Bielen	Sustainable Development Team	Columbus	Sustainable Development				10	
1998	10	7	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Action Items / Nominal Group	12		1		
1998	10	7	Snyder	Live Bait Dealers	Eastern Lake Shoreline	ANS Screening in Bait Tanks	17				
1998	10	7-8	Hageman	Columbus School for Girls	Gibraltar Island	Aquatic Science Workshop			59		
1998	10	8	Hageman	Ohio Board of Regents Officers	Gibraltar Island	Stone Lab Research Overview	6				

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YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	10	8	Hageman	Ohio Board of Regents Officers Council	Gibraltar Island	Stone Lab Tour					
1998	10	8	Bielen	Maumee RAP Committee	Toledo	Maumee RAP Projects	6				
1998	10	8	Bielen	Cherry/Bancroft/Summit Corridor Coalitio	Toledo	Corridor Coalition Projects				28	
1998	10	8	F. Lichtkoppler	Mentor Marsh Board	Mentor	Wetlands Mitigation	15			18	
1998	10	8	Kelch	Westlake Sportsman's Club Mtg.	Westlake	presentation: Round Gobies, impacts	65		1		
1998	10	8-9	Hageman	Deveaux Jr. High with OSU 4-H	Gibraltar Island	Aquatic Science Workshop			49		
1998	10	9	Hageman	Ohio Board of Regents Officers	Gibraltar Island	Stone Lab Research Overview	4				
1998	10	9	Hageman	Lakota Jr. High	Gibraltar Island	Career Opportunities in Aquatic Sci.	36		1		
1998	10	9	Hageman	Ohio Board of Regents Officers	Gibraltar Island	Stone Lab Tour	4				
1998	10	9	Snyder	Live Bait Dealers	Muskingum Valley	ANS Screening in Bait Tanks	25				
1998	10	9	Williams	WECO Assett Tour	Cleveland	Business Investment			78		
1998	10	9-10	Hageman	Lakota Jr. High	Gibraltar Island	Aquatic Science Workshop			34		
1998	10	10	Hageman	Heidelberg Limnology Class, College	Gibraltar Island	Aquatic Science Workshop			7		
1998	10	12	Snyder	Crescent Chemical Co. Employees	Weston	Water Pollution Control	12				
1998	10	12-13	Hageman	Brecksville High School	Gibraltar Island	Aquatic Science Workshop			22		
1998	10	13	Kelch	Governor's Lake Erie Office Mtg.	Cleveland	Input for angling report, angling needs	25				
1998	10	13	Snyder	Elks Ladies Club	Port Clinton	Lake Erie From Past to Future	83				
1998	10	13	Hageman	Ohio Lake Erie Office	Bay Village	Meeting					
1998	10	14	F. Lichtkoppler	ARP Outrech Committee	Ashtabula	Edt ARP Slide Show	8		1		12
1998	10	14-15	Hageman	Woodside Middle School	Gibraltar Island	Aquatic Science Workshop			29		
1998	10	14-15	Snyder	Live Bait Dealers	Miami & Ohio River Valleys	ANS Screening in Bait Tanks	42				
1998	10	15	F. Lichtkoppler	OLEC Focus Group	Sandusky	Lake Erie Boating Issues	10		1		
1998	10	15-16	Bielen	Great Lakes Econ.Devel. Researchers	Cleveland	Economic Development Research				130	
1998	10	15-16	Hageman	Rocky River Middle School	Gibraltar Island	Aquatic Science Workshop			37		
1998	10	15-16	Hageman	Japanese National for Edu. Research	Gibraltar Island	Aquatic Science Workshop			4		
1998	10	16-18	Hageman	Ohio State Univ. Limnology College	Gibraltar Island	Aquatic Science Workshop			15		
1998	10	19	Williams	Broadview Hts Business Retention	Independence	Business Investment	52				
1998	10	19	Hageman	Tiffin City I Jr. High	Gibraltar Island	Aquatic Science Workshop			25		
1998	10	19	Hageman	University of Toledo Center	Oregon	Dedication Ceremony for Center				70	
1998	10	19	Hageman	Pheasants-Forever Chap. 291 Board	Oak Harbor	Monthly Meeting	6				
1998	10	20	Bielen	Ottawa River Action Group	Toledo	Ottawa River Boating/Marine Trades Stu	12				
1998	10	20	Snyder	Ohio ANS Task Force Steering Comm.	Columbus	Statewide ANS Plan			10		
1998	10	21	Hageman	Padua Francisan High School	Gibraltar Island	Aquatic Science Workshop			33		
1998	10	21	Williams	Business Excel Program	Cleveland	Small Business Mgt.	18				
1998	10	22	Kelch	Governor's Submerged Lands Ad. Cm.	Lorain	New comm. Appointee: Art. Reefs	18				
1998	10	23	Hageman	Tiffin City II Jr. High	Gibraltar Island	Aquatic Science Workshop			25		
1998	10	26	F. Lichtkoppler	Lake Co. Extension Staff	Painesville	Hazardous Materials Training	14				
1998	10	26	Snyder	NWD Extension Staff	Findlay	Skills That Thrill Workshop				55	
1998	10	26	Hageman	Cuyahoga Heights High School	Gibraltar Island	Aquatic Science Workshop			44		
1998	10	27	Hageman	Computer Training	Carroll Township	Microsoft Windows '95				9	
1998	10	27	F. Lichtkoppler	Grand River Partners	Perry	Land Use Tour	35				
1998	10	27	Snyder	NWD Office Staff	Findlay	Office Conference				13	
1998	10	28	Bielen	Summit Street Planning Committee	Toledo	Developing Requests for Proposals	10				
1998	10	28	Williams	Business Excel Program	Cleveland	Small Business Mgt.	18				
1998	10	28	Hageman	Computer Training	Carroll Township	Microsoft Word					
1998	10	29	Hageman	Steve Lichtensteiger & Greg Graham	Put-In-Bay, Office	AgVax Installation				9	
1998	10	29	Bielen	North River Economic Development Cor	Toledo	North River Development Projects				3	
1998	10	29	Kelch	LCVB Board of Directors Meeting	Lorain	attend board mtg.				8	
1998	10	30	Williams	Economic Development	Akron	Business Attraction/SAE show			11		
1998	11	2	F. Lichtkoppler	SWCD Staff	Painesville	Non-Point Education for Municipal Offic	4		1		
1998	11	3	Williams	Small Business Excell program	Cleveland	Small Business Mgt.	18				
1998	11	5	Bielen	Ohio Development Professionals and Co	Columbus	Sustainable Development				140	
1998	11	5	F. Lichtkoppler	Mentor Marsh Board	Mentor	Wetland Restoration	16		1		
1998	11	5	Kelch	Erie Cty. 4-H Camp Board Mtg.	Sandusky	Attend board meeting, lake ed. Issues	14				
1998	11	5	Snyder	NWD Sea Grant Advisory Committee	Sandusky	Committee Meeting		1	14		
1998	11	5	Hageman	Lourdes' College/Elder College Program	Sylvania	Stone Lab & 1998 Research Overview	11				
1998	11	6	Hageman	Laboratory Animal Protocol Team	Research Lab/Gibraltar	Lab Animal Protocol Inspection	5				

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YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1998	11	6	Hageman	University O.S.H.A. Team	Gibraltar Island	O.S.H.A. Management Tour	4				
1998	11	6	Kelch	Akron Cruising Club Annual Banquet	Akron	Presentation: artificial reefs, research	135				
1998	11	6	Snyder	Toussaint River Residents	LaCame	Toussaint River Dredging	42				
1998	11	9	Hageman	L.E. Islands Historical Museum	Put-In-Bay	Elderhostel Planning Meeting			3		
1998	11	9	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Marina Design & Park Planning	12		1		
1998	11	9	Williams	Community Residents	Rocky River	Urban Sprawl	78				
1998	11	10	F. Lichtkoppler	FAES College P & T Committee	Columbus	Faculty Promotion & Tenure	11		1		
1998	11	10	Kelch	Governor's Submerged Lands Ad. Cm	Vermilion	Attend meeting, discuss diving issues	15				
1998	11	10	Williams	Volunteers	Cleveland	Business Attraction				28	
1998	11	11	F. Lichtkoppler	ARP Outreach Committee	Ashtabula	ARP Public Information	6				
1998	11	11	Williams	Economic Development	Cleveland	Busines Resource Pannel mtg	13		1		
1998	11	12-13	Bielen	Ohio Sea Grant Staff	Mohican State Park	Program Planning Retreat	9				
1998	11	12-13	F. Lichtkoppler	Ohio Sea Grant Staff	Mohican State Park	Program Planning Retreat	9		1		
1998	11	12-13	Hageman	Ohio Sea Grant Staff	Mohican State Park	Program Planning Retreat	9		1		
1998	11	12-13	Kelch	Ohio Sea Grant Staff	Mohican State Park	Program Planning Retreat	9		1		
1998	11	12-13	Snyder	Ohio Sea Grant Staff	Mohican State Park	Program Planning Retreat	9		1		
1998	11	12-13	Williams	Ohio Sea Grant Staff	Mohican State Park	Program Planning Retreat	9		1		
1998	11	16	Williams	Business Retention & Expansion Int.	Conference call	BREI Business	15				
1998	11	17	Bielen	Ottawa River Action Group	Toledo	Ottawa River Boating/Marine Trades Stu	13				
1998	11	18	F. Lichtkoppler	ARP Coordinating Committee	Ashtabula	CMP/EIS Remedial Dredging	14		1		
1998	11	18	F. Lichtkoppler	ARP Project Committee	Ashtabula	Remedial Dredging	12				
1998	11	18	Snyder	Duluth News	Duluth, MN	Zebra Mussel Interview					XX
1998	11	19	F. Lichtkoppler	PA Sea Grant & Researchers	Huron	Mayfly Watch	6		1		
1998	11	19	Snyder	NWD Office Staff	Findlay	Office Conference				14	
1998	11	20	Bielen	Ottawa River Businesses	Toledo	Ottawa River Boating/Marine Trades Stu	2				
1998	11	20	Williams	Broadview Hts Breakfast mtg	Broadview Hts.	Investing in Broadview Hts.	48				
1998	11	23	Bielen	Ottawa River Businesses	Erie, MI	Ottawa River Boating/Marine Trades Stu	2				
1998	11	23	Snyder	Lake Erie Buffer Team	Fulton County	Buffer Strip Field Tour				25	
1998	11	23-24	Snyder	International Lake Erie Researchers	Windsor, Ontario	Lake Erie at the Millennium Planning				33	
1998	11	24	Hageman	LENSC: Naturalist Workshop, Seminar	Cleveland	Stone Lab & 1998 Research Overview	85				
1998	11	24	Kelch	LENSC: Naturalist Workshop, Seminar	Cleveland	Presentation: Changes in Lake Erie	85				
1998	11	24	Williams	Economic Development Network	Independence	Urban Renewal	48				
1998	11	25	Kelch	LCVB Board of Directors Meeting	Lorain	Attend board mtg.				19	
1998	11	30	F. Lichtkoppler	FAES College P & T Committee	Columbus	Faculty Promotion & Tenure	11		1		
1998	11	30	F. Lichtkoppler	FAES College P & T Sub-Committee	Columbus	Faculty Promotion & Tenure	3		1		
1998	12	1	F. Lichtkoppler	FAES College P & T Committee	Columbus	Faculty Promotion & Tenure	11		1		
1998	12	1	Williams	Volunteers	Cleveland	Business Retention/WIRE-Net			6		
1998	12	3	F. Lichtkoppler	Lake Co. Land & Water Committee	Painesville	Land Use & Lake Erie (CLUE Grant)	9		9		
1998	12	4	Bielen	Lucas County Planning and Developmer	Toledo	Lucas County Development					75
1998	12	4	Kelch	OSU-E, mandatory OSHA training mtg.	Wooster	Attend mandatory OSHA training					45
1998	12	7	F. Lichtkoppler	OSU Extension Faculty & Staff	Columbus	Annual Conference					700
1998	12	7	Kelch	OSU Extension Faculty & Staff	Columbus	Annual Conference					700
1998	12	7-8	Snyder	Midwest Fish & Wildlife Conference	Cincinnati	Ohio ANS Strategic Plan Presentation	40		1		
1998	12	8	Hageman	Stone Lab/Phy.Fac./R.D.H.	Columbus	Stone Lab Fall Meeting	12				
1998	12	9	Bielen	Ottawa River Businesses	Toledo	Ottawa River Boating/Marine Trades Stu	2				
1998	12	9	Bielen	Summit Street Planning Committee	Toledo	Developing Requests for Proposals	9				
1998	12	9	F. Lichtkoppler	Lake Co. Land & Water Committee	Painesville	Land Use & Lake Erie (CLUE Grant)	9		1		
1998	12	9	F. Lichtkoppler	Mentor Marsh Board	Mentor	Wetland Restoration	18		1		
1998	12	9	Williams	Volunteers	Cleveland	Business Retention/NEOSA TBZ			11		
1998	12	10	Bielen	Ottawa River Businesses	Toledo	Ottawa River Boating/Marine Trades Stu	2				
1998	12	10	Kelch	West Cleveland Walleye Association	Cleveland	Presentation: OSG & art. reef update	70				
1998	12	10	Williams	Economic Development	Painesville	Business Attraction	3				
1998	12	11	Bielen	North River Economic Development Con	Toledo	North River Development Projects					10
1998	12	13	Snyder	Western Basin Charter Boat Assoc.	Monroe, MI	Lake Erie Fishery Marketing	38				
1998	12	13	Hageman	Pheasants-Forever State Council	Findlay	State Council Meeting					17
1998	12	15	Bielen	Ottawa River Action Group	Toledo	Ottawa River Boating/Marine Trades Stu	15				
1998	12	16	F. Lichtkoppler	Lake Co. Land & Water Committee	Painesville	Land Use & Lake Erie (CLUE Grant)	8		1		

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1998	12	16	Snyder	Buckeye Central High School	New Washington	Aquatic Science Careers	74				
1998	12	17	F. Lichtkoppler	ARP Coordinating Committee	Ashtabula	CMP/EIS Remedial Dredging	18		1		
1998	12	17	F. Lichtkoppler	ARP Project Committee	Ashtabula	Remedial Dredging	15				
1998	12	18	Bielen	North River Economic Development Com	Toledo	North River Development Projects	3				
1998	12	18	Snyder	NWD Office Staff	Findlay	Office Conference				18	
1998	12	18	Hageman	NWD Office Staff	Findlay	Office Conference				18	
1998	12	21	Hageman	Pheasants-Forever Chap. 291 Board	Oak Harbor	Monthly Meeting	12				
1998	12	22	Williams	Economic Development	Collinwood	Business Retention	4				
1999	1	2	Snyder	Toussaint River Property Owners	Oak Harbor	Toussaint River Dredging	42		1		
1999	1	5	F. Lichtkoppler	IAGLR 99 Planning Committee	Cleveland	IAGLR 99 Conference Media Effort	8				
1999	1	7	F. Lichtkoppler	Land & Water Committee	Painesville	CLUE Grant Application	10				
1999	1	7	Kelch	Erie Co.. 4-H Camp Board Mtg.	Sandusky	Attend board meeting, lake ed. Issues	14				
1999	1	8	F. Lichtkoppler	Sea Grant Conference Call	Painesville	Program Leaders				10	
1999	1	8	Snyder	GLSGN ANS Committee	Port Clinton	Program Planning Conference Call			8		
1999	1	11	Bielen	Wood County Economic Development M	Bowling Green	Brownfield Redevelopment	1		1		
1999	1	11	F. Lichtkoppler	Madison Twp. Planner	Painesville	Arcola Creek Grant Proposal	3				
1999	1	11	Kelch	OSG: boat show display, meetings	Columbus	Display, meet with Karen/Jeff				5	
1999	1	12	F. Lichtkoppler	Ashtabula River Partnership (ARP)	Ashtabula	ARP Outreach Education	7				
1999	1	12	Williams	MBE Teleblitz Volunteers	Cleveland	MBE business retention	12		12		
1999	1	13	F. Lichtkoppler	Grand River Partners	Perry	GRP Planning	13				
1999	1	13	Kelch	Sea Camp planning comm. Mtg.	Ashland Co. Ext. Office	Planning meeting for 1999 Sea Camp	12				
1999	1	14-24	F. Lichtkoppler	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	15-24	Kelch	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	15	Bielen	North River Economic Development Com	Toledo	North River Development Projects	8				XX
1999	1	15	Snyder	Fremont News-Messenger	Fremont	Lakeshore Flooding Interview					XX
1999	1	15	Snyder	Port Clinton News-Herald	Port Clinton	Lake Levels Interview					XX
1999	1	16	Williams	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	17	Snyder	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	18	Williams	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	20	Hageman	OSU School of Nat. Students	Columbus	Intern Awareness Day	20				XX
1999	1	20	Snyder	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	20	Williams	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	21	F. Lichtkoppler	Mentor Marsh Board	Mentor	Marsh Management	15				XX
1999	1	21	Hageman	N. W. District Extension Office Conf.	Findlay	Monthly Meeting				9	
1999	1	21	Snyder	Northwest District Extension Staff	Findlay	District Office Conference				12	
1999	1	22-23	Williams	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	23	Snyder	Boat Show Attendees	Cleveland	Lake Erie Information					XX
1999	1	24	Hageman	Boat Show Attendees	Cleveland	Lake Erie information					XX
1999	1	26	Bielen	Toledo Community Leaders	Toledo	State of the City Address				550	XX
1999	1	27	F. Lichtkoppler	ARP Project Committee	Ashtabula	Project Development				14	
1999	1	27	F. Lichtkoppler	ARP Coordinating Committee	Ashtabula	Project Management	16				
1999	1	27	Kelch	LCVB Board of Directors Meeting	Lorain	Chair meeting, discuss tracking survey	19	1			
1999	1	27	Snyder	Lake Erie Buffer Team	Toledo	Program Planning			18		
1999	1	28	Bielen	Cherry/Bancroft/Summit Corridor Coalitic	Toledo	Corridor Coalition Projects/Strat. Plan.				20	
1999	1	28	Bielen	TMACOG General Assembly	Toledo	TMACOG Projects				250	
1999	1	28	Snyder	Sports Afield Magazine	Michigan	Lake Erie Walleye Interview					XX
1999	1	29	Snyder	Reutter & Hushak	Columbus	Program Review Conference Call			3		
1999	2	1	F. Lichtkoppler	PA Sea Grant Agent	Painesville	New Agent Orientation	2				
1999	2	1	Kelch	Cleve. Daughters of Am. Rev. Chapter	Cleveland	Presentation: art. Reefs, exotic species	55				
1999	2	1	Williams	Olmsted Chamber of Commerce	Olmsted Township	Geographic Interest Group Planning		4			XX
1999	2	2	Bielen	Growth Partnership Personnel	Toledo	Business R&E Techniques	1				
1999	2	2	Kelch	LENSC (Lake Erie Nat. & Sci. Center)	Cleveland	set up new OSG display: exotic sp.					XX
1999	2	2	Snyder	Toussaint River Property Owners	Oak Harbor	Toussaint River Dredging	6				
1999	2	2	Williams	Minority Business Network	Cleveland	Planning a minority business forum				3	
1999	2	4	F. Lichtkoppler	Sea Grant Committee Chair	Ashtabula	New Committee Guidelines	2				
1999	2	5	Hageman	Steve Martin	Put-In-Bay	Stone Lab Overview	5				

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1999	2	5	Kelch	LCVB Policy Committee Mtg.	Lorain	Discuss new policy for visitors bureau	10				
1999	2	8	Snyder	Kiwanis Club Members	Genoa	Lake Erie Update	48	1			
1999	2	9	Bielen	Growth Partnership Personnel	Toledo	Business R&E Techniques	1				
1999	2	9	Kelch	Governor's Submerged Lands Ad. Cm.	Vermilion	Attend meeting, discuss diving issues	16				
1999	2	9	Snyder	Sea Grant Administrators	Columbus	Sea Grant Budget				5	
1999	2	9	Williams	Business Retention Expansion Int.	Cleveland	Board Meeting				12	
1999	2	10	Kelch	OSG meeting	Columbus	attend OSG meeting, planning, etc.				10	
1999	2	10	Snyder	Sea Grant Staff	Columbus	Staff Meeting				12	
1999	2	10	Williams	Small Business Excel Program	Harrison County	Business Planning	16				
1999	2	11	F. Lichtkoppler	Mentor Marsh Board	Perry	Marsh Management	13				
1999	2	11	Hageman	Science Educators Council of Ohio	Dayton	Stone Lab Opportunities	70				
1999	2	12	Bielen	North River Economic Development Com	Toledo	North River Development Projects				10	
1999	2	12	Hageman	Science Educators Council of Ohio	Dayton	Stone Lab Opportunities	70				
1999	2	12	Kelch	ODNR/DOW, Roger Knight & staff	Sandusky	Discuss smallmouth tagging research	5				
1999	2	12	Williams	Members of EDI's network-minority	Cleveland	Purchasing opportunities for Minority...	15				
1999	2	13	Snyder	Rep. Opfer & County Leaders	Oak Harbor	Environmental Issues and Needs	18		1		
1999	2	14	F. Lichtkoppler	Lake County Staff	Perry	Team Budding	14				
1999	2	14	Kelch	Cleveland Boatbuilders Assoc. Mtg.	Cleveland	Presentation: Changes in Lake Erie	52				
1999	2	15	Hageman	Pheasants-Forever Board	Oak Harbor	Banquet Planning	15				
1999	2	15	Williams	ACT training	Mentor	Learning Act Software				8	
1999	2	16	Snyder	Ottawa County Leaders & Citizens	Oak Harbor	Extension Priorities			40		
1999	2	17	Williams	Volunteers for Nt. Teleblitz	Cleveland	Business Attraction	53		24		
1999	2	18	Snyder	Ottawa County SWD Advisors	Oak Harbor	Programming Priorities	65				
1999	2	18	Hageman	Ohio Wildlife Management Assoc.	Columbus	Annual Conference				200	
1999	2	19	Hageman	Ohio Chap. American Fisheries Society	Columbus	Annual Meeting				75	
1999	2	19	Snyder	Port Clinton News-Herald	Port Clinton	Lake Levels Interview					
1999	2	19	Snyder	Cleveland Plain Dealer	Cleveland	Lake Levels Interview					XX
1999	2	22	Kelch	ODNR/Geo. Survey: Mackey & Staff	Sandusky	Discuss/plan art reef mapping research	4				XX
1999	2	23	Bielen	Cherny/Bancroft/Summit Corridor Coalitid	Toledo	Corridor Coalition Projects/Strat. Plan.				22	
1999	2	23	F. Lichtkoppler	Ashtabula County Commissioners	Jefferson	Ohio Sea Grant Program	10				
1999	2	23	Snyder	Northwest District Extension Staff	Findlay	District Office Conference				10	
1999	2	24	F. Lichtkoppler	OSU Faculty and Staff	Wooster	Promotion and Tenure	35				
1999	2	24	Kelch	OSU-Ext. Promo & Tenure workshop	Wooster	Attend P & T workshop				30	
1999	2	24	Snyder	D. Martin & M. Bielen	Toledo	Toledo Sea Grant review			3		
1999	2	24	Snyder	Toledo Blade	Toledo	Lake Levels Interview					
1999	2	24	Williams	Local business belonging to ERIE-Net	Collinwood-neighborhood	Geographic Interest Group					XX
1999	2	25	Hageman	North West Extension Staff	Wood Co.	Windows '95				10	
1999	2	25	Snyder	WTAM Radio	Cleveland	Lake Levels Interview					XX
1999	2	25	Snyder	WLEC Radio	Sandusky	Lake Levels Interview					XX
1999	2	26	Snyder	Sen. Latta & Rep. Gardner	Bowling Green	Environmental Issues and Needs	17		1		
1999	2	27	Hageman	Friends of Stone Laboratory	Columbus	Winter Open House	200				
1999	2	27	Kelch	OSG/Stone Lab Open House, lectures	Cots., OSU, Kottman Hall	Presentation: art reefs & reef display					
1999	2	9-10	F. Lichtkoppler	Sea Grant Staff	Columbus	Sea Grant Program Planning	12				XX
1999	2	13-14	F. Lichtkoppler	Eastlake Fishing Symposium	Eastlake	Lake Erie Boating & Angling					XX
1999	3	1	Kelch	OSG Advisory Committee Meeting	Elyria	OSG update, planning, Roger Knight	15	1	1		
1999	3	1	Snyder	Round Goby Conference Committee	Port Clinton	Program Planning Conference Call	6		1		
1999	3	1-5	Williams	SAE Show Co-Chair	Detroit MI.	Business Attraction		16			
1999	3	2	F. Lichtkoppler	Professional Groundskeepers	Kirtland	Aquatic Weed Control	25				
1999	3	2	Snyder	Conservation Tillage Conference	Ada	Agriculture Impacts on Water Quality	95				
1999	3	3	Hageman	O.D.N.R. Supporters	Columbus	Wildlife Diversity Conference				200	
1999	3	3	Kelch	LENSC- Steelhead Angling Seminar	Cleveland	Teach biology/fishery info./fish contam.	85	1	1		
1999	3	3	Snyder	Columbus Dispatch	Columbus	Lake Levels Interview					XX
1999	3	4	Kelch	LCVB Policy Committee Mtg.	Lorain	Discuss new policy for visitors bureau	8	1			
1999	3	4	Snyder	ABC & PBS Radio	Washington, DC	Lake Levels Interview					XX
1999	3	4	Snyder	Great Lakes Angler Magazine	Michigan	Exotic Species Interview					XX
1999	3	6	Snyder	Great Lakes Angler Magazine	Shelby	Lake Erie Catfish Interview					XX
1999	3	8	Bielen	Pollution Prevention Meeting	Toledo	NWOHIO Pollution Prevent. Initiatives				50	

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1999	3	8	Hageman	Pheasants-Forever Board	Oak Harbor	Banquet Planning	20				
1999	3	8-10	Kelch	GLSGN & GLERL Staff	Ann Arbor, MI	GLERL / Sea Grant Outreach	20			80	
1999	3	8-10	Snyder	GLSGN & GLERL Staff	Ann Arbor, MI	GLERL / Sea Grant Outreach	20			80	
1999	3	8-10	F. Lichtkoppler	GLSGN & GLERL Staff	Ann Arbor, MI	GLERL / Sea Grant Outreach	20			80	
1999	3	9	Williams	GLSGN & GLERL Staff	Ann Arbor, MI	GLERL / Sea Grant Outreach	20			80	
1999	3	10	Williams	Olmsted Geographic Interest Group	Olmsted Township	Geographic Interest Group Planning	30		30		
1999	3	11	F. Lichtkoppler	Business Resource Panel	Cleveland	Business Retention	14				
1999	3	11	Kelch	Mentor Marsh Board	Mentor	Marsh Management	15				
1999	3	11	Williams	WTAM Radio, A.M. 1100	Cleveland	Interview: G. Lakes water sales/diver.					XX
1999	3	11	Williams	Lorain's Teleblitz	Cleveland	Retention of local businesses			9		
1999	3	12	Bielen	North River Economic Development Com	Toledo	North River Development Projects				10	
1999	3	12	F. Lichtkoppler	Cleveland Sport Show	Brook Park	Lake Erie Boating & Angling					
1999	3	12	Williams	Sport Show	Cleveland	Lake Erie Information					XX
1999	3	13	Hageman	Pheasants-Forever Membership	Sandusky	Annual Banquet	450				XX
1999	3	13	Snyder	Sport Show Attendees	Cleveland	Lake Erie Information					
1999	3	13	Williams	Sport Show Attendees	Cleveland	Lake Erie Information					XX
1999	3	13-21	Kelch	Sport Show Attendees	Cleveland	Lake Erie Information					XX
1999	3	15	Bielen	OSU/Sea Grant Extension Personnel & S	Toledo	Lake Erie Information					XX
1999	3	15	Snyder	Retired Federal Employees Ass'n	Port Clinton	Extension/ Sea Grant Programs	25		1		
1999	3	15	Williams	Sport Show Attendees	Cleveland	Lake Erie Ecological Changes	38				
1999	3	16	Bielen	Economic Development Extension Agent	Columbus	Lake Erie Information					XX
1999	3	16	F. Lichtkoppler	OSU Faculty and Staff	Painesville	Continuous Business R&E Techniques	25				
1999	3	16	Snyder	Ottawa County Employees & Public	Oak Harbor	Promotion and Tenure	7				
1999	3	16	Williams	Economic Development Network	Oak Harbor	County Office Dedication				75	
1999	3	16	Williams	Extension Agents	Independence	Business Resources	48				
1999	3	17	F. Lichtkoppler	Ashtabula SWCD	Columbus	New Techniques in Business Retention	7				
1999	3	17	Hageman	99 Spring/Summer Applicants	Jefferson	Land Use & Conservation	26				
1999	3	17	Kelch	IJC Public Hearing: G. Lakes water sale	Columbus	Spring/Summer Employee Interviews	25				
1999	3	17	Kelch	WCPN Radio, FM 90.3, Cleveland	Cleveland	Oral and written presentation to IJC	55				
1999	3	17	Kelch	TV 5, Cleveland interview	Cleveland	Interview: G. Lakes water sales/diver.					XX
1999	3	17	Snyder	Sport Show Attendees	Cleveland	Interview: G. Lakes water sales/diver.					XX
1999	3	17	Williams	Sport Show Attendees	Cleveland	Lake Erie Information					XX
1999	3	18	Bielen	Northwest Ohio Development Profession	Cleveland	Lake Erie Information					XX
1999	3	18	Hageman	Extension Northwest District County Cha	Toledo	Governor Taft's Address				550	
1999	3	18	Snyder	Stone Lab Scholarship Committee	Columbus	Summer 1999 Scholarship Awards	7			7	
1999	3	18	Williams	Ohio ANS Advisory Committee	Columbus	ANS Spread Via Live Fish Shipments	19		1		
1999	3	18	Williams	Bellair Puratist Neighborhood Teleblitz	Cleveland	Retention of local businesses			12		
1999	3	18	Williams	Sport Show Attendees	Cleveland	Lake Erie Information					
1999	3	19	Bielen	Extension Northwest District County Cha	Toledo	Lake Erie Information					XX
1999	3	19	Hageman	Sexual Harassment, Computer Training	Toledo	Sexual Harassment, Computer Training				23	
1999	3	19	Hageman	Stone Lab - 3 Dept. Meeting	Columbus	Spring/Summer '99 Planning	12				
1999	3	19	Williams	Ohio Department of Development	Columbus	Spring/Summer '99 Planning					
1999	3	20	Snyder	US Power Squadron NW District	Sandusky	Leads from SAE Show	7				
1999	3	20	Snyder	Sport Show Attendees	Cleveland	Lake Erie Historical Overview (X2)	85				
1999	3	20	Williams	Sport Show Attendees	Cleveland	Lake Erie Information					XX
1999	3	21	Hageman	Cleveland Sports Show	Cleveland	Lake Erie Information					XX
1999	3	21	Williams	Sport Show E185	Cleveland	Lake Erie Information					XX
1999	3	23	F. Lichtkoppler	IAGLR 99 Media	Cleveland	Lake Erie Information					XX
1999	3	24	F. Lichtkoppler	Grand River Partners	Cleveland	IAGLR 99 Media Relations	2				
1999	3	24	F. Lichtkoppler	ARP Coordinating Committee	Perry	Grand River Preservation	25				
1999	3	24	Kelch	LCVB Board of Directors Meeting	Ashtabula	ARP Project Management	16				
1999	3	25	Kelch	LENESC - Walleye Seminar	Lorain	Chair meeting, update: tracking survey	18	1			
1999	3	25	Snyder	OSU Office of Information	Cleveland	Teach bio/fishery info./fish contaminant	82	1	1		
1999	3	25	Williams	Lorain Geographic Interest Group	Columbus	Lake Levels Interview					XX
1999	3	25	Williams	Know Show Conference	Lorain	Business Development			30		
1999	3	26	Williams	Mtg. with Dr. Benson CSU	Cleveland	Information Technology Conference					XX
1999	3	27	Hageman	Ohio Charter Captains Conference	Cleveland	Research proposal		2			
1999	3	27	Snyder	Ohio Charter Captains Conference	Milan	99 Lake Erie Information					XX
1999	3	29	Williams	Small Business Environment Ctr.	Milan	Charter Business Management	210	1	1		
1999	3	29	Williams	Small Business Environment Ctr.	Cleveland	Board Meeting					16

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YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1999	3	30	F. Lichtkoppler	NE Ohio Sea Grant Committee	Unionville	Committee Meeting	7		1		
1999	3	31	F. Lichtkoppler	Sea Grant Staff	Cleveland	Meet w/ Dr. Irwin	6				
1999	3	31	F. Lichtkoppler	Mentor Lagoons Planning Committee	Mentor	Mentor Lagoons Planning	16				
1999	3	31	Hageman	Toledo Boat Show	Toledo	Ohio Sea Grant Booth	15				
1999	4	1	Williams	Mtg. with Mary, Frank, Irwin	Cleveland	Using GIS for economic development				7	
1999	4	1	Lichtkoppler	Coastal Residents	Concord Twp.	USACE Update				36	
1999	4	1	Snyder	Ohio Radio News Network	Columbus	Lake Levels Interview					XX
1999	4	2-3	Bielen	Toledo Boat and Extreme Sports Show	Toledo	Ohio Sea Grant Exhibit-Lake Erie Info.					XX
1999	4	2-3	Hageman	Toledo Boat and Extreme Sports Show	Toledo	Ohio Sea Grant Exhibit-Lake Erie Info.					XX
1999	4	6	Hageman	Toledo Power Squadron	Toledo	Stone Lab Overview & "98" Research	70				
1999	4	6	Snyder	Nat. Ass'n of Interpretive Naturalists	Sandusky	History & Development of Lake Erie	60				
1999	4	6	Snyder	WTVN Radio	Columbus	Lake Levels Interview					XX
1999	4	6	Snyder	D. Martin, J. Thomas - OSUE	Findlay	Program Evaluation Conf. Call			3		
1999	4	7	Williams	Business Excel	Cleveland	Business Excel	18		1		
1999	4	8	Lichtkoppler	Mentor Marsh Board	Mentor	Marsh Management	16				
1999	4	8	Snyder	Lake Erie Buffer Team	Sandusky	Publicity Development	18		1		
1999	4	9	Snyder	Suburban Press	Milbury	Lake Levels Interview					XX
1999	4	9	Snyder	News-Herald	Port Clinton	Lake Levels Interview					XX
1999	4	10	Hageman	Bill Napier & Mike Colley	Gibraltar Island	Pre-visit Board of Trustees			4		
1999	4	11	Hageman	Lake Erie Wing Watch	South Bass Is. Lighthouse	Lighthouse Tour			12		
1999	4	12	Hageman	Susan and Mike Harrison	Gibraltar Island	Stone Laboratory Tour	2				
1999	4	12	Snyder	Sandusky Co. Park District	Fremont	Nature Preserve Development			5		
1999	4	13	Bielen	Summit Street Proposal Committee	Toledo	Selecting Consultants	7				
1999	4	13	Snyder	Water Resources Institute Planners	Fremont	Program Planning	9		1		
1999	4	14	Hageman	Franklin Alternative M.S. - Columbus	Gibraltar Island	Aquatic Science Workshop	22				
1999	4	14	Snyder	Northwest District Extension Staff	Findlay	Office Conference			14		
1999	4	14	Snyder	Vacationland Marine Trades Assoc.	Port Clinton	Lake Levels Issues	25				
1999	4	14	Williams	Business Owners	Cleveland	Business Excel	21		1		
1999	4	15	Bielen	Extension Sustainable Development Cor	Columbus	Sustainable Communities Process	7				
1999	4	15	Hageman	Kerwood Elementary I - Bowling Green	Gibraltar Island	Aquatic Science Workshop	38				
1999	4	15	Williams	Realtors	Oakwood	Access Point Development	4		1		
1999	4	16	Bielen	NorthRiver Economic Development Com	Toledo	Economic Development Projects	8				
1999	4	16	Lichtkoppler	Boroughs Nature Club	Willoughby	Awards Dinner				125	
1999	4	16-18	Snyder	Outdoor Writers of Ohio Convention	Attwood	Using the Internet	45		1		
1999	4	19	Bielen	Go Bucks Conference	Columbus	All Extension Conference				800	
1999	4	19	Hageman	Fall-Meyer School - Toledo	Gibraltar Island	Aquatic Science Workshop			45		
1999	4	19	Williams	Go Bucks Conference	Columbus	Spring conference				800	
1999	4	19-20	Hageman	Go Bucks Conference	Columbus	All Extension Conference				800	
1999	4	19-20	Kelch	Go Bucks Conference	Columbus	All Extension Conference				800	
1999	4	19-20	Lichtkoppler	Sea Grant Staff	Columbus	Program Development	10				
1999	4	19-20	Snyder	Go Bucks Conference	Columbus	All Extension Conference				800	
1999	4	20	Bielen	Ottawa River Action Group	Toledo	Contact Survey Results	15				
1999	4	20	Snyder	OSUE CD Agents	Columbus	Sea Grant Overview	22				
1999	4	20-21	Hageman	Robinson Jr. High - Toledo	Gibraltar Island	Aquatic Science Workshop			28		
1999	4	21	Bielen	TMACOG Regional Planning Org. Memb	Toledo	Regional Land Use Issues				140	
1999	4	21	Hageman	Kerwood Elementary II - Bowling Green	Gibraltar Island	Aquatic Science Workshop			38		
1999	4	21	Kelch	WCPN Public Radio Interview	Cleveland	Lake Erie GPS navigation					XX
1999	4	21	Snyder	GLSGN Agents	Port Clinton	Goby Conference Planning Call			6		
1999	4	21	Williams	Business Owners	Cleveland	Business Excel	21		1		
1999	4	21	Williams	Olmsted Geographic Interest Group	Olmsted	Research committee		13	1		
1999	4	21-23	Hageman	R.O.V. Trainees	Stone Laboratory Rsch Bldg	R.O.V. Certification				5	
1999	4	22	Kelch	LENSC-GPS Navigation Seminar	Cleveland	Lake Erie GPS navigation	75	1	1		
1999	4	22	Lichtkoppler	Land & Water Committee	Painesville	CLUE Grant Proposal				7	
1999	4	22	Snyder	Wauseon Radio	Wauseon	Lake Levels Interview					XX
1999	4	22	Snyder	Fulton Co. Pond Owners	Wauseon	Pond Management	65				
1999	4	22-23	Hageman	Arlington Elementary - Toledo	Gibraltar Island	Aquatic Science Workshop			52		
1999	4	23	Hageman	P-I-B Underwater Clean Up Committee	Conference Call	8th Annual P-I-B Underwater Clean Up			4		

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YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1999	4	23	Lichtkoppler	Planners	Painesville	Arcola Creek Grant Proposal	3				
1999	4	23	Snyder	Danbury Elementary Students	Danbury	Zebra Mussels in Lake Erie	58				
1999	4	23	Snyder	Omaha Daily News	Omaha, NE	Zebra Mussels in the Missouri River					
1999	4	23	Williams	Wm. Derrick-Software company	Cleveland	Private consultation	2		1		XX
1999	4	23	Williams	Roseanne Jones-Titan Global Restauran	Conference Call	Restaurant development		3			
1999	4	24	Lichtkoppler	CFAES P & T Committee	Columbus	Promotion & Tenure Decisions				11	
1999	4	24-25	Hageman	Friends of Stone Lab Exec. Board	Gibraltar Island	Strategic Planning Meeting				13	
1999	4	25	Lichtkoppler	ARP Outreach Committee	Ashtabula	ARP Media Effort				6	
1999	4	25	Lichtkoppler	ARP Project Committee	Ashtabula	ARP Dredging issues				14	
1999	4	25	Lichtkoppler	ARP Coordinating Committee	Ashtabula	ARP Management Issues				12	
1999	4	25-28	Hageman	Lake Erie Researchers/Media	Univ. of Windsor, Ontario	Lake Erie at the Millennium				150	
1999	4	26	Hageman	Erie-Ottawa Co. Gifted & Talented	Gibraltar Island	Aquatic Science Workshop			29		
1999	4	26	Williams	Workforce Resource Training for CIRI	Cleveland	Resources available for workforce	8			1	
1999	4	26-29	Snyder	International ANS Conference	Duluth, MN	ANS Research				400	
1999	4	26-27	Hageman	Jonathan Alders H.S.	Gibraltar Island	Aquatic Science Workshop			21	5	
1999	4	27	Williams	Clarkmetro TBZ	Cleveland	Survey for retail business in Clark			1		
1999	4	27-28	Hageman	Worthington Christian H.S.	Gibraltar Island	Aquatic Science Workshop			15		
1999	4	28	Hageman	Woodward H.S. - Toledo	Gibraltar Island	Aquatic Science Workshop			25		
1999	4	28	Kelch	OSG Office: OSU Campus	Columbus	computer w/Mike, Karen, Nancy, Jill				8	
1999	4	28	Williams	Environmental Educational Forum	Cleveland	Establishing forums for USD	13		1		
1999	4	28-30	Hageman	Bloom Carroll, Fairfield/Liberty Union HS	Gibraltar Island	Aquatic Science Workshop				62	
1999	4	30	Hageman	Huron Co. 5th Grades	Gibraltar Island	Aquatic Science Workshop				53	
1999	4	30	Lichtkoppler	Wayne County Extension Staff	Painesville Township	Ohio Sea Grant / Lake Erie Issues	12				
1999	5	1	Hageman	O.S.U. Geology Seminar-Krissek	Gibraltar Island	Science Cruise/R.O.V. Demo	8				
1999	5	1	Hageman	Greg Lipps, Curator of Herps.	Toledo Zoo	Deliver Live Mudpuppies for Display	1				
1999	5	3	Bielen	Summit Street Proposal Committee	Toledo	Consultant Interviews			13		
1999	5	3	Williams	Legislative Day @OSU Extension	Cleveland	educating legislators on OSU	8				
1999	5	3-4	Hageman	Mills School V 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop				44	
1999	5	4-5	Hageman	Mills School VII 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop				38	
1999	5	4-5	Hageman	Mills School I 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop	52				
1999	5	5-6	Hageman	Mills School VI 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop				47	
1999	5	6-7	Hageman	Mills School II 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop	44				
1999	5	4	Hageman	Put-In-Bay Birdathon	Gibraltar Island	Stone Laboratory Tour	4				
1999	5	4	Williams	MBE Teleblitz	Cleveland	Promoting trade fair		26			
1999	5	5	Bielen	Sea Grant Extension Staff	Cleveland	Program Planning & Administration	10				
1999	5	5	Hageman	Sea Grant Extension Staff	Cleveland	Program Planning & Administration	10				
1999	5	5	Kelch	Sea Grant Extension Staff	Cleveland	Program Planning & Administration	10				
1999	5	5	Lichtkoppler	Sea Grant Extension Staff	Cleveland	Program Planning & Administration	10				
1999	5	5	Snyder	Sea Grant Extension Staff	Cleveland	Program update				10	
1999	5	5-6	Hageman	Mills School III 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop				53	
1999	5	6	Hageman	Lyons Elem. 4th & 5th Grades	Lyons	Science Opportunities at Stone Lab	111				
1999	5	6	Snyder	Buffalo Evening News	Buffalo, NY	Lake Levels Interview					
1999	5	6	Williams	Executive Tour	Cleveland	Business Attraction	31		1		XX
1999	5	6-7	Hageman	Mills School IV 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop				49	
1999	5	7	Bielen	Summit Street Proposal Committee	Toledo	Consultant Interviews				13	
1999	5	7	Hageman	Rogers H.S. (Calderanello) - Toledo	Gibraltar Island	Aquatic Science Workshop				18	
1999	5	7	Hageman	Minnich Family (Sycamore Cottage)	Gibraltar Island	Stone Laboratory Tour	4				
1999	5	7	Lichtkoppler	Sea Grant Staff	Painesville	Conf. Call Lake Erie Brochure	3				
1999	5	7-8	Hageman	Sewickley Academy-Pittsburgh, PA	Gibraltar Island	Aquatic Science Workshop			63		
1999	5	8	Hageman	Cleveland State University	Gibraltar Island	Stone Laboratory Tour	11				
1999	5	10	Bielen	Summit Street Proposal Committee	Toledo	Consultant Selection	7				
1999	5	10	Bielen	Ottawa River Report Subcommittee	Toledo	Contact Survey Results	6				
1999	5	10	Hageman	Wanda Shirkey/Ashley Johansen	Gibraltar Island	Cooke Castle Tour	2				
1999	5	10	Kelch	Black River RAP Coord. Com. Mtg.	Elyria	RAP update, planning				22	
1999	5	10	Lichtkoppler	Lakeland Community College Students	Mentor	Lake Erie Economic Geography	20				
1999	5	10	Snyder	Water Resources Institute Planners	Fremont	Program Planning			8		
1999	5	11	Hageman	Dayton Daily News	Gibraltar Island	6/3 Feature Story of Workshop Prog.					XX

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1999	5	11	Kelch	Governor's Submerged Lands Comm.	Vermilion	submerged lands issues, shipwrecks				15	
1999	5	11	Williams	National TBZ	Cleveland	Business Attraction		1	26		
1999	5	12	Hageman	Amherst Steel H.S.	Gibraltar Island	Stone Laboratory Tour	76				
1999	5	12	Kelch	LCVB Visitor Tracking sub-com. Mtg.	Lorain	updates, new ideas for data collection	7				
1999	5	12	Lichtkoppler	Grand River Partners	Perry Twp.	Grand River Protection				18	
1999	5	12	Williams	Retention Committee	Cleveland	Retention	12	1			
1999	5	13	Lichtkoppler	Mentor Marsh Board	Mentor	Marsh Management	14				
1999	5	13	Williams	Olmsted Geographic Interest Group	Olmsted	Forming a JEDD	13	1			
1999	5	13-14	Hageman	Mills School VIII 6th Grade - Sandusky	Gibraltar Island	Aquatic Science Workshop			43		
1999	5	14	Bielen	NorthRiver Economic Development Com	Toledo	Economic Development Projects	8				
1999	5	14	Hageman	Springfield South H.S.	Gibraltar Island	Aquatic Science Workshop			12		
1999	5	14	Hageman	Central Catholic H.S. - Springfield	Gibraltar Island	Aquatic Science Workshop			12		
1999	5	14	Lichtkoppler	Extension Agents	Columbus	Small Business Management Excel	8				
1999	5	14	Williams	Business Owners+E325	Columbus	Business Excel Team Meeting	9				
1999	5	14-16	Hageman	O.S.U. Limnology Class - Culver	Gibraltar Island	Field Trip				27	
1999	5	15	Hageman	Brownie Troop #318 - Huron	Gibraltar Island	Stone Laboratory Tour	14				
1999	5	15	Hageman	Brownie Troop #5328 - Berlin Hts.	Gibraltar Island	Stone Laboratory Tour	54				
1999	5	17	Hageman	Ft. Meigs Elementary - Perrysburg	Gibraltar Island	Aquatic Science Workshop			18		
1999	5	17	Lichtkoppler	Extension Agents	Painesville	Conf. Call Tourism Team	10				
1999	5	17	Lichtkoppler	Coastal Business Owners	Fairport Harbor	Lake Levels & Dredging	8				
1999	5	17	Williams	Lunch w/Lou Zitman	Cleveland	Business Attraction	9				
1999	5	17-18	Hageman	McCord/Perry M.S. - Worthington	Gibraltar Island	Aquatic Science Workshop	68				
1999	5	18	Bielen	Ottawa River Action Group	Toledo	Participant Survey Results	18				
1999	5	18	Hageman	Maureen Sharkey/Lucy Gandert	Gibraltar Island	Facilities Tour for Bd of Trustees Mtg.				4	
1999	5	18	Snyder	Toledo Zoo - Herpetology	Toledo	Specimen Delivery			4		
1999	5	18-19	Hageman	Toth Elementary - Perrysburg	Gibraltar Island	Aquatic Science Workshop			63		
1999	5	18-24	Williams	Business Retention Conference	Portland, OR.	Business Retention		18		80	
1999	5	19	Bielen	NW District Extension Professionals	Bowling Green	OSHA Hazardous Materials Training				15	
1999	5	19	Bielen	NW Ohio Development Professionals	Toledo	Reg. Growth Partnership Annual Progress				700	
1999	5	19	Hageman	Jim Chamberlain	Gibraltar Island	Elderhostel Workshops - 2000	2				
1999	5	19-20	Hageman	New Albany I 7th Grade	Gibraltar Island	Aquatic Science Workshop			54		
1999	5	20-21	Hageman	New Albany II 7th Grade	Gibraltar Island	Aquatic Science Workshop			54		
1999	5	20	Lichtkoppler	Land and Water Committee	Painesville	Coastal Land Use	7				
1999	5	20	Lichtkoppler	Fairport harbor Rod & Reel Assoc.	Fairport Harbor	Lake Erie Issues	65				
1999	5	21	Hageman	Rogers H.S. (C.J. Washington) - Toledo	Gibraltar Island	Aquatic Science Workshop			16		
1999	5	21	Hageman	Lucas Co. Youth Treatment Center	Gibraltar Island	Aquatic Science Workshop			16		
1999	5	21	Kelch	Rod Makers Shoppe, volunteer anglers	Strongsville	smallmouth bass tagging research	5				
1999	5	21	Snyder	News-Herald	Port Clinton	Mayfly Interview					XX
1999	5	21-23	Hageman	O.S.U. Molecular Genetics	Gibraltar Island	Research Conference			38		
1999	5	24	Hageman	Fallen Timbers H.S. - Perrysburg	Gibraltar Island	Aquatic Science Workshop			15		
1999	5	24	Hageman	Perrysburg H.S.	Gibraltar Island	Aquatic Science Workshop			9		
1999	5	24-25	Hageman	West Carrollton M.S.	Gibraltar Island	Aquatic Science Workshop			39		
1999	5	25	Bielen	Leadership Toledo Affiliates	Toledo	Toledo Development Initiatives				45	
1999	5	25	Kelch	IAGLR Conference, presentations	Cleveland	two presentations, art reef, use of video	120				
1999	5	25	Kelch	WEOL FM Radio Interview	Elyria	L. Erie shipwrecks, maritime history					XX
1999	5	25	Snyder	Northwest District Extension Staff	Findlay	Office Conference			14		
1999	5	25	Snyder	NW Sea Grant Advisory Committee	Sandusky	Update & Event Planning	12	1	1		
1999	5	25-26	Hageman	Toledo Horizons I	Gibraltar Island	Aquatic Science Workshop			48		
1999	5	25-28	Lichtkoppler	IAGLR 99 Participants	Cleveland	Media and Conference Session Organiz	48				XX
1999	5	26	Bielen	Toledo Brownfields Working Group	Toledo	Brownfield Redevelopment Strategy	20				
1999	5	26	Kelch	IAGLR Conference, presentations	Cleveland	presentation, art reef economic impact	25				
1999	5	26	Kelch	IAGLR, Great Lakes Radio Interview	Cleveland	artificial reefs					XX
1999	5	26	Kelch	Fox TV 8 Interview	Cleveland	gobies,art reef / Adventure wreck video					XX
1999	5	26-27	Hageman	Toledo Horizons II	Gibraltar Island	Aquatic Science Workshop			46		
1999	5	27-28	Hageman	Englewood Elementary	Gibraltar Island	Aquatic Science Workshop			23		
1999	5	27	Kelch	Sea Camp Conference call	Elyria	planning for '99 Sea Camp	10				
1999	5	27	Williams	Ohio economic Development Council	Columbus	SAE show		7			

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1999	5	28	Kelch	Lorain County Bass Busters Club	Lorain	smallmouth bass tagging research	12				
1999	5	28	Snyder	Round Goby Conference	Cleveland	Goby Research			1	60	
1999	5	28	Snyder	Round Goby Conference	Cleveland	Yugoslavian Goby Research	60		1		
1999	6	1	Bielen	Business R&E Conference Call	Toledo	Business R&E Workshop Planning	2				
1999	6	1	Hageman	Whiteford, Michigan M.S.	Gibraltar Island	Aquatic Science Workshop	79				
1999	6	1	Lichtkoppler	Extension Staff	Painesville	Web Page Training				10	
1999	6	2	Hageman	Jones Jr. High - Toledo	Gibraltar Island	Aquatic Science Workshop			7		
1999	6	2	Hageman	Genoa H.S.	Gibraltar Island	Aquatic Science Workshop			14		
1999	6	2	Hageman	O.S.U. Young Scholars	Gibraltar Island	Aquatic Science Workshop			14		
1999	6	2	Hageman	Layton Elementary	Gibraltar Island	Stone Laboratory Tour			62		
1999	6	2	Kelch	Sea Grant Advisory Committee Mtg.	Elyria	updates, planning, research, elections	15	1	1		
1999	6	2	Lichtkoppler	Ohio Sea Grant Proposal Review Panel	Columbus	Sea Grant Research Project Review			8		
1999	6	2	Snyder	Ohio Sea Grant Proposal Review Panel	Columbus	Sea Grant Research Project Review			8		
1999	6	3	Bielen	NW District Extension Professionals	Bowling Green	Ag. Business R&E Program	7				
1999	6	3	Hageman	Putnam Co. SWCD Enwirothon	Gibraltar Island	Aquatic Science Workshop			8		
1999	6	3	Kelch	LENSC-What's Up Under Erie Seminar	Cleveland	shipwrecks, art reefs, aquatic life, biolog	70	1	1		
1999	6	3	Lichtkoppler	Citizens & Agency Representatives	Painesville	Mentor Marsh SAMP	17				
1999	6	3	Williams	Minority Business League Teleblitz	Cleveland	Business Development				5	
1999	6	3-4	Hageman	Jones M.S. - Upper Arlington	Gibraltar Island	Aquatic Science Workshop				36	
1999	6	4	Kelch	New Wave Dive Shop, research meeting	Port Clinton	teach research methodology to divers	3				
1999	6	4	Snyder	New Wave Dive Shop	Port Clinton	Artificial Reef Video			4		
1999	6	5	Hageman	Boy Scout Troop #271 - Grove City	Gibraltar Island	Stone Laboratory Tour	27				
1999	6	6	Hageman	Evolution, Ecology & Organismal Bio125	Gibraltar Island	Gibraltar Island Orientation	18				
1999	6	6	Snyder	Boy Scout Troop 312	Vickery	Blue Heron Reserve Ecosystem	15				
1999	6	7	Bielen	Ottawa River Report Subcommittee	Toledo	Participant Survey Results	7				
1999	6	7	Hageman	Lakota School's Staff	Gibraltar Island	Stone Laboratory Tour	21				
1999	6	8	Hageman	Lake Erie Buffer Team	Gibraltar Island	Meeting				16	
1999	6	9	Kelch	Sea Camp Conference call	Elyria	planning/coordination for 99 Sea Camp	11				
1999	6	10	Hageman	NW District Extension FCS Staff	Gibraltar Island	Stone Laboratory Tour/Conference	26				
1999	6	10	Kelch	West Cleveland Walleye Association	Cleveland	art reef update, research, bass tagging	45				
1999	6	10	Lichtkoppler	Mentor Marsh Board	Mentor	Marsh Management	14				
1999	6	10	Snyder	NW District Extension FCS Staff	Put-in-Bay	Fish Handling & Storage; HACCP	25				
1999	6	11	Hageman	Columbus Athletic Club	Catawba Island	Walleye Tournament Judge					XX
1999	6	11	Kelch	Wildwood State Park Marina	Cleveland	smallmouth bass tagging research	7				
1999	6	11	Snyder	NW District Extension Staff	Findlay	Office Conference			12		
1999	6	12	Hageman	Catawba Island Club	Gibraltar Island	Stone Laboratory Tour	78				
1999	6	13	Hageman	GEO 107/NRE 611/EEOB 126	Gibraltar Island	Gibraltar Island Orientation	50				
1999	6	14	Snyder	Akron Beacon-Journal	Akron	Mayfly Interview					XX
1999	6	15	Bielen	Ottawa River Action Group	Toledo	Business Survey Results	25				
1999	6	15	Lichtkoppler	Grand River Partners	Painesville	Grand River Protection & Grants	18				
1999	6	15	Williams	Ohio Economic Development Council	Columbus	Ohio's Telemarketing Event	23				
1999	6	16	Kelch	LCVB Policy Comm. Mtg.	Lorain	discuss new policy for visitors bureau	8	1			
1999	6	17	Hageman	Natural Resources 611	Gibraltar Island	Science Cruise	10				
1999	6	17	Hageman	Guest Lecture Series	Gibraltar Island	Bobby Moser, "Agri & Enviro in Ohio"				64	
1999	6	18	Williams	Senior Days Cleveland Zoo	Cleveland	Extension Outreach work with FCS		1			XX
1999	6	18	Williams	Private consultation	Cleveland	Counseling		3			
1999	6	19-24	Lichtkoppler	Sea Grant Staff	Portland, OR	Sea Grant Week				50	
1999	6	20	Hageman	Bill Hirzel	Gibraltar Island	Stone Laboratory Tour	5				
1999	6	20	Hageman	EEO 621,651,652 and GEO 584	Gibraltar Island	Gibraltar Island Orientation	51				
1999	6	21	Hageman	Toledo Blade	Toledo	Mayfly Hatches Interview					XX
1999	6	22	Snyder	Water Resources Institute Planners	Fremont	Program Planning			5		
1999	6	23	Bielen	Summit Street Developers	Toledo	Maritime Building Renovation	5				
1999	6	23	Hageman	Public Employees System Staff	Perrysburg	P.E.R.S. "P.L.A.N." Seminar				113	
1999	6	23	Kelch	LCVB Board of Directors Meeting	Lorain	visitor bureau updates, planning	18				
1999	6	24	Bielen	Summit Street Proposal Committee	Toledo	Summit Street Redevelopment Planning	7				
1999	6	24	Bielen	Better Ways to Develop Ohio Conference	Columbus	Solutions To Brownfields	48				
1999	6	24	Hageman	Guest Lecture Series	Gibraltar Island	Jane Forsyth "Lake Erie Geology"				62	

YEAR	MONTH	DAY	LAST NAME	AUDIENCE	LOCATION	TOPIC	PRESENTER/No.	CHAIR/No.	ORGANIZE/No.	PARTICIP/No.	MASS MEDIA
1999	6	24	Kelch	Westlake Sportsman's Club	Cleveland	research, bass tagging, art reef, fishery	62				
1999	6	25	Lichtkoppler	Land & Water Committee	Painesville	Coastal Land Use Issues	8				
1999	6	25	Snyder	Ohio ANS Advisory Committee	Columbus	New Proposal Review	18		1		
1999	6	27	Hageman	EEOB 694	Gibraltar Island	Gibraltar Island Orientation	18				
1999	6	28	Bielen	Ottawa River Report Subcommittee	Toledo	Business Survey Results	8				
1999	6	28	Kelch	LCVB Visitor Tracking sub-comm. Mtg.	Lorain	updates, new planning for data	7	1			
1999	6	28	Williams	Mid-Town Geographic Interest Group	Cleveland	Realtor Tour	48	1			
1999	6	28-29	Hageman	O.D.N.R. - Carolyn Caldwell	Peach Point Research Lab	Meeting					
1999	6	29	Bielen	BREI Communications Comm. Conf. Cal	Toledo	Future Communication Issues	2		13		
1999	6	29	Hageman	B.G.S.U. - Governors Summer Institute	Gibraltar Island	Aquatic Science Workshop					
1999	6	29	Kelch	Lake Erie Bass Anglers Association	Beiden	smallmouth bass tagging research	14		31		
1999	6	29	Williams	BREI Communication Committee	Cleveland	Conference Call					
1999	6	30	Bielen	Toledo Brownfields Working Group	Toledo	Brownfield Redevelopment Strategy	20	8			
1999	6	30	Hageman	O.S.U. - Upward Bound	Gibraltar Island	Aquatic Science Workshop				37	
1999	6	30	Kelch	LENSC - Lorain Youth Summer Program	Vermilion	water quality, macro invert sampling	30				
1999	6	30	Lichtkoppler	OSG Advisory Program Coordinators	Columbus	Proposal Development	4				
1999	6	30	Snyder	OSG Advisory Program Coordinators	Columbus	Proposal Development				4	
1999	6	30	Williams	NEOSA	Cleveland	Teleblitz				12	
1999	6	30	Williams	East Cleveland Park Commission	Cleveland	Preparation for Program				3	

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