

## APPENDIX B

# *Sources for the Greatest of the Great Lakes Activities*

### **ES-EAGLS: Earth Systems Education Activities for Great Lakes Schools**

This five-volume series of books from the Ohio State University contains 67 activities relating directly to important Great Lakes issues. Activities tie-in to a variety of subject areas, including Science, Math and Social Studies. Each volume centers around an important Great Lakes topic; Life in the Great Lakes, Great Lakes Climate & Water Movement, Great Lakes Environmental Issues, Great Lakes Shipping, and Land & Water Interactions in the Great Lakes.

Instructions for ordering can be found at: [http://www.ag.ohio-state.edu/~earthsys/order\\_2.html](http://www.ag.ohio-state.edu/~earthsys/order_2.html).

### **ESCAPE: Exotic Species Compendium of Activities to Protect the Ecosystem**

This collection of activities, designed to educate students in grades K-12 about exotic species and the problems they can create for the environment, includes 36 user-friendly sets of lessons that incorporate science experiments, art, music and games. A game set can be ordered along with the curriculum guide, or separately. For more information, visit <http://www.iisgcp.org/edk-12/escape/escape.htm> or contact Terri Hallesy, Illinois-Indiana Sea Grant at 217-244-8809 or [thallesy@uiuc.edu](mailto:thallesy@uiuc.edu).

### **GLEP: The Great Lakes Education Program**

The Great Lakes Education Program was designed to provide students (primarily fourth graders) with hands-on experiences related to local watersheds and the Great Lakes. The program is centered around a ship-based learning experience on Lake St. Clair and the Clinton River in southeast Michigan, with pre- and post-trip classroom activities. For more information about GLEP, visit <http://www.miseagrant.umich.edu/glep/index.html>.

### **GLIMCES: Great Lakes Instructional Materials for the Changing Earth System**

This 200 page compilation contains 40 activities that provide scientific scenarios of how global warming could affect the Great Lakes region, examine climate models, and help students assess potential impacts on Great Lakes enterprises and issues from global climate change. These interdisciplinary activities have been aligned to national science education standards, reviewed by scientists, tested in classrooms, and matched to existing curriculum design efforts.

For ordering instructions, visit Ohio Sea Grant at [http://www.ag.ohio-state.edu/~earthsys/order\\_2.html](http://www.ag.ohio-state.edu/~earthsys/order_2.html).

### **The Life of the Lakes: A Guide to Great Lakes Fishery Education Materials**

This 80-page curriculum provides teaching outlines/plans for a two-week thematic unit about Great Lakes fisheries, and is designed to coordinate with a video, a fishery booklet, and a matching set of six posters, each of which can be purchased separately. Included are six activities based on the video presentation, as well as many ideas for short, warm-up activities and long-term, individual or group study projects. It comes with pre- and post-activities, overheads and handout masters, a curriculum framework that meets the Michigan Essential Goals and Objectives for Science Education K-12, and a comprehensive listing of related educational materials. This publication can be ordered by calling Carol Swinehart, Michigan Sea Grant, (517) 353-9723.

### **Nab The Aquatic Invader! Be a Sea Grant Super-Sleuth**

This fun, detective-themed Web site for grades 4-10 offers students an engaging, interactive way to learn about aquatic invasive species. In addition to multi-disciplinary activities, the site also provides opportunities for problem-based learning and critical thinking, a venue for students to display projects related to invasive species, profiles of scientists and their careers in related fields, experts available to answer student questions, and links to hundreds of other learning resources. Visit Nab the Aquatic Invader! at <http://www.sgnis.org/kids>.

### **Project FLOW: Fisheries Learning on the Web**

This Web site contains a comprehensive curriculum about the Great Lakes ecosystem. Lessons are designed for upper elementary and middle school students, and aligned with national and Michigan state science and social studies standards. Project FLOW is located at <http://www.miseagrant.umich.edu/flow/>.

### **Supplemental Curriculum Activities for use with Holling Clancy Holling's *Paddle to the Sea***

*Paddle-to-the-Sea* is an award-winning children's book about how a carved wooden Indian in a toy canoe travels throughout the Great Lakes from headwaters in melting snow north of Lake Superior. As the boat drifts through the lakes, readers of the book learn about the history, economy and ecology of the lakes through his eyes. This book of "Supplemental Curriculum Activities" provides at least one classroom activity for each of the 27 chapters Holling wrote. An outline map of the Great Lakes is included so students can track Paddle's progress on the bulletin board. This book of supplemental activities published by the Ohio State University can be ordered by following the instructions at [http://www.ag.ohio-state.edu/~earthsys/order\\_2.html](http://www.ag.ohio-state.edu/~earthsys/order_2.html). The original book can be obtained from libraries, bookstores, and all major online booksellers.

### **TEACH Great Lakes**

This Web site from the Great Lakes Commission is designed for students from elementary through high school. TEACH Great Lakes contains continually expanded and updated learning modules on a variety of Great Lakes topics, including the environment, history & culture, geography, careers & business, and pollution. The site's Teacher's Corner provides free lesson plans, teaching materials, and access to message boards. Please visit <http://glin.net/teach/>.

### **Water on the Web**

This Web site contains two complete sets of curricula, data from lakes and rivers across the nation, data interpretation and Geographic Information System Tools, and a variety of additional material. The Basic Science curriculum is designed for high school or beginning college students, and integrate well into biology, chemistry, physical science, and environmental science courses. Water on the Web is found at <http://waterontheweb.org>.

### **Watershed Science for Educators**

This curriculum collection was designed to help middle school and high school teachers incorporate the study of watersheds into their science classes and after-school science clubs. This booklet contains reproducible data sheets, worksheets, activities, and background information for educators. This product may be ordered from the Cornell University Extension Program at <http://store.cce.cornell.edu/>.

### **Zebra Mussel Mania Curriculum Guide**

The Zebra Mussel Mania Traveling Trunk is an educational kit and curriculum that allows elementary and middle school students to explore the effects of invasive species, particularly the zebra mussel, on ecosystems and local economies. Illinois-Indiana Sea Grant has a network of lending center across the country that make the Zebra Mussel Mania Traveling Trunk readily available to teachers.

For information on how to borrow a trunk, or get a curriculum guide and a jam-packed portfolio of teacher resources, visit <http://www.iisgcp.org/edk-12/maniac/maniac.htm> or call Illinois-Indiana Sea Grant at 217-333-9448.