

# AQUATIC INVASIVE SPECIES

An Educator's Information and Materials Guide



## Directory of Aquatic Invasive Species Resources

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This booklet is a compilation of selected educational materials on aquatic invasive species (AIS). Materials have been assembled from agencies nationwide by the University of Minnesota Sea Grant Program to assist K-12 teachers and nonformal educators in raising awareness and integrating AIS studies into their curriculums.

Whether referred to as aquatic invasive species, nonindigenous, nuisance, or exotic species, they all represent the same problem—non-native plants and animals invading and harming U.S. waterways. In their native habitats, these species are often harmless. However, when they enter new waters where natural controls are absent, they may out-compete native plants and animals. They can alter and degrade habitats and deplete food supplies, posing threats not only to the environment, but to the economy, recreation and human health.

The purpose of this guide is to provide educators with a list of AIS resources and a directory of contacts. Entries are listed by categories: curricula, print materials, posters, videos, books, CDs, and Web sites. Lists include titles, abstracts, contact information, and costs.

Availability and costs change periodically and materials may be available free, on loan, or for purchase from Sea Grant programs. To contact an AIS representative from your state Sea Grant program, refer to the contact list in the publication's final section.

For additional Sea Grant-sponsored materials, contact the National Sea Grant Library. Their searchable database is at <http://nsgd.gso.uri.edu>.

This guide is intended to be reproduced for redistribution. Please photocopy and distribute to fellow teachers and educators. Additional copies are available from MN Sea Grant. (X 92) July 2003. Please contact:

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Aquatic Invasive Species Information Center  
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The cover is based on a design obtained from Washington Sea Grant. This publication was produced by the University of Minnesota Sea Grant College Program. Minnesota Sea Grant works with people and communities to help maintain and enhance the environment and economies along Lake Superior and Minnesota's inland waters by identifying needs, funding research, and translating results. We are part of the National Sea Grant Program, which supports 30 similar programs in coastal states throughout the United States and Puerto Rico. Minnesota Sea Grant is funded by the National Oceanic and Atmospheric Administration and the University of Minnesota.

## **CURRICULA**

### ***Attack Pack***

A self-contained teaching aid designed to assist high school students in teaching elementary and middle school youths about aquatic invasive species. Backpack contains books, maps and overheads, a videotape, a slide show, preserved specimens, games, and more. To view contents, search "attack pack" at... <http://www.seagrant.wisc.edu/home.html>.

*Developed by the Wisconsin Sea Grant Program. 2001.*

Contact: Phil Moy, WI Sea Grant [pmoy@uwc.edu] [920/683-4697]

Cost: Available on loan

### ***Biological Control of Purple Loosestrife: 4H Manual and Guide***

Eleven learn-by-doing activities designed for middle and high school students, concentrating on purple loosestrife, an invasive plant. Curriculum emphasizes action through collaborative bio-control efforts by joining students, educators, and citizens. To learn about program implementation, visit... [http://www.iisgcp.org/research/outedu/biores/br\\_curr.htm](http://www.iisgcp.org/research/outedu/biores/br_curr.htm).

*Produced by the Illinois-Indiana and Michigan Sea Grant Programs in collaboration with the Minnesota Sea Grant Program. 2001.*

Contact: Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$8/instructor manual and \$2/student manual

### ***SEE CELLA CHOW! A Purple Loosestrife Biological Control Manual for Teachers***

Fifteen activities focus on wetland ecology and invasive species. Lessons emphasize bio-control efforts, including the development, rearing, and release of beetles to combat purple loosestrife. The activity set provides teachers with background information, links to state standards, and activity instructions. For updates on cost and to view related Web pages, please visit... <http://www.wiscwetlands.org/cella.htm>.

*Produced by the Wisconsin Department of Natural Resources, the Wisconsin Wetland Association and Wisconsin Teachers. 2003.*

Contact: Derek Strohl, WI Wetland Assoc. [derek@wiscwetlands.org] [608/250-9771] or

Brock Woods, WI DNR [Brock.Woods@dnr.state.wi.us] [608/221-6349]

Cost: Determined at publication time

### ***Community Stewardship Projects on Exotic Aquatic Species***

Booklet of activities and community stewardship projects developed by students as part of Sea Grant's "Exotic Aquatics on the Move" education project. To download the booklet, please visit... <http://www.iisgcp.org/edu/cr/index.html>.

*Produced by the Illinois-Indiana Sea Grant Program. 2001.*

Contact: Valerie Eichman, IL-IN Sea Grant [eichman@uiuc.edu] [217/333-8055] or

Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: Single hard copies available free of charge

### ***EATM: Exotic Aquatics on the Move***

CD: "Building a Web of Awareness for Geography Educators and Students." Twenty-seven lessons on aquatic invasive species available as printable PDF files and in alignment with the National Geography Education Standards. Visit... <http://www.iisgcp.org/EXOTICSP/>.

*Produced by six Sea Grant Programs (IL-IN, LA, MN, NY, OH, and WA) and six Geographic Education Alliances (IL, IN, LA, MI, NY, and WA). 2001.*

Contact: Robin Goettel, IL-IN Sea Grant [goettel@uiuc.edu] [217/333-4780] or  
Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$2.50

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

An extensive collection on AIS for K-12 students! The compendium includes 36 hands-on, multidisciplinary activities, as well as game boards, zebra mussel shells, posters, music, an educational video, and more. To view lesson plans, please visit...

<http://www.iisgcp.org/edu/escape/index.html>.

*Produced by the Illinois-Indiana Sea Grant Program in partnership with the Michigan, Minnesota, New York, and Ohio Sea Grant Programs. 2001.*

Contact: Valerie Eichman, IL-IN Sea Grant [eichman@uiuc.edu] [217/244-8809] or  
Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$58 (plus shipping)

***Exploring Science Writing: An Environmental Focus***

Eighteen exercises engage high school students in writing clearly about ecosystem issues and in understanding science-based stories. Enhances science, language arts, and interdisciplinary curricula. For further explanation, please visit...

<http://www.seagrants.umn.edu/seiche/apr.99/art11.html>.

*Produced by the Michigan Sea Grant Program in collaboration with the University of Rhode Island Journalism Department. 1998.*

Contact: Mike Klepinger, MI Sea Grant [klep@msu.edu] [517/353-5508] or  
Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$6

***Nonindigenous Species Activities for Youth***

Activities and lesson plans focusing on aquatic and terrestrial nonindigenous species may be downloaded at no cost. Please visit... <http://msstate.edu/dept/crec/publish/nis.wpd>.

*Produced by the Mississippi Sea Grant Advisory Service, Mississippi State University, and the Mississippi Cooperative Extension Service. 1997.*

Contact: MS-AL Sea Grant [228/818-8836]

Cost: Free

***Project TELLUS: Exotic Species Video Module***

Middle school students explore global change issues related to the Gulf of Mexico region by interactive learning experiences. Videos, lesson plans, and activities work collaboratively to emphasize biodiversity, exotic species, climate change, water quality, and overpopulation. Visit Louisiana Sea Grant at... <http://www.laseagrants.org/education/index.htm>.

*Produced by the Louisiana Sea Grant Program. 1996.*

Contact: Pam Blanchard, LA Sea Grant [PamB@lsu.edu] [225/578-1558]

Cost: Free for Project TELLUS workshop participants

***Purple Loosestrife Project***

Learning activities focus on wetland stewardship, habitat protection, and biological control. Curricula are divided into six sections and may be purchased individually or collectively. To find out more about the project and ways to get involved, visit the "purple pages" at...

**<http://www.miseagrant.org/pp/index.html>**.

*Produced by Michigan State University in collaboration with the Michigan Sea Grant Program. 1997.*

Contact: Mike Klepinger, MI Sea Grant [klep@msu.edu] [517/353-5508]

Cost: \$25 for curricula set or \$5 each

***Traveling Trunk Adventure: Exotic Aquatics***

Get up close and personal with exotic plants and animals! Trunk includes interdisciplinary lesson plans, preserved specimens, stories, identification guides, lesson plans, and a video that uses the 'Bill Nye the Science Guy' approach to learning. Designed for audiences ages 9–adult. Trunk assists educators in providing intensified studies of exotic species. To learn more, visit... **<http://www.seagrant.umn.edu/education/ttindex.html>**.

*Developed by the Minnesota Sea Grant Program in collaboration with the Illinois-Indiana Sea Grant Program. 1996.*

Contact: Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$35 / 10-day rental (costs vary depending on shipping)

***Traveling Trunk Adventure: Zebra Mussel Mania***

Tune into zebra mussels and other exotic species with this award-winning science kit and curriculum. The trunk, geared towards learners ages 9–14, includes ten lesson plans which incorporate experiments, games, stories, and other hands-on activities. Lessons meet the science education standards. To learn more, visit...

**<http://www.seagrant.umn.edu/education/ttindex.html>**.

*Developed by the Illinois-Indiana Sea Grant Program in collaboration with the Minnesota Sea Grant Program. 1994.*

Contact: Robin Goettel, IL-IN Sea Grant [goettel@uiuc.edu] [217/333-4780]

Cost: \$25 / rental (costs vary depending on shipping)

## **POSTERS and PRINT MATERIALS**

### ***Aliens Among Us***

Ohio Department of Natural Resource's colorful poster visually explores aquatic and wetland invasive plants and animals. Graphics include fish, mollusks, and plants, as well as ways to prevent their spread.

*Produced by Ohio DNR's Division of Wildlife in collaboration with the Division of Natural Areas & Preserves and the U.S. Fish & Wildlife Service. 2002.*

Contact: Jennifer Windus, ODNR [Jennifer.Windus@dnr.state.oh.us] [614/265-6468]

Cost: Single copies available free of charge

### ***America's Least Wanted: Alien Species Invasions of U.S. Ecosystems***

Booklet includes a "Dirty Dozen" gallery of twelve of our nation's most damaging invasive species. Publication focuses on the harm they bring to "Hard-Hit Ecosystems."

*Produced by The Nature Conservancy. 1996.*

Contact: The Nature Conservancy [invasivespecies@tnc.org] [703/841-5300]

Cost: Available at <http://www.conserveonline.org/2001/06/s/amleast>

### ***America's Most Unwanted***

Poster features educational graphics regarding the U.S.'s "most unwanted" invasive species. Information on the bottom of the poster can be copied for classroom use. For information and to access additional materials, visit NOAA at... <http://www.education.noaa.gov/>.

*Produced by the National Oceanic and Atmospheric Administration National Sea Grant Program Office in collaboration with Minnesota Sea Grant. 2001.*

Contact: Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$5

### ***AIS Watch Cards***

Wallet-sized cards popular amongst boaters. Eurasian watermilfoil, ruffe, round goby, rusty crayfish, spiny waterflea, fishhook waterflea, European frogbit, zebra mussel, and purple loosestrife cards identify species' characteristics, problems posed, means of spread, and "what you can do" to prevent and slow their spread. To view the zebra mussel watch card, please visit... <http://www.seagrants.umn.edu/exotics/zmid.html>.

*Produced by the Great Lakes Sea Grant Network and U.S. Fish and Wildlife Service. 1998.*

Contact: MN Sea Grant [218/726-6191] or another Great Lakes Sea Grant Network Office.

Cost: Single copies available free of charge

### ***Biological Invasions***

This fold-out booklet examines how aquatic invasive species enter North American waters, resulting harm, and what can be done to help solve the problems. Booklet includes pictures, graphs, distribution maps, and informative text. Provides an excellent overview of problems associated with aquatic invasive species nationwide.

*Produced by the Great Lakes Panel on Aquatic Invasive Species. 1998.*

Contact: Great Lakes Commission [734/971-9135] or Minnesota Sea Grant [218/726-6191].

Cost: Single copies available free of charge

***Bio- Invasions: Breaching Natural Barriers***

Booklet (20 pp.) explains in simple, clear terms the threat of non-native aquatic species and potential impacts on the economy and on the environment. Booklet is specific to west coast invasions. Booklet is available at...

<http://www.wsg.washington.edu/pubs/bioinvasions/bioinvasionsindex.html>.

*Produced by the University of Washington Sea Grant Program. 1998.*

Contact: Andrea Copping, WA Sea Grant [acopping@u.washington.edu] [206/685-8209]

Cost: Free

***A Field Guide to Aquatic Exotic Plants and Animals***

Learn how to identify species in the Great Lakes region by way of this popular, informative brochure filled with colorful pictures and illustrations. Brochure shares the history behind species' invasions, species' biology, and species' likely means of spread. Guide dedicates panel pages to round goby, sea lamprey, rusty crayfish, white perch, flowering rush, and curly-leaf pondweed. Visit... <http://www.seagrants.umn.edu/exotics/fieldguide.html>.

*Produced by the Minnesota Department of Natural Resources. 1995.*

Contact: MN Sea Grant [218/726-6191]

Cost: Single copies available free of charge

***Hitchhikers: Guide to Exotic Species***

Waterproof guide to 14 introduced marine species, as well as information on a few native species found along the New England coast. For further explanation, visit...

<http://web.mit.edu/seagrants/publications/selectedpub.html>.

*Produced by the MIT Sea Grant Program. 2002.*

Contact: MIT Sea Grant [617/253-7041]

Cost: Single copies available free of charge

***Marine Education: A Bibliography of Educational Materials***

Resource booklet (68 pp.) includes educational materials on a variety of aquatic topics. The bibliography includes books, reports, videos, and brochures available from the Nation's Sea Grant College Programs. To order, visit... <http://www.miseagrants.org/pubs/marineed.html>.

*Produced by the Texas A&M Sea Grant Program. 1997.*

Contact: State Sea Grant Program

Cost: \$2

***Photo- Mural: Invasive Non- Native Plants***

Large, laminated photo-mural of 37 invasive non-native plants found in the U.S. Plants are depicted in attractive color photographs. To view, visit... <http://aquat1.ifas.ufl.edu/>.

*Produced by the Center for Aquatic and Invasive Plants, University of Florida, Bureau of Invasive Plant Management, the Florida Department of Environmental Protection, Sea Grant, and Cerexagri. 2001.*

Contact: APIRS Photo-Mural, Center for Aquatic and Invasive Plants, 7922 NW 71 St, Gainesville, FL 32653

Cost: Free (requests in writing - limited copies available)

***Stop Aquatic Hitchhikers!***

Sticker lists four easy steps boaters and anglers can take before and after using their watercraft. To view, visit... <http://www.protectyourwaters.net>.

*Produced by the ANS Task Forces' Communication, Outreach and Prevention Committee's National ANS Outreach Campaign. 2002.*

Contact: MN Sea Grant [218/726-6191]

Cost: Single copies available free of charge

***STOP! Don't release non-native species!***

A brochure for all ages! Examines the issue of releasing aquarium pets and plants into the wild and explains problems that may arise through such release. Includes safe alternatives to release. To order, visit... <http://www.seagrants.umn.edu/pubs/freeorder.html>.

*Produced by the Louisiana Sea Grant Program. 1998.*

Contact: Marilyn Barrett-O'Leary, LA Sea Grant [225/578-6349]

Cost: Single copies available free of charge

***Wild Cards***

Wisconsin Department of Natural Resources has developed a series of identification cards for a variety of native and non-native plants and animals found in Wisconsin, including nine aquatic invaders. Designed for children, the cards include photos and descriptions, as well as how invaders pose problems and why native species are beneficial.

*Produced by the Wisconsin Department of Natural Resources. 2002.*

Contact: Ron Martin, WI DNR [martin@dnr.state.wi.us] [608/266-9270]

Cost: Single cards available free of charge

## VIDEOS

### ***Alien Ocean***

Zebra mussels from the Black Sea. Green crabs from the Baltic Sea. How did they get here and what impacts do they have on our waters? *Alien Ocean* tells the dramatic story of scallop fishermen, cargo ship captains, pilots and the scientists who are pioneering a new field called "invasion ecology."

*Produced by the Maryland Sea Grant Program. 1998.*

Contact: MD Sea Grant [mdsg@mdsg.umd.edu] [301/403-4220]

Cost: \$24.95

### ***Aquatic Invaders***

"Cutting Edge Technology Report" shares the threats and challenges aquatic invaders have on our nation's ecosystems. Provides an overview of the problem, including highlighted segments on Chinese mitten crabs, European green crabs, zebra mussels, and sea lampreys.

*Produced by the Information Television Network. 2000.*

Contact: Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$5

### ***Aquatic Exotics***

Video takes a 'Bill Nye the Science Guy' approach to aquatic invasive species. This 22-minute video, designed for elementary and middle school students, is in the *Exotic Aquatics Traveling Trunk*. To view video clip, visit... <http://www.sgnis.org/av/video/aquatic.htm>.

*Produced by the Minnesota Department of Natural Resources. 1995.*

Contact: MN DNR: Publications Dept. [ecoservices@dnr.state.mn.us] [651/296-2835]

Cost: Free to school libraries; \$10 for additional copies.

### ***Plants Out of Place***

Sixty-minute television special aired in March 2001 and is available on VHS. Video takes a close look at the non-native invasive plants, which are silently taking over natural habitats. The video shows how citizens, scientists, landowners, and policy makers are working together to prevent their spread. For more information, please visit...

<http://www.itvisus.com/broadcast/techno/invasive.htm>.

*Produced by the Information Television Network in collaboration with the Great Lakes Commission. 2001.*

Contact: MN DNR: Publications Dept. [ecoservices@dnr.state.mn.us] [651/296-2835]

Cost: Free to school libraries.

### ***STOP EXOTICS: Clean Your Boat***

Eleven-minute video featuring John Ratzenberger ("Cliff" from TV show, *Cheers*). The video explores steps boaters, sailors and personal watercraft users can take in order to prevent the spread of exotic plants and animals. For more information, please visit...

<http://www.seagrant.umn.edu/exotics/stop.html>.

*Produced by the Minnesota Sea Grant Program. 2000.*

Contact: Doug Jensen, MN Sea Grant [djensen1@d.umn.edu] [218/726-8712]

Cost: \$10

***You Ought To Tell Somebody! Dealing with Aquatic Invasive Species***

Twenty-three minute video provides an overview on aquatic invasive species, as well as the identification and natural history behind one significant new threat, the Chinese mitten crab. Visit... <http://osulibrary.orst.edu/video/bot19.htm>.

*Produced by the Oregon Sea Grant Program. 2001.*

Contact: Paul Heimowitz, OR Sea Grant [paul.heimowitz@orst.edu] [503/722-6718]

Cost: \$18.95 + 3.95 (postage)

***Zebra Mussels: Lessons Learned in the Great Lakes Region***

***Control, Biology, Spread and Impact, and Outreach Tools***

Set of four videos may be purchased together or individually. *Control* takes a look at the comprehensive monitoring and control techniques for industrial and municipal facilities. *Biology* provides an overview of the basic biology, including physical characteristics, life cycle, and reproductive behavior. *Spread and Impact* explores the zebra mussel's spread and distribution, as well as the resulting ecological and social impacts in the Great Lakes. *Outreach Tools* explores educational resource materials developed by Sea Grant, suitable for the classroom. To view video clips, visit... <http://iisgcp.org/order/zmreal.htm>.

*Produced by the Illinois-Indiana Sea Grant Program in collaboration with the Purdue University Ag Comm Service. 1998.*

Contact: IL-IN Sea Grant, Administration [217/333-6444] or Outreach [765/494-3573]

Cost: \$20 for video set or \$7.50 each

## **BOOKS and CDs**

### ***Alien Invaders: The Continuing Threat of Exotic Species***

Book for youth, grades 6–12. Specific cases, plentiful photos, and boxed insets highlight particularly interesting stories involving non-indigenous species' introductions. The book was selected a "Best Book for the Teen Age" by the New York Public Library. Visit...

<http://www.author-illustr-source.com/sneedbcollard.htm#Published%20Books>.

*Published by Franklin Watts. 1996.*

Contact: Sneed B. Collard, III, Author [collard@bigsky.net]

Cost: \$15

### ***Exotics To Go! Presentations and Publications to Prevent the Spread of Aquatic Invasive Species***

Compact disc includes seven "conveniently wrapped" PowerPoint presentations on aquatic invasive species, loaded with images of problem species, fact sheets, brochures, and pamphlets. Presentations and documents designed to give general audience a greater understanding of the impacts of AIS. To order, visit...

<http://www.seagrants.mn.edu/exotics/exoticstogo.html>.

*Produced by the Minnesota and Illinois-Indiana Sea Grant Programs. 2001.*

Contact: MN Sea Grant [218/726-6191]

Cost: \$2.50

### ***Oh No! Hannah's Swamp is Changing***

An illustrated children's book for grades K–4 identifying what nonindigenous species are, the effects they have on ecosystems, and what can be done to stem the tide. Written by LA Sea Grant's Marilyn Barrett-O'Leary and illustrated by Catherine Kiffe, a local artist and teacher, the book also includes a poster and several activities for young students.

*Produced by the Louisiana Sea Grant Program. 2002.*

Contact: Marilyn Barrett-O'Leary, LA Sea Grant [moleary@lsu.edu] [225/578-6349]

### ***SGNIS (Sea Grant Nonindigenous Species)***

Compact disc contains a collection of educational materials and peer-reviewed research publications produced by the National Sea Grant College Programs. To view contents, visit SGNIS's homepage at... <http://www.sgnis.org>.

*Produced by Minnesota Sea Grant on behalf of the Great Lakes Sea Grant Network. 2001.*

Contact: MN Sea Grant [218/726-6191]

Cost: \$8

### ***Visualizing the Great Lakes***

Compact disc contains 500 high-quality images gathered from 30 Great Lakes' agencies. A great tool to assist in the development of publications and PowerPoint presentations. Visit...

<http://www.seagrants.mn.edu/pubs.vgl/index.html>.

*Produced by the Minnesota Sea Grant Program and the U.S. Environmental Protection Agency's Great Lakes National Program Office. 1998.*

Contact: MN Sea Grant [218/726-6191]

Cost: \$12

## **WEB SITES**

The following Web sites include general information on aquatic invasive species, AIS. Sites offer photos, descriptions, and maps; as well as information on the impacts invasive species have on food webs and ecosystems.

**<http://www.protectyourwaters.net>**

Protect Your Waters is designed for anyone who enjoys spending time on the water. The Web site, based on a national media campaign, includes procedures and tips for boaters and personal watercraft users to assist in preventing the spread of aquatic exotic species. The frequently updated site includes ways to "Become Informed and Take Action."

**<http://www.sgnis.org/>**

Sea Grant Nonindigenous Species: An educator's information/resource guide. Information center contains collection of resources produced by Sea Grant and other institutions. Includes informative Kid's Page displaying 3-D images of prominent aquatic invasive species.

**<http://nas.er.usgs.gov>**

US Geological Survey: Nonindigenous aquatic species. Information resource pages include updated distribution maps identifying locations and spread of aquatic invasive species by region, as well as species' facts, images, biology and updated status reports.

**<http://www.seagrant.umn.edu>**

University of Minnesota Sea Grant College Program. Invasive species pages include updated information on zebra mussels, round goby, ruffe and other aquatic invasive species affecting the Great Lakes region. Contains links to many prominent AIS Web sites.

**<http://www.greatlakesseagrant.org/>**

Great Lakes Sea Grant Network. A network of Sea Grant programs working in partnership with government and private sectors. Site includes general information on aquatic invasive species, as well as links to additional, helpful sites.

**[http://www.dnr.state.mn.us/ecological\\_services/exotics/index.html](http://www.dnr.state.mn.us/ecological_services/exotics/index.html)**

Minnesota Department of Natural Resources: Harmful exotic species program. Highlights and focuses on invasive species affecting Minnesota. Find out what programs are being implemented by Minnesota DNR to manage and control for invasive species statewide.

**<http://www.glifwc.org/epicenter/>**

Great Lakes Indian Fish and Wildlife Commission. Emphases on invasive plants and ecological impacts on the Great Lakes... interactive maps, slide library, educational materials and more.

**<http://nature.org/initiatives/invasivespecies/>**

The Nature Conservancy identifies invasive species as one of the most critical conservation issues today. Web site includes photos, graphs, and downloadable documents relating to invasive species, ecosystems, and habitat loss.

## **WEB SITES**

**The following Web sites offer in-depth, detailed information on aquatic invasive species. Sites include technical reports, newspaper and journal articles, and access to photo, video, and slide libraries.**

**[http://www.cce.cornell.edu/aquaticinvaders/nan\\_ld.cfm](http://www.cce.cornell.edu/aquaticinvaders/nan_ld.cfm)**

National Aquatic Nuisance Species Clearinghouse. Searchable Web site houses a library of research, public policy, and outreach education publications pertaining to invasive marine and freshwater aquatic invasive species. Technical publications deal with the impacts, biology, spread and control of AIS.

**<http://www.anstaskforce.gov/>**

Aquatic Nuisance Species Task Force. An intergovernmental organization dedicated to the prevention and control of AIS. Established through U.S. Congress's Nonindigenous Aquatic Nuisance Control and Prevention Act of 1990.

**<http://www.nsgd.gso.uri.edu/>**

A Marine, Coastal, and Great Lakes information resource site and lending library for Sea Grant funded, developed, and published documents.

**<http://www.great-lakes.net>**

Great Lakes Information Network (GLIN). Current information from newspaper and journal articles, scientific papers, conferences, press releases and education curricula. Includes an education and curriculum page for students and teachers.

**The following Web sites include lessons and games on invasive species, as well as access to educational water-related Web sites. Sites may prove useful for educators integrating aquatic invasive species education into broader curricular units.**

**[http://www.nps.gov/piro/wl\\_lesns.htm](http://www.nps.gov/piro/wl_lesns.htm)**

The National Park Service. A compilation of games and activities set up to assist educators teaching about plant and wildlife management. Includes "The Deadly Plant Invaders Game" - an active lesson engaging students in learning about the effects of invasive species.

**<http://www.vims.edu/bridge/>**

The Bridge: Ocean sciences education teacher resource site. Includes links to interactive activities for all ages as well as updated information on water studies. A unique clearinghouse to some of the best K-12 science education sites available online.

**<http://www.iisgcp.org/EXOTICSP/index.html>**

Exotic Aquatics on the Move: developed by National Sea Grant and Geographic Education Alliance. Site offers general invasive species information, as well as case studies on a wide array of species. Also features links and access to instructional materials.

**National Sea Grant College Program  
Aquatic Nuisance Species Contacts**

**Alabama**

Richard Wallace  
Alabama Sea Grant Program  
4170 Commanders Drive  
Mobile, AL 36615  
Phone: 251/438-5690  
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Email: [rwallace@acesag.auburn.edu](mailto:rwallace@acesag.auburn.edu)

**Alaska**

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Fax: 907/474-6285  
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**California**

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300 Piedmont Avenue, Room 305A  
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Fax: 860/405-9109  
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