

Community Stewardship Projects on Exotic Aquatic Species

Developed by students as part of Sea Grant's "Exotic Aquatics on the Move" education project



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Exotic Aquatics on the Move is a joint project of Illinois-Indiana Sea Grant College Program, Louisiana Sea Grant College Program, Minnesota Sea Grant College Program, New York Sea Grant Institute, Ohio Sea Grant College Program, and Washington Sea Grant College Program

Stewardship projects from workshops offered by Sea Grant Programs in Illinois-Indiana, Louisiana, New York, and Washington



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We dedicate this publication in memory of

J. Joe Ferguson

Assistant Director

Geography Education Program

National Geographic Society

He lent his support to this project, and said, "Thank you for informing me about the exotic aquatic invaders project. It sounds like an interesting and much needed program. I was excited to learn that you have already been in contact with our Geographic Alliances in Indiana, New York, Louisiana, and Washington."

J. Joe Ferguson was a victim of the September 11, 2001, national tragedy.

We will miss him.

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INTRODUCTION

Exotic aquatic invaders are impacting waterways throughout North America. These invasive species, which range from zebra mussels to green crab to nutria, have had serious ecological and socio-economic impacts from the Great Lakes to the Gulf of Mexico and from the Atlantic to Pacific oceans—and rivers and lakes in between. Purple loosestrife, water hyacinth, and hydrilla are just a few examples of non-native aquatic plants that are choking waterways, hampering wetlands, and creating great disturbances in the native flora and fauna.

Sea Grant outreach staff members have acquired a good understanding of boaters' and anglers' knowledge, perceptions, and attitudes about exotic aquatic species, especially related to how these species affect the environment and what role people can play to improve the situation. Through interactions with the public at boat shows and fishing events it has become apparent that many people are not well informed about the numerous impacts and what steps they can take as individuals to prevent further spread of these species into new bodies of water.

“Exotic Aquatics on the Move” is a national Sea Grant education project that was developed to teach educators and their students about the ecological impacts of exotics and how these students and members of their community can make environmentally responsible decisions to help prevent the spread and transport of exotic species.

One important objective of this project was to facilitate community awareness of these invasive species and improve understanding of how they affect humans and how humans affect their dispersal and population distribution.

Another prime objective was to infuse the topic of exotic aquatic species into geography classrooms and show this subject's relevance to the National Geography Education Standards.

Teacher Training

Teachers and non-formal educators attended Sea Grant-sponsored workshops held in Indiana, Louisiana, New York and Washington. The sessions included presentations by scientists and outreach specialists focusing on important geographical factors such as origin, distribution, movement, consequences, and solutions. Those themes were chosen to coincide with the geographic applications of the study of exotic species. Attendees became aware of the numerous ways that people can take an active part in helping prevent further spread of these menacing species.

Geographic Alliances in Louisiana, Indiana, and Illinois all played an active role in the planning and actual presentation of the workshops. Teachers who were members of these Alliances came on board as eager participants in these Sea Grant professional development sessions. The Alliance Coordinators also served in an advisory capacity ensuring that the workshop content aligned well with National Geography Education Standards.

Students Taking Action as Community Stewards

Teachers then went back to their classrooms and education centers to teach their students about the effects of exotic species on the environment and economy. Students became very excited about learning more about the invaders in their local area. They were intrigued with how they arrived here and the numerous consequences caused by the invasion of these species.

The final outcome of this community awareness element of the project was 14 new community stewardship projects created by students to engage local citizens in taking action to improve their environment. These projects were impressive in their approaches to reaching out to the community with new information. Methods used to inform the public included bumper stickers, videotaped programs, t-shirts, large school displays and events, artwork, murals, posters, and

flyers. Students met with the public at boat shows, marinas, and educational events such as the Great Lakes Student Summit. Some young people met with community groups such as a city council, the Kiwanis Club, and high school academic boosters who were interested in learning more about exotic aquatics.

After doing extensive research, students developed key messages such as “Don’t Dump Your Aquarium” and “Be Careful with Purple Loosestrife—It’s Pretty but It Kills.” These young stewards used creative methods to distribute their information. They met with reporters to share information. They placed flyers in doctor and dental offices and exhibited student projects at community educational facilities such as the Center for Great Lakes Environmental Education and the Aquarium of Niagara. They reached out to the Hispanic community with a play in Spanish about purple loosestrife and a merengue dance which demonstrated how native plants are “bumped out” of their habitat by purple loosestrife.

What’s in Store for the Future

Members of the Sea Grant team and representatives of the state Geographic Alliances felt this project was a tremendous success. Many more people in the participating states now have a better understanding of why we should not take exotic aquatic species for granted and how we can all play a role in preventing further spread of these plants and animals.

The coordinators of “Exotic Aquatics on the Move” (EATM) plan to continue spreading the key messages that have been so well articulated by students involved in this project. We will present additional teacher training sessions at national, regional and state teacher conferences. The EATM Web site, iisgcp.org/EXOTICSP/ will continue to be enhanced with new information for teachers and students to explore. Another helpful Web site is SGNIS, the Sea Grant Nonindigenous Species site, www.sgnis.org. This site includes the Kids’ Page geared for students. We encourage you to visit both sites often, share the information with colleagues, and make suggestions. You will be able to download a collection of teacher-developed lessons that resulted from this education project, along with a printable PDF document of this Community Stewardship Project Guide.

With everyone’s help we can slow the spread and sometimes even stop the spread of certain exotic aquatic species. By raising awareness and taking responsibility, we can work together to make a big difference on the local, regional, national, and global scale!
