U.S. Army Engineer
Research and Development Center

Invasive Species Research

Description of Technology

The Corps of Engineers is responsible for the construction, operation, and maintenance of navigable waters and the resources associated with them. Zebra mussels alone cost the public over $1B annually. The zebra mussel (*Dreissena polymorpha*), first reported in the United States in 1988, was accidentally introduced from Northern Europe via ballast water from ocean-going vessels. It is estimated that over 100 nuisance species are introduced into U.S. waters annually, which can impact facility operations and threaten valued natural resources. Methods of prevention and more effective, inexpensive methods of control of invasive species must be developed to prevent impacts to public facilities and protect valuable natural resources.

Benefits

Methods for prevention, control, and restoration of natural resources are being developed. The development of strategies to apply control methods involves engineering design, operations, and maintenance of facilities and structures. Control strategies are being developed for (a) navigation structures; (b) hydropower and other utilities; (c) vessels and dredges; and (d) water treatment, irrigation, and other water control structures. Invasive species are the second leading cause of endangered and extinct species and loss of habitat. Methods to reduce invasive species impacts and restore natural habitat will be investigated.

Significant Accomplishments

- Guidance on Control Options
- Zebra Mussel Information System
- Aquatic Nuisance Species Information System
- Control Handbook for Facility Operators
- Guidance on Dispersal Barrier Options to Prevent the Spread of Invasive Species

Point of Contact

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