

Getting Our Feet Wet: Aquatic Invasions at Coastal and Marine Sites

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Our Mission

Preserve plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.





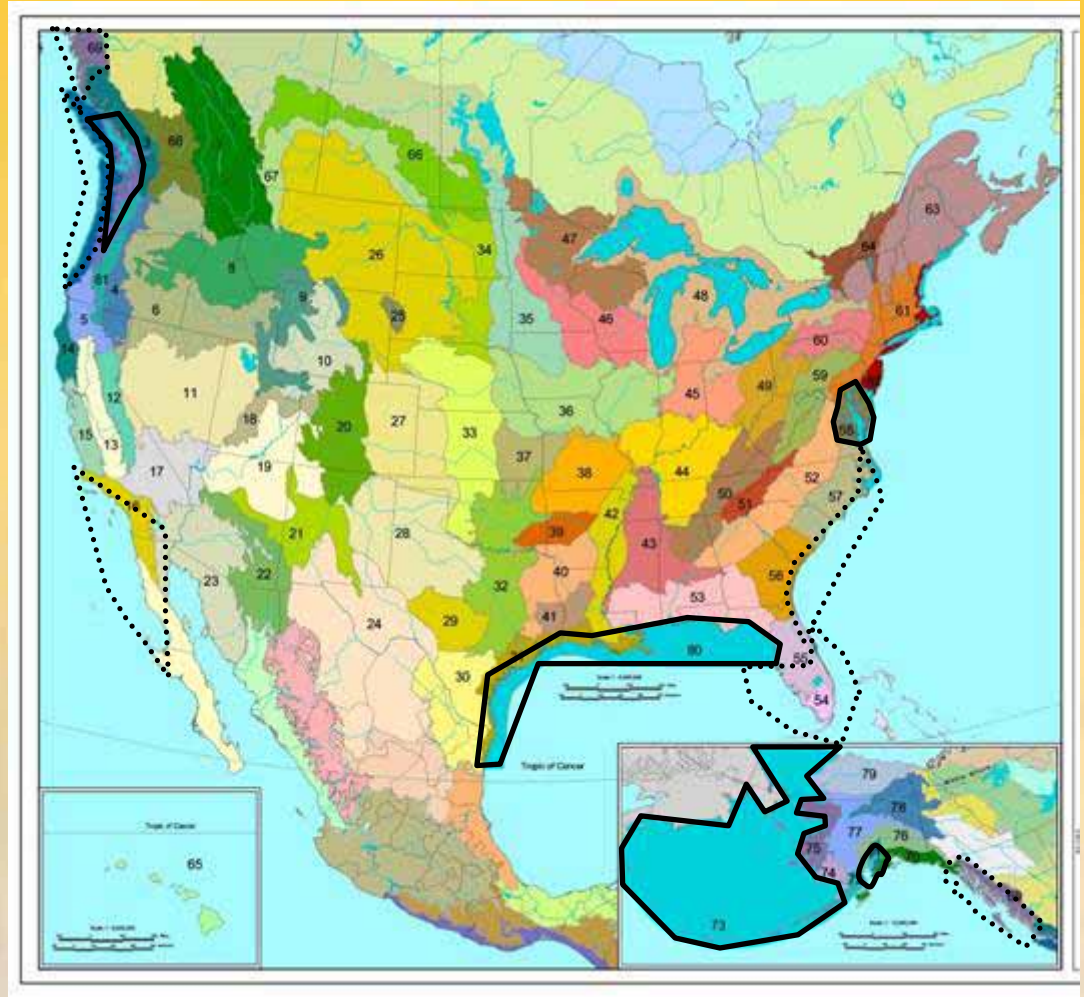
About The Nature Conservancy

- Programs in 50 states and 30 nations
 - including: Latin America, Southeast Asia, China, Japan, Australia
- 12 million acres protected in the U.S.
- 1,400 preserves
- 1 million members and 1,500 corporate associates



Ecoregio

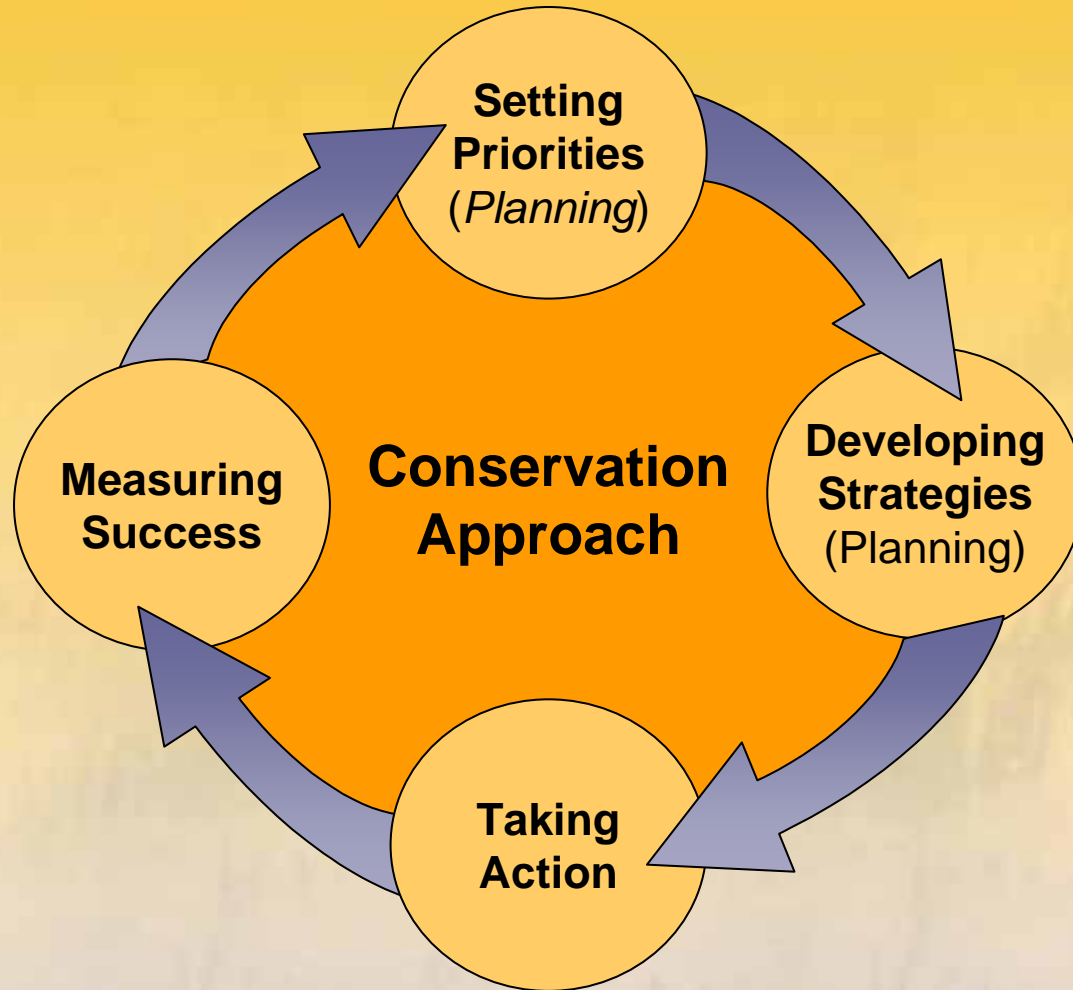
ns
Framework
for capturing
variation in
biodiversity
across
environmental
gradients



— Completed In Progress or in Preparation



TNC's Conservation Process



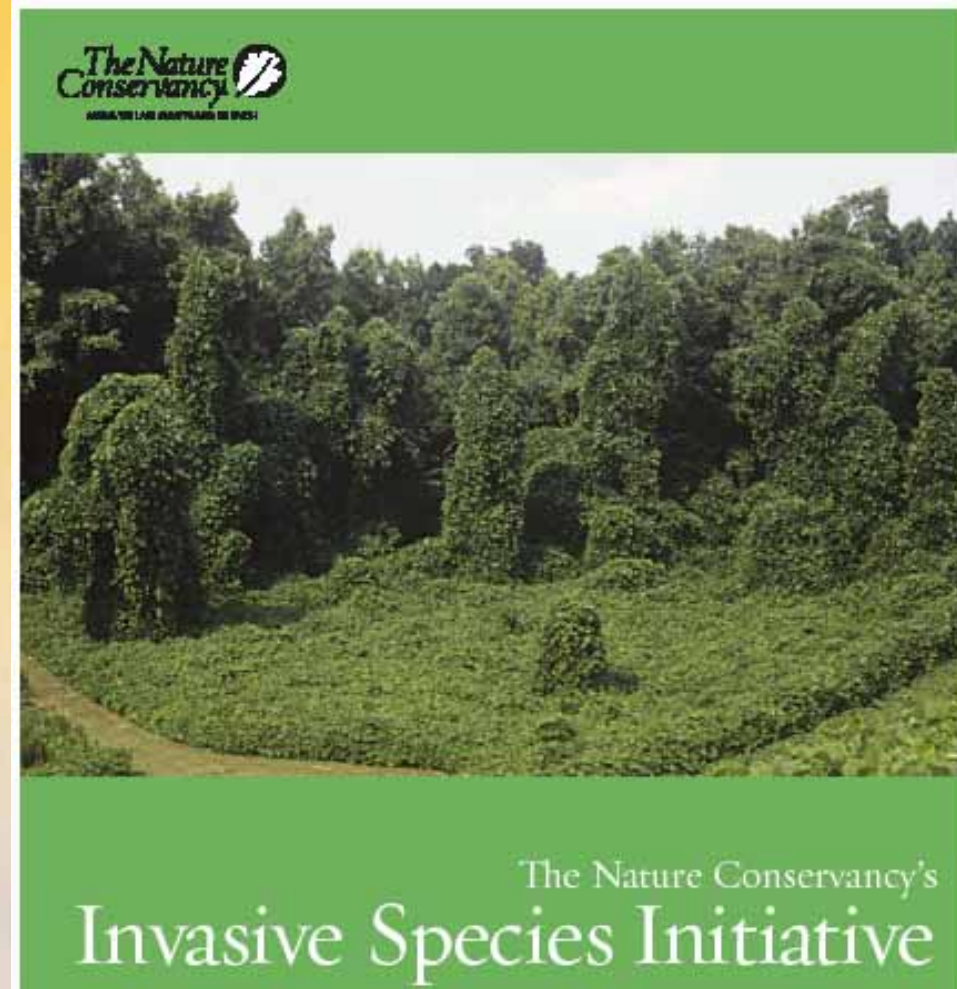
Invasive Species Impacts

- May 2000 review of 62 high priority sites.
 - “Invasive species are, by far, the most significant, high-ranked threat to focal species and natural systems at the site level.”
 - “Every piece of natural habitat that we and our partners have ‘protected’ in our entire history is at risk.”



Taking on the threat...

- 5-part strategy:
 - Prevention
 - Early Detection/
Rapid Response
 - Research
 - Control and
Management
 - Public Education
and Outreach





Where we are working:

- Two examples:
 - Hawaii - invasive algae on coral reefs
 - Washington - control spartina infestations.



Hawaii - Invasive Algae

- Partners:
 - University of Hawaii
 - Waikiki Aquarium
 - Bishop Museum
 - HI Division of Aquatic Resources
 - Reef Check
 - Private Dive Operators
 - HI Sea Grant

Hawaii - Invasive Algae

- **Activities:**
 - Volunteer algae clean-ups
 - 100 volunteers --> 12,000 lbs./day
 - Developing a mechanized system to remove invasive algae
 - 5-person crew --> 20,000 lbs./day
 - What's Next: Establish Early Warning System





Other ANS work in Hawaii

- Research on finfish invaders (Ta'ape, Roi)
- ANS Management Plan for State of Hawaii
 - inter-institutional road map for monitoring, effective control of non-native invasive species



Washington - Spartina

- Alters sediment water flow and nutrient cycles
 - changes invertebrate communities
 - affects habitat for salmon/shorebirds/waterfowl
- North Puget Sound and Willapa Bay
- Two different species



North Puget Sound

- community -based partnerships
- focus on scattered/ peripheral populations
- agencies focus on larger populations
- smaller populations - mechanized methods work
 - testing new techniques
 - evaluate effect methods have on native species.





Challenges

- Public understanding
 - less understanding of marine invasives as opposed to terrestrial weeds.



3.



Before Launching Before leaving:

- Remove ALL plant and animal materials from boat, trailer, and other equipment.
- Drain ALL water from boat and motor away from water body.

Utah Aquatic Nuisance Species Action Team

1. Image courtesy of Northeast Midwest Institute
2. © Richard Hamilton Smith
3. Image courtesy of Utah Aquatic Nuisance Species Action Team



Challenges

- Public understanding
 - less understanding of marine invasives as opposed to terrestrial weeds.
- Technology
 - techniques to control or eradicate established invasions
- Resources/capacity
 - to support early detection/rapid response, control/management, research, public awareness



Recommendations

- 5-part strategy:
 - Prevention
 - Early Detection/ Rapid Response
 - Research
 - Control and Management
 - Public Education and Outreach



Recommendations

- **Prevention**
 - engage public in blocking vectors for new introductions
- **Early Detection/Rapid Response**
 - develop materials on detecting non-native invasives and training programs for existing volunteers;
 - work with on the ground managers to develop credible, effective rapid response plans to address likely invasions.



Recommendations

- Establish new funding and support for invasive species management, research and coordination at Fed/state/local levels
- Legislation:
 - NAISA (H.R. 1080 and S.525)
 - NAIS Research Act (H.R. 1081)
 - NISC Act (H.R. 266 and S. 536)

For more information

- Visit our web site at nature.org, or contact:
 - Ann Bartuska, Director, Invasive Species Initiative
 - 703/841-2097, abartuska@tnc.org
 - Elizabeth Sklad, Program Coordinator, Invasive Species Initiative
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Or, contact the TNC field office in your state.