Implementing the Rhode Island Aquatic Invasive Species Management Plan: Current Initiatives and Next Steps

CRMC Coastal Education Series
Administration Building; Conference Room A
September 11, 2012

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Coastal Resources Management Council
What is an Aquatic Invasive Species?

* Non-native
* Accidentally or intentionally introduced
* Causes harm:
  - Environmental
  - Economic
  - Human health
Introduction Vectors

* Commercial shipping
* Recreational boating
* Marine research institutions
* Aquarium hobbyists
* Seafood trade
* Aquaculture
* Internet
Ecological Roulette

Not all introduced species survive;
Not all survivors become invasive;

However...

The small fraction that becomes invasive causes
enormous economic and environmental damage
Why So Nasty?

* Robust environmental tolerance
* Rapid growth & reproduction
* Effective dispersal
* Outcompete native species
* Predators and diseases lacking

http://www.sgnis.org
“In The Beginning”

Rapid Assessment Surveys

RI & MA 2000

Northeast 2003

2007

2010
National Invasive Species Act of 1996
NEANS Panel States and Provinces

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Task 2A: Monitor the Introduction and Spread of AIS in Coastal Ecosystems

“...develop a long-term monitoring program that includes rapid assessment surveys and volunteer monitoring programs to ensure comprehensive coverage of Rhode Island’s coastal habitats”
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CRMC Monitoring Sites 2009 – Present

Save The Bay / Pt. Edgewood Marina
Roger Williams University
Allen Harbor Marina
Fort Adams State Park
Pt. Judith Marina
Field Sampling

 Courtesy Judith Dibello
Colonial Tunicate

*Pacific origin*

*Introduced 1970’s*
Asian Shore Crab

*Pacific origin*
*Introduced 1988*
Codium fragile
ssp. fragile (tomentosoides)

* Pacific origin
* Introduced
  1950’s
Lacy Crust Bryozoan
Membranipora membranacea

* European origin
* Introduced 1980’s
Task 1G: Develop an Early Detection Rapid Response Strategy to Control or Eradicate Aquatic Invasive Species

“...the Coastal Resources Management Council shall develop an EDRR network for marine Aquatic Invasive Species”
US EPA / CRMC AIS Monitoring Collaboration

“Exploring the feasibility of utilizing an Autonomous Underwater Vehicle (AUV) for the detection of aquatic invasive species”
USCG / RWU AIS Monitoring Collaboration

Using Environmental PCR to Monitor Ballast Water for Aquatic Invasive Species

Photo credit: International Maritime Organization