

Didemnum vexillum (Dvex) in Sitka, AK

Prepared for House Resources Committee
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The background of the slide features several sets of concentric circles in a lighter blue shade, resembling ripples in water. These circles are positioned in the lower half of the slide, with one set on the left, one in the center, and a larger, more prominent set on the right.

Acknowledgements

- Alaska Department of Fish and Game
- AmeriCorps
- National Oceanographic and Atmospheric Administration
- San Francisco State University Romberg Tiburon Center for Environmental Studies
- Sitka Tribe of Alaska
- Sitka Sound Science Center
- US Coast Guard and Coast Guard Auxiliary
- US Fish and Wildlife Service
- **All the people in Sitka and outside of Sitka that have come together to support this project**

Dvex in Sitka

- Explosive growth and potential for spread
- Whiting Harbor infestation
 - First contain, then eradicate.
- Reduce possibilities for reintroduction
- Learn more about the biology of Dvex and potential impacts in Alaska

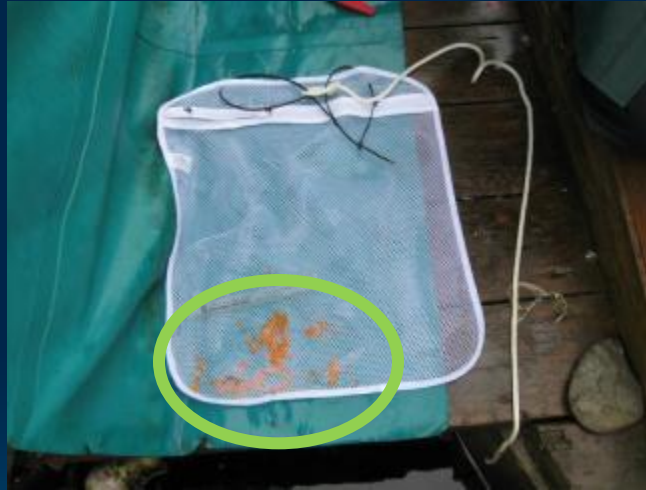


Growth Over 10 Week Period

Appearance on 6/24/11
Whiting Harbor, Sitka, AK



6/24/11



6/24/11



6/24/11

7/9/11



7/22/11



8/5/11



8/16/11



9/1/11





6/24/11
(10 weeks previous)

 **9/1/11**

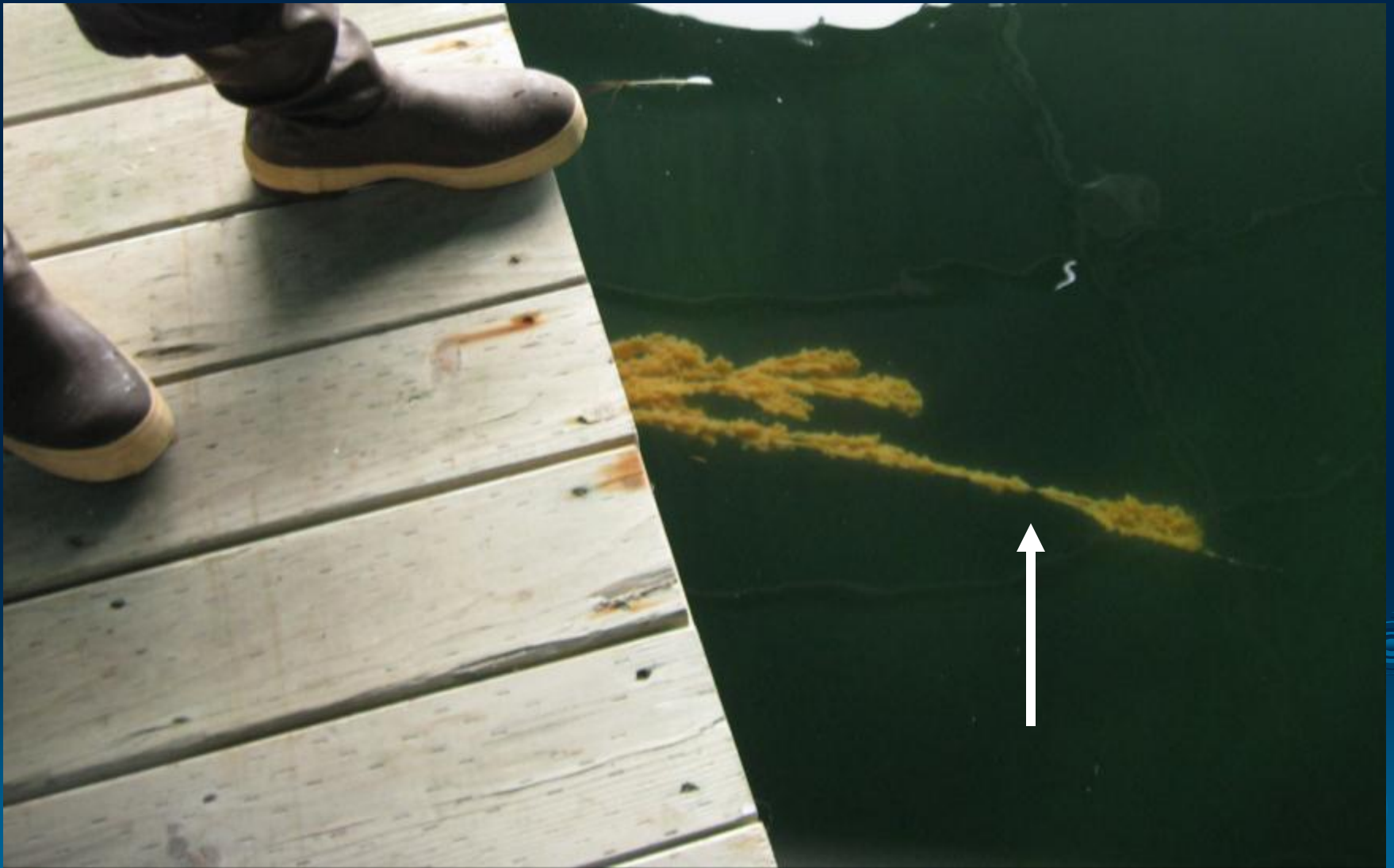


“Dangles”

Typical 7-14
day growth of
dangles.



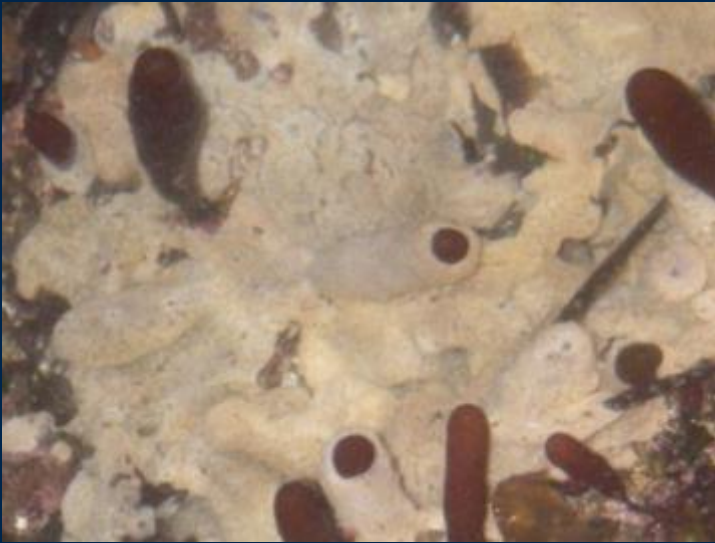
Dangles attenuate and break free



Within a few days



Intertidal Dvex Sitka, Alaska



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Whiting Harbor infestation

First contain, then eradicate.

- We all have been saying “Whiting docks are deteriorating and may carry Dvex out of Whiting”
- In fall of 2011, more than a year after Dvex discovery we lost dock structures out of Whiting
- Much has been cleaned up after storms
- There is still a rapidly deteriorating dock structure in Whiting that is heavily infested with Dvex and not well secured.
- Ability to quickly identify and carryout containment is crucial for communities. Still needs to be addressed in Sitka

**Summer
2010**



Whiting Farm Deterioration

**Sept 26
2011**



Eradication

- We need to learn how to eradicate
- Smithsonian Environmental Research Center is testing eradication methods.
- This spring the plan is to scale up and try application of salt to limited area of sub-tidal habitat.



10% Acetic Acid (5 min)



Before



After



1 Week



3 Weeks

Dvex in Sitka

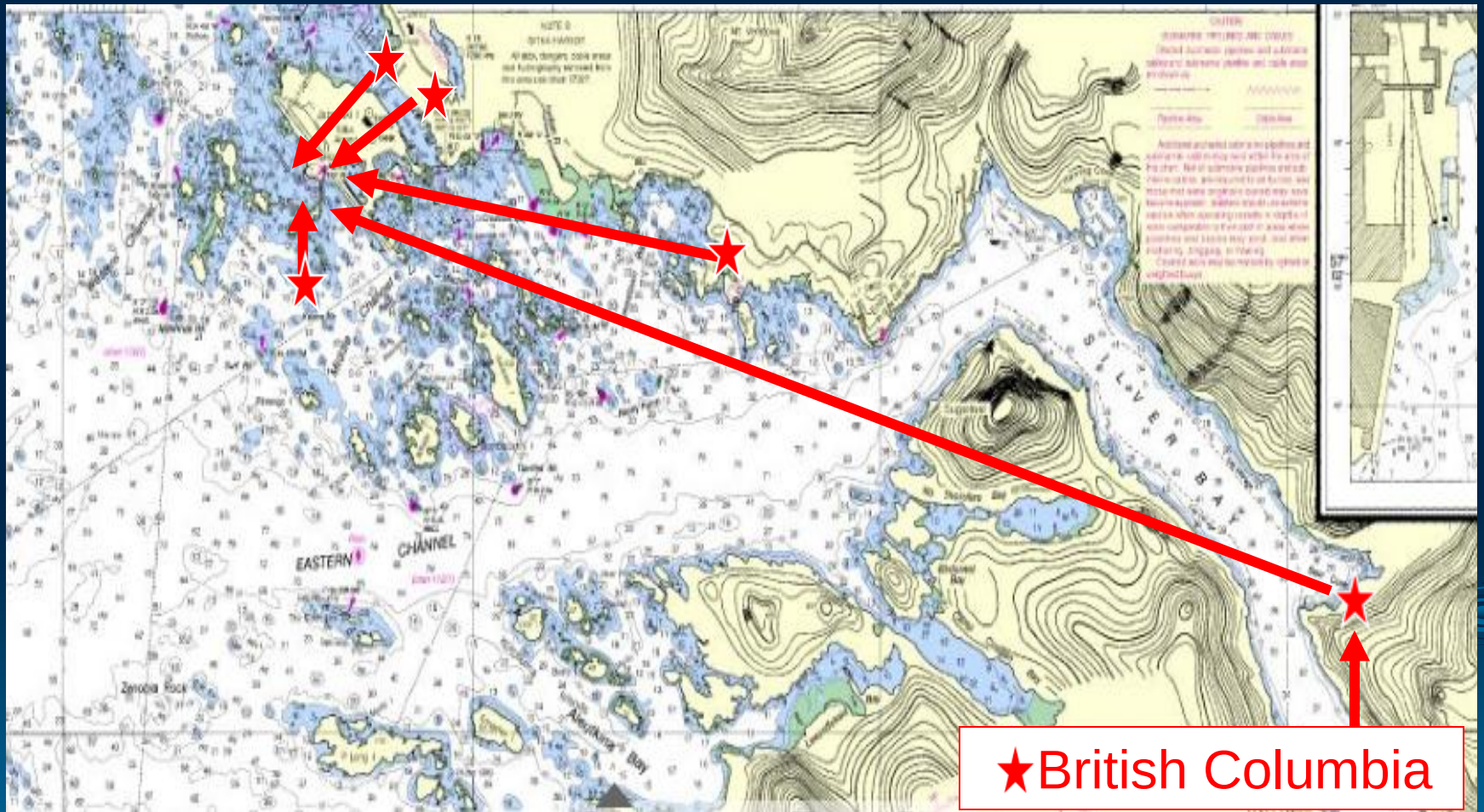
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Reduce possibilities for reintroduction

- Ballast water, hull fouling, etc. all important
 - Movement of docks other floating infrastructure has huge potential for spread of marine invasive species
 - Moving a dock moves an entire habitat
 - Very common in SE AK
 - No legislation (?), little public awareness
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Whiting docks pieced together from local and distant sources



Dvex in Sitka

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Learn more about the biology of Dvex and potential impacts in Alaska

- Population genetics
 - Distribution
 - Ecological interactions and impacts
 - Sexual reproduction & reproductive cycles
 - Asexual reproduction & growth
 - Considerations for containment & radication
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- The bottom of the slide features several decorative concentric circles in a lighter shade of blue, resembling ripples in water, positioned in the lower right and bottom center areas.

Impacts for Sitka and Alaska are Unknown

- Example: Herring Eggs (below)
- We know patches of Dvex can reach nearly 100% coverage Whiting.
- We do not know if herring will spawn on Dvex or if herring eggs can survive on Dvex.



Where do we go from here?
Where does Dvex go from here?



Whiting Harbor
Sitka, Alaska