





Vessel Biofouling

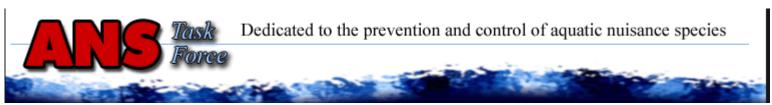




Western Regional Panel on Aquatic Nuisance Species



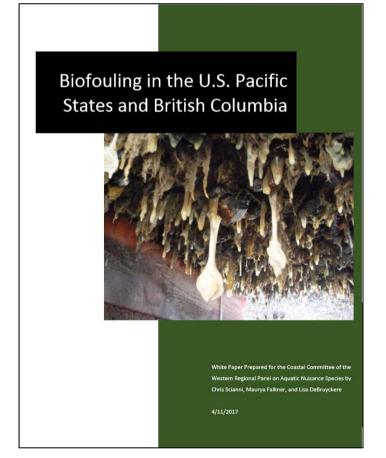
http://westernregionalpanel.org/



https://www.anstaskforce.gov/default.php



Western Regional Panel Coastal Committee



- Current science
- Risks, management options, and gaps related to:
 - Commercial merchant and passenger vessels
 - Recreational vessels
 - Commercial fishing vessels
 - Mobile marine infrastructure
- Recommendations



Current Science: Paradigm Shift – Not Just Ships











Biofouling White Paper Takeaway

Commercial fishing vessels

Mobile marine infrastructure

Recreational vessels

None

Few

Some

Commercial merchant and passenger vessels

Abundant

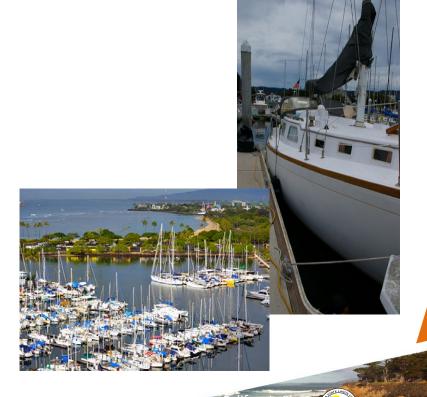
Spectrum of:

- Knowledge of vector population size
- · Knowledge of vector population activity levels
- Regulatory authority

Recreational Vessels

Key Takeaways

- Lack of central reporting authority
- Seasonal patterns: Summer and Fall
- Strong connectivity between nearby water bodies or states/province
- No existing biofouling regulations for marine environment



Recommended Action Items for the WRP Coastal Committee

Develop regionally consistent "best practices" outreach documents for biofouling management of:

- Recreational vessels
- Commercial fishing vessels
- Mobile marine infrastructure

Biofouling Management Best Practices

- Clear, consistent messaging across jurisdictions
 - Fill gaps where regulatory authority is lacking





HOW CAN YOU MANAGE MARINE BIOFOULING ON YOUR RECREATIONAL BOAT?

WHAT IS RECREATIONAL BOAT BIOFOULING?

Biofouling refers to organisms attached to or associated with underwater or wetted surfaces of a vessel. Recreational boat biofouling can occur on the hull of your boat and on a variety of recesses and appendages collectively referred to as niche areas (e.g. propellers, rudders, intakes).

WHY IS MANAGING RECREATIONAL BOAT BIOFOULING IMPORTANT TO YOU?

Managing biofouling protects your investment, saves fuel, and prevents the spread of aquatic invasive species.

BIOFOULING IS A MAJOR CONTRIBUTOR TO THE INTRODUCTION AND SPREAD OF AQUATIC INVASIVE SPECIES.

Aquatic invasive species are non-native species that threaten the diversity or abundance of native species, the ecological stability of infested waters, or any commercial, agricultural, aquacultural, or recreational activities dependent on such waters.



MANAGE BIOFOULING ON YOUR BOAT

http://westernregionalpanel.org/coastal-committee/

BEST PRACTICES FOR BIOFOULING MANAGEMENT

Applying an approved antifouling coating suited for your boat's operating profile to the surfaces indicated in this figure can minimize biofouling growth, promote efficient sailing, and save you money.

CLEAN BEFORE YOU GO 🕨

Cleaning before moving between regions increases fuel efficiency and reduces the likelihood of introducing aquatic invasive species. DON'T FORGET - Check with local authorities to understand the rules before you clean.

SELECT AND USE APPROPRIATE CLEANING METHODS

- Maintenance that prevents biofouling from growing beyond a "slime layer" will reduce drag, promote efficient sailing, and maintain your paint investment. Hauling your boat out to be cleaned at a certified boat yard is the most protective option. Consult with your paint manufacturer and hull maintenance company on in-water cleaning best practices & enquire about debris capture systems.
- DEVELOP A PLAN FOR MANAGING BIOFOULING ON YOUR BOAT

 Maintain antifouling paint integrity to manufacturer specifications. A biofouling logbook will help you plan biofouling treatments and evaluate effectiveness of cleaning and maintenance actions.

DID YOU KNOW!

Commercially available coating types include antifouling biocide-based, biocide-free foul release, and biocide-free hard coatings.

DON'T FORGET!

RUDDER & STERN GEAR

PROPULSION GEAR

Cooling pipes, anchor wells, and other internal surfaces exposed to water should also be cleaned regularly.



or more info. www.westernregionalpaneLorg

Produced by the Coastal Committee of the Western Regional Panel on Aquatic Nuisance Species, with representatives from Hawaii, Alaska, British Columbia, Washington, Oregon, and California.

HULL SURFACE

http://westernregionalpanel.org/coastal-committee/

Document Availability

Recreational Boats BP doc available soon:

- WRP Coastal Committee website:
 - http://westernregionalpanel.org/coastal-committee/
- CSP Division of Boating and Waterways:
 - http://dbw.parks.ca.gov/?page_id=28827
- Email me:
 - Chris.Scianni@slc.ca.gov

Other Biofouling management Best Practice documents coming soon:

- Commercial Fishing Vessels
- Mobile Marine Infrastructure





THANK YOU & QUESTIONS

Chris Scianni
Marine Invasive Species Program
Chris.Scianni@slc.ca.gov

562.499.6390



