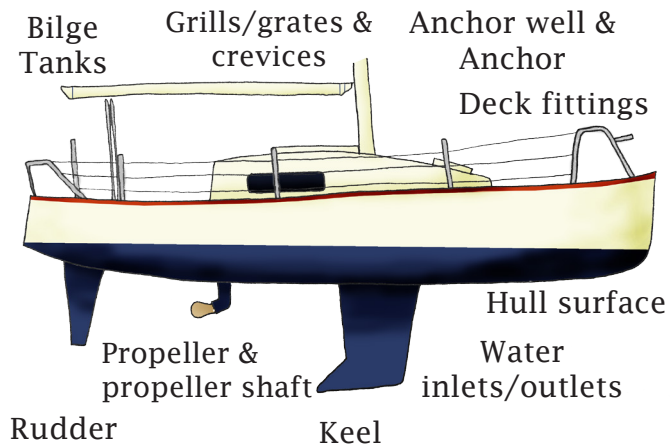
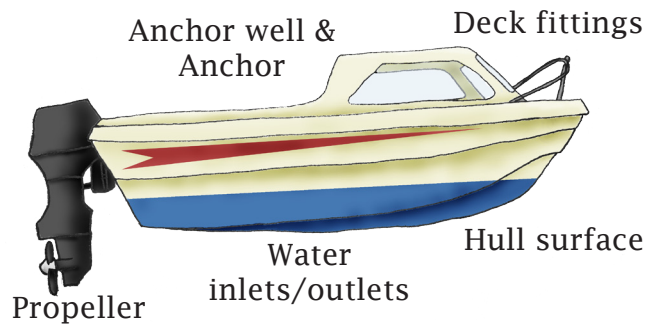


## Areas Requiring Special Attention



### Useful links

**GB Non-native Species Secretariat**  
[www.nonnativespecies.org](http://www.nonnativespecies.org)

**The Marine Life Information Network**  
[www.marlin.ac.uk](http://www.marlin.ac.uk)

**NAFC Marine Centre**  
[www.nafc.uhi.ac.uk](http://www.nafc.uhi.ac.uk)

## How Can You Help?

Most marine NNS are spread by hitchhiking on the hulls of boats and you may be unwittingly contributing to their spread.

Regularly cleaning and antifouling your boat and keeping abreast of the current threats posed by marine NNS will improve our ability to control and mitigate their impacts.



Participation by boaters is an essential part of effective management. If you see something unusual on your travels, please report its location, the date found, and send either a sample or photograph to the NAFC Marine Centre in Scalloway, Shetland.

**Tel. 01595 772000**

**Email. [marineplan@uhi.ac.uk](mailto:marineplan@uhi.ac.uk)**



## Help Keep Shetland Clean

Reduce your fuel costs

Improve your vessels performance

Contribute to non-native species control



*Clean boat, clean conscience*



# Marine Non-native Species

Marine non-native species (NNS) are a global problem and pose serious economic and environmental threats.

- Damage to boats and marinas
- Block water pipes
- Increase fuel and maintenance costs
- Impact local aquaculture and fishing
- Threaten marine biodiversity
- Threaten human health



The majority of marine NNS are transported around the globe by large cargo vessels, but, once introduced, the role of recreational boats has a significant influence on secondary, local spread.

Controlling the spread of marine NNS by recreational boating will play a significant role in the management of Shetlands marine environment.

## Boat Cleaning

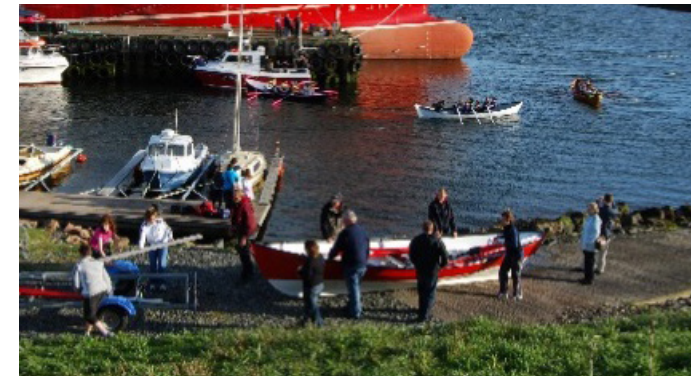
- Land boat and remove large fouling organisms by hand
- Dispose material in landfill - do not return to sea
- Hose and brush or water blast remaining matter off hull
- Allow to dry
- Repeat annually to avoid build-up of organisms

## Antifouling

- Renew paint coatings as recommended by manufacturer, if current coat has been damaged, or if persistent fouling occurs
- Apply paint to clean, dry hull
- Pay special attention to hull fittings
- Apply several coats
- Ensure paint is dry between coats and before re-launching vessel

## Additional Action

- If moving location, check boat hull is clean
- If transporting boat on land, ensure trailer is also clean of fouling organisms (particularly entangled seaweed)
- Ensure all equipment, e.g., fishing gear, dive gear, and canoes, is cleaned before and after use
- Ensure all debris, old equipment, and waste is disposed of correctly on land
- Keep up to date with problematic NNS and assess whether your trip could assist with their spread



## Species of Concern



*Botrylloides violaceus*  
Violet Sea Squirt

*Diademnum vexillum*  
Carpet Sea squirt

*Sargassum muticum*  
Wireweed

*Styela clava*  
Leathery Sea Squirt

*Watersipora subatra*  
Red-ripple Bryozoan