

PORTLAND HARBOUR AUTHORITY

AQUATIC INVASIVE NON-NATIVE SPECIES

PLAN



version 16th June 2019

CONTENTS

1. Introduction
2. What are invasive non-native (alien) species and where do they come from?
3. GB Non-Native Species Strategy
4. Classification of aquatic non-native (alien) species in the UK according to their level of impact?
5. Considerations relating to user interests
 - Designated nature conservation sites & invasive species considerations
 - Ports and Shipping and Biosecurity
 - Recreational Boating and Biosecurity
 - Fisheries and Biosecurity
6. What are Portland Harbour Authority doing?
7. Review by Portland Harbour Authority of Invasive Non-native Species
8. Reporting Non-Native Species, Updates and How to find out more?

FIGURES

1. Portland Port Group Landownership and Jurisdiction

TABLES

1. Invasive non-native species (UKTAG Classification) - Animal Species
2. Invasive non-native species (UKTAG Classification) - Plant Species
3. Non-native species - Animal Species
4. Non-native species - Plant Species

Appendices

- A. Indicative distribution of biotopes in Portland Harbour taken from Marine Nature Conservation Review Sector 8 Inlets in the Western English Channel: area summaries

1 INTRODUCTION

1.1.1 This is the first version of Portland Harbour Authority's (part of Portland Port Group) Aquatic Invasive Non-Native (Alien) Species Plan, that documents its understanding of invasive non-native species (and other harmful organisms such as diseases) in its jurisdiction and surroundings, considerations relating user interests, and potential measures going forward to improve understanding and reduce the overall risk.

2 WHAT ARE INVASIVE NON-NATIVE (ALIEN) SPECIES, WHERE DO THEY COME FROM AND BIOSECURITY?

2.1.1 There are many non-native species in Great Britain which are considered non-native as they have been transported outside their natural range. A small proportion are considered invasive. This is because of the damage they can cause to our environment, the economy, our health, property and resources.

2.1.2 Key marine pathways for introduction include commercial shipping, recreational boating and aquaculture as examples. Biosecurity is about reducing the risk of introducing or spreading invasive non-native species (and other harmful organisms such as diseases) in the wild.

3 GB INVASIVE NON-NATIVE SPECIES STRATEGY

3.1.1 The GB non-native species website (<http://www.nonnativespecies.org/home/index.cfm>) is a useful resource when considering invasive non-native species in the UK. The website provides tools and information for those working to support the GB Invasive Non-native Species strategy, first published in 2008 and updated in 2015. The strategy is intended to provide a strategic framework within which the actions of government departments, their related bodies and key stakeholders can be better co-ordinated.

3.1.2 The website provides guidance for biosecurity planning including Guidance for Estuary Wide Plan Development and Guidance for Specific Operation/Construction Related Activities (<http://www.nonnativespecies.org/index.cfm?pageid=593>). It also includes examples species alerts and identification sheets for some of the species of concern.

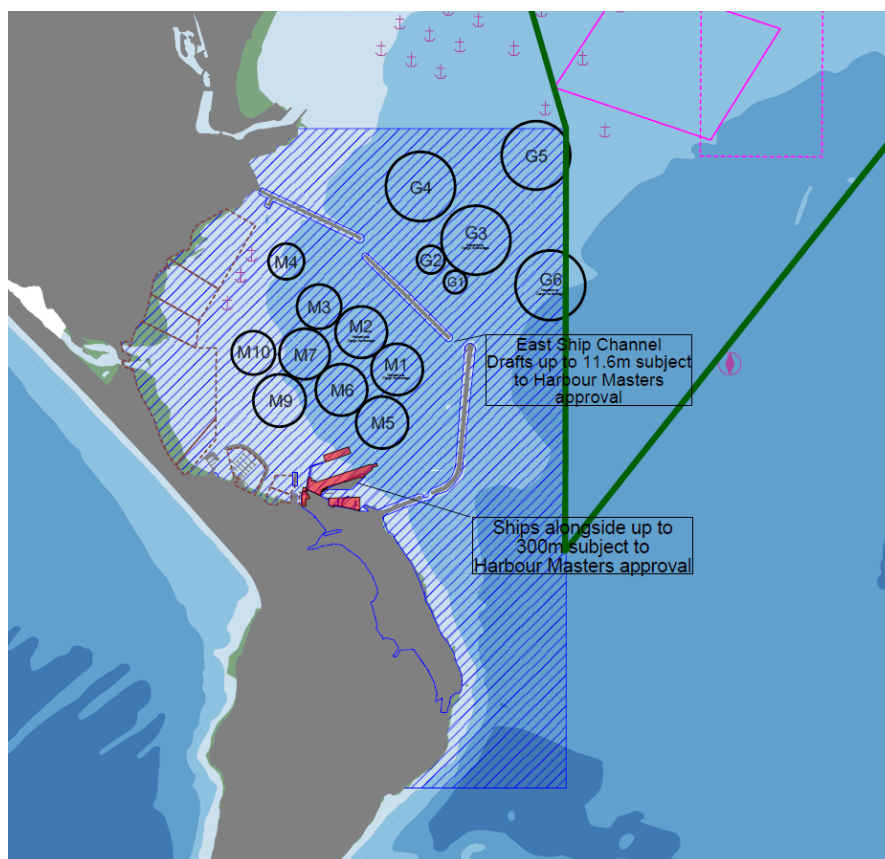
4 CLASSIFICATION OF AQUATIC INVASIVE NON-NATIVE (ALIEN) SPECIES IN THE UK ACCORDING TO THEIR LEVEL OF IMPACT?

- 4.1.1 The UK Technical Advisory Group on the Water Framework Directive published a public working draft paper titled “Revised classification of aquatic alien species according to their level of impact (Working Paper Version: 7.6 (22/07/2015))”. This includes changes that should be set in context in the UKTAG paper entitled Aquatic alien species and the WFD: proposed amendments to the impact classification in the UKTAG alien species guidance.
- 4.1.2 The classification considers aquatic alien species found in the UK in terms of where they are found i.e. T (transitional waters), C (coastal waters), R (rivers) and L (lakes). It also considers their impact on native habitats and biota using the following categories: high, moderate, low and unknown.

5 ABOUT PORTLAND HARBOUR AUTHORITY

- 5.1.1 Portland Port Group is a landowner on the Isle of Portland, a statutory undertaker and a commercial business. The land estate includes approximately 200 hectares of land and the organisation owns the breakwaters and some of the surrounding seabed. Portland Harbour Authority is a statutory undertaker and has jurisdiction over 2400 hectares and associated land premises within their estate. This is illustrated on **Figure 1**.
- 5.1.2 In considering invasive non-native species Portland Harbour Authority takes account of its jurisdiction and also what is present in the surrounding area which extends way beyond that of its jurisdiction but broadly includes the Chesil and Fleet to the west, and upto Portland Bill and then the Dorset coast to the east but also taking into account the presence of species on the south coast.
- 5.1.3 Indicative distribution of biotopes in Portland Harbour taken from Marine Nature Conservation Review Sector 8 Inlets in the Western English Channel: area summaries is included at **Appendix A**.

Figure 1. Harbour Authority Jurisdiction and Anchorages



6 CONSIDERATIONS RELATING TO USER INTERESTS

DESIGNATED NATURE CONSERVATION SITES & INVASIVE SPECIES CONSIDERATIONS

6.1.1 Information on designated sites can be found on the following link <https://designatedsites.naturalengland.org.uk/>. There are a number of different sites that either overlap with our jurisdiction or are nearby (within 2km) as follows:

European Sites & RAMSAR

- Chesil Beach & The Fleet SPA
- Chesil Beach & The Fleet SAC
- Chesil Beach & The Fleet Wetland Area of International Importance under the Ramsar Convention (Ramsar site)
- Studland to Portland SAC
- Isle of Portland to Studland Cliffs SAC

Marine Conservation Zones (MCZ) and Sites of Special Scientific Interest (SSSI's)

- Chesil Beach & Stennis Ledges MCZ
- Isle of Portland SSSI
- Portland Harbour Shore SSSI
- Chesil & The Fleet SSSI

Species and Habitats

- *Armandia cirrhosa*, spiny seahorses
- *Hippocampus guttulatus*,
- Seagrass beds (*Zostera* spp.)
- Mud habitats in deep water (sea-pen and burrowing megafauna communities).

6.1.2 Conservation objectives and supplementary advice for conservation objectives generally consider the risk of invasive non-native species to designated sites and should be checked for each site.

6.1.3 In addition, a Site Improvement Plan for Chesil Beach and the Fleet is available (created as part of the Improvement programme for England's Natura 2000 sites (IPENS)) and can be found here <http://publications.naturalengland.org.uk/category/5755515191689216>.

6.1.4 Section 5 relates to 'Invasive species' and has been included in the supplementary advice to the conservation objectives for the site. It states

"Invasive species are a concern such as the Pacific oyster farmed in east Fleet and Portland Harbour. The existence of wild settlement and colonisation by this species in these locations is not currently monitored. Japanese wireweed, Sargassum muticum is present in The Narrows but may spread if not contained by suitable management. There is also a risk that ballast water discharge from vessels could potentially result in the introduction of other invasive species."

6.1.5 Actions include:

- Monitor the spread of invasive species in the Fleet and Portland Harbour;
- Control the spread of invasive species, including Japanese wireweed *Sargassum muticum*, through prevention of spreading;
- Development and promotion of a biosecurity plan for the site, and implementation of best practice measures for the activities that occur within the site.

6.1.6 The following non-native species have been recorded in the site *Sargassum muticum* (wireweed), *Undaria pinnatifida* (wakame), *Anotrichium furcellatum* (red alga), *Asparagopsis armata* (harpoon weed), *Bonnemaisonia hamifera* (Bonnemaison's hook weed), *Heterosiphonia japonica* (red alga), *Solieria chordalis* (red alga), *Colpomenia peregrina* (oyster thief), *Styela clava* (leathery sea squirt), *Crepidula fornicata* (slipper limpet), *Calliostoma zizyphinum* (painted top shell) (Seasearch, 2015), (Seasearch, 2014), (National Biodiversity Network, 2017). Possible records of the *Didemnum vexillum* (carpet sea squirt) have occurred in the site but are currently not substantiated (Dewey

et al., 2011). The National Biodiversity Network (NBN) Gateway does not currently record *Didemnum vexillum* in the SAC (National Biodiversity Network, 2017).

6.1.7 Other non-native species have been recorded in neighbouring protected sites such as Lyme Bay and Torbay SAC. These non-native species have the potential to spread into the Studland to Portland SAC in the future.

6.1.8 The feature target for 'Coastal Lagoons' and 'Reefs' is to restrict the introduction and spread of non-native species and pathogens, and their impacts.

PORTS, SHIPPING AND BIOSECURITY

6.1.9 Of particular relevance to ports and shipping are the activities of the International Maritimes Organisation. Examples include:

➤ **Glo-ballast**

(<http://www.imo.org/en/OurWork/Environment/MajorProjects/Pages/GloBallast-Programme.aspx>)

➤ **Glo-fouling**

(<http://www.imo.org/en/OurWork/Environment/MajorProjects/Pages/GloFouling-Project.aspx>)

➤ **Biofouling Guidelines**

(Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species)

(<http://www.imo.org/en/OurWork/Environment/Biofouling/Pages/default.aspx>

<http://www.imo.org/en/mediacentre/pressbriefings/pages/20-biofouling.aspx>

[http://www.imo.org/en/OurWork/Environment/Biofouling/Documents/RESOLUTION%20MEPC.207\[62\].pdf](http://www.imo.org/en/OurWork/Environment/Biofouling/Documents/RESOLUTION%20MEPC.207[62].pdf)

<http://www.imo.org/en/OurWork/Environment/Biofouling/Documents/MEPC.1-Circ.811.pdf>

<http://www.imo.org/en/MediaCentre/MeetingSummaries/MEPC/Pages/MEPC-72nd-session.aspx>)

RECREATIONAL BOATING AND BIOSECURITY

6.1.10 The Green Blue - launched at the Southampton Boat Show 2005 - is the environmental awareness initiative set up by the Royal Yachting Association and British Marine.

6.1.11 Their mission is to promote the sustainable use of coastal and inland waters by boating and watersports participants, as well as the sustainable operation and development of the recreational boating industry.

- 6.1.12 Their objective is to help boaters and boating businesses to minimise their impact on the environment by raising awareness amongst industry and users; reducing harmful discharges; reducing environmental disturbance; and encouraging sustainable choices.
- 6.1.13 Green Blue has a wide range of guides, posters and activity sheets all free of charge. They can all be downloaded from the website <https://www.thegreenblue.org.uk/> and includes an activity sheet relating to invasive species..

FISHERIES AND BIOSECURITY

- 6.1.14 The new Aquatic Animal Health (England and Wales) Regulations 2009 recognises the importance of effective biosecurity measures in restricting disease spread. It requires Aquaculture Production Business (APB) operators to implement a biosecurity measures plan as a condition of their authorisation. Guidelines for producing biosecurity plans are available here
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/278580/Shellfish_biosecurity_measures_plan.pdf
- 6.1.15 *Bonamia spp.* is a form of protozoa which can cause lethal infection of the haemocytes of European oysters. Infection rarely results in clinical signs of disease, and the only visual cue is often increased mortality or reduced growth. The disease can occur at any time of the year, although the prevalence and intensity of infection is known to increase during the warmer months. In the UK, prevalence is highest in September with significant mortality occurring at water temperatures of 12°-20°C. The disease can have very high infection and mortality rates (up to 80%) which have had a dramatic effect on wild stocks of the species in the UK. In an attempt to control the spread of the disease, DEFRA have set up designation areas for known infection spots. The area of Portland harbour falls inside one of these 'Confirmed Designation Areas' meaning the disease is confirmed as prevalent in the area. This places a restriction on the movement of *Ostrea edulis* (and indeed *Mytilus edulis*) in and out of the designated area unless with express consent of DEFRA or if it is going for direct human consumption. This includes movements to depuration facilities that do not discharge into the area.
- 6.1.16 Further information on the Confirmed Designation Area can be found at the following link;
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/545851/Dorset_Hampshire_Bonamia_Ostreae_CD02.pdf

7 WHAT ARE PORTLAND HARBOUR AUTHORITY DOING?

7.1.1 Portland Harbour Authority

- are committed to supporting the GB Invasive Non-native Species strategy vision which promotes “*a strong sense of shared responsibility across government, key stakeholder organisations, land managers and the general public for action and behaviour that will reduce the threats posed by INNS*”.

7.1.2 With the above in mind we:

- have undertaken a review of in house literature and created a database of non-native species (Quarter 3 and 4, 2018);
- commissioned a marine ecology specialist to review and update this work so it is accurate and up to date (Quarter 1, 2019).
- have published this plan to raise awareness of the presence of non-native species in Portland Harbour and surroundings,
- in doing the above have published lists of species and their status in Portland Harbour and surroundings as a foundation to monitoring, measures and action (see next section);
- are currently considering options for undertaking further field survey to update the 2019 baseline;
- are exploring relationships with harbour users, universities, organisations and general public to improve our understanding of non-native species in the harbour, and identify measures that could be undertaken whether these be management related or assessment, monitoring and surveillance;
- are considering the usefulness of colonisation boards as an earlier alert system in the harbour for new invasive non-native species;
- are engaging with industry to identify commercial opportunities and new services that will reduce the threats posed by invasive non-native species;
- will periodically review this plan to take account of new information and progress on the above.

8 PORTLAND HARBOUR AUTHORITY REVIEW AND DATABASE OF INVASIVE NON-NATIVE SPECIES

REVIEW

8.1.1 Tables comprising invasive non-native species (and also non-native species) either present in Portland harbour and surroundings, or that could pose a risk in the future are available as follows:

1. Invasive non-native species (UKTAG Classification) - Animal Species
2. Invasive non-native species (UKTAG Classification) - Plant Species
3. Non-native species - Animal Species
4. Non-native species - Plant Species

8.1.2 These were initially prepared by Portland Harbour Authority, then reviewed and updated by Lin Baldock a marine ecological expert. Tables 1 and 2 have been updated to incorporate species identified by horizon scanning undertaken by the Defra funded Non-native Species Information Portal project. It should be noted that in assessing presence of species in Portland Harbour and surroundings this is limited to information available through literature review therefore species may be present that have not yet been found and recorded.

DATABASE

8.1.3 The database held by Portland Harbour Authority currently includes columns as follows:

- Common Name
- Species
- Impact
- Habitat
- Dorset Wildlife Trust Review 2014
- Harbour Authority Review (Baldock, 2011)
- Harbour Authority Review (Baldock, 2019)
- Fleet (Baldock, 2019)
- Distribution of NBN local records (2019)
- Potential for spreading to/ within the area
- "Species with updated risk assessments GB Non Native Species Secretariat"
- 2018 update
- MarLin
- GB Non Native Species Secretariat Factsheet
- Habitat notes
- UKTAG WFD - Aquatic Alien Species
- IUCN Marine List
- Pathway
- Reference
- Other comment

8.1.4 The content is very much dependant on the availability of information and resource but offers a means of updating over time.

8.1.5 The National Biodiversity Network is the UK's largest partnership for nature, and has been championing the sharing of biological data since 2000. They have over 200 members and more than 222 million wildlife records available through the NBN Atlas and

provides a useful resource for identifying what species are present in Portland Harbour, including non-native and invasive non-native species. For further information the website is available at <https://nbn.org.uk/>.

9 REPORTING NON-NATIVE SPECIES, UPDATES AND HOW TO FIND OUT MORE?

9.1.1 Portland Harbour Authority will periodically review this plan to take account of new information and progress on the above.

9.1.2 If you would like to find out more or report any sightings please contact the environment team on 01305 824044 or commercial@portland-port.co.uk.

Latest content update made 16th June 2019.

Appendix A

Indicative distribution of biotopes in Portland Harbour taken from Marine Nature Conservation Review Sector 8 Inlets in the Western English Channel: area summaries

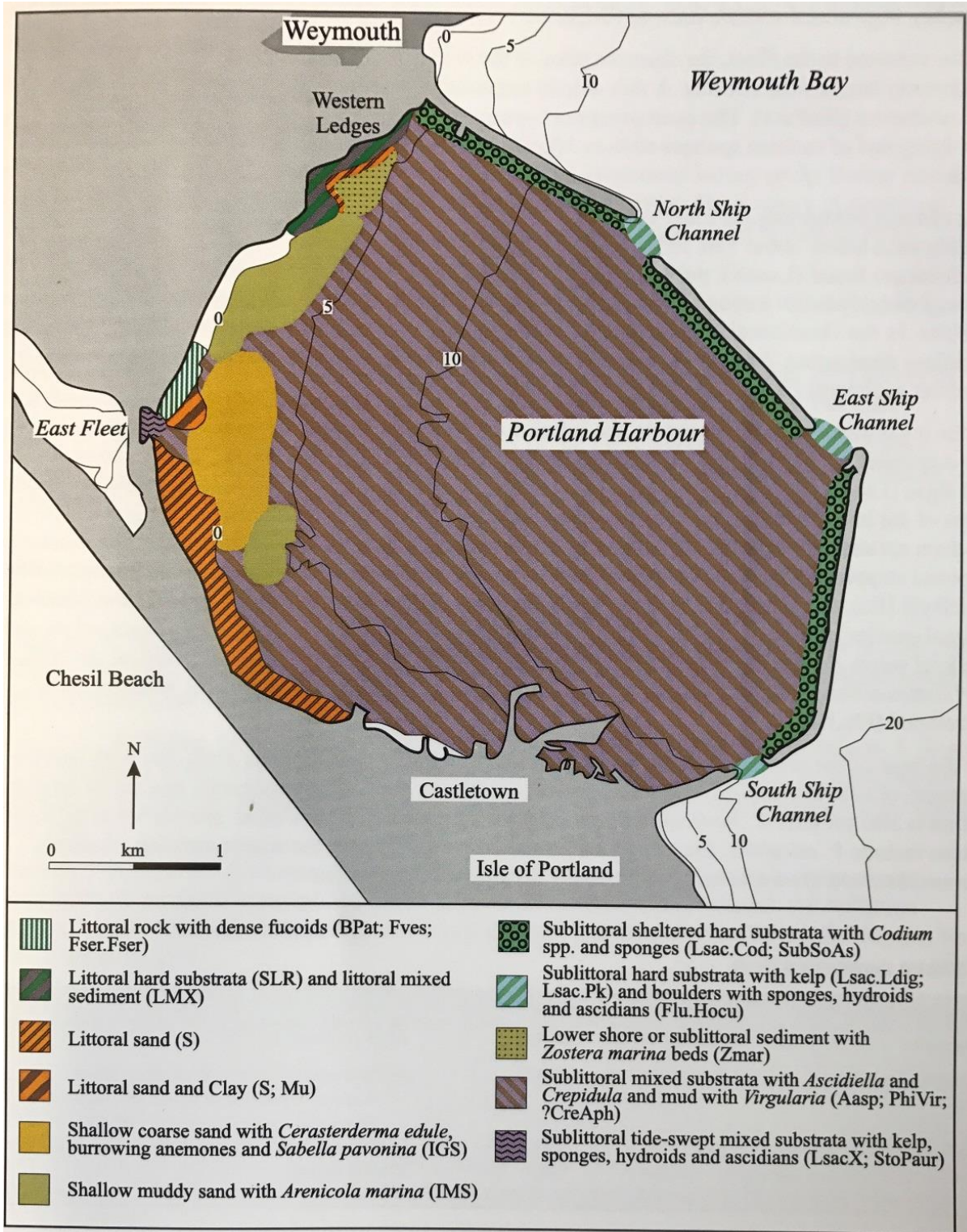


Figure 2.2 Indicative distribution of the main biotopes in the inlet (based on data from survey sites shown in Figure 2.1, cited literature and additional field observations).

© Crown copyright. Licence number GD 27254X/01/99.