## UK Overseas Territories Marine Biosecurity Toolkit: Overview

## Introduction

The UK Overseas Territories (UKOT) Marine Biosecurity Toolkit has been funded by the UK government under the Conflict, Stability and Security Fund to provide guidance to assist UKOT government staff with maintaining marine biosecurity with regards to invasive non-native species. Identification of a new invasive non-native species could occur through planned pre-emptive measures such as systematic checks and monitoring surveys or simply by chance. Taking a precautionary approach to prevent the establishment of invasive non-native species through early identification is encouraged as it will result in a more cost-effective response and a lower impact on native biodiversity and the economy. Whether pre-emptive steps have been taken or an invasive non-native species has been identified by chance, this toolkit provides a series of guidance documents which are intended to be used in combination to help tackle marine biosecurity issues. This overview document provides a brief summary of each product and how it could be used. The species that are the focus of this toolkit were identified by the OTs through a previous horizon scanning exercise and a summary table of the species relevant to each of the OTs is provided in Annex 1.

## **Content Overview**

- **A. Vessel hull fouling assessment guidance** This brief guidance document provides a simple tool which can be used to assess the degree of biofouling on commercial and recreational vessels, enabling the identification of high-risk vessels.
- **B. Ballast water monitoring guidance** This guidance consists of three distinct elements: (i) a clear summary of the International Convention for the Control and Management of Ships' Ballast Water and Sediments; (ii) simple guide on how to check ballast water log books; and (iii) a ballast water risk assessment tool for determining the level of hazard ballast water of different vessels may pose.
- **C. Sampling guidance** This document provides sampling guidance for monitoring marine invasive nonnative species and provides links to existing guidance and resources to help support the planning of sampling activities. Please note it does not a provide a comprehensive monitoring strategy.
- **D. Species ID guides** Twenty five ID cards are provided for species identified by the OTs through a horizon scanning exercise (Annex 2 provides full species list) as a potential future risk to biodiversity, economics and human health. Each card provides labelled images with a description of the key ID features and information on habitat, ecology, distribution, impacts and pathway for species arrival.
- **E. Mitigation measures guidance** Practical guidance for priority species where mitigation strategies have proven effective in the past.

The content of this Marine Biodiversity Toolkit and all of the species ID cards are available on the GB Non-Native Species Secretariat website here:

<a href="http://www.nonnativespecies.org/home/index.cfm">http://www.nonnativespecies.org/home/index.cfm</a>

<sup>&</sup>lt;sup>1</sup> Available online here: <a href="http://www.nonnativespecies.org/index.cfm?pageid=634">http://www.nonnativespecies.org/index.cfm?pageid=634</a>

## ANNEX 1: High risk marine invasive non-native species to the UK Overseas Territories

Table 1 below provides a list of the 'top 25' potential marine invasive non-native species identified by the UKOT's as a risk to biosecurity. These 25 species are the focus of the species ID cards provided within the UKOT's Marine Biosecurity Toolkit.

Table 1: The 'top 25' marine invasive non-native species risks to the UK Oversea Territories. Crosses indicate the toolkit elements relevant to each UKOT.

Marine Biosecurity Toolkit guidance document		United Kingdom Overseas Territory															
		Gibraltar	Anguilla	Bermuda	British Virgin Islands	Cayman	Montserrat	Turks & Caicos Islands	Ascension Island	British Antartic Territory	Falklands	St Helena	South Georgia and the South Sandwich Islands	Tristan da Cunha	British Indian Ocean Territory	Cyprus Sovereign Base Areas	Pitcairn
Overview		X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
A - Vessel hull fouling assessment guidance		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
B - Ballast water monitoring guidance		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
C - Sampling guidance		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х
D - Species ID guides																	
Latin name	Common name																
Halophila stipulacea	Halophila Seagrass			Х		Х	Х								Х		
Codium fragile subsp fragile	Green Sea Fingers										Х		X				
Undaria pinnatifida	Asian Kelp									X	Х		X	X			
Antithamnionella spirographidis	Red Algae	X												X			
Asparagopsis armata	Harpoon Weed													X			
Bugula neritina	Ruby Bryozoan									Х			Х				
Tubastraea coccinea	Orange Cup Coral								X			X					

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Magallana gigas	Pacific Oyster		Х		X		Х	Х	Х	Х		X		X	X		
Semimytilus algosus	Dwarf Mussel								Х			Х		Х			
Aulacomya atra	Ribbed / Cholga Mussel													Х			
Perna viridis	Asian Green Mussel	X	X	Х	X	Х	Х	X	Х			Х		Х	Х		X
Mytilus chilensis	Chilean Mussel									Х	Х		X				
Mytilus galloprovincialis	Mediterranean Mussel								X	Х	X	Х	X	Х	Х		X
Mytilus edulis	Blue Mussel									Х	Х	Х	Х	Х			
Amphibalanus reticulatus	Reticulated Barnacle				Х										Х		
Amphibalanus amphitrite	Striped Barnacle										X			X			
Balanus glandula	Pacific Acorn Barnacle										X			Х			
Halicarcinus planatus	Decapod									X			X				
Callinectes sapidus	Blue Crab	X												Х			
Carcinus maenas	European Shore Crab									Х	X	Х	Х	Х			

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Microcosmus squamiger	Ascidian / Sea Squirt													Х			
Botryllus schlosseri	Star Ascidian									X	Х		X	X			
Ascidiella aspersa	European Sea Squirt										Х		Х	Х			
Ciona intestinalis	Sea Vase									X		Х	Х	Х			
Pterois miles	Lionfish	Х	Х		X		Х	Х	Х								
E - Mitigation measures guidance		Х	Х	Х	X	X	Х	X	Х	X	Х	X	Х	X	X	Х	X