



# SEADREAM

Science & Engineering Around Devon; Research, Education And More!  
[www.seadreameducation.com](http://www.seadreameducation.com)

## BIOSECURITY AND INVASIVE SPECIES POLICY

**Last Review: June 2021**

**Date due for Review: 03.05.2023**

### Introduction

Seadream Education undertakes many activities both inland and by the coast. At any of these locations invasive, non-native species may be encountered and Seadream Education is committed to:

1. Managing and lowering the risk of contributing to the spread on **Invasive Non-Native Species (INNS)**
2. Educating the public, co-workers and other researchers about the risk of INNS to our native flora and fauna.

Seadream Education will endorse the GB Invasive Non-Native Species Framework Strategy that applies a three-tier approach to managing the risk of INNS:

1. Prevention
2. Rapid response
3. Control and Containment

### 1. Prevention

Seadream will produce risk assessment templates for marine, coastal, estuarine, freshwater and terrestrial environments covering general approaches to Biosecurity.

In preparing for a site visit, the appropriate risk assessment will be reviewed; any site-specific issues not covered by the generic forms will be detailed. This will include a review of the current list of species of concern listed by the GB Non-Native Species Secretariat:

<http://www.nonnativespecies.org/home/index.cfm>

Seadream Education will adopt the **CHECK, CLEAN, DRY** approach when planning and undertaking any site visits.

### PRIOR to any visit

- All equipment and personal clothing/shoes will be checked for live organisms or damp residue that could harbour propagules, seeds, cryptic organisms etc.
- If appropriate, equipment and clothing will be cleaned thoroughly before use
- Where possible, equipment will be dried before use (exclusions may include for example equipment sterilised between uses etc)

## **AFTER visits/between locations**

- The same **CHECK, CLEAN, DRY** procedures will be applied to equipment and clothing, as used in preparing to visit a site.
- If washing is required, Seadream will provide suitable tubs/shallow trays and garden sprayers to clean equipment, shoes and the exterior of sample pots prior to leaving site, avoiding run-off back into environment that might lead to extending area affected by invasive species.
- Seadream will use suitable, sealable containers to transport samples and/or equipment that cannot be adequately cleaned at site.
- Where detergents are needed, these will be chosen with regard to minimising the environmental impact.

## **2. Rapid response**

Should INNS be identified (or suspected) during Seadream activities, a staff member of Seadream Education will follow the latest recommendations of the GB Non-Native Species Secretariat including:

- Taking photographs of the specimen from several different angles/magnification.
- Recording the location (GPS, 3 little words, Grid Ref)
- Recording the date and time
- Record the number of individuals / estimate the area covered
- If appropriate, recommended and correct actions are known - removing the specimen and disposing according to guideline in force at that time.
- Advising the competent authority of the sighting and actions taken e.g. email detail to [alertnonnative@ceh.ac.uk](mailto:alertnonnative@ceh.ac.uk) or [www.brc.ac.uk/irecords/eneter-non-native-records](http://www.brc.ac.uk/irecords/eneter-non-native-records)
- Seadream may also contact known taxonomic experts at the MBA for advice

## **3. Control and Containment**

Where a suspected High Risk INNS is found, Seadream Education will, if practicable and recommended, remove specimens e.g. if on a rope or fender, the specimens or the rope/fender will be removed from the environment and kept in seawater for an expert to examine.

By applying the policy of CHECK, CLEAN, DRY, the risk of transfer of the suspect species to other locations will be reduced.

## Seadream Education Biosecurity Risk Assessment: Marine and Coastal sites

Always apply the policy of **CHECK, CLEAN, DRY** to all activities before, during and after visit.

If washing required, wash in **FRESHWATER** at site where possible. Marine organisms will not survive sustained exposure to freshwater, followed by drying. Consider taking suitable tubs and garden sprayers.

Take shallow trays/tubs to clean equipment, shoes and sample pot exterior prior to leaving site

Take suitable, sealable containers to transport samples and/or equipment that cannot be adequately cleaned at site.

Activity	NO	YES	Site(s)	INNS Known at previous site? (if none write n/a)	RISK
Have the participants/staff arrived from another marine/coastal site?					
<b>ACTION TO BE TAKEN TO MITIGATE RISKS</b>	Advise participants of the risk of transfer. Ask to check soles of shoes and clothing <i>n.b. clothing and shoes may transfer seeds and propagules of terrestrial plants between sites as well as marine organisms</i> Consider spraying soles of shoes with freshwater, scraping shoes between site visits				
Has equipment been used at other sites without being checked, cleaned and dried?					
<b>ACTION TO BE TAKEN TO MITIGATE RISKS</b>	Check, clean and dry equipment. If time is limited, wash with freshwater away from areas that drain back into marine water, prior to use. Where equipment is regularly used, consider having more than one set of equipment.				
Is any equipment to be left in-situ?					
<b>ACTION TO BE TAKEN TO MITIGATE RISKS</b>	Ensure equipment is sterile before leaving in situ (if possible). Use the CHECK, CLEAN, DRY approach to minimise the likelihood of any cross-contamination from other sites. Consider how equipment is to be retrieved, cleaned and transported once removed from site.				
Are any INNS known to be at sites?					
<b>ACTION TO BE TAKEN TO MITIGATE RISKS</b>	For each potential species, consider how to minimise any activity that might allow transfer of organism to another location or to proliferate at site visited. Consider whether any species requires own "special" measures over those generic practices already considered.				
Are site-specific risks?					
<b>ACTION TO BE TAKEN TO MITIGATE RISKS</b>					

## MARINE/COASTAL Appendix 1

INNS of concern for UK at 25/11/19

Species Name	Common name	SW UK?	ID Card?	Cat	Action to be taken
Algae					
<i>Sargassum muticum</i>	Wireweed	YES	YES		
<i>Undaria pinnatifida</i>	Wakame	YES	YES		
<i>Asparagopsis armata</i>	Harpoon Weed	YES	YES		
<i>Grateloupia turuturu</i>	Devil's Tongue Weed	YES	YES		
Anenomes					
<i>Haliplanella lineata</i>	Orange striped	YES	YES		
Crustacea					
<i>Elminius modestus</i>	Darwin's Barnacle	YES	YES		
<i>Balanus amphitrite</i>	Striped Barnacle	YES	YES		
<i>Caprella mutica</i>	Japanese Skeleton Shrimp	YES	YES		
<i>Eriocheir sinensis</i>	Chinese mitten crab	Rarely marine inshore	YES		Report asap
Polychaete					
<i>Ficopomatus enigmaticus</i>	Trumpet tube worm	YES	YES		
Bryozoa					
<i>Bugula neritina</i>	Ruby bryozoa	YES	YES		
<i>Watersipora suborquata</i>	Red ripple bryozoa	YES	YES		
Molluscs					
<i>Crassostrea gigas</i>	Pacific oyster	YES	YES		
<i>Crepidula fornicata</i>	Slipper limpet	YES	YES		REMOVE
<i>Rapana venosa</i>	Veined rapa whelk	YES	YES		
<i>Urosalpinx cinerea</i>	American oyster drill	YES	YES		
Tunicates					
<i>Asterocarpa humilis</i>	Compass sea squirt	YES	YES		
<i>Corella eumyota</i>	Orange-tipped sea squirt	YES	YES		
<i>Styela clava</i>	Leathery sea squirt	YES	YES		
<i>Botrylloides violceus</i>	Orange cloak sea squirt	YES	YES		
<i>Didemnum vexillum</i>	Carpet sea squirt	YES	YES		Report asap (known in Dart: only in marinas in UK)
<i>Perophora japonica</i>	Creeping sea squirt	YES	YES		
Fish					
<i>Pseudorasbora parva</i>	Topmouth gudgeon	YES	Online	HIGH	Eradicated in Devon
NEW ALERTS					
<i>Caulerpa taxifolia</i>	Killer seaweed	NO	Online		Not yet known in UK