Marine Pathways
Managing marine non-native species

Marine Pathways News

Issue 12 – Oct 2016

Marine pathways work continues throughout Great Britain and Ireland. Here are some updates on the subject of non-native species and on Marine Pathways work.

Marine Pathways – Achievements and Forward Look

The Marine Pathways Group has evolved considerably over its lifetime. Initiated in 2012, the original aim of the group was to aid in the development of key work areas relevant to the implementation of descriptor 2 of the Marine Strategy Framework Directive (MSFD). This work involved many successful research and development projects such as those focused on biosecurity and preventative measures, predicting INNS introduction risk, monitoring and surveillance of INNS – including assessment of different sampling and detection techniques, in addition to developing methods of controlling and eradication of INNS. This initial stage of the group ran from 2012 to 2015. During this period, the Marine Pathways Group has been represented at key meetings and conferences and led informative training workshops with industry members and stakeholders.

Since 2015 the Marine Pathways group has taken on more advisory work, aiding in the development of OSPAR and UK assessments and indicators. The group now functions as an expert group providing technical support and guidance to HBDSEG, while maintaining an overview of and co-ordinating current work in relation to marine INNS.

Contributing to the success and ongoing strength of the group is the unique means by which experts in the field of INNS across different organisations and countries communicate and collaborate. It also offers a platform by which stakeholders can input into INNS work.

The Marine Pathways group has made significant contribution to the facilitation and implementation of a synergistic approach to INNS management, focusing on the fulfilment of and adherence to key legislation and regulations in the most cost effective manner. With the importance of INNS becoming increasingly recognised, the group looks to the future, and strives to maintain and increase its contribution to the effective management of INNS across UK and Ireland.

For more details, please visit our website:
http://www.nonnativespecies.org/projects/marinepathways

NIS training in Ireland - BIM teaches Skippers to Spot Nuisance Species

On 6th and 7th July, Sixteen of Ireland's leading mussel dredger skippers and operators took part in a two-day course focusing on Invasive Alien Species in Irish waters. The workshop was hosted by BIM, in association with the Dutch GiMaRIS institution, Holland's leading applied fisheries research organisation which specialises in the biology of bivalve shellfish and related seafood products.

Dr. Arjan Gittenberger, a noted marine taxonomist, of GiMaRIS produced comprehensive photographic guidance on species identification and description tools, with close up images of the non-native species that the Skippers potentially could come across at sea. In some instances, the appearance of the invasive species can be similar to native species and the guidance highlighted the differences that would assist them in recognising these potentially harmful species.

BIM

The aim of the course was to assist the industry to be able to spot and accurately describe unusual species that they come across, in order to alert the experts in the Irish marine scientific institutions of the possible occurrence of

Definition:

Invasive non-native species (INNS):

'A species which has been introduced outside its natural, past or present distribution and has a negative environmental, economic or social impact.'

Case Species:

Japanese Kelp or 'Wakame' (*Undaria pinnatifida*)

GBNNSS.

Native range:
Cold temperate areas of Japan, China and Korea.

Impacts:

- Competes with native seaweeds and epibenthic animals, for space and resource
- Adversely affects commercially important species through indirect ecosystem impacts.
- Fouling of farmed shellfish by this species results in increased handling and marketing costs.

the species in Irish waters. Invasive species are one of the largest threats to biodiversity globally and they have the potential to significantly impact on the environment and on local aquaculture, inshore fisheries and other marine related businesses. With this in mind, BIM is working with the industry to encourage a pro-active approach to the future management of this emerging threat. Early identification will be very beneficial to the marine sector generally and to the mussel sector in particular. If detected early effective mitigation measures can be taken to counter most of the potentially troublesome species and BIM was delighted at the uptake of places on the course.

Introduction of the Japanese Kelp into Scottish Waters

Japanese Kelp (*Undaria pinnatifida*) has recently been confirmed within a marina in the Firth of Forth in Scotland. It was initially found by specialists from the Scottish Environment Protection Agency (SEPA) on a routine visit to the marina. Marine Scotland and SEPA later visited the marina to undertake further assessment of its presence and found considerable growth on most sections of floating pontoons. Plants of various growth stages were found, including a significant proportion of mature and reproductive plants.

This is the first record of the species in Scottish waters. Managers of the marina are enthusiastic and willing to remove the growth in an attempt to contain the species and are content for authorities to monitor regrowth. This will help us develop an understanding of the species in Scottish waters and help inform future action plans for its containment.

JKMarnie

Rapid Response Process

Effective management of NNS is very often dependent on fast action following detection. To facilitate this a working group was created in 2008, referred to as the rapid response working group. This working group included representatives from many organisations across GB, including but not exclusively Centre for Environment, Fisheries and Aquaculture Science, Animal and Plant Health Agency, National Resources Wales, Defra, Environment Agency and Fisheries Research Services. The main role of this rapid response working group was to develop and prepare a rapid response protocol which can be implemented following detection of NNS. Specifically, the rapid response protocol includes consideration of the roles and responsibilities of different organisations and authorities, evaluation of resource availability, capacity and gaps, assessment of funding streams and contingency planning.

This rapid response process has been implemented following detection of a number of NNS in GB. While the process was effective and successful following detection of the African clawed toad (*Xenopus laevis*), fathead minnow (*Pimephales promelas)* and black bullhead (*Ameiurus melas)*, the process was unsuccessful against The Carpet Sea Squirt (*Didemnum vexillum)*.

In view of this, a review of the rapid response process is being undertaken. The aim of the review is to make recommendations for improvement of our capacity to carry out rapid responses more effectively in the future, especially with respect to marine species which present more challenges for control and eradication.

Of interest:

Ballast water convention

The Ballast Water Management Convention has now been ratified by countries representing over 35% global shipping tonnage. The convention will enter into force on 8 September 2017. For more information, please visit: http://www.imo.org/en/MediaCentre/PressBriefings/Pages/22-BWM-.aspx

Vessel discharging ballast (© Zane Johnston)

Coming up:

A new report on investigating the impacts of 8 marine non-native species on Marine Protected Areas (MPAs) by SAMs Research Service Limited has recently been published by Natural England. More information will be provided in the next issue of the newsletter

Contact us:

Please contact Marine Pathways on:

hannah.tidbury@cefas.co.uk

paul.stebbing@cefas.co.uk