

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.

New Members of the Marine Pathways Group

The Marine Pathways Group would like to welcome new members Lyndsay Brown and Lorna King from Scottish Government, Janet Khan-Marnie from The Scottish Environment Protection Agency, Sharon Davies from Welsh Government, Michael Sutton-Croft from the Animal and Plant Health Association, Alice Hiley from The Environment Agency and Donal Cronin, Kyla Smyth, Hugh Edwards and Steven Foster from the Department of Environment. The group continues to include individuals with key skills and experience in the field of marine Non-Native Species (NNS) and represents major organizations and institutions within GB and Ireland.

INNS Risk Assessments by Marine Aquaculture Sector in Ireland

Ireland's National Strategic Plan for Sustainable Aquaculture Development was adopted in late 2015 and with it came a strong commitment to address INNS issues through two dedicated actions within the Ensuring Sustainability measure: Development of an industry code of practice for INNS and; Continuation of the Invasive Species Ireland project in relation to Aquaculture.

Work has already begun and individual aquaculture companies are carrying out risk assessments for their businesses. BIM (Irish Sea Fisheries Board) are drafting more comprehensive guidelines by species and culture type and plans are also underway to develop training for key industry players beginning with vessel skippers from the bottom grown mussel sector.

The business scale risk assessments are being facilitated by BIM through their support to companies in establishing and maintaining various environmental management systems for product and system certification e.g. MSC, Origin Green and Organic accreditation. Certified standard members are always looking for new ways to address emerging issues and demonstrate continual improvement in their environmental performance. Therefore they readily accept the need to address INNS issues and see the risk assessment as an important tool, while simultaneously championing the process and setting an example to other growers in their area. The control and prevention actions adopted as an outcome of the risk assessments will be reviewed and documented for inclusion as appropriate in the Industry Code of Practice which will be wide reaching across the entire sector. Meanwhile it is hoped that there will also be opportunities to engage cross-sectorally through the Invasive Species Ireland project. (Grainne O'Brien, Irish Seas Fisheries Board).

Biosecurity Planning Training

Thanks to funding from Natural England a series of biosecurity planning training events were held across the South and East coasts of England in early February. Undertaking the short contract were Sarah Brown and Robin Payne who had been at the heart of developing the guidance in Scotland.

"I was delighted when Jan called to say we had got the contract but I was even more pleased when we sent the invite out and were almost immediately fully booked for the training sessions!" said Sarah.



Burnham – Group discussion leading to practical biosecurity planning.

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:

American Lobster (*Homarus americanus*)



Native range:
Northeastern USA

Impacts:

- Outcompetes native lobsters and other economically and environmentally important species such as brown crabs
- Carries diseases such as Gafkeamia virus which can cause 100% mortality in European lobsters.

Following consultation with key stakeholders it was decided to run events in Hamble, Burnham on Crouch, Poole and Plymouth and generous support from marina managers and harbour authorities in those areas meant that meeting rooms were easy to arrange and the places booked up in no time.

The half day training events were kept short and to the point with the emphasis on encouraging participants to think about their top marine biosecurity priorities and limiting it to things they actually had control over. Sarah continues, "Biosecurity planning can quickly become overwhelming if you are trying to control all vessel, plant and animal movements in a large area. We encouraged trainees to think about the higher risk vessels such as slow moving barges or long distance travelers and not local boats going in and out every weekend. People were relieved to know they didn't need a degree in marine biology to write an effective plan too!"

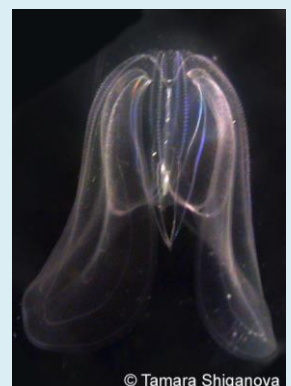
A template biosecurity plan along with other supporting documents are available on the Marine Pathways website. Contact Sarah or Robin at sarah@c2w.org.uk, robin923@btinternet.com or via www.c2w.org.uk.

Coming up:

- *The rapid response process used following detection of a NNS.*
- *Marine activity licensing and INNS.*
- *American Comb Jellyfish in the UK and detection methodology.*

Early Warning Detection of Marine NNS off Scotland

The saying that "if you don't look, you won't find" is likely to hold true for marine NNS. At least the saying might be expected to be the case for the smaller, more difficult to identify, species. Another saying is that "fore-warned is fore-armed", and there has been a gap in our marine surveillance regarding the "warning". To help fill that gap work led by Dr. Liz Cook of The Scottish Association for Marine Science, funded by Scottish Government and SNH, was published in September - [SNH Commissioned Report 874: Assessing the effectiveness of early warning systems for the detection of marine invasive non-native species in Scottish Waters](#).

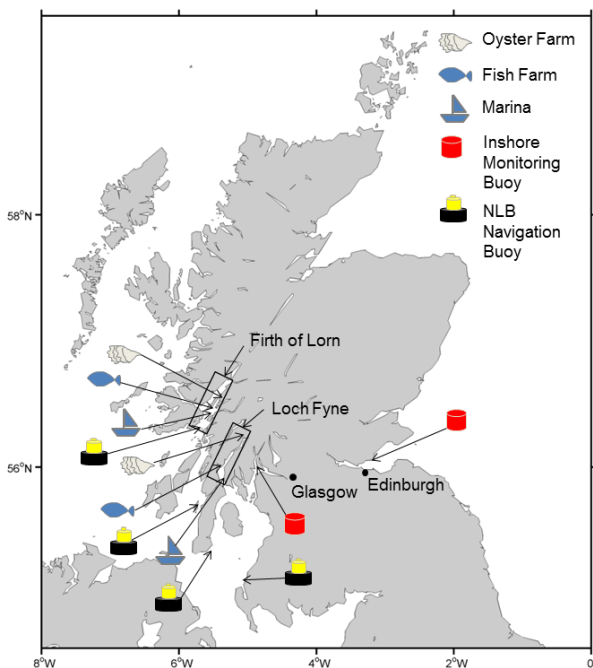


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[SNH Commissioned Report 874: Assessing the effectiveness of early warning systems for the detection of marine invasive non-native species in Scottish Waters](#).

Field work was undertaken in 2013 to assess the effectiveness of five sampling techniques to detect target marine NNS. The five techniques were rapid assessment, settlement panels, scrape samples, in-situ photographs and settlement panel photographs. Sampling took place both inshore and off-shore, making use of fish-farms, marinas, inshore buoys serviced by SEPA and off-shore buoys managed by the Northern Lighthouse Board.

BSAC has co-created a free new app – [Sealife Tracker](#) – that will enable divers to help monitor the spread of both invasive and climate change indicator species in British seas.



Map to show location of the marinas, fish and oyster farms where the five early warning

sampling techniques were assessed. The locations of the inshore SEPA monitoring buoys are also shown.

The rapid assessment survey proved to be the most reliable and cost-effective technique, involving a visual inspection by two people for an hour of floating structures and submerged surfaces down to a depth of 0.5m. As rapid assessment does not provide quantitative data and work in the field can be difficult, the project recommends that rapid assessment is used in combination with either the scrape or settlement panel techniques. Marinas were found to be the most successful location for the detection of NNS, but that fish farms and monitoring/ navigation buoys may also be useful if visited routinely by trained surveyors. (Iain Macdonald, Scottish Natural Heritage).

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