New warning system to find invasive species in Welsh seas

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A new warning system is being developed that could reduce the damage caused to Welsh marine industries and native wildlife by non-native or 'alien' creatures in coastal waters.

Early detection will also make attempts to eradicate invasive species easier as their numbers would not be as large or as widespread.

The system will be developed in an 18 month project led by Natural Resources Wales in partnership with the School of Ocean Sciences at Bangor University.

Non-natives species are creatures that have been introduced to our waters from outside their natural habitats.

This is done mostly by accident through activities such as shipping, recreational boating and cultivating marine species and plants.

Most species brought into Welsh waters are non-threatening and do no harm.

However, some species like the slipper limpets, Chinese mitten crab and the carpet sea squirt can out-compete indigenous species for food and damage the habitats they live in.

This, in turn, can reduce the population of species such as mussels, oysters and crab, damaging local fishing industries.

Researchers from Bangor University School of Ocean Sciences and specialists from Natural Resources Wales will work closely with marine industries initially in north Wales, on the project. Oyster farmers, marina operators, lobster and crab fishermen are allowing these experts to place and collect information from "settlement panels" in the sea at the sites where they work.

Gabrielle Wyn of Natural Resources Wales said, "The sooner we identify an invasive species - the more chance we have of successfully tackling it or removing it altogether. It will help put us on the front foot and will reduce the environmental and economic damage caused by these species. Working with the fishing and recreation industries is an important part of this project. They are best placed to spot these species early and reporting their finds will also benefit their businesses in the long term".

Dr Katherine Griffith, School of Ocean Sciences, Bangor University, said, "It is now widely recognised that invasive non-native species pose a significant threat to marine biodiversity and hence the functioning of coastal and oceanic ecosystems. Dr Stuart Jenkins and I have a long history of working in this area of research; our current project with Natural Resources Wales aims to develop a robust system for detecting marine non-native species (MNNS) during the early stages of establishment by working closely with the marine industries of Wales.

"Early detection of a MNNS would enable a wider range of management options, which should mitigate the economic and environmental costs associated with invasive MNNS. We hope that by raising awareness and encouraging early detection of MNNS we can increase the UK and Ireland's capacity to rapidly respond to new marine invasions successfully."

The project is due to be completed by the end of March 2015.

This coastal early warning system is linked to a larger UK and Ireland project which is also developing an off-shore system using settlement panels on buoys in the sea.

The aim of the network is to detect invasive species before they become a problem to biodiversity and industry. This covers the most 'high risk' areas for non-native species to arrive in the UK and Ireland.

Provided by Bangor University