



Project Report & Resources

Developing a Network of Volunteers to
Champion the Issue of Marine Alien Species



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Aim

The North Wales Marine Aliens Project was established with the aim of developing a network of volunteers engaged in the issues and reporting of marine alien species in North Wales.

Funders

This project was funded by Natural Resources Wales as part of the Marine Pathways Project.



This project supports the Marine Alien Species projects and research of:



Introduction

In early 2014 the Marine Alien Species Champions Project was established by North Wales Wildlife Trust (NWWT), funded by Natural Resources Wales (NRW) as part of the Marine Pathways Project. The Marine Pathways Project, undertaken by organisations within the UK and Ireland, contributes towards non-indigenous (alien) descriptor of the Marine Strategy Framework Directive (MSFD) of which achieving Good Environmental Status (GES) by 2020 is a central goal. This project aimed to establish a method of engaging with communities to create a network of volunteers knowledgeable with regards to issues of marine alien species in this region and beyond.

Engagement with local communities is an essential part of raising awareness of the issue of marine alien species. Often, these are the communities which are most impacted by them. As the “eyes and ears” on the ground for what is happening in their local environment they can provide an early warning system to the arrival and/or spread of alien species. However, continuity in engagement often falls short due to the difficulties in sustaining information flow, contact and feedback. Because of this the North Wales Marine Aliens Champions Project was piloted with the aim of establishing a sustainable method of raising awareness throughout North Wales.

Championing is an effective way of raising awareness and implementing conservation initiatives on a regional scale where more traditional awareness raising campaigns often fail. It involves empowering people, by providing them with information, training and support to communicate key messages across their networks. Champions are often instrumental in encouraging others to change the way that they interact with the environment. Peer pressure and leading by example is often more effective than top down authority.

This report details the work and resources created as part of a pilot project to establish a network of volunteers engaged with the issue of Marine Alien Species through Championing in North Wales. It details the processes we followed and evaluates the successes and, of course, where things have gone wrong and should be improved. By learning and trialling over the past year we have also made recommendations in taking Championing projects such as this forward. The report and associated appendices are intended to be used as a pack including information, resources and links to templates which can be used and adapted elsewhere.

A Marine Alien Species Champion is:

- An advocate for marine biosecurity and the issue of marine alien species.
- The first point of contact within their network.
- Part of a network of volunteers that have a keen interest in playing their part in reducing the impact of marine alien species.
- Knowledgeable in the key messages that needs to be communicated to the wider public and within their communities.
- Passionate, interested and willing to learn about the environmental issues which are impacting at local, national and global level.

A Marine Alien Species Champion:

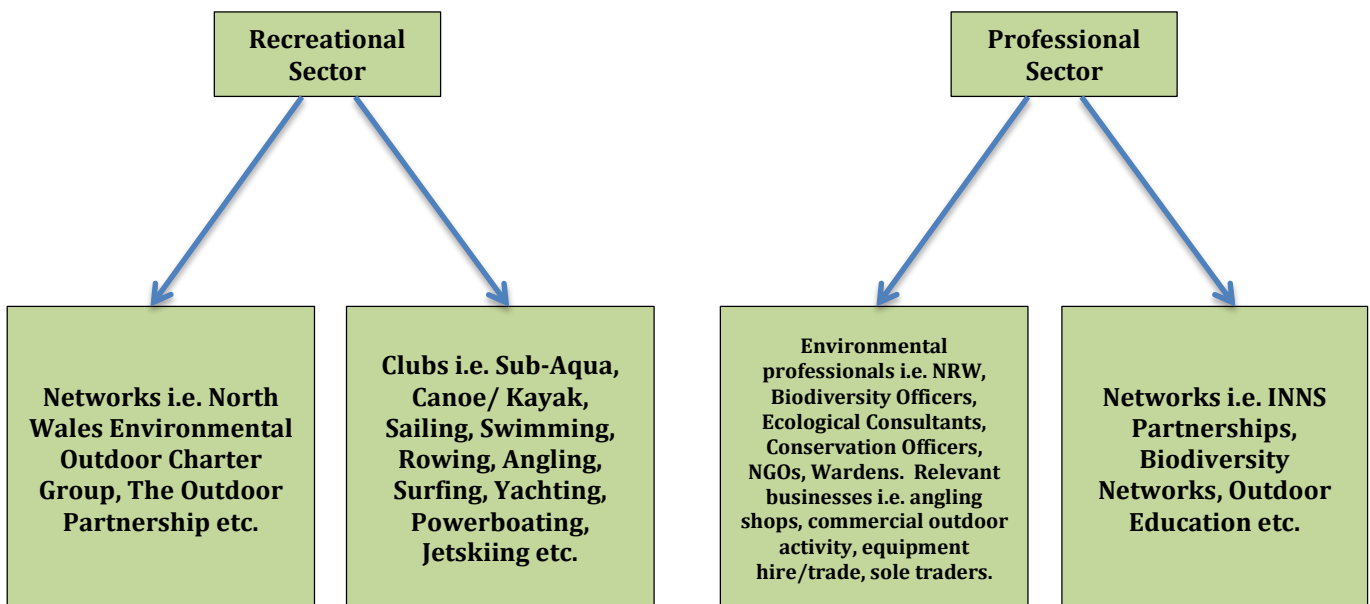
- Makes others aware of marine alien species, the issues they cause and biosecurity.
- Makes others aware of marine alien species initiatives.
- Works with other Champions to promote the issue of marine alien species.
- Leads by example and advises others with regard to biosecurity.
- Identifies and suggests opportunities for engagement with stakeholders.
- Liaise and provide feedback to the authorities and fellow Champions.

Developing a Marine Alien Champions Programme

Who are Potential Champions:

In short, a Champion could be anyone that has an interest and willingness to act as an advocate for the issues surrounding alien species introduction and spread. It is, however, important to allocate Champions within certain networks in order for the project to have the most impact. Because of this it is important to consider the interests of various networks of people.

In establishing this pilot programme, it was felt that a “community” should be considered a network of interest and activity groups rather than that of a geographical area. This allows resources and training to be targeted – ultimately being more useful and interesting to that particular group. It also enables key messages to infiltrate established networks rather than creating new networks that inevitably have far fewer members.



Review of Existing Programmes:

There are several programmes already in existence that promote various aspects of Marine Alien Species (MAS) control. It is important to identify these existing data pathways, projects and networks early on to ensure that effort and resources are not duplicated and that Champions are able to support current initiatives. By doing so this gives Champions access to a great deal of information, resources and the experts which are part of those initiatives. As a result of this initial work it was decided to promote/support:

- **Data/Sightings** to be sent to the Marine Biological Association (MBA) Sealife Survey.
- **Biosecurity** through GBNNSS Check, Clean, Dry Campaign.
- **Research** through Bangor University.
- **Field Survey** opportunities through MBA's Shore Thing! Project.

Appendix 1: Lists desk based research of alien species projects and initiatives.

Project Plan:

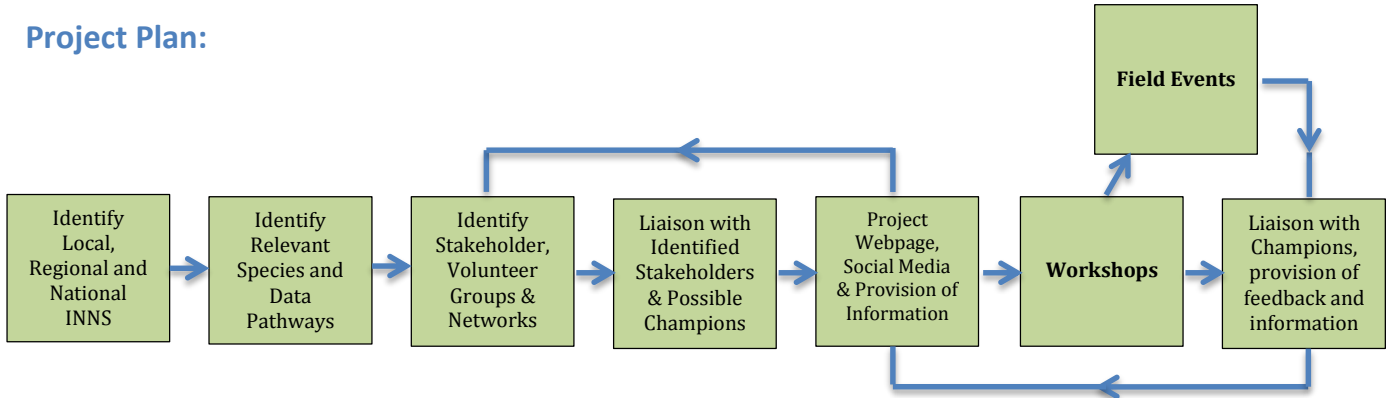


Figure 1: Shows a summary of the process which was followed in the NWWT MAS Champions Project.

[Appendix 2](#) shows the detailed version.

Standardising Terminology:

Standardising terminology was an important aspect in establishing this project as it was felt that terms can often be confused with one another and there are several terms which broadly mean the same.

Definitions as used within this project:

Alien Species: A species, subspecies or lower taxon, introduced (i.e. by human action) outside its natural past or present distribution; includes any part, gametes, seeds, eggs, or propagules of such species that might survive and subsequently reproduce. *(As defined by the GB Non-Native Species Secretariat)*

The primary term used in this project due to the fact that it is a more public facing term.

Non-Native Species, Non-Indigenous & Introduced: Though it can be argued that there may be small differences in the definition of these three terms these are the equivalent of “alien” species.

Invasive: An invasive alien species is any alien animal or plant that has the ability to spread causing damage to the environment, the economy, our health and the way we live.

Training & Support

It is important to realise that Champions are those who are willing to act as advocates for the issue of Marine Alien Species. They are not necessarily marine biologists or experts and as such it is crucial to provide the support and resources needed for that person to become knowledgeable and more importantly confident in taking their role as a Champion forward.

MAS Champions have access to:

- An introductory training day (**Appendix 3: Suggested Timetable**)
- A Champions Pack which includes information resources, template presentations, posters, useful links, logos and graphics. (**Appendix 4: List of Resources and Link to Online Pack**)
- Opportunity to participate in further training events and activities.
- Use of Champions Logo (**Appendix 5: Champions Logo**) on their organisation, network or group's promotional material.
- A printable version of the Marine Invasive Alien Species Champion webpages (**Appendix 6: Printable version of webpages**)
- Profile on North Wales Wildlife Trust's Marine Alien Species Champion **webpages**.
- Access to dedicated **social media network sites** and a mailing list which provides information on upcoming events, guidance and tips.

Introductory Training Day:

An introductory training day is an important aspect of any MAS Champion scheme as it allows time for people to learn about alien species but also to learn what may be expected of them as Champions. Networking is an important aspect of the training day and it allows potential Champions to meet members of staff that will be providing support and other opportunities. Inevitably not all participants in an introductory training day will become Champions.

A series of training events for three "communities" in North Wales to launch this pilot project was held in March 2014. **Appendix 3** details the schedule for the day and electronic versions of the Powerpoint presentations can be obtained by following this **link**. These presentations are freely available to be downloaded and adapted for use.

The communities were:

- Outdoor Activity Sector
- Environmental Professionals & Volunteers
- General Interest, Clubs & Activity Groups

A report detailing this pilot project can be found in **Appendix 7**.

Further Training & Field Work:

Although further training and fieldwork was not trialled during this pilot project we suggest that this is an incredibly important aspect of any Championing scheme. An introductory event followed by a series of ongoing training events and field activities allows Champions to develop their knowledge and interest.

Training events allow for:

- Learning
- Developing skills and interest
- Networking
- Action Planning
- Asking Questions

- Support
- Feedback

On-going Support & Feedback:

Championing the issues of marine alien species should not be just about a one-off training event and so in order to build up an effective network, project co-ordinators should support Champions providing feedback and information about developments in the field. This helps to keep the interest and helps keep Champions engaged in the scheme. Providing feedback is imperative in showing Champions that the work that they do can really make a difference.

There are several ways in which support, information and feedback can be provided:

- Training Days
- Field Work Days
- Social Media
- Newsletters
- Reports
- Blogs
- Website

Case Study

Catherine Miles: North Wales Environmental Outdoor Charter Group (NWEOCG)

The NWEOCG is a collection of outdoor activity providers who wish to ensure the sustainable management of activity venues whilst enabling a cohesive voice for consultation with external agencies, conservationists and land managers. Catherine is the Co-ordinator of the Charter Group and also a MAS Champion. Through her role as a Champion she helped organise a training day, included alien species in a booklet and shared videos and news regarding invasive species through the NWEOCG network.

“Support from this project has proven to be very beneficial to the NWEOCG which operates to ensure the sustainable development of outdoor activities. Outdoor instructors can and wish to play an important role in identifying and reporting alien species reflected by the popularity of a workshop aimed at the outdoor community. In addition, an invasive species section has been added to a waterproof field guide that has been produced for the north Wales coast.” – Catherine Miles

Lessons Learnt & Recommendations

The following are some bullet points which outline some of the lessons learnt whilst establishing this pilot project and recommendations we make in taking Championing projects forward:

- **If possible obtain and use real samples of alien species for ID training.**

One of the main comments received in the Introductory Training Day feedback forms was that, although ID cards and photos were provided, real specimen samples would have been much more useful.

- **Build in time and resources to ensure that you can give feedback, support and further training.**
The lack of follow up from the initial training day has meant that the pilot project has stalled. In re-launching the project this aspect and its resourcing will be built into a longer term project plan.
- **Invite specific individuals to become Champions.**
Even though an open invite for Champions was given during the training sessions as well as on the project website given the opportunity again we would invite specific people to become, or organisations to nominate, Champions. This ensures that although there remains an open invite that Champions are in place.
- **The role of a Champion should be clear**
It is felt that at the beginning of this pilot project the role of a Champion was not clearly identified and communicated. It is important to be clear from the beginning what a Champion is and what is expected of them.
- **Provide opportunities for networking and development through training and field events.**
Providing opportunities for Champions to continue training, meet each other and with experts is they key to foster interest and help develop the network of Champions.

Conclusion

There is a great deal of potential to create successful MAS Championing projects. Putting in place effective networks of people engaged with marine biosecurity and the issue of marine alien species is an efficient way of helping prevent the introduction and spread of alien species. Championing projects can become a way to create an active network that is up to date with recent developments and a way of engaging with thousands of people through a Champions own network. As in many cases, the importance of resourcing projects putting in time for feedback and contact is imperative.

Useful Links

North Wales Wildlife Trust: Information about the project, species and biosecurity information.

www.northwaleswildlifetrust.org.uk/what-we-do/living-seas/living-seas-projects/marine-invasive-non-native-species-project

North Wales Marine Alien Species Facebook: Created for people to ask, post and learn about marine alien species and related issues and to keep you all informed about upcoming events, talks, surveys and training course.

<https://www.facebook.com/groups/134092140026905/>

Marine Biological Association of the UK: To record your sightings and information about Marine Alien Species

www.mba.ac.uk/recording/

The Shore Thing: Learn about the Shore Thing initiative and how to get involved, there's plenty of information on here too.

www.mba.ac.uk/shore_thing/

GB Non-Native Species Secretariat: The secretariat has responsibility for helping coordinate the approach to invasive non-native species in GB. This website has plenty of great information, resources and the most up to date information. A whole section is dedicated to the Check, Clean, Dry Campaign.

www.nonnativespecies.org

Marine Aliens II: The website of a consortium which is coordinating research on the impacts of invasive non-native species in the UK. There's lots of information on here regarding the research going on as well as information about some of the most wanted species.

www.marlin.ac.uk/marine_alien

Mitten Crab Recording Project: A website dedicated to the Chinese Mitten Crab, there's plenty of information as well as information of where to record your sightings to.

www.mittencrabs.org.uk

Sealife Tracker: An App which aims to collect much needed data on both invasive and climate change indicator species. Download from iTunes store or Google Play for Android version!

Appendices

Appendix 1: Existing Projects & Initiatives

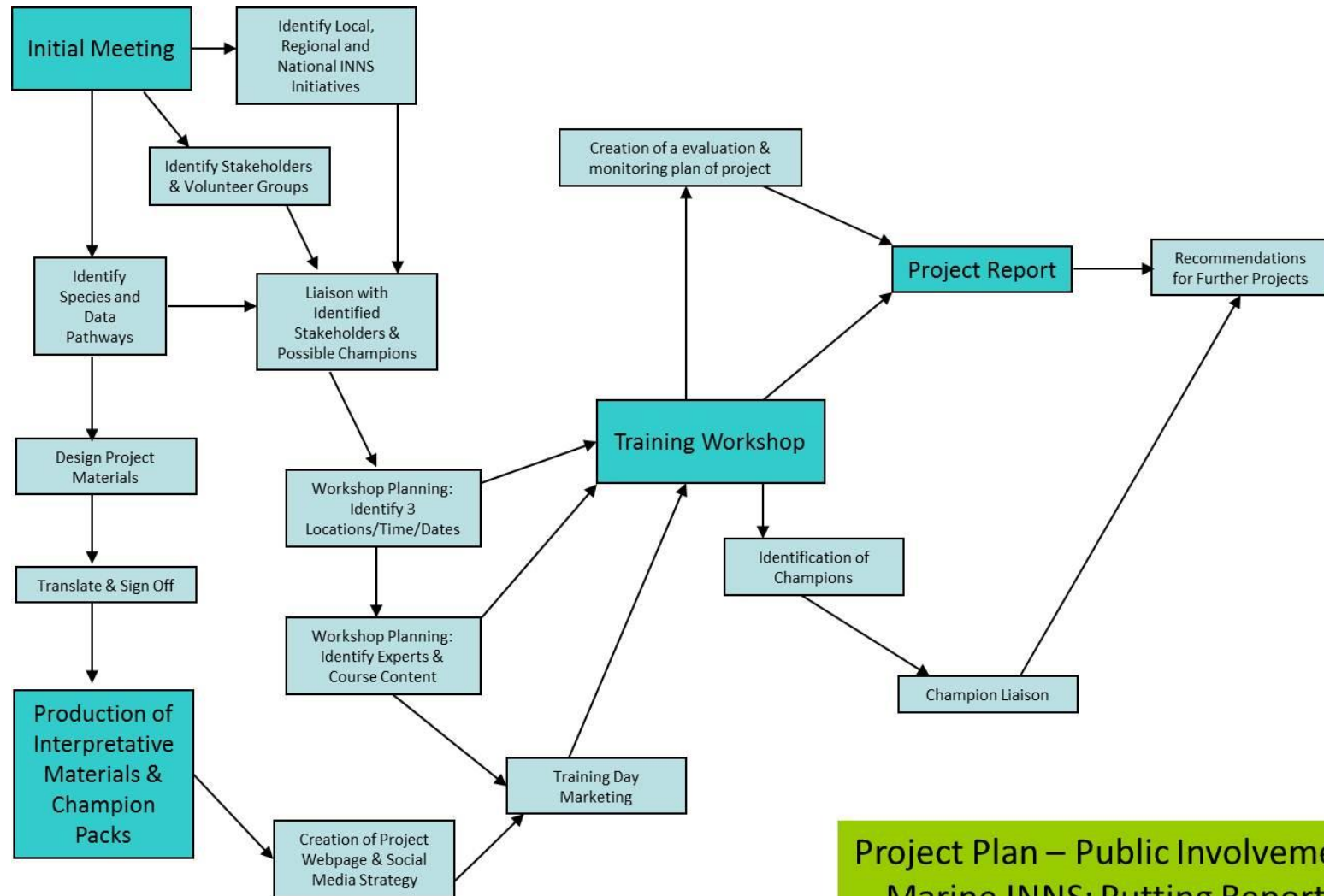
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A list of local and regional projects can be found by clicking **HERE**

<u>Global Invasive Species Information Network (GISIN)</u>	Provides a platform for sharing invasive species information at a global level.
<u>Delivering Alien Invasive Species Inventories for Europe (DAISIE)</u>	Provides a platform for sharing invasive species information at a European level. Feeds data to GISIN.
<u>GB Non-Native Species Secretariat (GBNNS)</u>	GBNNS is responsible for co-ordinating the approach to invasive non-native species in GB, responsible also for a Programme Board which represents the relevant governments and agencies.
<u>Non-Native Species Information Portal (NNSIP)</u>	The main aim of the NNSIP is to improve the recording and flow of non-native species distribution in Britain and provide a central repository of useful information accessible to all stakeholders. It is the pathway in which data collected by Champions is fed into global information repositories.
<u>Marine Biological Association (MBA)</u>	The MBA, along with BTO, are sub-contracted by the Biological Records Centre (BRC) to oversee the feeding of data to the Non-Native Species Information Portal (NNSIP).
<u>Wales Biodiversity Partnership Non Native Species Group</u>	The Wales Biodiversity Partnership is Welsh Government's mechanism of delivering the biodiversity duty under the Convention of Biological Diversity (CBD). The overarching aim of the WBP NNS Group is to minimise risk and reduce negative impacts caused by invasive non-native species in Wales. Reports to the GB Programme Board and is made up of Welsh Government, NRW, Academics and NGOs
<u>The Shore Thing!</u>	The Shore Thing is an initiative of MarLIN, the Marine Life Information Network, working with schools and community groups to collect information on the marine life of rocky shores around Britain.
<u>Marine Aliens II</u>	A consortium which is coordinating research on the impacts of invasive non-native species in the UK.
<u>Mitten Crab Recording Project</u>	A consortium of research institutes which are requesting mitten crab sightings from members of the public, anglers and waterway workers, to clarify the distribution of mitten crabs.
<u>Sealife Tracker</u>	An App which aims to collect much needed data on both invasive and climate change indicator species
<u>Seasearch</u>	A project for volunteer sports divers to map various types of sea bed and collect species information.
<u>MarLIN</u>	MarLIN provides information for marine environmental management, protection and education.

Appendix 2: Pilot Project Plan

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Project Plan – Public Involvement in Marine INNS: Putting Reporting Systems in Place

Appendix 3: Workshop Resources

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Introductory Marine Alien Species Workshop Schedule

Session 1 Introduction to the Workshop (10mins)

Session 2 An overview of Marine Invasive Species, what are they? Where do they come from and how do they spread? (40mins)

Session 3 Current Marine Alien Research (15mins)

Tea/Coffee Break *Chance to look at specimens, ID Guides*

Session 4 Species ID & Species to look out for in North Wales (30mins)

Session 5 How to Report your Sightings & Schemes to Get Involved in (15mins)

Session 6 Biosecurity (15mins)

Tea/Coffee Break *Chance to look at specimens, ID Guides*

Session 7 Becoming a Species Champion (15mins)

Session 8 Q&A (10mins)

Training Presentations

- Introduction to the Workshop
- An Overview of Marine Alien Species: What, Where & How?
- Species ID & Species Currently Relevant to North Wales
- How to Report Sightings & Schemes to get Involved In
- Biosecurity
- Becoming a Species Champion

Electronic copies of these files are available by clicking [HERE](#) (Dropbox Appendix Folder for now)

Appendix 4: Champions Pack

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Electronic copies of these files are available by clicking **HERE** (**Dropbox Appendix Folder for now**)

Template Powerpoint Presentations:

- Introduction to Marine Alien Species, Biosecurity & Reporting

Project ID Guides:

- Labelled Pictures for Use in Training Events & Powerpoint Presentations

Project Poster Templates:

- Event Poster
- Pop-Up

Images

Species Information

Useful Links

Other Resources Available:

- Check, Clean, Dry Foldout ID Guides (Bilingual) – Marine Animals & Plants
- Check, Clean, Dry ID Poster
- Shore Thing! Guide
- GBNNS ID Guides
- Check, Clean, Dry Signs

Appendix 5: Marine Champions Logo

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An electronic copy of this file is available by clicking [HERE](#) (Dropbox Appendix Folder for now)



Appendix 6: Printable Information Pack

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Marine Alien Species in North Wales

An alien species can be defined as “a species introduced (by human action) outside its natural past or present distribution”

When that species starts causing trouble it becomes known as an “**invasive**” alien species and is defined as “**a species that has the ability to spread causing damage to the native environment, the economy, our health and the way we live**”

Most marine alien species do not cause problems, others thrive and can have serious consequences for native wildlife and the habitats in which they live.

Alien species are often also known as non-native, exotic, introduced or non-indigenous.

Invasive species have caused 40% of animal extinctions in the last 400 years!

It is thought that there are over 40 alien species in Welsh waters, approximately 7 of these are thought to be invasive. For instance, several species of seaweeds have been found here in North Wales but only a few, wireweed for example, are fast growing and can outcompete local species. Although these are recent estimates this number is thought to be continually increasing.

Some species, such as the Pacific Oyster were introduced deliberately to be grown on farms, the escapees of which managed to establish populations elsewhere. Most however are introduced by accident and as shipping, recreational boating and aquaculture increases we're seeing more and more settlers. Many - hundreds of species - are transported around the world in the ballast water of ships or as fouling on the hulls. Some are known to have arrived on flotsam and jetsam and as the plastic tsunami in our oceans continue to rise the transport of aliens in this manner is set to increase.

Several factors facilitate a successful invasion, we often only know about the winners and many species arrive but do not take hold. Those that do are often resilient and can tolerate a range of different conditions. Often they breed faster, have high dispersal and grow faster than native species.

Although the introduction of invasive alien species is mainly out of our control, as people who love to be outdoors we can help prevent the spread within our patch. Once introduced to an area these species can quickly spread as eggs, larvae and viable plant fragments are carried around in our equipment or on clothing.

North Wales Wildlife Trust's Marine Aliens Project is part of the Marine Pathways Project, a multi-national project which aims to help prevent the introduction and spread of marine aliens by raising awareness of issues, preventing the spread and increasing the capacity to respond rapidly. For up to date information go to www.northwaleswildlifetrust.org.

American Slipper Limpet (*Crepidula fornicata*)

STRATEGIC PRIORITY SPECIES: American Slipper Limpets are known to be established in parts of South Wales and knowledge of distribution and spread is essential for management.

This interesting little beast forms curved chains of up to 15 animals and was discovered in Liverpool bay in 1872, the population then died out and it was re-introduced again to Essex in the late 1880s. A more recent invasion in North Wales was quickly stifled by a successful eradication programme.

American Slipper Limpets are likely to be seen at the extreme lower shore down to around 10m where they attach themselves to stones, shells and in sediment.

Pacific Oyster (*Crassostrea gigas*)

STRATEGIC PRIORITY SPECIES: Pacific Oysters are known to be widely established in Wales but knowledge of distribution and spread is essential for management.

The Pacific Oyster was deliberately introduced to the UK as a commercial species and sparse settlements of escapees are seen along the north Wales coast.

Pacific Oysters are likely to be seen on the lower shore fixed onto hard natural and artificial structures.

Japanese Kelp / Wakame (*Undaria pinnatifida*)

HIGH ALERT SPECIES: Wakame has recently been recorded in Wales.

Native to the west coast of Japan, Wakame is also known as Japanese Kelp. It was first found in the Solent, Hampshire in 1994. It is likely to have been introduced on the hulls of ships from France in the 70s, where it was accidentally introduced on imported Pacific oysters (and later introduced deliberately to be cultivated for food).

Wakame is likely to be seen at low tide growing on natural or man-made hard surfaces down to about 18m. Look out along the beach for detached Wakame.

Wireweed (*Sargassum muticum*)

STRATEGIC PRIORITY SPECIES: Wireweed is known to be established in parts of Wales, particularly along the Llŷn Peninsula & Anglesey but knowledge of distribution and spread is essential for management.

Native to the Pacific North West, Wireweed is likely to have been introduced to Southern England from France in the early 70s where it was initially introduced on imported Pacific Oysters. It is also known as Jap Weed.

Wireweed is likely to be seen growing on hard surfaces in very shallow water, often found in rockpools.

Asian Shore Crab (*Hemigrapsus sanguineus*)

STATUS: The Asian Shore Crab is native to the Western Pacific ocean from the coasts of Russia, along the coasts of Korea and China to Japan. There have now been several sightings in the UK, with one sighting in South Wales.

The initial recording for the Asian Shore Crab was in the British Isles on the north-west coast of Guernsey in 2009. In spring 2014, the Asian Shore Crab was recorded on the UK mainland, with 3 sightings in Kent, and one sighting in Glamorgan in South Wales. It is likely that the larvae of the Asian Shore Crab have been transported to European waters in ships ballast water. It is unclear how this species reached UK waters, however it was possibly through natural larval dispersal on water currents, hull fouling and through oyster transportation.

The Asian Shore Crab prefers shallow inter-tidal and sub-tidal zones where there are plenty of places to hide, such as seaweed and rocks. Their habitat overlaps with our native shore crab habitat and can be found under rocks, in rock pools, on rocky shores and around man made infrastructure.

Carpet Sea Squirt (*Didemnum vexillum*)

GB RAPID RESPONSE ALERT SPECIES: The Carpet Sea Squirt is known to be established in Holyhead Marina in North Wales. Eradication at a local, regional or national level may be possible and so a species alert has been issued as part of the GB rapid response protocol.

This highly invasive species was first discovered in the UK in 2008 by an MSc student in Holyhead Marina. Surveys of other marinas which followed showed it to be present in several others throughout the UK which implicate leisure craft as the primary factor in its spread. An eradication and control programme was quickly put in place.

Its spread is thought to be linked to the leisure craft industry so may be seen on hard surfaces in harbours and marinas however in Kent it is now known to have spread onto the seashore.

Chinese Mitten Crab (*Eriocheir sinensis*)

STRATEGIC PRIORITY SPECIES: Chinese Mitten Crabs are known to be established in the River Dee and knowledge of distribution and spread is essential for management.

Named after the dense brown fur that covers its white tipped claws this large crab species was first found in Germany in 1912 and has since flourished and spread throughout Europe. It is known to be established in the Dee and one has been recorded in the Conwy River, it is thought not yet to have taken hold elsewhere in North Wales.

This species is likely to be seen in estuaries and upstream into fully freshwater streams and tributaries. It can sometimes be spotted in the unlikeliest of places as it migrates downstream to breed.

Devil's Tongue Weed (*Grateloupia turuturu*)

STRATEGIC PRIORITY SPECIES: Devil's Tongue Weed is known to be established in Milford Haven and knowledge of distribution and spread is essential for management.

The aptly named Devil's Tongue Weed is thought to have arrived in the UK in the late 60s in the ballast waters of ships and on imported Pacific Oysters. This species seems to prefer protected rockpools as it is unable to survive very cold water.

Devil's Tongue Weed is likely to be seen in sheltered marinas, harbour and bays. It is a shallow water species that is tolerant of low salinities.

Green Sea Fingers (*Codium fragile fragile*)

STATUS: Green Sea Fingers are native to the Pacific Ocean around Japan and Korea. They are now found in the UK, reported in waters off the Scilly Isles, the Channel Islands, areas of South Wales and the South coast of England and also as far as the west coast of Scotland and Argyll.

Green Sea Fingers spread rapidly throughout European waters in the 1900's, with the first UK sighting being in the Yealm Estuary in Devon in 1939 where it was found growing on oyster shells. It is not known how this species got into Europe, however since then it has been spread through the movement of shellfish and on ships hulls. Man-made structure act as corridors for dispersal into habitats where green sea fingers would not usually occur.

Green Sea Fingers prefer protected and sheltered bays and estuaries, although they also occur on semi-exposed shores. They are found on rocks and coralline algae in pools, and open rocks on the shore. On sandy or muddy shores this species will attach itself to shells, rocks and man-made structures.

Harpoon Weed (*Asparagopsis armata*)

STATUS: Harpoon Weed in Wales has only been recorded on the Llŷn Peninsula and in areas of South Wales; however it is more common in South West England and has spread as far as the Shetland Isles.

Harpoon Weed originates from Australia and New Zealand. It was first recorded in Galway Bay in Ireland in 1939, and its first GB recoding was in the Bristol Channel in 1949. Harpoon Weed has two stages; the gametophyte stage which hooks its self onto other seaweeds, and the Falkenbergia stage, which travels easily as floating balls. The most likely method of spread to the UK is on surface current drifts, from invasive populations in European waters.

The gametophyte plant is found mostly in summer, in deep tidal pools on the lower shore or in shallow sub tidal waters where it hooks itself onto seaweeds, rocks and man-made structures. The Falkenbergia plant occurs all year round and attaches itself to other marine plants and is sometimes free-living.

Japanese Skeleton Shrimp (*Caprella mutica*)

STATUS: The Japanese Skeleton Shrimp is native to the sub-boreal waters of North East Asia, but is now found in UK waters on the south coast of England, the west coast of Scotland and the Western Isles. There are limited reports of this species in Wales.

The first recoding of the Japanese Skeleton Shrimp on the UK was in 2000, with it being recorded on a salmon farm near Oban, Scotland. Numbers are estimated in some parts of Scotland to be up to 300,000 individuals per square meter! Records of this species for

Southern England and Wales started in 2003. It is believed that the Japanese Skeleton Shrimp was accidentally transported on ship hulls and aquaculture equipment.

Bedrock, drifting seaweed and artificial materials such as buoys, ropes, floating pontoons and boat hulls are common places for the Japanese Skeleton Shrimp. They are often associated with areas of marine human activity such as marinas, harbours and aquaculture sites.

Leathery Sea Squirt (*Styela clava*)

STATUS: Leathery Sea Squirt is native to the North West Pacific, around the coasts of Japan and Korea and parts of the Russian Federation and China. It is now found in parts of the UK, predominantly the south coast of England, however it also occurs on the west coast of Wales and Scotland. There have been recordings in Anglesey and the Llŷn, as well as other parts of North Wales.

This invasive species is now very well established in the UK, with the first recording being well-grown specimens in Plymouth Sound, Devon in 1953. These are presumed to have been brought over on the hulls of warships returning from the Korean War for repair and maintenance in Plymouth Docks.

Leathery Sea Squirt occurs in shallower water, particularly around marinas and harbours. They also occur on natural rock bottoms, sea wrecks and man-made structures closer to the surface.

New Zealand Flat Oysters (*Ostrea chilensis*)

STRATEGIC PRIORITY SPECIES: New Zealand Oysters are known to be established in the Menai Strait, they are not known to be invasive, but knowledge of distribution and spread is essential for management.

New Zealand Flat Oysters were introduced to Conwy deliberately as a commercial species but died out during a severe winter in 1963. They were later introduced to the Menai Strait and have spread very slowly since.

Orange Cloak Sea Squirt (*Botrylloides violaceus*)

STATUS: Also known as the Orange Sheath Tunicate, the Orange Cloak Sea Squirt originates from Japanese waters where it was first discovered in 1927. It has been found in few areas of the UK, including Milford Haven and the south west coast of England.

The Orange Cloak Sea Squirt was first recorded in the UK in 2004 in 6 different marina locations. This suggests that this invasive species was established in UK waters long before its initial finding. The most likely introduction of the Orange Cloak Sea Squirt is through accidental introduction with commercial oysters. This invasive species was recorded in Northern France only a few years before the first UK recording, so it is likely that the UK population spread from Europe.

The Orange Cloak Sea Squirt is likely to be found on natural shores on seaweed and solid surfaces, as well as made-made marine infrastructure such as in harbours and marinas on ropes and floating pontoons.

Orange Tipped Sea Squirt (*Corella eumyota*)

LOW RISK ALERT SPECIES: The Orange Tipped Sea Squirt is known to be present in North Wales and not thought to be invasive.

This species is a non-colonial species of sea squirt that can form dense clumps which may become a problem. It was first discovered in 2004 in Brighton Marina and thought to originate from the Southern Hemisphere.

This species is likely to be seen in marinas and harbours but also along sheltered rocky or muddy coastlines at low water.

Rapa Whelk (*Rapana venosa*)

HIGH ALERT SPECIES: Rapa Whelk have not yet been recorded in Wales however, they are likely to arrive and will quickly spread.

Native to the Far East the Veined Rapa Whelk was first introduced to the Black Sea in 1940s and in 2005 the first North Sea sighting was recorded.

Rapa Whelks are likely to be seen on sandy bottom in fully marine and brackish estuarine waters, during the spring they may congregate on hard surfaces.

Red Ripple Bryozoan (*Watersipora subtorquata*)

HIGH ALERT SPECIES: Red Ripple Bryozoan is not yet recorded in Wales however, it is likely to arrive and will quickly spread.

This rigid, encrusting colony was first recorded in Plymouth in 2008 and its origin is yet to be determined.

Its spread is thought to be linked to the leisure craft industry so may be seen on hard surfaces in harbours and marine however in France it is known on natural surfaces.

Interested in becoming a Marine Alien Species Champion?

As a Champion you will:

- Act as an advocate for the issue of marine alien species and biosecurity.
- Act as a point of contact for people within your network and with the authorities.
- Take an active role within a network of volunteers that have a keen interest in communicating key messages and reducing the impact of marine alien species.
- Keep an eye out for marine alien species and take an active role in helping others to do so.
- Lead by example.

As a Champion you will have access to:

- An introductory training day.
- A Champions Pack which includes information resources, template presentations, poster, useful links, logos and graphics.

- Opportunity to participate in further training events and activities.
- Dedicated social media network sites and a mailing list which provides information on upcoming events, guidance and tips.

Appendix 7: Funding Report

[\(Back to Report\)](#)

Adroddiad
Prosiect Rhywogaethau Estron Gogledd
Cymru
Marine Alien Species North Wales
Report



Pickled Chinese Mitten Crab, taken by Carol Horne



Mae'r adroddiad hwn yn rhoi manylion y gwaith a wnaed yn ystod Gaeaf 2013/2014 i sefydlu Prosiect Rhywogaethau Estron Gogledd Cymru gyda'r nod o ddatblygu rhwydwaith o bobl sydd wedi ymgysylltu â materion rhywogaethau estron morol ar draws Gogledd Cymru i ddarparu system rhybudd cynnar am unrhyw gyflwyniadau newydd yn ogystal â helpu atal lledaeniad.

This report details the work undertaken during the Winter of 2013/2014 to establish the North Wales Marine Aliens Project which aims to develop a network of people engaged in marine alien species issues across North Wales to provide an early warning system for any new introductions as well as help preventing the spread.



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

**Ariannwyd y prosiect yma gan
Cyfoeth Naturiol Cymru fel rhan
o'r Prosiect Llwybrau Morol**

**This project was funded by
Natural Resources Wales as part
of the Marine Pathways Project**

Ac yn rhoi cefnogaeth i prosiectau ac ymchwil rhywogaethau estron...

And supports the alien species projects and research of...



Introduction

The North Wales Marine Aliens Project was established with the aim of developing a network of volunteers engaged in the issues and reporting of marine alien species in North Wales.

Engagement with the local community is an essential part of raising awareness of the issue of marine invasive alien species due to the fact that these are the communities which are most impacted by them. By acting as the "eyes and ears" for what's happening in their local environment these communities can provide an early warning system for alerting the authorities to the arrival or spread of marine alien species.

Through this project resources would be produced and workshops held which would allow three local communities to become involved in practical conservation work. Our aim is to put in place three champions within these communities which would act as a focal point for sharing information between those organisations, members of the public and statutory nature conservation organisations. Species champions will be knowledgeable in the key messages that we wish to communicate to the wider public and within their communities. They will have direct links to reporting and feedback structure and help prevent introductions and spread by providing local peer pressure to change behaviour, which often is more effective than pressure from the authorities.

Thought was put into how to develop the project in a way that will compliment existing projects and schemes in the hope that this would help ensure the longevity of the project beyond its funding.

Workshops: Target Audience

Three communities were targeted during this initial project. The three were chosen based on interest groups rather than on a regional basis so that each workshop could be adapted to better suit those communities by placing emphasis on different aspects of Marine Alien Invasives, their identification and good practice in biosecurity.

The three communities are as follows:

- Outdoor Activity Sector
- Environmental Professionals & Volunteers
- General Interest, Clubs & Activity Groups

The workshops were held:

Wednesday 26th Feb 19:00 - 21:30 – *Introductory Marine Aliens Workshop at Plas y Brenin*

Friday 28th February 10:00 – 12:30 - *Introductory Marine Aliens Workshop at Anglesey Sea Zoo*

Saturday 1st March 10:00 – 12:30 - *Introductory Marine Aliens Workshop at Eirias Park, Colwyn Bay*

The workshops were advertised through mailing groups, Facebook and by invite. See overleaf for the workshop posters which were designed specifically to each target audience.



Free Training Session

MARINE ALIEN SPECIES



This training session will help instructors learn the basics about marine invasive alien species, how to minimise the spread and how as a community they can contribute vital data.



Wednesday 26th February

7pm – 9.30pm

Plas y Brenin, Capel Curig

Refreshments & Food will be provided.

To book your place or for more information please e-mail niajones@wildlifetrustswales.org or call (01248) 351541



www.northwaleswildlifetrust.org.uk

01248 351541



Charity number / rhif elusen : 230772
Company number / rhif Cwmni : 773995



Bydd y sesiwn hyfforddiant yn helpu gweithwyr a gwirfoddolwyr amgylcheddol i ddysgu gwybodaeth sylfaenol am rywogaethau ymledol morol, sut i'w adnabod, sut i leihau lledaeniad a sut, fel cymuned, gallant gyfrannu data hanfodol.

This training session will help environmental professionals and volunteers to learn the basics about marine invasive alien species, identification, how to minimise the spread and how, as a community, they can contribute vital data.



Gweithdy

RHYWOGAETHAU YMLEDOL MOROL

MARINE ALIEN SPECIES

Workshop

28/02/2014 10:00am – 12:30pm

Sŵ Môr Môn

Bydd bwyd a thaith dywys o'r
Sŵ yn cael ei darparu.

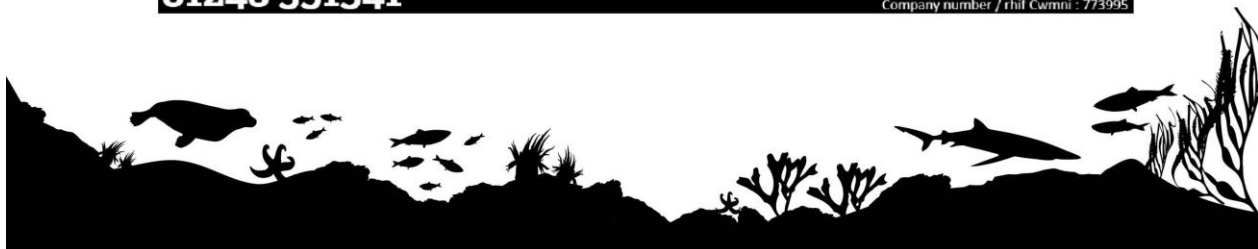
I archebu eich lle neu am ragor o wybodaeth,
anfonwch e-bost neu ffoniwch

Anglesey Sea Zoo

Food and a free guided tour
of the Zoo will be provided.

To book your place or for more information
please e-mail or phone

niajones@wildlifetrustswales.org





**Gweithdy Rhywogaethau
Ymledol Morol
Marine Alien Species Workshop**

01.03.2014

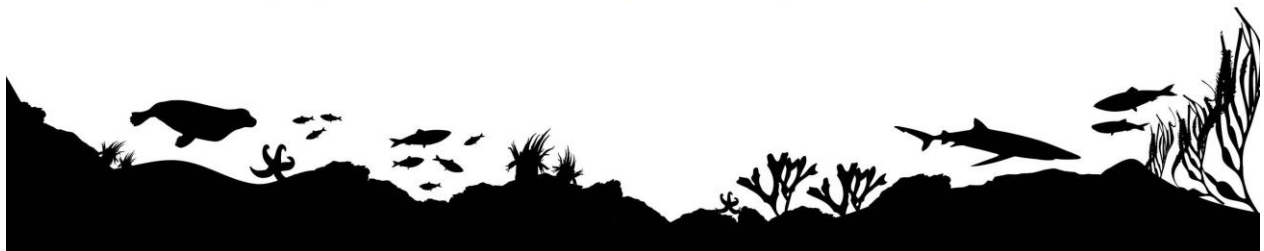
10am-12.30pm

Parc Eirias, Bae Colwyn. Eirias Park, Colwyn Bay.

I archebu lle: To book: **01248 351541**

niajones@wildlifetrustswales.org

Ewin Moch / Slipper Limpet © Paul Brazier



Workshop Summaries

Workshops were structured as follows:

Session 1: Marine Alien Species: An Overview

Session 2: Species ID & Species to Look Out For in North Wales

Session 3: Current Marine Alien Research

Session 4: Biosecurity

Session 5: How to Report your Sightings & Schemes to Get Involved In.

Session 6: Shore Thing! (environmental professionals and volunteers session only)

Copies of the presentations can be provided electronically.

Plas y Brenin Workshop

This workshop was held with the Outdoor Activity sector in mind and took place on a weekday. The workshop was held in partnership with the North Wales Environmental Outdoor Charter Group and those attending should they wish could claim Continuing Professional Development Credits with the Mountain Training Association. Dr Kate Griffith from Bangor University gave a talk on Bangor University's current research.

A total of 29 people attended.

Several freelance instructors attended as well as representatives from the following organisations, businesses and outdoor activity centres:

Proadventure, Plas Caerdeon Outdoor Education Centre, Bush Craft Calling, Marle Hall Outdoor Centre, Dwr Cymru, The Outdoor Partnership, Coastal Spirit, Plas y Brenin, Arthog Outdoor Education Centre, CMC Pensarn Harbour.

Anglesey Sea Zoo Workshop

This workshop was held with Environmental Professionals and Volunteers in mind and took place on a weekday morning. Lunch was provided along with a guided tour of the Sea Zoo. Fiona Crouch attended to talk about the Shore Thing and how organisations could get involved. Dr Kate Griffith attended to give a talk on Bangor University current research.

A total of 26 people attended.

Several organisation were represented in the workshop which include:

Conwy County Council, Field Studies Council, Natural Resources Wales, BHP Billiton, North Wales Wildlife Trust, Seasearch, Maritime Voluntary Service, Ysgol Bodedern and Glyndwr University.



Workshop Summaries

Eirias Park Workshop

This workshop was held as an open session and was widely advertised though specific clubs and activity groups were invited directly. It was a Saturday morning session held in a central location.

A total of 13 people attended.

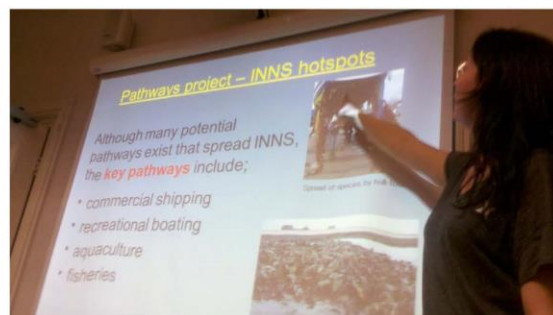
The attendants of this session were mainly local however the organisations represented are as follows:

Janet Finch Saunders AM, Gwynedd Sub-Aqua Club, Natural Resources Wales, North Wales Wildlife Trust, Chester Sub-Aqua Club.

Feedback forms filled in at each workshop event are available on request.

Workshop Resources

Several information leaflets and brochures were handed out at the workshops. Those with a Centre were also given a metal Check, Clean, Dry Information Board. Attendants were asked to fill in a mailing list should they wish to be kept informed about the project and other Living Seas work to which 25 people signed on.



Resources & Information

Project webpages have been established at <http://www.northwaleswildlifetrust.org.uk/what-we-do/living-seas/living-seas-projects/marine-invasive-non-native-species-project>



These pages have general information, species information, biosecurity and links to project partners. It is a fully bilingual resource which will be continually updated to include new information.

A Facebook Page has been set up so that Species Champions and interested parties can join in to find out more information as well as get the most up to date information regarding Marine Alien Species research, discoveries and opportunities.

Dependent on the interest and enthusiasm of the Champions a Twitter account may be set up over the following months.

Currently a resource pack for Species Champions is being created. This will include Powerpoint presentations, crib sheets, useful links and activities. An event pack will also be created which includes a pop up. Champions will be able to take these with them to shows and events.

Through this project we were able to fund two extra pages for a waterproof guide for outdoor instructors, those pages include species ID, biosecurity logo and information about how to report their sightings. This guide will be available in June.

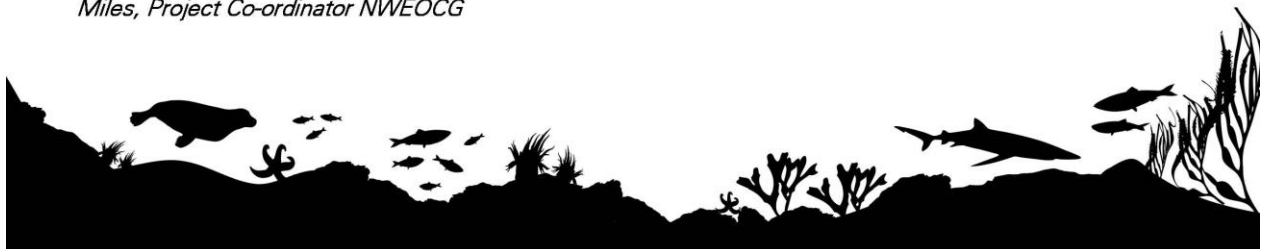
To date two articles have been written about this project and on the topic of Marine Invasive Alien Species which are:

Evening Leader: The Wild Side - A weekly look at the natural world with Nia Haf Jones : January 2014

Network News February 2014: Alien Invaders

The project was presented at the Marine Non-Native Species Monitoring: Sharing Best Practice Across the Channel Discussion Workshop in Plymouth on the 5th & 6th March.

"Support from the North Wales Wildlife Trust through the Marine Alien Invasive Species Project has proven to be very beneficial to the North Wales Environmental Outdoor Charter Group which operates to ensure the sustainable development of outdoor activities. Outdoor instructors can and wish to play an important role in identifying and reporting alien species reflected by the popularity of the Marine Invasives workshop aimed at the outdoor community. In addition, the Marine Alien Invasive Species Project has made an invaluable contribution to the waterproof field guide we are currently producing for the north Wales coast. Without such an input it a great opportunity to educate on marine non-native species would have been missed." Catherine Miles, Project Co-ordinator NWEOCG



Further Recommendations & Future Work

1. Although the ID session included the use of laminated ID photos a recurring comment in the feedback forms from all three workshops is that samples should have been included. This would make workshops more interactive and the ID session more useful.
2. Potentially the biggest problem that we face is that new information is not disseminated regularly through social media and/or mailing lists. In order to keep momentum of this project as well as the interest of Species Champions up to date information must be disseminated as soon as possible.
3. Survey events tying in with national initiatives such as Shore Thing should be organised within schools and within local communities.
4. The introductory workshop should be held in further venues.
5. The role of the Species Champion needs to be identified and outlined more clearly.
6. A Project Communication Plan should be drawn up and put in place as soon as is possible.

