

Leisure Community Marine Biosecurity Meeting Clydeport, Greenock 30/10/2018

Attendees: Caroline Baxter (PPG), Suzanne Bell (Rhu Marina), Jan Brooke (PPG), Iain Diamond (Holy Loch Port), Alison Downs (Holy Loch Port), Carolyn Elder (Largs Yacht Haven), Brian Forrest (PPG), Simon Limb (Clyde Marina Ardrossan), Ian MacKenzie (Royal Gourock Yacht Club), Clive Reeves (Clyde Yacht Clubs Association), Lisa Reilly (PPG).

Apologies: Kip Marina

Peel Ports undertook a biosecurity workshop to understand what actions recreational users and marinas are taking on invasive non-native species (INNS) on the Clyde. The workshop was called to understand the risk of INNS transfer and share experiences on good working practice. If good practice is not applied, recreational users have a high potential to transfer INNS as they often move across different waterbodies over a short time frame. Preventing the introduction of INNS requires a regional approach and stakeholder engagement to be successful long term. The workshop was a useful, open discussion and the intention is to use this group as a focus for future dialogue on good practice.

What species area already known to be present on the Clyde

Carpet Sea Squirt known to be present at Largs Yacht Haven since 2009. Ballast water exchange associated with coal transport at Hunterston may have been the main source of introduction. Some INNS are adapting to become tolerant to some contaminants (see [here](#) and [here](#)). Below is a list completed by all stakeholders, of the INNS known to be present in the Clyde. Species listed in the 2012 Firth of Clyde Biosecurity Plan are also included on the list.

Common name	Latin name	confirmed as present by attendees	noted in Firth of Clyde Biosecurity Plan
Wire weed	<i>Sargassum muticum</i>	Y	Y
Orange tipped Sea Squirt	<i>Corella eumyota</i>	Y	Y
Japanese killer shrimp	<i>Dikerogammarus villosus</i>	Y	
Slipper limpet	<i>Crepidula fornicata</i>	Y	
Green sea fingers	<i>Codium fragile</i>	Y	Y
Carpet Sea Squirt	<i>Didemnum vexillum</i>	Y	Y
A bryozoan	<i>Tricellaria inopinta</i>		Y
A hydroid	<i>Cordylophora caspia</i>		Y
Acorn barnacle	<i>Elminius/Austrominius modestus</i>		Y
An orange sheath tunicate	<i>Botrylloides violaceus</i>		Y
Common cord-grass	<i>Spartina anglica</i>		Y
Japanese skeleton shrimp	<i>Caprella mutica</i>		Y
Leathery sea squirt	<i>Styela clava</i>		Y

Why is Peel Ports interested in biosecurity?

- INNS cost the UK up to £2 billion each year
- For Peel Ports fouling, smothering and burrowing species are of particular concern.
- Pathways of INNS transfer often linked to human activity. Species are being transported outside of their natural range; the two main pathways for this in Ports are ballast water exchange and INNS attached to hulls through biofouling. Ports have only a limited role as regulators; ballast water exchange is regulated internationally. Increasing changes in climate mean that INNS have increased chances of surviving and reproducing in their new environments and potentially out competing native species. The cost associated with the removal of INNS can often be very high, for example the Trumpet Tube Worm (*Ficopomatus enigmaticus*). This species can form extensive reefs over a very short time period, in an enclosed dock system this would be extremely difficult to remove once established and very costly if dredging to maintain berthing depth is compromised. Therefore Peel Ports has particular concerns surrounding biosecurity because of the commercial risks INNS pose.
- Fouled vessels and structures are inefficient and removal of species can be complex and costly.
- Potential transfer of INNS through dredging and disposal.
- Regulatory attention to INNS is growing; Water Framework Directive 2000, Marine Strategy Framework Directive 2008, Maritime Spatial Planning Directive 2014, Ballast Water Management Convention 2017.
- Potential opportunity in vicinity of KGV Dock, Clydeport, for biofouling removal using fresh water to kill marine species. This is still in very early stages and more extensive research needs to be undertaken by Peel Ports to understand if this is possible and safe to reduce INNS transfer.

What is already being done to reduce the risk of INNS introduction and spread on the Clyde?

- **Firth of Clyde Biosecurity Plan** - This follows a 3 stage approach: prevention, rapid response, control and containment. To facilitate rapid response sightings of INNS should be recorded on the GBNNSS website (for sightings in any part of Great Britain) or via SEARS (info@sears.gov.uk). During control and containment, eradication programmes are often put in place for INNS where it is unlikely that their establishment can be prevented. The plan slightly out of date as it was published 2012, during which time there were only a few INNS known to be present in the Clyde. The importance of stakeholder engagement for a successful Biosecurity Plan is emphasised throughout. The many different pathways of INNS transfer in the Clyde are identified such as hull fouling, ballast water exchange, escape or release of INNS from aquariums, transfer via marine debris/litter or fishing equipment. Monitoring of the plan is critical to assess its effectiveness and understand changes in the distribution of INNS within the Clyde. There is a strong focus on the threat to biodiversity because of INNS; in addition to biodiversity issues Peel Ports has a particular concern about species that present a commercial risk.
- **Rhu Marina** - Developed a draft Biosecurity Plan which advocates best practice, this highlights the risk of biosecurity to the marina. Rhu Marina has found it is difficult to understand who they should be reporting to, in Scotland the environmental authorities for species control provisions are Scottish Ministers, SNH, SEPA and the Forestry

Commission so it is likely these are the authorities who Rhu should be reporting to if INNS are found on site. Hand out notification books for people working within the marina so that they can identify any potential INNS.

- **CMPP** – Policies for new development and activities. Unclear if this will include an update of Clyde wide Biosecurity Plan. Clyde 2020 may look in to biosecurity but it is not clear when this will be or who will lead on this.
- **Largs Yacht Haven** – Encourages regular lifting out of vessels for cleaning; during which a separator tank is used to collect debris which is bagged and sent to landfill. Largs Yacht did experience a problem with Carpet Sea Squirt, organisms were removed, bagged up and sent to landfill. Also a program to remove any ropes or other debris across the port to ensure INNS are not seeking refuge on debris and able to survive and reproduce. Education programme amongst users and workforce emphasises check, clean dry.
- **Clyde Marina** - Clause in handbook terms and conditions to allow heavily fouled vessels to be removed from water if they are thought to pose a significant risk to INNS, cleaned and the cost back charged to the owner. Hull cleaning is a closed loop system and filters water using carbon filters and flocculants, based on The Green Blue case studies, debris is collected, bagged and disposed of to landfill. This introduces a problem of trade waste, as the debris from hull cleaning now becomes the responsibility of the harbour to dispose.
- **Peel Ports** - Issue notice to mariners for INNS that have been found in close proximity to ports. Collaboration with marinas and other stakeholders through workshops to understand existing practices and work collaboratively with stakeholders to develop a Biosecurity Plan for each port long term. Commissioning ABPmer to undertake a literature review of INNS present at all of Peel Port sites (see below for further information).
- **Agreed good practice for all ports and marinas** – Education; making users and co-workers aware of best practice, encouraging colleagues to attend INNS identification courses. Annual lifting of boats advised. Referring users to The Green Blue literature. Co-operation with SAMS and working with university students for research purposes.

Peel Ports Marine Biosecurity Initiative

- INNS could ultimately affect Peel Ports ability to carry out statutory duties to maintain safety of navigation.
- Peel Ports is in the early stages of developing a biosecurity plan for Clydeport. Biosecurity plans will be developed for each port in line with the wider context of marine planning, in the case of the Clyde this will be within the Clyde Regional Marine Plan.
- ABPmer are currently undertaking a desk based study on behalf of Peel to review known INNS present in each of their ports, results for the Clyde will be available to Marinas within the leisure community. Peel Ports is not currently planning to carry out a survey of species in each port, not least because this would only provide a snapshot in time of what species are present. Rather, good practice measures are being identified.

- Highlighting the risk of INNS in tide tables to reach both commercial and recreational users.
- Social media will be used during future sailing events to advertise on the potential to transfer INNS and advise hull cleaning prior to arrival to limit the risk of INNS transfer.

Increasing awareness of INNS going forward

Green Blue guidance to be added to the Peel Ports Clydeport leisure guide. Awareness raising through RYA. CYCA – Potential to send out INNS information in post to members. Clyde mooring committees for licencing. Advise on the potential cost savings of cleaning hulls such as increased fuel efficiency.

During events posters and leaflets already advise check, clean dry. Event registration pages to include a pop up of INNS advice such as a link to The Green Blue guidance on INNS to ensure the message on check clean dry reaches a large audience. Social media to also be used to increase awareness of check, clean dry; enabling the message to be presented in a different way and reach a different audience. It is important people understand why INNS matter and the benefits of following good practice are presented for both recreational and commercial users. Reaching a younger audience such as Sea Cadets, and Scouts, possibly a note to be added to The Green Blue literature for children. Animation of INNS to create a strong image and awareness of INNS amongst recreational users.

Actions

ICOMIA – Antifoulants news to be distributed amongst attendees	JB
Draft Clyde Marine Plan to be checked for any policies on INNS	LR
What items do Peel Ports have in each of our ports e.g ropes that could provide refuge for INNS?	LR/JB
NNSS Link to be sent to attendees in addition to NtM issued by Peel Ports for Carpet Sea Squirt in England and Important notice issued by Clydeport for Carpet Sea Squirt.	LR
Understand the resources used by Australia and New Zealand to raise awareness of INNS – e.g youtube	LR
Clyde Marina booklet provided. Example of T+Cs condition to be provided to LR	SL – Complete
Note on INNS to be included on Peel Ports leisure guide and tide tables	LR/JB
Highlight news on INNS/events that other recreational users could share on different social media platforms.	All