

Workshop output

Aquaculture

General Comments

Where do they go – focus energy there?

Clyde – gateway to many places

Focus on specific areas, eg Etive – trout, mussels, marina

What is reasonable to do?

Map up areas of priority – farms, marinas, shipping channels, leisure boating routes.

Are they present or not and is the risk high/med/low?

Pacific oyster not a problem 'yet', pacific salmon, crayfish

Scottish supply – hatchery

Pathway analysis

| Potential Pathway to and from aquaculture | Action | Stakeholder |
|---|--|----------------------|
| Moving stock – spat, transport medium (crayfish and trout), hitchhikers Wellboats Stock (crayfish, spat from elsewhere, hitchhiking oyster drills clams, lobsters??) Movement of equipment | Biosecurity Plan to include INNS as well as disease Risk based approach (high /med/low) mapping areas to inform actions. Monitoring frequency and identify - training of husbandry staff in identification. Contingency Plan – response. Wellboats stick to biosecurity plans. | Aquaculture Industry |
| Other vessels – fishing and leisure | Raise awareness | FoCF, industry reps |

Raising Awareness

Include invasives in equipment check – hard structures are preferred substrate.

On site survey – look for anything different

Risk based approach – identify risk species and risk areas

Exchange of information

Insurance – liability

Effective Biosecurity

| Stakeholder | Message | Mechanism of Delivery |
|-------------|----------------------|-----------------------|
| Farmers | Be Aware | Training SSPO |
| Insurance | Liability? | |
| All | Exchange Information | |
| IFG | | |

Monitoring, reporting

Monitors could be MSS, rangers, beach cleaners

Stakeholder – big company has scale

Legislation would be a different approach

Get message out

Incorporate into existing biosecurity plan

Report new sightings – anything different?

Fear of reporting results in restrictions

When do you react? By time it is identified it's too late?

Contingency Plans

Identify, confirm, report to MSS, on back of existing

Who: Firth of Clyde Forum Group

Marine Transport

Pathway analysis

| Pathway | Action | Stakeholder |
|---------------|--|--|
| Ballast Water | <p>IMO not fully ratified – how do IMO rules apply to Clyde geography?</p> <p>Most ships arrive loaded so only take on ballast water from the Clyde. Duty of care for what we send back. Is treatment 2-ways, ie intake as well as discharge?</p> <p>Understand local tidal currents</p> <p>Comply with guidelines Self-policed Role of 'Border Control'</p> | <p>Shipowner / operator Port Authority Border Control</p> <p>Species: mitten crab, skeleton shrimp</p> |

| | | |
|--|---|--|
| Hull (ship or navy sub) Other mobile moorings | Clean hulls and use antifouling – need good understanding of how system of hull condition monitoring and cleaning takes place. How do you assess the risk of any one vessel? Quarantine, isolation, inspection once arrived. Risk assessment Good design of hull and structure prevent fouling or encourage easy cleaning Responsibility for due diligence of port versus that of vessels owner | Ship owner / operator Port Authority Species: squirts, barnacles |
| Cargo Flotsam Jetsam | Cargo could contain bio-hazard – but are these marine bio-hazards? Probably not | |
| Port infrastructure as a receptor | Good housekeeping Design | Port Authority Construction companies |

Raising Awareness

| Stakeholder | Message | Mechanism of Delivery |
|---|--|---|
| Port Authority | Keep own infrastructure clean Expect high standards Profitable but with corporate social responsibility which includes biosecurity | Provide suitable facilities Apply recognised regulations |
| Ship operators and owners incl fishing vessels Ship charterers eg Scottish Power Companies operating in port and servicing / decommissioning structures/equipment | Biosecurity matters so follow industry standards and regulations | |
| MOD | Engage with them – what is your plan? | |

| | | |
|---|----------------------------------|--|
| Clydeside communities | 'Open eyes and ears' - reporting | |
| Local Authorities Marine Scotland SNH SEPA | | |

General Comments

Staff not competent to id INNS but can notice changes or new infestations at facilities.

Focus has to be on awareness of issues, application of good practice and good communication pathway for reporting anything out of the ordinary.

Leisure Boating

Pathway analysis

| Pathway | Action for prevention | Stakeholder |
|--|---|---|
| Tidal or natural movement – 'chunks' or larval movement, migratory birds, extreme weather events | Impossible? | Nature |
| Hull fouling | Needs more detail – concern about the focus on hull fouling as a general issue – not just the boats which are heavily (obviously) fouled, but also the everyday boats with nooks and crannies. | Users and marina operators/clubs |
| As above | Change hull design | Naval architects, boat/kayak designers |
| As above | | Education for ALL boat users inc commercial and fishing. |
| Antifouling paints | Need to work with the manufactures – not all paints work under 'normal' conditions of use or application. More honesty about how they are used is needed. Market benefit from communicating info about NNIS on paint tins? | Manufactures and industry bodies eg BMF. |
| Not taking the issue seriously (allows spread to take place) | Need to communicate better and at an earlier stage. | Keep it simple but push RYA to use the 'environment' part of the yachtmaster syllabus for this. |

| | | |
|----------|--|---|
| | | Use instructors, kayak, dinghy, windsurf, sea anglers etc. Use media inc yachting life, local papers, clubs newsletters etc. |
| Boats | Insurance companies could be encouraged to include clause regarding annual haul out? | Insurance groups |
| Students | Research needed | Engage with universities |

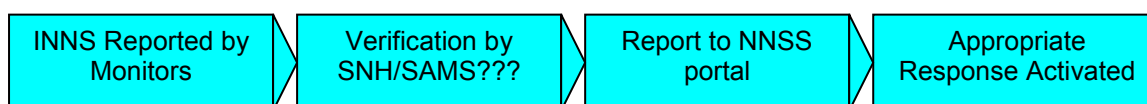
Raising Awareness

| Stakeholder | Message | Mechanism of delivery |
|--------------------|--|---|
| Awareness | Blue flag should have 'snot free' info! | |
| | Stickers – I check, clean, dry, do you? | Stickers/posters |
| | Marina operators need to be able to ID NNIS – training | training |
| | Chandlers, paint manufactures | Info on tins, at the point of purchase. |
| | Reporting – get marinas to report sightings | Training needed as is a one stop portal for reporting and a feedback mechanism. |

Priorities

- 1) Communication – get to the youngsters via the instructors, get to the problem by training marina staff
- 2) Research – how do we deal with all boats, not just the worst case scenario boats?
- 3) Annual haul out – needs to be routine and recommended by insurers, surveyors etc, has changed a lot since GRP is more resistant and can stay in the water all year.

Monitoring, reporting



Is this the appropriate system? PERHAPS = BUT NEEDS A PUBLIC PORTAL TO ALLOW EASY REPORTING AND GOOD FEEDBACK – NEED TO ENSURE THERE IS NOT REPORTING BIAS IE ONE ACTIVELY REPORTING MARINA COULD SKEW THE DATA.

Can you identify relevant people from your sector and others who may be able to act as monitors? BOAT YARD OPERATORS

What support would be required (eg training, id manuals)? TRAINING, FEEDBACK (IE WHAT HAPPENS AFTER YOU MAKE A REPORT, WHAT HAPPENS TO THE DATA AND WHO MAKES A DECISION ABOUT ACTION, MONEY FOR ACTION IF NEEDED).