Sustainable Aquaculture Working Group: Meeting 3

Tuesday 19 April 2022, 11am, on Zoom

Attendees
Chair: Simon Doherty
BVA Officer: Justine Shotton
Policy Committee: Ally Anderson
EWAP: Andrew Prentis
BVZS: Romain Pizzi
Scottish branch: Ronnie Soutar
Vet Sustain: Ruth Clements
RSPCA: Sean Black
FVS: Matthijs Metselaar
Research: Jimmy Turnbull
BVA staff: Amelia Findon – Head of Policy and Governance
Megan Knowles-Bacon – Policy Officer (Secretariat)
Vera Cottrell – Policy Officer
Hannah Killeen – Policy Officer
Guest speakers: Jill Barber – Marine Scotland
Michael Montague – Scottish Environment Protection Agency
Lawrence Brown – Anpario plc
Heidi Hall – Anpario plc
Andrew Voas – Scottish Government

1. Welcome, introductions and apologies for absence
S. Doherty welcomed the group. J. Turnbull apologised that he would need to miss a section of the meeting due to other commitments.

S. Doherty noted that the topic of disease and parasite control, including use of medicines, has been moved into the next meeting as it fits well with the handling and welfare topic.

2. Minutes and themes from previous meeting
The group approved the minutes as an accurate record of the previous meeting

Some minor adjustments will be made to the themes document to ensure all points included are accurate and in context.

3. Marine Scotland
Jill Barber, Head of Aquaculture Policy Development at Marine Scotland, presented a broad overview of their aquaculture and environmental policy. Key points covered included:
Climate change and biodiversity loss are major drivers for policy change globally and in Scotland. Other issues also need to be factored in, such as health and food security. The current crisis in Ukraine is also a good example of the fragility of global markets.

Capture fisheries are at their limit, so any increase in fish protein needed to feed the global population will need to come from aquaculture.

Scotland's seas are managed through the marine plan, which is a relatively new concept. There are national policies and regional marine plans. The national planning policy also impacts on aquaculture.

When planning a site, all impacts should be identified and mitigated where possible. Key environmental interactions considered within planning include:

- Interactions with wild salmonids; sea lice, fish disease, escapes
- Organic waste
- Eutrophication
- Medicines and chemicals
- Feed sustainability
- Predators (birds, seals, other)
- Wrasse/ lump sucker fishery
- Seabed, water quality and cumulative impacts
- Wellboat discharge
- Visual and landscape fishery

Marine Scotland’s three aquaculture commitments for this parliamentary term are:

- Regulatory review – following on from the Griggs report
- Revised vision for sustainable aquaculture – with an enhanced emphasis on environmental protection and community benefit
- Environment – control of escapes and sea lice, to better protect species in the local environment

**Actions:** J Barber to share slides with secretariat
SAWG to consider inviting a speaker from Marine Scotland's fish health team

### 4. Scottish Environment Protection Agency (SEPA)

Michael Montague, Finfish Sector lead at SEPA provided an overview of the role of SEPA, how they work and the challenges they see in the finfish sector. Key points covered included:

- SEPA is the principal environmental regulator in Scotland, aiming to ensure environment and human health are protected, and feed into sustainable growth. They regulate and advise on a wide range of environmental activities.
- They are working towards “One planet prosperity” – to be able to thrive within the resources of our planet
- Their Finfish sector plan focused on opportunities to go beyond compliance, partnership working and influencing the sector. The SEPA finfish advisory panel is working to pull all relevant stakeholders together, to ensure views are heard and everyone involved in conversation
- In October 2021, SEPA received direction from Scottish Government to manage wild fish and farmed fish interaction in relation to sea lice. They also manage emissions from marine pen farms into water and the environment
- SEPA regulates through setting limits though the Water Environment (Controlled Activities) (Scotland) Regulations 2011, known as CAR. Any discharge into the environment needs a CAR license, from household to industry waste. A new regulatory framework in 2019 changed the way discharge is measured, now measuring a 100m mixing zone for environmental degradation.
The ideal medicine from SEPA’s perspective is a vaccine with no discharge, and the second best are medicines which quickly break down. Those which take time to break down are a challenge and can have long term cumulative effects, making them difficult to monitor and regulate.

In addition to monitoring compliance, SEPA are now planning to do more work to influence and encourage improvement. Industry has been leading on this, but SEPA has a role to play in encouraging continued improvement and raising awareness of environmental issues.

**Action:** M Montague to share slides with secretariat

5. Fish feed sourcing

The group was joined by two speakers from Anpario plc; Lawrence Brown, Senior technical and account manager, and Heidi Hall, Global technical services manager. They provided an overview of nutrition in the aquaculture sector. Key points covered included:

- Anpario are global specialist manufactures of high performance feed additives
- Aqua feed comes from fishmeal, by-products, plants and other sources
- Marine resources are important in fish feed, but the sector has become increasingly reliant on traditional animal feed from terrestrial environments.
- Fish meal and fish oil contain the perfect balance of nutrition for fish, which needs to be taken into account when looking for alternative feed sources
- Current and developing alternatives to fishmeal include algae, single cell protein, vegetal sources and insects.
- Insect protein is a growing area, attracting a lot of investment. Chickens naturally eat insects, so highly relevant to poultry sector. In aquaculture, the short-term use is likely to be as a diet additive, with a view to switching feed if further studies checking the animal welfare and nutritional benefits. Insect protein can be considered green and carbon neutral.

**Action:** L Brown to share slides with secretariat

6. Predator control

Andrew Voas, Scottish Government’s Veterinary head of animal welfare, joined the group to discuss the issue of predator control. Key points covered included:

- Predators for salmon include birds and otters, but main focus is on seals. They pose a serious welfare problem for salmon.
- Seals cause damage to nets, leading to more escapes. They directly kill salmon, and also cause stress which increases susceptibility to disease.
- In 2021, the licenses to shoot seals were removed due to US trade requirements. Seals can only be shot without a license to alleviate suffering, or with a license for a limited number of other reasons. This poses a challenge for the aquaculture sector on how to deal with a seal if it gets into a pen. It is difficult to encourage a seal to leave the pen.
- Acoustic deterrents had been used to discourage seals from approaching nets, but these are no longer allowed in new areas due to their impact on cetaceans.
- Other options to prevent seal attacks include changes to the net design, to make it harder for them to reach the Salmon. Larger pens allow fish to move away from seals when they are outside. However, these changes will also impact on welfare consideration, so need to be carefully thought through.
- The Scottish Animal Welfare Commission (SAWC) working group is considering the welfare of farmed fish, wild seals and cetaceans, and has specifically been asked to comment on the extent to which avoiding stress to fish could be a reason for licensing ADDs.

In discussion, it was noted:

- There is a lot of anecdotal evidence, and growing research, showing the long term impact of predators on fish. This is clearly a significant issue, but currently no clear solution or direction of
travel. There is plenty of willingness to make changes to improve this issue, but few answers on how to do so.

- Farmers use every available non-lethal method to deal with Seals already. Research is being carried out into use of ADDs as there are a wide range of options and new technology which may enable some to be used under license.
- If pens need to become larger, this will require planning to take predation and the impacts on fish welfare into account.
- BVZS position is that seals cannot be anesthetised once they are in a pen - this is not safe for the animal or humans.

Action: A. Voas to share slides with secretariat

7. Conclusions and next steps
The group were asked to consider environmental aspects which will need further consideration in later meetings, or discussion on Glasscubes. Escapes was identified as a topic for further discussion.

S. Doherty asked for views on inviting lobby groups who were opposed to aquaculture to input into the working group, to ensure all views were considered. The group agreed that their concerns needed to be addressed. RSPCA have a good understanding of the areas attracting public interest, so S. Black offered to produce a briefing on the biggest issues for the group to consider as a starting point.

Action: S Black to present on areas of public concern

The next meeting is scheduled for Tuesday 7 June on Zoom. This will focus on husbandry, health and welfare.