

Salmon Aquaculture and Seals Working Group Meeting No 16

April 6th 2016, Marine Harvest, Rosyth

Draft Minutes for Approval at 17 meeting

Present:

[REDACTED] (SMRU – Chair), [REDACTED] (Marine Harvest – Host), [REDACTED] (RSPCA), [REDACTED] (Aquascot), [REDACTED] (Waitrose), [REDACTED] (RSPCA), [REDACTED] (Seal Protection Action Group), [REDACTED] (RSPCA), [REDACTED] (Born free Foundation), [REDACTED] (International Animal Rescue), [REDACTED] (RSPCA), [REDACTED] (Freedom Food), [REDACTED] (Freedom Food), [REDACTED] (standing in for [REDACTED] – Scottish Natural Heritage), [REDACTED] (SSPO), [REDACTED] (SMRU – minutes), [REDACTED] (SNH – remote)

Previous minutes:

JC had pointed out that AP 4 should not have been directed at FF. The substance of AP 4 is anyway subsumed into a wider initiative by FF to organise a workshop with members to address key issues.

Minutes approved subject to above.

Actions arising from previous meeting as listed:

1. RSPCA/SMRU to organise a meeting with marine Scotland to discuss FF 'last resort' requirement and its applicability to government license conditions
2. FF/SSPO to consider ways of improving information gathering on seal predation mitigation techniques and dissemination within industry
3. SN to circulate list of issues, group to comment on points worth seeking industry feedback on (document attached – research themes and discussion points)
4. FF to circulate questions to industry members based on agreed key issues with a view to getting responses in time for December STAG meeting
5. FF (in consultation with MH/SMRU) to approach ADD manufacturers to follow-up on feedback on device innovation and monitoring, and arrange a meeting
6. MH to report back to group on its investigations into increased seal shooting incidents in 2015, and to feed back to FF on how standards might evolve in light of its findings
7. AD encourage Waitrose/Aquascot to participate in the group
8. FF to inform the group on the agenda and outcomes of its October meeting with its members (document attached - FF members meeting)

AP 1: JA had talked to Marine Scotland who were willing to meet to discuss “last resort”

AP 3: Completed via email: themes recently circulated by SN

AP 2, 4, 5: Subsumed into ongoing plans to organise FF members meeting to address key issues.

AP 6 – 8. Completed or addressed at this meeting

AO presented latest seal shooting numbers as circulated previously

- Impact of regional calculations of PBR was discussed, and could be used to focus effort
- **Action SN** to find regional figures for PBR calculations and circulate to group.
- CB suggests that ‘low-hanging fruit’ may already have been picked off, maybe making target of zero shootings very difficult.
- CB suggests number of seals shot as a proportion of total population against volume of production might be more representative, considering the industry is looking to grow
- Seal population increase raised as a potential causative factor limiting progress on reduction in shootings; but salmon damage rates are unlikely to be linked to population size as few individuals are responsible for most damage; common seal numbers in decline; aim of group is to eliminate need to shoot seals.
- JC suggests more info on technological developments should be shared within industry
- JW says they are working with industry to try to collate this information
- JL welcomes opportunity to join SASWG and to collaborate. He works with four companies and is happy to liaise with them.
- CB happy this group is building trust within the industry for sharing of relevant info

Presentation from SB on results of investigations into causative factors

- SB stressed the importance of company protocols in restraining seal shootings.
- CB aware of one site where due process was deemed not to have been followed, and punitive measures were taken – underlining significance of protocols on these matters
- Increase seal shootings not because of any new sites
- Skye identified as one of about three problem area
- Square pens overrepresented in seal shooting compared with circular pens
- But wrasse cleaner fish work better in square pens so MH will not be phasing them out completely
- [REDACTED] asked for comparison with size of fish vs shooting rates and comparison of lit vs unlit sites
- Discussion about how many morts constitutes ‘unacceptable’
 - SN suggested comparing damage rate with shooting rates among sites
 - SB said size of fish is also very important – larger, older fish worth more to protect
 - Some kind of ‘trigger’ to allow shooting based on numbers of fish lost would be too inflexible
- Discussion ensued about what went wrong at Sconser on Skye in 2015
 - Points were raised about why carcasses were not collected/ analysed for stomach contents

- It was suggested that mort counts should be analysed after a shooting to ascertain how effective the marksmen are in identifying the problem individual
- FF said they do look at whether mort numbers drop after shooting
- JL asked how do marksman identify problem animals
 - Group agreed it was difficult but more should be done
- [REDACTED] asked whether wrasse cause any problem related to predation – SB no evidence for this
- [REDACTED] asked how to check ADDs are working, SB said it is hard to measure functionality as has been discussed in the past
- All dates and numbers of shootings are held by FF, and CB agreed these should be looked at in detail and compared with SG figures
- Continued discussion about how marksman identifies the ‘culprit’ seal – how long does a marksman spend trying to identify seals?
 - SB said it would depend on the situation but marksman is not paid ‘piecemeal’
 - FF said that shooting of more than one seal per predation event is rare, but no figures available as yet
 - Carcass recovery would answer a lot of these questions
- **Action SB** to check dates the ADD system was changed at Sconser – did seal depredation cease once a new ADD system was installed – or before, or after?
- **Action SB** to circulate PDF of presentation
- **Action SB** to take suggestions for further analysis of shooting incidents back to MHS

Update from Clive B on Freedom Foods progress/liaison

- In process of arranging meeting between stakeholder companies (FF have 7 company members)
- Would like to invite netmakers, ADD manufacturers etc. to ‘pitch’ new ideas for predator mitigation devices/techniques at this meeting
- Questions asked about what is happening to new 72-hour reporting data
 - No analysis has been done, but this may be possible in time
- IM has spoken to 7 sites shortly after shooting has taken place, one in person, six via telephone interview
- [REDACTED] asked whether there was scope for collecting data/interviews/checking for ‘last resort’ status *before* shooting has taken place
 - In some cases, this does happen
 - Ramifications for not meeting protocols were serious: no precise details given
- **Action JC/CB** to organise meeting with FF members to address seal concerns

Presentation from [REDACTED] and [REDACTED] (PULSEA)

- Will be developing a new pulse emitting device to deter seals
- Will be looking for sites to test device and run studies

Presentation from [REDACTED] on recent research at SMRU – University of St Andrews

- SARF funded project using SMRUs captive seal facility to examine how seals manipulate fish through nets
 - Seals difficult to train to take fish through netting – not innately obvious to them
 - Seals prefer to use flippers to manipulate fish
 - Very hard to bite fish through meshes unless they can also hold them in a fold of netting ...
 - Seals able to exert a surprising amount of force (up to 1000N)
 - Mechanism mainly uses head lunges – neck/shoulder muscles not ‘ramming’
 - Even smaller animals expected to be able to move base of a typical net by around 30cm do to nylon elasticity.
- Marine Harvest & Sainsbury’s funded project looking at sound propagation of an Airmar and Ace-Aquatec device
 - Single transducer showed that sound shadowing can occur – a 3dB loss was found from one side of the site to the other due to netting and other infrastructure
 - But when 8 transducers in use – site was effectively saturated with signal
- **Action AC** to circulate a copy of presentation, report and link to the videos

AOB

- AO raised question of porpoise SACs – will they prevent the use of ADDs?
 - CC – SNH is currently consulting on plans for SAC, see website for consultation details and to contribute
 - See Management Options Paper (MOP) on website for reference as to where discussions have got to
 - SNH internal noise propagation modelling exercise considered the scale of potential HP disturbance zones.
 - Modelled disturbance zones were not large in comparison to the extent of the HP SAC – but highlighted potential barrier zones within narrows and straits (eg Sound of Mull)
 - They believe that there is no need to alter the status quo in any significant manner in response to the SAC
 - But they would like to continue to push toward more targeted devices, and SNH are currently supporting a project through SARF with this intention
- AO asked for details on progress with startle response device
 - Concern that public money had been spent and the device is still not available
 - No-one aware of any progress since this was last discussed
 - [REDACTED] asked for a summary of history events – who should the group be asking/leaning on for details and to produce results?
 - **Action AO** to circulate his own timeline on startle response device
 - **Action SN** to make enquires about state of developments on the startle device within the University of St Andrews
- Future Directions for SASWG
 - AO concerned the group was not revisiting previous suggestions for research themes

- Eleven themes discussed*
 - It was felt that there is no suitable mechanism for the group to take action
- **Action SN** to approach Knox nets and/or other net manufacturers to try to build on previous studies examining net deformation by seals in captivity
 - It was felt this could be an area where progress could be made

Next SASWG Meeting

- RSPCA offered facilities in Sussex for next meeting
- About 6 months' time
- **Action SN** to consult with group on suitable dates later, and with JC about venue availability
- AO emphasised need for members to make extra effort to attend with the group's new biannual schedule.

Meeting closed at 1500

Draft Consolidated Action Points from SASWG 16

1. **Action SN** to find regional figures for PBR calculations and circulate to group.
 2. **Action SB** to check dates the ADD system was changed at Sconser in 2015– did seal depredation cease once a new ADD system was installed – or before, or after?
 3. **Action SB** to circulate PDF of MHS presentation
 4. **Action SB** to take suggestions for further analysis of shooting incidents back to MHS
 5. **Action JC/CB** to organise meeting with FF members to address seal concerns
 6. **Action AC** to circulate a copy of presentation, report and link to the videos
 7. **Action AO** to circulate his own timeline on startle response device
 8. **Action SN** to make enquires about state of developments on the startle device within the University of St Andrews
 9. **Action SN** to approach Knox nets and/or other net manufacturers to try to build on previous studies examining net deformation by seals in captivity
 10. **Action SN** to consult with group on suitable dates later, and with JC about venue availability
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* The eleven themes or areas for further work previously identified by the Group are:

Working Group's Opinions on Which Methods are Most Promising

METHOD	Average Rank
1. Modifications and improvements to ADDs (including triggered devices)	3.0
2. Improved understanding of how seals are able to damage fish without holing the net	3.3
3. Measures for validating acoustic deterrents functioning properly	4.3
4. Analysis of existing data on site characteristics and seal damage and seal shooting	4.5
5. Improvements to net tensioning	4.8

6. Trialling new netting materials	5.0
7. Approaches in other countries	5.3
8. Use of lower frequency transducers (maybe should be included in mods to ADDs above)	6.0
9. Use of electric fields as a deterrent	6.5
10. Lighting or not lighting as a deterrent	9.0
11. Aversive tastes	9.8