

Case No: 2020-0086 Date of visit: 15/05/2020

Time spent on site: 1hr Main Inspector:

Site No: FS0903 Site Name: Swining Voe 3

Business No: FB0440 Business Name: Grieg Seafood Shetland Ltd

Case Types: 1 PSI 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed N

Observations: Region: SH Water type: S CoGP MA S-4

- Dead/weak/abnormally behaving fish present?
Clinical signs of disease observed?
Gross pathology observed?
Diagnostic samples taken?
If yes, see additional information/clinical score sheet.

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

MRT01601 (06/04/2020) - 5,158 (1.28%) - 2019 S1 - Physical damage following mechanical lice treatment. Harvesting to begin soon.

MRT01629 (04/05/2020) - 10,708 (2.85%) - 2019 S2 - Treatment losses / CMS

Mortality last 4 weeks:

W/b 13th April: 2,478 (0.62%) - attributed to CMS (affecting entire site however cages 2 and 3 are experiencing more mortalities from this)

W/b 20th: 3,458 (0.88%) - CMS

W/b 27th: 2,407 (0.62%) - CMS

W/b 4th May: 10,708 (2.85%) - Losses after freshwater treatment/crowding/stress.

Mortalities reduced the following week and sea lice numbers have also reduced.

Sea lice weekly counts over 2 since August:

Wk39: 3.3

Wk40: 3.85 followed by a freshwater treatment, lice load was reduced to below 1.

Wk46: 3.66 followed by a physical treatment, lice load was reduced to below 1.

Wk51: 3.6 followed by a physical treatment, lice load was reduced to below 1.

Wk4: 5.4 followed by a physical treatment, lice load was reduced to below 1.

Wk8: 2.95

Wk9: 2.5 followed by a physical treatment, lice load was reduced to below 1.

Wk15: 2.53

Wk16: 5.22 followed by a freshwater treatment, lice load was reduced to below 1.

Site receives fish input from Girlsta Hatchery FS0504.

Site due to begin harvesting at the beginning of June 2020. The site is expected to be fallow by the middle of July.

Site currently only doing dead haul harvests.

PSI completed due to COVID-19 lockdown restrictions preventing a site inspection.

Case No: Site No:

Date of case: Inspector(s):

Business/site contacts correct? (if no update site summary sheet)

Site Details

| | | | |
|-------------------------|---|------------------------|---|
| Total No facilities | <input type="text" value="12"/> | No facilities stocked | <input type="text" value="11"/> |
| Species | <input type="text" value="SAL"/> | | |
| Age group | <input type="text" value="19 S1"/> | | |
| No Fish | <input type="text" value="370,000"/> | | |
| Mean Fish Wt | <input type="text" value="4.5kg"/> | | |
| Next Fallow Date (Site) | <input type="text" value="July/August 2020"/> | Next Input Date (Site) | <input type="text" value="January 2021"/> |

Date of last inspection: (ECI or PSI)

Any recent increased or atypical mortalities? (last 4 weeks.)

If yes, detail:
 e.g. site average, max per cage

Any increased mortalities? (since last inspection.)

If yes, detail:

How are mortalities disposed of?

If other detail:

Any treatments? (since last inspection)

If yes, detail:

Other:

Any disease on site? (since last inspection)

If yes, detail:

Has any animal health surveillance or diagnostic investigations been carried out by, or on behalf of, the business?

Any significant results?

If yes, detail:

Is there a history of sea lice issues at the site in previous 4 years

If yes, detail:

Has site been able to keep lice levels below the recommended lice levels?

If no, detail:

Treatment discharge for sea lice in place?

If yes, detail:

Where sea lice treatments have been administered have they had an effect?

If no, detail:

Is a management area agreement in place?

Does your CoGP Farm management area fallow in synchrony?

Any reported escapes? (check prior to phone call)

| | |
|--|---|
| | N |
|--|---|

Any escapes? (since last inspection)

| | |
|--|---|
| | N |
|--|---|

If yes, detail:
(include date)

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| |
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Any significant changes to your biosecurity procedures since previous visit?

| | |
|--|---|
| | N |
|--|---|

If yes, detail:

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|--|---|-----------------------------|--------|----------|-----------|---------------|
| Case Number: | 2020-0086 | Site No: | FS0903 | Insp: | | |
| Date of Visit | 15/05/2020 | No of movements/supp./dest. | | | Score | |
| Live fish movements | | 0 | 1-5 | 6-10 | >10 | |
| Movements on (from out with GB) of susceptible species | Frequency of movements on from equivalent MS | 0 | 5 | 10 | 14 | 5 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 9 | 18 | 26 | 0 |
| | Number of suppliers | 0 | 5 | 10 | 14 | 5 |
| Movements off | Frequency of movements off | 0 | 3 | 6 | 10 | 3 |
| | Number of destinations | 0 | 3 | 6 | 10 | 3 |
| Exposure via water | Site contacts | 0 | 1-5 | 6-10 | | |
| Water contacts with other farms (holding species susceptible to same diseases) | Farm is protected (secure water supply through disinfection or borehole) | 0 | | | | |
| | Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion | 1 | 2 | 4 | | 2 |
| | Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion | 1 | 3 | 6 | | |
| | Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion | 1 | 4 | 8 | | |
| Management practices | | None | Secure | Unsecure | | |
| Water contacts with processors | Any processing plant discharging into adjacent waters | 0 | 1 | 2 | | 0 |
| On farm processing within the rules of the directive | No on farm processing | 0 | | | | 0 |
| | Processing own fish (re-cycling risk) | 1 | | | | |
| | Processing fish from MS of equivalent status | 2 | | | | |
| | Processing fish from zone or compartment of equivalent status | 4 | | | | |
| | Processing fish from Category III farm | 8 | | | | |
| | Processing fish from Category V farm | 10 | | | | |
| Disposal of fish and fish by-products | Site's own waste only processed. | 0 | | | | |
| | Common processes with other farms | 3 | | | | 3 |
| | Collection point for waste from other farms | 5 | | | | |
| Use of unpasteurised feeds | No feeding of unpasteurised feed | 0 | | | | 0 |
| | Feeding unpasteurised feed | 5 | | | | |
| Biosecurity | Number of sites | 1 | 2 or 3 | ≥ 4 | | |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 | 2 | | 2 |
| | Sites sharing staff and equipment | 0 | 1 | 2 | | 2 |
| Disinfection of equipment between sites, use of footbaths etc | Yes | 0 | | | | 0 |
| | No | 1 | | | | |
| CoGP/Regulator | | | | | | |
| Practices in accordance with regulator or industry code of practice | Yes | 0 | | | | 0 |
| | No | 3 | | | | |
| Platform access to cages | Yes | 0 | | | | 0 |
| | No | 2 | | | | |
| Total Rank | | | | | 25 | MEDIUM |

Case No: 2020-0086

Date of visit: 15/05/2020

Site No: FS0903

Inspector: [Redacted]

| Results Summary | Freq. | Date of Notification | | | | | | |
|-----------------|-------|----------------------|------|-------|------|---------|------|----------------------|
| | | Database | Insp | Phone | Insp | Writing | Insp | 2 nd Insp |
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| Report Summary | | | |
|----------------|------------|------------|----------------------|
| Case Type | Date | Insp | 2 nd Insp |
| PSI | 18/05/2020 | [Redacted] | [Redacted] |
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[REDACTED]
Grieg Seafood Shetland Ltd
Gremista
Lerwick
Shetland
ZE1 OPX
[REDACTED]

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|---------------|
| BUSINESS No | FB0440 | DATE OF CASE | 15/05/2020 |
| SITE No | FS0903 | SITE NAME | Swining Voe 3 |
| INSPECTOR | [REDACTED] | CASE No | 20200086 |

Passive Surveillance Inspection

A notification of mortality levels above the reporting criteria was received by the Fish Health Inspectorate on 14/04/2020 and 12/05/2020 for the period of 06/04/2020 to 12/04/2020 and 04/05/2020 to 10/05/2020 respectively.

Due to current government advice regarding the on-going situation with COVID-19 an inspection of the site could not be conducted. A passive surveillance inspection was conducted by telephone to gather information in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC. Information was also gathered in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice).

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as Medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:

[REDACTED]

Date: 18/05/2020

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

R28

Case No: 2020-0180 Date of visit: 04/05/2020

Time spent on site: N/A Main Inspector:

Site No: SS0840 Site Name: Seaforth South
Business No: SB0108 Business Name: Alisdair Cunningham

Case Types: 1 SAM 2 3 4 5 6

Water Temp (°C): N/A Thermometer No: FHI 045 completed

Observations: Region: WI Water type: S CoGP MA

Dead/weak/abnormally behaving fish present? N/A If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N/A If yes, see additional information/clinical score sheet.
Gross pathology observed? N/A If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N/A

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Site operator called the FHI on the 13/3/2020 to report that he had shipped a tonne of mussels to a customer on the 2/3/2020 however on receipt there were a large quantity gaping. It was also reported that there following grading a number of gaping shells were noted. There has been no issues of this type before, he was very concerned on what the cause was.

At the time of notification the FHI were due to be in the area and samples were to be collected but due to Covid-19 and travel restrictions it was not possible to visit the site. This was relayed to the operator who was going to monitor the situation and report back if the issue was ongoing. On the 25/3/2020 I spoke to the operator to find out how the situation was and he reported that he was going out to site in the next few days and would update.

The operator contacted the FHI near the end of April and reported that he was now observing some dead mussels on the lines and he was keen to have samples taken. He had been in discussion with the fish farms in the area and they had reported that there had been plankton blooms in the loch.

Following discussions with colleagues arrangements were made for the operator to post samples in for sampling. It was advised to send in 50 shells however 30 were received on the 5/5/2020 for processing.

Case No: Site No:
 Date of Visit: Inspector(s):

Registration/Authorisation Details

1. Business/site details summary checked by site representative?
 2. Changes made to details?

Site Details

| Total No facilities | <input type="text"/> | Facilities stocked | <input type="text"/> | No facilities inspected | <input type="text"/> |
|-------------------------|----------------------|----------------------|------------------------|-------------------------|----------------------|
| Species | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Age group | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| No Fish | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Mean Fish Wt | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Next Fallow Date (Site) | <input type="text"/> | | Next Input Date (Site) | <input type="text"/> | |

Recent (last 4 wks) disease problems? Any escapes (since last visit)?
 If yes, detail:

Movement Records

1. Movement records available for inspection?
 2. Date of last inspection:
 3. Are records complete and correctly entered?
 4. Are movement records available for dead fish and waste?
 5. Are records complete and correctly entered?
 6. Are health certificates for introductions (outwith GB) available?

Transport Records

1. Are any movements carried out by (or on behalf) of the business (not using a STB)?
 If yes, is there a system in place for maintenance of transportation records?

Mortality Records

1. Mortality records available for inspection?
 2. How are mortalities disposed of?
 If other detail:
 3. Mortality records complete and correctly entered?
 4. Recent mortality (last 4 wks):
 5. Evidence of recent increased/atypical mortalities?
 If yes, facility nos/no mortality per facility/no stock per facility/reason:
 6. Any other peaks in mortality during period checked?
 If yes, detail:
 7. Have increased (unexplained) mortalities been reported to vet or FHI?
 If yes, detail action:
 8. Have 'mortality events' been reported to FHI? If no, add MRT case and enter on mortality events sheet.

| | |
|--|--|
| 1. Recent treatments (last 4 wks)? | |
| If yes, detail: | |
| If other, detail: | |
| 2. Medicines records available for inspection? | |
| 3. Are records complete and correctly entered? | |
| 4. Are fish in a withdrawal period? | |
| 5. If yes, what treatment(s)? | |
| If other, detail: | |
| 6. Are medicines stored appropriately? | |

Biosecurity Records

| | |
|--|--|
| 1. Biosecurity records available for inspection? | |
| 2. Has the manner and frequency of mortality removal, recording and safe disposal been considered? | |
| 3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included? | |
| 4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease is detected been included and <i>how</i> and <i>when</i> that will be notified to Scottish Ministers? | |
| 5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)? | |
| 6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)? | |
| 7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site? | |
| 8. Have the biosecurity procedures been adequately implemented on site? | |
| If no, detail: | |

Results of Surveillance

| | |
|---|-----|
| 1. Has any animal health surveillance been carried out by, or on behalf of, the business? | N/A |
| 2. If yes, are results available for inspection? | |
| 3. Any significant results? | |
| If yes, detail (if not detailed under recent disease problems). | |

Records checked between: N/A

Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA Y MG VI PA Total Samples

Add Fish/Pools - click

| Pool/Fish No | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 | F9 | F10 | F11 | F12 |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Fish nos | | | | | | | | | | | | |
| Pool Group | | | | | | | | | | | | |
| Species | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED |
| Average weight | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sex | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Water Type | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW |
| Stock Origin | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat |
| Facility No | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

05/2020 Additional Sample Information:
 Samples posted in by site owner and processed by lab staff.

30 Total Tests assigned 3

| F13 | F14 | F15 | F16 | F17 | F18 | F19 | F20 | F21 | F22 | F23 | F24 | F25 | F26 | F27 | F28 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | | | | | | | | | | | | | | |
| MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW |
| Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat | Wild Spat |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

[REDACTED]
[REDACTED]

Lime Park
Scalpay
Western Isles
HS4 3XZ
[REDACTED]

FISH HEALTH INSPECTORATE REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|----------------------|----------------|
| BUSINESS No | SB0108 | DATE OF VISIT | 04/05/2020 |
| SITE No | SS0840 | SITE NAME | Seaforth South |
| INSPECTOR | [REDACTED] | CASE No | 20200180 |

Section 1: Summary

Following a report of gaping shells being observed at Seaforth South, 30 mussels (*Mytilus edulis*) were posted to the Marine Laboratory for diagnostic sampling.

Histopathological examination revealed that the tissue samples appeared within the normal range.

Haemolymph was extracted from 6 affected mussels and inoculated onto appropriate media. Five separate *Vibrio* spp. were identified along with one further non-pathogenic bacteria which was not fully identified. The mixed nature of the growth would not suggest that the bacteria isolated would be the primary cause of morbidity.

Please contact myself or the duty inspector should you require any further information, have any queries regarding this report or if any further problems develop.

Section 2: Case Detail

On the 13th March 2020 the site owner contacted the Fish Health Inspectorate to report that gaping shells were being observed shortly after harvest or following grading activities. A site inspection had been organised however, the travel restrictions imposed due to COVID-19 resulted in the cancellation of the inspection. It was decided that the operator should monitor the situation and report back should the issues continue. In late April it was reported that the situation had not improved and that gaping shells were being observed on the lines, it was agreed that samples should be posted to the lab for diagnostic sampling. The mussels were received on the 5th May 2020.

R09

Samples

Samples were collected from 30 shellfish according to the table below:

| Shellfish number | Species | Stage | Origin |
|------------------|-----------------------|-------|-------------------------|
| F1-30 | <i>Mytilus edulis</i> | Spat | Natural spat collection |

Results

Bacteriology: Haemolymph from F1 – 6 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- 5 separate *Vibrio* spp. isolates;
- 1 non shellfish pathogen likely of environmental origin.

The level of growth observed was moderate to heavy in all but F5 which had light mixed growth. No healthy mussels were provided for sampling therefore, making a comparison of the bacterial populations of affected and unaffected animals could not be achieved.

Histology: Tissue samples were taken from 30 mussels. The tissue samples were fixed in Davidson's fixative.

Histopathological examination revealed the following:

F14 & F16 displayed two and three granulocyte-like structures in the vesicular connective tissue of digestive gland.

F19 exhibited two small foci of haemocytic infiltration in the vesicular connective tissue.

Mussels appeared within the normal range.

Signed:



Fish Health Inspector

Date: 09/06/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

Case No: 2020-0181 Date of visit: 04/05/2020

Time spent on site: N/A Main Inspector: [redacted]

Site No: SS0164 Site Name: Fuam an Tolla (Site 2)
Business No: SB0108 Business Name: Alisdair Cunningham

Case Types: 1 SAM 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): N/A Thermometer No: [] FHI 045 completed []

Observations: Region: WI Water type: S CoGP MA

Dead/weak/abnormally behaving fish present? N/A If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N/A If yes, see additional information/clinical score sheet.
Gross pathology observed? N/A If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N/A

UNI/REG only - if unable to carry out intended visit detail reason below:
[redacted]

Additional Case Information:

Site operator called the FHI on the 13/3/2020 to report that he had shipped a tonne of mussels to a customer on the 2/3/2020 however on receipt there were a large quantity gaping. It was also reported that there following grading a number of gaping shells were noted. There has been no issues of this type before, he was very concerned on what the cause was.

At the time of notification the FHI were due to be in the area and samples were to be collected but due to Covid-19 and travel restrictions it was not possible to visit the site. This was relayed to the operator who was going to monitor the situation and report back if the issue was ongoing. On the 25/3/2020 I spoke to the operator to find out how the situation was and he reported that he was going out to site in the next few days and would update.

The operator contacted the FHI near the end of April and reported that he was now observing some dead mussels on the lines and he was keen to have samples taken. He had been in discussions with the fish farms in the area and they had reported that there had been plankton blooms in the loch.

Following discussions with colleagues arrangements were made for the operator to post samples in for sampling. It was advised to send in 50 shells however 20 were received (one of which was dead) on the 5/5/2020 for processing.

Case No: 2020-0181

Site No: SS0164

Date of Visit: 04/05/2020

Inspector(s):

Registration/Authorisation Details

- 1. Business/site details summary checked by site representative? N/A
- 2. Changes made to details? N/A

Site Details

| Total No facilities | N/A | Facilities stocked | | No facilities inspected | |
|-------------------------|-----|------------------------|--|-------------------------|--|
| Species | | | | | |
| Age group | | | | | |
| No Fish | | | | | |
| Mean Fish Wt | | | | | |
| Next Fallow Date (Site) | | Next Input Date (Site) | | | |

Recent (last 4 wks) disease problems? N/A Any escapes (since last visit)? N/A
 If yes, detail:

Movement Records

- 1. Movement records available for inspection? N/A
- 2. Date of last inspection: N/A
- 3. Are records complete and correctly entered? N/A
- 4. Are movement records available for dead fish and waste? N/A
- 5. Are records complete and correctly entered? N/A
- 6. Are health certificates for introductions (outwith GB) available? N/A

Transport Records

- 1. Are any movements carried out by (or on behalf) of the business (not using a STB)?
- If yes, is there a system in place for maintenance of transportation records?

Mortality Records

- 1. Mortality records available for inspection? N/A
- 2. How are mortalities disposed of?
 If other detail:
- 3. Mortality records complete and correctly entered? N/A
- 4. Recent mortality (last 4 wks):
- 5. Evidence of recent increased/atypical mortalities? N/A
 If yes, facility nos/no mortality per facility/no stock per facility/reason:
- 6. Any other peaks in mortality during period checked? N/A
 If yes, detail:
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? N/A
 If yes, detail action:
- 8. Have 'mortality events' been reported to FHI? If no, add MRT case and enter on mortality events sheet. N/A

| | |
|--|--|
| 1. Recent treatments (last 4 wks)? | |
| If yes, detail: | |
| If other, detail: | |
| 2. Medicines records available for inspection? | |
| 3. Are records complete and correctly entered? | |
| 4. Are fish in a withdrawal period? | |
| 5. If yes, what treatment(s)? | |
| If other, detail: | |
| 6. Are medicines stored appropriately? | |

Biosecurity Records

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|--|--|
| 1. Biosecurity records available for inspection? | |
| 2. Has the manner and frequency of mortality removal, recording and safe disposal been considered? | |
| 3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included? | |
| 4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease is detected been included and <i>how</i> and <i>when</i> that will be notified to Scottish Ministers? | |
| 5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)? | |
| 6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)? | |
| 7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site? | |
| 8. Have the biosecurity procedures been adequately implemented on site? | |
| If no, detail: | |

Results of Surveillance

| | |
|---|-----|
| 1. Has any animal health surveillance been carried out by, or on behalf of, the business? | N/A |
| 2. If yes, are results available for inspection? | |
| 3. Any significant results? | |
| If yes, detail (if not detailed under recent disease problems). | |

Records checked between: N/A

Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA Y MG VI PA Total Samples

Add Fish/Pools - click

| Pool/Fish No | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 | F9 | F10 | F11 | F12 |
|----------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Fish nos | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Pool Group | | | | | | | | | | | | |
| Species | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED | MED |
| Average weight | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Sex | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Water Type | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW | SW |
| Stock Origin | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat |
| Facility No | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

05/2020 Additional Sample Information:

19 Total Tests assigned 3

| F13 | F14 | F15 | F16 | F17 | F18 | F19 | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|--|--|--|--|--|--|--|--|
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | | | | | | | | | |
| MED | MED | MED | MED | MED | MED | MED | | | | | | | | | |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | | | | | | | |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | | | | | | | |
| SW | SW | SW | SW | SW | SW | SW | | | | | | | | | |
| Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | Wild spat | | | | | | | | | |
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | | | | | | | |

Case No: **2020-0181**

Date of visit: **04/05/2020**

Site No: **SS0164**

Inspector: **DJT**

| Results Summary | Freq. | Date of Notification | | | | | | |
|-----------------------------------|-------|----------------------|------|------------|------|------------|------|----------------------|
| | | Database | Insp | Phone | Insp | Writing | Insp | 2 nd Insp |
| Histo:samples within normal range | N/A | N/A | | 19/05/2020 | | 09/06/2020 | | |
| Vibrio spp. | 6/6 | 29/05/2020 | | 29/05/2020 | | 09/06/2020 | | |
| Shawanelia spp. | 4/6 | 29/05/2020 | | 29/05/2020 | | 09/06/2020 | | |
| Unidentified bacteria | 6/6 | 29/05/2020 | | 29/05/2020 | | 09/06/2020 | | |
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| Report Summary | | | |
|----------------|------------|------|----------------------|
| Case Type | Date | Insp | 2 nd Insp |
| SAM | 01/06/2020 | | |
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[REDACTED]
[REDACTED]

Lime Park
Scalpay
Western Isles
HS4 3XZ
[REDACTED]

FISH HEALTH INSPECTORATE REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|----------------------|------------------------|
| BUSINESS No | SB0108 | DATE OF VISIT | 04/05/2020 |
| SITE No | SS0164 | SITE NAME | Fuam an Tolla (Site 2) |
| INSPECTOR | [REDACTED] | CASE No | 20200181 |

Section 1: Summary

Following a report of gaping shells being observed at Fuam an Tolla (Site 2), 19 mussels (*Mytilus edulis*) were posted to the Marine Laboratory for diagnostic sampling.

Histopathological examination revealed that the tissue samples appeared within the normal range.

Haemolymph was extracted from six affected mussels and inoculated onto appropriate media. Four separate *Vibrio* spp. and *Shewanella* spp. were identified along with one further non-pathogenic bacteria which was not fully identified. The mixed nature of the growth would not suggest that the bacteria isolated would be the primary cause of morbidity.

Please contact myself or the duty inspector should you require any further information, have any queries regarding this report or if any further problems develop.

Section 2: Case Detail

Observations

On the 13th March 2020 the site owner contacted the Fish Health Inspectorate to report that gaping shells were being observed shortly after harvest or following grading activities. A site inspection had been organised however, the travel restrictions imposed due to COVID-19 resulted in the cancellation of the inspection. It was decided that the operator should monitor the situation and report back should the issues continue. In late April it was reported that the situation had not improved and that gaping shells were being observed on the lines, it was agreed that samples should be posted to the lab for diagnostic sampling. The mussels were received on the 5th May 2020.

R09

Samples

Samples were collected from 19 shellfish according to the table below:

| Shellfish number | Species | Stage | Origin |
|------------------|-----------------------|-------|-------------------------|
| F1-19 | <i>Mytilus edulis</i> | Spat | Natural spat collection |

Results

Bacteriology: Haemolymph from F1 – 6 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- 4 separate *Vibrio* spp. isolates;
- *Shewanella* sp.;
- 1 non shellfish pathogen likely of environmental origin.

The level of growth observed was moderate to heavy in all six mussels. No healthy mussels were provided for sampling therefore, making a comparison of the bacterial populations of affected and unaffected animals could not be achieved.

Histology: Tissue samples were taken from 19 mussels. The tissue samples were fixed in Davidson's fixative.

Histopathological examination revealed the following:

F2 displayed mild haemocytic cell infiltration in the gonadal tissue.

F3 displayed a copepod-like structure and F16 one encysted metacercariae.

F5 exhibited a mild haemocytic cell infiltration in the vesicular connective tissue (CT) and F18 several small foci haemocytic cell infiltration in CT.

F16 & F18 displayed a light atrophy of epithelia of digestive diverticula.

Mussels appeared within the normal range.

Signed:



Fish Health Inspector

Date: 09/06/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

R09

Case No: 2020-0184 Date of visit: 14/05/2020

Time spent on site: N/A Main Inspector:

Site No: FS0015 Site Name: Loch Greshornish
Business No: FB0119 Business Name: Mowi Scotland Ltd

Case Types: 1 PSI 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: HI Water type: S CoGP MA M-24

Dead/weak/abnormally behaving fish present?
Clinical signs of disease observed?
Gross pathology observed?
Diagnostic samples taken?
If yes, see additional information/clinical score sheet.

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Reported mortalities; 23/03/2020-29/03/2020, 1.23%; Yersinia and PD related mortality 7240 morts;
Antibiotic treatment finished 28th March; Site Inspected 10/3/2020 (AFH-2020-0116) diagnostic samples taken. Duty Inspector spoke to operator following the report of increased mortality and noted that mortality had reduced the following week.

20/04/2020-26/04/2020 ,1.26%; Post treatment, physical damage 7027 morts;
"Lice treatment finishes this week, the morts are expected to drop off during next week". Site Inspected 10/3/2020 (AFH-2020-0116) diagnostic samples taken. FHI to monitor mortality levels, should they remain above 1% in following week, PSI to be carried out.

27/04/2020-03/05/2020,1.58%; Increased mortality due to acute treatment losses and physical damage, recently treated sealice and CMS positive 7637 morts;
"Lice treatments finished this week, the morts should be dropping off during this week". FHI visited in March 2020, (AFH-2020-0116) diagnostic samples were taken. FHI to monitor and PSI to be carried out.

Morts for last full week; 4/5 534, 5/5 576, 6/5 327, 7/5 355, 8/5 430, 9/5 371, 10/5 296. Total 2889 - 0.6% attributed to CMS.

Current mortality around 240-300 per day but spike yesterday of 460/day/site.
Site is harvesting the large grade fish above 4 kg both live and dead haul via Mallaig.

Health team have been on site twice in the last month. Observing burst heart cavities and internal haemorrhaging. Positive test results for CMS, HSMI, PD, Yersinia, moritella. Lesions observed during FHI visit have improved.

Recent salmosan tarp treatment, No mechanical treatments planed due to CMS. Reported 60% lice clearance and average adult female lice currently 3.05. Planning a further tarp treatment.

With presence of CMS and requirement to treat lice it is thought that the mortality levels may continue to be above the 1% reporting threshold.

PSI case completed due to COVID 19 situation preventing a site inspection.

| | | | | | | |
|--|---|-----------------------------|--------|----------|-----------|---------------|
| Case Number: | 2020-0184 | Site No: | FS0015 | Insp: | | |
| Date of Visit | 14/05/2020 | No of movements/supp./dest. | | | Score | |
| Live fish movements | | 0 | 1-5 | 6-10 | >10 | |
| Movements on (from out with GB) of susceptible species | Frequency of movements on from equivalent MS | 0 | 5 | 10 | 14 | 5 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 9 | 18 | 26 | |
| | Number of suppliers | 0 | 5 | 10 | 14 | 5 |
| Movements off | Frequency of movements off | 0 | 3 | 6 | 10 | 10 |
| | Number of destinations | 0 | 3 | 6 | 10 | 3 |
| Exposure via water | Site contacts | 0 | 1-5 | 6-10 | | |
| Water contacts with other farms (holding species susceptible to same diseases) | Farm is protected (secure water supply through disinfection or borehole) | 0 | | | | |
| | Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion | 1 | 2 | 4 | | 1 |
| | Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion | 1 | 3 | 6 | | |
| | Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion | 1 | 4 | 8 | | |
| Management practices | | None | Secure | Unsecure | | |
| Water contacts with processors | Any processing plant discharging into adjacent waters | 0 | 1 | 2 | | 0 |
| On farm processing within the rules of the directive | No on farm processing | 0 | | | | 0 |
| | Processing own fish (re-cycling risk) | 1 | | | | 1 |
| | Processing fish from MS of equivalent status | 2 | | | | |
| | Processing fish from zone or compartment of equivalent status | 4 | | | | |
| | Processing fish from Category III farm | 8 | | | | |
| | Processing fish from Category V farm | 10 | | | | |
| Disposal of fish and fish by-products | Site's own waste only processed. | 0 | | | | 0 |
| | Common processes with other farms | 3 | | | | |
| | Collection point for waste from other farms | 5 | | | | |
| Use of unpasteurised feeds | No feeding of unpasteurised feed | 0 | | | | 0 |
| | Feeding unpasteurised feed | 5 | | | | |
| Biosecurity | Number of sites | 1 | 2 or 3 | ≥ 4 | | |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 | 2 | | 0 |
| | Sites sharing staff and equipment | 0 | 1 | 2 | | |
| Disinfection of equipment between sites, use of footbaths etc | Yes | 0 | | | | 0 |
| | No | 1 | | | | |
| CoGP/Regulator | | | | | | |
| Practices in accordance with regulator or industry code of practice | Yes | 0 | | | | 0 |
| | No | 3 | | | | |
| Platform access to cages | Yes | 0 | | | | 0 |
| | No | 2 | | | | |
| Total Rank | | | | | 25 | MEDIUM |

Case No: Site No:

Date of case: Inspector(s):

Business/site contacts correct? (if no update site summary sheet) Y

Site Details

| | | | |
|-------------------------|---------------------------------|-----------------------|---|
| Total No facilities | <input type="text" value="12"/> | No facilities stocked | <input type="text" value="12"/> |
| Species | Sal | lumpfish | |
| Age group | 2019 Q1 | mixed | |
| No Fish | 437,000 | 134,300 | |
| Mean Fish Wt | 3.328 | mixed | |
| Next Fallow Date (Site) | July or August | | Next Input Date (Site) <input type="text" value="not known"/> |

Date of last inspection: (ECI or PSI)

Any recent increased or atypical mortalities? (last 4 weeks.)

If yes, detail:
 e.g. site average, max per cage

Any increased mortalities? (since last inspection.)

If yes, detail:

How are mortalities disposed of?

If other detail:

Any treatments? (since last inspection)

If yes, detail:

Other:

Any disease on site? (since last inspection)

If yes, detail:

Has any animal health surveillance or diagnostic investigations been carried out by, or on behalf of, the business?

Any significant results?

If yes, detail

Is there a history of sea lice issues at the site in previous 4 years

If yes, detail:

Has site been able to keep lice levels below the recommended lice levels?

If no, detail:

Treatment discharge for sea lice in place?

If yes, detail:

Where sea lice treatments have been administered have they had an effect?

If no, detail:

Is a management area agreement in place?

Does your CoGP Farm management area fallow in synchrony?

Any reported escapes? (check prior to phone call)

Any escapes? (since last inspection)

If yes, detail: (include date)

Any significant changes to your biosecurity procedures since previous visit?

Y

If yes, detail: now undertaking dead haul harvests as well as live haul

| | | | |
|----------|-----------|----------------|------------|
| Case No: | 2020-0184 | Date of visit: | 14/05/2020 |
| Site No: | FS0015 | Inspector: | ██████████ |

| Results Summary | Freq. | Date of Notification | | | | | | |
|-----------------|-------|----------------------|------|-------|------|---------|------|----------------------|
| | | Database | Insp | Phone | Insp | Writing | Insp | 2 nd Insp |
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| Report Summary | | | |
|----------------|------------|--------|----------------------|
| Case Type | Date | Insp | 2 nd Insp |
| PSI | 19/06/2020 | ██████ | ██████ |
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██████████
Mowi Scotland Ltd
Stob Ban House
Glen Nevis Business Park
Fort William
PH33 6RX
██████████

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|------------------|
| BUSINESS No | FB0119 | DATE OF CASE | 14/05/2020 |
| SITE No | FS0015 | SITE NAME | Loch Greshornish |
| INSPECTOR | ██████████ | CASE No | 20200184 |

Passive Surveillance Inspection

A notification of mortality levels above the reporting criteria was received by the Fish Health Inspectorate for the period of 20 April to 3 May 2020. The inspectorate had visited the site on 10 March 2020 and diagnostic samples were taken (case 20200116).

Due to current government advice regarding the on-going situation with COVID-19 an inspection of the site could not be conducted. A passive surveillance inspection was conducted by telephone to gather information in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC. Information was also gathered in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice).

Cardio myopathy syndrome (CMS) was reported as the main issue on site. An increase in lice levels resulted in a salmosan tarpaulin treatment being carried out. This treatment combined with the CMS resulted in increased mortality. The site is currently harvesting larger fish and plan to be fallow in July or August.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

R28

Signed:



Fish Health Inspector

Date: 19/06/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

Case No: 2020-0188 Date of visit: 13/05/2020

Time spent on site: n/a Main Inspector:

Site No: FS1122 Site Name: Grey Horse Channel
Business No: FB0119 Business Name: Mowi Scotland Ltd

Case Types: 1 PSI 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: WI Water type: S CoGP MA W-11

Dead/weak/abnormally behaving fish present? If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? If yes, see additional information/clinical score sheet.
Gross pathology observed? If yes, see additional information/clinical score sheet.
Diagnostic samples taken?

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Mortality information - reported.

week 14 - 1.01% - 4566 fish @ 3.3kg- Clinical CMS

week 17 - 1.47% - 4757 fish @ 3.4kg - CMS and PD

week 18 - 2.04% 5514 fish @ 3.4kg - Losing fish due to CMS and PD, 1 pen had acute losses from treatments.

week 19 - 1.89% 4996 fish @ 3.4kg - CMS and PD - Fish being harvested out

Site to be harvested out. Starting 16/05/2020 site expected to be empty by end of may. All pens were first thinned to see if that would help mortality, still seeing consistent CMS and PD mortality so decision to harvest out site was made.

FVG did a full diagnostic which confirmed the presence of CMS and PD.

| | | | | | | |
|--|---|-----------------------------|--------|----------|-----------|---------------|
| Case Number: | 2020-0188 | Site No: | FS1122 | Insp: | | |
| Date of Visit | 13/05/2020 | No of movements/supp./dest. | | | Score | |
| Live fish movements | | 0 | 1-5 | 6-10 | >10 | |
| Movements on (from out with GB) of susceptible species | Frequency of movements on from equivalent MS | 0 | 5 | 10 | 14 | 0 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 9 | 18 | 26 | 0 |
| | Number of suppliers | 0 | 5 | 10 | 14 | 0 |
| Movements off | Frequency of movements off | 0 | 3 | 6 | 10 | 10 |
| | Number of destinations | 0 | 3 | 6 | 10 | 3 |
| Exposure via water | Site contacts | 0 | 1-5 | 6-10 | | |
| Water contacts with other farms (holding species susceptible to same diseases) | Farm is protected (secure water supply through disinfection or borehole) | 0 | | | | |
| | Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion | 1 | 2 | 4 | | 2 |
| | Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion | 1 | 3 | 6 | | |
| | Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion | 1 | 4 | 8 | | |
| Management practices | | None | Secure | Unsecure | | |
| Water contacts with processors | Any processing plant discharging into adjacent waters | 0 | 1 | 2 | | 0 |
| On farm processing within the rules of the directive | No on farm processing | 0 | | | | |
| | Processing own fish (re-cycling risk) | 1 | | | | 1 |
| | Processing fish from MS of equivalent status | 2 | | | | |
| | Processing fish from zone or compartment of equivalent status | 4 | | | | |
| | Processing fish from Category III farm | 8 | | | | |
| | Processing fish from Category V farm | 10 | | | | |
| Disposal of fish and fish by-products | Site's own waste only processed. | 0 | | | | 0 |
| | Common processes with other farms | 3 | | | | 3 |
| | Collection point for waste from other farms | 5 | | | | 0 |
| Use of unpasteurised feeds | No feeding of unpasteurised feed | 0 | | | | 0 |
| | Feeding unpasteurised feed | 5 | | | | |
| Biosecurity | Number of sites | 1 | 2 or 3 | ≥ 4 | | |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 | 2 | | 1 |
| | Sites sharing staff and equipment | 0 | 1 | 2 | | 1 |
| Disinfection of equipment between sites, use of footbaths etc | Yes | 0 | | | | 0 |
| | No | 1 | | | | |
| CoGP/Regulator | | | | | | |
| Practices in accordance with regulator or industry code of practice | Yes | 0 | | | | 0 |
| | No | 3 | | | | |
| Platform access to cages | Yes | 0 | | | | 0 |
| | No | 2 | | | | |
| Total Rank | | | | | 21 | MEDIUM |

Case No: Site No:

Date of case: Inspector(s):

Business/site contacts correct? (if no update site summary sheet) Y

Site Details

| | | | |
|-------------------------|--|---------------------------------------|---|
| Total No facilities | <input type="text" value="14"/> | No facilities stocked | <input type="text" value="10"/> |
| Species | <input type="text" value="SAL"/> | <input type="text" value="Lumpfish"/> | |
| Age group | <input type="text" value="2019 Q2's"/> | <input type="text" value="2020"/> | |
| No Fish | <input type="text" value="190,556"/> | <input type="text" value="20,000"/> | |
| Mean Fish Wt | <input type="text" value="3.64kg"/> | <input type="text" value="40g"/> | |
| Next Fallow Date (Site) | <input type="text" value="End of May 2020"/> | Next Input Date (Site) | <input type="text" value="March/April 2021"/> |

Date of last inspection: (ECI or PSI)

Any recent increased or atypical mortalities? (last 4 weeks.)

If yes, detail:

e.g. site average, max per cage

Any increased mortalities? (since last inspection.)

If yes, detail:

How are mortalities disposed of?

If other detail:

Any treatments? (since last inspection)

If yes, detail:

Other:

Any disease on site? (since last inspection)

If yes, detail:

Has any animal health surveillance or diagnostic investigations been carried out by, or on behalf of, the business?

Any significant results?

If yes, detail

Is there a history of sea lice issues at the site in previous 4 years

If yes, detail:

Has site been able to keep lice levels below the recommended lice levels?

If no, detail:

Treatment discharge for sea lice in place?

If yes, detail:

Where sea lice treatments have been administered have they had an effect?

If no, detail:

Is a management area agreement in place?

Does your CoGP Farm management area fallow in synchrony?

Any reported escapes? (check prior to phone call)

Any escapes? (since last inspection)

If yes, detail:

(include date)

| | |
|--|---|
| Any significant changes to your biosecurity procedures since previous visit? | Y |
| If yes, detail: Yes - Due to Covid-19 outbreak. | |

██████████
Mowi Scotland Ltd
Stob Ban House
Glen Nevis Business Park
Fort William
PH33 6RX
██████████

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|--------------------|
| BUSINESS No | FB0119 | DATE OF CASE | 13/05/2020 |
| SITE No | FS1122 | SITE NAME | Grey Horse Channel |
| INSPECTOR | ██████████ | CASE No | 20200188 |

Passive Surveillance Inspection

Notifications of mortality levels above the reporting criteria were received by the Fish Health Inspectorate for the period of 20/04/2020 to 10/05/2020.

Due to current government advice regarding the on-going situation with COVID-19 an inspection of the site could not be conducted. A passive surveillance inspection was conducted by telephone to gather information in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC. Information was also gathered in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice).

Weekly mortalities above 1% have been attributed to CMS and PD. The fish on site are at harvest weight so the operator has decided to harvest out the site. The site is expected to be fallow by the 31st of May 2020.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.



Signed:

Date: 21/05/2020

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

Case No: 2020-0193 Date of visit: 14/05/2020

Time spent on site: Main Inspector:

Site No: FS0646 Site Name: Soay
Business No: FB0119 Business Name: Mowi Scotland Ltd

Case Types: 1 PSI 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: WI Water type: S CoGP MA W-7

Dead/weak/abnormally behaving fish present? If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? If yes, see additional information/clinical score sheet.
Gross pathology observed? If yes, see additional information/clinical score sheet.
Diagnostic samples taken?

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Mortality information - Reported.

MRT01598 -week 14 - 1.95% 11198 fish @ 3kg Acute morets and physical damage due to thermolicer.

MRT01627 -week 18 - 1.14% 5657 fish @ 3.3kg Acute treatment losses
Cleanerfish Mortality - wk19- 1891, wk18 - 2441, wk17 - 1236, wk16-1059

Last salmosan treatment - end of April 7 pens treated.

Alphamax treatment used for Caligus settlement last year

Thermolicer treatments also used to keep lice under control, with freshwater treatments used in 2019.

Full site treatments - Salmosan starting 14/05/2019 - Pre-adult settlement. Site manager expects to see a small spike in mortality due to CMS and PD confirmed on site.

mortality spike in week 18 attributed to treatment loss in one pen. Large fish with CMS, didn't take well to salmosan treatment. Pen number 2. Mortality returned to normal the following week.

| | | | | | | |
|--|---|-----------------------------|--------|----------|-----------|------------|
| Case Number: | 2020-0193 | Site No: | FS0646 | Insp: | | |
| Date of Visit | 14/05/2020 | No of movements/supp./dest. | | | Score | |
| Live fish movements | | 0 | 1-5 | 6-10 | >10 | |
| Movements on (from out with GB) of susceptible species | Frequency of movements on from equivalent MS | 0 | 5 | 10 | 14 | 0 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 9 | 18 | 26 | 0 |
| | Number of suppliers | 0 | 5 | 10 | 14 | 0 |
| Movements off | Frequency of movements off | 0 | 3 | 6 | 10 | 10 |
| | Number of destinations | 0 | 3 | 6 | 10 | 3 |
| Exposure via water | Site contacts | 0 | 1-5 | 6-10 | | |
| Water contacts with other farms (holding species susceptible to same diseases) | Farm is protected (secure water supply through disinfection or borehole) | 0 | | | | 0 |
| | Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion | 1 | 2 | 4 | | 0 |
| | Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion | 1 | 3 | 6 | | 0 |
| | Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion | 1 | 4 | 8 | | 0 |
| Management practices | | None | Secure | Unsecure | | |
| Water contacts with processors | Any processing plant discharging into adjacent waters | 0 | 1 | 2 | | 0 |
| On farm processing within the rules of the directive | No on farm processing | 0 | | | | 0 |
| | Processing own fish (re-cycling risk) | 1 | | | | |
| | Processing fish from MS of equivalent status | 2 | | | | |
| | Processing fish from zone or compartment of equivalent status | 4 | | | | |
| | Processing fish from Category III farm | 8 | | | | |
| | Processing fish from Category V farm | 10 | | | | |
| Disposal of fish and fish by-products | Site's own waste only processed. | 0 | | | | 0 |
| | Common processes with other farms | 3 | | | | 0 |
| | Collection point for waste from other farms | 5 | | | | 0 |
| Use of unpasteurised feeds | No feeding of unpasteurised feed | 0 | | | | 0 |
| | Feeding unpasteurised feed | 5 | | | | |
| Biosecurity | Number of sites | 1 | 2 or 3 | ≥ 4 | | |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 | 2 | | 0 |
| | Sites sharing staff and equipment | 0 | 1 | 2 | | 0 |
| Disinfection of equipment between sites, use of footbaths etc | Yes | 0 | | | | 0 |
| | No | 1 | | | | |
| CoGP/Regulator | | | | | | |
| Practices in accordance with regulator or industry code of practice | Yes | 0 | | | | 0 |
| | No | 3 | | | | |
| Platform access to cages | Yes | 0 | | | | 0 |
| | No | 2 | | | | |
| Total Rank | | | | | 13 | LOW |

Case No: Site No:

Date of case: Inspector(s):

Business/site contacts correct? (if no update site summary sheet) Y

Site Details

| | | | |
|-------------------------|---------------------------------|-----------------------|---------------------------------|
| Total No facilities | <input type="text" value="16"/> | No facilities stocked | <input type="text" value="16"/> |
| Species | SAL | Lumpfish | |
| Age group | 2019 Q2's | 2019 | |
| No Fish | 491,064 | 61,667 | |
| Mean Fish Wt | 3.3kg | 30g | |
| Next Fallow Date (Site) | July 2020 | | Next Input Date (Site) |
| | | | March 2021 |

Date of last inspection: (ECI or PSI)

Any recent increased or atypical mortalities? (last 4 weeks.)

If yes, detail:
 e.g. site average, max per cage

Any increased mortalities? (since last inspection.)

If yes, detail:

How are mortalities disposed of?

If other detail:

Any treatments? (since last inspection)

If yes, detail:

Other:

Any disease on site? (since last inspection)

If yes, detail:

Has any animal health surveillance or diagnostic investigations been carried out by, or on behalf of, the business?

Any significant results?

If yes, detail

Is there a history of sea lice issues at the site in previous 4 years

If yes, detail:

Has site been able to keep lice levels below the recommended lice levels?

If no, detail:

Treatment discharge for sea lice in place?

If yes, detail:

Where sea lice treatments have been administered have they had an effect?

If no, detail:

Is a management area agreement in place?

Does your CoGP Farm management area fallow in synchrony?

Any reported escapes? (check prior to phone call)

Any escapes? (since last inspection)

If yes, detail: (include date)

| | |
|--|-------------------------|
| Any significant changes to your biosecurity procedures since previous visit? | Y |
| If yes, detail: | Changes due to Covid-19 |

██████████
Mowi Scotland Ltd
Stob Ban House
Glen Nevis Business Park
Fort William
PH33 6RX
██████████

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|------------|
| BUSINESS No | FB0119 | DATE OF CASE | 13/05/2020 |
| SITE No | FS0646 | SITE NAME | Soay |
| INSPECTOR | ██████████ | CASE No | 20200193 |

Passive Surveillance Inspection

A notification of mortality levels above the reporting criteria was received by the Fish Health Inspectorate on 10/4/2020 and 08/05/2020 for the period of 30/03/2020 to 05/04/2020 and 27/04/2020 to 03/05/2020.

Due to current government advice regarding the on-going situation with COVID-19 an inspection of the site could not be conducted. A passive surveillance inspection was conducted by telephone to gather information in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC. Information was also gathered in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice).

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as low. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted third year. The category of the site will be reassessed on a routine basis and updated as required.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:



Fish Health Inspector

Date: 14/05/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

Case No: 2020-0194 Date of visit: 15/05/2020

Time spent on site: 1hr Main Inspector:

Site No: FS0881 Site Name: Uig
Business No: FB0440 Business Name: Grieg Seafood Shetland Ltd

Case Types: 1 PSI 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed N

Observations: Region: HI Water type: S CoGP MA: M-24

Dead/weak/abnormally behaving fish present?
Clinical signs of disease observed?
Gross pathology observed?
Diagnostic samples taken?
If yes, see additional information/clinical score sheet.

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

MRT01540 (20/01/2020) - 20,484 (1.97% (reported), 3.86% from fishtalk) - Gill health and treatment losses.

Unreported mortality (24/02/2020) - 7,821 (1.31%) - Infection with *Moritella viscosa*, physical damage and poor performers.
Treated with Florfenicol the following week.

MRT01630 (04/05/2020) - 9,337 (2.24%) - Treatment losses - Optilicer

Mortality last 4 weeks:

W/b 13th April - 2,101 (0.5%), attributed to physical damage from treatments in previous weeks and poor performers.

W/b 20th April - 3,580 (0.84%), attributed to physical damage and poor performers.

W/b 27th April - 1,388 (0.33%), attributed to poor performers.

W/b 4th May - 9,447 (2.27%), attributed to physical damage from optilicer treatment.

Sea lice counts over 2 since last inspection:

Wk5 2020: 2.24

Wk6: 3.76

Wk7: 3.94

Wk8: 4.32

Wk9: Freshwater treatment conducted over a 3 week period.

Wk11: Fish were moved off to Loch Snizort East (FS1309) so no count conducted.

Wk12: 5.93

Wk13: Began H2O2 treatment, reduced lice load to 4.45

Wk14: Ongoing H2O2 treatment reduced lice load to 3.28

Wk15: 3.83

Wk16: 3.9 Optilicer arrived at Loch Snizort FS1309 (neighbouring site)

Wk17: 4.57

Wk18: 5.73 Optilicer arrived at Uig.

Wk19: Optilicer treatment began and lice counts dropped to 2.94.

Site manager reported that they had since come down further this week.

PSI conducted due to current COVID-19 lockdown restrictions preventing a site inspection.

Case No: Site No:
 Date of case: Inspector(s):

Registration/Authorisation Details

Business/site contacts correct? (if no update site summary sheet)

Site Details

| | | | |
|-------------------------|---|------------------------|--|
| Total No facilities | <input type="text" value="8"/> | No facilities stocked | <input type="text" value="6"/> |
| Species | <input type="text" value="SAL"/> | | |
| Age group | <input type="text" value="19 S1"/> | | |
| No Fish | <input type="text" value="405,900"/> | | |
| Mean Fish Wt | <input type="text" value="2kg"/> | | |
| Next Fallow Date (Site) | <input type="text" value="October 2020"/> | Next Input Date (Site) | <input type="text" value="Spring 2021"/> |

Date of last inspection: (ECI or PSI)

Mortality Information

- Any recent increased or atypical mortalities? (last 4 weeks).
 If yes, detail:
- Any increased mortalities? (since last inspection.)
 If yes, detail:
- How are mortalities disposed of?
 If other detail:

Treatments and Medicines

- Any treatments? (since last inspection)
 If yes, detail:
 Other:

Health status and Results of Surveillance

- Any disease on site? (since last inspection)
 If yes, detail:
- Has any animal health surveillance been carried out by, or on behalf of, the business?
- Any significant results?
 If yes, detail:

Sea lice

- Has the site experienced sea lice problems in the previous 4 years?
 If yes, detail:
- Have lice levels stayed below the suggested criteria for treatment in the CoGP since the last inspection?
 If no, detail:
- Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) since the last inspection?
- If yes to 3, have these been reported to the Fish Health Inspectorate? If no, see comment.
- Does the site have treatment discharge consents relevant to sea lice?
 If yes, detail:
- Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
 If no, detail:
- Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
- Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?

Escapes/Containment

1. Any reported escapes? (check prior to phone call)

| |
|---|
| Y |
|---|

2. Any escapes? (since last inspection)

| |
|---|
| N |
|---|

If yes, detail:
(include date)

| |
|--|
| |
|--|

Biosecurity Records

1. Any significant changes to your biosecurity procedures since previous visit?

| |
|---|
| N |
|---|

If yes, detail:

| |
|--|
| |
|--|

| | | | | | | |
|--|---|-----------------------------|---------------|-----------------|----------------------------|----|
| Case Number: | 2020-0194 | Site No: | FS0881 | Insp: | | |
| Date of Visit | 15/05/2020 | No of movements/supp./dest. | | | Score | |
| Live fish movements | | 0 | 1-5 | 6-10 | >10 | |
| Movements on (from out with GB) of susceptible species | Frequency of movements on from equivalent MS | 0 | 5 | 10 | 14 | 0 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 9 | 18 | 26 | 0 |
| | Number of suppliers | 0 | 5 | 10 | 14 | 5 |
| Movements off | Frequency of movements off | 0 | 3 | 6 | 10 | 10 |
| | Number of destinations | 0 | 3 | 6 | 10 | 3 |
| Exposure via water | | Site contacts | | | | |
| | | 0 | 1-5 | 6-10 | | |
| Water contacts with other farms (holding species susceptible to same diseases) | Farm is protected (secure water supply through disinfection or borehole) | 0 | | | | |
| | Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion | 1 | 2 | 4 | | 2 |
| | Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion | 1 | 3 | 6 | | |
| | Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion | 1 | 4 | 8 | | |
| Management practices | | None | Secure | Unsecure | | |
| Water contacts with processors | Any processing plant discharging into adjacent waters | 0 | 1 | 2 | | 0 |
| On farm processing within the rules of the directive | No on farm processing | 0 | | | | 0 |
| | Processing own fish (re-cycling risk) | 1 | | | | |
| | Processing fish from MS of equivalent status | 2 | | | | |
| | Processing fish from zone or compartment of equivalent status | 4 | | | | |
| | Processing fish from Category III farm | 8 | | | | |
| | Processing fish from Category V farm | 10 | | | | |
| Disposal of fish and fish by-products | Site's own waste only processed. | 0 | | | | |
| | Common processes with other farms | 3 | | | | 3 |
| | Collection point for waste from other farms | 5 | | | | |
| Use of unpasteurised feeds | No feeding of unpasteurised feed | 0 | | | | 0 |
| | Feeding unpasteurised feed | 5 | | | | |
| Biosecurity | | 1 | 2 or 3 | ≥ 4 | | |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 | 2 | | 1 |
| | Sites sharing staff and equipment | 0 | 1 | 2 | | 1 |
| Disinfection of equipment between sites, use of footbaths etc | Yes | 0 | | | | 0 |
| | No | 1 | | | | |
| CoGP/Regulator | | | | | | |
| Practices in accordance with regulator or industry code of practice | Yes | 0 | | | | 0 |
| | No | 3 | | | | |
| Platform access to cages | Yes | 0 | | | | 0 |
| | No | 2 | | | | |
| Total Rank | | | | | 25 MEDIUM | |

[REDACTED]
Grieg Seafood Shetland Ltd
Gremista
Lerwick
Shetland
ZE1 OPX
[REDACTED]

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|------------|
| BUSINESS No | FB0440 | DATE OF CASE | 15/05/2020 |
| SITE No | FS0881 | SITE NAME | Uig |
| INSPECTOR | [REDACTED] | CASE No | 20200194 |

Passive Surveillance Inspection

A notification of mortality levels above the reporting criteria was received by the Fish Health Inspectorate on 19/02/2020 and 12/05/2020 for the period of 20/02/2020 to 26/01/2020 and 04/05/2020 to 10/05/2020 respectively.

Due to current government advice regarding the on-going situation with COVID-19 an inspection of the site could not be conducted. A passive surveillance inspection was conducted by telephone to gather information in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC. Information was also gathered in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice). The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as Medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

Mortality levels had exceeded the reporting criteria since the last inspection and had not been reported to the Fish Health Inspectorate. I would like to remind you of the industry agreement in relation to mortality reporting as detailed in A Code of Good Practice for Scottish Finfish Aquaculture.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:

[REDACTED]

Date: 18/05/2020

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter
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Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB

Tel - 0131 244 3498

Email - ms.fishhealth@gov.scot

Website - <https://www.gov.scot/policies/fish-health-inspectorate/>

Case No: 2020-0198 Date of visit: 15/05/2020

Time spent on site: 1hr Main Inspector:

Site No: FS1309 Site Name: Loch Snizort East
Business No: FB0440 Business Name: Grieg Seafood Shetland Ltd

Case Types: 1 PSI 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed N

Observations: Region: HI Water type: S CoGP MA: M-24

Dead/weak/abnormally behaving fish present?
Clinical signs of disease observed?
Gross pathology observed?
Diagnostic samples taken?
If yes, see additional information/clinical score sheet.

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

MRT01628 (04/05/2020) - 11,820 (2.23%) - Treatment losses

Mortality last 4 weeks:

13th April - 835 (0.15%) - attributed to physical damage from previous treatments and poor performers.

20th April - 1,362 (0.25%) - attributed to physical damage from previous treatments and poor performers.

27th April - 1,477 (0.28%) - attributed to physical damage from optilicer and poor performers.

4th May - 11,820 (2.23%) - attributed to physical damage from optilicer.

Sea lice counts over 2 since last inspection:

Wk10: 4.8 - Fish came onto site from Uig FS0881 during a freshwater treatment.

Wk11: 3.75

Wk12: No count

Wk13: 2.84 - Site began a H2O2 treatment.

Wk14: 3.45 - Ongoing H2O2 treatment.

Wk15: 3.59

Wk16: 4.51 - Optilicer arrived on site followed by a plankton bloom.

Wk17: 3.71

Wk18: 1.14 - Optilicer moved to Uig.

Wk19: 2.49 Optilicer ongoing.

Site currently using live haul for harvesting, however this is under discussion and may change in the near future to dead haul.

Site receives all fish from Uig FS0881.

PSI conducted due to current COVID-19 lockdown restrictions preventing a site inspection.

Case No: Site No:
 Date of case: Inspector(s):

Registration/Authorisation Details

Business/site contacts correct? (if no update site summary sheet)

Site Details

| | | | |
|-------------------------|---|------------------------|--|
| Total No facilities | <input type="text" value="10"/> | No facilities stocked | <input type="text" value="9"/> |
| Species | <input type="text" value="SAL"/> | | |
| Age group | <input type="text" value="19 S1"/> | | |
| No Fish | <input type="text" value="510,000"/> | | |
| Mean Fish Wt | <input type="text" value="1.7kg"/> | | |
| Next Fallow Date (Site) | <input type="text" value="October 2020"/> | Next Input Date (Site) | <input type="text" value="Spring 2021"/> |

Date of last inspection: (ECI or PSI)

Mortality Information

- Any recent increased or atypical mortalities? (last 4 weeks).
 If yes, detail:
- Any increased mortalities? (since last inspection.)
 If yes, detail:
- How are mortalities disposed of? Other (detail)
 If other detail:

Treatments and Medicines

- Any treatments? (since last inspection)
 If yes, detail:
 Other:

Health status and Results of Surveillance

- Any disease on site? (since last inspection)
 If yes, detail:
- Has any animal health surveillance been carried out by, or on behalf of, the business?
- Any significant results?
 If yes, detail:

Sea lice

- Has the site experienced sea lice problems in the previous 4 years?
 If yes, detail:
- Have lice levels stayed below the suggested criteria for treatment in the CoGP since the last inspection?
 If no, detail:
- Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) since the last inspection?
- If yes to 3, have these been reported to the Fish Health Inspectorate? If no, see comment.
- Does the site have treatment discharge consents relevant to sea lice?
 If yes, detail:
- Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
 If no, detail:
- Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
- Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?

Escapes/Containment

1. Any reported escapes? (check prior to phone call)

| | |
|--|---|
| | Y |
| | Y |

2. Any escapes? (since last inspection)

If yes, detail: (include date) MSe020420SAL1 - 0 fish believed to have escaped. MSe110218SAL1 - 21,712 fish believed to have escaped.

Biosecurity Records

1. Any significant changes to your biosecurity procedures since previous visit?

| | |
|--|---|
| | N |
|--|---|

If yes, detail:

| | | | | | | |
|--|---|------------------------------------|---------------|-----------------|---------------|---------------|
| Case Number: | 2020-0198 | Site No: | FS1309 | Insp: | | |
| Date of Visit | 15/05/2020 | No of movements/supp./dest. | | | Score | |
| Live fish movements | | 0 | 1-5 | 6-10 | >10 | |
| Movements on (from out with GB) of susceptible species | Frequency of movements on from equivalent MS | 0 | 5 | 10 | 14 | 0 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 9 | 18 | 26 | |
| | Number of suppliers | 0 | 5 | 10 | 14 | 0 |
| Movements off | Frequency of movements off | 0 | 3 | 6 | 10 | 10 |
| | Number of destinations | 0 | 3 | 6 | 10 | 3 |
| Exposure via water | Site contacts | 0 | 1-5 | 6-10 | | |
| Water contacts with other farms (holding species susceptible to same diseases) | Farm is protected (secure water supply through disinfection or borehole) | 0 | | | | |
| | Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion | 1 | 2 | 4 | | 2 |
| | Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion | 1 | 3 | 6 | | |
| | Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion | 1 | 4 | 8 | | |
| Management practices | | None | Secure | Unsecure | | |
| Water contacts with processors | Any processing plant discharging into adjacent waters | 0 | 1 | 2 | | 0 |
| On farm processing within the rules of the directive | No on farm processing | 0 | | | | 0 |
| | Processing own fish (re-cycling risk) | 1 | | | | |
| | Processing fish from MS of equivalent status | 2 | | | | |
| | Processing fish from zone or compartment of equivalent status | 4 | | | | |
| | Processing fish from Category III farm | 8 | | | | |
| | Processing fish from Category V farm | 10 | | | | |
| Disposal of fish and fish by-products | Site's own waste only processed. | 0 | | | | |
| | Common processes with other farms | 3 | | | | 3 |
| | Collection point for waste from other farms | 5 | | | | |
| Use of unpasteurised feeds | No feeding of unpasteurised feed | 0 | | | | 0 |
| | Feeding unpasteurised feed | 5 | | | | |
| Biosecurity | Number of sites | 1 | 2 or 3 | ≥ 4 | | |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 | 2 | | 1 |
| | Sites sharing staff and equipment | 0 | 1 | 2 | | 1 |
| Disinfection of equipment between sites, use of footbaths etc | Yes | 0 | | | | 0 |
| | No | 1 | | | | |
| CoGP/Regulator | | | | | | |
| Practices in accordance with regulator or industry code of practice | Yes | 0 | | | | 0 |
| | No | 3 | | | | |
| Platform access to cages | Yes | 0 | | | | 0 |
| | No | 2 | | | | |
| Total Rank | | | | | 20 | MEDIUM |

██████████
Grieg Seafood Shetland Ltd
Gremista
Lerwick
Shetland
ZE1 OPX
██████████

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|-------------------|
| BUSINESS No | FB0440 | DATE OF CASE | 15/05/2020 |
| SITE No | FS1309 | SITE NAME | Loch Snizort East |
| INSPECTOR | ██████████ | CASE No | 20200198 |

Passive Surveillance Inspection

A notification of mortality levels above the reporting criteria was received by the Fish Health Inspectorate on 12/05/2020 for the period of 04/05/2020 to 10/05/2020.

Due to current government advice regarding the on-going situation with COVID-19 an inspection of the site could not be conducted. A passive surveillance inspection was conducted by telephone to gather information in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC. Information was also gathered in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice).

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as Medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:

██████████
Fish Health Inspector

Date: 18/05/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

R28

Case No: 2020-0203 Date of visit: 18/05/2020

Time spent on site: N/A Main Inspector: [Redacted]

Site No: FS0188 Site Name: Yarrowford
Business No: FB0353 Business Name: The Yarrow Fishery

Case Types: 1 INF 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): [] Thermometer No: [] FHI 045 completed []

Observations: Region: BO Water type: F CoGP MA: []

Dead/weak/abnormally behaving fish present? [] If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? [] If yes, see additional information/clinical score sheet.
Gross pathology observed? [] If yes, see additional information/clinical score sheet.
Diagnostic samples taken? []

UNI/REG only - if unable to carry out intended visit detail reason below:
[Redacted]

Additional Case Information:

FVG informed of suspicion of VHS. IDN to be served.

Site visit to be completed; 150 stat test.

Case No: Date of visit:

Time spent on site: Main Inspector:

Site No: Site Name:

Business No: Business Name:

Case Types: 1 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: BO Water type: F CoGP MA

Dead/weak/abnormally behaving fish present? If yes, see additional information/clinical score sheet.
 Clinical signs of disease observed? If yes, see additional information/clinical score sheet.
 Gross pathology observed? If yes, see additional information/clinical score sheet.
 Diagnostic samples taken?

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Information received from FVG on 18 May 2020 raising suspicion of the presence of VHS. IDN placed and stat samples to be taken.

Fish of concern are in pond A3 where there has been a rise in mortality since mid-march. The fish came from Moffat Fishery Fish Farm. The site manager noted that the weather has been variable with high temperatures (above 14 degrees) he noted that during warmer weather the fish are dying in greater numbers and mortality is reducing in lower temperatures.

Paperwork done remotely ahead of site visit by [REDACTED], Site inspection and sampling by [REDACTED].

Affected pond runs into ponds S1 and then S2. No issues in these two ponds.

A3 fish are on a separate batch of feed (Altec coppens). Fish being given limited feed every 3 days.

Case No: **2020-0205** Site No: **FS0188**
 Date of Visit: **19/05/2020** Inspector(s): **[Redacted]**

Registration/Authorisation Details

1. Business/site details summary checked by site representative? **Y**
 2. Changes made to details? **N**

Site Details

| | | | | | | | | |
|-------------------------|-----------------|---------------|------------------------|-----------------|--|-------------------------|----------|--|
| Total No facilities | 9 | | Facilities stocked | 9 | | No facilities inspected | 9 | |
| Species | RTR | RTR | TRO | TRO | | | | |
| Age group | 2018 | 2019 | 2017 | 2018 | | | | |
| No Fish | 63,000 | 55,000 | 2,000 | 2,000 | | | | |
| Mean Fish Wt | 900g | 300g | 1.5 Kg | 750g | | | | |
| Next Fallow Date (Site) | No plans | | Next Input Date (Site) | No plans | | | | |

Recent (last 4 wks) disease problems? **Y** Any escapes (since last visit)? **N**
 If yes, detail: **Suspected VHS, Suspected ERM**

Movement Records

1. Movement records available for inspection? **Y**
 2. Date of last inspection: **05/03/2020**
 3. Are records complete and correctly entered? **Y**
 4. Are movement records available for dead fish and waste? **Y**
 5. Are records complete and correctly entered? **Y**
 6. Are health certificates for introductions (outwith GB) available? **N/A**

Transport Records

1. Are any movements carried out by (or on behalf) of the business (not using a STB)? **[Redacted]**
 If yes, is there a system in place for maintenance of transportation records? **[Redacted]**

Mortality Records

1. Mortality records available for inspection? **Y**
 2. How are mortalities disposed of? **Other (detail)**
 If other detail: **Fish are frozen and then collected under fallen animal scheme**
 3. Mortality records complete and correctly entered? **Y**
 4. Recent mortality (last 4 wks): **Excluding pond A3 mort levels on site have been below 20/site/week. A3 weekly morts; 23/4 209; 30/4 469, 6 May 310, 13 May 189**
 5. Evidence of recent increased/atypical mortalities? **Y**
 If yes, facility nos/no mortality per facility/no stock per facility/reason:
A3- see attachment- reason undetermined.
 6. Any other peaks in mortality during period checked? **N**
 If yes, detail: **[Redacted]**
 7. Have increased (unexplained) mortalities been reported to vet or FHI? **Y**
 If yes, detail action: **Reported increased morts to FVG, then reported to FHI**
 8. Have 'mortality events' been reported to FHI? If no, add MRT case and enter on mortality events sheet. **N/A**

| | | |
|--|--------------------------|---|
| 1. Recent treatments (last 4 wks)? | <input type="checkbox"/> | Y |
| If yes, detail: | Branzil, Florfenicol | |
| | Aquatet | |
| | BKC | |
| | Benzoclonium Chloride) | |
| If other, detail: | | |
| 2. Medicines records available for inspection? | <input type="checkbox"/> | Y |
| 3. Are records complete and correctly entered? | <input type="checkbox"/> | Y |
| 4. Are fish in a withdrawal period? | <input type="checkbox"/> | N |
| 5. If yes, what treatment(s)? | | |
| If other, detail: | | |
| 6. Are medicines stored appropriately? | <input type="checkbox"/> | Y |

Biosecurity Records

| | |
|--|--------------------------|
| 1. Biosecurity records available for inspection? | <input type="checkbox"/> |
| 2. Has the manner and frequency of mortality removal, recording and safe disposal been considered? | <input type="checkbox"/> |
| 3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any increased (unexplained) mortality at the site been included? | <input type="checkbox"/> |
| 4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease is detected been included and <i>how</i> and <i>when</i> that will be notified to Scottish Ministers? | <input type="checkbox"/> |
| 5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)? | <input type="checkbox"/> |
| 6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)? | <input type="checkbox"/> |
| 7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site? | <input type="checkbox"/> |
| 8. Have the biosecurity procedures been adequately implemented on site? | <input type="checkbox"/> |
| If no, detail: | |

Results of Surveillance

| | | |
|---|--------------------------|---|
| 1. Has any animal health surveillance been carried out by, or on behalf of, the business? | <input type="checkbox"/> | Y |
| 2. If yes, are results available for inspection? | <input type="checkbox"/> | Y |
| 3. Any significant results? | <input type="checkbox"/> | Y |
| If yes, detail (if not detailed under recent disease problems). | | |

Suspected haemorrhagic septacemia.

Records checked between: 5/3/20-19/5/20

Case no: Site No: Date of visit/ Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

| Pool/Fish No | F1 | F2 | F3 | F4 | F5 | F6 | F7 | F8 | F9 | F10 | P1 | P2 |
|----------------|--------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Fish nos | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 1-5 | 6-10 |
| Pool Group | P1 | P1 | P1 | P1 | P1 | P2 | P2 | P2 | P2 | P2 | | |
| Species | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR |
| Average weight | 130G | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g |
| Sex | | | | | | | | | | | | |
| Water Type | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW |
| Stock Details | | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery |
| | Stock Origin | | | | | | | | | | | |
| Facility No | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 |

05/2020 Additional Sample Information:
 additional histo sample of thickened stomach wall F5, F9. Pool 1 and 2 part of 10 fish diag and virology sample logged as VI storage. Pools 3-30 virology logged as VI VHS. Same tissues in all 30 pools. F111-150 (P23-30) sampled by [REDACTED]

41 Total Tests assigned 6

| P3 | P4 | P5 | P6 | P7 | P8 | P9 | P10 | P11 | P12 | P13 | P14 | P15 | P16 | P17 | P18 |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 11-15 | 16-20 | 21-25 | 26-30 | 31-35 | 36-40 | 41-45 | 46-50 | 51-55 | 56-60 | 61-65 | 66-70 | 71-75 | 76-80 | 81-85 | 86-90 |
| RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR | RTR |
| 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g | 130g |
| FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW | FW |
| Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery | Moffat Fishery |
| A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 | A3 |

Case no: 2020-0205

Site No: FS0188

Method of killing: Anaesthetic

Date of visit: 19/05/2020

Inspector(s):

Sheet Relevant: Y

S for strong presence: M for medium presence: W for weak presence

| Fish Number | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|-----------------------|---|---|---|---|---|---|---|---|---|----|
| Time sampled after death (if > 45 minutes) | | | | | | | | | | | |
| External Signs | | | | | | | | | | | |
| Behaviour | Moribund | S | S | S | S | S | S | S | S | S | S |
| | Lethargic | | | | | | | | | | |
| | Hanging vertical | | | | | | | | | | |
| | Spiralling | | | | | | | | | | |
| | Flashing | | | | | | | | | | |
| | Loss of equilibrium | | | | | | | | | | |
| Body | Dark | S | S | S | | S | | | | | |
| | Distended abdomen | | | | | | | | | | |
| | Anorexic | | | | | | | | | | |
| | Scale Oedema | | | | | | | | | | |
| Opercula | Shortened | | | | | | | | | | |
| | Flared | | | | | | | | | | |
| Haemorrhaging | Throat | | | | | | | | | | |
| | Ventrum | | | | | | | | | | |
| | Base of fins | | | | | | | | | | |
| | Elsewhere | | | | | | | | | | |
| Eyes | Exophthalmic | | | | | | | | | | |
| | Enophthalmic (sunken) | | | | | | | | | | |
| | Cataract | | | | | | | | | | |
| | Haemorrhagic | | | | | | | | | | |
| Gills | Pale | S | S | S | S | S | | S | S | S | |
| | Zoned | | | | | | | | | | |
| | Necrotic | | | | | | | | | | |
| Lesions | Flank | | | | S | | | | | | |
| | Elsewhere | | | | S | S | S | | | | S |
| Vent | Inflamed | | | | | | | | | | |
| | Trailing faeces | | | | | | | | | | |
| Lice Load | Estimate numbers | | | | | | | | | | |
| Internal Signs | | | | | | | | | | | |
| Ascites | Clear | | | | | | | | | | |
| | Bloody | | | | | | | | | | |
| Oedema | In tissues | | | | | | | | | | |
| Heart | Pale/anaemic | | | | | | | | | | |
| | Granulomas | | | | | | | | | | |
| | Deformed | | | | | | | | | | |
| Liver | Petechial haem | | | | | | | | | M | |
| | Gross haem | | | | | | | | | | |
| | Tissue breakdown | | | | | | | | | | |
| | Enlarged | | | | | | | | | | |
| | Colour number(s) | 1 | 1 | 1 | 1 | 5 | 5 | 5 | | | |
| | Granulomas | | | | | | | | | | |
| | Lesions | | | | | | | | | | |
| Pyloric caeca | Petechial haem | | | | | | | M | | | |
| | Tubules mauve | | | | | | | | | | |
| | Lack of fat | | | | | | | | | | |
| Spleen | Enlarged | | | | W | M | | | | | |
| | Granulomas | | | | | | | | | | |
| Gut | No food present | S | S | S | S | S | S | S | S | S | S |
| | Yellow pseudo-faeces | | | | | | | | | | |
| | External haem | | | | | | | | | | |
| | Internal haem | | | | | | | | | | |
| Body wall | Haemorrhaging | | | | | | | | | | |
| Swim bladder | Haemorrhaging | | | | | | | | | | |
| | Fluid filled | | | | | | | | | | |
| Kidney | Swollen | | | | | | | | | | |
| | Grey | | | | | | | | | | |
| | Granular | | | | | | | | | | |
| | Liquefied | | | | | | | | | | |
| General | Parasites present | | | | | | | | | | |
| | Anaemia | | | | | | | | | | |

Case no: 2020-0205

Date of visit: 19/05/2020

S for strong presence: M for medium presence: W for w

| | | | | | | | | | | |
|--|-----------------------|-----|--|--|--|--|--|--|--|--|
| Fish Number | | 126 | | | | | | | | |
| Time sampled after death (if > 45 minutes) | | | | | | | | | | |
| External Signs | | | | | | | | | | |
| Behaviour | Moribund | | | | | | | | | |
| | Lethargic | | | | | | | | | |
| | Hanging vertical | | | | | | | | | |
| | Spiralling | | | | | | | | | |
| | Flashing | | | | | | | | | |
| | Loss of equilibrium | | | | | | | | | |
| Body | Dark | | | | | | | | | |
| | Distended abdomen | | | | | | | | | |
| | Anorexic | | | | | | | | | |
| | Scale Oedema | | | | | | | | | |
| Opercula | Shortened | | | | | | | | | |
| | Flared | | | | | | | | | |
| Haemorrhaging | Throat | | | | | | | | | |
| | Ventrum | | | | | | | | | |
| | Base of fins | | | | | | | | | |
| | Elsewhere | | | | | | | | | |
| Eyes | Exophthalmic | | | | | | | | | |
| | Enophthalmic (sunken) | | | | | | | | | |
| | Cataract | | | | | | | | | |
| | Haemorrhagic | | | | | | | | | |
| Gills | Pale | | | | | | | | | |
| | Zoned | | | | | | | | | |
| | Necrotic | | | | | | | | | |
| Lesions | Flank | S | | | | | | | | |
| | Elsewhere | | | | | | | | | |
| Vent | Inflamed | | | | | | | | | |
| | Trailing faeces | | | | | | | | | |
| Lice Load | Estimate numbers | | | | | | | | | |
| Internal Signs | | | | | | | | | | |
| Ascites | Clear | | | | | | | | | |
| | Bloody | | | | | | | | | |
| Oedema | In tissues | | | | | | | | | |
| Heart | Pale/anaemic | | | | | | | | | |
| | Granulomas | | | | | | | | | |
| | Deformed | | | | | | | | | |
| Liver | Petechial haem | | | | | | | | | |
| | Gross haem | | | | | | | | | |
| | Tissue breakdown | | | | | | | | | |
| | Enlarged | | | | | | | | | |
| | Colour number(s) | 6 | | | | | | | | |
| | Granulomas | | | | | | | | | |
| | Lesions | | | | | | | | | |
| Pyloric caeca | Petechial haem | | | | | | | | | |
| | Tubules mauve | | | | | | | | | |
| | Lack of fat | | | | | | | | | |
| Spleen | Enlarged | | | | | | | | | |
| | Granulomas | | | | | | | | | |
| Gut | No food present | | | | | | | | | |
| | Yellow pseudo-faeces | | | | | | | | | |
| | External haem | | | | | | | | | |
| | Internal haem | | | | | | | | | |
| Body wall | Haemorrhaging | | | | | | | | | |
| Swim bladder | Haemorrhaging | | | | | | | | | |
| | Fluid filled | | | | | | | | | |
| Kidney | Swollen | | | | | | | | | |
| | Grey | | | | | | | | | |
| | Granular | | | | | | | | | |
| | Liquefied | | | | | | | | | |
| General | Parasites present | | | | | | | | | |
| | Anaemia | | | | | | | | | |

Additional comments:

Stones observed in stomachs of many fish. F1- F110 killed with MS222 and sampled by [REDACTED]. F111-F150 killed by percussive blow to head and sampled by [REDACTED].

F1 -pale mottled liver, ragged tail, F2 -yellow gelinous substance in stomach, pale mottled small liver. F3- small mottled liver, extended stomach (stones), inflamed hind gut. F4 -Saprolegnia like lesions, tail missing. F5 -extended stomach Saprolegnia like lesion on head. F6 -small liver, toughened stomach. F7 -small liver, mottled. Stomach distended with stones F8 -very pale internally, brown liver, hard thickened stomach. F9 -hard stomach. F10 -saprolegnia like lesions on head and ventral surface, hard stomach with stones, inflamed hind gut, small liver. F126- flank lesions like Red mark syndrome.

| |
|---|
| Site No: FS0188 |
| Case No: 2020-0205 |
| Nature of non-compliance: |
| Action taken (FHI): |
| Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology |





Note - attachments file must be saved to ARC folder as PDF with correct name format e.g. 2012-0123-attach or 2012-0123-attach2 etc.

[REDACTED]
The Yarrow Fishery
Yarrow
Selkirk
TD7 5JZ
[REDACTED]

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|-------------|------------|---------------|------------|
| BUSINESS No | FB0353 | DATE OF VISIT | 20/05/2020 |
| SITE No | FS0188 | SITE NAME | Yarrowford |
| INSPECTOR | [REDACTED] | CASE No | 20200205 |

Section 1: Summary

Yarrowford was inspected following a notification of the suspicion of the presence of viral haemorrhagic septicaemia virus (VHSV). Movement restrictions were placed at the site and samples were collected to either confirm or rule out the presence of the disease. Ten moribund fish were removed for diagnostic purposes.

Histopathology examination revealed mixed pathology. Some fish showed a mild dermatitis and myositis associated with the presence of oomycetes (likely *Saprolegnia*), mild to moderate diffuse, chronic, hepatitis and nephrosis.

An *Aeromonas* sp. and *Pseudomonas fluorescens* were identified. The level and purity of growth would not suggest these bacteria are the primary source of morbidity. Fish 10 had a more significant presence of *Aeromonas* sp. which may have contributed to health issues in that individual, however, overall the level and purity of growth would not suggest these bacteria would be implicated in fish morbidity.

Please contact myself or the duty inspector should you require any further information, have any queries regarding this report or if any problems develop.

Section 2: Case Detail

Observations

The fish health inspectorate (FHI) received information from the Fish Vet Group (FVG) on 18 May 2020 raising suspicion of the presence of VHSV at Yarrowford. An initial designation notice was placed on the site. The site manager reported that pond A3 had been experiencing increased mortality levels since mid-March.

R09

The site was stocked with 63,000 rainbow trout (2018) at an average weight of 900g, 55,000 rainbow trout (2019) at an average weight of 300g, 2,000 brown trout (2017) at an average weight of 1.5 Kg, and 2,000 brown trout (2018) at an average weight of 750g.

We were informed that the weather had been variable with temperatures peaking at about 14 degrees centigrade. During warmer weather the fish were dying in greater numbers and mortality was reducing in periods of lower temperatures. The affected pond, A3, runs into ponds S1 and then S2 where no issues have been noted.

On inspection of the ponds 10 moribund fish, four of which were dark in colour, were observed in pond A3. These fish were removed for diagnostic examination. In addition a further 140 fish were removed from A3 and other ponds across the site for statutory sampling purposes. A separate report has been issued with results from these statutory tests. Fish 126 exhibited flank lesions resembling red mark syndrome. This fish was also included in the diagnostic examination.

Externally fish 1-5 and 8-10 displayed pale gills. Fish 4 and 126 had flank lesions. Fish 5 and 10 had lesions on the head. Fish 10 also had lesions on the ventral surface and fish 4 was missing the caudal fin.

Internally fish 1-3 and 7 had pale mottled livers and fish 2-3 and 6-7 had small livers. Many had extended stomachs (F3, F5, F7) and stones were observed in the stomachs of fish 3,7 and 10. Fish 3 and 10 had inflamed hind guts. Fish 4 and 5 had enlarged spleens. Petechial haemorrhaging of the pyloric caeca was observed in fish 7.

Samples

Samples from 11 fish were collected for diagnostic examination according to the table below:

| Fish number | Pool number | Facility number | Species | Stage | Origin |
|-------------|-------------|-----------------|---------------------|-------|----------------|
| F1-10 | P1-2 | A3 | Oncorhynchus mykiss | 130g | Moffat Fishery |
| F126 | P26 | C4 | Oncorhynchus mykiss | 1kg | Northern Trout |

Results

Bacteriology: Kidney, spleen and lesion material from fish 1-10 and 126 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated;

- *Aeromonas* sp.: F4 & 10 (kidney, spleen), F6 & 9 (spleen), F7 (kidney), 9 (spleen) & F5 & 126 (lesion)
- *Pseudomonas fluorescens*: F7 (spleen) & F10 (spleen & lesion)

Virology: Tissue samples were tested for segments of nucleic acid indicative of the presence of the pathogens specified below using real-time PCR (QPCR).

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious pancreatic necrosis virus (IPNV), salmonid alphavirus (SAV) and viral haemorrhagic septicaemia virus (VHSV).

Parasitology: Fins were collected from fish 1-10 and 126 to determine the presence of *Gyrodactylus salaris* using light microscopy.

R09

No *G. salaris* parasites were detected in the samples examined.

Histology: Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen, kidney and brain were taken from fish 1–10 and 126. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Gill: Few foci of lamellar epithelial hyperplasia and haemorrhage (F2, F126), increase number of eosinophilic granular cells (EGC) at the centre of the gill filament (F5), some inflammatory cell infiltration at the tip of the gill filament (F10), free blood among gill filament (F2, F126), lamellar congestion noted in F2 & F7, and generalized epithelial lifting noted in F3 (likely post-mortem artefact).

Skin & Muscle: lesion: absence of epidermal layer (F4 & F5), skeletal muscle necrosis and structures resembling hyphae were present in association with muscle fibres (F4, F10). F5 displayed dermal oedema and mild inflammatory cell infiltration. F126 exhibited partial absence of the epidermal layer and congestion of the outer layer of the dermis.

Heart: Focal area of haemorrhage (F3) and inflammatory cell infiltration (F6) noted in the compact layer. F2: Almost no ventricle; F5: heart not in section; F7: no atrium in section.

Gut and pyloric caeca: Mild haemorrhage of the abdominal adipose tissue (F7, F10).

Pancreas: Within normal range.

Liver: Multifocal inflammatory cell infiltration, pericellular fibrosis and mild to moderate cuffing (F1 F2, F3, F7, F8, F9, F126). F3 displayed three multinuclear giant cells. Some fish exhibited regenerative tissue (F1, F3), mild diffuse hepatocyte vacuolation (macrovesicles) (F1, F2, F7) and some sinusoidal congestion also noted in F1 & F2 and F9 displayed evidences of erythrophagocytosis.

Kidney: Several renal tubule displayed hyaline droplets (F2, F3, F4, F5, F8, F10, F126) and epithelial vacuolation (F3, F7, F9). F3 exhibited a focus of hematopoietic tissue disarray and F7, F9 & F126 displayed congestion on the hematopoietic tissue.

Spleen: Congested (F1-F8, F9, F126).

Brain: Within normal range (F1).

Signed:



Fish Health Inspector

Date: 04/06/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

R09

Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Tel - 0131 244 3498 Fax - 0131 244 0944 Email - ms.fishhealth@gov.scot
Website - www.gov.scot/Topics/marine/science

██████████
The Yarrow Fishery
Yarrow
Selkirk
TD7 5JZ
████████████████████

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|----------------------|----------------------|------------|
| BUSINESS No | FB0353 | DATE OF VISIT | 20/05/2020 |
| SITE No | FS0188 | SITE NAME | Yarrowford |
| INSPECTOR | ████████████████████ | CASE No | 20200205 |

Statutory test

Following notification of the suspicion of the presence of viral haemorrhagic septicaemia virus (VHSV) at Yarrowford movement restrictions were placed at the site. A site visit was conducted to take samples to either confirm or rule out the presence of the disease.

All epidemiological units were inspected. Approximately 10 moribund fish were observed in pond A3 and these were removed to be included as part of the samples. Samples were also taken for diagnostic purposes. A separate report will be issued detailing the results of these tests.

Samples

150 rainbow trout were tested for the presence of VHSV. Samples were collected according to the table below:

| Fish number | Pool number | Facility number | Stage | Origin |
|-------------|-------------|-----------------|--------|----------------|
| 1-110 | 1-22 | A3 | 130g | Moffat Fishery |
| 111-115 | 23 | S2 | 1 Kg | Northern Trout |
| 116-120 | 24 | S1 | 1 Kg | Northern Trout |
| 121-125 | 25 | D1, D2 | 100g | Dunsop Bridge |
| 126-130 | 26 | C4 | 1 Kg | Northern Trout |
| 131-135 | 27 | C3 | 2.5 Kg | Northern Trout |
| 136-140 | 28 | C1 | 1.9 Kg | Northern Trout |

| | | | | |
|---------|----|-----|------|----------------|
| 141-145 | 29 | C2T | 500g | Northern Trout |
| 146-150 | 30 | C2B | 2 Kg | Northern Trout |

Results

Molecular genetics: Tissue samples were tested for segments of RNA indicative of the presence of VHSV using real-time PCR (QPCR).

The result of this test was negative.

Appraisal

The test for VHSV was negative. As the test was negative, the movement restrictions in force have been withdrawn. Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:



Fish Health Inspector

Date: 04/06/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter

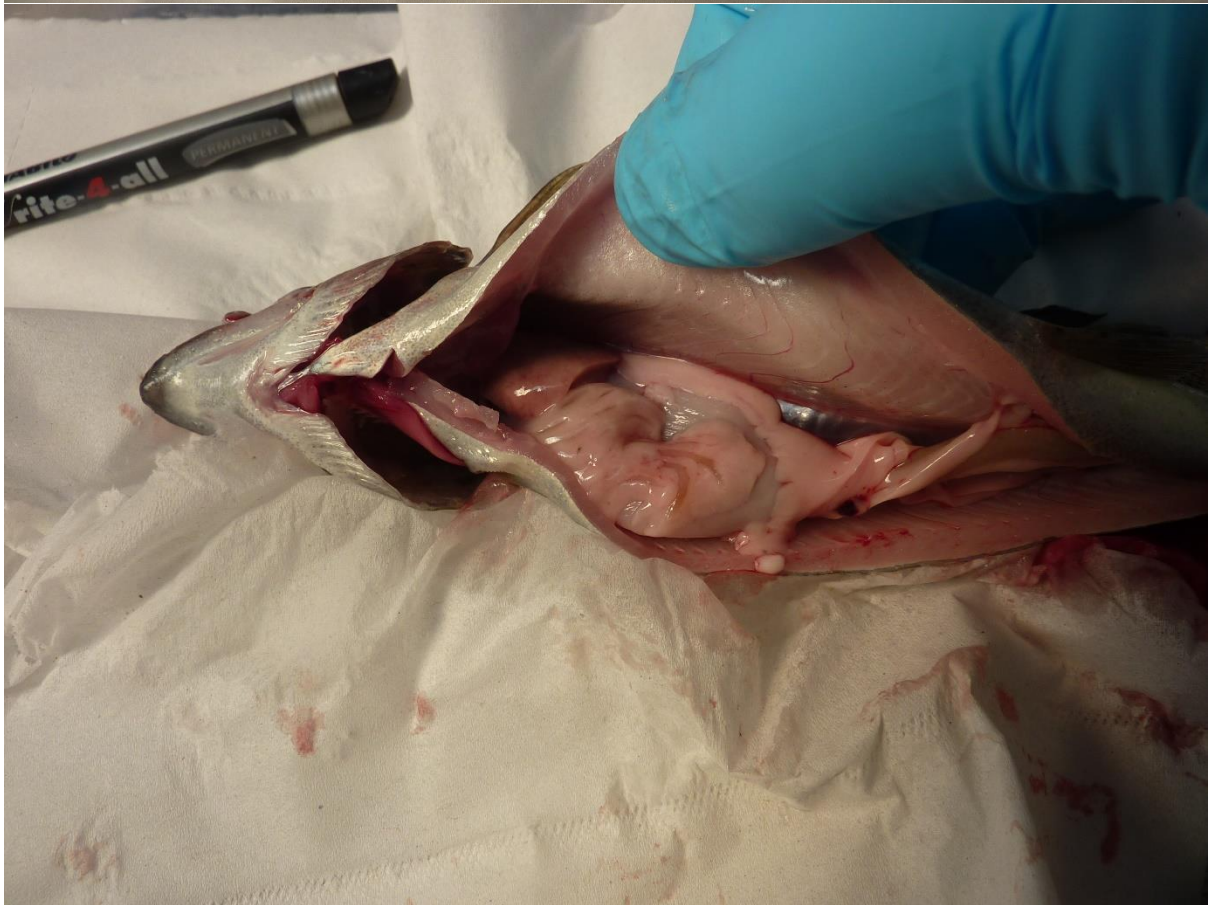
Apr-20 Mortality in
 pond A3

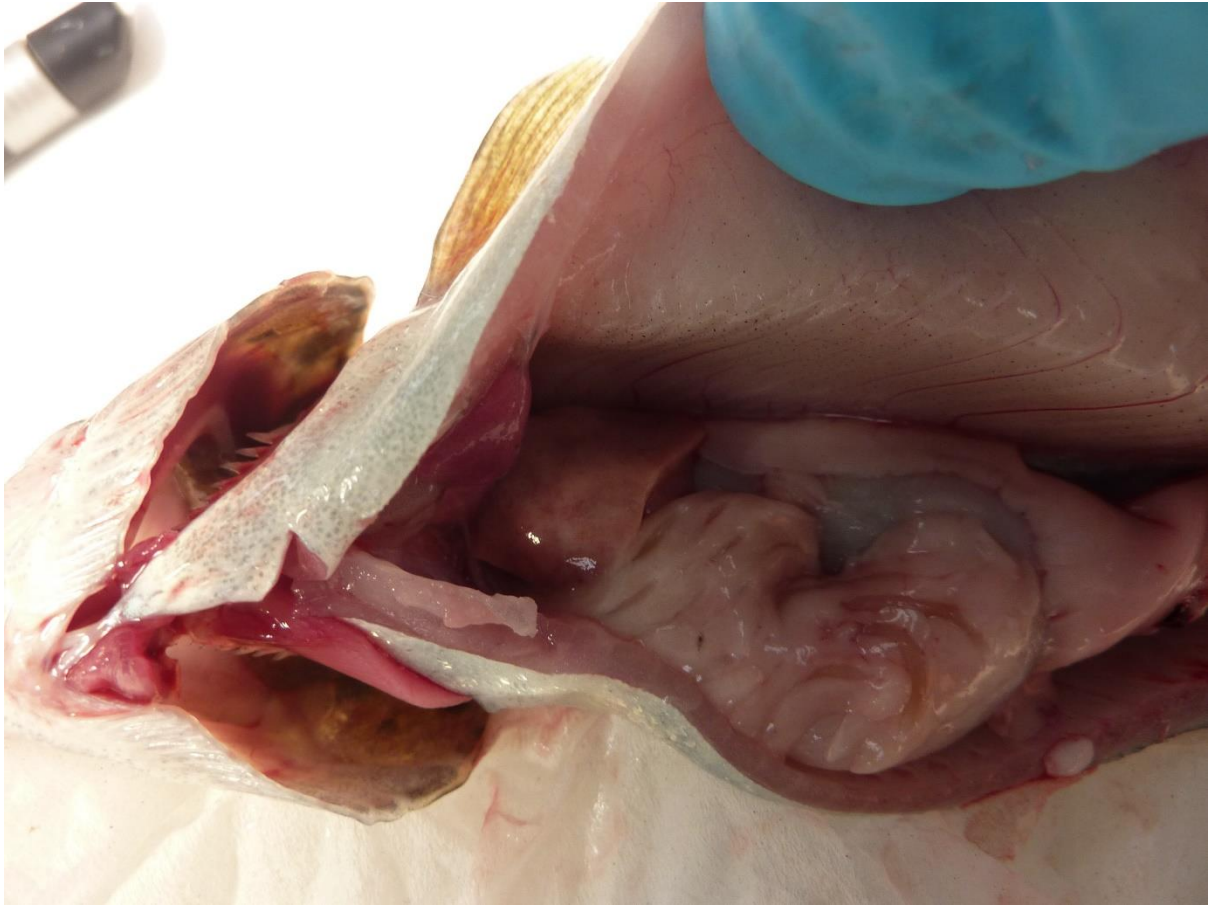
| | |
|----|----|
| 2 | 5 |
| 3 | 10 |
| 4 | 15 |
| 5 | 20 |
| 6 | 25 |
| 7 | 22 |
| 8 | 20 |
| 9 | 21 |
| 10 | 21 |
| 11 | 20 |
| 12 | 18 |
| 13 | 15 |
| 14 | 20 |
| 15 | |
| 16 | 21 |
| 17 | 22 |
| 18 | 12 |
| 19 | 25 |
| 20 | 14 |
| 21 | 14 |
| 22 | 20 |
| 23 | 15 |
| 24 | 26 |
| 25 | 28 |
| 26 | 30 |
| 27 | 35 |
| 28 | 35 |
| 29 | 40 |
| 30 | 30 |
| 31 | 20 |

May-20

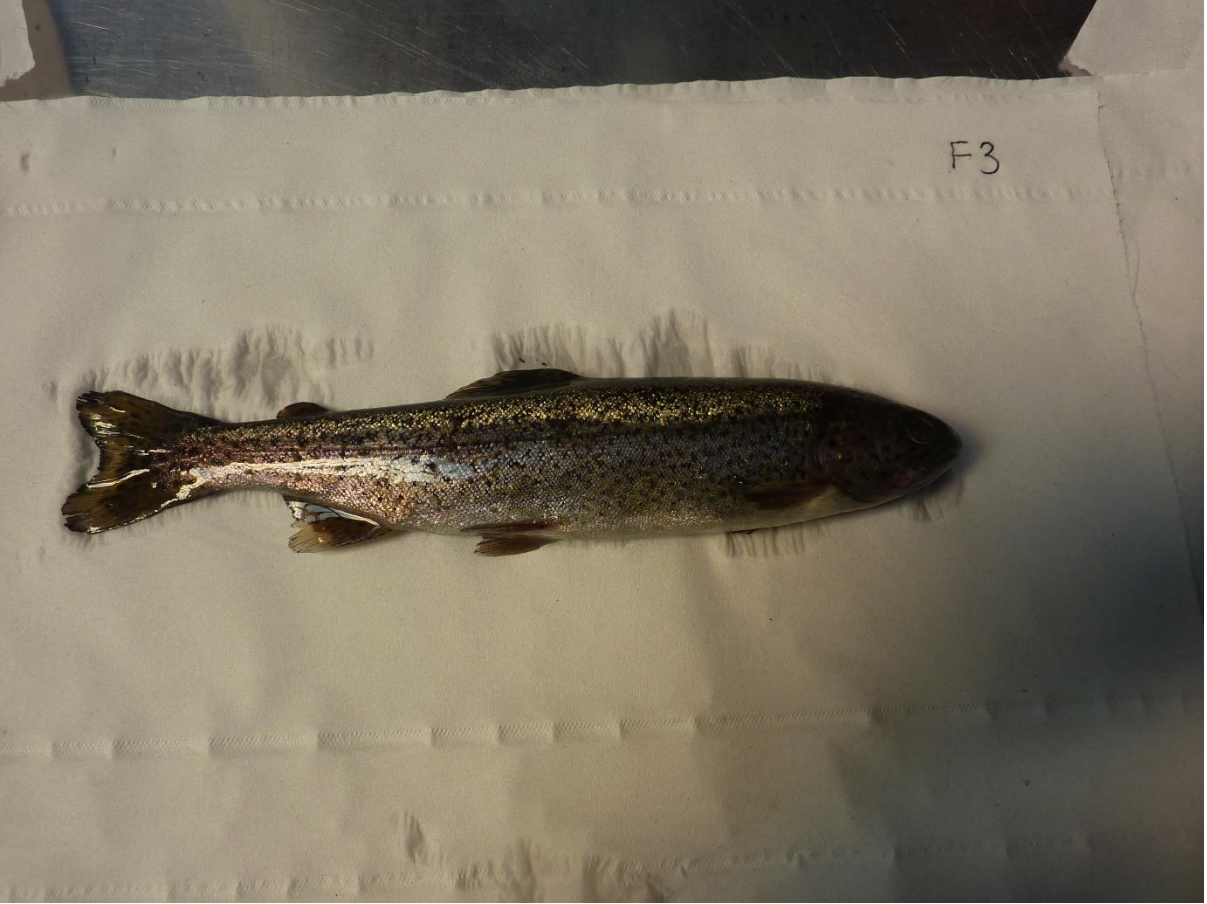
| | |
|----|-----|
| 1 | 25 |
| 2 | 124 |
| 3 | 40 |
| 4 | 50 |
| 5 | 60 |
| 6 | 50 |
| 7 | 70 |
| 8 | 80 |
| 9 | 50 |
| 10 | 40 |
| 11 | 30 |
| 12 | 40 |
| 13 | 50 |
| 14 | 40 |
| 15 | 30 |
| 16 | 20 |
| 17 | 15 |
| 18 | 15 |
| 19 | 19 |

















gms, small motled liver
inflamed + empty stomach / bones
F4 Tail missing
Spleen, liver, pale pink
Pall liver, spleen, an.

F3

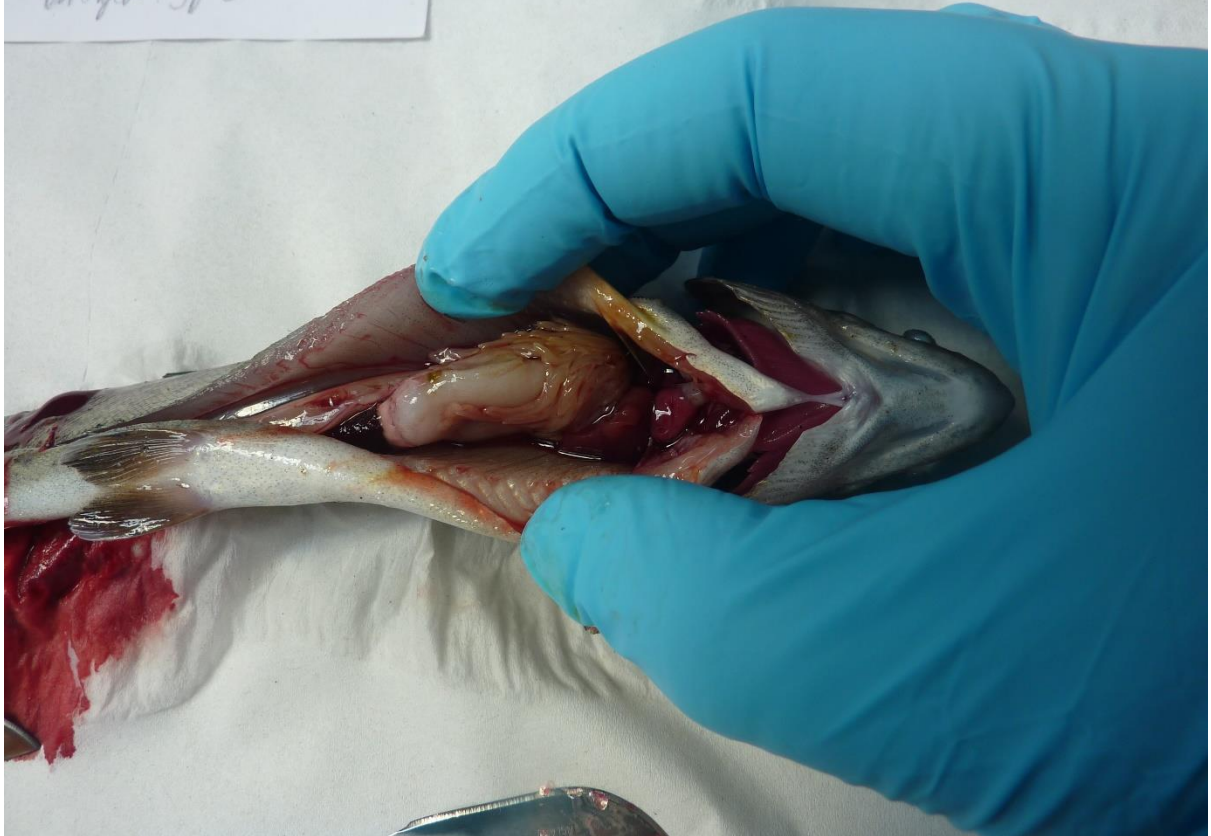


gms, small motled liver
inflamed + empty stomach / bones
Spleen, liver, pale pink
Spleen, liver, pale pink
Spleen, liver, pale pink

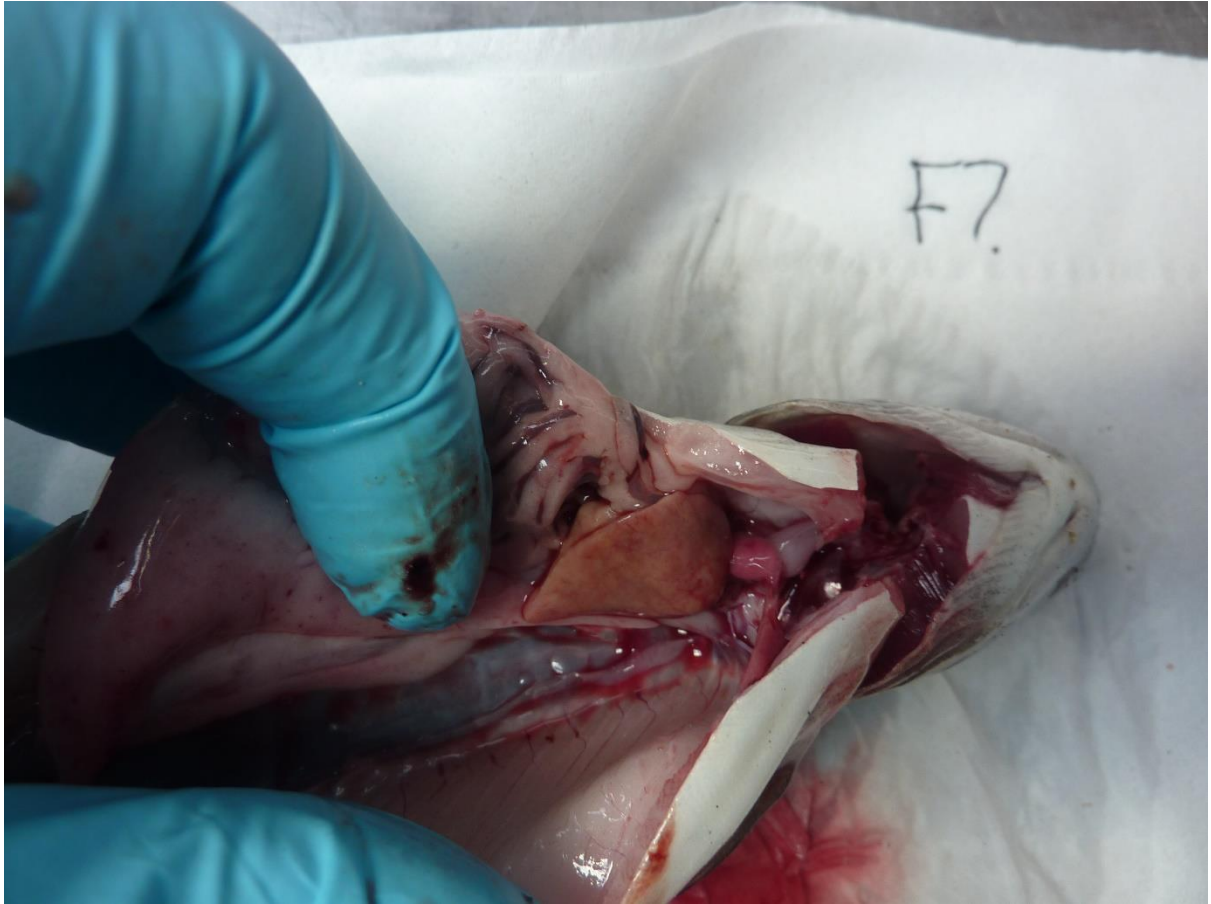


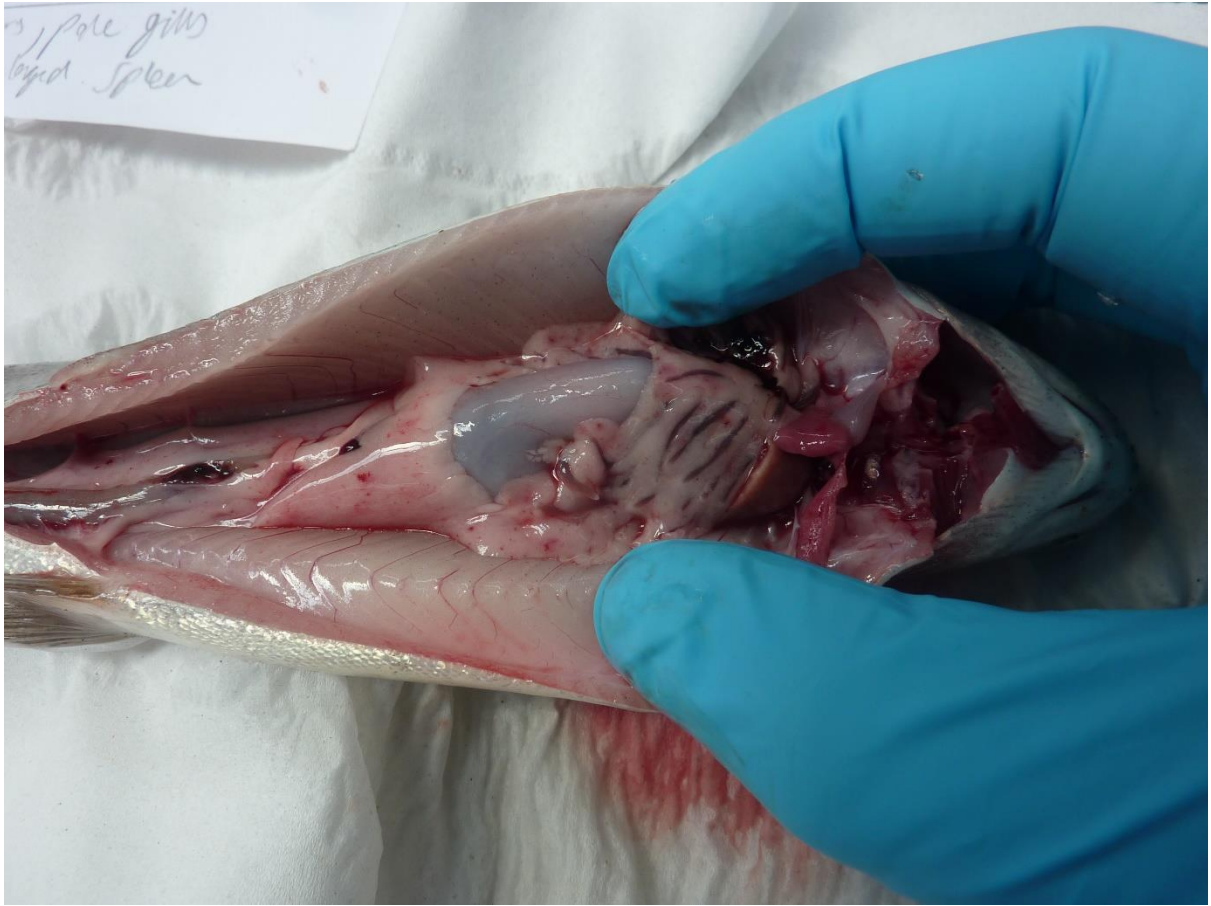
swims, pale yolk
enlarged spleen

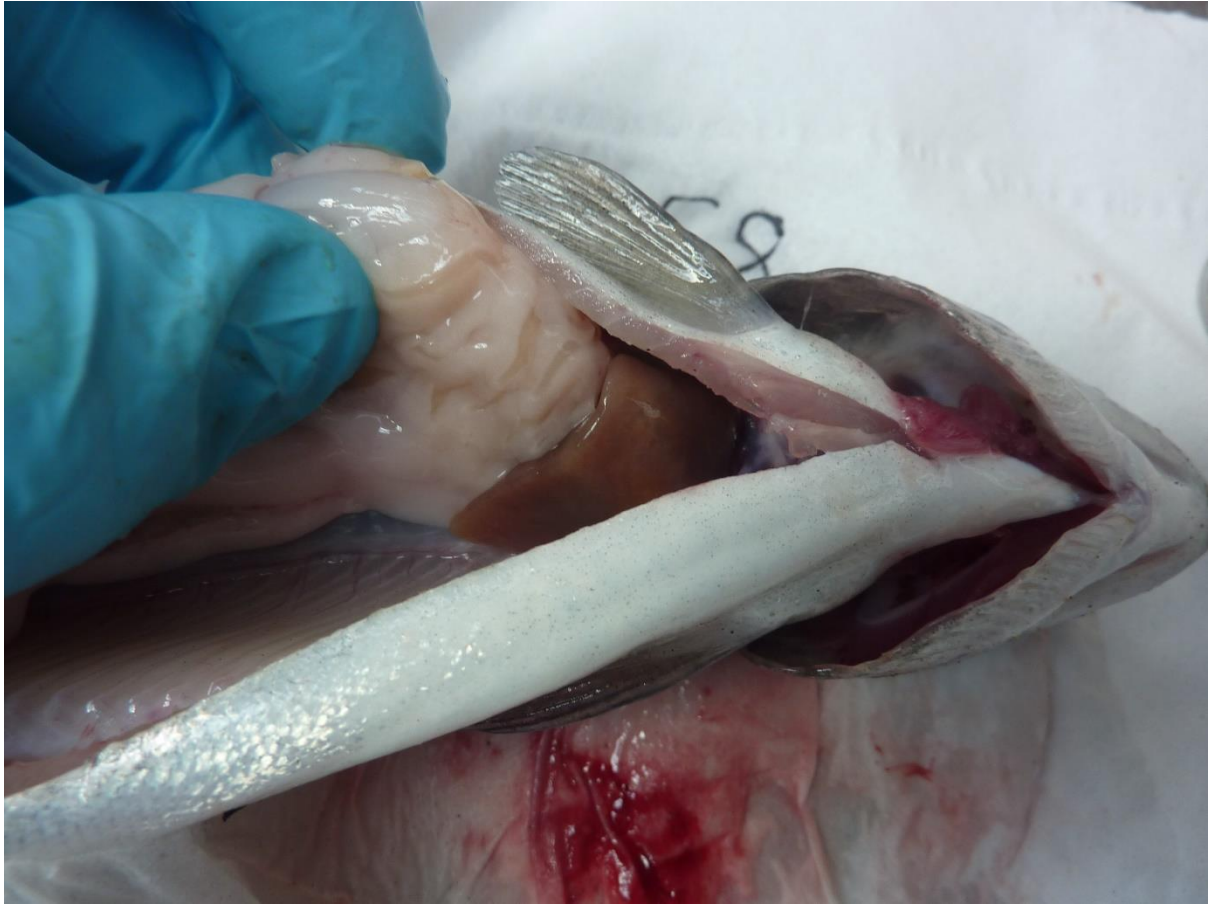
F6

















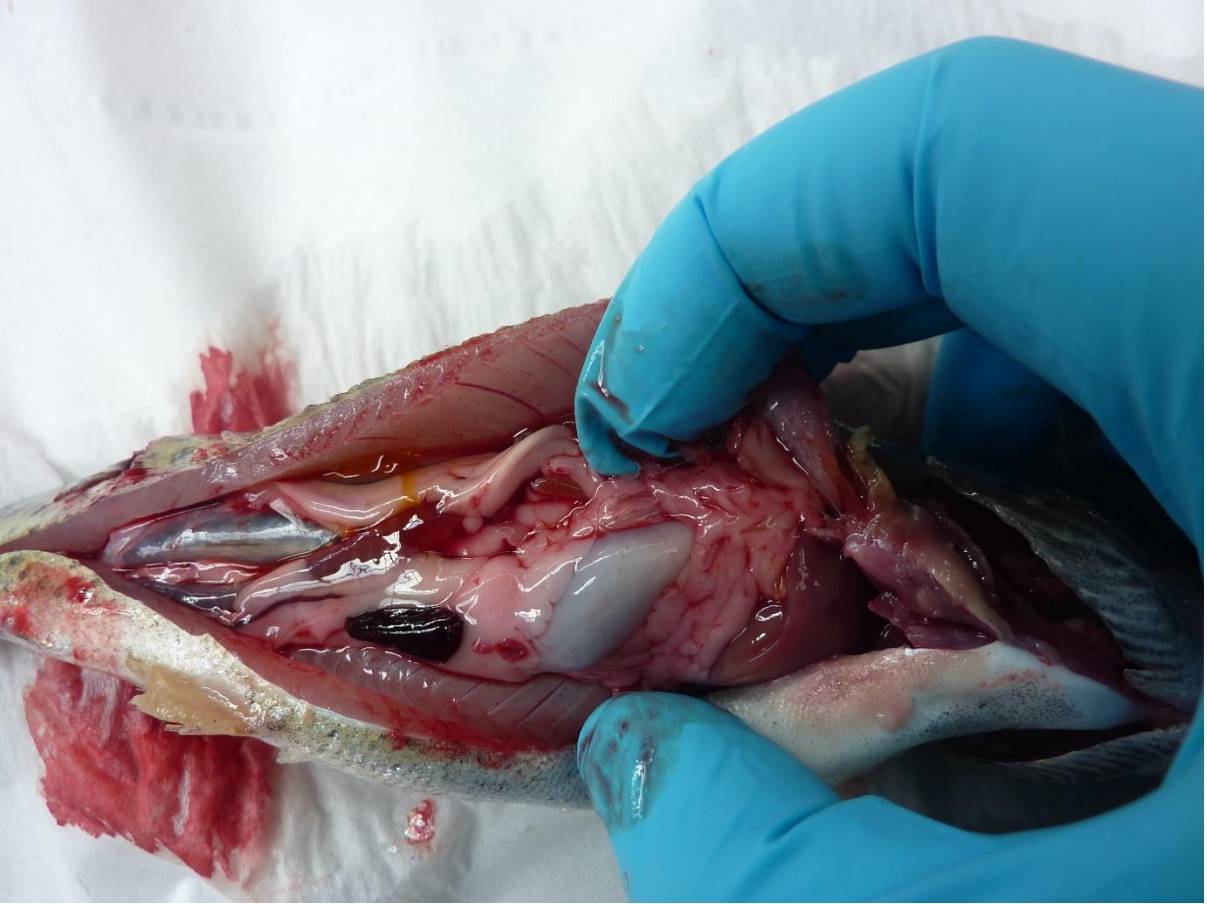




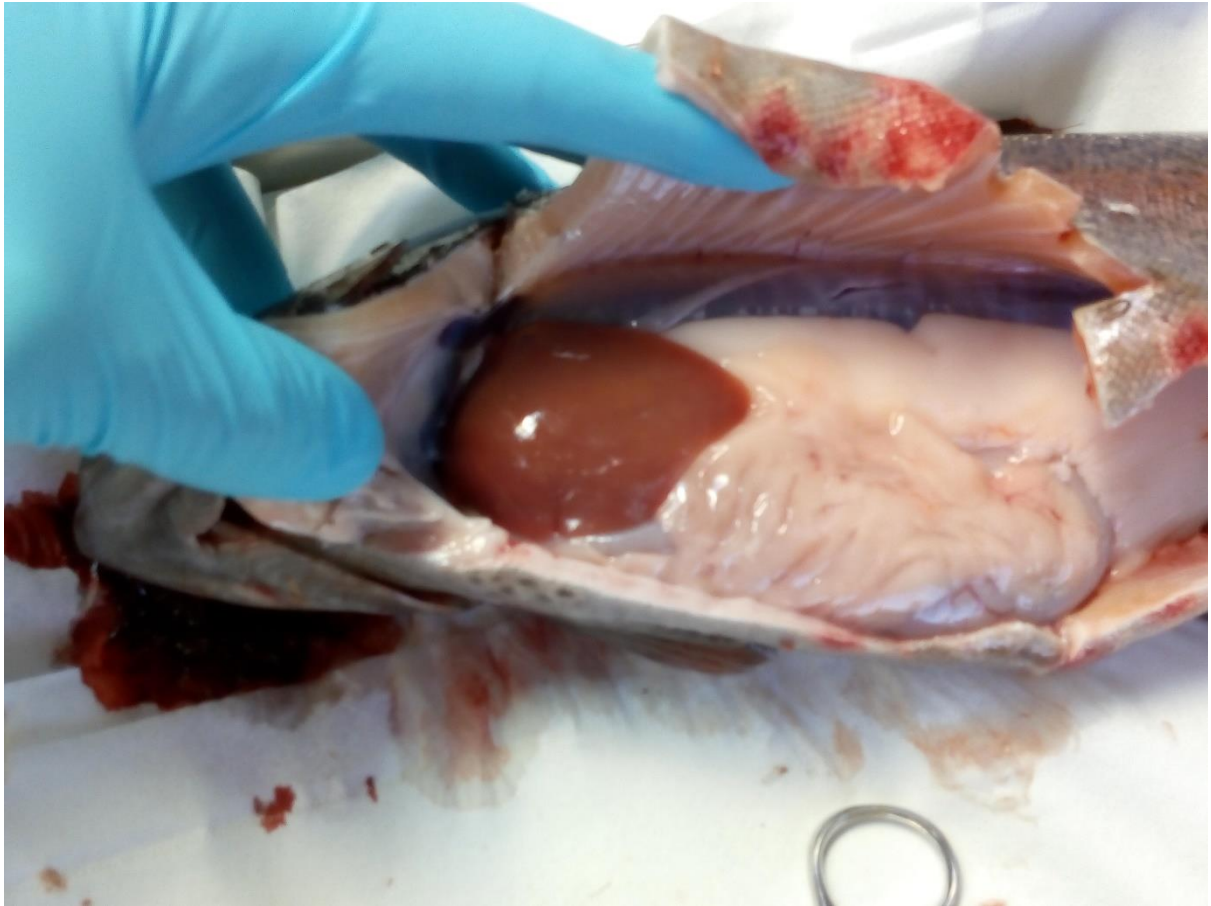






Figure 1 - Fish 126





Case No: Date of visit:

Time spent on site: Main Inspector:

Site No: Site Name:
 Business No: Business Name:

Case Types: 1 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: ST Water type: S CoGP MA

- Dead/weak/abnormally behaving fish present? If yes, see additional information/clinical score sheet.
- Clinical signs of disease observed? If yes, see additional information/clinical score sheet.
- Gross pathology observed? If yes, see additional information/clinical score sheet.
- Diagnostic samples taken?

UNI/REG only - if unable to carry out intended visit detail reason below:

Additional Case Information:

Water samples taken regularly to check for toxin causing algae and for spat (this time of year only). Samples taken twice a week in summer and once a week in winter.

A few mortalities last year during summer. Unsure of the cause, possibly bad weather

Business correspondent spoken to over the phone. Site contact unavailable

Market currently is very poor. Mainly due to COVID-19 crisis, but is was also poor before lockdown

| | | | |
|---|---|------------|----------------------------------|
| Case Number: | 2020-0215 | Site No: | SS0065 |
| Date of Visit | 29/05/2020 | Inspector: | |
| Number of Susceptible species on site | | | |
| If no susceptible species present = LOW risk | | | |
| If susceptible species present, score for each pathogen | | | |
| | | No | Yes |
| Susceptible to Bonamia ostrea (OED) | | 0 | 25 |
| Susceptible to Marteilia refringens (OED, MED) | | 0 | 3 |
| Susceptible to OshV (CGI) | | 0 | 3 |
| Sites within a tidal excursion | | | |
| | | 1 | 2-5 |
| | | | >6 |
| Site contacts | Number of sites holding susceptible species within a tidal excursion | 0 | 2 |
| | | | 10 |
| | | | 0 |
| Live shellfish movements | | | |
| | | 0 | 1-2 |
| | | | >3 |
| Movements on | Frequency of movements on from equivalent MS | 0 | 5 |
| | Frequency of movements on from equivalent zone or compartment including third country | 0 | 10 |
| | Number of suppliers | 0 | 5 |
| | | | 10 |
| | | | 0 |
| Movements off | Frequency of movements off <u>within</u> MSS Management Areas | 0 | 1 |
| | Frequency of movements off <u>outwith</u> MSS Management Areas | 0 | 3 |
| | Number of destinations | 0 | 3 |
| | | | 6 |
| | | | 0 |
| Management practices | | | |
| | | None | Secure (effluent treatment) |
| | | | Unsecure (no effluent treatment) |
| Water contacts with depuration facilities | Depuration of stock from own sites within MSS management area | 0 | 1 |
| | Depuration of stock from other businesses sites within MSS management area | 0 | 2 |
| | Depuration of stock from sites outwith MSS management area | 0 | 4 |
| | | | 8 |
| | | | 0 |
| Biosecurity | | | |
| | Number of sites | 1 | 2 or 3 |
| | | | ≥ 4 |
| Contacts with other sites | Sites operating from single shorebase | 0 | 1 |
| | Sites sharing staff and equipment | 0 | 1 |
| | | | |
| | | Yes | No |
| | Disinfection of equipment between sites, use of footbaths etc | 0 | 2 |
| | | | 2 |
| | | | 2 |
| Total Risk | | | 6 |

Case No: **2020-0215**

Site No: **SS0065**

Date of case: **29/05/2020**

Inspector(s): **[Redacted]**

Business/site contacts correct? (if no, update site summary sheet) **Y**

Site Details

| | | | | | | | |
|-------------------------|---------------------|---------------------|---------------------|------------------------|--|--|--|
| Total No facilities: | 35 | | | No facilities stocked: | 25 | | |
| Species | MED | MED | MED | | | | |
| Age group | 2018 | 2019 | 2020 | | | | |
| No shellfish | 11 longlines | 14 longlines | 10 longlines | | | | |
| Mean fish Wt | 20g | 2g | <1g | | | | |
| Next fallow date (site) | No plans | | | Next input date (site) | Any time now (dependant on this years spat fall timing) | | |

Date of last inspection: (ECI or PSI): **14/11/2018**

Any recent increased or atypical mortalities? (last 4 weeks): **N**
 If yes, detail: **[Redacted]**
 e.g. site average, max per facility

Any increased mortalities? (since last inspection) **N**
 If yes, detail: **[Redacted]**

How are mortalities disposed of? **Other (detail)**
 If other detail: **Empty mussels disposed of on the sea bed**

Are there any diseases on your site? **N**
 If yes, detail: **[Redacted]**

Have you experienced predation on site? **Y**
 If yes, detail: **Eidrer ducks, and starfish. Starfish are biggest problem but not causing signifcant mortality**

Has the site experienced increased or abnormal fouling? **N**
 If yes, detail: **[Redacted]**

Have you observed any invasive species on your site? **N**
 If yes, detail: **[Redacted]**

Do you have an up to date BMP, and are there any issues? **Y**
 If yes, detail: **[Redacted]**

What quantity of spat fall have you had in the last 12 months? (mussel sites only):
Good. Awaiting spat for this year

[REDACTED]
Inverlussa Mussels,
Inverlussa, Ardura
Craignure
Isle of Mull
PA65 6BD
[REDACTED]

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

| | | | |
|--------------------|------------|---------------------|-------------|
| BUSINESS No | SB0043 | DATE OF CASE | 29/05/2020 |
| SITE No | SS0065 | SITE NAME | Loch Spelve |
| INSPECTOR | [REDACTED] | CASE No | 20200215 |

Routine surveillance frequency assessment under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was contacted in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

The surveillance frequency category of the site was assessed as low. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every fourth year. The category of the site will be reassessed on a routine basis and updated as required.

No mortality had been observed on site since the last inspection by Marine Scotland.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:

[REDACTED]

Fish Health Inspector

Date: 03/06/2020

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter