FHI 059, Version 13		Issued by: FHI	Date of issue: 12/05/2020
Case No: 2021-0451			Date of visit: 04/11/2021
Time spent on site:	hrs	Main Inspecto	or:
Site No: FS1281 Business No: FB0169	Site Name: Business Name:	Sgian Dubh The Scottish Salmon Compan	у
Case Types: 1 ECI	2 DIA 3	4 5	6
Water Temp (°C): 12.7	Thermometer No:	T173	FHI 045 completed
Observations:	Region: ST	Water type: S	CoGP MA M-45
Dead/weak/abnormally behaving Clinical signs of disease observe Gross pathology observed? Diagnostic samples taken?	•	Y If yes, see additional infor	mation/clinical score sheet. mation/clinical score sheet. mation/clinical score sheet.
UNI/REG only - if unable to carry	out intended visit deta	ail reason below:	

Additional Case Information:

Inspection conducted by , observed by .

The main population looked healthy, feeding deep in the water column. One dead fish and a small number of lethargic fish observed. One moribund seen in pen 8 and taken out for diagnostic sampling.

The site has been inspected on the 15/07/2021 but the water temperature was found to be above 14 degrees Celsius. So full ECI could not be completed. Case type changed to REG, CNI, SLI. Biosecurity, containment and sea lice records were found to be adequately maintained and therefore they have not been inspected again.

FHI 059, Version 13	3	_	Issu	ied by: FHI	_		Date of issu	ue: 12/05/2020
Case No:	2021-0451		Site No:	FS1281				
Date of Visit:		04/11/2021]		Inspector(s):			
Registration/Autho	orisation Det	tails						
1. Business/site det	tails summary	checked by s	site representa	ative?			Υ	7
2. Changes made t	•		·				N	1
Site Details (inclu	de cleaner fis	sh for all sect	tions)					
Total No facilities		16	Facilities sto	cked	16	No facilitie	es inspected	16
Species	SAL	Wrasse				_	T :	
Age group	21S1	Wild						
No Fish	802,385	36,517	_					
Mean Fish Wt	2.1kg	Mixed				-		
Next Fallow Date (S		July 2022		Next Input Da	ate (Site)	January 2	0023	
Recent (last 4 wks)	•				Any escapes			I N
If yes, detail:	disease prob	nems:		IN	Arry escapes	(Since last	visit):	N
3. Are records com 4. Are movement re 5. Are records com 6. Are health certific Transport Records 1. Are any movement If yes, is there a system of the cords Mortality Records	ecords available plete and corrected for introduced services for introduced services carried outstern in place	ole for dead fis rectly entered' ductions (outv ut by (or on be for maintenan	sh and waste? ? with GB) availa chalf) of the bu	able? usiness (not us				Y Y N/A
1. Mortality records	available for	inspection?						Y
2. How are mortaliti	ies disposed o	of?			Whole fish -	Dundas Ch	emicals	
If other detail:								
3. Mortality records	complete and	d correctly ent	ered?					Y
4. Recent mortality	•	•	2021					
5. Evidence of rece	•	atypical morta						l N
If yes, facility nos/no		• •		ı/reason:				
11 yes, radiity 1103/110	o mortality pe	. Idolity/110 St	ook per lacility	71000011.				
6. Any other peaks	in mortality d	uring period cl	hecked?					N
If yes, detail:								
7. Have increased ((unexplained)	mortalities be	en reported to	o vet or FHI?				N/A
If yes, detail action:								
8. Have 'mortality e	vents' been re	eported to FHI	l? If no, enter	details on mor	tality events s	heet.		N/A

_ , , , , , , , , , , , , , , , , , , ,	
Treatments and Medicines Records 1. Recent treatments (see comment)?	
If yes, detail: Slice	<u>'</u>
If other, detail:	
2. Medicines records available for inspection?	Y
3. Are records complete and correctly entered?	Ÿ
4. Are fish in a withdrawal period?	N
5. If yes, what treatment(s)?	
If other, detail:	
6. Are medicines stored appropriately?	Y
,	
Biosecurity Records	
1. Biosecurity records available for inspection?	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	N/A
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?	N/A
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 how and when that will be notified to Scottish Ministers?	N/A
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher	N/A
health status, certification if required)?	
6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise	N/A
transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)?	NI/A
7. Is documentation available regarding the measures in place to maintain the physical containment of	N/A
aquaculture animals held on site?	N/A
8. Have the biosecurity procedures been adequately implemented on site? If no, detail:	IN/A
ii iio, detaii.	
Results of Surveillance	
Has any animal health surveillance been carried out by, or on behalf of, the business?	
2. If yes, are results available for inspection?	Ÿ
3. Any significant results?	Ÿ
If yes, detail (if not detailed under recent disease problems). AGD	
,	
Records checked between: 15/07/2021 - 29/10/2021	

F	HI 059, Version 13							ISS	sued by: F	·HI			
	Case no:	2021-04	451	Site No:		FS1281			Date of v		04/	11/2021	04/
	Priority samples:	VI		ВА		PA		MG		, HI			
	Time sampling starts/ends:	11:3	80:00	12:0	0:00		Inspecto	or:			VMD No).	0
	Environmental conditions:	1	Dry	2	Sunny	3	Windy	4		5			
	Summary samples	HIST	Y	ВА	Y	MG	Y	VI		PA		Total Sa	amples
A	dd Fish/Pools - click												
	Pool/Fish No	F1	P1										
	Fish nos	1	1										
	Pool Group	P1	P1										
	Species	SAL	SAL										
	Average weight	2.1kg	2.1kg										
	Sex	N/A	N/A										
	Water Type	SW	SW										
Stock Details		ω Landcatch Ormsary	ω Landcatch Ormsary										
O.	acinty 140	0	0										

11/2021	/2021 Additional Sample Information:														
2	l	Total To	ests ass	igned	3	1									
			ı												

FHI 059, Version 13 Issued by: FHI Date of issue: 12/05/2020

Case no:	2021-0451	Sit		Site No:		FS1281 Me		Method of killing: Percussive		sive	
Date of visit:	04/11/2021	1	Inspect	tor(s):				s	heet Re	elevant:	Υ
S for strong present	ce: M for medium presence: W for v	veak nres	ence								
Fish Number	o. III for modulii prosones. W for t	1	I								
	r death (if > 45 minutes)	1hr									
External Signs	acam (iii iii iiii iiii iii iii iii iii iii										
Behaviour	Moribund	S									
	Lethargic	S									
	Hanging vertical										
	Spiralling										
	Flashing										
_	Loss of equilibrium		\Box								
Body	Dark										
	Distended abdomen	W									
	Anorexic Scale Oedema	VV									
Opercula	Shortened Shortened										
Орегсија	Flared										
Haemorrhaging	Throat										
99	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
0.11	Haemorrhagic	W	\vdash								
Gills	Pale	M									
	Zoned Necrotic	IVI									
Lesions	Flank										
Lesions	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers	0									
Internal Signs											
Ascites	Clear										
0-4	Bloody										
Oedema Heart	In tissues Pale/anaemic										
neart	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)										
	Granulomas 										
Dularia assas	Lesions Retachiel beam										
Pyloric caeca	Petechial haem	M									
	Tubules mauve Lack of fat	M									
Spleen	Enlarged	w									
opioon.	Granulomas										
Gut	No food present										
	Yellow pseudo-faeces	S									
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
Vi de au	Fluid filled	W									
Kidney	Swollen	W									
	Grey Granular										
	Liquefied										
General	Parasites present										
- onoral	Anaemia										

Case no: 2021-0451

Date of visit: 04/11/2021

Date of Viole.	0 17 17 202							
S for strong presen	nce: M for medium presence: W fo	rw						
Fish Number								
	er death (if > 45 minutes)							
External Signs	· · ·							
Behaviour	Moribund							
	Lethargic		$\overline{}$					
	Hanging vertical							
	Spiralling		$\overline{}$					
	Flashing							
	Loss of equilibrium							
Body	Dark							
	Distended abdomen							
	Anorexic							
	Scale Oedema							
Opercula	Shortened							
- регоши	Flared		_					
Haemorrhaging	Throat							
	Ventrum							
	Base of fins							
	Elsewhere							
Eyes	Exophthalmic							
_,,,,,	Enophthalmic (sunken)							
	Cataract							
	Haemorrhagic							
Gills	Pale							
Unio	Zoned							
	Necrotic							
Lesions	Flank							
Lesions	Elsewhere							
Vent	Inflamed		_					
Vent	Trailing faeces							
Lice Load	Estimate numbers		_					
LICE LOAG	Estimate numbers							
Internal Signs			_					
Ascites	Clear							
Asciles	Bloody		_					
Oedema	In tissues							
Heart	Pale/anaemic		_					
neart	Granulomas		_					
	Deformed		_					
Liver	Petechial haem							
Liver	Gross haem		_					
		_	_					
	Tissue breakdown							
	Enlarged Colour number(s)							
	Granulomas							
Didavia acces	Lesions							
Pyloric caeca	Petechial haem							
	Tubules mauve							
Culass	Lack of fat							
Spleen	Enlarged							
Cut	Granulomas		_					
Gut	No food present		-					
	Yellow pseudo-faeces							_
	External haem							
D - d "	Internal haem							
Body wall	Haemorrhaging							
Swim bladder	Haemorrhaging							_
	Fluid filled							
	ICwellen							
Kidney	Swollen			-				
Kidney	Grey							
Kidney	Grey Granular							
	Grey Granular Liquefied							
Kidney General	Grey Granular							

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Additional comments:		
Mild vaccination adhesions.		

Case No: 2021-0451 Date of visit: 04/11/2021 Site No: FS1281 Inspector: Results Summary Freq. Date of Notification Database Phone Insp Insp Writing Insp 2nd Insp 09/11/2021 AGDQ 1/1 09/11/2021 18/11/2021 **IHNP** 18/11/2021 0/1 09/11/2021 09/11/2021 **IPNM** 18/11/2021 0/1 09/11/2021 09/11/2021 **ISAP** 0/1 09/11/2021 09/11/2021 18/11/2021 **PNST** 1/1 09/11/2021 09/11/2021 18/11/2021 **SPVP** 1/1 09/11/2021 09/11/2021 18/11/2021 18/11/2021 SALP 0/1 09/11/2021 09/11/2021 VHSP 0/1 09/11/2021 09/11/2021 18/11/2021 18/11/2021 CDGH 1/1 11/11/2021 11/11/2021 18/11/2021 AMGD 1/1 11/11/2021 11/11/2021 **GPAT** 1/1 11/11/2021 11/11/2021 18/11/2021 18/11/2021 **VSPE** 1/1 15/11/2021 15/11/2021

Report Summary			
Case Type	Date	Insp	2 nd Insp
ECI	12/11/2021		
DIA	18/11/2021		





FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 Business No
 FB0169
 Date of Visit
 04/11/2021

 Site No
 FS1281
 Site Name
 Sgian Dubh

 Case No
 20210451
 Inspector

Section 1: Summary

During a routine site inspection a moribund fish was observed and removed for further examination and subsequent diagnostic sampling.

Histopathology examination revealed non-specific, mild proliferative branchitis. Pathology was also consistent with presence of epitheliocystis (likely *Candidatus* Branchiomonas cysticola) and amoebic gill disease (AGD). This was confirmed as the gill sample tested positive for *Neoparamoeba perurans* (the causative agent of AGD) by qPCR.

Due to gill health issues observed on site, the fish was also screened for *Paranucleospora theridion* (syn, *Desmozoon lepeophtherii*), and salmon gill poxvirus (SGPV). The sample tested positive for both pathogens.

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

During a routine site inspection a small number of lethargic fish were observed. One moribund fish was removed for further examination and subsequent diagnostic sampling.

The fish was slightly anorexic and the gills appeared pale and zoned. Internally, the spleen and kidney were slightly enlarged. There was lack of fat within the pyloric caeca and the tubules appeared mauve. Finally, there was the presence of yellow pseudo-faeces in the hind gut and vaccination adhesions in the body cavity.

<u>Samples</u>

Samples were collected from one fish according to the table below:

Fish number	Pool number	Facility number	Species	Stage	Origin
1	1	8	Atlantic Salmon	2021 S1 2.1kg	Ormsary Broodstock Unit (FS0090)

Results

Bacteriology: Kidney and gill material from one fish was inoculated onto appropriate media for the isolation of bacteria.

Vibrio sp. was identified on the plate taken from gill material, the level and purity of growth would not suggest this bacterium would be a primary pathogen in this case.

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

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value		Cp Values		Reported Result (PCR)
F1	21.66	30.47	30.26	30.47	POSITIVE

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

Parasitology: Gill tissue was tested for segments of nucleic acid indicative of the presence of the parasites specified below using real-time PCR (qPCR).

Neoparamoeba perurans (AGD)

Fish Number	Endogenous control Cp value		Cp Values	S	Reported Result (PCR)
F1	21.66	30.78	30.78	30.92	POSITIVE

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.66	26.18	26.00	26.11	POSITIVE

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

Histopathological examination revealed the following:

Gill: mild multifocal hyperplasia and lamellar fusion, some lacunae (some filled with cell debris) observed on the hyperplastic plaques, prominent goblet cells and chloride cells displacement. Few amoeboid cells resembling *Neoparamoeba perurans* and basophilic epithelial inclusions (likely epitheliocystis). Several aneurysmal dilations and thrombi observed in the lamellar vessels of all fish.

Skin & Muscle: Within normal range.

Heart: Within normal range.

R09

Gut and pyloric caeca: presence of some fibrous adhesions (potentially associated with vaccine administration).

Pancreas: Within normal range.

Liver: Moderate diffuse hepatic vacuolation.

Kidney: Within normal range.

Spleen: Foci of cellular necrosis.

Signed:

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at https://www.gov.scot/publications/fish-health-inspectorate-service-charter/

Date: 18/11/2021





FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 Business No
 FB0169
 Date of Visit
 04/11/2021

 Site No
 FS1281
 Site Name
 Sgian Dubh

 Case No
 20210451
 Inspector

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. Samples were taken for diagnostic purposes. A separate report will be issued detailing the results of these tests.

Records

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

Aquaculture animal and aquaculture animal product movement records were inspected and appeared to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

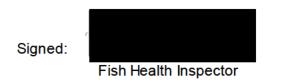
No mortality levels exceeding the reporting criteria have been recorded since the last inspection.

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Scotland were available for inspection.

Inspection under the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015

Medicine records were inspected and found to be adequately maintained.

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



Date: 12/11/2021

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at https://www.gov.scot/publications/fish-health-inspectorate-service-charter/