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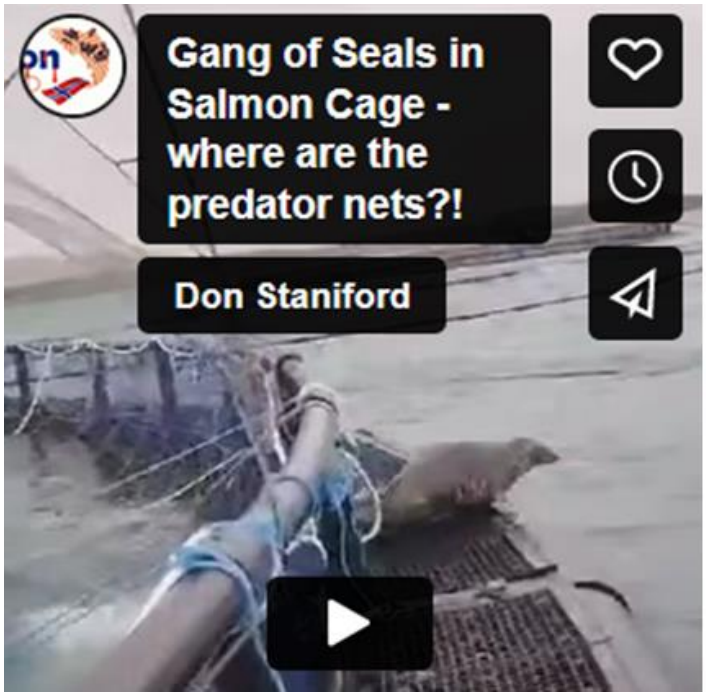
6 February 2024

Dear Chief Executive,

Welfare Failures to Protect Salmon from Seal Predation

What actions is RSPCA Assured taking against salmon farm companies for failures to protect stock from seal predation? Video footage published today by The Daily Record raises serious concerns over welfare failure breaches:



The video may be comical but it raises serious issues about salmon farms failing to install proper predator nets at RSPCA Assured sites. This is a clear cut case of welfare abuse and the company involved should be fined and the licence revoked. If salmon farms cannot operate safely and

responsibly within nursery areas and breeding grounds for seals then the death traps should be closed down permanently. RSPCA Assured should take immediate action.

$camon $cotland believes that salmon farms – by failing to take measures to protect their stock – are breaching the Animal Health and Welfare (Scotland) Act 2006; specifically in relation to Section 19 (Unnecesary Suffering) and Section 24 (Ensuring Welfare of Animals).

The leaked video shows ‘zombie’ salmon on the surface of the cage with visible seal bites and wounds:

The evidence against RSPCA Assured certification of salmon farms is blindingly obvious. Case reports published by the Scottish Government reveal that farmed salmon are being spooked by seals with their welfare unnecessarily compromised by poor net maintenance and inadequate security (see Appendix). Mortality Event Reports reveal that over 900,000 farmed fish have been killed by seals since April 2015 with hundreds of thousands more ‘zombie salmon’ damaged by seals.

There were 179 ‘Mortality Event Reports’ citing seals/predation detailing 909,068 dead farmed fish - as published by the Scottish Government’s Fish Health Inspectorate on 7 November 2023 - including:

Mortality Event No	Reporting Business Name	Site Name	Date reported	Explained reasons	Mort #s	Additional information
MRT00127	Cooke Aquaculture Scotland	Meil Bay	13/10/2016		38386	7000 atributed to seal damage, the remaining losses may be related to gill issues, PGD and AGD has been detected, however not at levels that would normally be associated with these levels of mortality, gill scores have been low recently and look in good condition. FHI notified, company biologists and FVG have been on site to investigate and sample fish 30/09/2016. Results showed PGD and low level AGD.
MRT02055	The Scottish Salmon Compan	Vuia Mor	19/01/2021	Transfer/Seals	27946	Seals spooking fish, fish burrowing/rubbing against nets
MRT02883	SSF Shetland Ltd	Bight of Foraness	04/03/2022	Sea Lice Related / Predation / Viral Disease	21155	
MRT01509	The Scottish Salmon Compan	Kyles Vuia	17/01/2020	Seal Predation	20728	ADD's being adjusted
MRT02053	The Scottish Salmon Compan	Portree	19/01/2021	Seals	19640	Fish being transferred into SealPro nets, and some biomass moved off site (West Strome)
MRT04436	Cooke Aquaculture Scotland	Carness Bay	25/09/2023	Gill Health+Predator	19125	
MRT04370	Cooke Aquaculture Scotland	Carness Bay	11/09/2023	Predator/ Gill Health	18115	Gill health and predator damage primary factors of mortality. No breach in containment; predators causing damage through net.
MRT02052	The Scottish Salmon Compan	Portree	19/01/2021	Seals	17239	Fish being transferred into SealPro nets, and some biomass moved off site (West Strome)
MRT04482	Cooke Aquaculture Scotland	Carness Bay	03/10/2023	Gill Health+Predator	16262	
MRT01501	The Scottish Salmon Compan	Vuia Mor	10/01/2020	Seal Predation	14118	
MRT01547	The Scottish Salmon Compan	Vuia Mor	02/03/2020	Seal predation	13516	Seal Pro nets being deployed during weather windows
MRT01518	The Scottish Salmon Compan	Kyles Vuia	29/01/2020	Seal Predation	12323	ADD's being adjusted
MRT00006	Scottish Sea Farms Ltd	Loura Voe	08/04/2015	Seal damage	12288	Add's are in place at the site and seal pro nets are being rolled out across the site. Reported as more than 4%.
MRT02904	The Scottish Salmon Compan	Sgeir Dughall	31/03/2022	Seals	12283	
MRT03004	Mowi Scotland Ltd	Grey Horse Channel	23/06/2022	Gill infections / Seal predation	11693	
MRT00161	Scottish Sea Farms Ltd	Loura Voe	20/02/2017	Physical damage, Seal damage	11450	Light were turned off as thought on this occasion that it was attracting seals. Physical damage also attributed to bad weather.
MRT00007	Scottish Sea Farms Ltd	Dury Voe	08/04/2015	Seal damage	11184	Add's are in place at the site and seal pro nets are being rolled out across the site. Reported as more than 4%.

MRT00234	Scottish Sea Farms Ltd	Dury Voe	04/04/2017	Predation, Treatment	10793	ADDs on site and Seal Pro nets installed. No further action on post treatment losses
MRT00087	Cooke Aquaculture Scotland	Djubawick	12/07/2016	Algal bloom, Seal damage	10698	Mort levels below 1% but still sitting at losses of 2,000 for site for wk
MRT02059	The Scottish Salmon Compar	Vuia Mor	01/02/2021	Seals	10375	SealPro nets deployed, mortality occuring from seals spooking fish
MRT02925	Mowi Scotland Ltd	Grey Horse Channel	20/04/2022	Predation / Physical Damage/ Treatment Loss	10209	
MRT00896	Scottish Sea Farms Ltd	Dury Voe	20/12/2018	Seal damage, gill health, treatment	9910	Mortality levels now decreasing
MRT04502	Organic Sea Harvest Ltd.	Culnacnoc Sa	09/10/2023	Seals & AGD	9657	Freshwater Treatment planned & installation of new knox seal fence net system (passive)
MRT04470	Organic Sea Harvest Ltd.	Culnacnoc Sa	28/09/2023	Seal and AGD	9657	Freshwater Treatment planned & installation of new knox seal fence net system (passive)
MRT02115	The Scottish Salmon Compar	Aird	26/04/2021	Viral Diseases, Predation	9569	Harvest of worst affected pens, FW planned in week 17
MRT03381	Scottish Sea Farms Ltd	Setterness North	12/10/2022	Virus disease; Predation by seals	9477	CMS; destocking through harvest
MRT01510	The Scottish Salmon Compar	Vuia Mor	17/01/2020	Seal Predation	9450	ADD's being adjusted and Seal Pro nets are available to be deployed once weather window allows.
MRT03724	Organic Sea Harvest Ltd.	Invertote Salmon Farm	11/01/2023	Primarily seal attacks (physical damage), some AGD/gill health related (secondary to stress from seals)	9278	
MRT00133	Scottish Sea Farms Ltd	Loura Voe	27/10/2016	Seal damage	9142	Additional ADDs deployed this week. Site removing mortalities more frequently.
MRT00928	Cooke Aquaculture Scotland	Djubawick	25/02/2019	CMS and seal predation	8517	
MRT02060	The Scottish Salmon Compar	Kyles Vuia	01/02/2021	Seals	7501	SealPro nets deployed, mortality occuring from seals spooking fish
MRT02982	Mowi Scotland Ltd	Grey Horse	09/06/2022	Predation	7457	
MRT00573	The Scottish Salmon Compar	Taranaish	03/01/2018	Seal predation	7371	Mortality rate below 1% following week
MRT03235	Scottish Sea Farms Ltd	Linga (Setterness)	15/09/2022	Virus disease; Predation by seals	7342	CMS; destocking through harvest
MRT02066	The Scottish Salmon Compar	Kyles Vuia	08/02/2021	Seals	7184	SealPro nets on site
MRT03933	Scottish Sea Farms Ltd	Swining Voe 3	11/05/2023	Predation by seals	7102	Double tied top net to rail to further increase security
MRT02946	Scottish Sea Farms Ltd	Bight of	06/05/2022	Seal predation	7094	
MRT03505	Mowi Scotland Ltd	Ornish	08/11/2022	Predator / AGD	7091	

MRT03726	Mowi Scotland Ltd	Ornish	12/01/2023	Predator - Seal	7075	
MRT02917	Mowi Scotland Ltd	Grey Horse Channel Outer	14/04/2022	Gill Infection & Predation	7065	A number of seal attacks occurred wk 14 which accounts for most of the mortalities with a small part of the percentage down to gill issues. Mortality numbers have reduced wk 15.
MRT01592	The Scottish Salmon Compar	Taranaish	01/04/2020	Seal Predation	6977	
MRT04248	Scottish Sea Farms Ltd	Bight of Foraness	16/08/2023	Predation by seals	6916	Site contacted for further information : Mortality predominatly due to predation by seals. The site are changing nets next week (wk34).
MRT03524	Mowi Scotland Ltd	Invasion Bay	14/11/2022	Gill infections / Seal predation	6767	
MRT03276	Scottish Sea Farms Ltd	Linga (Setterness)	22/09/2022	Virus disease; Predation by seals	6751	CMS; destocking through harvest
MRT00927	Cooke Aquaculture Scotland	Djubawick	25/02/2019	CMS and seal predation	6677	
MRT03593	Mowi Scotland Ltd	Ornish	01/12/2022	Predator / AGD	6617	
MRT01587	The Scottish Salmon Compar	Taranaish	24/03/2020	Post Treatment/Seal Predation	6583	
MRT03564	Mowi Scotland Ltd	Ornish	23/11/2022	Predator / AGD	6579	
MRT03918	Scottish Sea Farms Ltd	Swining Voe	04/05/2023	Predation by seals	6576	
MRT04430	Scottish Sea Farms Ltd	Bight of Fora	20/09/2023	Predation	6488	Predation by seals
MRT00086	Cooke Aquaculture Scotland	Djubawick	12/07/2016	Algal bloom, Seal damage	6366	Mort levels below 1% but still sitting at losses of 2,000 for site for wk.
MRT02936	Mowi Scotland Ltd	Grey Horse Channel	04/05/2022	Predation/Gill Disease	6213	
MRT03016	Mowi Scotland Ltd	Groatay	05/07/2022	Predator	6078	
MRT03176	Scottish Sea Farms Ltd	Scallastle	01/09/2022	Gill Health; Predation	5873	CGD, predation by seals; destocking through harvest
MRT01020	Scottish Sea Farms Ltd	Bight of Bellister, Dury Voe	09/05/2019	Seals & post-treatment losses	5800	Review of predator prevention measures, mortality returned to below reporting threshold.
MRT02743	Grieg Seafood Shetland Ltd	North Voe	30/12/2021	Predation	5782	Cormorant and seal predation
MRT00090	Cooke Aquaculture Scotland	Stead of Aithness	12/07/2016	Seal damage, Treatment	5762	Peroxide lice treatment. Seal dispatched 25/5/16. Site fallowed 23/6/16
MRT02966	Mowi Scotland Ltd	Grey Horse	25/05/2022	Seal damage	5728	
MRT04147	Loch Duart Ltd	Loch A	24/07/2023	Seal predation	5661	Site fitted with HDPE pen nets & predator net
MRT02121	The Scottish Salmon Compar	Aird	10/05/2021	Viral Diseases, Predation, Gill Health Related	5548	Treatment week 17, Harvests
MRT02916	Mowi Scotland Ltd	Grey Horse Channel	14/04/2022	Gill Infection & Predation	5514	A number of seal attacks occurred wk 14 which accounts for most of the mortalities with a small part of the percentage down to gill issues. FW treatment scheduled for wk 17. Mortality numbers have reduced wk 15. FHI to monitor
MRT01524	The Scottish Salmon Compar	Kyles Vuia	02/02/2020	Seal Predation	5405	Adjusting ADD frequency
MRT00912	Scottish Sea Farms Ltd	Dury Voe	28/01/2019	Seal damage, gill health	5384	

MRT00897	Scottish Sea Farms Ltd	Dury Voe	20/12/2018	Seal damage, gill health, treatment	5312	Mortality levels now decreasing
MRT01118	The Scottish Salmon Compar	Vuia Mor	18/07/2019	Predation	5299	Predation due to seals. New ADDs set up on site
MRT03003	Mowi Scotland Ltd	Grey Horse Channel	23/06/2022	Gill infections / Seal predation	5227	
MRT03361	Scottish Sea Farms Ltd	Setterness North	07/10/2022	Virus disease; Predation by seals	5186	CMS; destocking through harvest
MRT03386	Mowi Scotland Ltd	Groatay	14/10/2022	Predator - Seal	5145	
MRT02054	The Scottish Salmon Compar	Sgeir	19/01/2021	Seals	5145	
MRT01494	The Scottish Salmon Compar	Vuia Mor	03/01/2020	Seal Predation	5010	
MRT01308	The Scottish Salmon Compar	Maragay Mor	10/10/2019	Seal Predation	4963	Reducing biomass through harvesting and reviewing deterrents for site.
MRT00225	The Scottish Salmon Compar	Ardyne	02/03/2017	Seal damage	4959	Peaking at 9.6 week 36, complex gill issues and PGD - site fallow
MRT02951	Scottish Sea Farms Ltd	Bight of Foraness	13/05/2022	Virus disease, Predation by seals	4921	CMS, Destocking through harvesting
MRT03778	Cooke Aquaculture Scotland	Meil Bay	30/01/2023	Predator/Other	4797	Predator/Other
MRT02859	Dawnfresh Farming Ltd	Etive 4	18/02/2022	Predation	4778	Heavy seal predation and the worst affected pens are still in dyneema nets. All mortality removed had seal damage. In the process of chaning over all nets to Seal pro nets.
MRT02881	SSF Shetland Ltd	Bight of Foraness	04/03/2022	Sea Lice Related / Predation / Viral Disease	4769	
MRT03539	Mowi Scotland Ltd	Groatay	18/11/2022	Predator	4766	
MRT04503	Organic Sea Harvest Ltd.	Culnacnoc Sa	09/10/2023	Seals & AGD (CMS Pen 2 only)	4727	Freshwater Treatment planned & installation of new knox seal fence net system (passive)
MRT04485	Organic Sea Harvest Ltd.	Culnacnoc Sa	03/10/2023	Seal and AGD (CMS Pen 2 only)	4727	Freshwater Treatment planned & installation of new knox seal fence net system (passive)
MRT02937	Cooke Aquaculture Scotland	East of Holm	27/04/2022	Predation and mature fish	4694	
MRT02912	Dawnfresh Farming Ltd	Etive 4	07/04/2022	Heavy Seal predation	4668	In process of changing over all nets to Seal Pro nets. Only a few nets left to change over
MRT04446	Loch Duart Ltd	Loch A Chair	25/09/2023	Seal predation	4661	Site fitted with HDPE pen nets & predator net
MRT02120	The Scottish Salmon Compar	Sgeir Dughall	03/05/2021	Viral diseases, predation, plankton	4655	Harvests, Treatment planned wk 17
MRT02114	The Scottish Salmon Compar	Sgeir Dughall	26/04/2021	Viral Diseases, Predation	4608	Harvest of worst affected pens, FW planned in week 17
MRT03794	Scottish Sea Farms Ltd	Bight of Bellister,	02/02/2023	Predation; Virus disease	4599	Increased predation by seals in wk, CMS; destocking through harvest.
MRT04504	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	09/10/2023	Seals & AGD (CMS Pen 2 only)	4589	Freshwater Treatment just commencing & installation of new knox seal fence net system (passive)
MRT03311	Scottish Sea Farms Ltd	Setterness North	29/09/2022	Virus disease; Predation by seals	4526	CMS; destocking through harvest
MRT03308	Scottish Sea Farms Ltd	Linga (Setterness)	29/09/2022	Virus disease; Predation by seals	4517	CMS; destocking through harvest

MRT02914	Mowi Scotland Ltd	Loch Greshornish	14/04/2022	Moritella & Predation	4448	
MRT02078	Loch Duart Ltd	Sound of	05/03/2021	Seal predation	4405	
MRT02822	The Scottish Salmon Compan	Vuia Mor	31/01/2022	Predation, Gill Health Related	4398	
MRT00874	Scottish Sea Farms Ltd	Nevis C (Ardintigh)	03/12/2018	Secondary AGD and seal predation	4324	Will treat again for AGD
MRT01606	The Scottish Salmon Compan	Kyles Vuia	20/04/2020	Seal Predation	4190	Harvesting ongoing to reduce biomass
MRT02890	Dawnfresh Farming Ltd	Etive 4	16/03/2022	Heavy Seal predation	4181	Worst affected pens are still in dyneema nets. All mortality removed had seal damage. Strong tides last week causing bags in the nets, higher % of decomposed fish when divers were able to get into the folds of the nets. Site is in the process of changing over all nets to Seal Pro nets. Only a few nets left to change over.
MRT03358	Scottish Sea Farms Ltd	Linga (Setterness)	07/10/2022	Virus disease; Predation by seals	4144	CMS; destocking through harvest
MRT02861	Dawnfresh Farming Ltd	Etive 4	21/02/2022	Predation	4063	
MRT01636	The Scottish Salmon Compan	Kyles Vuia	21/05/2020	Seal Damage	4010	Seal Pro nets being deployed for next cycle of fish.
MRT03820	Cooke Aquaculture Scotland	Quanternes s	20/02/2023	Sealice Related/Predator	3843	
MRT03592	Mowi Scotland Ltd	Groatay	01/12/2022	Predator	3801	
MRT03280	Scottish Sea Farms Ltd	Setterness North	22/09/2022	Virus disease; Predation by seals	3544	CMS; destocking through harvest
MRT01017	Scottish Sea Farms Ltd	Dury Voe	09/05/2019	Seals & post-treatment losses	3493	Review of predator prevention measures, mortality returned to below reporting threshold.
MRT00873	Scottish Sea Farms Ltd	Nevis C (Ardintigh)	03/12/2018	Secondary AGD and seal predation	3289	Will treat again for AGD
MRT03380	Scottish Sea Farms Ltd	Linga (Setterness)	12/10/2022	Virus disease; Predation by seals	3066	CMS; destocking through harvest
MRT01643	The Scottish Salmon Compan	Kyles Vuia	26/05/2020	Seal damage	3050	
MRT00163	Scottish Sea Farms Ltd	Dury Voe	20/02/2017	Seal damage	3042	2 cages having 90% of the mortalities. The nets on these cages are going to be changed to Seal Pro and tensioned more.
MRT00191	The Scottish Salmon Compan	Bagh Chlann Neill	02/03/2017	Seal damage	3000	Seal damage
MRT03366	Mowi Scotland Ltd	Groatay	07/10/2022	Predator - Seal	2978	
MRT00899	Cooke Aquaculture Scotland	Bay of Vady	03/01/2019	Seal damage	2903	Predator control measures in place, mortality now decreasing.
MRT03807	Scottish Sea Farms Ltd	Bight of Bellister,	10/02/2023	Predation; Virus disease	2758	Predation by seals, CMS; destocking through harvest
MRT02786	The Scottish Salmon Compan	Vuia Mor	17/01/2022	Gill Health Related, Predation	2711	
MRT00898	Cooke Aquaculture Scotland	Bay of Vady	03/01/2019	Seal damage	2653	Predator control measures in place
MRT01620	The Scottish Salmon Compan	Kyles Vuia	28/04/2020	Seal predation	2615	
MRT04196	Cooke Aquaculture Scotland	Carness Bay	07/08/2023	Handling / Predator	2542	
MRT03868	Cooke Aquaculture Scotland	Quanternes	27/03/2023	Handling/Predator	2542	

MRT00510	Scottish Sea Farms Ltd	Loch Spelve (A)	08/11/2017	Predation, Seal damage	2347	A.D.D frequency adjusted, nets tightened, extra weight added. All stock on site due to be moved to Loch Spelve B by end of October. Loch Spelve B is able to take more weight on the nets allowing for higher tension.
MRT00081	Cooke Aquaculture Scotland	Carness Bay	06/07/2016	Seal damage	2274	current mort levels 0.5% for site/ week attributed to seal predation.
MRT00084	Cooke Aquaculture Scotland	Ouseness	06/07/2016	Seal damage	2250	Seal dispatched
MRT00085	Cooke Aquaculture Scotland	Ouseness	06/07/2016	Seal damage	2250	Seal dispatched
MRT00091	Cooke Aquaculture Scotland	Sandwick	12/07/2016	Seal damage	2209	Peak at 1.48%. Site fallowed 26/1/16 and seal dispatched.
MRT02112	The Scottish Salmon Compan	Reibinish	26/04/2021	Viral Diseases, Predation	2193	Harvests - fallow in ~ 2weeks
MRT02860	Loch Duart Ltd	Calva Bay (Calbha	21/02/2022	Predation	2134	
MRT01015	Scottish Sea Farms Ltd	Dury Voe	09/05/2019	Seal predation	2127	Review of predator prevention measures.
MRT04234	Cooke Aquaculture Scotland	Quanternes s	14/08/2023	Predator/Environm ental	2054	Site contacted for further information : Mortality on site is mainly being driven by poor gill health following a recent enviromental insult. Some mortality has also been caused by seal attacks.
MRT03977	Cooke Aquaculture Scotland	Quanternes	29/05/2023	Predator	1974	
MRT03014	Mowi Scotland Ltd	Loch Greshornish	05/07/2022	Predator/Gill Health	1606	Harvesting
MRT00192	The Scottish Salmon Compan	Bagh Chlann Neill	02/03/2017	Seal damage	1500	Seal damage
MRT03722	Cooke Aquaculture Scotland	Quanternes s	10/01/2023	Predator/Gill Damage	1347	
MRT03143	Scottish Sea Farms Ltd	Collafirth 3	25/08/2022	Handling; Predation	1336	Predation by seals; harvesting to fallow
MRT03271	Scottish Sea Farms Ltd	Scallastle	22/09/2022	Gill Health; Virus disease; Predation	1314	CGD, harvesting to fallow
MRT03978	Cooke Aquaculture Scotland	Quanternes	29/05/2023	Predator	1242	
MRT03798	Cooke Aquaculture Scotland	Quanternes	07/02/2023	Predator/Other	1229	
MRT03713	Loch Duart Ltd	Loch A	04/01/2023	Seal predation	1207	Site fitted with HDPE pen nets & predator net
MRT03779	Cooke Aquaculture Scotland	Quanternes s	30/01/2023	Predator/Sea lice managment	1191	Predator/Sea lice managment
MRT02927	Scottish Sea Farms Ltd	Bring Head	25/04/2022	Predation by seals	1125	Site now fallow
MRT03883	Scottish Sea Farms Ltd	Bight of Bellister,	07/04/2023	Predation; Virus disease	1053	Seals; CMS; harvesting to fallow
MRT02113	The Scottish Salmon Compan	Scadabay	26/04/2021	Viral Diseases, Predation	1026	Harvests
MRT03527	Mowi Scotland Ltd	Groatay	14/11/2022	Pasteurella / Seal predation	1013	Site harvesting out
MRT03354	Scottish Sea Farms Ltd	Scallastle	07/10/2022	Gill Health; Virus disease; Predation	984	CGD, harvesting to fallow
MRT02907	Scottish Sea Farms Ltd	Bring Head	04/04/2022	Predation, seals	957	Low number of fish on site as final harvesting
MRT03117	Scottish Sea Farms Ltd	Collafirth 3	19/08/2022	Handling; Predation	932	post FW treatment; destocking through harvest

A further twenty '[Mortality Event Reports]' citing seals/predation did not provide numbers of mortalities:

Mortality Event No	Reporting Business Name	Site Name	Date reported	Explained reasons	Mort #s	Additional information
MRT00815	The Scottish Salmon Compan	Vuiabeag	01/10/2018	Seal damage	Not provided, stated as low	Damage from seal predation, low numbers of fish on site so relatively low numbers of morts.
MRT00816	The Scottish Salmon Compan	Vuiabeag	01/10/2018	Seal damage	Not provided, stated as low	Damage from seal predation, low numbers of fish on site so relatively low numbers of morts.
MRT01934	Scottish Sea Farms Ltd	Scallastle	20/10/2020	Seals, CMS, PGD	Not provided	Site fallow within week.
MRT01915	Scottish Sea Farms Ltd	Scallastle	19/10/2020	CMS, Seals, Gill inflammation, last pen on site	Not provided	Harvesting to fallow.
MRT01916	Scottish Sea Farms Ltd	Scallastle	19/10/2020	CMS, Seals, Gill inflammation, last pen on site	Not provided	Mortality decreased to below notification threshold in following wk 42, Final harvest to fallow (this info was later amended via email)
MRT01129	Scottish Sea Farms Ltd	Loura Voe	31/07/2019	CMS, Seals	Not provided	Destocking, increased health surveillance & biosecurity measures
MRT01132	Scottish Sea Farms Ltd	Loura Voe	31/07/2019	CMS, seals	Not provided	Destocking, increased health surveillance & biosecurity measures
MRT01054	Scottish Sea Farms Ltd	Dury Voe	11/06/2019	Seals & post-treatment losses	Not provided	Review of predator prevention measures, mortality returned to below reporting threshold.
MRT01050	Scottish Sea Farms Ltd	Loura Voe	22/05/2019	Seal damage	Not provided	Anti-seal measures are in place on site.
MRT01051	Scottish Sea Farms Ltd	Loura Voe	22/05/2019	Seal damage	Not provided	Anti-seal measures are in place on site.
MRT00805	The Scottish Salmon Compan	Taranaish	21/09/2018	AGD, Complex gill issues & seal damage	Not provided	Fish originate from Vuiabeag but will be harvested out by end of October. Reported as more than 4%
MRT00807	The Scottish Salmon Compan	Vuiabeag	21/09/2018	Seal damage	Not provided	Fish being transferred to Taranaish. Reported as more than 2%
MRT00790	The Scottish Salmon Compan	Taranaish	12/09/2018	Clinical AGD, Predator (Vuiabeg stock)	Not provided	Mortalities mix of AGD in original Taranaish stock (all harvested by end of week 35) and predator damage (seal) in stock transferred onto Taranaish from Vuiabeg during week 35
MRT00791	The Scottish Salmon Compan	Taranaish	12/09/2018	Predator (seal)	Not provided	
MRT00793	The Scottish Salmon Compan	Vuiabeag	12/09/2018	Anamia and predator (seal)	Not provided	
MRT00794	The Scottish Salmon Compan	Vuiabeag	12/09/2018	Anamia and predator (seal)	Not provided	Started transferring fish to Eughlam and Taranaish
MRT00795	The Scottish Salmon Compan	Vuiabeag	12/09/2018	Anamia and predator (seal)	Not provided	Site will be fallow end of week 38 (fish transferred to Eughlam and Taranaish)
MRT00614	The Scottish Salmon Compan	Eughlam	17/04/2018	Seal damage	not disclosed	Fish graded and transferred from Vuibeag some seal damage and lesions reported in the stock. Grading and transfer was required to the Eughlam site for ongrowing.
MRT00598	The Scottish Salmon Compan	Taranaish	26/03/2018	Predator damage/lesions	not disclosed	Seal in one cage (no net damage). Lesions from fish rubbing against net
MRT00592	The Scottish Salmon Compan	Taranaish	02/03/2018	Predator damage/lesions	not disclosed	Seal in one cage (no net damage). Lesions from fish rubbing against net

Mortality data published by the Scottish Government on 4 December 2023 detailed 148,386 dead salmon at Loch Duart's operations via 10 'Mortality Event Reports' in October 2023 and early November 2023 including 54,432 morts in Loch a Chairn Bhain due to seal predation with predator nets now fitted:

Mortality Event No	Name	Site Name	Date reported	Mort %	Explained reasons	Mort #s	Additional information
MRT04638	Loch Duart Ltd	Loch A Chairn Bhain	10/11/2023	3.5	Seal predation/ gill health (AGD)	13036	Site fitted with HDPE pen nets & predator net; freshwater treatments underway
MRT04593	Loch Duart Ltd	Loch A Chairn Bhain	02/11/2023	3.9	Seal predation / gill health (AGD)	15110	Site fitted with HDPE pen nets & predator net; freshwater treatments scheduled for next week
MRT04586	Loch Duart Ltd	Loch A Chairn Bhain	27/10/2023	2.19	Seal predation/gill health (AGD)	8674	Site fitted with HDPE pen nets & predator net; freshwater treatments completed this week
MRT04542	Loch Duart Ltd	Loch A Chairn Bhain	17/10/2023	2.15	Seal predation	8913	Site fitted with HDPE pen nets & predator net
MRT04543	Loch Duart Ltd	Loch A Chairn Bhain	17/10/2023	2.15	Seal predation/gill health	8699	Site fitted with HDPE pen nets & predator net

Loch Duart – like every salmon farming company in Scotland (Organic Sea Harvest is now RSPCA Assured) – is certified via RSPCA Assured.

Data published by the Scottish Government on 3 January 2024 details 148,114 dead fish via 22 'Mortality Event Reports' reported between October 2023 and mid-December 2023 – including the following incidents at Cooke, Loch Duart and Organic Sea Harvest (all RSPCA Assured):

Mortality Event No	Reporting Business Name	Site Name	Date reported	Mort %	Explained reasons	Mort #s	Additional information	Action taken by FHI
MRT04745	Cooke Aquaculture Scotland Ltd	Bay of Vady	12/12/2023	1.46	Gill Health / Predator	2,200	WK43, submitted WK 50. Mortalities reduced below reporting levels	No Further Action
MRT04746	Cooke Aquaculture Scotland Ltd	Carness Bay	12/12/2023	1.21	Gill Health / Predator	2,970	Mortality for WK 43 reported WK 50, site inspected WK43. Mortalities now below the reporting threshold.	No Further Action
MRT04736	Loch Duart Ltd	Loch A Chairn Bhain	11/12/2023	1.30	Seal predation/ gill health (AGD)	3,757	Site fitted with HDPE pen nets & predator net; freshwater treatments now completed	Diagnostic samples collected case number 2023-0479, complex gill disease and SRS.
MRT04737	Loch Duart Ltd	Clashnessie Bay	11/12/2023	1.22	Seal Predation	611	Business contacted: Site anticipated to fallow wk50.	Business contacted. FHI to monitor.
MRT04670	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	21/11/2023	1.20	Post Handling AGD Treatments / Seals	3,892	Continued installation of new Knox seal fence net system (passive)	Anti-predator net installation continuing. Site awaiting delivery of last nets from overseas. Site to contact FHI when last net is installed. FHI to monitor. (Week 47 report was 0.87% - KAS 28/11/23)
MRT04664	Loch Duart Ltd	Loch A Chairn Bhain	20/11/2023	3.24	Seal predation / gill health (AGD)	10,601	Freshwater treatments completed this week	FHI visited w/b 30/10 and diagnostic samples taken. Positive results for AGD, Paranucleospora theridion, SGPV, Pseudomonas fluorescens, CGD and SRS. Site is also fitted with HDPE nets and predator nets.
MRT04645	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	14/11/2023	1.86	Post Handling AGD Treatments / Seals	6,132	Continued installation of new Knox seal fence net system (passive)	Business correspondent contacted for more information. 0.22% of mortality contributed to predator damage. Site is currently waiting on the last of the Knox seal fence nets to arrive from overseas and will update FHI when installation is complete. FHI to monitor.

MRT04639	Cooke Aquaculture Scotland Ltd	Carness Bay	13/11/2023	1.17	Gill Helath + Predator	2,846		FHI to monitor.
MRT04638	Loch Duart Ltd	Loch A Chairn Bhain	10/11/2023	3.50	Seal predation/ gill healt (AGD)	13,036	Site fitted with HDPE pen nets & predator net; freshwater treatments underway	FHI visited. Diagnostic samples taken, awaiting results.
MRT04619	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	07/11/2023	1.05	Post Handling AGD Treatments / Seals	3,509	Continued installation of new Knox seal fence net system (passive)	FHI to monitor
MRT04593	Loch Duart Ltd	Loch A Chairn Bhain	02/11/2023	3.90	Seal predation / gill health (AGD)	15,110	Site fitted with HDPE pen nets & predator net; freshwater treatments scheduled for next week	Site inspection completed on the 1/11/2023 diagnostic samples taken and will be arriving at the lab on the 3/11/2023.
MRT04586	Loch Duart Ltd	Loch A Chairn Bhain	27/10/2023	2.19	Seal predation/gill health (AGD)	8674	Site fitted with HDPE pen nets & predator net; freshwater treatments completed this week	FHI to monitor.
MRT04581	Cooke Aquaculture Scotland Ltd	Bay of Vady	23/10/2023	1.48	Gills/ Predation	2,629		First report, this input. FHI to monitor.
MRT04582	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	23/10/2023	3.21	Post Handling AGD Treatments / Seals (0.26)	11,624	Freshwater Treatment completed & continued installation of new knox seal fence net system (passive)	FHI to monitor. Update 31/10/2023 mortality data provided by company for week 23/10/2023-29/10/2023 show morts have reduced below the reporting threshold to 0.94% FHI to monitor.
MRT04538	Cooke Aquaculture Scotland Ltd	Carness Bay	17/10/2023	1.16	Gill Health+Predator	2,949	Mortality has reduced back below the reporting level.	FHI to monitor.
MRT04542	Loch Duart Ltd	Loch A Chairn Bhain	17/10/2023	2.15	Seal predation	8,913	Site fitted with HDPE pen nets & predator net	FHI to monitor.
MRT04543	Loch Duart Ltd	Loch A Chairn Bhain	17/10/2023	2.15	Seal predation/gill health	8,699	Site fitted with HDPE pen nets & predator net	FHI to monitor. Updated notification provided 27/10/23, figures updated.
MRT04502	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	09/10/2023	2.34	Seals & AGD	9657	Freshwater Treatment planned & installation of new knox seal fence net system (passive)	Site was visited 23/08/23 and diagnostic samples taken (20230371) - PKD, spleen pathology, gill pathology, kidney pathology, Pseudomonas fluorescens. Mortality decreasing. FHI to monitor
MRT04503	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	09/10/2023	1.17	Seals & AGD (CMS Pen 2 only)	4727	Freshwater Treatment planned & installation of new knox seal fence net system (passive)	Site was visited 23/08/23 and diagnostic samples taken (20230371) - PKD, spleen pathology, gill pathology, kidney pathology, Pseudomonas fluorescens. Mortality decreasing. FHI to monitor
MRT04504	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	09/10/2023	1.15	Seals & AGD (CMS Pen 2 only)	4589	Freshwater Treatment just commencing & installation of new knox seal fence net system (passive)	Site was visited 23/08/23 and diagnostic samples taken (20230371) - PKD, spleen pathology, gill pathology, kidney pathology, Pseudomonas fluorescens. Mortality decreasing. FHI to monitor
MRT04482	Cooke Aquaculture Scotland Ltd	Carness Bay	03/10/2023	6.01	Gill Health+Predator	16,262		Routine inspection scheduled. FHI to monitor
MRT04485	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	03/10/2023	1.17	Seal and AGD (CMS Pen 2 only)	4,727	Freshwater Treatment planned & installation of new knox seal fence net system (passive)	2nd notification of the cycle. Mortality down on previous week. FHI to monitor

The most recent cases reported in 2024 include:

Mortality Event No	Reporting Business Name	Site Name	Date reported	Mort %	Explained reasons	Mort #s	Additional information
MRT04804	Loch Duart Ltd	Clashnessie Bay	04/01/2024	6.24	Seal Predation	1,645	
MRT04803	Loch Duart Ltd	Clashnessie Bay	04/01/2024	3.70	Seal Predation	1,605	
MRT04805	Loch Duart Ltd	Clashnessie Bay	04/01/2024	3.26	Seal Predation	240	
MRT04802	Organic Sea Harvest Ltd.	Culnacnoc Salmon Farm	03/01/2024	2.35	Post Handling AGD Treatments/Gill Health with a detection of rickettsia/ Seals	6,113	All populations have now receive a freshwater treatment for AGD. Continued installation of new Knox seal fence net system (passive).

Mortality data published on 8 January 2024 by Salmon Scotland for November 2023 cites ongoing predation problems at Loch Duart and Organic Sea Harvest (both certified via RSPCA Assured):

Monthly Mortality Rate: November 2023

Published: January 8th, 2024

Company	Farm	Monthly mortality (%)	Notes	Cumulative mortality over full production cycle (%)
Loch Duart Ltd	Loch a Chairn Bhain	7.5	Gill health related, Predation	In Production
Loch Duart Ltd	Oldany	3.8	Predation	In production
Organic Sea Harvest Ltd	Culnacnoc	5.8	Predation, Bacterial disease	In production

Mortality data for October 2023 – published by Salmon Scotland in December 2023 - cited predation problems at Cooke and Organic Sea Harvest. Data for September 2023 cited predation problems for Cooke (15.7% mortality at Carness Bay), Loch Duart and Organic Sea Harvest. Data for August 2023 cited predation problems at Scottish Sea Farms (4.5% mortality at Foraness), Cooke and Loch Duart.

Data for March 2023 cited predation problems at Scottish Sea Farms (5.9% mortality at Bight of Bellister), Organic Sea Harvest and Cooke. Data for February 2023 cited predation problems at Mowi (3.5% mortality at Ornish) and Scottish Sea Farms.

Data for January 2023 cited predation problems at Cooke (5.8% at Quanterness), Mowi, Organic Sea Harvest and Scottish Sea Farms. Data for December 2022 cited predation problems at Mowi (5.7% mortality at Ornish), Cooke (9.1% mortality at Quanterness) and Loch Duart (7.6% mortality at Loch a Chairn Bhain).

Instead of allowing RSPCA Assured salmon farms to systematically allow the slaughter of farmed salmon – via inadequate predator control measures – surely RSPCA Assured should rescind certification and take action against repeat offenders? By allowing mass mortalities to continue, RSPCA Assured clearly have the blood of millions of farmed salmon on their hands.

The RSPCA's salmon standards shamefully – and illegally - condone the killing of seals on RSPCA Assured salmon farms (even though it was made illegal by the Scottish Government on 1 February 2021 – the RSPCA mistakenly refer in their standards below to 1 March 2021):

Protection from other animals

NEW

ⓘ **From 1st March 2021, the killing of seals by the salmon industry in Scotland will be prohibited by law.**

The Scottish Parliament has also commissioned a review into the use of acoustic deterrent devices (ADD/ASDs) to be concluded by March 1st 2021. This review will inform any decision that the government may make in terms of future plans for legislation regulating the use of these devices. If new legislation comes into force regarding the use of acoustic deterrent devices, the standards may be amended accordingly.

NEW

ⓘ **The shooting of seals is against the principles of the RSPCA welfare standards.**

However, at the present time, it is acknowledged that as a last resort only, i.e. when all available non-lethal deterrents have been effectively deployed and the welfare of the fish is being compromised (i.e. they are being attacked), it may be necessary to use a lethal measure to safeguard the welfare of the fish.

The RSPCA continues to examine new non-lethal methods of controlling predators around salmon farms and is aiming to reach a position whereby the shooting of seals is never necessary.

HP 7.0 NEW The shooting of seals is not permitted, other than in exceptional circumstances (see i box below) and when all required non-lethal deterrents have been effectively deployed (see relevant Standards below), i.e. as a last resort.

NEW

ⓘ **An 'exceptional circumstance' is defined as an unexpected/unforeseen event, such as the unavoidable failure of nets, ADDs/ASDs (Acoustic Deterrent Devices/Acoustic Startle Devices), systems or other equipment used to protect the fish from seals due to extreme weather or human error, and where a seal is found to be in the act of attacking the salmon.**

The RSPCA's salmon standards even provide a handy seal-killing reporting form for trigger-happy salmon farmers to fill in:

HP 7.13 NEW If the fish have been attacked, they must be checked for signs of any injury as a result of the attack without delay from the time the attack became apparent.

HP 7.14 NEW The producer must be able to demonstrate that all of the procedures leading up to the point of last resort have been mobilised.

HP 7.15 NEW Prior to being shot, the individual seal responsible for attacking the fish on the site must be positively identified.

HP 7.16 NEW All attempts must be made to recover the body of the animal that has been shot, and it must be recorded whether the body was recovered or not.

HP 7.17 NEW Any dead wildlife carcases must be disposed of in accordance with legal requirements.

HP 7.18 NEW Where it becomes necessary to humanely dispatch a seal as a last resort, the following records must be kept:

a) Names of all persons with valid firearms certificates who are deemed competent to perform the task
b) Details of any bullets used and returned to the ammunition register, if shot by an employee
c) Details of any animal that has been shot, including:
    i) The species
    ii) The time and date of dispatch
    iii) The location
    iv) The reason for the shooting
    v) The number of fish killed before resorting to the lethal method
    vi) The number of fish on site
d) If an external marksman is used, an employee must be there to record when a shooting takes place.

HP 7.19 NEW For members of a farm assurance scheme, all required details relating to seal shootings must be provided to the scheme in the required format (see Appendix 4) within 72 hours of a shooting having taken place; details must include information relating to HP 7.16.

Appendix 4

RSPCA Assured Salmon Farms – 72 Hour Reporting Form – Seal Cull

Please fill out this form in full and email to asales@rspcaassured.co.uk and malcolm.johnstone@rspcaassured.co.uk within 72 hours of the incident.

Membership number	
Site name	
Date & time of shooting	
Farm SG licence number	
Number of seals shot and species (e.g. grey or common seal)	
Number and locations of pens affected	
Total number of pens and fish on site at time of predation	

Total number of pens and fish on site at time of predation	
Number of fish killed before last resort shooting took place, and over what time period?	
Location of shooting	
Reasons for shooting (explain why this was considered a last resort)	
How was it ascertained that the damage to the fish was seal-related?	
How did the site manager decide that a seal damage threshold had been reached?	
Details regarding nets (incl. Predator nets)	
Details regarding ADDs (model, transducer positioning on site etc.)	
Any other relevant comments	
Remedial action to prevent further seal attacks	

Signed for .....by:..... Date: dd/mm/yy

RSPCA Assured salmon farms which fail to install effective predator nets are an open target to seal predation. This frame from the leaked video shows a seal moving towards the zombie salmon (either dead on the surface of the cage or swimming just below the surface of the water):

Why has RSPCA Assured failed to take measures to protect animal welfare and stop thousands of 'zombie' salmon being eaten alive by seals? If salmon farms cannot operate safely in seal nursery areas – and fail to spend the necessary money to install anti-predator nets – then RSPCA Assured must uphold welfare legislation and remove certification.

This video evidence is not the first time that RSPCA Assured welfare abuse of farmed salmon has been captured on camera. The Daily Mail reported in July 2023:

'It's like an X-rated horror film': Welfare probe launched after 'zombie' salmon with huge chunks of flesh missing are filmed at UK fish farm

- **The disturbing footage was taken at Bakkafrost Scotland's site on the Isle of Skye**

By ARTHUR PARASHAR and NATASHA ANDERSON
PUBLISHED: 08:07, 31 July 2023 | **UPDATED:** 12:15, 31 July 2023

The Bakkafrost Scotland representative acknowledged that it has become aware of the footage and noted that a 'recent RSPCA inspection at the site did not flag any issues'.

The RSPCA confirmed that it carried out an in-person visit as soon as it was made aware of the claims and was 'satisfied that the farm was doing everything they could to protect the welfare of both the salmon and any predators'.

The animal welfare organisation told MailOnline: 'The loss of fish lives, and wounded fish, is deeply upsetting and not something anyone wants to happen.

'We looked into this as soon as it was reported to us, including carrying out an in-person visit. We are satisfied that the farm was doing everything they could to protect the welfare of both the salmon and any predators, such as seals, by trying to prevent any predators from entering the pen, as required by the RSPCA's standards.

'However, it is a sad reality of salmon farming – as it is with predator attacks on terrestrial livestock for example, foxes attacking free-range hens – that from time to time a determined predator may be able to bypass all effort to exclude them and attack the fish.'

A welfare probe has been launched after 'zombie' salmon with huge chunks of flesh missing were filmed at Bakkafrost Scotland's Portree fish farm on the Isle of Skye

Metro reported in July 2023:

The shocking ‘zombie’ salmon video footage at RSPCA Assured Bakkafrost led to criticism in October 2023 by RSPCA president Chris Packham. The Sunday Mail reported (15 October 2023):

Star hits out over new fish cages

Packham Don't let zombie salmon farms off the hook

ACTION CALL Naturalist Chris Packham

ANGER Abigail Penny

Dawn Thompson

Chris Packham has called for an independent investigation into the multi-million pound Scottish salmon farming industry.

BAKKAFROST

FISH SITE Bakkafrost farm off Skye. Right, Sunday Mail stories on welfare

Zombie salmon are the worst I have seen

Salmon horror is off the scale

TV host in blast over environment issues

"Pictures of so-called zombie farming are disgusting

CAMPAIGNER Don Staniford

Chris Packham told The Sunday Mail: "Pictures of the so-called zombie salmon are disgusting. If I were the RSPCA, I'd be investigating, and reviewing if produce from those farms was endorsed with that brand. If you couldn't prove it could meet standards of welfare and environmental care we require then surely that's what you do, isn't it? If we want fishing communities to thrive, they need investment – but that shouldn't be in environmentally destructive, inhumane and uneconomic practices."

The RSPCA's 'hypocrisy' was exposed by George Monbiot in The Guardian in 2018:

The RSPCA rescues one seal – and condones the killing of many others

George Monbiot

Wed 19 Sep 2018 06.00 BST

632

The animal charity's certification of fish farms knowing that they shoot 'pests' indicates a tragic descent into hypocrisy

Last week, the Royal Society for the Prevention of Cruelty to Animals (RSPCA) issued a press release about the "incredible story" of Marina, a seal it rescued, that had become trapped under a rock on a beach in south Wales. "Moving a three-tonne boulder presents numerous challenges, but we were able to work with partners to free this seal, before giving her the six months of rehabilitation she so urgently needed." Marina's rescue is "testimony to the RSPCA's tireless commitment to wild animals, and their welfare".

On the same day, the RSPCA's head of campaigns, pushed into a corner during an online argument, wrote this: "Seal shooting is not culling it's about humane pest control." He was defending the slaughter of seals by Scottish salmon farms.

The contradiction is at first sight incomprehensible. But the organisation has another role alongside rescuing animals such as Marina, which is to assess livestock farms, and award those that meet its standards its RSPCA Assured label. This mark of approval ensures that "you can feel good about your choice when shopping and eating out". Of the 280m animals whose production and slaughter it approves every year, salmon account for 200m. It accredits 63% of Scottish salmon farms.

The RSPCA won't publish a list of the farms it has approved, citing a "contractual clause in the membership agreement". But of the 24 people who sit on the advisory group for its assurance scheme (according to the most recent published list), 20 work for salmon farming companies. These companies include the four named in an investigation into seal shooting in 2013, by the Global Alliance Against Industrial Aquaculture, as "the worst offenders".

When will RSPCA Assured start putting animal welfare ahead of the £690,000 it rakes in each year from greenwashing Scottish salmon? The Sunday Mail reported in November 2023:

We will kill off the zombie fish farms

Dawn Thompson

A leading animal charity is set to introduce more than 200 new welfare rules for fish farms after undercover filming revealed shocking 'zombie salmon' images and mass deaths.

The new standards for salmon companies who want to be part of the RSPCA Assured certification scheme will tighten up the rules on areas including transport and slaughter. But last night campaigners questioned whether the changes will make a difference after the charity admitted it has not stripped a salmon company of certification in at least a decade.

The Sunday Mail's exclusive images of badly wounded 'zombie salmon' swimming around in cages at Bakkafrost Scotland's site at Portree on the Isle of Skye sparked widespread shock.

Secret drone surveillance later revealed further horrific footage of thousands of dead fish being removed from the site.

RSPCA president Chris Packham also questioned whether the charity's standards were high enough in an interview with this newspaper.

The charity said the new rules "will constitute significant developments to the welfare of salmon" and it is set to introduce stricter standards on fish slaughter.

Activist Don Staniford said: "It's great they're reviewing the standards – because they're rubbish. We shouldn't be greenwashing Scottish salmon." In 2022 the charity received £690,000 from salmon groups and processors in membership and licence fees.

RSPCA Assured insisted firms which did not meet standards would be kicked out – but admitted they "have not withdrawn any salmon members over the past 10 years".

SHOCK Zombie salmon. Below, activist Don

DISGRACE Dead fish at Bakkafrost. Right, our stories

Charity cracks down on salmon firms

Salmon horror is off the scale

Packham Don't let zombie salmon farms off the hook

SHOCK Zombie salmon. Below, activist Don DISGRACE Dead fish at Bakkafrost. Right, our stories

Seafood Source reported (8 January 2024):

SeafoodSource

NEWS SEAFOOD2030 E-RESOURCES PRODUCT SHOWCASE SUPPLIER DIRECTORY SEAFOOD HA

RSPCA revising its farmed salmon standard, organization's president calls for halt to industry expansion

By Ned Daly
January 8, 2024

SHARE

The Royal Society for the Prevention of Cruelty to Animals (RSPCA), a U.K.-based nonprofit, has begun revising its farmed salmon standards in the face of mounting criticism of the industry.

The RSPCA Assured certification was established in 2014 and is awarded to farms, hauliers, and abattoirs that conform to strict animal welfare standards. For aquaculture operations, its standards cover animal health, feeding, environmental quality in enclosures, environmental impact, water quality, stocking density, how fish are transported, how they're slaughtered, and the wider environmental impact of an aquaculture facility.

The standards are based on the RSPCA's core "Five Freedoms:" freedom from hunger and thirst; freedom from discomfort; freedom from pain, injury, or disease; freedom to express normal behavior; and freedom from fear and distress.

NEWS SEAFOOD2030 E-RESOURCES PRODUCT SHOWCASE SUPPLIER DIRECTORY SEAFOO

RSPCA confirmed to SeafoodSource that its standards covering the entire salmon life cycle – from hatchery to slaughter – are entering a revision process.

"We are currently preparing to introduce a new revision of the RSPCA salmon standards in the coming months; however, as they are still going through an approval and amendment process, we are not able to provide further details at the moment," an RSPCA spokesperson told SeafoodSource. "We are working on [the timeline for revisions] at the moment; until we have completed the full approval and amendments process, we can't provide a date as it is subject to change."

The changes could have significant ramifications for U.K.'s salmon- and trout-farming industry, as the majority of salmon production in Scotland carries certification to the RSPCA standards, including farms operated by Loch Duart, Bakkafrost, Mowi, and Cooke. RSPCA received approximately GBP 690,000 (USD 879,000, EUR 802,000) from salmon farms in 2022 from membership and licensing fees.

RSPCA's standard process is to conduct a revision of its standards every two years in concert with the expertise of industry experts, veterinarians, welfare specialists, and other key stakeholders. The current review appears to be abnormally thorough and far-reaching, however.

"We are unable to go into detail about the new standards at the moment, but we are confident they will be a positive step forward for fish welfare," the spokesperson said.

The RSPCA spokesperson also said that publication of the new standards is planned "in the coming months" after an amendment and stakeholder approval process. At that time, they will be shared RSPCA Assured members and made available on the RSPCA website, the spokesperson said. RSPCA Assured-certified farms will have a minimum of three months to review the new standards before they are required to apply them.

$camon $cotland [interviewed RSPCA Assured on 31 October 2023] outside your head office in Horsham:

In view of the latest video evidence – and the mass mortalities piling up at the door of RSPCA Assured salmon farms – [when will the RSPCA and RSPCA Assured finally pull the plug on Scottish salmon]?

Yours sincerely,

Don Staniford

Director, $camon $cotland

Appendix: Scottish Government 'Case Information' on Seals

Published by the Fish Health Inspectorate via https://www.gov.scot/collections/publication-of-fish-health-inspectorate-information/

August 2023 – Organic Sea Harvest (Culnacnoc): [2023-0335]

Seal in pen 7 - see CNA sheet for details. Currently upgrading the seal pro nets specification - extending (doubling) panel round the side. Extra patch on lock off area (hang from 5m ropes) Seal fence is attached to 2.5m poles (7 or 8ft high) and stitched onto net. When carrying out treatments etc. the seal fence is lowered and remains stitched to the net.

During physical inspection of site, a couple of moribunds were observed on each cage. A small number of fish were jumping on each cage with the majority of the population shoaling deeper in the water column. Some 'whiteheads' were observed – lice damage due to Alphamax treatment being delayed.

Case No: 2023-0335 Site No: FS1343

Date of visit: 01/08/2023 Inspector(s): [redacted]

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
ENHANCED CONTAINMENT INSPECTION (SEAWATER)				
a. Enquiry relating to i) escape incidents and ii) contingency procedures				
1.1. Have escape incidents or events[1] been experienced on or in the vicinity of the site since the last MSS inspection?		Y		During inspection a seal was observed in pen 7. No holes in the net were seen from the walkway and it was assumed the seal had gained entry to the cage from over the handrail and through a gap in the top net and the handrail. Site staff lowered the net and raised the top net and the seal climbed out on its own accord before the nets were placed back in position and any gaps closed. Potential escape form completed by the company and sent to FHI the same day.
If yes answer 1.2-1.8:				
1.2. Have appropriate reports been made to Scottish Government within 24 hours of discovery?	High	Y	AAAH Regs[4] 31D,E	Form completed by [redacted] and sent in to Fish Health Mailbox
1.3. Have these been reported to the SSPO[2] and, where in existence, the local DSFB and fisheries trust?	Medium	N/A	CoGP 4.4.37, 5.4.17	No fish estimated to have escaped due to method of seal entering cage.
1.8. In light of the escape event, has appropriate action been taken to prevent and minimise the risk of further escapes?	High	Y		Site has Knox seal pro nets, tension froyer ring, top bird nets. Site trialing a 'seal fence' on pen 7 to see if that would be beneficial going forward. Deciding next year (summer) if it would be worth imploying those across the whole site - getting through winter and then pupping season.

b(i). Inspection of records relating to equipment, facilities and the site					
General records 2.1 With regard to each facility, net, screen and mooring at each site, a record should be maintained of:-			CoGP: 4.4.9, 4.4.14, SSI 2,1		
		Facilities	Moorings	Nets	
a) The name of the manufacturer	Low	Y	Y	Y	SeaQure system designed for high energy sites
b) Any special adaptations	Low	Y	Y	Y	Seal pro nets. No special adaptations to any facilities, moorings or nets.
c) The name of the supplier	Low	Y	Y	Y	
d) The date of purchase	Low	Y	Y	Y	2019
e) Each inspection including					
i) the name of the person conducting the inspection	Low	Y	Y	Y	AquaSkye conduct inspections on moorings. Gaelforce for pens.

4.4 Does the site suffer from regular or heavy predation?		Yes	Seals, comes and goes

5.6 Are appropriate measures in place to mitigate predation on site? (Provide detail if necessary)		Y	Seal pro nets, weighted/tensioned froyer ring, top nets and trialing seal fence on pen 7.

July 2023 – Scottish Sea Farms (Linga/Setterness): 2023-0323

Main cause of mortalities has been seal predation. Sinker tubes have been added to nets to help maintain tension. Hope to install predator nets for next cycle. Mortalities removed daily by staff and monitor fish using cameras in cages. Divers on site monthly to conduct net checks.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Other (detail)
If other detail:	Mortalities sent to SEM Energy Ltd in Lerwick, turned into biodiesel and fertiliser
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	w/b 26/6 - 0.3% (1,674), w/b 3/7 - 0.6% (3,275), w/b 10/7 - 0.2% (1,357), w/b 17/7 - 0.2% (912). Mainly due to seal predation

July 2023 – Scottish Sea Farms (Bight of Foraness): 2023-0322

Pen 10 being particularly affected by seal predation - tensioned nets in place, but planning to put on predator nets on whole site at next freshwater treatment while fish are on the boat being treated.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Other (detail)
If other detail:	Mortalities sent to SEM Energy Ltd in Lerwick, turned into biodiesel and fertiliser
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	w/b 3/7 - 0.4% (1,967), w/b 10/7 - 0.3% (1,792), w/b17/7 - 0.3% (1,609) - mainly seal predation

May 2023 – Mowi (Rum): 2023-0138

Site has seen a slight increase in seal activity but no damage to nets but will be changing to Seal Pro nets prior to next cycle.

May 2023 – Mowi (Tabhaigh): 2023-0170

Seal interacions were an issue in December 2022 but since have decreased. Pens most affected were pen 9, 10 and 15. A seal was observed in pen 10 on 26/12/2022 during net washing. Bird net lifted and seal exited. Netwashing camera showed no holes in the net when checked and divers confirmed this on 27/12/2022. Notifications received on 25/05/2023 following discussion that this incident should have been reported previously in December 2022.

March 2023 – Loch Duart (Clashnessie Bay): 2023-0046

The fish in cages 2 and 15 are targeted by the local seal population and physical damage was evident on these fish. A seal was observed in cage 15 during the inspection. Divers arrived on site while inspector was present. No hole was discovered in the net at the time of inspection. An enhanced containment inspection was completed while on site. The fish in cage 4 also had some physical damage observed, however this was instead attributed to a recent FW treatment, rather than seal damage.

9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)	Review predator risk assessment, revised sea site escape contingency plan, updated risk assessment for fish farm escape notifications

1.8. In light of the escape event, has appropriate action been taken to prevent and minimise the risk of further escapes?	High	Y
Nets resecured to cages using twine to stitch top nets down. Site has applied for permission to deploy ADD at the site. Application outcome pending at time of inspection. Top net material being reviewed. Perhaps moving to HDPE material to prevent seals accessing the cage through the top net.		

4.4 Does the site suffer from regular or heavy predation?		N		Site has historically not been targeted by seals, but is beginning to experience a higher presence of seals around the site this cycle.
4.5 Are there records of site specific risk assessments ascertaining the risk of predator attack?	Medium	Y	CoGP 4.4.26	Wildlife interaction plan available detailing risk posed by predators.
4.6 Are there risk assessments undertaken on a pre-determined frequency?	Low	Y	CoGP 4.4.26	Reviewed after each cycle, next review due January 2024.
4.7 A record of any anti-predator measures undertaken at each site at which fish are farmed including:			SSI, 2,8,a	
The type and location of each net, fence and scarer deployed	Medium	Y		Record of net locations available for inspection.
- The use of lethal means by any person involved in operations on the site	Low	N/A	SSI, 2,8,b	Site does not currently hold a licence to dispatch seals.
4.8 Where predator nets are deployed is the advice of Annex 7 considered?	Low	N/A	CoGP 4.4.27	No predator nets deployed on the site.

The following recommendation is made for improvement:

It is recommended that a documented review of the current site-specific predator risk assessment is undertaken, in which chapter 4, section 5.8 of the Code of Good Practice is considered:

"Equipment and farm design should protect the fish from predators."

The documented review should detail the current risks identified from predators and the measures that are being taken to prevent predator ingress.

February 2023 – Mowi (Camas Glas): 2023-0058

Brand new seal pro nets this year with seal blinds.

February 2023 – Mowi (Ornish Island): 2023-0084

Most mortality on site is caused by seal predation. Currently moving across to Seal Pro nets 4 have been installed so far, with more coming. On these cages, seal mortality is considerably lower.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Whole fish - WI-IWM facility
If other detail:	
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	WK8 0.96% 4525 WK7 - 0.8% 3803 WK6 0.83% 3967 WK5 - 0.9% 4345
5. Evidence of recent increased/atypical mortalities?	N
If yes, facility nos/no mortality per facility/no stock per facility/reason:	
6. Any other peaks in mortality during period checked?	Y
If yes, detail:	Seal Mortality

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Topnets	Tensioned Nets

February 2023 – Kames (Kames Bay West): 2023-0027

Seal predation was observed in pen 1 but no mortalities associated. To prevent any interest from seals around the pens, live net change occurred; nets changed from 18mm mesh to a 25mm mesh with heavier twine (Boris nets).

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
new thicker mesh	

January 2023 – Scottish Sea Farms (Bight of Bellister): 2023-0010

On the day of proposed inspection, inspector informed that 4 seals were in observed in pen 12. Site was due to start harvesting pen 12 on day of site inspection, however due to seal observation pen is required to be secure prior to the commencement of harvest. Divers were called immediately and inspection of the net was conducted 2.5 hours after seals were seen in pen. Efforts were made to coax seals out of the pen via the pens, however seals did not cooperate.

All nets on site are Seal Pro nets, dating back to 2017. The mesh size of these nets is 36mm x 36mm squares. The net in pen 12 was last inspected in 16/06/2021, with strength tests highlighting overall satisfaction by Morenot. Divers arrived on site and conducted a dive survey the net of pen 12. Five holes were identified with the biggest hole being 2 x 2 mesh squares. Divers on 25/01/2023 patched the net using cable ties and net rope. Dive checks usually occur monthly. The nets after the production cycle are then sent back to Morenot for servicing and repair. Following the service, reports are generated to determine suitability of the net in the next production cycle.

At the start of the cycle, the site operates a double net system, with a smaller inner nylon net that is removed once maximum biomass density allowed by the RSPCA welfare standards is reached. There are plans in place for the nets provider to change to Knox nets for the next production cycle – continuing to be Seal Pro nets. In addition, the double net system will be reintroduced but with a larger and more robust inner net that will not need to be removed during the production cycle. In addition, the pen design will change to have higher poles as well as custom netting that is more durable.

From the size of holes observed from the dive report it was determine that no salmon would have been able to escape, nor did a seal enter via this route. The theory is that the seals were able to get in the pen by hauling themselves over the hand rail and under the top nets which were pushed back to allow the site to start harvesting. The site staff, prepare the site for harvest to allow well boat access to the pen. To ensure that seal are not able to access the pen again, bungee cord has been used to tie the skirt of the top net tighter to the pen net.

November 2022 – Scottish Sea Farms (South Sound): 2022-0571

Site changes to sapphire seal pro nets when fish get bigger.

October 2022 – Scottish Sea Farms (Sian Bay): 2022-0505

A seal was observed by site staff in pen 7 on 26/09. Reported to have entered the net over the handrail and was directed out over a lowered side net. Net has been checked with cameras and ROV and site manager has confirmed no holes have been discovered. The site was satisfactory with regards to containment on the day of inspection.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Sealpro nets Tensioned nets Top nets	

September 2022 – Cooke Aquaculture (Vestness): 2022-0439

Seals are present in the area surrounding the site but are reported to not be interacting with the cages and not contributing to mortality. During inspection, a seal was observed resting on the walkway of a cage.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Other (detail)
If other detail:	See additional information.
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	Wk34 - 0.06% (335 fish), Wk35 - 0.07% (404 fish), Wk36 - 0.08% (484 fish), Wk 37 - 0.03% (195 fish)
5. Evidence of recent increased/atypical mortalities?	N
If yes, facility nos/no mortality per facility/no stock per facility/reason:	
6. Any other peaks in mortality during period checked?	Y
If yes, detail:	Wk6 2022, second last week of last cycle - 1.18% (243 out of ~20,000 fish). 215 put down to predator loss. Site was reminded of the reporting requirements.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Seal pro sapphire sinker tubes tensioned top nets.	

July 2022 – Mowi (Groatay): 2022-0280

Multiple sightings of seals near the cages during the inspection on site at Groatay. Nylon nets currently in use, the site have plans in place to put in seal pro nets. Seal colony nearby. Site is experiencing seal predation. During physical inspection of the site, a loose bullet casing was found on the walkway of pen 32. The casing was removed from the site and passed onto Marine Scotland Compliance.

Results of Surveillance	
1. Has any animal health surveillance been carried out by, or on behalf of, the business?	Y
2. If yes, are results available for inspection?	Y
3. Any significant results?	Y
If yes, detail (if not detailed under recent disease problems).	AGD and CMS confirmed onsite.
PatoGen report 1/3/22 for Groatay. Stock from GHCO last visit at that site report dated 16/6/22 in house health report, main factors contributing to mortality CGD and seal attacks.	

June 2022 – Mowi (Colonsay): 2022-0201

Escape investigation - Seal was observed in cage 5 during the inspection. No obvious breaches in containment were identified during the inspection. Divers were called to the site and were in the cage the same day. Findings to follow.

UPDATE 08/07/22: The incident was reported to have been a result of a froyer ring connection failure. Divers repaired the 1m hole in the net of cage 5 on the same day the seal was observed in the cage. The fish were moved into four other cages on the site and the net removed for repairs. All the froyer ring connection points (16 per cage) across the site are currently being replaced. The winch dyneema lifting ropes and the tension bar bolts are also being replaced across the site.

UPDATE 22/03/23: Recommendations in relation to the above case were made for implementation by 20th March 2023. Following submission of the required documentation, evidence has now been provided to Marine Scotland to demonstrate that the recommendations have been implemented.

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

Business No	FB0119	**Date of Visit**	16/06/2022
Site No	FS1296	**Site Name**	Colonsay
Case No	20220201	**Inspector**	[redacted]

Escape Investigation

During a routine surveillance inspection at the site, a seal was observed by the inspector in cage 5. Divers were called out to the site on the same day and discovered a vertical tear of approximately 1m in length at a depth of 12m, where the sidewall meets the base of the net. An initial escapes notification was received by Marine Scotland on the same day (MSe160622SAL1).

Following the circumstances of the reported escape of Atlantic salmon on the 16/06/2022, the following recommendations are made for improvement at the site:

Due to the failure of weighting system connections, it is recommended that a documented review is undertaken to revise and improve the standard operating procedure and inspection plan for pen and mooring components, which is based on risk assessment, in accordance with A Code of Good Practice for Scottish Finfish Aquaculture (CoGP) Chapter 4, point 4.16.

It is recommended that a documented review is undertaken of the design, quality and standard of manufacture of nets to take account of the conditions likely to be experienced on the site, including an adequate safety margin to prevent the failure of weighting system connections to meet the requirements of CoGP Chapter 4, point 4.20.

It is recommended that a documented review is undertaken of the inspection procedures and frequencies for nets and the weighting systems as required by the CoGP Chapter 4, points 4.23 and 4.24, to ensure that weighting system connection failures are prevented.

It is recommended that a documented review should be undertaken of the procedure for raising and lowering weighting systems, the associated risk assessment and contingency plan, to ensure that procedures that could increase the risk of fish escaping from pens should be carefully planned and supervised to minimise any risk and that a documented risk assessment, a standard operating procedure and a contingency plan are in place in accordance with CoGP Chapter 4, points 4.29 and 4,30, .

It is recommended that a documented review is undertaken of the predator risk assessment as required by the CoGP Chapter 4, point 4.26, to ensure that the requirement of the CoGP Chapter 4, point 5.8 are met by the equipment and farm design protecting the fish from predators.

May 2022 – Mowi (Eilean Grinean): 2022-0067

Morts attributed to physical damage due to strong south easterly winds and a smaller amount of seal damage.

6. Any other peaks in mortality during period checked?	Y
wk 13 2022 9842 fish 0.51% wk12 2022 4722 0.25%, wk11 4460 0.23% attributed to physical damage	

Results of Surveillance	
1. Has any animal health surveillance been carried out by, or on behalf of, the business?	Y
2. If yes, are results available for inspection?	Y
3. Any significant results?	Y
If yes, detail (if not detailed under recent disease problems).	physical damange mainly in pens 5,6 and 11 scale and mucous loss. Lumpfish mortality increasing with clinical Pseudomonas anguilliseptica priviously diagnosed.
Tenacibaculum sp has been present on site but no evidence of attributed mortality 23/3/22 - no treatments required.	

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
top nets	

May 2022 – Mowi (Grey Horse Channel): 2022-0163

A number of seal attacks occurred starting from week 14 2022 which account for most of the mortalities. Some seal damage could be observed in the main population. The pens containing the fish moved from Grey Horse Channel Outer also had a small number of anorexic and lethargic fish near the water surface.

Case No: 2022-0163 Site No: FS1122 Date of visit: 25/05/2022

Start date:	End date: (if applicable)	Size of fish:	Average weight of affected population:	Species:	Yearclass (SW SAL only):	Timescale	Mortality rate recorded(%):	Explained/ unexplained:	If explained, select reason(s):
07/03/22	13/03/2022	≥750g	2.5kg	SAL	Q2	Weekly	1.04	Explained	AGD
28/03/22	03/04/2022	≥750g	2.54kg	SAL	Q2	Weekly	1.02	Explained	Seal damage

If unexplained, select observations:	Total mortality during event (if available):	Additional information (e.g. action taken by company):	Action taken by FHI (include case no where applicable):
	6426		Data collected during inspection. Site to be visited 25/05/2022. Report for 2022-0163 to remind business of agreement in relation to mortality reporting as detailed in A Code of Good Practice for Scottish Finfish Aquaculture.
	5728		Data collected during inspection. Site to be visited 25/05/2022. Report for 2022-0163 to remind business of agreement in relation to mortality reporting as detailed in A Code of Good Practice for Scottish Finfish Aquaculture.

May 2022 – Mowi (Grey Horse Channel Outer): 2022-0164

The main cause of mortality has been attributed to seal predation. Complex gill disease issues have also been identified and an extended freshwater treatment was conducted in week 18, which exacerbated mortalities but alleviated the gill problems. The site is in the process of changing nets from nylon to SealPro to try and reduce seal damage. Two nets are left to change and these are the pens still experiencing higher mortalities, the remaining cages are currently experiencing background mortality numbers.

Fish with seal damage could be observed swimming amongst the main population. The site staff was observed removing mortalities from one of the nylon net pens and the majority of the dead fish also presented seal bites. A small number of anorexic, lethargic fish was also seen in most cages, however these fish would swim away when approached. Three surface dead fish seen on site.

Case No: 2022-0164 Site No: FS1334 Date of visit: 25/05/2022

Start date:	End date: (if applicable)	Size of fish:	Average weight of affected population:	Species:	Yearclass (SW SAL only):	Timescale	Mortality rate recorded(%):	Explained/ unexplained:	If explained, select reason(s):
14/03/22	20/03/2022	≥750g	1.9kg	SAL	Q2	Weekly	1.43	Explained	Complex gill issues, Seal damage

Total mortality during event (if available):	Additional information (e.g. action taken by company):	Action taken by FHI (include case no where applicable):
8705		Data collected during inspection. Site to be visited 25/05/2022. Report for 2022-0164 to remind business of agreement in relation to mortality reporting as detailed in A Code of Good Practice for Scottish Finfish Aquaculture.

April 2022 – Mowi (Muck): 2022-0096

Seal PRO nets are to be installed for next cycle.

During inspection, 2 fish in pen 7 were seen to have possible seal damage and were caught and humanely killed. Site currently stocked with fish moved from Cheesebay (moved onto site between 02/02/022 - 19/03/22) due to fish welfare considerations and risk of biomass exceedance at their host site (Grey Horse Channel and Groatay). Muck was fallow for 17 days before Cheesebay fish arrived and will be fallow after Cheesebay stock are harvested in June until restocking at the end of August.

A seal was discovered in one pen on 22/10/2021, divers were called out same day and found a hole (122mm x 36mm) at a depth of 19m and repaired it. It was judged at the time that no escape or circumstances which gave rise to a significant risk of escape had occurred, therefore it was considered that the FHI was not required to be informed. Recommendations were made to review escapes reporting procedure including staff training, and a retrospective escapes

notification has been submitted to the FHI. Closing counts indicated that no escapes occurred as a result of this incident and the site now has double mesh nets on all pens along with seal blinds to aid containment.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Double mesh,	

9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)	Double mesh nets installed for new cycle.

The following points were raised with the site representative during the inspection:

- It was noted during the inspection that on the morning of 22nd October 2021 that a hole had been repaired on one of the nets following observations of a seal being in the pen. This incident was not reported to the Fish Health Inspectorate. This matter was discussed with the site manager and business correspondent and an initial and final escapes notification was subsequently submitted prior to the issuing of this report.

Given that there had been an incident of seal interaction including a breach in containment with a seal accessing a pen, the following recommendations were made

- Review escapes reporting procedure including staff training.

April 2022 – Scottish Sea Farms (Vidlin North): 2022-0113

Site has been experiencing some CMS, the worst affected cages have been harvested. Other reported cause of mortality on site is seal predation, it was thought that this was likely masking mortalities that should have been attributed to CMS.

Approximately 7 seals observed in close proximity to the site and this had and affect on the salmon, with increased jumping. No equipment damage report on site and all cages have Seal Pro nets installed, all nets are fully tied to the handrail. There have been occasions where a seal has accessed a cage either over the hand rail or over the top of the net. The seals have waited for site staff to lower part of the net to the water line and the seal leaves the cage. No damaged to nets has been recorded or was reported. The seal issue has reportedly worsened this cycle, since the introduction of double nets to Dury Voe sites and the removal of ADD's. For next cycle the site plans to install double nets to all cages.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Top Nets, tension	

April 2022 – Scottish Sea Farms (Bight of Bellister): 2022-0108

All cages have double nets installed these have stopped issues with seal predation that had affected previous cycle.

April 2022 – Wester Ross Fisheries (Corry): 2022-0124

The fish are currently on photoperiod, which seems to help diminish seal activity. Seal curtains also in place. The site experienced issues with heron predation in the winter so they have installed two bird scarers (long pole with moving fake bird attached), which appear to work well at deterring the animals.

March 2022 – Scottish Sea Farms (Walters/East Lismore): 2022-066

The recent low level mortality has been attributed mostly to predation from seals. Indirect effects of seal predation are seen through mortality attributed to physical damage.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Bird nets, Seal pro nets, tension nets	

March 2022 – Mowi (Kingairloch): 2022-0053

Slightly increased seal activity observed due to raised Tenacibaculum moribunds presence, especially pens 5 and 6.

Additional comments:
Fish 3 mouth lesion, right side of the mouth fully eroded. Fish 4 lesion on top of head. Fish 5 mouth lesion. Tenacibaculum identified on site, no treatments administered. Fish 2 - 5 have been in sea water for less than 6 months so TSA was also used.

Figure 4; Fish 4 lesion.

November 2021 – Loch Duart (Badcall Bay): 2021-0568

Fish appeared in good body condition with the exception of some individuals displaying seal damage. Fish carcass was discovered on site, outwith the net of cage 5. Suspected seal predation. Dive reports inspected from the previous day (7/12) and noted that a hole was discovered in the net of cage 7 measuring 8 mesh across. The hole was stitched immediately and an initial escape notification was received by the business on 08/12 - no fish are expected to have escaped. The nets on site are HDPE and are tensioned. Top nets are also deployed on all the cages. Site no longer uses ADDs and no longer has a MML. Business is considering moving to predator nets beginning of next year.

November 2021 – Scottish Sea Farms (Bring Head): 2021-0476

Seal pro nets, Top nets, Tensioned nets - Seal predation at times of large tides.

November 2021 – Grieg Seafood (Collafirth 3): 2021-0455

Predation by seals at site. Morts removed showing seal damage but no containment issue observed. Nets checked monthly by divers.

October 2021 – The Scottish Salmon Company (Portree): 2021-0383

Dec 2020 - seal breached cage 3 at Portree. Replaced all nets with seal pro nets which have stopped seal issues experienced earlier in the cycle. Also seal blinds on nets. ADD on site but not used and would need to seek approval is required.

September 2021 – Scottish Sea Farms (Scallastle): 2021-0325

Seal found in the cage the week before the inspection. No breach in containment was observed by the site staff. The seal got into the cage over the top of the net. The seal cannot get through the net as it is a seal pro net. Divers were on site the same day, the net was dropped and the seal was encouraged to leave. The divers confirmed that no hole had been caused in the net.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Incinerated - on site
If other detail:	
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	wk 37: 2,085 (0.97%), wk 36: 345 (0.11%), wk 35: 287 fish (0.09), wk 34: 722
5. Evidence of recent increased/atypical mortalities?	Y
If yes, facility nos/no mortality per facility/no stock per facility/reason:	
Seal attack on cage 16 and 8 the week previous to the inspection. See additional comments. Mortalities consistent with seal attack. Seals also observed within nets, but no damage done to the net.	

August 2021 – Cooke Aquaculture (Meil Bay): 2021-0294

Seal presence has been noted around the site. Although not causing damage to equipment, the majority of mortalities at the site have been attributed to seal damage. Site is equipped with both nylon nets and seal blinds on half of the cages and sapphire nets on the other half. Mortalities

attributed to seal damage are higher in cages with nylon nets. Site plans to replace the nylon nets with sapphire nets during fallow.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Top nets, tensioned sapphire nets, nylon nets and seal blinds	

July 2021 – Grieg Seafood (Swinning Voe): 2021-0250

Seal predation, biting fish through net but no equipment damage.

July 2021 – Grieg Seafood (Bight off Foraness): 2021-0228

Site has had some issues with seal predation. No damage to equipment - seals predating on fish at side of cage, or in dead sock. The site has trialled Seal Pro nets in the past, but did not find them effective.

July 2021 – Grieg Seafood (Linga/Setterness): 2021-0147

One incident where seal entered cage through damage in top net. The seal was released by the staff on site, as nets on site are seal pros and it would have been highly improbable for it to find its own way out. Divers were out on the same day and no holes were discovered. Top nets are sewn on to the handrails. Application for temporary ADD submitted - denied by local council due to farm being in protected area. The company does not identify this incident as a potential breach in containment otherwise it would have been reported to the FHI.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Top nets, tension nets, seal pro nets	

June 2021 - The Scottish Salmon Company (Kyles of Vuia): 2021-0198

Seal Pro nets now deployed at site with company also looking to raise height of nets (~0.5/1m) to aid in prevention of seals gaining access to pens. Electric fence has been installed on one pen to deter seals from accessing walkways. Installation of the fence has shown early signs of deterring seals.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
A.D.D., Electric Fence, Predator Nets (below), Tensioned Nets, Top Nets	

June 2021 – The Scottish Salmon Company (Loch Odhairn/Gravir): 2021-0200

2 pens had a high number of fish with physical damage from seal predation but also showing good recovery with open wounds being healed. 1 pen is fitted with Seal pro nets and showed far less physical damage from predation. Remaining pens to be kitted out with Seal Pro nets within the next month.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Tensioned Nets, Top Nets, A.D.D.	

June 2021 – The Scottish Salmon Company (Greanamul): 2021-0202

Site is due to install seal pro nets next cycle, not in response to seal presence around the site, but just as a precautionary measure.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Tension nets, top nets, ADD	

June 2021 – The Scottish Salmon Company (Geasgill): 2021-0194

There was a containment breach incident in 2020 where uplift system tore through the net, 5 tonne ring system for keeping net tensioned has been introduced as well as seal pro nets.

Containment Inspection				
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?				N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)				Y
Seal pro nets	5 tonne rings	top nets	ADD's	

June 2021 – The Scottish Salmon Company (Eughlam): 2021-0173

Site reported tuna and seal in pen 7 on 11 October 2020 and reported to FHI (MSe111020SAL1). Hole believed to have been caused by tuna and seal entered pen through the hole which was repaired. No fish escaped.

Containment Inspection				
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?				Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)				Y
Seal nets	Top nets	ADD	Seal blinds	

9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)	Tuna in pen was unprecedented event, but seal pro nets

May 2021 – Mowi (Scalpay): 2021-0055

Site manager reported that the seal pro nets have been very effective mitigation measure against seal predation, with no seal damage noted on any fish (incl mortalities) since input.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Top Nets, tensioned nets, Seal Pro Nets,	

May 2021 – Scottish Sea Farms (Kishorn B): [2021-0093]

Report of seal in pen but no fish reported to have escaped. A number of moribund fish observed across the site, some with physical damage. 5 sampled for diagnostics.

Recent (last 4 wks) disease problems?	N	Any escapes (since last visit)?	Y
If yes, detail:	seal in the pen, no fish reported to have escaped.		

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
top net tensioned nets seal pro nets ADD	
If other, detail below:	
ADD has been installed post seal incident	
3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection?	Y
If Yes proceed with questions 4 – 9. If No skip to question 10	
4. Have these been reported to Scottish Ministers?	Y
5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)	N
6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)	N
7. Were methods (if any) used to recover escapees? If yes give detail	N
8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)	N/A
9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)	Hole was patched, ADD installed

2.21 Are net inspection records maintained?	High	y	CoGP 4.4.23	Dive reports maintained but no record of repair following seal in cage

b)iii) Inspection of records relating to procedures and risk assessments

Although the site met the requirement of current Scottish industry best practice, due to the nature of the containment incident reported on 12th March 2021 and that a second similar incident was reported on the 5th June 2021, the following recommendations are made for improvement:

It is recommended that a documented review is undertaken of the site-specific risk assessment to ascertain the risks of predator attacks in accordance with A Code of Good Practice for Scottish Finfish Aquaculture (CoGP) (Chapter 4, point 4.26).

It is also recommended that a documented review should be undertaken and implemented to identify improvements to the equipment in use and farm design to protect the fish from predators in accordance with CoGP (Chapter 5, point 5.8).

It is also recommended that a record of any changes made should be recorded to meet the requirements of schedule 2, section 8(a) and 8(c) of the Fish Farming Businesses (Record Keeping) (Scotland) Order 2008, which requires a record to be kept of any anti-predator measures undertaken, including:

- **details of the type and location of each net, fence and scarer deployed;**
- **any assessment of risk of escape of fish carried out.**

April 2021 – Mowi (Ardnish): 2021-0060

Two mobile pens have a larger mesh outer net with a smaller (mesh) shallower net inside it, this means there is a space between the nets at the bottom and this is hoped to prevent any possible seal attacks, site does not have a history of seal issues. All new nets have been put on the site with stronger more rigid mesh to prevent possible seal attacks.

March 2021 – The Scottish Salmon Company (Gob a Bharra): 2021-0031

During the latest event a seal was observed in the cage, and in the earlier event a hole was discovered by the net cleaning team. No fish were thought to have escaped during either event. The company used to use a person with a MML who was deployed to sites around Loch Fyne when required. He will no longer be used due to a change in law regarding MML's. The site now has a license to use an ADD, required during a recent policy change.

Initially net lifted to stop fish escaping. Then a patch was placed over the hole by the dive team, using nylon thread to secure it. Fish moved to another cage (cage 5) as the hole was big and they had capacity on site. Hole possibly caused by the net rubbing on a bridle during bad weather (manager is 99% sure this was the cause). The bridle rope was the only thing close to the hole. Edges of the hole were frayed suggesting that it had rubbed on something. Fairly sure there was no snag as the hole did not have clean edges that you would expect from a snag. FNC8 system (flying net cleaner, distributed by Akva Group) is remote controlled and comes equipped with HD cameras and lights to see any damage. One cage is cleaned every week during which the nets are checked for damage. FNC8 travels between sites in the area (disinfection takes place between sites). External company (Inverlussa) comes in to inspect and adjust bridles at end of cycle. The company has attended since escape.

Seal pro nets will be used in the next cycle. Always been many seals on the site. They have had problems on and off for several years. They did have a contractor with an MML but no longer due to policy change. MSe250221SAL1: possibly caused by seal. The edges of the hole were not as frayed at the first event. Little significant boat activity close to cage, so unlikely to be caused by boat handling. The hole was small but so was the seal. The seal swam out of the cage once the edge of the net was dropped and the divers chased it out. Patch placed over the hole and stitched onto net using nylon thread. Fish will be harvested out of the cage by Saturday (20/03/21), the fish will be counted off the site. Should have numbers next week. The net will not be used on site again as they are switching to seal pro nets. All nets have seal blinds at the bottom.

b)iii) Inspection of records relating to procedures and risk assessments

It is recommended that a documented review is conducted of the site specific risk assessments ascertaining the risk of predator attack in accordance with the CoGP (Chapter 4, section 4.26). This should include a review of the measures available and in place to mitigate against seal ingress.

February 2021 – The Scottish Salmon Company (Glenan Bay): 2021-0114

Seal pro nets will be installed next year, tensioning of nets has been increased, although there are limited issues with predation on site.

Containment Inspection			
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?			N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)			Y
ADD	Seal Blinds	Top nets	

January 2021 – The Scottish Salmon Company (Portree): 2021-004

Site did not experience high levels of predation pressure during last cycle with only a handful of seals observed around the site. However, this cycle there has been a significant increase in the local seal population, with around 24-30 individuals observed. This increasing seal presence has resulted in an increase in seal damage observed across the site. At the end of Wk53 (2020) a seal was observed in Pen 3. The mortalities for that week are attributed to seal damage, with the following week (Wk1 2021) capturing the mortalities caused as a result of the seal entering the pen.

Site has since replaced all STAR nets on site with SealPro nets on all cages.
Mortalities over the reporting threshold:
28/12/2020 - 1.52% (Seal damage)
04/01/2021 - 1.76% (Seal damage combined with handling losses while fish were being transferred into SealPro nets)

Mortality Records

1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Ensiled - on site
If other detail:	Uplifted every day with the exception of Christmas day and new years day when all staff are on holiday.
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	Wk2:557 (<0.05%) Wk1 (2021): 1.76% (19,640); Wk53: 1.52% (17,239);
5. Evidence of recent increased/atypical mortalities?	Y

If yes, facility nos/no mortality per facility/no stock per facility/reason:

Mortality in Wk53 was attributed to increased seal presence around the cages and resulting damage. Seal entered Pen3 at the end of Wk53 causing significant mortalities in Wk1 2021.

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
1.8. In light of the escape event, has appropriate action been taken to prevent and minimise the risk of further escapes?	High	Y		Affected cage was fallowed and SealPro nets have since been deployed on all cages. The business contracted an external company to conduct night patrols (between 5pm-8am) to perform visual checks on the cages throughout the night and to try and deter seal activity. The frequency of divers on site increased from once a week/fortnight to every second day until all the SealPro nets had been installed.
1.9. Is there a site specific contingency plan in response to failures in containment, aimed at preventing escapes and recovering escaped fish?	High	N	SSI, 2,9	No site specific contingency plan was available, but the site manager produced a generic containment and escape contingency plan that is issued to all sites within the business.

b(i). Inspection of records relating to equipment, facilities and the site					
General records 2.1 With regard to each facility, net, screen and mooring at each site, a record should be maintained of:-			CoGP: 4.4.9, 4.4.14, SSI 2,1		
		Facilities	Moorings	Nets	
a) The name of the manufacturer	Low	Y	Y	Y	Polar circles manufactured and installed by AKVA in 2014. Cages have not been damaged by predators.
b) Any special adaptations	Low	N/A	N/A	N/A	Moorings manufactured and installed by Gaelforce. All moorings were changed in August 2020 to replace existing moorings which were now 6 years old (as described in SOP).
c) The name of the supplier	Low	Y	Y	Y	STAR nets were on site when the escape incident occurred and were manufactured in December 2018. Nets were sent to Knox in July 2020 for service and repair (this is done prior to each cycle). SealPro nets are now on all cages.

2.14 Do all nets used on site meet industry standards?	High	Y	CoGP 4.4.17	
2.15 Can the site demonstrate an awareness of the minimum fish size in relation to net size	High	Y	CoGP 4.4.19	SealPro nets have 18mm mesh. If the site takes on smaller than average smolts, they are able to deploy STAR nets (with 15mm mesh) on the inside of the SealPro nets to act as a double barrier to escape.

4.4 Does the site suffer from regular or heavy predation?		Y		Previously, this site has not sufferred from predation or damage casued by predators. However, this cycle there has been a notable increase in the local seal population which has resulted in increased mortalities from seal damage and an escape as a result of predator damage to nets.
4.5 Are there records of site specific risk assessments ascertaining the risk of predator attack?	Medium	Y	CoGP 4.4.26	
4.6 Are there risk assessments undertaken on a pre-determined frequency?	Low	Y	CoGP 4.4.26	Reviewed every cycle.
4.7 A record of any anti-predator measures undertaken at each site at which fish are farmed including:			SSI, 2,8,a	
The type and location of each net, fence and scarer deployed	Medium	Y		OTAQ scarers available on site. However the site needs to apply to the local council to operate them. The ADDs are only permitted to be used when the site has a significant seal problem. Approval for their use was granted a few weeks ago and they have been on since (however, site staff have not noticed a significant reduction in seals or damage to fish). Service engineer was on site on 17/01/21 to modify the frequency and volume to increase effectiveness. Now that SealPro nets have been installed on site, the ADDs will be switched off in the coming weeks.
- The use of lethal means by any person involved in operations on the site	Low	Y	SSI, 2,8,b	No seals dispatched to date. Licence permits the dispatch of 2 grey and 1 harbour seal every 2 years.

b)iii) Inspection of records relating to procedures and risk assessments

Although the site met the requirement of current Scottish industry best practice, due to the nature of the containment incident reported on 05 January 2021, the following recommendations are made for improvement:

It is recommended that a documented review is undertaken of the site-specific risk assessment to ascertain the risks of predator attacks in accordance with A Code of Good Practice for Scottish Finfish Aquaculture (CoGP) (Chapter 4, point 4.26).

It is also recommended that a documented review should be undertaken and implemented to identify improvements to the equipment in use and farm design to protect the fish from predators in accordance with CoGP (Chapter 5, point 5.8) r

It is also recommended that a record of any changes made should be recorded to meet the requirements of schedule 2, section 8(a) and 8(c) of the Fish Farming Businesses (Record Keeping) (Scotland) Order 2008, which requires a record to be kept of any anti-predator measures undertaken, including:

- **details of the type and location of each net, fence and scarer deployed;**
- **any assessment of risk of escape of fish carried out.**

November 2020 – The Scottish Salmon Company (Scadabay): 2020-0438

Escape reported 17/1/20- 0 fish lost. Hole in net and seal in pen.

October 2020 – Scottish Sea Farms (Scallastle): 2020-0454

Recent increased mortality: w/b 31/08/20 - 569 (1.16%), w/b 07/09/20 - 437 (1.04%), w/b 21/09/20 - 529 (2.25%), w/b 28/09/20 - 194 (1.17%), w/b 05/10/20 - 215 (1.87%), w/b 12/10/20 - 55 (1.2%). Attributed to a combination of CMS, gill issues and seal damage.

Seal activity increased around site during September and October 2020. Net tension was increased at all stocked cages and dive inspections increased to twice weekly. No equipment damage was found during dive inspections. Site also utilises A.D.D. system.

April 2020 - The Scottish Salmon Company (Kyles of Vuia): [2020-0166]

Additional Case Information:
Previously submited mortality event info;
06/01/2020-12/01/2020 5.35% Seal Predation 20728 ADD's being adjusted.
13/01/2020-19/01/2020 3.36% Seal Predation 12323 ADD's being adjusted .
20/01/2020-26/01/2020 1.53% Seal Predation 5405 Adjusting ADD frequency. Site inspected December 2019. FHI to continue monitoring.
30/03/2020-05/04/2020 1.46% Seal Predation 4607 Harvesting ongoing to reduce biomass.
06/04/2020-12/04/2020 1.43% Seal Predation 4190

Seal predation has been an issue, both common and grey seals. Two types of ADD on site and seal blind for dead socks. Two seals have been dispatched but in the last 10 days the seals have disappeared from the area. They have been unable to get Seal Pro nets but will be getting them for the next cycle. Morts attributed to seal predation have seal damage lesions. Morts in the last 10 days 20/4/20-29/4/20 is 2173 (0.98%) attributed to post treatment and seal damage.

Any escapes? (since last inspection)	N
If yes, detail: (include date)	4/12/19 - Seal in pen and hole in net -CNA visit conducted in Feb 2020.

marinescotland science

Scottish Government
Riaghaltas na h-Alba
gov.scot

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FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0169	**DATE OF CASE**	29/04/2020
SITE NO	FS0927	**SITE NAME**	Kyles of Vuia
INSPECTOR	[redacted]	**CASE NO**	20200166

Passive Surveillance Inspection

A notification of mortality levels above the reporting criteria was received by the Fish Health Inspectorate for the period of 23 December 2019 to 19 April 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.

Mortality levels on site had been raised and were attributed to seal predation. The presence of seals in the area has decreased and the most recent mortality figures for the site had dropped below the reporting threshold.

April 2020 – The Scottish Salmon Company (Taranaish): 2020-0153

w/b 16/03/2020 1.32%/wk; Seal Predation; 6977 dead; DI got in touch with company, Seal pressure from Kyles of Vuia has shifted to east Loch Roag now that Kyles of Vuia has seal pro nets installed. Plan to install seal pro nets at Taranaish, (5 month waiting time) and in the meantime ADD's are being adjusted constantly, site staff are focusing on mortality removal, and problem seals are being identified for culling.

Awaiting seal pro nets but delayed due to covid issue, predator nets seal blind have been considered but not thought appropriate (further details to follow); They have a licence to dispatch. Dispatched in Loch Roag area.

Emailed update; "All nets have seal blinds fitted as standard, and this will be applied to the Seal Pros when they are deployed. Predator nets are not used due to the damage that they can do to wildlife, plus the difficulty in keeping them clear of growth which has an impact on the water flow to the fish. A site like Taranaish, with a history of AGD which can escalate quickly would not be suitable for predator nets, for health and welfare reasons".

Any recent increased or atypical mortalities? (last 4 weeks).	Y
If yes, detail:	seal predation and post treatment. No current AGD issues. See additional info

Any reported escapes? (check prior to phone call)	Y
Any escapes? (since last inspection)	N
If yes, detail: (include date)	Reported 14/3/20 (seal in cage) and 28/2/20 (hole in net) but none thought to have escaped.

March 2020 – Mowi (Colonsay): 2020-0129

Dive inspection reports were inspected and a number of repairs have been made to the nets by divers, it is reported that there have been issues with seal interaction during the winter months when there is a lack of wild fish available.

March 2020 – The Scottish Salmon Company (Tarbert South): 2020-0136

Seal in the pen since last inspection but no holes and not suspected losses, situation now resolved. No containment issues observed on site. Net and top net still fastened to the handrail with zip ties every few meters. No seals observed in the vicinity of the site during the inspection.

Recent (last 4 wks) disease problems?	N	Any escapes (since last visit)?	Y
If yes, detail:	Event which may have given rise to a potential escape earlier when a seal got into a pen without damaging the net. These have not been reported as no fish were thought to have been escaped.		

Results of Surveillance	
1. Has any animal health surveillance been carried out by, or on behalf of, the business?	Y
2. If yes, are results available for inspection?	Y
3. Any significant results?	Y
If yes, detail (if not detailed under recent disease problems).	seal; Atypical furunc in LUM
reports mention issues with seals spooking fish and causing damage; 23/1/2020 report for lumpfish (samples from Quarry Point but these are the same batch of fish as on Tarbert South) from FVG for histology some systemic pathology suspicious of systemic infection of possible bacterial colonies (unconfirmed) in several tissues, and significant degeneration of the skin and underlying tissue associated with diffuse bacterial infection. Bacteriology report (also FVG) for source site for Feb 2020 for atypical furunculosis.	

February 2020 – Scottish Sea Farms (Vidlin North): 2020-0060

Site has been experiencing an increased problem with seal predation which began in August 2019, the site has Sapphire seal pro nets on all cages, weighted nets and an OTAQ ADD, they also have an Airmar ADD available. The cages are due to be replaced before next cycle and plan to have sinker tubes next cycle. Seal predation accounts for 32.5% of mortalities this cycle, this has not been an issue previous generations of fish.

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Sapphire seal pro nets, top nets, tensioned nets, ADD, M.M.L.	

February 2020 – The Scottish Salmon Company (Kyles of Vuia): 2020-0037

Site inspected to carry out escape investigation and enhanced containment inspection, following incident which may have given rise to the risk of escape occurring when FHI last inspected the site on 04/12/2019. Site has been experiencing increased seal predation over the last few months, new ADD system has recently been installed on site, subsequently mortalities attributed to seal damage have reduced over the past month. During inspection 1-2 lethargic fish were observed in the majority of cages. In cage 4 several lethargic fish with lesions visible on the flanks were observed.

During the previous FHI inspection on 04/12/2019, a seal was observed in cage 5, the seal was then seen to leave the cage. Divers arrived on site the same day to inspect the cage and net and discovered a hole near the base of net, approximately 25x15 mesh squares in size (nets on site have a mesh size of 15 mm). The hole was repaired by the divers. It is suspected that the hole was caused either by seal damage, or possibly by the lift-up system cone rubbing against the net during recent storm conditions Dive reports indicate that fish were observed to higher up the water column in the cage, no fish were observed outside the cage, and in the following days feed levels had not dropped. The APB completed and submitted the escape notification form to the FHI on the same day, noting that it was suspected that no fish escaped during the incident. Divers returned to site on 06/12/2019 to inspect all other cages on site, no damage or holes in nets were found, all support ropes for lift up systems were tightened. Prior to the escape, divers inspected cages and nets on 29/11/2019 with no holes or damage observed.

At the time of the escape the site had an OTAK A.D.D. system on installed on site. Following the incident frequencies on the A.D.D. were adjusted and an additional A.D.D. system (Ace Aquatec) has been installed on site, with both systems running. Mortality attributed to seal damage have fallen since. Nets on site are currently STAR mesh, these are due to be replaced with Seal pro nets at the end of this production cycle. Seal pro nets are currently being installed on the neighbouring Vuia Mor site.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	Other (detail)
If other detail:	White shore cockles
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	w/b 27/01/20 - 2789 (0.8%), 03/02/20 - 2307 (0.67%), w/b 10/02/20 - 1466 (0.43%), w/b 17/02/20 - 1961 (0.57%) - mortality attributed to seal predation.
5. Evidence of recent increased/atypical mortalities?	N
If yes, facility nos/no mortality per facility/no stock per facility/reason:	
6. Any other peaks in mortality during period checked?	Y
If yes, detail:	06/01//2020 - 20,728 (5.35%), w/b 13/01/20 - 12,323 (3.36%), w/b 20/01/20 - 5405 (1.53%)
7. Have increased (unexplained) mortalities been reported to vet or FHI?	Y
If yes, detail action:	FHI notified. Adjusting ADD frequency

Case No: 2020-0037 Site No: FS0927

Date of visit: 26/02/2020 Inspector(s): [redacted]

Point of compliance	Risk level	Satisfactory?	Requirement	Comments and advice given or action taken if necessary
ENHANCED CONTAINMENT INSPECTION (SEAWATER)				
a. Enquiry relating to i) escape incidents and ii) contingency procedures				
1.1. Have escape incidents or events[1] been experienced on or in the vicinity of the site since the last MSS inspection?		Y		04/12/2019: Site staff attended cages with FHI during routine inspection and observed a seal in one pen. Seal exited the pen and site staff immediately got divers on site (arrived within an hour) to check net. Found seal damaged area near base, where it would appear seal had bitten. Divers suggest that position of fish, high in the water column, would have resulted in no loss. Damage was repaired.
If yes answer 1.2-1.8:				
1.2. Have appropriate reports been made to Scottish Government within 24 hours of discovery?	High	Y	AAAH Regs[4] 31D,E	FHI on site at time of incident, notification form submitted 05/12/2019 - MSe041219SAL1
1.3. Have these been reported to the SSPO[2] and, where in existence, the local DSFB and fisheries trust?	Medium	Y	CoGP 4.4.37, 5.4.17	
1.4. Were methods (if any) used to recover escapees?		N/A		Suspected no fish lost, divers observed fish high in water column no fish observed outside of water.
If yes give detail				
1.5 Was the decision to attempt to recapture and the method employed agreed with the local DSFB and FT	Low	N/A	CoGP 4.4.38, 5.4.18	
1.6. Was permission sought from Marine Scotland prior to recapture?	Medium	N/A	CoGP 4.4.38, 5.4.18	
1.7 Were the gill nets deployed in accordance with the permission issued by Marine Scotland?	Low	N/A	CoGP 4.4.38, 5.4.18	
1.8. In light of the escape event, has appropriate action been taken to prevent and minimise the risk of further escapes?	High	Y		Hole repaired on same day divers inspected to net to check no other holes present, all remaining nets on site alos inspected during following days. Uplift cone ropes tightened. Otak A.D.D. systems adjusted and new Ace system A.D.D installed on site, both operating at same time.

4.4 Does the site suffer from regular or heavy predation?		Y	Seal damage
5.6 Are appropriate measures in place to mitigate predation on site?		Y	Tensioned nets, top nets, A.D.D., M.M.L.

Section 2: Case Detail

Observations

The above site was inspected in order to carry out an enhanced containment inspection and VMD inspection. The site had reported increased mortality attributed to seal damage during January 2020. Lesions observed on fish were attributed to a combination of seal damage and secondary bacterial infection. Recent mortality records indicated that mortality had since fallen.

During inspection of the cages a number of lethargic fish, several with lesions, were observed across the site. Five fish were removed from cage 4, in which a higher number of lethargic fish with lesions were observed, for further examination and subsequent diagnostic sampling.

External examination showed lesions on the flanks of all five fish. The eyes of fish 2 were exophthalmic.

Internal examination showed haemorrhaging of the body wall (fish 2 and 3) and swim bladder (fish 3 and 4). Petechial haemorrhaging was observed in the liver of fish 2 and in the pyloric caeca of fish 5. The pyloric caeca of fish 5 had a lack of fat and was mauve in colour. Bloody ascites was present in fish 1-3. Enlarged spleens with the presence of granulomas were observed in fish 3 and 4.

January 2020 – The Scottish Salmon Company (Quarry Point): [2020-0021]

Some seal activity between December and January, 820 Dec, 2200 mortalities, some of which were attributed to seal predation.

Containment Inspection				
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?				N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)				Y
ADD	Top nets	MML	Seal Blinds	

January 2020 – Scottish Sea Farms (Wyre): 2020-0014

One hole in the net due to seal in October 2019. To check if been reported 29/10/19. Seal damaged fish evident in several pens. Seal pro nets had been successfully used in previous cycles however these are not being effective this cycle. One pen had been raised to lift the seal pro section higher, this is reported to be effective.

Mortality Records	
1. Mortality records available for inspection?	Y
2. How are mortalities disposed of?	
If other detail:	Bulk container at SSF yard at Twatt then uplifted for disposal but manager did not know where to.
3. Mortality records complete and correctly entered?	Y
4. Recent mortality (last 4 wks):	wk4 3771 (0.37%) wk 3 3242 (0.31%) wk2 4157 (0.4%) wk 1 6019 (0.58%) (seal predation poor weather)

Containment Inspection	
1. Has the site experienced equipment damage due to predators in the current or previous production cycles?	Y
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)	Y
Seal pro nets sinker tubes top nets	