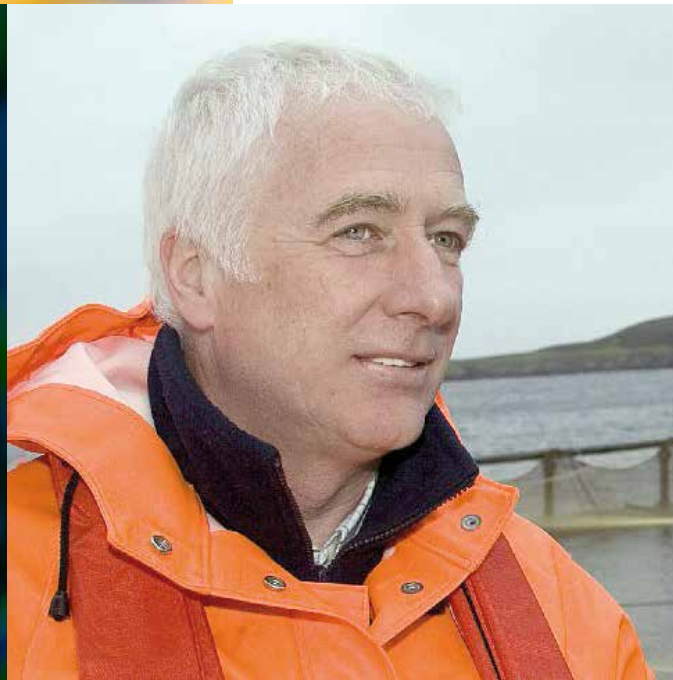




FISH HEALTH MANAGEMENT ANNUAL REPORT 2014





CHIEF EXECUTIVE'S FOREWORD

I am pleased to publish our second Annual Fish Health Management Report. This summarises the industry's quarterly performance reports during 2014, looking particularly at sea lice management.

2014 was notable for the continuing changes to the marine environment around Scotland. These are mirrored in other countries like Norway and Ireland as a result of global climate change. Water temperatures are higher and algal blooms, plankton and swarms of jellyfish have become persistent issues off the west coast of Scotland.

This has meant that in some areas sea lice numbers were higher than the industry would like. In each instance, however, the situation was dealt with as swiftly as possible. Fish farmers address sea lice management in line with the requirements of the Code of Good Practice (CoGP).

The changing marine environment has implications for fish health, productivity and long-term industry prospects. We anticipate that these challenges will persist in the foreseeable future and the industry is investing significant funds in research to mitigate the situation.

We continue to share the quarterly reports with Scottish Government scientists at the Marine Laboratory and encourage rapid information exchange and collaboration between farming companies.

Scott Landsburgh

Chief Executive

Scottish Salmon Producers' Organisation

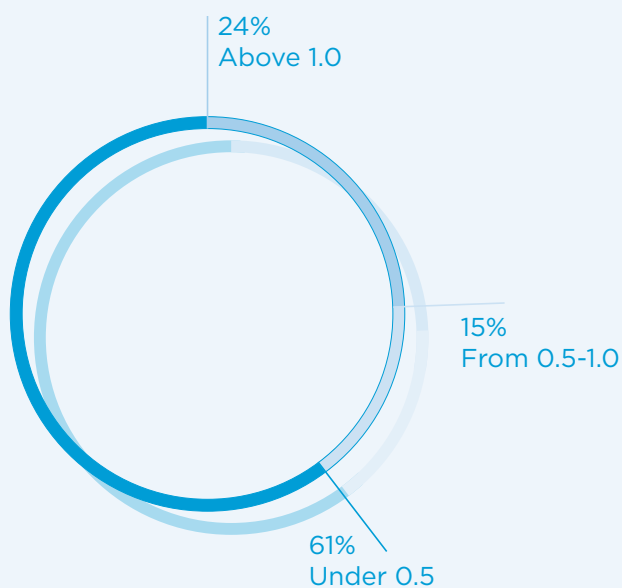
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PERFORMANCE REVIEW

FEBRUARY TO JUNE 2014

Overall the industry achieved good levels of compliance in accordance with the Code of Good Practice. The suggested treatment threshold during February to June 2014 was 0.5 adult female lice. The salmon farming industry voluntarily reduced the thresholds to this level in response to requests from wild salmon interest groups.



- 61% of monthly averages were under the industry's Code of Good Practice suggested treatment threshold (0.5)
- 15% of the monthly averages were between 0.5 and 1.0
- 24% of monthly averages were above 1.0

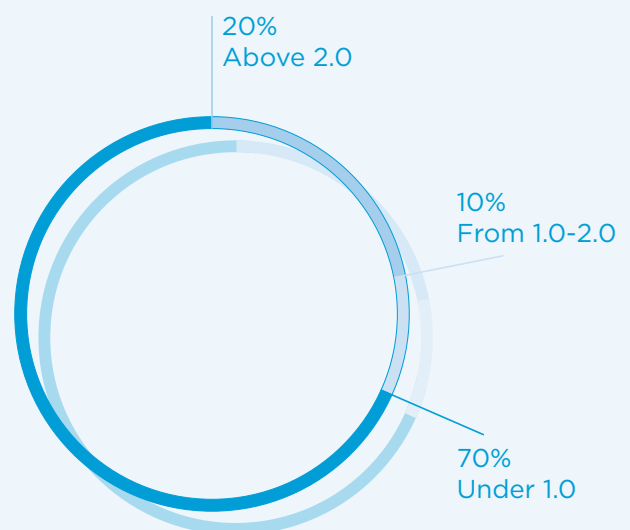


FOLLOWING

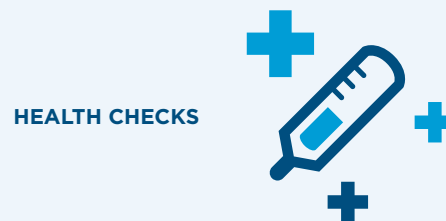
Fallowing performance remains excellent, with sites being left fallow prior to stocking for, on average, 20 weeks, considerably longer than the four weeks required by the Code of Good Practice.

JANUARY AND JULY TO DECEMBER 2014

In January and then from July to December 2014 the industry continued to maintain a good level of performance. The suggested treatment threshold during these months for adult female lice is 1.0. This period is outwith the migration period for wild salmon.



- 70% of monthly averages were under the industry's Code of Good Practice suggested treatment threshold (1.0)
- 10% of the monthly averages were between 1.0 and 2.0
- 20% of monthly averages were above 2.0



HEALTH CHECKS

A lice count was made on 337 of the 365 days in 2014. There were approximately 7,500 individual site counts for lice in 2014. Based on the Code recommendations this equates to a minimum of 188,000 fish sampled.



INNOVATIONS

Salmon farmers are implementing new techniques, investing in new technologies and supporting (financially and in kind) multi-million pound research projects to help the industry perform responsibly and successfully in the long-term.

Researching and adopting effective husbandry techniques to ensure the high levels of fish health and fish quality for which Scotland is internationally recognized is of paramount importance.

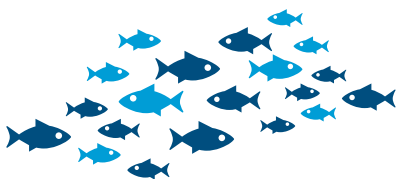
CLEANER FISH

Cleaner fish, such as wrasse, are an effective and sustainable way to manage lice, and research into their use and culture has been ongoing in Scotland for several years. The Scottish Aquaculture Innovation Centre (SAIC) has called for project proposals to further develop techniques to rear cleaner fish and to maximise their effectiveness when used on farms.

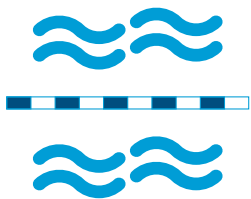
While research in Scotland has focused mainly on the culture and use of wrasse, there is growing interest in the use of lumpfish. Consequently, the SAIC will consider project proposals aimed at both wrasse and lumpfish.

According to Heather Jones, Chief Executive of the Scottish Aquaculture Innovation Centre, "With sea lice control at the top of our priority actions, it was natural that the Scottish Aquaculture Innovation Centre's first major Connect+Collaborate event should focus on cleaner fish. Almost 80 producers, researchers and health specialists connected at an SAIC workshop, and there was a clear commitment to commercially-focused innovation."

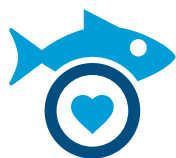
It is envisaged that suitable projects will be identified and commenced in early 2015.



Around £10million is currently committed to research into sea lice management using cleaner fish such as wrasse and lumpfish



Barrier techniques are currently on commercial trial on Scottish salmon farms



Industry working with pharma companies to encourage veterinary medicine development



Underpinning research and projects with Marine Scotland, the Scottish Aquaculture Research Forum (SARF) and the Scottish Aquaculture Innovation Centre (SAIC)

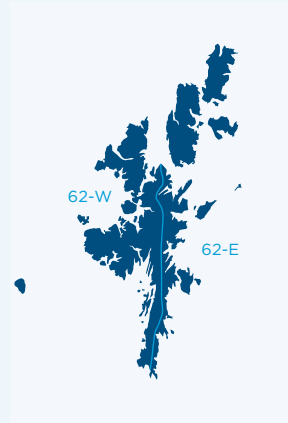


Subscribing to satellite images to predict the occurrence of harmful algal blooms

REGION MAP

KEY

- 25 Hope and Grudie
- 26-N Inchard to Kirkaig North
- 26-S Inchard to Kirkaig South
- 27 Kennart to Gruinard
- 28 Ewe
- 29 Badachro to Applecross
- 30 Kishorn and Carron
- 31 Loch Long and Croe
- 32 Glenelg and Kilchoan
- 33 Morar to Shiel
- 34-N Skye and Small Isles North
- 34-S Skye and Small Isles South
- 35 Sunart and Aline
- 36-N Sanda to Creran North
- 36-S Sanda to Creran South
- 37 Awe and Nell
- 38 Add and Ormsary
- 39 Island of Mull
- 40 Ilay and Jura
- 41 Carradale and Iorsa
- 42 Fyne
- 43 Ruel and Drummachloy
- 58-E Isle of Lewis East
- 58-W Isle of Lewis West
- 59 Harris
- 60-N The Uists North
- 60-S The Uists South
- 61 Orkney
- 62-E East Shetland
- 62-W West Shetland



2013 STATISTICS

This table provides a summary of the monthly lice averages (adult females) for each reporting region in 2013.

Reporting Region	2013											
	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC
Hope and Grudie	0.1	0.1	0.1	0.2	0.4	0.3	F	F	F	0.0	0.0	0.0
Inchard to Kikkaig North	2.6	1.8	2.0	2.4	1.3	1.1	1.5	3.7	9.4	6.3	1.1	0.2
Inchard to Kikkaig South	Currently no active salmon farms											
Kennaart to Gounard	4.2	4.6	4.6	2.3	2.6	2.1	3.1	4.8	9.3	10.3	4.9	5.1
Ewe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	F	F	F	F	F
Badachno to Applecross	0.9	0.6	0.3	0.2	0.6	0.7	0.9	2.2	12.1	5.2	F	F
Kishorn and Carron	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	1.0	1.0
Loch Long and Croe	F	F	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.8	1.6
Glengig and Kikchoan	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Morar to Shiel	0.6	0.6	F	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.7	0.2
Skye and Small Isles North	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.6	1.0	1.4	1.1
Skye and Small Isles South	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.5	0.6	0.3
Sunart and Aline	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Sandia to Crean North	0.2	0.3	0.1	0.2	0.3	0.6	0.6	1.3	2.0	6.0	F	F
Sandia to Crean South	0.3	0.4	0.3	0.4	0.4	0.7	0.9	1.0	0.6	0.5	0.4	0.4
Awe and Nell	0.3	0.3	0.2	0.2	0.7	0.4	0.6	0.7	2.0	5.9	8.5	2.9
Acid and Ormsary	1.8	0.7	0.6	0.5	0.3	0.1	0.0	0.3	1.4	2.6	3.2	2.3
Island of Mull	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.7	1.7	2.5
Islay and Jura	F	F	F	F	F	0.9	1.1	3.1	5.6	5.2	12.5	4.0
Carradale and Iorsa	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.9	0.9	0.2	0.3	0.1
Fyne	0.1	0.2	0.2	0.3	0.4	0.4	F	F	0.0	0.0	0.0	0.0
Ruel and Drummachloy	F	F	F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Isle of Lewis East	0.2	0.3	0.0	0.1	0.0	0.1	0.3	0.5	1.1	3.2	3.9	8.0
Isle of Lewis West	F	F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Harris	2.0	2.6	2.0	2.8	0.6	0.8	1.4	1.4	1.8	0.4	0.3	0.1
The Uists North	1.9	0.3	0.4	0.9	1.3	1.9	1.0	1.3	1.8	2.2	2.3	0.8
The Uists South	0.4	0.3	0.1	0.2	0.2	0.5	1.3	1.7	2.9	3.8	7.7	2.8
Orkney	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Shetland	0.2	0.6	0.2	0.1	0.2	0.3	0.1	0.2	0.4	0.5	0.6	0.5
West Shetland	0.3	0.3	0.1	0.1	0.4	0.4	0.3	0.9	0.8	0.4	0.3	0.1

F = Region fallow.

2014 STATISTICS

This table provides a summary of the monthly lice averages (adult females) for each reporting region in 2014.

Reporting Region	2014											
	JAN	FEB	MAR	APR	MAY	JUN	JULY	AUG	SEP	OCT	NOV	DEC
Hope and Grudie	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.5	1.2
Inchard to Kikraig North	0.8	1.4	1.8	1.1	1.2	1.7	3.1	5.0	4.5	2.7	3.2	5.3
Inchard to Kikraig South	No active salmon farms											
Kennart to Grinhard	2.8	2.2	1.5	1.1	0.7	0.9	0.7	1.4	1.8	2.0	0.9	0.8
Ewe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Badacho to Applecross	F	0.0	0.0	0.0	0.0	0.1	0.0	0.3	1.0	3.7	7.6	11.6
Kishorn and Cairon	2.9	2.1	0.4	F	F	F	F	0.0	0.0	0.1	0.0	0.0
Loch Long and Croe	1.0	1.0	1.2	1.7	3.4	7.1	11.9	18.0	41.7	F	F	F
Geneig and Kichloan	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.4	0.0	0.0	0.0
Morar to Shiel	0.2	0.5	1.0	0.4	0.4	F	F	F	F	F	0.0	0.0
Skye and Small Isles North	1.7	2.2	3.1	2.3	5.4	8.0	7.7	14.3	F	0.0	0.0	0.0
Skye and Small Isles South	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	1.6	1.6	2.6
Sunart and Aline	0.1	0.1	0.3	0.6	1.9	4.9	3.0	0.7	0.1	0.0	0.0	0.0
Sandta to Crean North	F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sandta to Crean South	F	F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Ave and Nell	3.7	2.6	2.4	1.3	1.8	2.6	0.7	0.1	0.1	0.0	0.0	0.1
Add and Ormsary	3.5	1.0	0.4	0.5	2.6	4.7	B	B	B	0.0	0.0	0.0
Island of Mull	1.2	3.5	1.6	1.9	0.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0
Islay and Jura	5.2	B	B	B	B	B	B	B	F	F	F	F
Carradale and Iorsa	0.0	F	F	0.0	0.0	0.0	0.2	0.2	0.3	0.8	2.4	1.1
Fyne	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	1.3	3.2	2.8	6.1
Ruel and Drummachloy	0.0	0.0	0.1	0.1	0.1	0.2	0.8	4.9	5.0	0.4	F	F
Isle of Lewis East	0.6	0.3	0.8	0.3	0.9	0.2	0.2	0.7	4.1	11.4	19.7	6.8
Isle of Lewis West	0.4	0.3	0.1	0.1	0.3	0.7	1.8	3.5	0.6	1.7	1.2	0.9
Harris	0.1	0.2	0.2	0.3	0.4	0.8	0.4	2.3	7.7	12.6	12.9	12.5
The Uists North	1.7	0.7	0.5	0.6	0.2	0.4	0.2	0.3	0.9	1.5	1.0	0.7
The Uists South	0.8	0.7	0.6	0.6	0.5	0.8	1.0	1.2	1.7	1.9	3.1	4.3
Orkney	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Shetland	0.5	1.0	0.7	0.6	0.7	0.6	0.4	0.6	3.3	2.0	2.4	1.6
West Shetland	0.1	0.2	0.2	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.2

F = Region fallow.
B = Broodstock site/region. Visual lice checks.



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