

Sea lice monitoring report for Flowerdale Burn estuary, Loch Gairloch sampling, 21 Jun 2024

Peter Cunningham, Biologist, WRFT. 27 Jun 2024 info@wrft.org.uk

Mortality / early returned estimates for sea trout in sample based on method from Taranger et al 2015, Risk assessment for the environmental impact of Norwegian salmon farming ([PDF](https://www.researchgate.net/publication/266672998)) [Risk assessment of the environmental impact of Norwegian Atlantic salmon farming \(researchgate.net\)](https://www.researchgate.net/publication/266672998)

Fish No.	≥13 lice/fish?	Lice/g fish weight	Range	Mortality category	Number of fish in category	Total number of fish in sample	% of sample in category	projected mortality for category %	Projected mortality %
1	No	0.022	>0.3	100%	0	9	0	0	
2	No	0.000	0.2-0.3	50%	0		0	0	
3	No	0.025	0.1-0.2	20%	0		0	0	
4	No	0.000	<0.1	0%	9		100	0	0
5	No	0.044							
6	No	0.042							
7	No	0.000							
8	No	0.000							
9	No	0.000							

Notes:	
based on the assumption that small salmonid post-smolts (<150g body weight) will suffer 100% lice-related marine mortality, or return prematurely to freshwater for sea trout in the wild if the are infected with >0.3 lice per g of fish weight.	
Furthermore, the lice related marine mortality is estimated to 50%, if the infection is between 0.2 and 0.3 lice per g fish weight, 20% if the infection rate is between 0.1 and 0.2 lice per g fish weight, and finally 0% if the salmon lice infection is <0.1 g fish weight.	
0.05 and 0.1 lice per g fish weight, 20% for lice infections between 0.05 and 0.01 lice per g fish weight, and finally 0% if the salmon lice infection is <0.01 lice g fish weight.	
	colour code
Taranger, G. L., Karlsen, Ø., Bannister, R. J., Glover, K. A., Husa, V., Karlsbakk, E., Kvamme, B. O., Boxaspen, K. K., Bjørn, P. A., Finstad, B., Madhun, A. S., Morton, H. C., and Sva'sand, T. (2014) Risk assessment of the environmental impact of Norwegian Atlantic salmon farming. – ICES Journal of Marine Science, doi: 10.1093/icesjms/fsu132.	100% sea lice related mortality or early return to freshwater
	>50% to 99% sea lice related mortality or early return to freshwater
	>20% to 50% sea lice related mortality or early return to freshwater
	<20% sea lice related mortality or early return to freshwater
https://www.researchgate.net/publication/266672998 Risk assessment of the environmental impact of Norwegian Atlantic salmon farming	

Sea lice monitoring report for Flowerdale Burn estuary, Loch Gairloch sampling, 21 Jun 2024

Peter Cunningham, Biologist, WRFT. 27 Jun 2024 info@wrft.org.uk

Other fish in sample:

Abbreviations. Wrs = wrasse

Fish No.	Location	Date	Method	Riv/Est/ Beach	Fish	length (mm)
10	Flowerdale	21-Jun-24	Sweep Net	est	flounder	140
11	Flowerdale	21-Jun-24	Sweep Net	est	flounder	138
12	Flowerdale	21-Jun-24	Sweep Net	est	Ballan Wrs	155
13	Flowerdale	21-Jun-24	Sweep Net	est	Ballan Wrs	65
14	Flowerdale	21-Jun-24	Sweep Net	est	Ballan Wrs	60
15	Flowerdale	21-Jun-24	Sweep Net	est	Corkwg Wrs	255
16	Flowerdale	21-Jun-24	Sweep Net	est	Shanny	260



Acknowledgements

Supported by the Wester Ross Area Salmon Fishery Board and Scottish Government via Fisheries Management Scotland

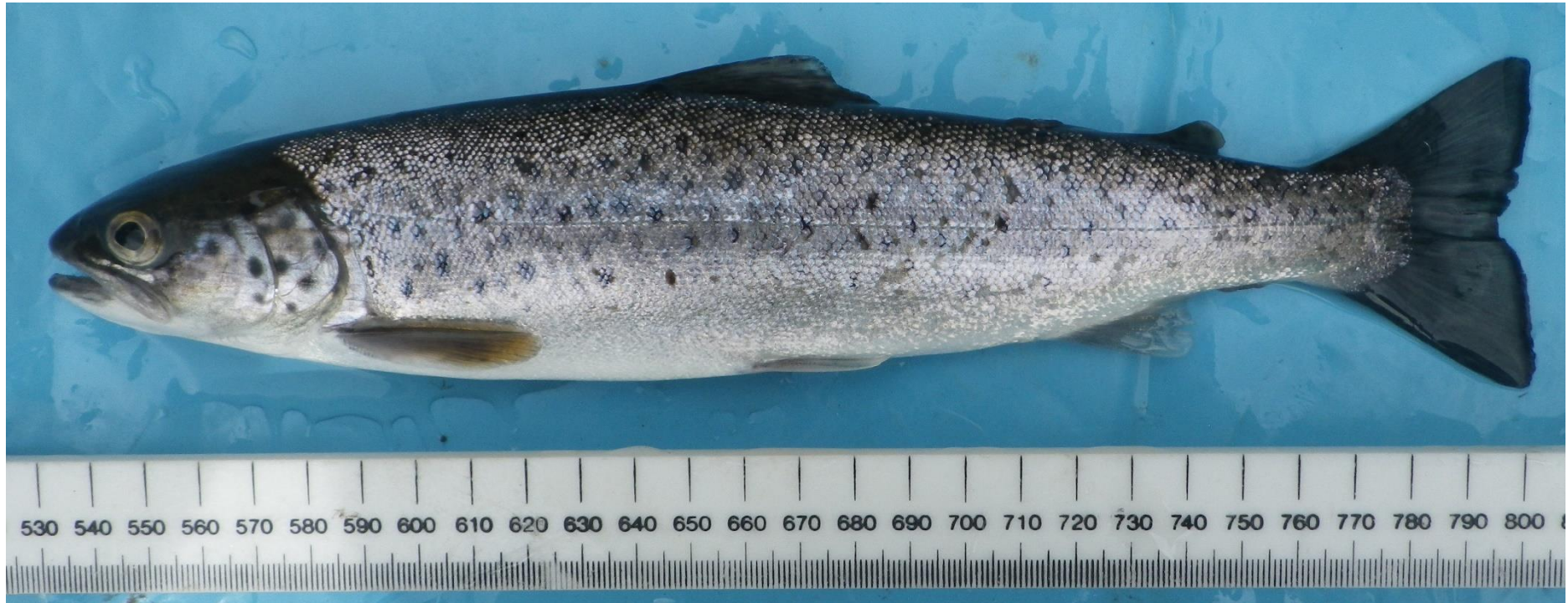
Thank you to Gairloch Estate for permission

Sea lice monitoring report for Flowerdale Burn estuary, Loch Gairloch sampling, 21 Jun 2024

Peter Cunningham, Biologist, WRFT. 27 Jun 2024 info@wrft.org.uk

Photos: all ©WRFT unless otherwise indicated. All fish in photos were lightly sedated for inspection then returned to the sea after recovery.

Sea trout 278mm, Flowerdale 21 Jun 24



Sea lice monitoring report for Flowerdale Burn estuary, Loch Gairloch sampling, 21 Jun 2024

Peter Cunningham, Biologist, WRFT. 27 Jun 2024 info@wrft.org.uk

Wrasses, Flowerdale 21 June 24 . . . spot the odd one out?

