

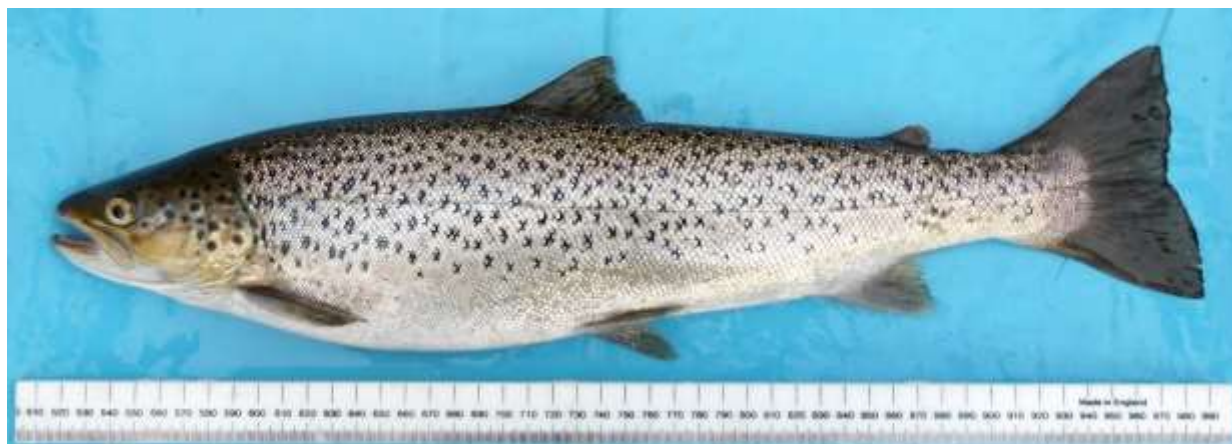
Sea lice monitoring report for Balgy estuary sampling, 22 July 2024

Peter Cunningham, Biologist, WRFT. 23 July 2024 [info@wrft.org.uk](mailto:info@wrft.org.uk)

Sea trout data

<b>Location:</b>	Balgy estuary																				
<b>Date:</b>	22-Jul-24	<b>Time:</b>	14:00 (success with low tide sweep)																		
<b>*Counts:</b>	Peter Cunningham																				
<b>Team:</b>	3 helpers																				
<b>Weather:</b>	overcast, light southerly breze																				
<b>Other notes:</b>	2 sweeps of river channel - too many large stones and seaweed - then sweep from pebbly gravel bar 50m to east of river mouth at low tide (0.1m)																				
	light variable breeze, cool, bright and sunny																				
	lots of C. lingua on fish																				
	1st success at this location																				
										<i>Caligus</i>	<i>Lepeophtheirus salmonis</i>										
No.	Location	Date	Method	Riv/Est/B each	Fish	length (mm)	weight (g)	condition factor	total	Copepodid & Chalmus (estimate)	Pre-adult & adult	Ov. female	Total L. salmonis sea lice	*estimated lice/g fish weight	Dorsal fin damage	<i>Cryptocotyle lingua</i> spots per cm <sup>2</sup> of caudal fin	Predator damage	Photo	scale sample?	Comments	
1	Balgy	22-Jul-24	Sweep Net	est	Sea trout	460	1095	1.12	0	0	2	2	4	0.004	1	30	N	Y	y	fat hen	

ST 460mm Loch Torridon (Balgy estuary) 22 July 24



Other fish (not measured) sea scorpion sp.

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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)

Sea trout 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 of fish in sample %
1	No	0.004	>0.3	100%	0	1	0.00	0.00	
			0.2-0.3	50%	0		0.00	0.00	
			0.1-0.2	20%	0		0.00	0.00	
			<0.1	0%	1		100.00	0.00	<b>0.00</b>

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 they 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.									
<div style="display: flex; align-items: center;"> <div style="width: 15px; height: 15px; background-color: red; margin-right: 5px;"></div> <span>100% sea lice related mortality or early return to freshwater</span> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 15px; height: 15px; background-color: orange; margin-right: 5px;"></div> <span>&gt;50% to 99% sea lice related mortality or early return to freshwater</span> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 15px; height: 15px; background-color: yellow; margin-right: 5px;"></div> <span>&gt;20% to 50% sea lice related mortality or early return to freshwater</span> </div> <div style="display: flex; align-items: center; margin-top: 5px;"> <div style="width: 15px; height: 15px; background-color: lightgreen; margin-right: 5px;"></div> <span>&lt;20% sea lice related mortality or early return to freshwater</span> </div>									
<a href="https://www.researchgate.net/publication/266672998">https://www.researchgate.net/publication/266672998</a> Risk assessment of the environmental impact of Norwegian Atlantic salmon farming									

Note – previous sampling effort at this site led by Marine Directorate sea trout project team at high tide using workboat at high tide on 27<sup>th</sup> May 2024 and 24<sup>th</sup> June 2024 failed to capture any sea trout.

Acknowledgements

Sampling carried out as part of the Loch Torridon salmon farms EMP Wild Fish Monitoring Programme

Thank you to proprietors of the River Balgy fisheries for permissions to net fish at this location