Sea lice monitoring report for Kanaird estuary 8th August 2025

Peter Cunningham (WRFT Biologist) 11 Aug 2025 info@wrft.org.uk

Fish data

Location:		**Kanaird**			
Date:		08-Aug-25	**Time:**	first sweep at 12.20pm ish	
***Counts:**		Peter Cunningham and Chloe Hall			
Team:		5 helpers			
Weather:		strong SW wind, overcast with showers, cool			
Other notes:		3 sweeps of estuary as tide went out. First sweep delayed as storm surge - tide higher than anticipated			
		Kanaird river had been up previous week - flowing medium level			
		otter seen fishing in estuary prior to starting			

									Caligus	***Lepeophtheirus salmonis***									
No.	**Location**	**Date**	**Method**	**Riv/Est/Beach**	**Fish**	**length (mm)**	**weight (g)**	**condition factor**	**total**	**Copepodid & Chalimus (estimate)**	**Pre-adult & adult**	**Ov. female**	**Total L. salmonis sea lice**	***estimated lice/g fish weight**	**Dorsal fin damage**	***Cryptocotyle ligua spots per cm2 of caudal fin***	**Predator damage**	**Photo**	**scale sample?**	**Comments**
1	Kanaird	08-Aug-25	Sweep Net	est	Sea trout	330	365	1.02	0	1	0	0	**1**	0.003	1.5	0	Y	Y	y	
2	Kanaird	08-Aug-25	Sweep Net	est	Sea trout	233	136	1.08	0	0	0	0	**0**	0.000	0	0	Y	Y	y	
3	Kanaird	08-Aug-25	Sweep Net	est	Sea trout	215	100	1.01	0	0	0	0	**0**	0.000	0	0	Y	Y	y	
4	Kanaird	08-Aug-25	Sweep Net	est	Sea trout	205	71	0.82	0	0	0	0	**0**	0.000	0	0	Y	Y	y	
					Averages	**330.00**	**365.00**	**1.02**	**0.00**	**1.00**	**0.00**	**0.00**	**1.00**	**0.00**	**1.50**	**0.00**				

total lice	1
number of fish	4
number infested	1
prevalence	25%
total lice	1
abundance	0.25
intensity	1.00
fish with >0.3 lice / g	0
fish with >0.3 lice / g	0%

No.	**Location**	**Date**	**Method**	**Riv/Est/Beach**	**Fish**	**length (mm)**	**weight (g)**
5	Kanaird	08-Aug-25	Sweep Net	est	Flounder	140	
6	Kanaird	08-Aug-25	Sweep Net	est	Flounder	145	
7	Kanaird	08-Aug-25	Sweep Net	est	Flounder	125	
8	Kanaird	08-Aug-25	Sweep Net	est	Flounder	168	
9	Kanaird	08-Aug-25	Sweep Net	est	Flounder	125	
10	Kanaird	08-Aug-25	Sweep Net	est	Flounder	125	
11	Kanaird	08-Aug-25	Sweep Net	est	Flounder	110	
12	Kanaird	08-Aug-25	Sweep Net	est	Flounder	295	310
13	Kanaird	08-Aug-25	Sweep Net	est	Vip blennie	215	

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Summary

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) Risk assessment of the environmental impact of Norwegian Atlantic salmon farming (researchgate.net)

Sea trout no	≥13 lice/fish?	Lice/g fish weight
1	No	0.003
2	No	0.000
3	No	0.000
4	No	0.000

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 %
>0.3	100%	0	4	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%	4		100.00	0.00	**0.00**

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 estmated 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

Notes:

Thank you to Keanchulish estate for permissions and access

Sampling session carried out to inform Ardmair Salmon farm EMP funded by MOWI.

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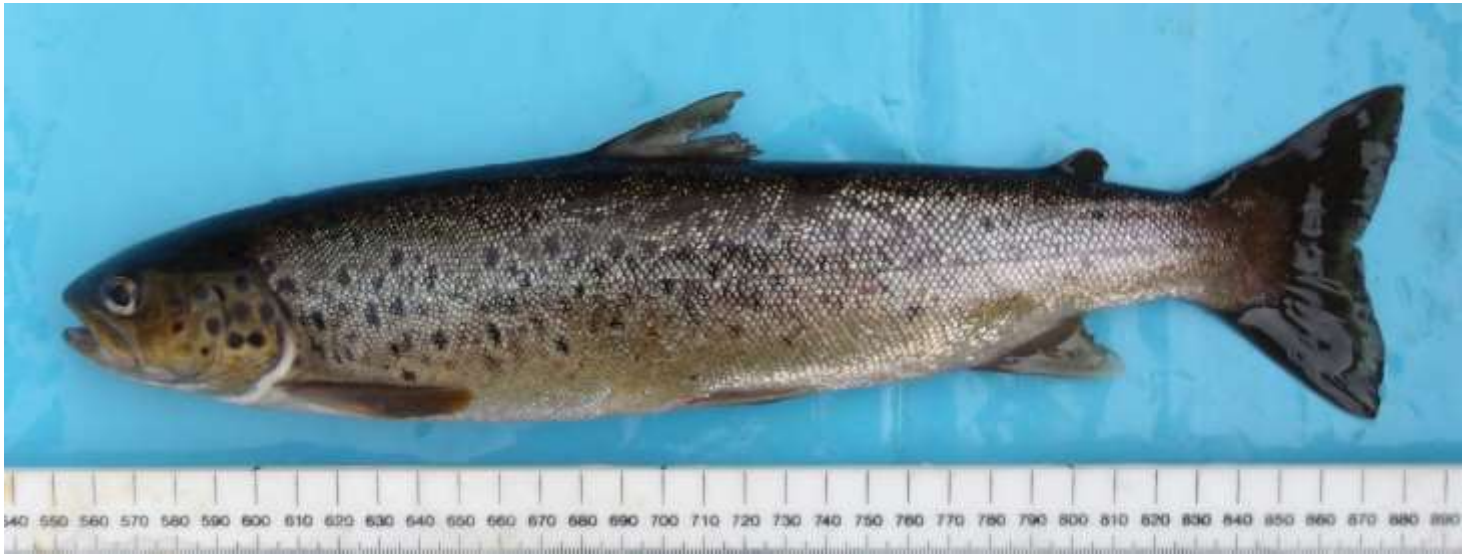
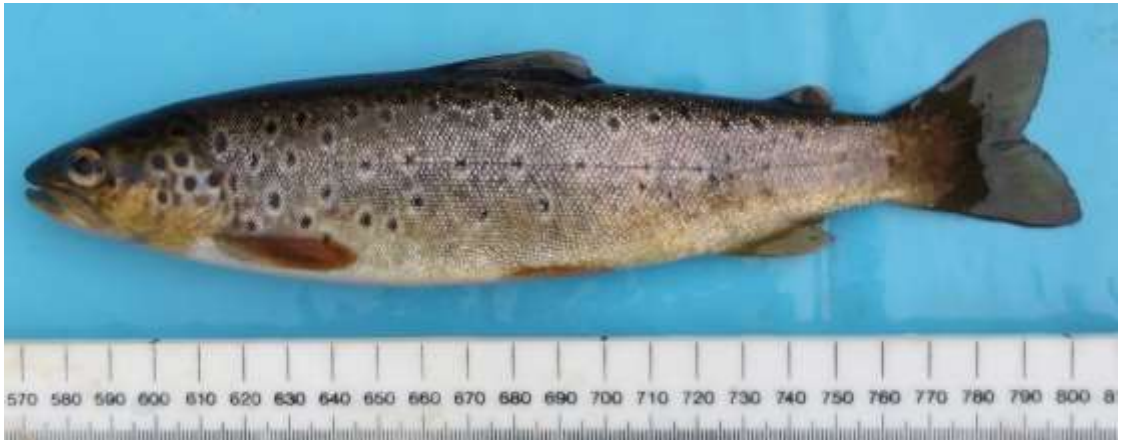
Sea trout 330mm Kanaird 8 August 2025. One sea louse. Lice damaged but healed dorsal fin.



Trout 233mm Kanaird 8 August 2025. No lice nor lice damage



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Pics of dorsal fins of trout and Viviparous Blenny by Chloe Hall