

Sea lice monitoring report for Applecross estuary sampling, 19 May 2026

Peter Cunningham, Biologist, WRFT. 25 May 2026 info@wrft.org.uk

Sea trout data

Location:	Applecross River estuary																				
Date:	19-May-26	Time:	10:30																		
*Counts:	Peter Cunningham																				
Team:	5 helpers																				
Weather:	overcast, still, sowers not far away, cool																				
River	low; mild; fresh breeze																				
Other notes:	1 sweep of top of sea pool																				
	2 snorkellers to move net over stones on river bed of pool																				
	tide full in at first - about 30cm above river level; halocline																				
	about 100 fish in net, random 28 fish subsampled, plus two larger fish in the sweep																				
	some of the wee sea trout may have just been in sea pool so not yet exposed to sea lice infestation pressure																				
									Caligus	Lepeophtheirus salmonis											
No.	Location	Date	Method	Riv/Est/B each	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	Applecross	19-May-26	Sweep Net	est	Sea trout	153	30	0.84	0	0	0	0	0	0.000	0.0	0	N	Y	y	Olympus camera til fish 29	
2	Applecross	19-May-26	Sweep Net	est	Sea trout	145	28	0.92	0	0	0	0	0	0.000	0.0	0	N	Y	y		
3	Applecross	19-May-26	Sweep Net	est	Sea trout	138	23	0.88	0	0	0	0	0	0.000	0.0	0	N	Y	y		
4	Applecross	19-May-26	Sweep Net	est	Sea trout	153	30	0.84	0	0	0	0	0	0.000	0.0	0	N	Y	y		
5	Applecross	19-May-26	Sweep Net	est	Sea trout	142	21	0.73	0	0	0	0	0	0.000	0.0	0	N	Y	y		
6	Applecross	19-May-26	Sweep Net	est	Sea trout	151	30	0.87	0	0	0	0	0	0.000	0.0	0	N	Y	y		
7	Applecross	19-May-26	Sweep Net	est	Sea trout	138	21	0.80	0	0	0	0	0	0.000	0.0	0	N	Y	y		
8	Applecross	19-May-26	Sweep Net	est	Sea trout	162	35	0.82	0	32	0	0	32	0.914	0.0	0	N	Y	y	lice photos taken before fish photos	
9	Applecross	19-May-26	Sweep Net	est	Sea trout	152	29	0.83	0	6	17	0	23	0.793	0.0	0	N	Y	y	lice photos taken before fish photos	
10	Applecross	19-May-26	Sweep Net	est	Sea trout	165	36	0.80	0	24	0	0	24	0.667	0.0	0	N	Y	y		
11	Applecross	19-May-26	Sweep Net	est	Sea trout	155	30	0.81	0	6	0	0	6	0.200	0.0	0	N	Y	y	lice photos taken before fish photos	
12	Applecross	19-May-26	Sweep Net	est	Sea trout	173	40	0.77	0	0	0	0	0	0.000	0.0	0	N	Y	y		
13	Applecross	19-May-26	Sweep Net	est	Sea trout	170	45	0.92	0	0	0	0	0	0.000	0.0	0	N	Y	y		
14	Applecross	19-May-26	Sweep Net	est	Sea trout	160	32	0.78	0	3	0	0	3	0.094	0.0	0	N	Y	y		
15	Applecross	19-May-26	Sweep Net	est	Est trout	166	39	0.85	0	0	0	0	0	0.000	0.0	0	N	Y	y	Not silvery	
16	Applecross	19-May-26	Sweep Net	est	Sea trout	151	26	0.76	0	0	0	0	0	0.000	0.0	0	N	Y	y		
17	Applecross	19-May-26	Sweep Net	est	Sea trout	155	28	0.75	0	1	0	0	1	0.036	0.0	0	N	Y	y	photos of lice	
18	Applecross	19-May-26	Sweep Net	est	Sea trout	153	31	0.87	0	2	0	0	2	0.065	0.0	0	N	Y	y		
19	Applecross	19-May-26	Sweep Net	est	Sea trout	150	29	0.86	0	1	0	0	1	0.034	0.0	0	N	Y	y		
20	Applecross	19-May-26	Sweep Net	est	Sea trout	149	29	0.88	0	0	0	0	0	0.000	0.0	0	N	Y	y		
21	Applecross	19-May-26	Sweep Net	est	Sea trout	147	23	0.72	0	0	0	0	0	0.000	0.0	0	N	Y	y		
22	Applecross	19-May-26	Sweep Net	est	Sea trout	150	30	0.89	0	0	0	0	0	0.000	0.0	0	N	Y	y		
23	Applecross	19-May-26	Sweep Net	est	Sea trout	313	246	0.80	0	0	0	0	0	0.000	0.0	1	Y	Y	y	dorsl fin healed. Wound in lower flai	
24	Applecross	19-May-26	Sweep Net	est	Sea trout	148	22	0.68	0	0	0	0	0	0.000	0.0	0	N	Y	y		
25	Applecross	19-May-26	Sweep Net	est	Sea trout	242	117	0.83	0	54	0	0	54	0.462	0.0	2	N	Y	y	dorsal fin split; healing	
26	Applecross	19-May-26	Sweep Net	est	Sea trout	247	131	0.87	0	1	0	0	1	0.008	0.0	0	N	Y	y		
27	Applecross	19-May-26	Sweep Net	est	Sea trout	170	34	0.69	0	0	0	0	0	0.000	0.0	0	N	Y	y		
28	Applecross	19-May-26	Sweep Net	est	Sea trout	165	34	0.76	0	0	0	0	0	0.000	0.0	0	N	Y	y		
29	Applecross	19-May-26	Sweep Net	est	Sea trout	150	30	0.89	0	0	0	0	0	0.000	0.0	0	N	Y	y	Kodak camera from here	
30	Applecross	19-May-26	Sweep Net	est	Sea trout	150	28	0.83	0	0	0	0	0	0.000	0.0	0	N	Y	y		
Averages						165.43	43.57	0.82	0.00	4.33	0.57	0.00	4.90	0.11	0.00	0.10					

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Summary

total lice	147
number of sea trout	30
number infested	10
prevalence	33%
total lice	147
abundance	4.90
intensity	14.70
fish with >0.3 lice / g	4
fish with >0.3 lice / g	40%

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 \(researchgate.net\)](#)

	≥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	0.000	>0.3	100%	4	31	12.90	12.90	
2	No	0.000	0.2-0.3	50%	1		3.23	1.61	
3	No	0.000	0.1-0.2	20%	1		3.23	0.65	
4	No	0.000	<0.1	0%	25		80.65	0.00	15.16
5	No	0.000							
6	No	0.000							
7	No	0.000							
8	Yes	0.914							
9	Yes	0.793							
10	Yes	0.667							
11	No	0.200							
12	No	0.000							
13	No	0.000							
14	No	0.094							
15	No	0.000							
16	No	0.000							
17	No	0.036							
18	No	0.065							
19	No	0.034							
20	No	0.000							
21	No	0.000							
22	No	0.000							
23	No	0.000							
24	No	0.000							
25	Yes	0.462							
26	No	0.008							
27	No	0.000							
28	No	0.000							
29	No	0.000							
30	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 Svaasand, 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	

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Notes: magnifying glasses used to be able to see copepodid lice and chalimus lice more clearly; also a higher definition camera.

Acknowledgements

Monitoring to inform the MOWI Caol Mor salmon farms EMP. Thank you to Applecross Trust for permission and support to sample sea trout.

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

Sea trout 242mm Applecross, 19 May 2026; 2 copepodid lice, 52 chalimus lice; dorsal



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Sea trout 152mm, Applecross, 19 May 2026; 6 chalimus lice; 17 preadult lice (note scale on ruler is in inches!)

