Sea lice monitoring report for Inverianvie (Gruinard Bay) 25th July 2025

Peter Cunningham (WRFT Biologist) 14 Aug 2025 <u>info@wrft.org.uk</u>

Fish data

Location:		Inverianvi	e estuary																
Date:		25-Jul-25		Time:	first swee	p at 10.30p	m ish												
*Counts:		Nic Butler	and Chloe I	Hall															
Team:		6 helpers																	
Weather:	Weather:		sunny; ligh	t south we	esterly wind														
Other notes:	es:	3 sweeps	of shore to	mid tide at	just before	1pm. All	trout caug	ht on 2nd s	weep										
		Inverianvie river running medium high																	
									C. U.		an a an h th ai	irus salmon	ie						
									Caligus	Lepeophtheirus salmoni			15						
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?
1	Inverianvie	25-Jul-25	Sweep Net	est	Sea trout	310	339	1.14		0	1	0	1	0.003	0	0	N	Υ	у
2	Inverianvie	25-Jul-25	Sweep Net	est	Sea trout	200	62	0.78		0	0	0	0	0.000	0	0	N	Υ	У
3	Inverianvie	25-Jul-25	Sweep Net	est	Sea trout	160	48	1.17		0	0	0	0	0.000	0	0	N	Υ	у
4	Inverianvie	25-Jul-25	Sweep Net	est	Sea trout	140	25	0.91		0	0	0	0	0.000	0	0	N	Υ	у
					Averages	310.00	339.00	1.14	#DIV/0!	0.00	1.00	0.00	1.00	0.00	0.00	0.00			
											total lice		1						
											number of fish		4						
											number in	fested	1						
											prevalence		25%						
											total lice		1						
										abundance		0.25							
											intensity								
										fish with >0.3 lice / g			0 0%						
											fish with >0.3 lice / g								

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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 assum	ption that s	mall salmoi	nid post-sm	nolts (<150g	body wei	ght) will su	ffer 100%	ice-related	l marine mo	rtality, o	r return pre	maturely t	o freshwate	for sea tro	out in the w	ld if the a	re infected	with >0.3	lice per g of fish weight.			
Furtherm	ore, the lic	ce related m	arine morta	ality is estn	nated to 50	%, if the in	fection is b	etween 0	.2 and 0.3 li	ce per g fish	weight,	20% if the i	nfection ra	te is betwee	n 0.1 and 0	.2 lice per g	fish weig	ht, and fina	ally 0% if th	ne salmon lice infection is <0.1	g fish weight.		
0.05 and 0	0.1 lice per	g fish weigl	nt, 20% for I	ice infectio	ns betwee	n 0.05 and	0.01 lice p	er g fish w	eight, and f	inally 0% if t	the salmo	on lice infec	tion is <0.0	1 lice g fish	weight.								
		Ĭ																					
													colour coc	le									
Taranger,	G. L., Karls	sen, Ø., Ban	nister, R. J.,	Glover, K.	A., Husa,V.	., Karlsbakl	k, E., Kvamı	ne, B. O., I	Boxaspen,	K. K., Bjørn, I	P. A., Fins	stad, B.,		100% sea lic	e related r	nortality or	early retu	n to fresh	water				
Madhun,	A. S., Mor	ton, H. C., ar	nd Sva [°] sand	I, T. (2014) I	Risk assessr	ment of the	e environm	ental imp	act of Norv	egian Atlan	tic salmo	n farming.		>50% to 99%	sea lice re	lated morta	ality or ear	ly return to	o freshwat	er			
- ICES Jou	rnal of Ma	rine Science	, doi: 10.10	93/icesims	/fsu132.									>20% to 50% sea lice related mortality or early return to freshwater									
			ĺ											<20% sea lice related mortality or early return to freshwater									
https://w	ww.resea	rchgate.net	publication	1/26667299	8 Risk asse	essment o	f the env	ironmenta	l impact o	f Norwegia	n Atlant	ic salmon	farming										

Notes:

Sea trout was in good condition

Thank you to Eilean Darach Estate for permission and access.

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

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Photos: all ©WRFT unless otherwise indicated.

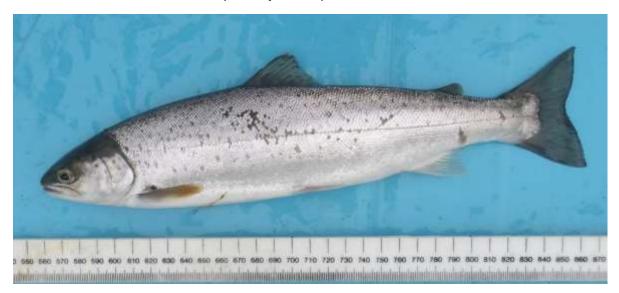
Team photo



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Sea trout 310mm Inverianvie 25 July 2025, just one preadult louse



Sea trout 200mm Inverianvie 25^{th} July 2025

