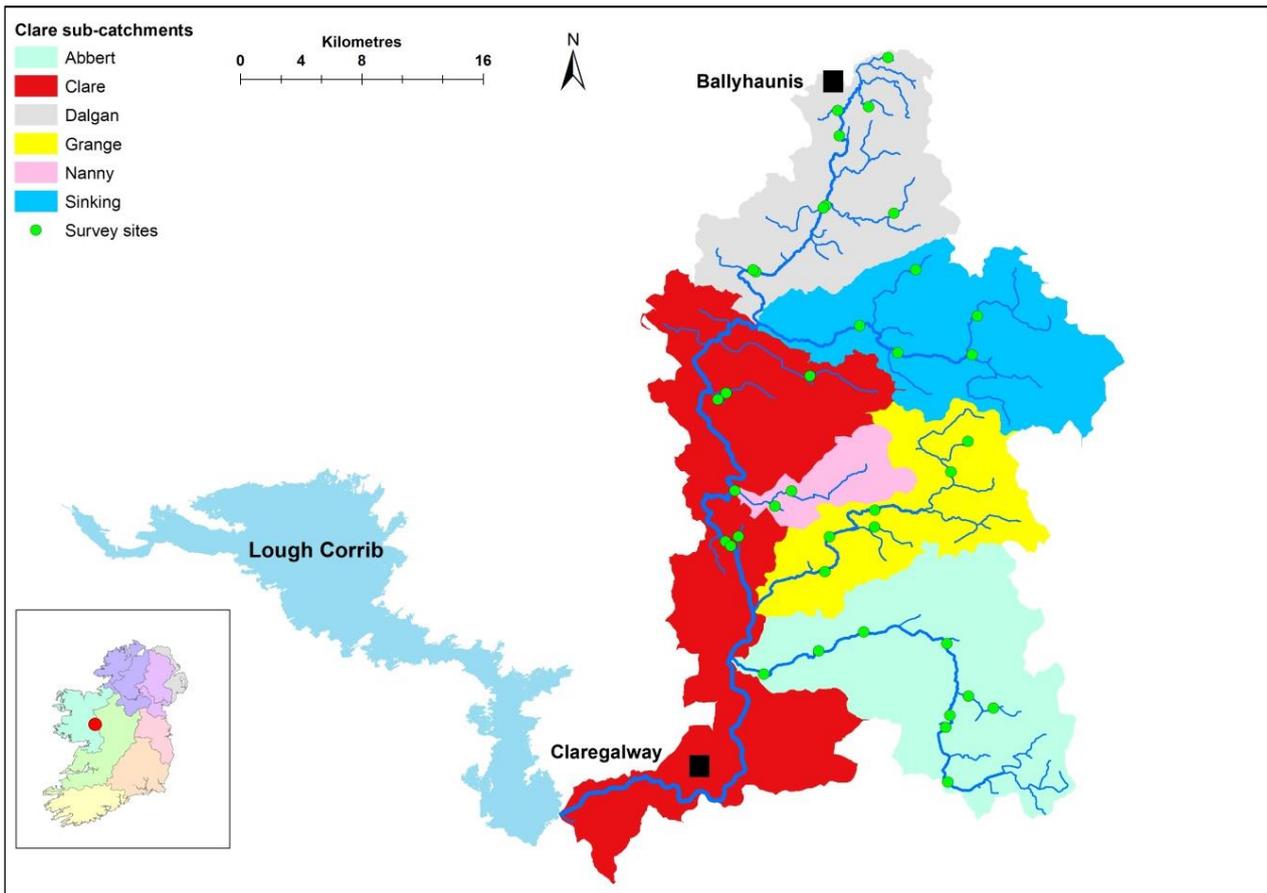


Fish in Rivers Factsheet

The Clare River catchment is located within the Western River Basin District and covers an area of approximately 900 km². The Clare is the longest river in the Lough Corrib catchment at 93 km. The Clare River rises north of Ballyhaunis in Co. Mayo and flows in a south westerly direction before entering Lower Lough Corrib approximately seven kilometres west of Clare Galway. The main tributaries are the Abbert, Dalgan, Grange, Nanny and Sinking rivers. The catchment's geology is mostly limestone and shale and agriculture is the main land use.

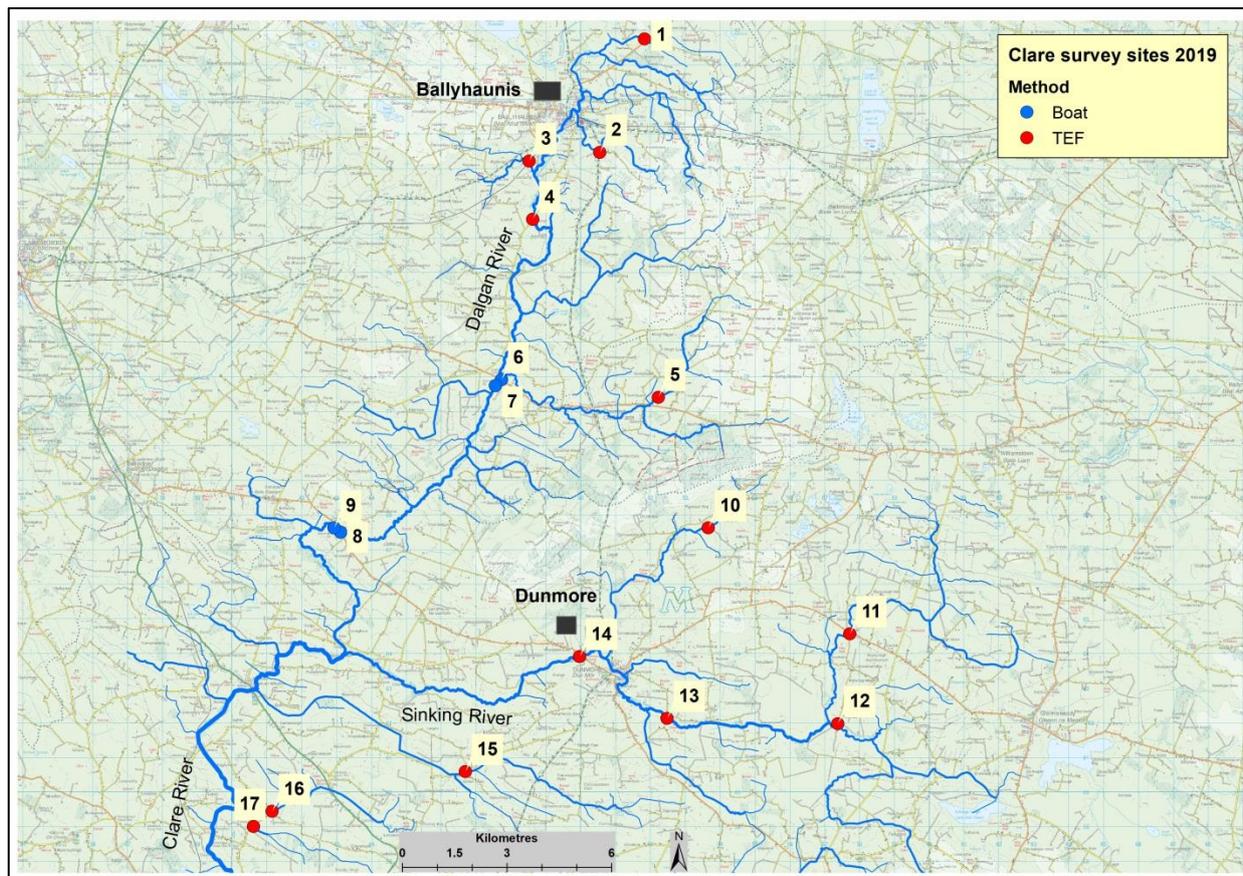
The catchment has been subject to on-going arterial drainage since the 1950s. This has included re-alignment and widening of the channel together with lowering of the bed to reduce overbank flooding. Despite this physical pressure on fish habitat, the river is known to produce large salmon and trout.

A total of 38 sites were surveyed on the Clare River catchment between July 1st and 19th 2019 to determine the status of their fish stocks.



River Clare sub-catchments and sites surveyed, July 2019

Upper Clare River catchment



Map of Upper Clare River catchment electrofishing survey sites, July 2019.
(Dalgan River (1-9), Sinking River (10-14) and Upper Clare River tributaries (15-17))



The Dalgan River at Lecarrow North, Co. Galway (site 2).

Site survey details for the Upper Care River catchment, July 2019
(Dalgan River (1-9), Sinking River (10-14) and Upper Clare tributaries (15-17))

Site no.	River	Site	Method	WFD	Date
Dalgan River catchment					
1	Dalgan River	Forthill	TEF	-	01/07/2019
2	Dalgan River tributary	Lecarrow North	TEF	-	01/07/2019
3	Dalgan River	Cloonbullig North	TEF	-	01/07/2019
4	Dalgan River	Aglorach Br.	TEF	-	01/07/2019
5	Cloonfad River	Meeltraun	TEF	-	02/07/2019
6	Dalgan River	Logboy Crossroads	SP Boat	-	16/07/2019
7	Dalgan River	Culnacleha	SP Boat	-	16/07/2019
8	Dalgan River	Kinnakinelly	SP Boat	-	16/07/2019
9	Dalgan River	Doonmacreena Br.	SP Boat	-	16/07/2019
Sinking River catchment					
10	Sinking River tributary	Attiflynn West	TEF	-	02/07/2019
11	Yellow River	Boyouagh Br.	TEF	-	02/07/2019
12	Sinking River	u/s Yellow confluence	TEF	-	02/07/2019
13	Sinking River	Addergoole More	TEF	-	02/07/2019
14	Sinking River	Clooneen	TEF	-	18/07/2019
Upper Clare tributaries					
15	Carrownagur River	Sylaun West	TEF	-	03/07/2019
16	Kilcloony River	Tonmoyle Br.	TEF	-	03/07/2019
17	Beaghroe River	Concnagur Br.	TEF	-	03/07/2019
<i>TEF (Ten-minute electrofishing), SP Boat (single pass boat electrofishing)</i>					



The Sinking River at Cloneen, Co. Galway (site 14).

Minimum density estimates (no. fish/m²) in the Upper Clare River catchment July 2019*(Dalgan River (1-9) and Sinking River (10-14) , Upper Clare River tributaries)*

Dalgan River catchment								
Site no.	1	2	3	4	5	6	7	8
Species	2019	2019	2019	2019	2019	2019	2019	2019
Brown trout	-	0.113	0.052	-	0.165	-	0.001	-
0+ brown trout	-	0.078	-	-	0.165	-	-	-
1+ & older brown trout	-	0.035	0.052	-	-	-	0.001	-
Salmon	-	-	-	0.173	0.110	-	0.002	0.001
0+ salmon	-	-	-	-	0.110	-	-	-
1+ & older salmon	-	-	-	0.173	-	-	0.002	0.001
Lamprey sp.	-	-	0.052	-	-	-	-	-
Pike	-	-	-	-	-	-	-	-
Roach	-	-	-	-	-	-	-	0.001
Stone loach	-	-	-	-	0.027	-	-	-
Three-spined stickleback	-	-	0.078	-	0.220	-	-	-
All Fish	0.000	0.113	0.183	0.173	0.522	0.000	0.003	0.002
Sinking River catchment						Upper Clare River tributaries		
Site no.	10	11	12	13	14	15	16	17
Species	2019	2019	2019	2019	2019	2019	2019	2019
Brown trout	0.044	0.224	0.031	0.022	0.029	0.177	0.236	0.139
0+ brown trout	0.026	0.139	-	-	0.007	0.094	0.042	-
1+ & older brown trout	0.018	0.085	0.031	0.022	0.022	0.083	0.193	0.139
Salmon	-	0.470	0.010	0.401	0.313	-	0.157	-
0+ salmon	-	0.406	-	0.011	0.058	-	-	-
1+ & older salmon	-	0.064	0.010	0.390	0.255	-	0.157	-
Pike	-	-	-	-	-	-	-	-
Roach	-	-	-	-	-	-	-	-
Stone loach	-	0.043	-	0.011	0.047	0.021	-	0.019
Three-spined stickleback	-	-	-	-	-	0.031	-	0.231
All Fish	0.044	0.737	0.041	0.433	0.390	0.229	0.393	0.389



The Beaghroe River at Concnagur Br., Co. Galway (site 17).

Salmonid % age class structure (where present) Upper Clare River catchment), July 2019

(Dalgan river (1-9), Sinking river (10-14) and Upper Clare River tributaries (15-17))

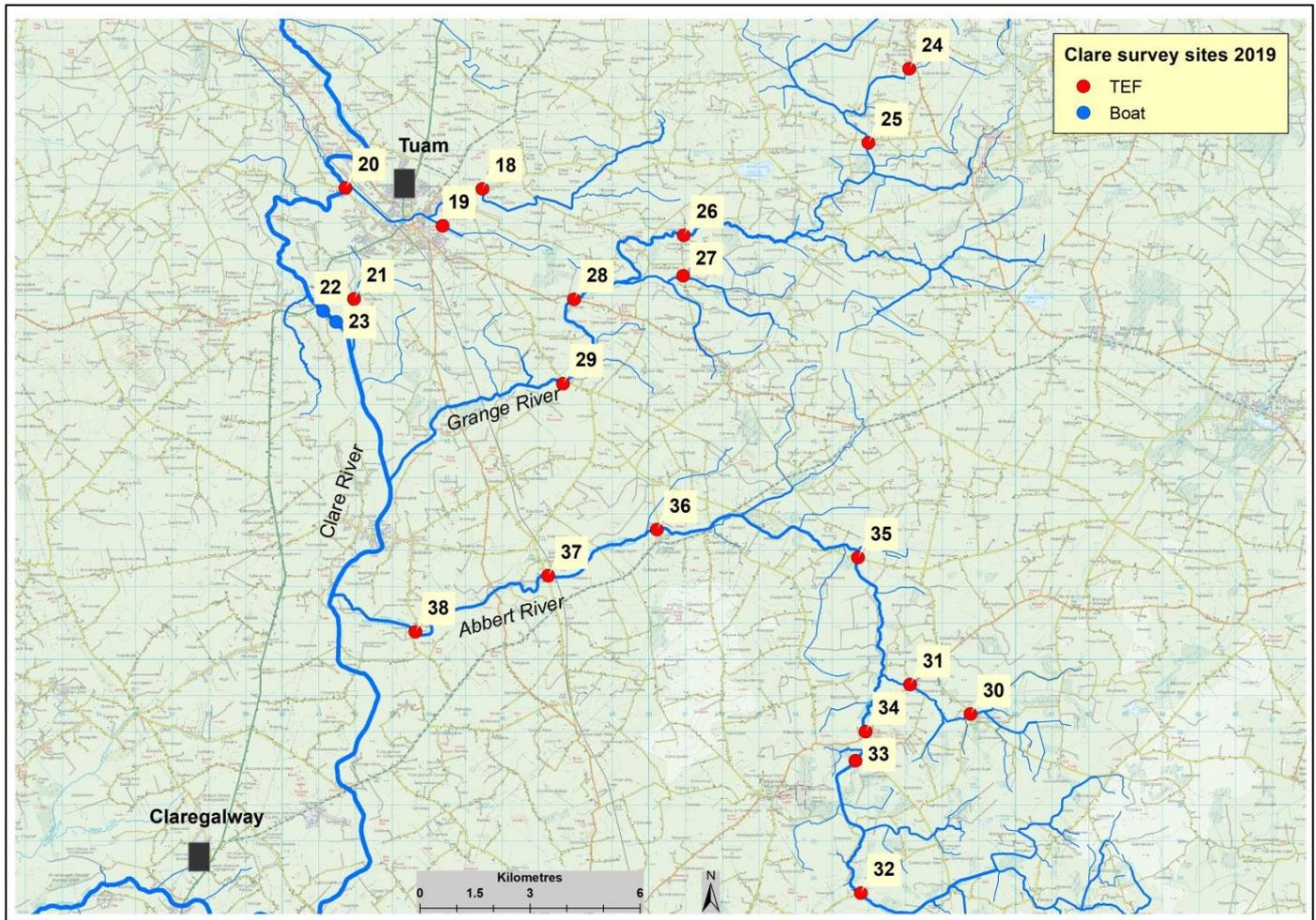
Species	Site No.	% of catch			
		0+	1+	2+	3+
Brown trout	Dalgan River catchment				
	2	75	25	-	-
	3	-	100	-	-
	5	100	-	-	-
	7	-	-	50	50
	9	100	-	-	-
	Sinking River catchment				
	10	67	-	33	-
	11	64	36	-	-
	12	-	33	-	67
	13	-	50	50	-
	14	25	-	50	25
	Upper Clare River tributaries				
	15	56	22	11	11
	16	21	53	16	11
	17	-	57	43	-
	Salmon	Dalgan River catchment			
4		-	100	-	-
5		100	-	-	-
7		-	100	-	-
8		-	100	-	-
9		-	100	-	-
Sinking River catchment					
11		87	13	-	-
12		-	100	-	-
13		3	97	-	-
14		19	81	-	-
Upper Clare River tributaries					
16	-	100	-	-	

Fish ecological status Upper Clare River Catchment, July 2019

(Dalgan River (1-9), Sinking River (10-14) and Upper Clare River tributaries (15-17))

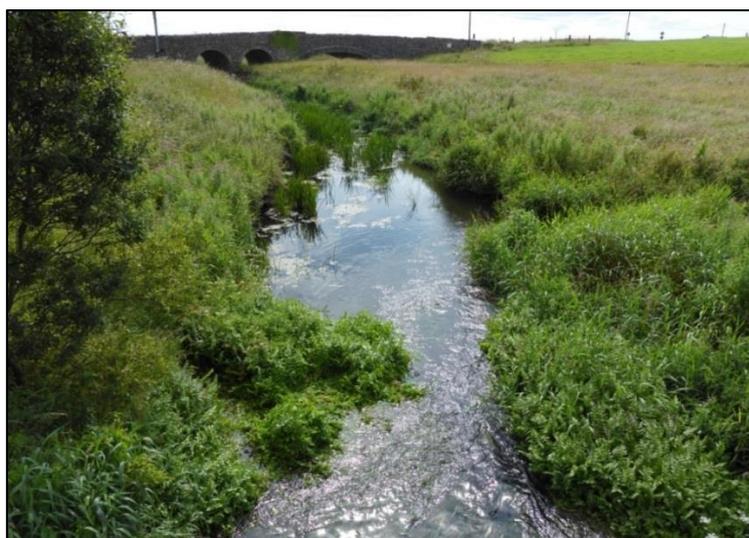
Site No.	2019
Dalgan River catchment	
1	Bad
2	Moderate
3	N/A
4	Poor
5	Good
6	Bad
7	Poor
8	Poor
9	Poor
Sinking River catchment	
10	Moderate
11	High
12	Moderate
13	Moderate
14	Good
Upper Clare River tributaries	
15	Good
16	Good
17	Moderate

Lower Clare River Catchment



Map of Lower Clare River catchment electrofishing survey sites, July 2019.

(Nanny River (18-20), Clare River main channel and tributary (21-23), Grange River (24-29) and Abbert River (30-38))



The Nanny River upstream of Weir Br., Co. Galway (site 20)

Site survey details Lower Clare River catchment, July 2019

(Nanny River (18-20), Clare River main channel and tributary (21-23), Grange River (24-29) and Abbert River (30-38))

No.	River	Site	Method	WFD	Date
Nanny River catchment					
18	Birmingham River	Fortyacres	TEF	-	17/07/2019
19	Demesne River	Curraghcreen	TEF	-	15/07/2019
20	Nanny, River	u/s Weir Br.	TEF	YES	15/07/2019
Clare River main channel and Suileen River					
21	Suileen River	Cloontooa	TEF	-	09/07/2019
22	Clare, River (main channel)	Cloonmore Br.	SP Boat	-	19/07/2019
23	Clare, River (main channel)	Cloonmore Track	SP Boat	-	19/07/2019
Grange River catchment					
24	Grange River	Clonbern Holy Well	TEF	-	04/07/2019
25	Grange River	Mahanagh Br.	TEF	-	04/07/2019
26	Grange River	Cornacarth Br.	TEF	-	03/07/2019
27	Grange River tributary	Corskeagh More	TEF	-	03/07/2019
28	Grange River	Grange Br.	TEF	-	08/07/2019
29	Grange River	Cahergal Br.	TEF	-	08/07/2019
Abbert River catchment					
30	Killaclogher River tributary	Colmanstown	TEF	-	10/07/2019
31	Killaclogher River tributary	Drehidaunabale Br.	TEF	-	11/07/2019
32	Killaclogher River	Licklea Br.	TEF	-	10/07/2019
33	Killaclogher River	Killaclogher Woods	TEF	-	17/07/2019
34	Killaclogher River	Killaclogher Br.	TEF	-	10/07/2019
35	Abbert River	Abbert Br.	TEF	-	10/07/2019
36	Abbert River	Abbey Br.	TEF	-	09/07/2019
37	Abbert River	Pallas Br.	TEF	-	09/07/2019
38	Abbert River	Bridge at Bullaun	TEF	YES	09/07/2019
<i>TEF (Ten-minute electrofishing) SP Boat (single pass boat electrofishing)</i>					



The Clare River (main channel) at Cloonmore track, Co. Galway (site 23).

(Note the spoil heaps on both banks, containing dredged material from the channel).

Minimum density estimates (no. fish/m²) Lower Clare River catchment, July 2019*(Nanny River (18-20), Clare River (main channel) and tributary (21-23), Grange River (24-29) and Abbert River (30-38))*

Nanny River catchment				Clare River and tributary					
Site no.	18	19	20	21	22	23			
Species	2019	2019	2019	2019	2019	2019			
Brown trout	0.686	0.009	0.301	-	0.021	0.006			
0+ brown trout	-	-	0.078	-	0.017	0.001			
1+ & older brown trout	0.686	0.009	0.222	-	0.004	0.005			
Salmon	0.057	-	0.144	-	0.022	0.010			
0+ salmon	-	-	-	-	0.004	0.0005			
1+ & older salmon	0.057	-	0.144	-	0.018	0.010			
European eel	-	-	-	-	-	0.001			
Pike	-	-	-	-	-	-			
Stone loach	-	-	0.098	-	0.007	0.011			
Three-spined stickleback	-	0.094	-	0.239	-	-			
All Fish	0.743	0.103	0.543	0.239	0.049	0.029			
Grange River catchment									
Site no.	24	25	26	27	28	29			
Species	2019	2019	2019	2019	2019	2019			
Brown trout	0.347	0.128	0.028	1.342	0.126	0.079			
0+ brown trout	0.347	0.079	0.028	1.342	0.115	0.079			
1+ & older brown trout	-	0.049	-	-	0.010	-			
Salmon	-	0.146	0.025	0.031	0.236	0.068			
0+ salmon	-	0.012	0.025	0.031	0.173	0.060			
1+ & older salmon	-	0.134	-	-	0.063	0.008			
Pike	-	-	0.007	-	0.005	0.004			
Stone loach	-	0.012	-	0.031	0.204	0.245			
Three-spined stickleback	0.035	-	-	0.046	-	-			
All Fish	0.382	0.286	0.049	0.0286	0.382	0.395			
Abbert River catchment									
Site no.	30	31	32	33	34	35	36	37	38
Species	2019	2019	2019	2019	2019	2019	2019	2019	2019
Brown trout	0.518	0.304	0.091	0.337	0.306	0.202	0.027	0.028	0.056
0+ brown trout	0.068	0.304	0.038	0.249	0.206	0.138	0.027	0.017	0.033
1+ & older brown trout	0.450	-	0.054	0.088	0.101	0.064	-	0.011	0.022
Salmon	0.098	0.441	-	0.155	0.21	0.492	0.680	0.228	0.223
0+ salmon	0.039	0.43	-	0.073	0.166	0.415	0.566	0.194	0.141
1+ & older salmon	0.059	0.011	-	0.083	0.044	0.077	0.114	0.034	0.082
Pike	-	-	-	0.005	-	-	-	-	-
Stone loach	-	-	0.088	0.021	0.009	0.075	-	0.074	0.007
Three-spined stickleback	-	0.017	0.274	-	0.013	0.017	-	-	-
All Fish	0.616	0.762	0.454	0.518	0.538	0.785	0.707	0.330	0.287

Salmonid % age class structure (where present), sites 20-38,
Lower Clare River catchment, July 2019

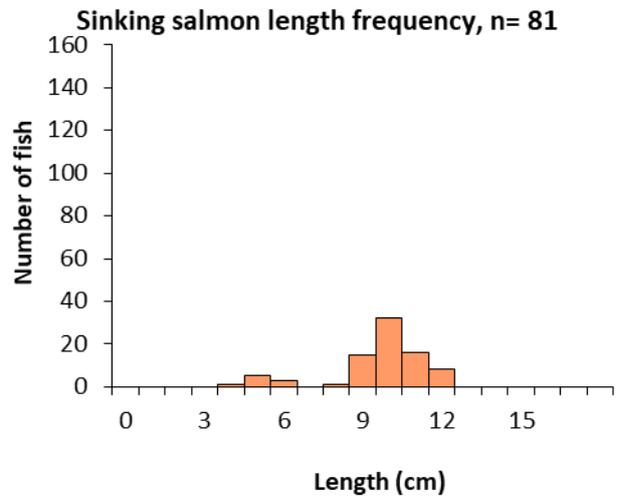
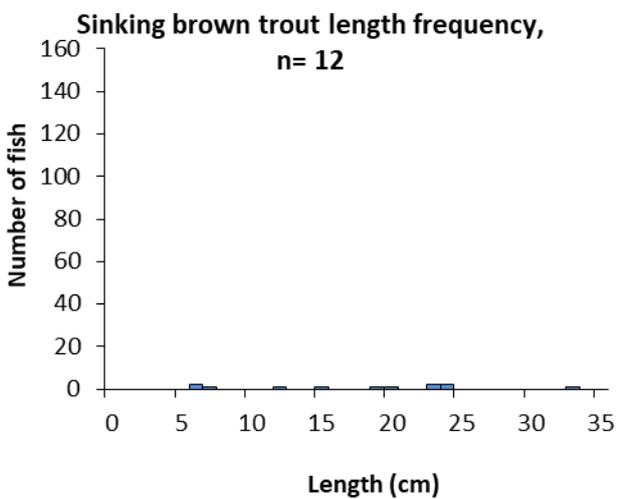
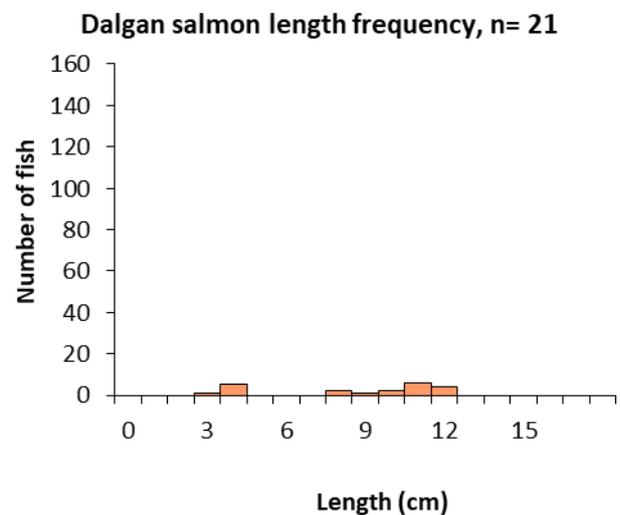
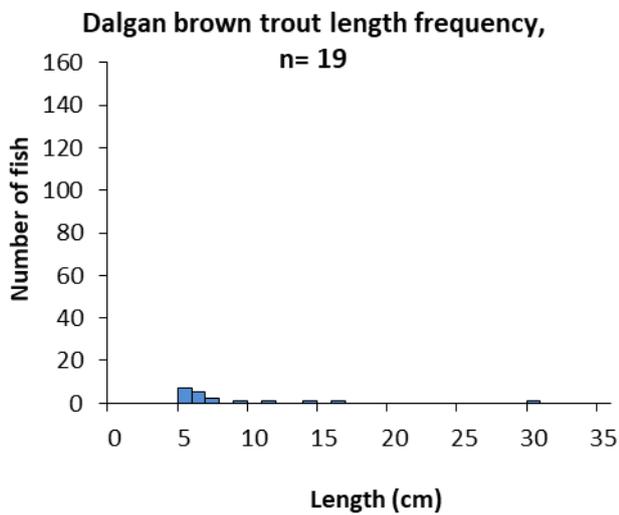
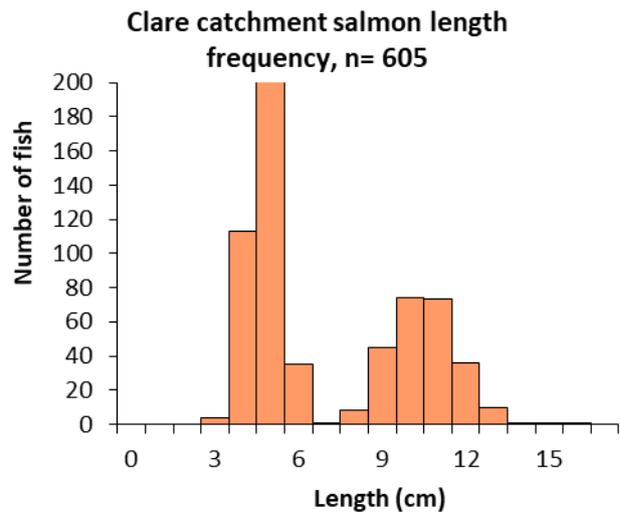
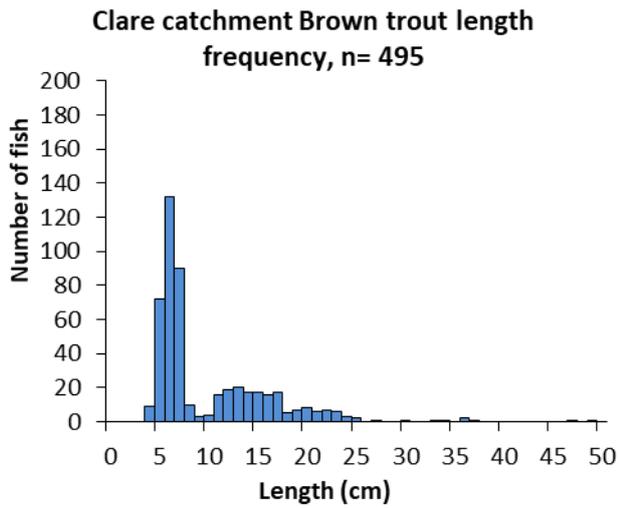
Species	Site No.	% of catch						
		0+	1+	2+	3+	4+	5+	
Brown trout	Nanny River catchment							
	18	-	59	41	-	-	-	
	19	-	100	-	-	-	-	
	20	30	43	26	-	-	-	
	Clare River							
	22	82	3	6	-	3	6	
	23	21	7	50	7	14	-	
	Grange River catchment							
	24	100	-	-	-	-	-	
	25	64	9	27	-	-	-	
	26	100	-	-	-	-	-	
	27	100	-	-	-	-	-	
	28	93	7	-	-	-	-	
	29	100	-	-	-	-	-	
	Abbert River catchment							
	30	15	65	19	-	-	-	
	31	100	-	-	-	-	-	
	32	47	53	-	-	-	-	
	33	78	19	3	-	-	-	
	34	70	24	5	-	-	-	
	35	71	29	-	-	-	-	
	36	100	-	-	-	-	-	
	37	67	33	-	-	-	-	
	38	63	13	25	-	-	-	
	Salmon	Nanny River catchment						
		18	-	100	-	-	-	-
		20	-	100	-	-	-	-
		Clare River catchment						
		22	17	81	3	-	-	-
23		5	91	5	-	-	-	
Grange River catchment								
25		8	92	-	-	-	-	
26		100	-	-	-	-	-	
27		100	-	-	-	-	-	
28		74	26	-	-	-	-	
29		90	10	-	-	-	-	
Abbert River catchment								
30		40	60	-	-	-	-	
31		98	2	-	-	-	-	
33		47	53	-	-	-	-	
34		81	19	-	-	-	-	
35		86	14	-	-	-	-	
36		84	16	-	-	-	-	
37		87	13	-	-	-	-	
38	63	37	-	-	-	-		

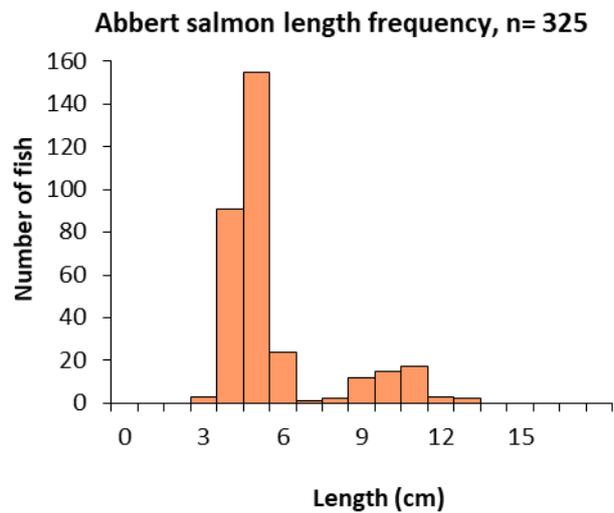
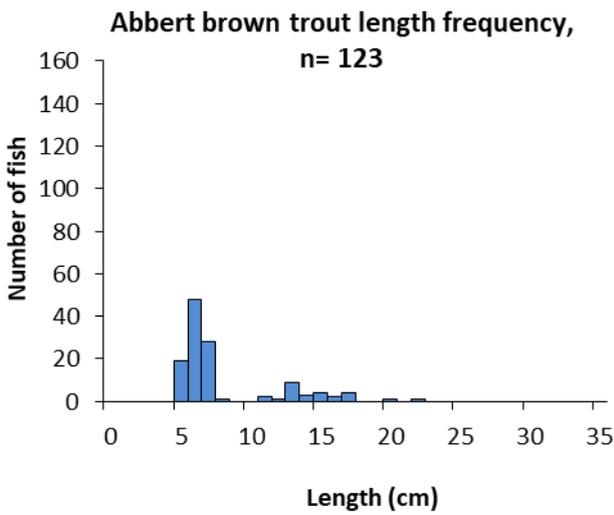
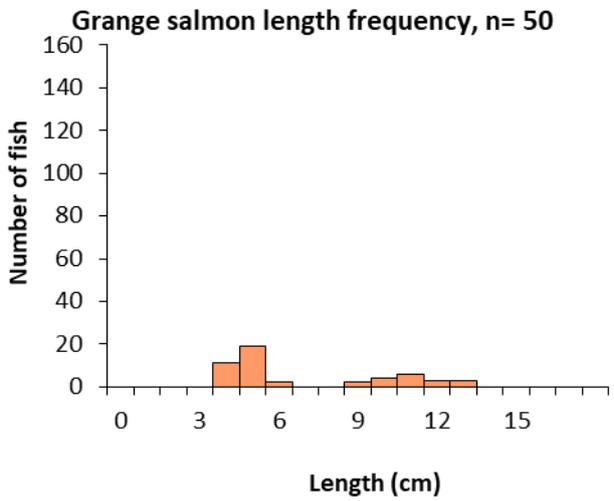
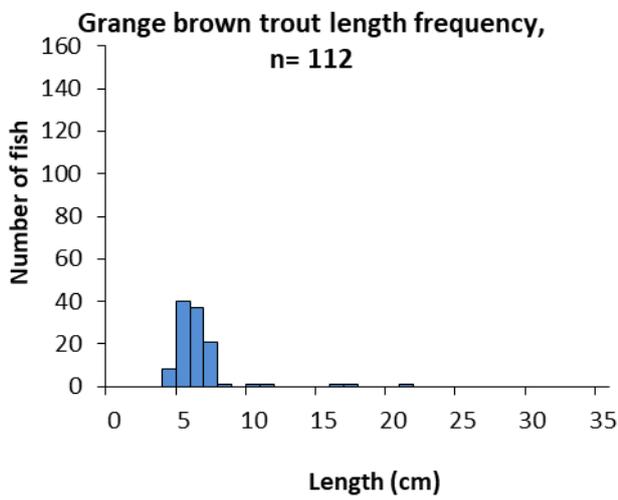
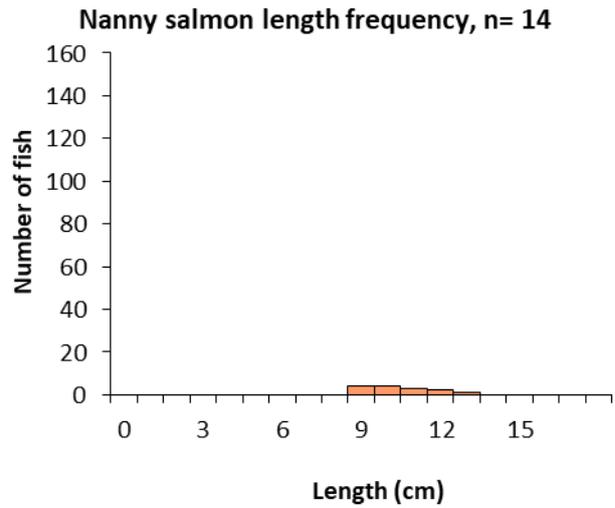
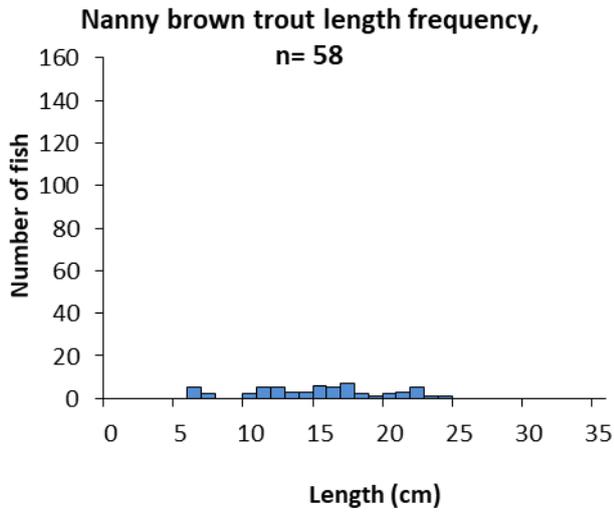
Fish ecological status Lower Clare River
catchment July 2019 (sites 20-38)

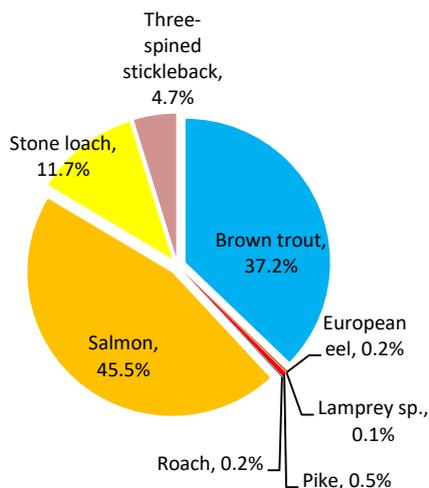
Site No.	2013	2014	2019
Nanny River catchment			
18	-	-	Moderate
19	-	Moderate	Poor
20	-	Moderate	Good
Clare River & tributary			
21	-	-	Poor
22	-	-	Moderate
23	-	-	Moderate
Grange River catchment			
24	-	-	Good
25	-	-	Good
26	-	-	Poor
27	-	-	Good
28	-	-	Good
29	-	-	Moderate
Abbert River catchment			
30	-	-	Good
31	-	-	Good
32	-	-	Moderate
33	-	-	Good
34	-	-	Good
35	-	-	Good
36	-	-	Good
37	-	-	Good
38	Good	-	Good



The Grange River at Grange Br., Co. Galway
(site 28)







Fish species composition (%) in the Clare River catchment, July 2019



The Killaclogher River at Colmanstown (Site 30).

Summary

Eight fish species were recorded at 38 sites surveyed on the Clare River Catchment in 2019. No fish were recorded at sites 1 and 6 on the Dalgan River. Salmon was the most abundant species captured and ranged in length from 3 to 16.4 cm. Brown trout were the next most abundant species and ranged in length from 4.3 to 49.3 cm. Three age classes from 0+ to 2+ and five age classes from 0+ to 5+ were recorded for salmon and trout respectively. Stone loach were also common, being recorded at 23 sites. Pike were recorded at seven sites. European eel and lamprey species were both recorded at one site (Sites 23 and 3, respectively). Roach and three-spined stickleback

were also recorded. The highest densities of brown trout 0+ (fry) and 1+ and older were recorded in Site 27 (Grange River tributary) and Site 18 (Birmingham River) respectively. While the highest densities of salmon fry (0+) and 1+ and older were recorded in Sites 36 (Abbert River) and 13 (Sinking River) respectively. Three spined stickleback were the dominant fish species at six sites, while stone loach were dominant at one site; these species are relatively tolerant to pollution and therefore, when dominant or present in relatively high densities can be an indicator of poor water quality.

A Water Framework Directive fish classification tool (FCS2) was developed for Irish rivers in 2011. The tool works by comparing various fish community metric values within a site to those predicted for a site under un-impacted conditions. Fish ecological status was assigned to 37 of the 38 sites surveyed in the Clare River catchment during 2019. Seventeen sites achieved Good fish status; however only one site was assigned High Status. The remaining sites were assigned a status of moderate (ten sites), bad (seven sites) and poor (two sites). There was evidence of nutrient enrichment and other pressures throughout the catchment, particularly in the Dalgan and Sinking River catchments. Overall the Grange and Abbert Rivers had the highest percentage of Good status sites; however there were also indications of localised pressures present in these sub-catchments.

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