

Fish in Rivers Factsheet

SERBD

River Slaney Catchment

Factsheet: 2023/09

The River Slaney is a large river located in south-east Leinster. It rises in the Wicklow Mountains on Lugnaquilla Mountain, within the Glen of Imal Artillery Range. It flows in a southward direction through a number of towns including Baltinglass, Tullow, Bunclody and Enniscorthy, until it reaches the sea at Wexford Town.

The source of the River Slaney is located within the Wicklow Mountains SAC. This is a candidate SAC, selected for a number of habitats listed in Annex I of the EU Habitats Directive, including alluvial wet woodland, floating vegetation, tidal mudflats and estuaries (NPWS, 2015). Several species listed in Annex II of the same Directive are also present throughout this SAC, adding further to its conservation value. These include sea, river and brook lamprey, freshwater

pearl mussel, twaite shad, Atlantic salmon and otter (NPWS, 2015).

Inland Fisheries Ireland conducts annual nation-wide fish sampling surveys to assess and report the status of stocks in Ireland's rivers, lakes and transitional waters. This report presents the results of a catchment-wide survey of the River Slaney Catchment in 2023. A total of 61 sites were surveyed by electro-fishing (CEN 2003) on the Slaney catchment from 4th July to 6th September 2023.

The survey methods included 10-minute timed Electro-Fishing (TEF₁₀) and Area Delineated Electro-Fishing (ADEF handset). All TEF₁₀ fish count results were converted to minimum population estimates according to Matson *et al.* (2018).



Slaney River tributary at Ballylion Lower (Site 2)

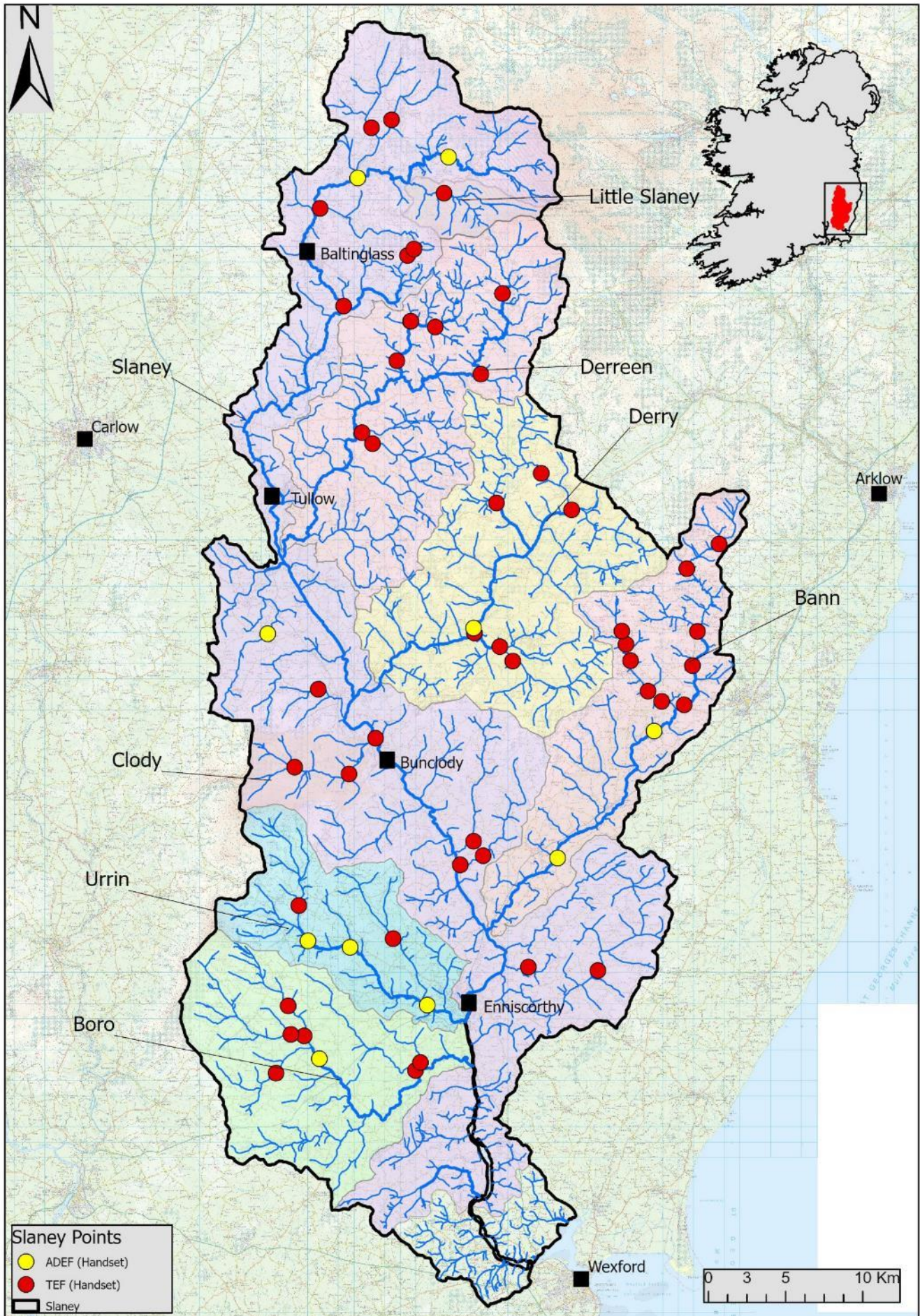


Figure 1. Location of electrofishing survey sites on the Slaney catchments, July to September 2023. Sub-catchments are also highlighted.

Upper Slaney main channel and tributaries, Little Slaney and Derreen sub-catchments

Eighteen sites were surveyed in the Upper Slaney catchment in 2023. This included one site on the Little Slaney, nine sites on the Derreen sub-catchment, two sites on the River Slaney main channel and six sites on smaller tributaries. One long-term Water Framework Directive (WFD) surveillance monitoring (SM) site was surveyed on the River Slaney at Waterloo Bridge (Site 4) (Figure 2 and Table 1).

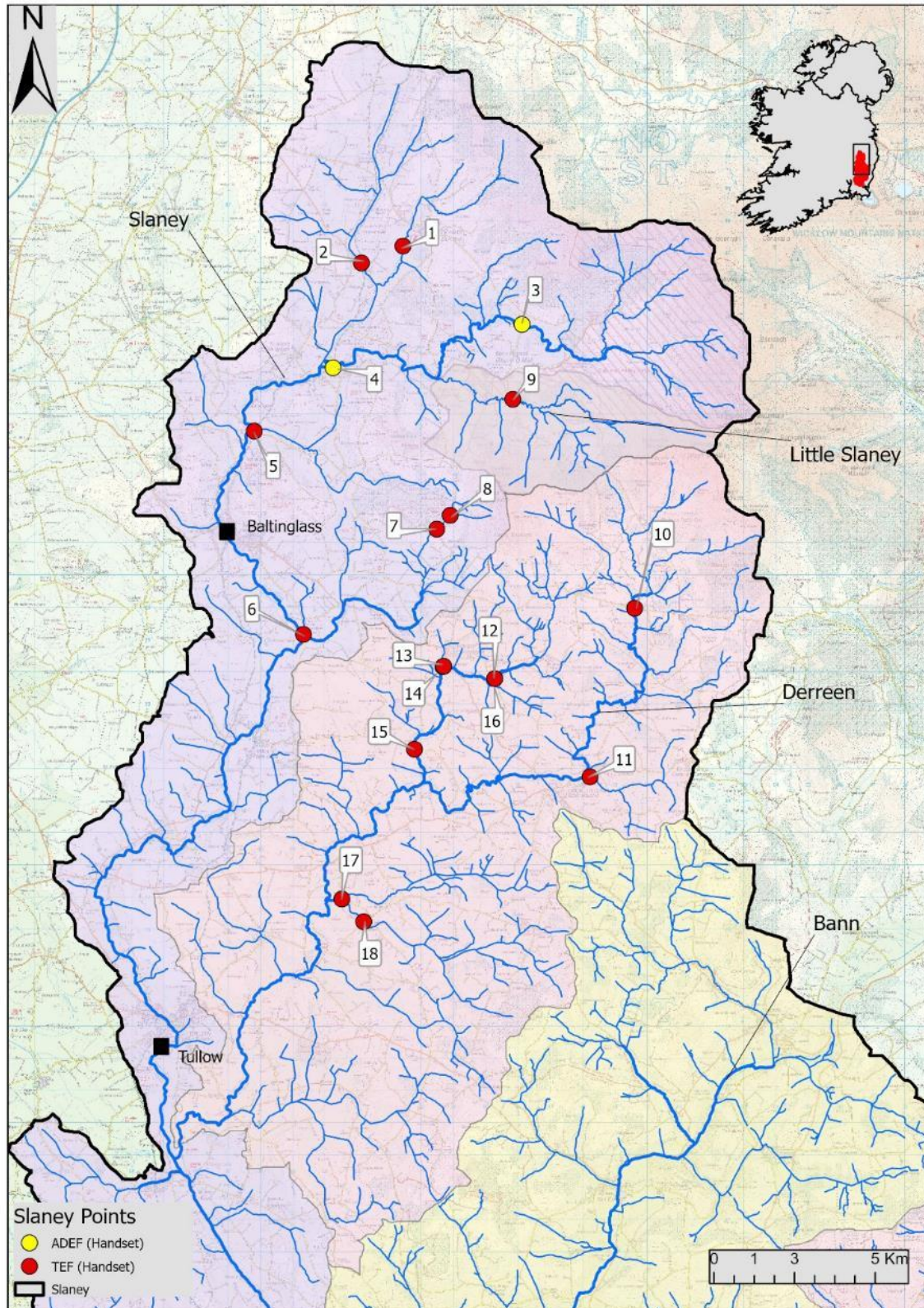


Figure 2. Location of electrofishing survey sites: Upper Slaney and tributaries (sites 1-8), Little Slaney (site 9) and Derreen (sites 10-18), sub-catchments, 2023

Table 1. Site survey details for the Upper Slaney, Little and Derreen sub-catchments, July to August 2023.

No.	Sub-catchment	River	Site	Method	WFD	Date
1	Slaney (upper)	Brook	Donard Lower	TEF (Handset)	No	24/07/2023
2		Carrigower	Ballylion Lower	TEF (Handset)	No	24/07/2023
3		Slaney	Ballinlea Bridge	ADEF (Handset)	No	06/09/2023
4		Slaney	Waterloo Bridge	ADEF (Handset)	Yes	06/09/2023
5		East Spinans	Tuckmill Lower	TEF (Handset)	No	31/07/2023
6		Boley Carrigeen	Mountneill Bridge	TEF (Handset)	No	31/07/2023
7		Boley Carrigeen	Colvinstown	TEF (Handset)	No	24/07/2023
8		Carrig	Carrig Mountain	TEF (Handset)	No	24/07/2023
9	Little Slaney	Little Slaney	Rostyduff Bridge	TEF (Handset)	No	31/07/2023
10	Derreen	Derreen	Rathcoyle Bridge	TEF (Handset)	No	06/09/2023
11		Knockananna	Scotland Bridge	TEF (Handset)	No	03/08/2023
12		Douglas (Kiltegan)	Crossnacole	TEF (Handset)	No	08/08/2023
13		Douglas (Kiltegan)	St. Tegan's Hall	TEF (Handset)	No	03/08/2023
14		Douglas (Kiltegan)	Tinnaclash	TEF (Handset)	No	08/08/2023
15		Douglas (Kiltegan)	Lucas Bridge	TEF (Handset)	No	31/07/2023
16		Douglas (Kiltegan)	Borkillbeg	TEF (Handset)	No	03/08/2023
17		Ballykillduff Upper	Carrarea	TEF (Handset)	No	03/08/2023
18		Clonmore	Knockballystine Bridge	TEF (Handset)	No	03/08/2023



Boley Carrigeen River at Colvinstown (Site 7)

Table 2. Minimum density estimates (no. fish/m²) for the Slaney (Upper), Little Slaney and Derreen sub-catchments, 2023 (previous results are shown where applicable).

Slaney (Upper)							
Site no.	1	2	3	4			
Species	2023	2023	2023	2009	2010	2013	2023
Brown trout	0.377	0.009	0.003	0.020	0.042	0.046	0.016
0+ brown trout	0.146	–	0.003	0.002	0.004	0.010	0.010
1+ & older brown trout	0.231	0.009	–	0.018	0.038	0.036	0.006
Salmon	0.316	–	0.123	0.044	0.372	0.312	0.116
0+ salmon	0.316	–	0.123	0.007	0.211	0.216	0.095
1+ & older salmon	–	–	–	0.037	0.161	0.096	0.021
European eel	–	0.046	–	0.004	0.013	0.004	0.004
Minnow	–	–	–	–	–	–	0.004
Lamprey spp.	–	–	–	–	0.010	0.008	0.004
Stone loach	–	–	–	0.002	0.013	0.002	0.008
All fish	0.692	0.055	0.126	0.070	0.451	0.373	0.151
Slaney (Upper)					Little	Derreen	
Site no.	5	6	7	8	9	10	11
Species	2023	2023	2023	2023	2023	2023	2023
Brown trout	0.364	0.066	0.022	0.022	0.028	0.062	0.642
0+ brown trout	0.201	0.013	0.022	0.022	–	0.037	0.361
1+ & older brown trout	0.163	0.053	–	–	0.028	0.025	0.282
Salmon	0.326	0.306	–	–	0.071	0.165	0.428
0+ salmon	0.230	0.239	–	–	0.057	0.140	0.406
1+ & older salmon	0.096	0.066	–	–	0.007	0.025	0.023
European eel	–	–	–	–	–	–	–
Stone loach	–	0.06	–	–	0.007	0.017	–
All fish	0.690	0.432	0.022	0.022	0.107	0.243	1.071
Derreen							
Site no.	12	13	14	15	16	17	18
Species	2023	2023	2023	2023	2023	2023	2023
Brown trout	0.768	0.309	0.315	0.525	0.688	0.507	0.385
0+ brown trout	0.634	0.193	0.220	0.109	0.600	0.344	0.143
1+ & older brown trout	0.134	0.115	0.094	0.416	0.088	0.163	0.242
Salmon	0.122	0.147	0.176	0.456	0.160	0.103	0.086
0+ salmon	0.098	0.101	0.151	0.396	0.128	0.103	0.071
1+ & older salmon	0.024	0.046	0.025	0.059	0.032	–	0.014
European eel	–	–	–	–	–	–	–
Stone loach	0.073	–	–	–	0.032	–	–
All fish	0.963	0.456	0.491	0.980	0.880	0.610	0.470

Table 3. Salmonid % age class structure (where recorded) for the Slaney, Little Slaney and Derreen sub-catchments, 2023.

Species	Site No.	% of catch			
		0+	1+	2+	3+
Slaney (Upper)					
Brown trout	1	44	56	-	-
	2	-	-	100	-
	3	100	-	-	-
	4	64	22	14	-
	5	56	33	11	-
	6	20	60	20	-
	7	100	-	-	-
	8	-	100	-	-
Little Slaney					
	9	-	50	50	-
Derreen					
Brown trout	10	67	22	11	-
	11	59	38	3	-
	12	84	12	4	-
	13	64	33	3	-
	14	71	21	8	-
	15	23	54	19	4
	16	87	9	4	-
	17	71	23	6	-
	18	54	8	-	-
Species	Site No.	% of catch			
		0+	1+	2+	3+
Slaney (Upper)					
Salmon	1	100	-	-	-
	3	100	-	-	-
	4	79	21	-	-
	5	70	30	-	-
	6	78	22	-	-
	Little Slaney				
	9	90	10	-	-
Derreen					
Salmon	10	86	14	-	-
	11	95	5	-	-
	12	-	100	-	-
	13	69	31	-	-
	14	85	15	-	-
	15	87	13	-	-
	16	80	20	-	-
	17	100	-	-	-
	18	83	17	-	-

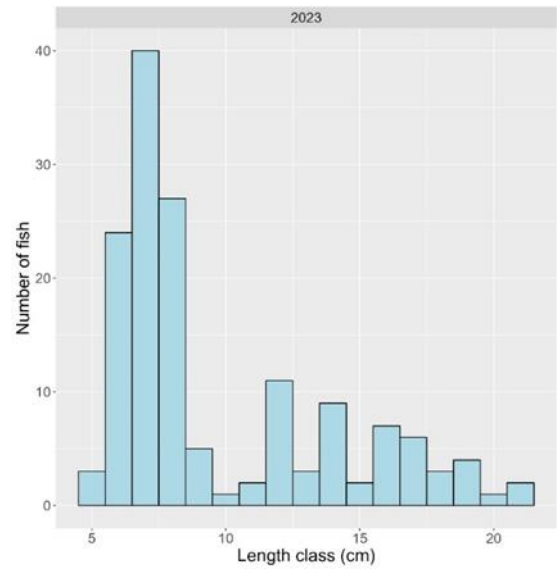


Figure 3. Length frequency for brown trout (N=140) in the Derreen sub-catchment, 2023 (No. sites = 9)

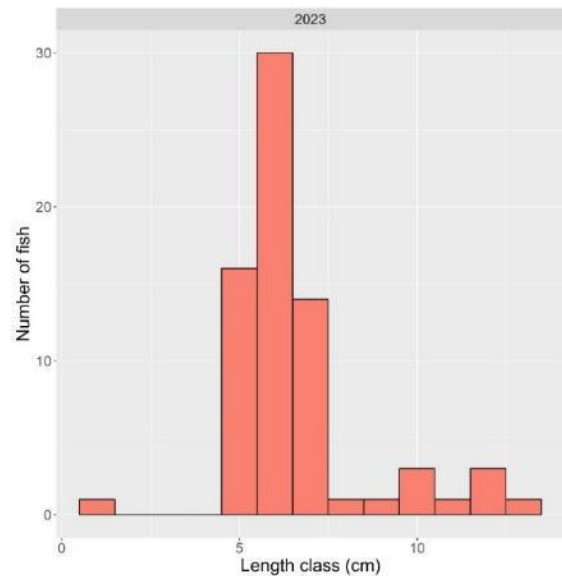


Figure 4. Length frequency for salmon (N=140) in the Derreen sub-catchment, 2023 (No. sites = 9)



Carrig stream at Carrig Mountain (Site 8).

Table 4. Fish ecological status for the Upper Slaney, Little Slaney and Derreen sub-catchments, July and August 2023. Previous results are shown where applicable.

Site No.	2009	2010	2013	2023
Upper Slaney				
1	-	-	-	High
2	-	-	-	Poor
3	-	-	-	Poor
4	Good	High	Good	Moderate
5	-	-	-	High
6	-	-	-	Good
7	-	-	-	Poor
8	-	-	-	Poor
Little Slaney				
9	-	-	-	Poor
Derreen				
10	-	-	-	Moderate
11	-	-	-	High
12	-	-	-	High
13	-	-	-	High
14	-	-	-	High
15	-	-	-	High
16	-	-	-	High
17	-	-	-	Good
18	-	-	-	Good



Douglas (Kiltegan) near St. Tegans Hall (Site 13).



Douglas (Kiltegan) Borkillbeg (Site 16).

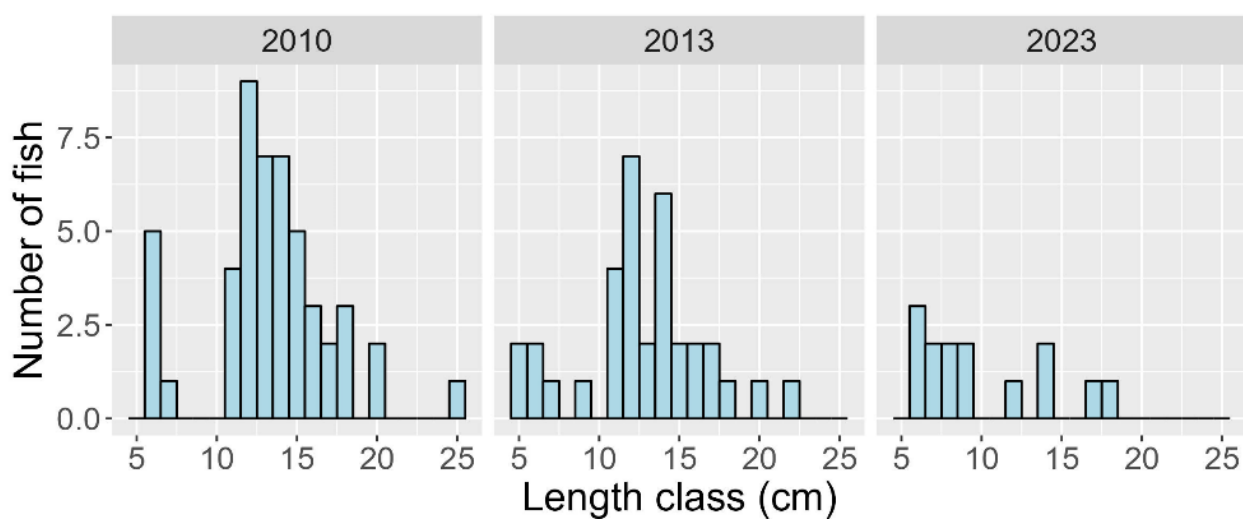


Figure 5. Length frequency distribution of brown trout (2010 N=49; 2013 N= 34; 2023 N=14) in the River Slaney (main channel) at Waterloo Br. (Site 4).

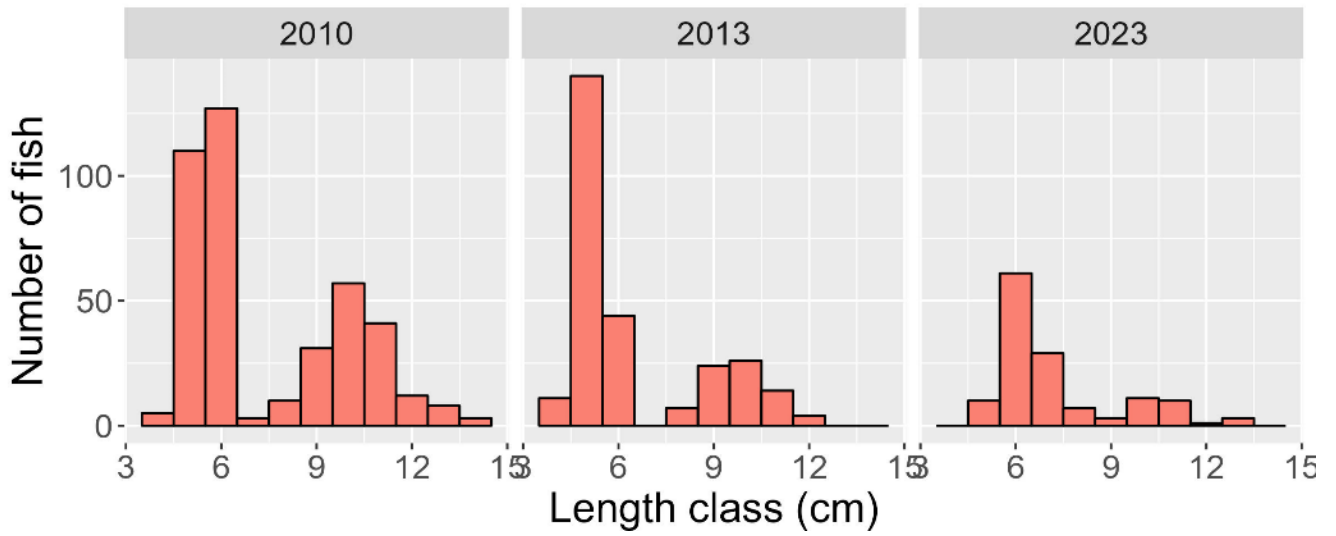
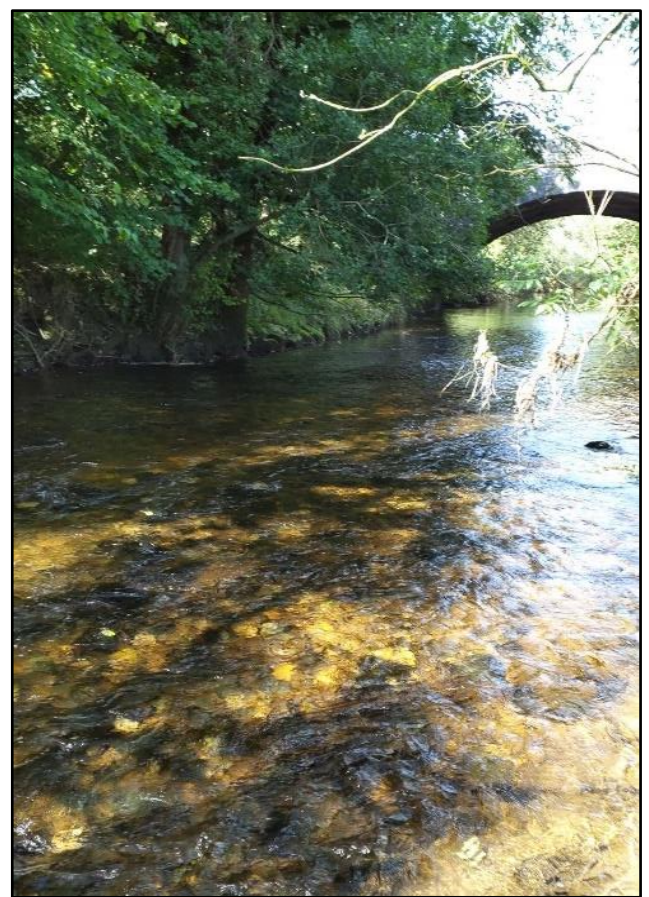


Figure 6. Length frequency distribution of salmon (2010 N=407, 2013 N= 270, 2023 N=135) in the River Slaney (main channel) at Waterloo Br. (Site 4).



River Slaney at Ballinclea Bridge (Left) and Waterloo Bridge (Right) (Sites 3 and 4).

Derry and Bann sub-catchments

Nineteen sites were surveyed in the Derry and Bann sub-catchments in 2023. This included seven sites on the Derry, and twelve sites on the Bann sub-catchments. One long-term Water Framework Directive (WFD) surveillance monitoring (SM) site was surveyed on the Derry River at Balisland Bridge (Site 22) (Table 4).

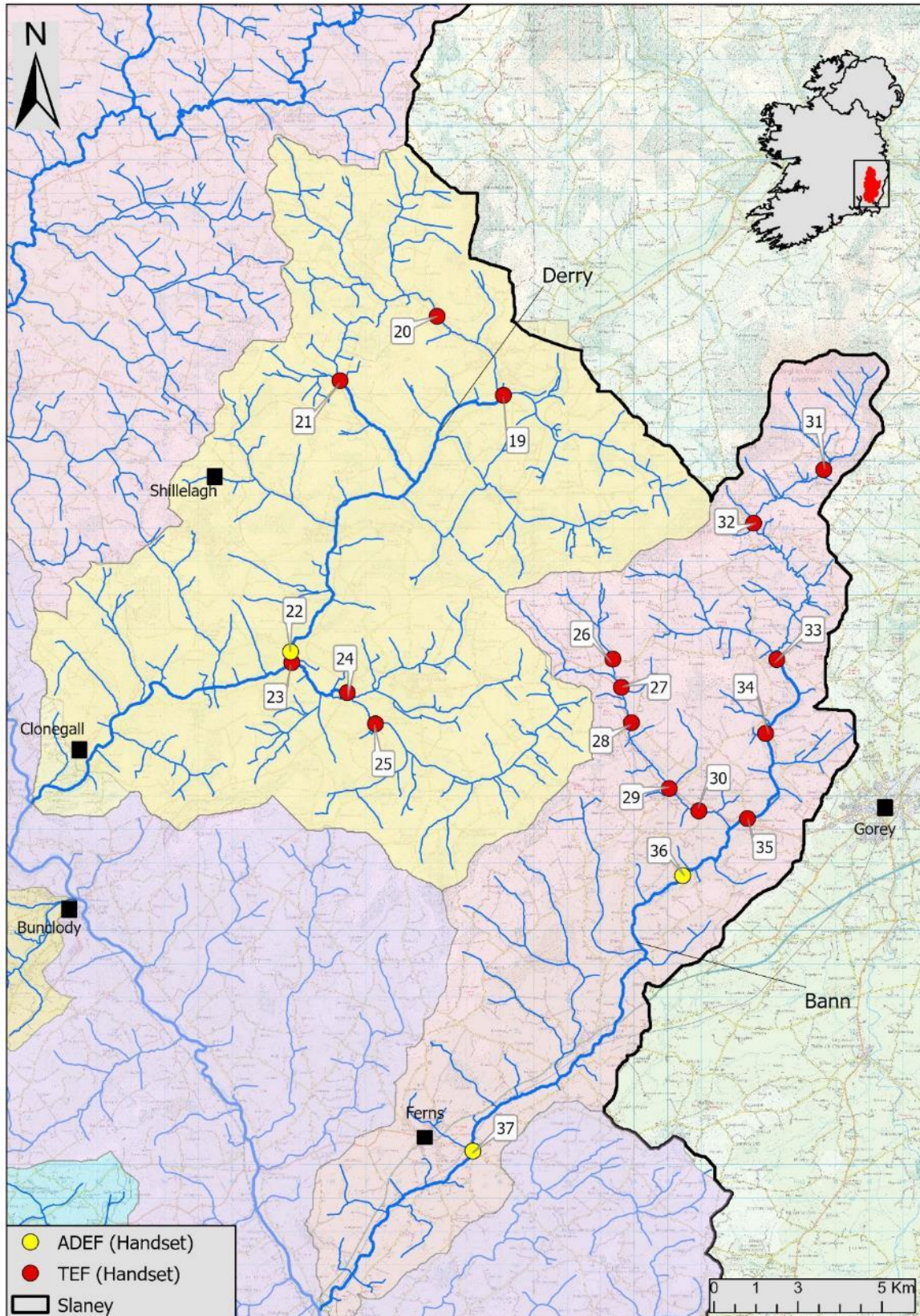


Figure 7. Location of electrofishing survey sites Derry (sites 19-25) and Bann (sites 26-37) sub-catchments, July and August 2023.

Table 5. Site survey details for the Derry and Bann sub-catchments, 2023

No.	Sub-catchment	River	Site	Method	WFD	Date
19	Derry	Rosnastraw	Kilcommon Bridge	TEF (Handset)	No	25/07/2023
20		Derry	Curravanish	TEF (Handset)	No	25/07/2023
21		Derry	Muskeagh	TEF (Handset)	No	25/07/2023
22		Derry	Balisland Bridge	ADEF (Handset)	Yes	05/07/2023
23		Derry	Ballingate Bridge	TEF (Handset)	No	05/07/2023
24		Derry	Cronyhorn Bridge	TEF (Handset)	No	05/07/2023
25		Mine	Tombreane Bridge	TEF (Handset)	No	25/07/2023
26	Bann	Lask	Monaseed	TEF (handset)	No	24/07/2023
27		Lask	St Brendan's Graveyard	TEF (handset)	No	24/07/2023
28		Lask	Knockbrandon Upper	TEF (handset)	No	09/08/2023
29		Lask	Crannford Bridge	TEF (handset)	No	24/07/2023
30		Lask	Ballinacoola	TEF (handset)	No	24/07/2023
31		Bann	Tinnabaum	TEF (handset)	No	24/07/2023
32		Bann	Pallis Bridge	TEF (handset)	No	24/07/2023
33		Bann	Grovemill	TEF (handset)	No	24/07/2023
34		Bann	Kilmichael Bridge	TEF (handset)	No	24/07/2023
35		Bann	Glandoran Upper	TEF (handset)	No	25/07/2023
36		Bann	Island Bridge	ADEF (Handset)	No	26/07/2023
37		Bann	Milltown Bridge	ADEF (Handset)	No	26/07/2023



Derry River at Ballingate Br. (Site 23).

Table 6. Minimum density estimates (no. fish/m²) for the Derry and Bann sub-catchments, 2023 (previous results are shown where applicable).

Derry							
Site no.	19		20		21	22	
Species	2020	2023	2020	2023	2023	2014	2023
Brown trout	0.217	0.078	0.259	0.146	0.477	0.028	0.099
0+ brown trout	0.011	0.030	0.075	0.067	0.477	0.006	0.027
1+ & older brown trout	0.205	0.048	0.184	0.079	-	0.021	0.072
Salmon	-	0.024	0.092	0.049	-	0.085	0.052
0+ salmon	-	0.024	0.069	0.037	-	0.083	0.037
1+ & older salmon	-	-	0.023	0.012	-	0.002	0.015
European eel	-	-	0.017	-	0.026	-	0.002
Pike	-	-	-	0.006	-	-	-
Minnow	0.046	0.024	-	-	-	0.224	0.012
Three-spined stickleback	0.017	-	-	-	-	0.013	0.002
Lamprey spp.	0.023	-	-	-	-	0.011	0.002
Stone loach	-	-	0.011	0.012	-	0.009	0.022
All fish	0.302	0.126	0.379	0.213	0.503	0.369	0.194
Derry				Bann			
Site no.	23	24	25	26	27	28	29
Species	2023	2023	2023	2023	2023	2023	2023
Brown trout	0.162	0.401	0.293	0.411	0.249	0.278	0.143
0+ brown trout	0.015	0.182	0.255	0.346	0.234	0.252	0.071
1+ & older brown trout	0.147	0.219	0.037	0.065	0.015	0.026	0.071
Salmon	-	0.049	0.074	-	-	-	-
0+ salmon	-	0.012	0.065	-	-	-	-
1+ & older salmon	-	0.036	0.009	-	-	-	-
European eel	-	-	-	-	0.044	0.020	-
Minnow	0.069	0.012	0.009	-	-	-	-
Three-spined stickleback	-	0.018	0.014	-	0.044	-	-
Sea trout	-	0.006	-	-	-	-	-
Lamprey spp.	0.005	0.018	-	-	0.022	-	-
Stone loach	-	-	0.028	-	-	-	-
All fish	0.236	0.505	0.418	0.411	0.359	0.298	0.143
Bann							
Site no.	30	31		32		33	
Species	2023	2016	2023	2016	2023	2016	2023
Brown trout	0.748	0.541	0.173	0.416	0.094	0.052	0.223
0+ brown trout	0.620	0.168	0.124	0.091	0.080	0.026	0.126
1+ & older brown trout	0.128	0.373	0.050	0.325	0.014	0.026	0.097
Salmon	0.027	-	-	0.041	-	-	0.025
0+ salmon	0.027	-	-	-	-	-	0.025
1+ & older salmon	-	-	-	0.041	-	-	-
European eel	-	0.028	-	-	-	0.019	0.013
Minnow	0.020	-	-	-	-	-	-
Three-spined stickleback	-	-	-	-	-	-	0.046
Lamprey spp.	0.020	-	-	-	-	-	0.004
Stone loach	0.027	-	-	-	-	0.013	0.017
All fish	0.842	0.568	0.173	0.457	0.094	0.084	0.328

Table 6 continued. Minimum density estimates (no. fish/m²) for the Derry and Bann sub-catchments, 2023
(previous results are shown where applicable)

Bann				
Site no.	34	35	36	37
Species	2023	2023	2023	2023
Brown trout	0.171	0.038	0.064	0.102
0+ brown trout	0.107	0.027	0.046	0.007
1+ & older brown trout	0.063	0.011	0.018	0.095
Salmon	0.097	0.027	0.02	0.058
0+ salmon	0.078	0.022	0.018	0.039
1+ & older salmon	0.019	0.005	0.002	0.019
European eel	-	-	-	0.005
Minnow	-	-	0.033	0.153
Three-spined stickleback	-	0.008	-	0.019
Sea trout	-	-	0.004	0.002
Lamprey spp.	-	-	-	-
Stone loach	0.01	0.005	0.013	0.024
All fish	0.278	0.078	0.133	0.364

Table 6. Brown trout % age class structure (where recorded) for the Derry and Bann sub-catchments, 2023

Species	Site No.	% of catch			
		0+	1+	2+	3+
Derry					
Brown trout	19	43	43	14	-
	20	54	46	-	-
	21	100	-	-	-
	22	34	56	9	1
	23	12	63	25	-
	24	49	48	3	-
	25	88	12	-	-
Bann					
Brown trout	26	85	10	5	-
	27	94	6	-	-
	28	91	4	5	-
	29	50	29	21	-
	30	83	11	6	-
	31	73	13	7	7
	32	88	12	-	-
	33	61	25	14	-
	34	67	22	-	11
	35	75	12	13	-
	36	72	14	14	-
	37	7	60	31	2

Table 6. Salmon % age class structure (where recorded) for the Derry and Bann sub-catchments, 2023

Species	Site No.	% of catch			
		0+	1+	2+	3+
Derry					
Salmon	19	100	-	-	-
	20	75	25	-	-
	22	67	33	-	-
	24	25	75	-	-
	25	88	22	-	-
Bann					
Salmon	30	100	-	-	-
	33	100	-	-	-
	34	80	20	-	-
	35	80	20	-	-
	36	91	9	-	-
	37	67	33	-	-

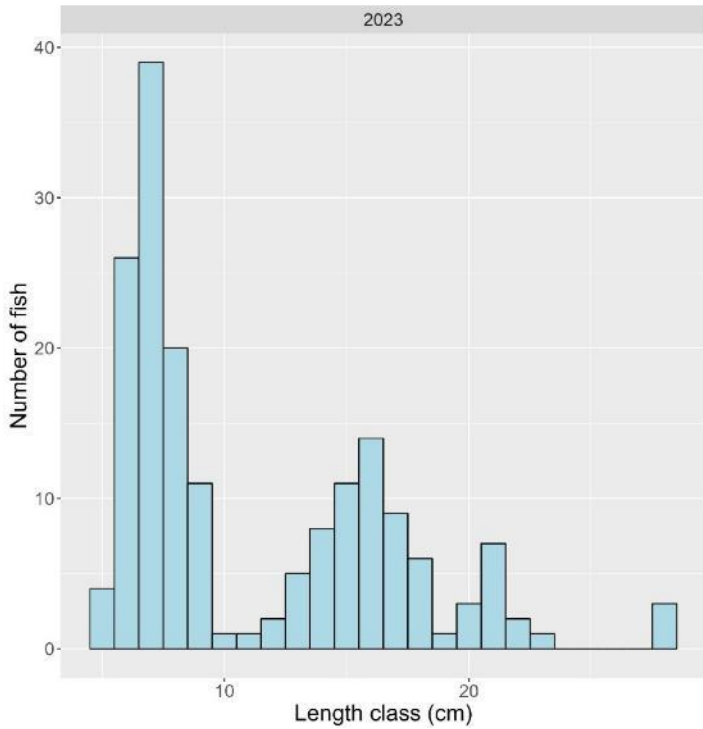


Figure 8. Length frequency for brown trout (N=278) in the Bann sub-catchment, 2023 (No. sites=12).

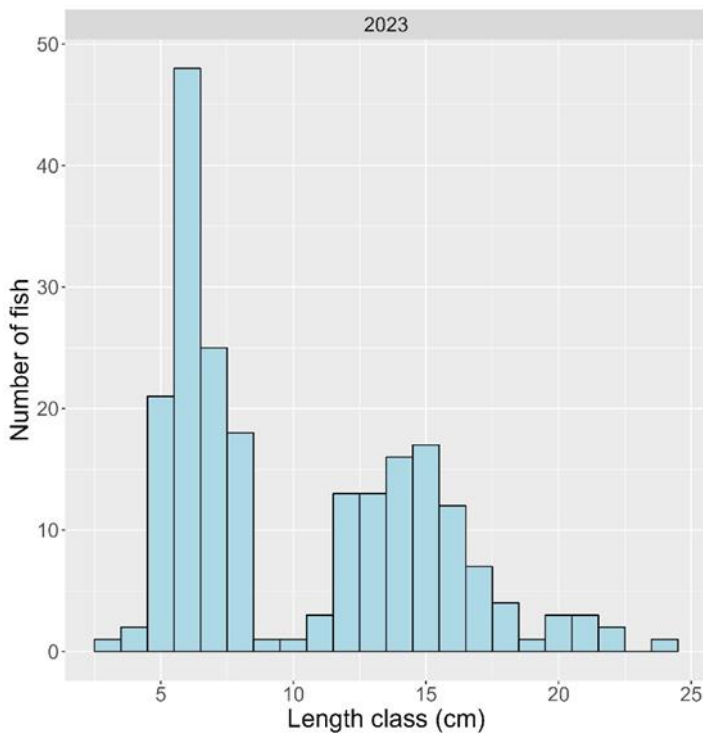


Figure 9. Length frequency for brown trout (N=212) in the Derry sub-catchment, 2023 (No. sites=7).

Table 7. Fish ecological status for the Derry and Bann sub-catchments, July and August 2023. Previous results are shown where applicable.

Site No.	2014	2016	2020	2023
Derry				
19	-	-	Moderate	Moderate
20	-	-	High	Good
21	-	-	-	Moderate
22	Moderate	-	-	Moderate
23	-	-	-	Moderate
24	-	-	-	Good
25	-	-	-	Good
Bann				
26	-	-	-	Moderate
27	-	-	-	Moderate
28	-	-	-	Moderate
29	-	-	-	Moderate
30	-	-	-	Good
31	-	Good	-	Moderate
32	-	Good	-	Poor
33	-	Moderate	-	Good
34	-	-	-	Good
35	-	-	-	Moderate
36	-	N/A	-	Moderate
37	-	N/A	-	Moderate



Bann-River at Tinnabaum (Site 31).

Clody, Urrin, Boro and Lower Slaney sub-catchments

Twenty-four sites were surveyed in the Clody, Urrin, Boro and Lower Slaney sub-catchments in 2023. This included two sites on the Clody, five sites on the Urrin, seven sites on the Boro and ten sites on the River Slaney and Lower Slaney tributaries. Four long-term Water Framework Directive (WFD) surveillance monitoring (SM) sites were surveyed; Clody River at Ford Bridge 3km u/s Bunclody (Site 39), the Urrin River at Buck's Bridge (Site 42), the Slaney River at Bunclody (Site 53) and the Douglas (Ballon) River at Sragh Bridge (Site 54) (Table 4).

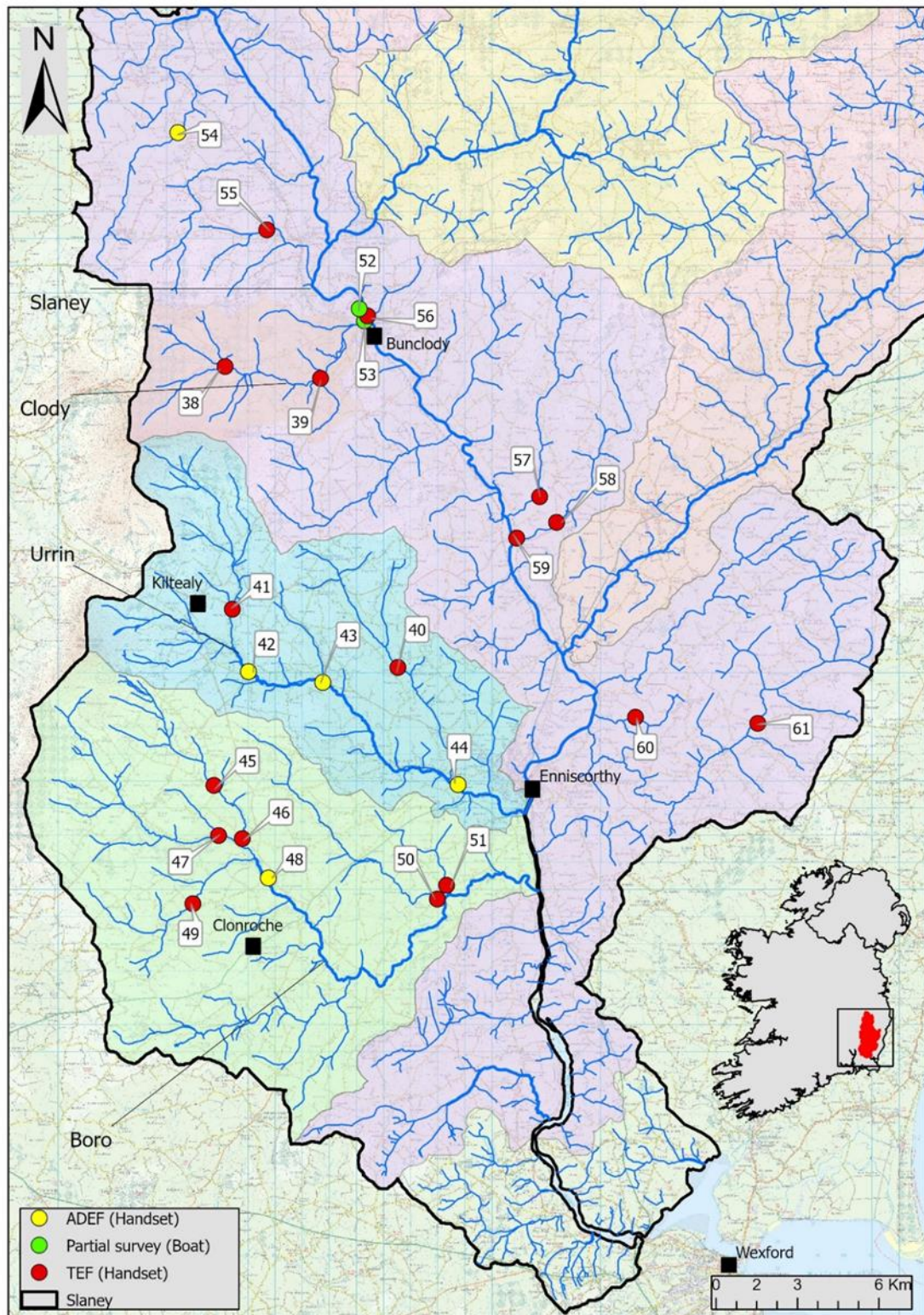


Figure 10. Location of electrofishing survey sites on the Clody (sites 38-39), Urrin (sites 40-44), Boro (sites 45-51) and Lower Slaney (sites 52-61) sub-catchments, July and 2023.

Table 8. Site survey details for the Clody, Urrin, Boro and Lower Slaney, sub-catchments, 2023.

No.	Sub-catchment	River	Site	Method	WFD	Date
38	Clody	Clody	Kelly's Quarter	TEF (Handset)	No	25/07/2023
39		Clody	Ford (Bridge) 3km u/s Bunclody	TEF (Handset)	Yes	27/07/2023
40	Urrin	Pullinstown	Ballinure	TEF (Handset)	No	25/07/2023
41		Urrin	Mocurry Bridge	TEF (Handset)	No	01/08/2023
42		Urrin	Buck's Bridge	ADEF (Handset)	Yes	01/08/2023
43		Urrin	Mangan Lane	ADEF (Handset)	No	01/08/2023
44		Urrin	Verona Bridge	TEF (Handset)	No	01/08/2023
45	Boro	Killeen	Killeen Bridge	TEF (Handset)	No	02/08/2023
46		Killeen	Garraun Bridge	TEF (Handset)	No	02/08/2023
47		Boro	Garraun Lower	TEF (Handset)	No	25/07/2023
48		Boro	Aughnappul Bridge	ADEF (Handset)	No	02/08/2023
49		Townamulloge	Ballyboro	TEF (Handset)	No	04/08/2023
50		Aughathlappa	Cloughmills	TEF (Handset)	No	03/08/2023
51		Templescoby	Garr Bridge	TEF (Handset)	No	02/08/2023
52	Slaney (Lower)	Slaney	Bunclody Golf Course	Partial survey (Boat)	No	05/09/2023
53		Slaney	Bunclody	Partial survey (Boat)	Yes	05/09/2023
54		Douglas (Ballon)	Sragh Bridge	ADEF (Handset)	Yes	04/07/2023
55		Kidavin	Ballyfinvalley	TEF (Handset)	No	25/07/2023
56		Drumderry	Carnew Road	TEF (Handset)	No	05/09/2023
57		Ballingale	Tombrack	TEF (Handset)	No	10/08/2023
58		Ballycarney	Corah Bridge	TEF (Handset)	No	10/08/2023
59		Ballycarney	Ballycarney Bridge	TEF (Handset)	No	10/08/2023
60		Garryfelim	Annaghfinn North	TEF (Handset)	No	24/07/2023
61		Corbally	Ballincash Bridge	TEF (Handset)	No	24/07/2023



Boro (Aughathlappa) River at Cloughmills (Site 50).

Table 9. Minimum density estimates (no. fish/m²) for the Clody, Urrin and Boro and Lower Slaney sub-catchments, 2023 (Previous results are shown where applicable).

Clody					Urrin			
Site no.	38		39		40	41	42	
Species	2020	2023	2008	2023	2023	2023	2020	
Brown trout	0.167	0.083	0.164	0.097	0.127	0.138	0.334	
0+ brown trout	0.054	0.022	0.11	0.038	0.093	0.008	0.058	
1+ & older brown trout	0.113	0.061	0.054	0.059	0.034	0.130	0.276	
Salmon	0.179	0.033	0.04	0.124	-	0.008	0.038	
0+ salmon	0.167	0.011	0.016	0.102	-	-	0.023	
1+ & older salmon	0.012	0.022	0.023	0.022	-	0.008	0.015	
European eel	-	-	0.002	-	-	-	-	
Sea trout	-	-	-	-	-	-	-	
All fish	0.345	0.117	0.206	0.22	0.127	0.146	0.372	
Urrin				Boro				
Site no.	42	43	44	45	46	47	48	
Species	2023	2023	2023	2023	2023	2023	2023	
Brown trout	0.147	0.094	0.082	0.415	1.301	0.071	0.102	
0+ brown trout	0.053	0.074	0.038	0.256	1.008	-	0.043	
1+ & older brown trout	0.093	0.02	0.044	0.158	0.294	0.071	0.060	
Salmon	0.100	0.066	0.119	-	0.176	0.014	0.102	
0+ salmon	0.073	0.043	0.101	-	0.137	-	0.074	
1+ & older salmon	0.027	0.023	0.017	-	0.039	0.014	0.029	
European eel	0.003	0.009	0.004	-	-	-	0.002	
Sea trout	0.003	-	-	-	-	0.003	-	
Stone loach	-	0.003	0.002	-	-	-	-	
All fish	0.254	0.171	0.207	0.415	1.477	0.088	0.207	
Boro			Slaney (Lower)					
Site no.	49	50	51	52	53		54	
Species	2023	2023	2023	2023	2014	2023	2011	2013
Brown trout	0.701	0.404	0.729	0.009	0.002	0.003	0.124	0.035
0+ brown trout	0.531	0.23	0.525	-	-	-	0.034	0.021
1+ & older brown trout	0.171	0.174	0.204	0.009	0.002	0.003	0.09	0.014
Salmon	-	0.018	-	0.011	0.009	0.002	-	-
0+ salmon	-	-	-	0.002	-	-	-	-
1+ & older salmon	-	0.018	-	0.009	0.008	0.002	-	-
European eel	-	0.028	-	0.001	0.001	-	0.006	-
Gudgeon	-	-	-	0.001	-	0.001	-	-
Roach	-	-	-	0.001	-	0.001	-	-
Minnow	-	-	-	0.003	0.001	0.001	-	0.007
Three-spined stickleback	-	-	-	-	-	-	0.028	0.460
Lamprey spp.	-	-	0.021	0.001	-	0.001	0.062	0.035
Stone loach	0.018	-	-	-	-	-	0.023	0.007
All fish	0.719	0.450	0.750	0.029	0.014	0.010	0.243	0.544

Table 9 continued. Minimum density estimates (no. fish/m²) for the Clody, Urrin, Boro and Lower Slaney sub-catchments, 2023. Previous results are shown where applicable.

Slaney (Lower)								
Site no.	54	55	56	57	58	59	60	61
Species	2023	2023	2023	2023	2023	2023	2023	2023
Brown trout	0.13	0.791	0.426	0.659	0.284	0.848	0.189	0.221
0+ brown trout	0.13	0.584	0.426	0.414	0.271	0.193	0.189	0.061
1+ & older brown trout	-	0.207	-	0.245	0.013	0.655	-	0.160
Salmon	-	-	0.117	0.123	0.063	0.101	-	-
0+ salmon	-	-	0.088	0.077	0.063	-	-	-
1+ & older salmon	-	-	0.029	0.046	-	0.101	-	-
European eel	-	-	0.235	0.023	-	0.025	-	-
Minnow	0.019	-	0.117	-	-	-	-	-
Three-spined stickleback	0.025	-	0.499	-	0.019	-	-	0.023
Stone loach	-	-	0.029	-	-	0.017	-	-
All fish	0.174	0.791	1.423	0.804	0.366	0.991	0.189	0.243

Table 10. Brown trout age class structure for the Clody, Urrin, Boro and Lower Slaney sub-catchments, 2023

Species	Site No.	% of catch			
		0+	1+	2+	3+
Clody					
Brown trout	38	28	72	-	-
	39	44	56	-	-
Urrin					
Brown trout	40	71	29	-	-
	41	6	63	31	-
	42	27	27	15	5
	43	79	12	9	-
	44	47	25	21	7
Boro					
Brown trout	45	66	31	3	-
	46	79	18	3	-
	47	-	80	20	-
	48	42	44	12	2
	49	76	21	3	-
	50	57	29	14	-
51	75	25	-	-	
Slaney					
Brown trout	52	3	29	62	6
	53	-	32	64	4
	54	100	-	-	-
	55	78	15	7	-
	56	100	-	-	-
	57	65	23	12	-
	58	95	5	-	-
	59	23	60	17	-
	60	100	-	-	-
	61	29	57	14	-

Table 11. Salmon age class structure for the Clody, Urrin, Boro and Lower Slaney sub-catchments, 2023

Species	Site No.	% of catch			
		0+	1+	2+	3+
Clody					
Salmon	38	33	67	-	-
	39	66	33	-	-
Urrin					
Salmon	41	-	100	-	-
	42	66	34	-	-
	43	65	35	-	-
	44	85	15	-	-
Boro					
Salmon	46	78	22	-	-
	47	-	100	-	-
	48	72	28	-	-
	50	-	100	-	-
Slaney					
Salmon	52	19	81	-	-
	53	-	100	-	-
	56	75	25	-	-
	57	63	37	-	-
	58	100	-	-	-
	59	-	100	-	-

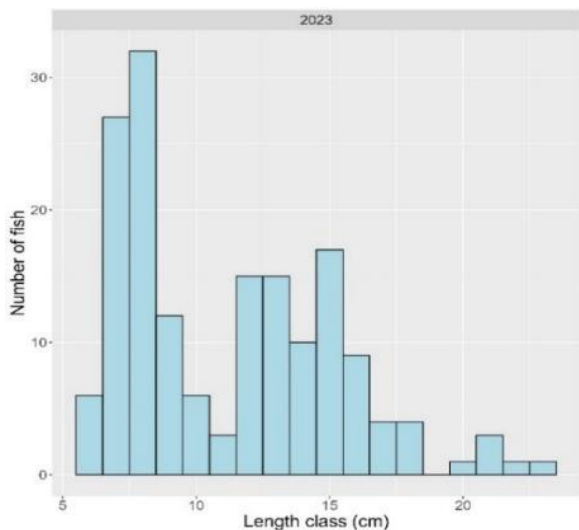


Figure 11. Length frequency for brown trout (n =173) in the Urrin sub-catchment, 2023 (n-sites = 5).

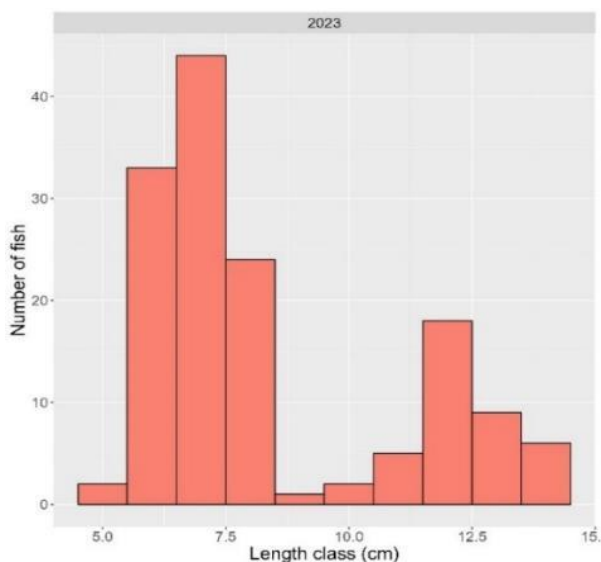


Figure 12. Length frequency for salmon (n =144) in the Urrin sub-catchment, 2023 (n-sites = 4).

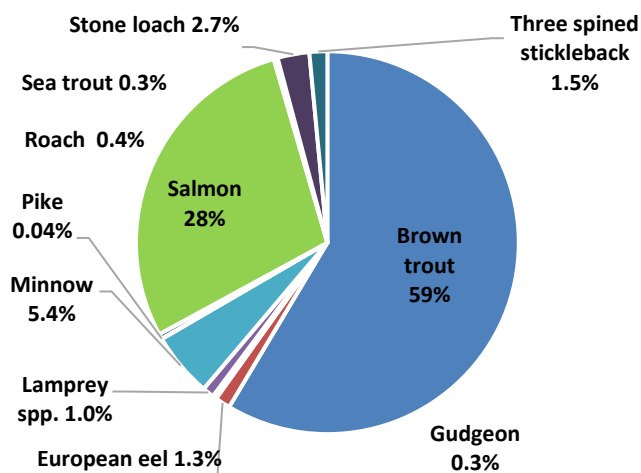


Figure 13. Fish species composition (%), Slaney River catchment, 2023.

Table 12. Fish Ecological status for the Clody, Urrin, Boro and Lower Slaney sub-catchments, July and August 2023. Previous results are shown where applicable.

No.	2013	2014	2017	2020	2023
Clody					
38	-	-	-	Good	Moderate
39	-	-	-	-	Good
Urrin					
40	-	-	-	-	Moderate
41	-	-	-	-	Moderate
42	-	Good	-	Good	Good
43	-	-	Moderate	-	Moderate
44	-	-	N/A	-	Good
Boro					
45	-	-	N/A	-	Moderate
46	-	-	-	-	High
47	-	-	-	-	Poor
48	-	-	-	-	Good
49	-	-	-	-	Good
50	-	-	-	-	Good
51	-	-	-	-	Good
Lower Slaney & tributaries					
52	-	-	-	-	Good
53	-	Moderate	-	-	N/A
54	Moderate	-	-	-	Moderate
55	-	-	-	-	Good
56	-	-	-	-	Good
57	-	-	-	-	High
58	-	-	-	-	Moderate
59	-	-	-	-	Good
60	-	-	-	-	Moderate
61	-	-	-	-	Moderate



Boro (Templescobey stream) at Garr Br. (Site 51).

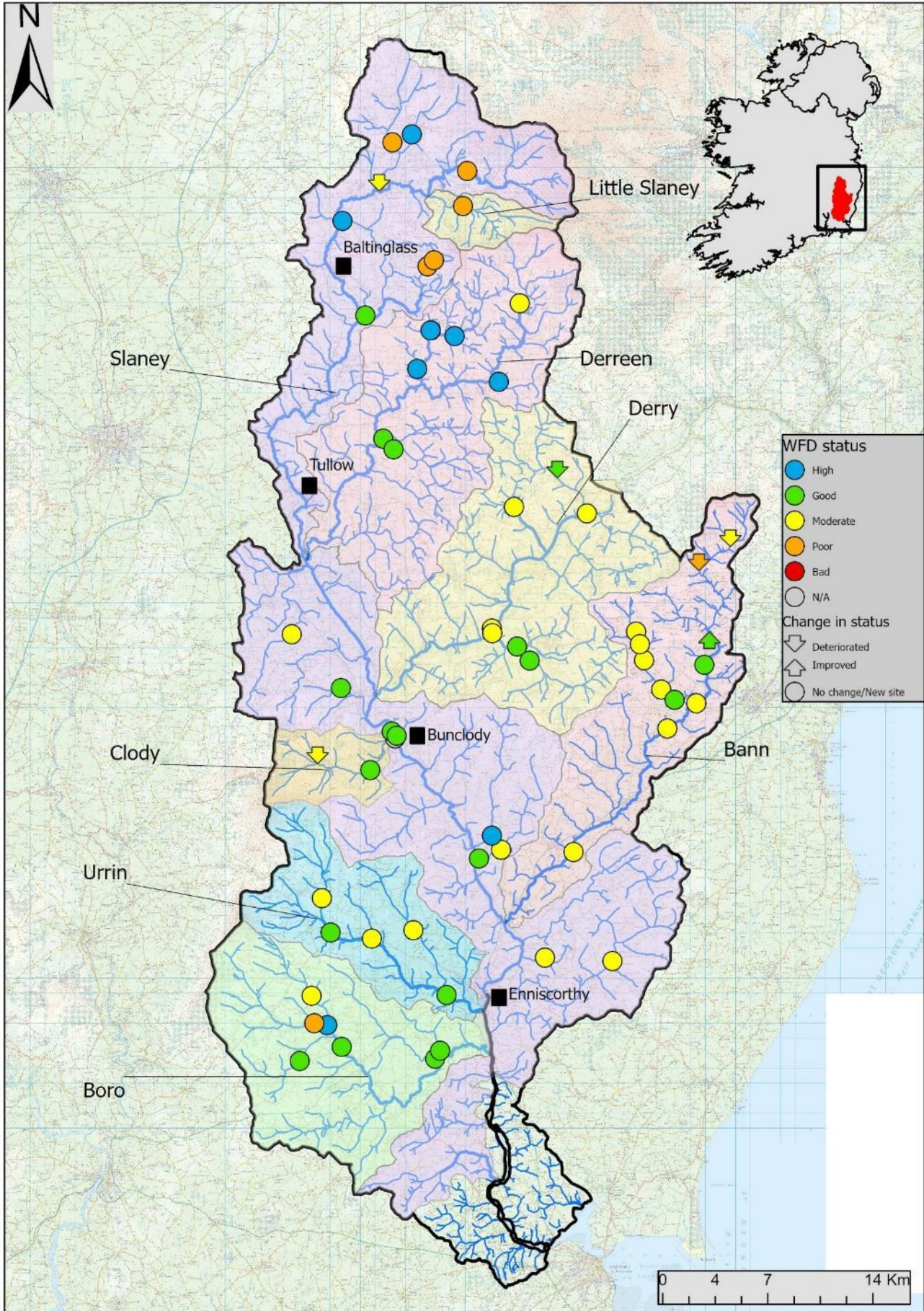


Figure 14. Fish ecological status in the Slaney Catchment, July to September 2023. Arrows indicate a change in status since previous surveys (where applicable).

Summary

A total of 10 fish species and sea trout (a separate 'variety' of trout) were recorded at 61 sites electrofished on the Slaney River Catchment in 2023.

Brown trout was the most common species present (61 sites, 100%), followed by salmon (42 sites, 68%), stone loach (21 sites, 34%), European eel (17 sites, 28%), minnow and three-spined stickleback (13 sites each, 22%), lamprey spp. (10 sites, 17%), sea trout (7 sites, 12%), roach and gudgeon (two sites each, 3%) and pike (one site, 2%).

Brown trout was also the most abundant species recorded, captured at all sites surveyed, followed by salmon, minnow, three-spined stickleback, European eel, lamprey, roach, gudgeon, sea trout, and pike.

Salmon ranged in length from 3.0 to 16.4cm. Two age classes were present (0+ and 1+), with 0+ being the most abundant cohort. The highest density of salmon (all ages combined) (0.456 fish/m²) was recorded at Site 15 (Lucas Br.) in the Derreen sub-catchment. The highest density of 0+ salmon (0.396 fish/m²) was also recorded at Site 15 (Lucas Br.) while the highest density of 1+ and older salmon (0.101 fish/m²) was noted at Site 59 (Ballycarney Bridge).

Brown trout ranged in length from 3.5 to 34cm. Four age classes were present (0+, 1+, 2+ and 3+), with 0+ being the most abundant cohort. The highest density of brown trout (all ages combined) (1.301 fish/m²) was recorded at Site 46 (Garraun Bridge) in the Boro sub-catchment. The highest density of 0+ brown trout (1.008 fish/m²) was also noted at Site 46 (Garraun Bridge) and the greatest density of 1+ and older brown trout (0.655 fish/m²) was recorded at Site 59 (Ballycarney Bridge).

Sea trout ranged in length from 24.6 to 47.6cm. Nine sea trout were captured (seven of which were under 30cm in length) in total, on the Slaney catchment in 2023. Two age classes were present (2.0+ and 2.1+), with 2.0+ being the most abundant cohort.

A Water Framework Directive fish classification tool (FCS2) was developed for Irish rivers in 2011 (SNIFFER 2011). The tool works by comparing various fish community metric values within a site to those predicted for a site under un-impacted conditions. In

general, a site will achieve High status if indicator species (e.g. both salmonid cohorts 0+ and 1+ and older) are present and in expected numbers. Status will decline if such cohorts are missing, are in poor abundance, or if more tolerant species proliferate.

Fish ecological status was assigned to 60 of the 61 sites surveyed in the Slaney catchment during 2023 (Tables 4, 7 and 12 and Figure 14). Ten (17%) sites achieved High status, with 20 (33%) sites Good, 23 (38%) Moderate and seven (12%) Poor. Ten of these sites were surveyed previously on this catchment and assigned fish ecological status. When compared with their most recent previous surveys, five sites deteriorated in status, one site improved and four remained unchanged (Tables 4, 7 and 12).

The reasons for the failures (i.e. moderate status) in fish ecological status were due to lower-than-expected abundance of type specific indicator species (e.g., salmon and trout), absence of certain age cohorts indicating recruitment failures. Failures and deteriorations in fish ecological status can be caused by pressures such as nutrient enrichment, habitat modification and fish passage issues.

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