

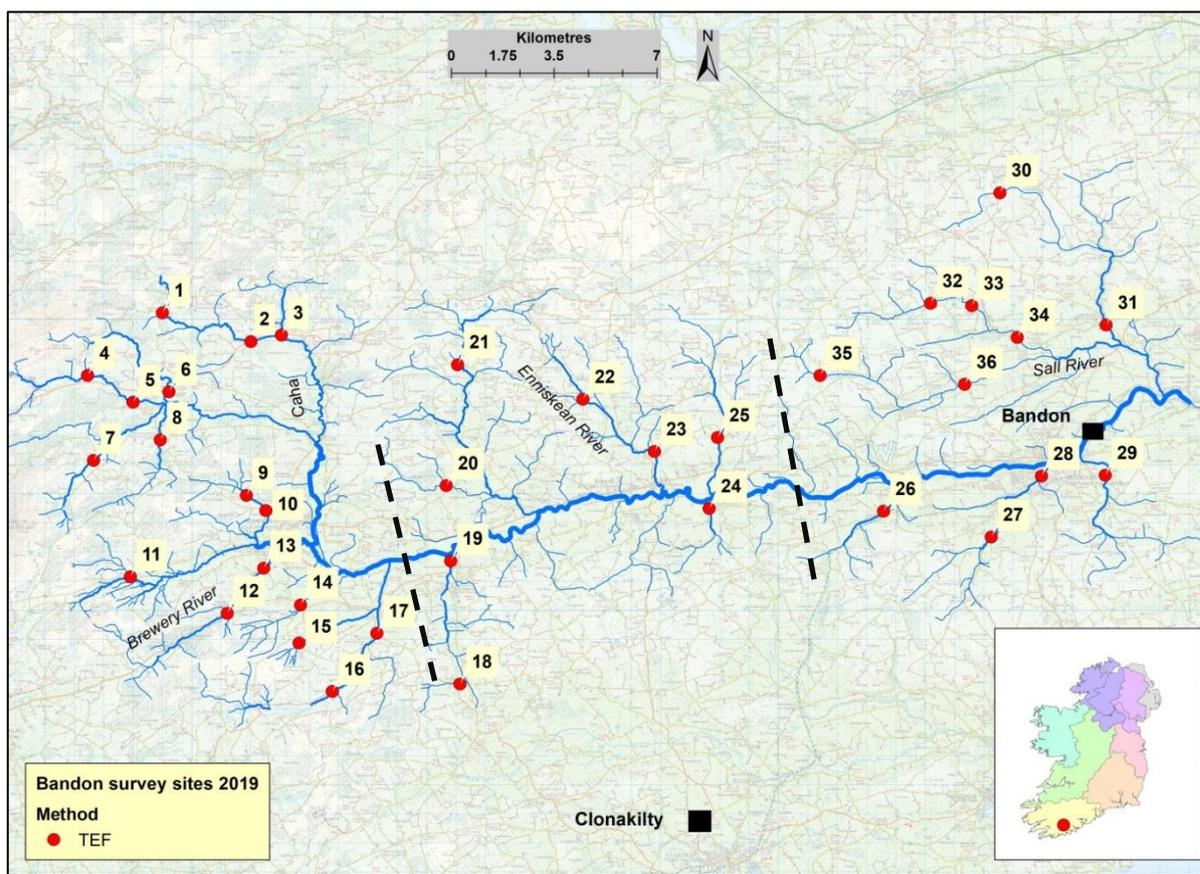
Fish in Rivers Factsheet

The Bandon River catchment is located in west Cork, within the South Western River Basin District and covers an area of approximately 598 km². The Bandon River rises in the Maughanaclea Hills approximately 10 km north-west of Dunmanway, Co. Cork and flows in an easterly direction through the villages of Ballineen and Enniskean and the towns of Bandon and Inishannon, before entering the sea at Kinsale Harbour.

Many tributaries flow into the Bandon River including the Caha, Dirty/Brewery, Bealanscartane, Blackwater,

Enniskean and Brinny rivers. Catchment geology is mixed between limestone and sandstone. Agriculture is the dominant land use. Portions of this catchment, close to Dunmanway are situated within the Bandon River Special Area of Conservation. The river is known for good salmon and sea trout angling.

Thirty-six sites were surveyed on the Bandon River catchment between the 9th and 12th of September 2019 to determine the status of their fish stocks.



Location map of Bandon River catchment electrofishing survey sites, September 2019

Site survey details, upper, middle and lower Bandon River catchment, September 2019

No.	Subcatchment	River	Site name	Method	WFD	Date	
Upper catchment							
1	Caha River	Caha River	Coolmountain Br.	TEF	-	10/09/2019	
2		Caha River	Poul naberry Br.	TEF	-	10/09/2019	
3		Cummernamart River	Cummernamart	TEF	-	12/09/2019	
4	Derragh River	Derragh River	Shanacrane	TEF	-	10/09/2019	
5		Derragh River	Keenrath	TEF	-	11/09/2019	
6	Shehy Beg River	Shehy Beg River	Togher Br.	TEF	-	10/09/2019	
7	Bandon River (main channel)	Bandon River	Farnanes Br.	TEF	-	10/09/2019	
8	Garrown River	Garrown River	Derrynacaheragh	TEF	-	19/09/2019	
9	Dirty River	Coom River	Coorycullane	TEF	-	19/09/2019	
10		Coom River	Darkwood	TEF	-	11/09/2019	
11		Dirty River	Sillahertane Br.	TEF	-	11/09/2019	
12		Brewery River	Cloonties	TEF	-	12/09/2019	
13		Brewery River	Tonafora	TEF	-	12/09/2019	
14	Kealrootha River	Kealrootha River	Mohana	TEF	-	12/09/2019	
15	Bealanscartane River	Glasheenahielan River	Kilronane West	TEF	-	12/09/2019	
16		Bealanscartane River	Drinagh East	TEF	-	12/09/2019	
17		Bealanscartane River	Bealanscartane Br.	TEF	-	12/09/2019	
Mid catchment							
18	Ballynacarriga River	Ballynacarriga River	Ballingurteen	TEF	-	12/09/2019	
19		Ballynacarriga River	Monaneurig Bog	TEF	-	11/09/2019	
20	Blackwater, River	Glasheenacauha River	Balteenbrack	TEF	-	12/09/2019	
21		Blackwater River	Ahakeera	TEF	-	11/09/2019	
22	Enniskean River	Enniskean River	Sleenoge	TEF	-	12/09/2019	
23		Enniskean River	Castlelands	TEF	-	11/09/2019	
24	Derrymeeleen River	Derrymeeleen River	Roseville Br.	TEF	-	11/09/2019	
25	Curraghnacarton River	Curraghnacarton River	Palaceanne North	TEF	-	11/09/2019	
Lower catchment							
26	Cashel More River	Cashel More River	Gaggan Br.	TEF	-	19/09/2019	
27	Bridewell River	Bridewell River	Meelon Br.	TEF	-	09/09/2019	
28		Bridewell River	Service Station	TEF	-	12/09/2019	
29	Garranbeg River	Garranbeg River	Moanarone	TEF	-	09/09/2019	
30	Brinny River	Tuough River	Rathculleen South	TEF	-	10/09/2019	
31		Tuough River	Ballinacurra Br.	TEF	-	10/09/2019	
32		Sall River	Lisnagat Br.	TEF	-	09/09/2019	
33		Sall River	Aghaphona Br.	TEF	-	09/09/2019	
34		Sall River	Finnis	TEF	-	09/09/2019	
35		Ballymahane River	Tullyglass North	TEF	-	10/09/2019	
36		Brinny River	Brinny River	Ballygarvey Br.	TEF	-	10/09/2019
<i>TEF (Ten-minute electrofishing)</i>							



The Caha River at Coolmountain Br., Co. Cork (site 1).



The Derragh River at Keenrath, Co. Cork (site 5).

Minimum density estimates (no. fish/m²), Bandon River (upper catchment - sites 1-17), September 2019

Site no.	1	2	3	4	5	6	7	8	9
Species	2019								
Brown trout	0.257	0.228	0.352	0.175	0.086	0.211	0.226	0.091	0.237
0+ brown trout	0.227	0.114	0.253	0.123	0.023	0.211	0.065	0.037	0.113
1+ & older brown trout	0.031	0.114	0.100	0.052	0.063	-	0.161	0.055	0.124
Salmon	0.082	0.053	0.253	0.362	0.161	0.152	0.238	0.384	-
0+ salmon	0.082	0.053	0.253	0.349	0.103	0.152	0.238	0.347	-
1+ & older salmon	-	-	-	0.013	0.057	-	-	0.037	-
European eel	-	0.011	-	-	0.040	-	-	-	-
Minnow	-	-	-	-	0.092	0.447	-	-	-
Stone loach	-	0.061	-	-	-	-	-	-	-
Three-spined stickleback	-	-	-	-	-	0.236	0.428	-	-
All Fish	0.340	0.353	0.605	0.537	0.379	1.046	0.892	0.475	0.237
Site no.	10	11	12	13	14	15	16	17	
Species	2019								
Brown trout	0.083	0.217	0.220	0.253	-	0.079	-	0.024	
0+ brown trout	0.083	0.109	0.220	0.150	-	0.020	-	-	
1+ & older brown trout	-	0.109	-	0.103	-	0.059	-	0.024	
Salmon	0.609	-	0.040	0.506	0.033	-	-	0.319	
0+ salmon	0.595	-	0.020	0.474	0.033	-	-	0.215	
1+ & older salmon	0.014	-	0.020	0.032	-	-	-	0.104	
European eel	-	0.030	-	0.024	0.025	0.069	0.022	0.012	
Minnow	-	-	-	-	0.561	-	-	0.020	
Stone loach	-	-	-	0.039	-	0.059	0.065	0.008	
Three-spined stickleback	-	-	-	-	0.025	-	-	-	
Lamprey sp.	-	-	-	-	-	-	0.006	-	
Pike	-	-	-	-	-	-	0.009	-	
All Fish	0.692	0.247	0.260	0.822	0.644	0.206	0.102	0.383	



The Bandon River (main channel) at Farnanes Br., Co. Cork (site 7)



The Brewery River at Cloonties, Co. Cork (site 12).

Minimum density estimates (no. fish/m²), Bandon River (mid catchment - sites 18-25), September 2019

Site no.	18	19	20	21	22	23	24	25
Species	2019	2019	2019	2019	2019	2019	2019	2019
Brown trout	0.380	0.257	0.055	0.461	0.629	0.401	0.950	0.167
0+ brown trout	0.317	0.092	-	0.323	0.548	0.142	0.859	0.061
1+ & older brown trout	0.063	0.165	0.055	0.138	0.081	0.259	0.090	0.106
Salmon	-	0.474	-	-	-	0.272	-	0.273
0+ salmon	-	0.369	-	-	-	0.247	-	0.222
1+ & older salmon	-	0.105	-	-	-	0.025	-	0.050
European eel	0.024	-	-	-	-	-	0.045	0.035
Minnow	-	0.066	0.869	-	-	0.309	-	-
Stone loach	-	0.013	-	-	-	-	0.256	-
Three-spined stickleback	-	-	0.259	-	-	0.019	-	-
All Fish	0.404	0.810	1.184	0.461	0.629	1.000	1.251	0.474

Minimum density estimates (no. fish/m²), Bandon River (lower catchment - sites 26-36), September 2019

Site no.	26	27	28	29	30	31	32	33	34	35	36
Species	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019	2019
Brown trout	0.418	0.586	0.067	0.306	0.309	0.347	0.408	0.257	0.115	0.701	0.645
0+ brown trout	0.129	0.189	0.018	0.145	0.309	0.073	0.175	0.157	0.095	0.680	0.077
1+ & older brown trout	0.289	0.396	0.049	0.161	-	0.274	0.232	0.100	0.020	0.021	0.567
Salmon	0.152	0.090	0.179	-	-	0.313	-	0.105	0.280	-	0.175
0+ salmon	0.152	-	0.179	-	-	0.280	-	0.105	0.210	-	0.093
1+ & older salmon	-	0.090	-	-	-	0.034	-	-	0.070	-	0.083
European eel	-	-	0.045	0.016	-	0.056	-	0.014	0.100	0.165	0.015
Minnow	0.600	-	-	-	-	-	-	-	-	-	0.072
Stone loach	-	-	-	-	-	-	-	-	-	-	0.165
Three-spined stickleback	-	-	-	-	0.021	0.017	-	-	-	-	-
All Fish	1.170	0.676	0.291	0.322	0.329	0.733	0.408	0.376	0.496	0.866	1.073

**Brown trout % age class structure (where present),
Bandon River catchment, September 2019**

Species	Site No.	% of catch			
		0+	1+	2+	3+
Brown trout	Upper catchment				
	1	88	12	-	-
	2	50	39	11	-
	3	72	28	-	-
	4	69	23	8	-
	5	29	43	29	-
	6	100	-	-	-
	7	28	56	17	-
	8	40	40	20	-
	9	48	43	10	-
	10	100	-	-	-
	11	50	50	-	-
	12	100	-	-	-
	13	60	27	13	-
	15	25	75	-	-
	17	-	33	33	33
	18	83	17	-	-
	Mid catchment				
	19	37	53	11	-
	20	-	67	33	-
	21	71	25	4	-
	22	87	10	3	-
	23	35	42	23	-
	24	90	10	-	-
	25	38	50	13	-
	26	31	62	8	-
	Lower catchment				
	27	32	55	13	-
	28	29	71	-	-
	29	48	44	7	-
	30	100	-	-	-
	31	21	69	10	-
	32	44	46	10	-
	33	62	38	-	-
	34	82	18	-	-
	35	97	3	-	-
36	12	73	15	-	

**Salmon age class structure (where present), Bandon
River catchment, September 2019**

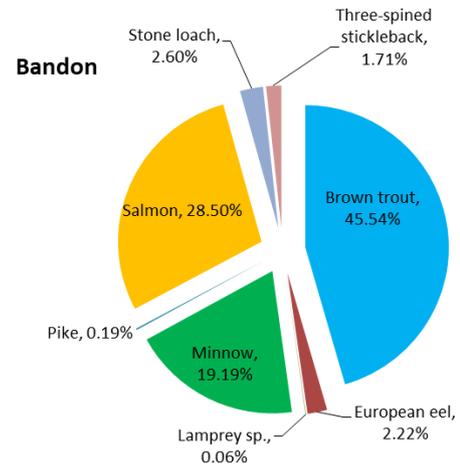
Species	Site No.	% of catch			
		0+	1+	2+	3+
Salmon	Upper catchment				
	1	100	-	-	-
	2	100	-	-	-
	3	100	-	-	-
	4	96	4	-	-
	5	64	36	-	-
	6	100	-	-	-
	7	100	-	-	-
	8	90	10	-	-
	10	98	2	-	-
	12	50	50	-	-
	13	94	6	-	-
	14	100	-	-	-
	17	68	33	-	-
	Mid catchment				
	19	78	22	-	-
	23	91	9	-	-
	25	81	19	-	-
	26	100	-	-	-
	Lower catchment				
	27	-	100	-	-
	28	100	-	-	-
	31	89	11	-	-
	33	100	-	-	-
	34	75	25	-	-
	36	53	47	-	-



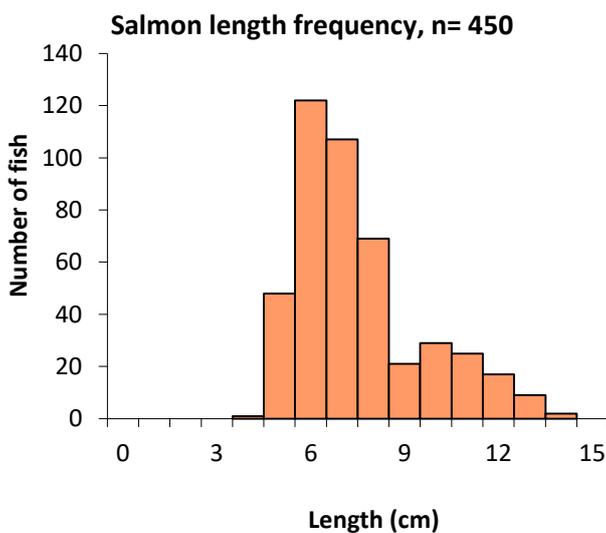
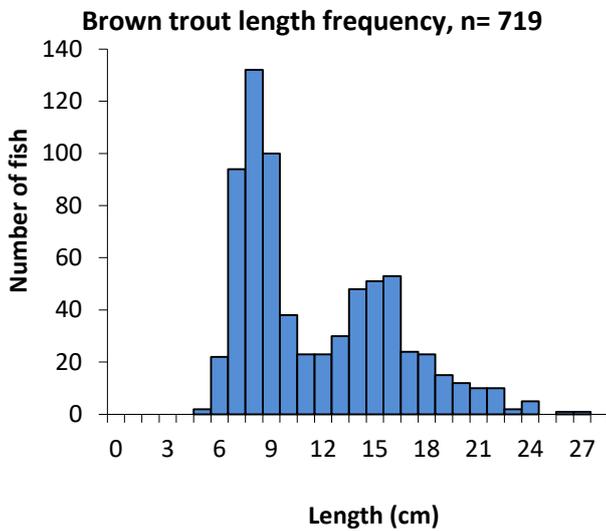
The Enniskean River at Castlelands, Co. Cork (site 23).



The Ballymahan River at Tullyglass North, Co. Cork (site 35).



Fish species composition (%) in the Bandon River catchment, September 2019



Fish ecological status, Bandon River catchment, September 2019

Site No.	2019	Site No.	2019
Upper catchment		Mid catchment	
1	Good	18	Good
2	Good	19	High
3	High	20	Poor
4	Good	21	Moderate
5	Good	22	Good
6	Moderate	23	High
7	Good	24	Good
8	Good	25	High
9	Moderate	Lower catchment	
10	Moderate	26	Good
11	Moderate	27	Good
12	Moderate	28	Moderate
13	High	29	Moderate
14	Poor	30	Moderate
15	Moderate	31	High
16	Poor	32	Moderate
17	Moderate	33	Good
		34	High
		35	Good
		36	High

Summary

Eight fish species were recorded at 36 sites surveyed on the Bandon River catchment in 2018. Brown trout was the most abundant species, present at 94% (34) sites surveyed. Salmon were the next most abundant fish species and were recorded at 64% (23) sites. Locations where salmon were absent were dispersed throughout the catchment and included sites 9, 11, 15, 16, 18, 20, 21, 22, 24, 29, 30, 32, 35.

Brown trout ranged in length from 5.3 to 27.5 cm, but were not recorded in sites 14 (Keelrotha River) and 16 (Bealanscartane River). Four age classes from 0+ to 3+ were recorded for trout. Salmon ranged in length from 4.5 to 14.5 cm and two age classes, 0+ and 1+, were recorded. Eel were recorded at 18 sites and lamprey spp. at one site (16). Pike were also recorded at one site (16). Other species recorded included stone loach, minnow and three-spined stickleback.

The highest densities of brown trout fry (0+) were recorded at sites 24, 35 and 22 (Derrymeeleen, Ballymahon and Enniskean rivers) respectively; while the highest densities of 1+ and older brown trout were observed at site 36 followed by site 27 (Brinny and Bridewell rivers respectively). Highest densities of salmon fry were recorded in the upper catchment at sites 10 and 13 (Coom and Brewery rivers). Salmon parr (1+ and older) density was relatively poor at many sites and they were absent at 61% (22) of sites surveyed and 39% of sites where fry were recorded.

Minnow and three-spined stickleback were the dominant species at sites 6 (Shehy Beg River) and 20 (Glasheenacauha River); while relatively high densities of these species were also observed at sites 7, 23 and 26 (Bandon River (at Farnanes bridge), Enniskean and Cashelmore Rivers). These species are more tolerant to pollution than salmon and trout and therefore, when dominant or present at a site in relatively high densities can be an indicator of poor water quality. A relatively high density of stone loach was observed at site 24 (Derrymeeleen) which may be an indication of organic pollution.

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 all sites surveyed in the Bandon River catchment during 2019. Assigned fish ecological status was as follows – High (22%), Good (36%), Moderate (33%) and Poor (11%). Sites reaching Good and High ecological status were observed throughout the catchment (e.g. Caha and Deragh rivers in the Upper catchment, the Ballynacarigga and Enniskean sites in the Mid catchment and the Sall river in the Lower catchment). The majority (89%) of sites surveyed in the Bealanascartane and Dirty/Brewery Rivers were assigned a fish ecological status of moderate or poor. Reasons for fish status failures were lower than expected densities of type specific indicator species (e.g. salmon or brown trout) or absence of certain age cohorts (e.g. fry and 1+ & older) which is indicative of recruitment failures. These recruitment failures were likely caused by pressures such as nutrient enrichment, fish passage issues and a fish kill that occurred on Curraghlickey lake and Bealanascartane River in late August/early September 2019..

Inland Fisheries Ireland: 3044 Lake Drive, Citywest Business Campus, Dublin, D24 Y265, Ireland

CITATION: O'Briain, R., Matson, R., Gordon, P., Lopez, S., Cierpal, D., Connor, L., Corcoran, W., Coyne, J., Gavin, A., McLoone, P., Twomey, C. and Kelly, F.L. (2019) Sampling Fish in Rivers 2019 – Bandon River Catchment, Factsheet No. 2019/03. National Research Survey Programme. Inland Fisheries Ireland

The report includes Ordnance Survey Ireland data reproduced under OSI Copyright Permit No. MP 007508. Unauthorised reproduction infringes Ordnance Survey Ireland and Government of Ireland copyright. © Ordnance Survey Ireland, 2019.



Inland Fisheries Ireland
Inland Fisheries Ireland