Fish in Rivers Factsheet

ERBD River Liffey catchment Factsheet: 2019/04

The River Liffey catchment is located within the Eastern River Basin District and covers an area of approximately 1,250 km². The river rises in the Liffey Head Bog, near Kippure in the Wicklow mountains and flows through the Sally Gap and into Poulaphouca reservoir in Co. Wicklow. It continues from there through counties Kildare and Dublin, before entering the sea in Dublin Bay. Its major tributaries include the Brittas, Camac, Dodder, Kings, Morrell, Poddle and the Rye Water rivers.

Catchment geology is mostly granite in its upper reaches, sandstone and shale in the middle reaches, and limestone in its lower reaches. The main land uses are peat bog and forestry in the upper catchment, agriculture in its middle reaches and urban as it flows through Dublin city.

Three hydroelectric power stations and associated dams and reservoirs were built on the River Liffey in the 1930/40's at Poulaphouca and Golden Falls, Co. Wicklow and Leixlip, Co. Kildare. The stations at Poulaphouca and Golden Falls were built on natural impassable waterfalls. Therefore salmon are limited to the main channel and tributaries below Golden Falls. The River Liffey also supplies much of Dublin City's drinking water.

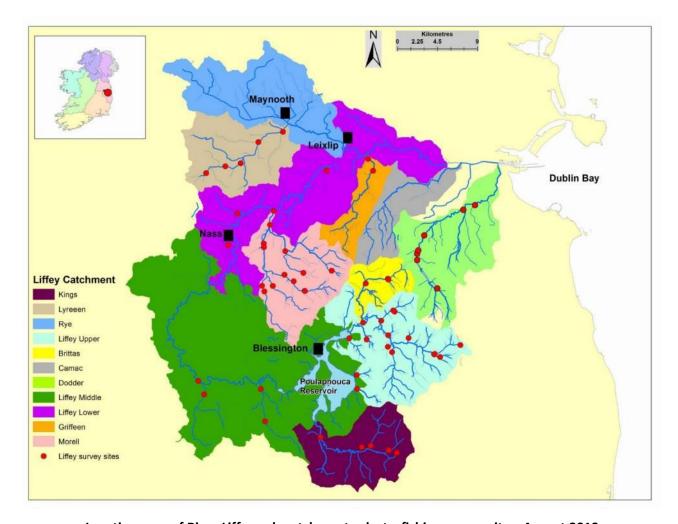
The river produces large trout in its middle and lower reaches.

60 sites were surveyed on the River Liffey catchment between the 13th and 23rd of August and 11th to 19th of September 2019 to assess the status of their fish stocks.



The King's River at Glashaboy Bridge, Co. Wicklow (site 1)



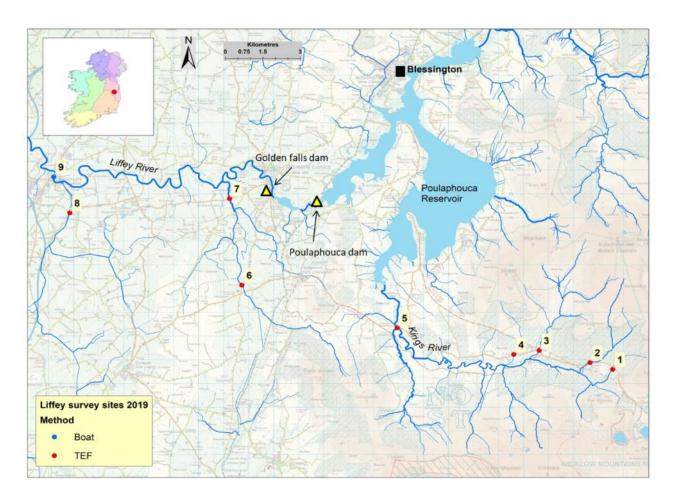


Location map of River Liffey sub-catchments electrofishing survey sites, August 2019



Toor Brook River at Lemonstown Bridge, Co. Wicklow (site 6)

River Liffey catchment (middle) (including King's River sub-catchment) (sites 1-9)



Location map of the King's River sub-catchment (sites 1-5) and River Liffey (middle) main channel and tributaries (sites 6-9) survey, August 2019

Site survey details, River Liffey catchment (middle) (including King's River sub-catchment) (sites 1-9), August 2019

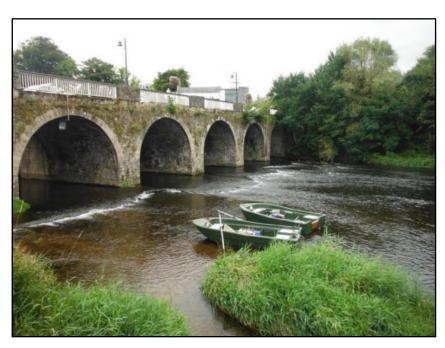
No.	River	Site	Method	WFD	Date					
	King's River sub-catchment									
1	Glashaboy River	Glashaboy Br.	TEF	-	23/08/2019					
2	Annalecka River	Annalecka Br.	TEF	-	23/08/2019					
3	Ballinagee River	Ballinagee Br.	TEF	-	23/08/2019					
4	Garryknock River	Garryknock Br.	TEF	-	20/08/2019					
5	Douglas River	Lockstown Confl.	TEF	-	20/08/2019					
		River Liffey catchment (mid	ddle)							
6	Toor Brook River	Lemonstown Br.	TEF	-	14/08/2019					
7	Toor Brook River	Ardinode East	TEF	-	14/08/2019					
8	Kilcullen stream	Milemill	TEF	-	15/08/2019					
9	Liffey River (main channel)	Kilcullen Br.	SP Boat	Yes	19/08/2019					
TEF (Ten-m	TEF (Ten-minute electrofishing), SP Boat (single pass area delimited boat electrofishing)									

Minimum density estimates (no. fish/m²), King's River sub-catchment (sites 1-5) August 2019

Site no.	1	2	3	4	5
Species	2019	2019	2019	2019	2019
Brown trout	0.059	-	0.008	0.168	0.214
0+ brown trout	0.000	-	0.008	0.032	0.078
1+ & older brown trout	0.059	-	0.000	0.136	0.136
All Fish	0.059	No fish	0.008	0.168	0.214

Minimum density estimates (no. fish/m²), River Liffey catchment (middle) (sites 6-9) August 2019

Site no.	6	7	8	9
Species	2019	2019	2019	2019
Brown trout	0.149	0.233	0.129	0.0048
0+ brown trout	0.022	0.217	0.078	0.0002
1+ & older brown trout	0.127	0.016	0.052	0.0046
Salmon	-	-	-	0.0005
0+ salmon	-	-	-	0.0002
1+ & older salmon	-	-	-	0.0003
European eel	-	-	-	0.0002
Gudgeon	-	-	-	0.0010
Minnow	-	-	-	0.0051
Perch	-	-	-	0.0002
Pike	-	-	-	0.0002
Three-spined stickleback	0.017	-	-	-
All Fish	0.166	0.233	0.129	0.0118



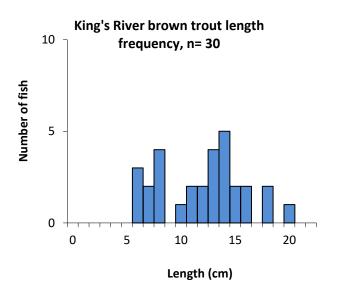
The River Liffey at Kilcullen Br., Co. Wicklow (site 9)

Salmonid % age class structure (where recorded), River Liffey catchment (middle) (including King's River subcatchment) (sites 1-9), August 2019

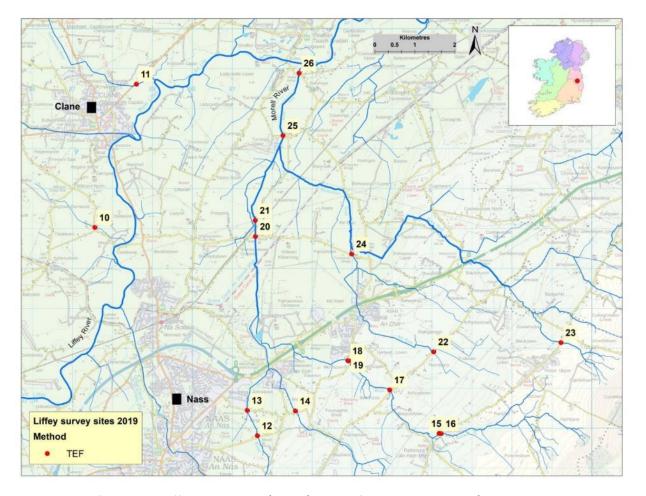
Species	City No.		% of catch							
Species	Site No.	0+	1+	2+	3+	4+				
	King's River sub-catchment									
Brown trout	1	-	100	-	-	-				
	3	100	-	-	-	-				
	4	20	80	-	-	-				
	5	38	38	25	-	-				
		River Liffey ca	tchment (middle))						
Brown trout	6	15	69	15	-	-				
	7	93	7	-	-	-				
	8	64	27	9	-	-				
	9	3	10	60	20	7				
Salmon	9	-	100	-	-	-				

Fish ecological status, River Liffey catchment (middle) (including King's River sub-catchment) (sites 6-9), August 2019

Site No.	2008	2013	2019						
King's River sub-catchment									
1	-	-	Poor						
2	-	-	Bad						
3	-	-	Poor						
4	-	-	Moderate						
5	-	-	Good						
River	Liffey catchn	nent (middle)							
6	-	-	Moderate						
7	-	-	Moderate						
8	-	-	Moderate						
9	Good	High	Good						



River Liffey catchment (lower) (including Morell River sub-catchment) (sites 10-26)



Location map of the River Liffey catchment (lower) electrofishing survey sites (including Morell River subcatchment) (sites 10-26), August 2019



The Hartwell River at Morristown, Co. Kildare (site 18)

Site survey details, River Liffey catchment (lower) (including Morell River sub-catchment) (sites 10-26), August 2019

No.	River	Site	Method	WFD	Date
10	Longtown River	Blundells Br.	TEF	-	14/08/2019
11	Gollymochy River	Loughbollard Commons	TEF	-	14/08/2019
		Morell River sub-catchment			
12	Morell River	Morell Br.	TEF	-	12/08/2019
13	Morell River	Kingsfurze	TEF	-	12/08/2019
14	Westown River	Westown	TEF	-	12/08/2019
15	Furryhill River	Gatehouse_A	TEF	-	12/08/2019
16	Furryhill River	Gatehouse_B	TEF	-	12/08/2019
17	Rathmore Stream	Burntfurze	TEF	-	15/08/2019
18	Rathmore Stream	Morristown_A	TEF	-	12/08/2019
19	Rathmore Stream	Morristown_B	TEF	-	15/08/2019
20	Morell River	Sherlockstown Common	TEF	-	13/08/2019
21	Morell River	Killeenmore SW	TEF	-	13/08/2019
22	Kill River	Thornberry	TEF	-	12/08/2019
23	Slane River	Kilteel	TEF	-	12/08/2019
24	Painestown River	Painestown Br.	TEF	-	13/08/2019
25	Morell River	Old Morell Br.	TEF	-	13/08/2019
26	Morell River	Ballyhays	TEF	-	13/08/2019
TEF (Ten-mi	nute electrofishing)				



The Morrell River at Old Morell Br., Co. Kildare (site 25)

Minimum density estimates (no. fish/m²) River Liffey catchment (lower) (sites10-26) (including Morell River subcatchment), August 2019

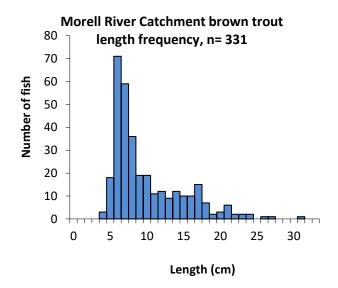
River Liffey tributaries (north of Naas)				Morell River sub-catchment			
Site no.	10	11	12	13	14	15	
Species	2019	2019	2019	2019	2019	2019	
Brown trout	0.028	0.076	0.721	0.609	0.045	0.01	
0+ brown trout	0.028	0.057	0.562	0.29	-	-	
1+ & older brown trout	-	0.019	0.159	0.319	0.045	0.01	
Lamprey sp.	-	0.066	-	-	0.011	-	
Minnow	-	0.665	-	-	-	-	
Pike	-	0.009	-	-	-	-	
Stone loach	-	0.085	-	-	-	-	
Three-spined stickleback	1.446	0.18	-	-	0.346	0.105	
All Fish	1.474	1.082	0.721	0.609	0.402	0.115	
	More	ll River sub-cato	hment				
Site no.	16	17	18	19	20	21	
Species	2019	2019	2019	2019	2019	2019	
Brown trout	-	0.345	0.346	0.92	0.378	0.85	
0+ brown trout	-	0.328	0.248	0.899	0.223	0.302	
1+ & older brown trout	-	0.017	0.098	0.021	0.155	0.548	
Lamprey sp.	-	-	-	-	0.012	-	
Minnow	-	-	-	-	0.037	0.537	
Three-spined stickleback	0.298	-	-		0.019	-	
All Fish	0.298	0.345	0.346	0.92	0.447	1.387	
	Morell River	sub-catchment					
Site no.	22	23	24	25	26		
Species	2019	2019	2019	2019	2019		
Brown trout	-	0.258	0.284	0.456	0.53		
0+ brown trout	-	0.258	0.284	0.321	0.091		
1+ & older brown trout	-	-	-	0.135	0.439		
Salmon	-	-	-	0.05	0.05		
0+ salmon	-	-	-	0.03	-		
1+ & older salmon	-	-	-	0.02	0.05		
European eel	-	-	-	-	0.083		
Lamprey sp.	-	-	0.025	-	-		
Minnow	-	-	0.037	0.361	0.696		
Stone loach	-	-	0.21	0.055	-		
Three-spined stickleback	0.725	0.327	0.037	0.015	-		
All Fish	0.725	0.586	0.592	0.937	1.359		

Brown trout % age class structure, River Liffey catchment (lower) (sites 10-26), August 2019

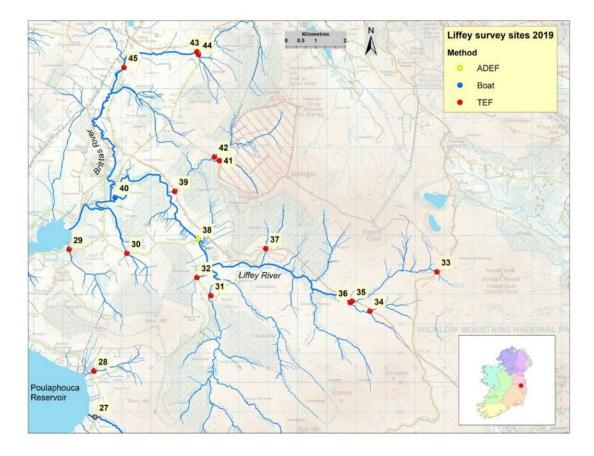
Species	Site No.	% of catch					
Species		0+	1+	2+	3+		
Riv	er Liffey cat	chment	(lower)				
Brown trout	10	100	-	-	-		
	11	75	25	-	-		
M	orell River	sub-catc	hment				
Brown trout	12	80	20	-	-		
	13	50	43	7	-		
	14	-	100	-	-		
	15	-	100	-	-		
	17	95	5	-	-		
	18	89	7	4	-		
	19	64	36	-	-		
	20	39	50	11	-		
	21	33	67	100	-		
	22	-	-	-	-		
	23	100	-	-	-		
	24	100	-	-	-		
	25	71	27	2	-		
	26	19	35	35	10		
Salmon	25	60	40	-	-		
	26	-	100	-	-		

Fish ecological status, River Liffey catchment (lower) (sites 10-26), August 2019

Site No.	2019					
River Liffey catchment (lower)						
10	Poor					
11	Moderate					
Morell River s	ub-catchment					
12	Moderate					
13	Moderate					
14	Poor					
15	Poor					
16	Poor					
17	Moderate					
18	Moderate					
19	Moderate					
20	Moderate					
21	Moderate					
22	Poor					
23	Moderate					
24	Moderate					
25	Good					
26	Good					



River Liffey catchment (upper) (including Brittas River sub-catchment) (sites 27-45)



Location map of electrofishing survey sites - River Liffey catchment (upper) (including Brittas River sub-catchment) (sites 27-45), August 2019.



The Brittas River close to Moanaspick Golf Course, Co. Wicklow (site 45)

Site survey details for the River Liffey catchment (upper) (including Brittas River sub-catchment) (sites 27-45), August 2019

No.	River	Site	Method	WFD	Date			
	River Liffey catchment (upper) east of Poulaphouca Reservoir							
27	Ballynastockan River	Kilmore	TEF	-	15/08/2019			
28	Sorrel River	u/s Templeboodin Br.	TEF	-	15/08/2019			
29	Woodend River	Woodend Br.	TEF	-	13/08/2019			
30	Ballyward River	Stoneyford Br.	TEF	-	22/08/2019			
31	Ballyconnell River	Ballylow Br.	TEF	-	23/08/2019			
32	Ballynatona River	Ballynatona	TEF	-	22/08/2019			
33	Liffey, River (main channel)	Liffey Head Br.	TEF	-	22/08/2019			
34	Sally Gap River	Sally Gap NW	TEF	-	20/08/2019			
35	Liffey, River (main channel)	Kippure South	TEF	-	20/08/2019			
36	Sally Gap River	Plantation East	TEF	-	20/08/2019			
37	Athdown River	u/s Kippure Br.	TEF	-	13/08/2019			
38	Liffey, River (main channel)	Ballysmuttan Br.	ADEF	-	20/08/2019			
39	Shankill River	Cloghleagh Br.	TEF	-	23/08/2019			
40	Liffey, River (main channel)	500 m d/s Ballyward Br.	SP Boat	-	19/08/2019			
41	Shankill River	d/s Kilbride rifle range	TEF	-	22/08/2019			
42	Shankill River	Shankill	TEF	-	22/08/2019			
Brittas Riv	er							
43	Brittas River	Br. just off R114	TEF	-	13/08/2019			
44	Aghfarrell River	Lower Aghfarrell	TEF	-	13/08/2019			
45	Brittas River	Moanaspick Golf Course	TEF	-	13/08/2019			
TEF (Ten-n	ninute electrofishing), ADEF (Area dela	imited electro-fishing), SP Boat (Sing	gle pass area	delimited b	oat electrofishing)			



River Liffey (main channel) at Kippure South, Co. Wicklow (site 35)

Minimum density estimates (no. fish/m²), River Liffey catchment (upper) (including Brittas River sub-catchment) (sites 27-45), August 2019

River Liffey catchment (upper)								
Site no.	27	28	29	30	31	32	33	
Species	2019	2019	2019	2019	2019	2019	2019	
Brown trout	0.14	0.199	-	0.35	0.016	0.16	-	
0+ brown trout	0.039	0.064	-	0.35	0.008	0.114	-	
1+ & older brown trout	0.101	0.135	-	-	0.008	0.046	-	
Minnow	-	-	0.04	-	-	-	-	
Pike	-	-	0.054	-	-	-	-	
Stone loach	-	0.016	0.128	-	-	-	-	
All Fish	0.14	0.215	0.223	0.35	0.016	0.16	no fish	
River Liffey catchment (upper)								
Site no.	34	35	36	37	38	39	40	
Species	2019	2019	2019	2019	2019	2019	2019	
Brown trout	0.258	0.094	0.011	0.053	0.034	0.266	0.0009	
0+ brown trout	0.043	0.023	-	0.006	0.019	0.055	-	
1+ & older brown trout	0.215	0.07	0.011	0.047	0.015	0.211	0.0009	
Minnow	-	-	-	-	0.009	-	0.0029	
Perch	-	-	-	-	-	-	0.0006	
All Fish	0.258	0.094	0.011	0.053	0.043	0.266	0.0043	
River Liffey catchment (upper)				Brittas River	•			
Site no.	41	42	43	44	45			
Species	2019	2019	2019	2019	2019			
Brown trout	0.212	0.184	0.281	0.426	0.29			
0+ Brown trout	0.147	0.146	0.222	0.426	0.148			
1+ & older Brown trout	0.065	0.038	0.059	-	0.142			
Three-spined stickleback	-	-	-	-	0.068			
All Fish	0.212	0.184	0.281	0.426	0.358			



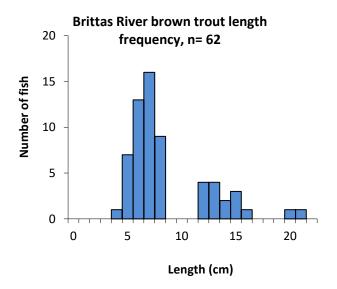
Shankill River at Shankill (site 42)

Salmonid % age class structure (where recorded), River Liffey (upper) (including Brittas River subcatchment) (sites 27-45), August 2019

Constant	C't- N-	% of catch				
Species	Site No.	0+	1+	2+	3+	
Rive	er Liffey catc	hment (upper)			
Brown trout	27	33	67	-	-	
	28	33	67	-	-	
	30	100	-	-	-	
	31	50	50	-	-	
	32	75	25	-	-	
	34	22	78	-	-	
	35	30	70	-	-	
	36	-	100	-	-	
	37	13	88	-	-	
	38	56	31	13	-	
	39	23	38	35	4	
	40	-	-	100	-	
	41	73	27	-	-	
	42	81	13	6	-	
Br	ittas River su	ıb-catch	ment			
Brown trout	43	79	16	5	-	
	44	100	-	-	-	
	45	54	38	8	-	

Fish ecological status River Liffey (upper) (including Brittas River sub-catchment) (sites 27-45), August 2019

Site No.	2011	2012	2013	2019
	River Liff	ey catchn	nent (up _l	oer)
27				Moderate
28				Moderate
29				Poor
30				Moderate
31				Moderate
32				Moderate
33				N/A
34				Good
35				Good
36				Poor
37				Poor
38				Moderate
39				Good
40		Good	Good	Good
41				Moderate
42				Good
Brittas River				
43	Good			Good
44				Moderate
45				Good



River Liffey catchment (lower) (sites 46-53)

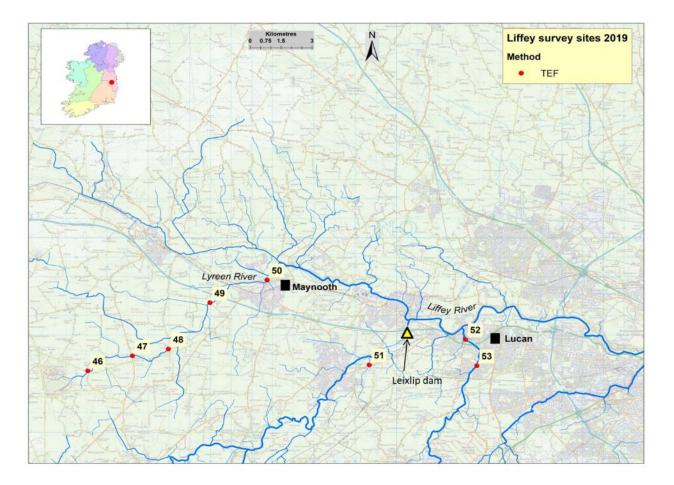


Fig 5. Location map of electrofishing survey sites on the River Liffey catchment (lower) (including Lyreen and Griffeen River sub-catchments) (sites 46-53), August 2019



The Lyreen River at Crinstown, Co. Kildare (site 49)

Site survey details of River Liffey catchment (lower) (including Lyreen and Griffeen River sub-catchments) (sites 46-53), August 2019

River		Site	Method	WFD	Date					
	Lyreen River sub-catchment									
46	Baltracey River	Telfers Br.	TEF	-	14/08/2019					
47	Baltracey River	Baltracey Br.	TEF	-	14/08/2019					
48	Baltracey River	Fraynes Br.	TEF	-	14/08/2019					
49	Lyreen River	Crinstown	TEF	-	15/08/2019					
50	Lyreen River	St Mary's Church	TEF	-	15/08/2019					
		Shinkeen Stream								
51	Shinkeen Stream	Shinkeen Br	TEF	ı	16/08/2019					
		Griffeen River								
52	Griffeen River	Vesey Park	TEF	-	16/08/2019					
53	53 Griffeen River Griffeen Avenue Br. Esker South (Park)		TEF	-	16/08/2019					
TEF (Ten-	minute electrofishing)									

Minimum density estimates (no. fish/m²), River Liffey catchment (lower) (including Lyreen and Griffeen River subcatchments), August 2019

Site no.	46	47	48	49	50	51	52	53
Species	2019	2019	2019	2019	2019	2019	2019	2019
Brown trout	0.032	0.076	0.018	0.048	0.115	0.070	0.158	0.040
0+ Brown trout	0.032	0.076	0.018	0.012	0.071	0.017	0.060	-
1+ & older Brown trout	-	-	-	0.036	0.044	0.052	0.098	0.040
European eel	-	-	-	-	-	-	0.023	0.047
Lamprey sp.	-	0.028	0.018	-	-	-	-	-
Minnow	0.443	0.161	0.755	-	0.298	-	-	-
Stone loach	-	-	-	-	0.008	-	-	-
Three-spined stickleback	3.530	1.054	2.230	-	0.048	-	0.023	0.080
All Fish	4.005	1.320	3.021	0.048	0.468	0.070	0.203	0.167

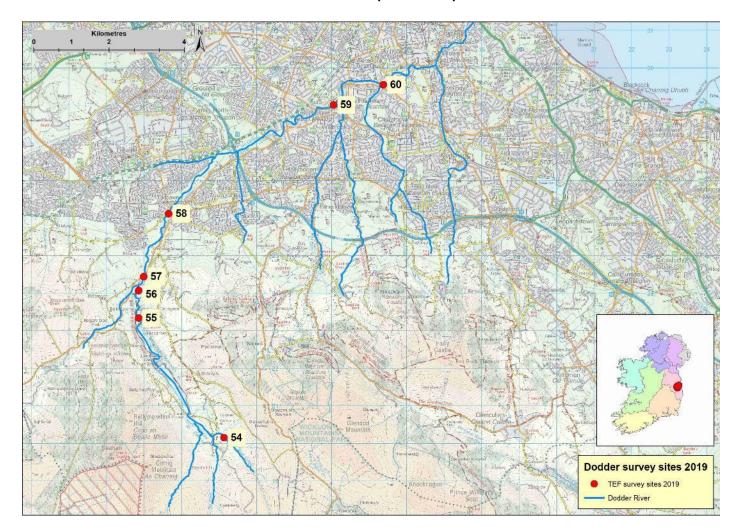
Brown trout % age class structure, River Liffey catchment (lower) (including Lyreen and Griffeen sub-catchments) (sites 46-53), August 2019

Species	Site No.	% of catch					
		0+	1+	2+			
Brown trout	46	100	-	-			
	47	100	-	-			
	48	100	-	-			
	49	25	-	75			
	50	64	29	7			
	51	25	25	50			
	52	40	60	-			
	53	-	67	33			

Fish ecological status , River Liffey catchment (lower) (including Lyreen and Griffeen River subcatchments), August 2019

Site No.	2011	2019
46		Poor
47		Poor
48	Moderate	Poor
49		Moderate
50		Poor
51		Moderate
52		Moderate
53	Moderate	Moderate

River Dodder (sites 54-60)



Location map of River Dodder catchment survey sites, September 2019

Site survey details, River Dodder, September 2019

No.	River	Site	Method	WFD	Date				
54	Dodder, River	Cunard	TEF (Handset)	-	19/09/2019				
55	Dodder, River	Ballinascorney Lower	TEF (Handset)	-	11/09/2019				
56	Dodder, River	Bohernabreena	TEF (Handset)	-	11/09/2019				
57	Dodder, River	Friarstown	TEF (Handset)	-	13/09/2019				
58	Dodder, River	Oldbawn	TEF (Handset)	-	11/09/2019				
59	Dodder, River	Bushy Park	TEF (Handset)	-	13/09/2019				
60	Dodder, River	Mount Carmel Hospital	TEF (Handset)	-	13/09/2019				
TEF (Ten-mi	TEF (Ten-minute electrofishing)								

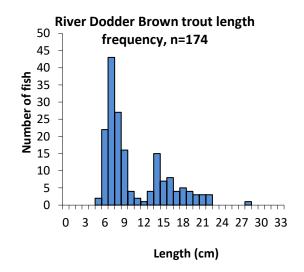
Minimum density estimates (no. fish/m²), River Dodder, September 2019 (previous results are shown where applicable)

Site no.	54	55	56			57		
Species	2019	2019	2017	2018	2019	2018	2019	
Brown trout	0.244	0.063	0.102	0.104	0.127	0.237	0.222	
0+ brown trout	0.094	0.037	0.028	0.032	0.049	0.024	0.150	
1+ & older brown trout	0.150	0.027	0.074	0.072	0.078	0.213	0.071	
Minnow	-	0.040	-	0.009	-	-	-	
Stone loach	-	-	-	0.005	-	-	-	
All Fish	0.244	0.103	0.102	0.117	0.127	0.237	0.222	

Site no.		58			5 9			60	
Species	2017	2018	2019	2016	2018	2019	2016	2018	2019
Brown trout	0.125	0.088	0.197	0.220	0.217	0.279	0.242	0.084	0.189
0+ brown trout	0.063	0.017	0.172	0.104	0.039	0.149	0.206	0.061	0.155
1+ & older brown trout	0.063	0.071	0.025	0.116	0.178	0.131	0.036	0.023	0.034
European eel	-	-	0.013	0.003	-	-	-	0.005	
Lamprey sp.	-	-	-	0.003	-	-	-		
Minnow	-	-	-	0.087	0.055	0.024	-	0.010	0.021
Roach		-	-	-	-	0.003	-		
Stone loach	0.023	0.013	0.025	0.017	0.116	0.033	-	0.015	
Three-spined stickleback	0.007	-	-	0.006	0.019	-	-		
All Fish	0.155	0.101	0.235	0.336	0.407	0.339	0.242	0.114	0.209

Brown trout age class structure, River Dodder, September 2019

Species	Cita Na	% of catch					
Species	Site No.	0+	1+	2+	3+		
Brown trout	54	44	19	31	6		
	55	56	33	11	-		
	56	40	40	20	-		
	57	69	21	3	7		
	58	88	8	4	-		
	59	54	28	17	-		
	60	83	14	3	-		



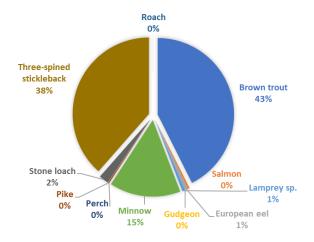
Fish ecological status, River Dodder catchment

Site No.	2011	2013	2014	2015	2016	2017	2018	2019
54	-	-	-	-	-	-	-	M
55	-	-	-	-	-	-	-	Р
56	G	M	M	M	M	M	M	M
57	-	-	-	-	-	-	M	M
58	-	M	M	M	M	M	Р	M
59	-	G	G	G	M	-	M	M
60	M	M	M	M	М	-	M	M

Summary

Eleven fish species were recorded at fifty eight sites surveyed on the River Liffey catchment in 2019. No fish were recorded at two sites. Brown trout was the most common fish species (present at 55 sites) followed by three-spined stickleback and minnow (18 and 17 sites respectively). Stoneloach was present at 8 sites; European eel was recorded at five sites and lamprey sp. at six sites Salmon were recorded at three survey sites (sites 9, 25 and 26). Pike were also recorded at three sites and perch were present at two sites. Roach and gudgeon were the rarest species, recorded at one site each.

Brown trout was the most abundant fish species recorded (43% of total population density), followed by three-spined stickleback (38%) and minnow (15%).



Fish species composition (% total density), River Liffey catchment, August and September 2019

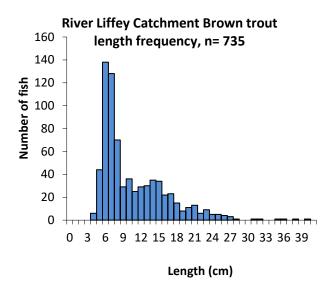
The highest densities of brown trout were recorded at sites 19, 21, 12 and 13 respectively, all located within the Morell River sub-catchment. The highest density of 0+ brown trout was also recorded at site 19 while the highest density of 1+ & older was found at site 21

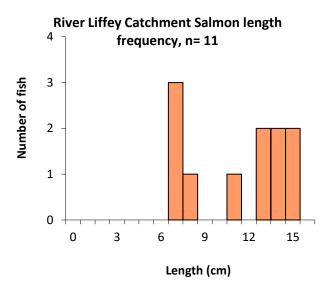
The highest densities of three-spined stickleback were recorded at sites 46, 48 and 10 (Baltracey and Longtown Rivers), while the highest densities of minnow and stoneloach were also observed at site 48. These species are more tolerant to pollution than salmon and trout and therefore, when dominant or present at a site in relatively high densities can be an indicator of poor water quaity. A relatively high density of stone loach was also observed at site 24 (Painestown

Bridge) which may be an indication of organic pollution.

Brown trout ranged in length from 4.1 to 40.9cm. Five age classes, 0+ to 4+, were present with 0+ being the most abundant cohort. The largest brown trout was captrued at Kilcullen Bridge on the River Liffey main channel.

Salmon ranged in length from 7.5 to 15.5cm. Two age classes for salmon, 0+ and 1+, were present.





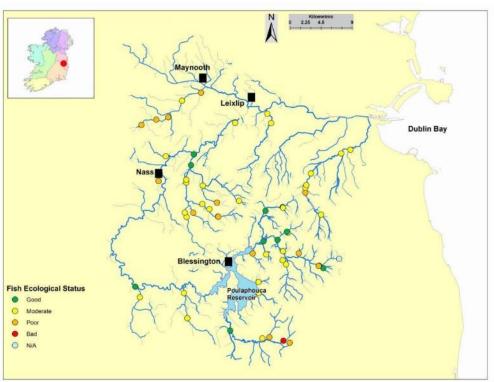
A Water Framework Directive fish classification tool (FCS2) was developed for Irish rivers in 2011. The tool works by comparing various fish community metric values within a site to those predicted for a site under un-impacted conditions. Fish ecological status was assigned to 59 of the 60 sites surveyed in the River

Liffey catchment during 2019. Eleven sites achieved Good fish status, with no sites achieving high status. The remaining sites were assigned a status of moderate (32 sites), poor (15 sites) and bad (one site). The main reason for the failures was the absence or lower than expected abundance of type specific indicator species (i.e. brown trout and salmon) or absence of certain age cohorts (e.g. 0+ and 1+ & older) which is indicative of recruitment failures at many sites.

The absence of salmon in many sites in the catchment downstream of Golden Falls and in the River Dodder has also contributed to the reduced ecological status. There are a number of artificial barriers in the River Dodder catchment which prevent or limit the migration of salmon to their spawning sites and this is reflected in their ongoing absence in fish stock surveys.

Elsewhere in the lower reaches of the River Liffey catchment and upstream of Golden Falls in the Upper catchment, sites not achieving good status were marked by absence or low abundance of brown trout at different life stages (fry, parr, adult) appropriate to the river size. 0+ brown trout were absent at six sites (1, 14, 15, 36, 40 and 53) and 1+ and older were not recorded at nine sites (3, 10, 23, 24, 30, 44, 46, 47, 48 and 44).

These failures in fish ecological status were likely caused by pressures such as nutrient enrichment, physical habitat degradation or a combination of both that affect salmonid recruitment



Summary map of fish ecological status in the River Liffey catchment, August and September 2019

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