

# Fish in Rivers Factsheet

SERBD

River Nore catchment

Factsheet: 2020/03

The River Nore catchment drains an area of 2,597km<sup>2</sup> and is approximately 134km in length from source to sea flowing through counties Tipperary, Laois and Kilkenny. The River Nore rises on the eastern side of the Borrisnoe Mountain, Co. Tipperary, where it runs northeast and past Borris-in-Ossory. It then flows southeast to Kilkenny, before joining the River Barrow just north of New Ross. It is joined by the River further downstream and all three rivers are collectively known as the “Three Sisters” and share a common estuary. The largest urban centre in the catchment is Kilkenny City; this is followed by Abbeyleix, Callan and Thomastown.

Geology within this catchment is mixed between limestone, sandstone, and shale

There are two Special Protected Areas (SPAs) in the River Nore catchment, the River Nore SPA and the Slieve Bloom Mountains SPA. There are also 11 Special Areas of Conservation (SACs) present.

The River Nore holds excellent stocks of brown trout throughout its length. There is also good salmon fishing on the river but is currently catch and release only.

Forty-two sites were surveyed in the River Nore catchment by electro-fishing (CEN 2003) from the 7th of July to 30th of September 2020. The survey method used was 10-minute timed electro-fishing (TEF). All fish count results were converted to Area Delineated Electro Fishing (ADEF) according to Matson *et al.* (2018).

This report summarises the results of a catchment-wide survey in selected sub-catchments of the River Nore Catchment in 2020. Fish ecological status is reported for each site.



**Little Arrigle River at Goat's Bridge (site 1) (achieved High fish ecological status 2020).**



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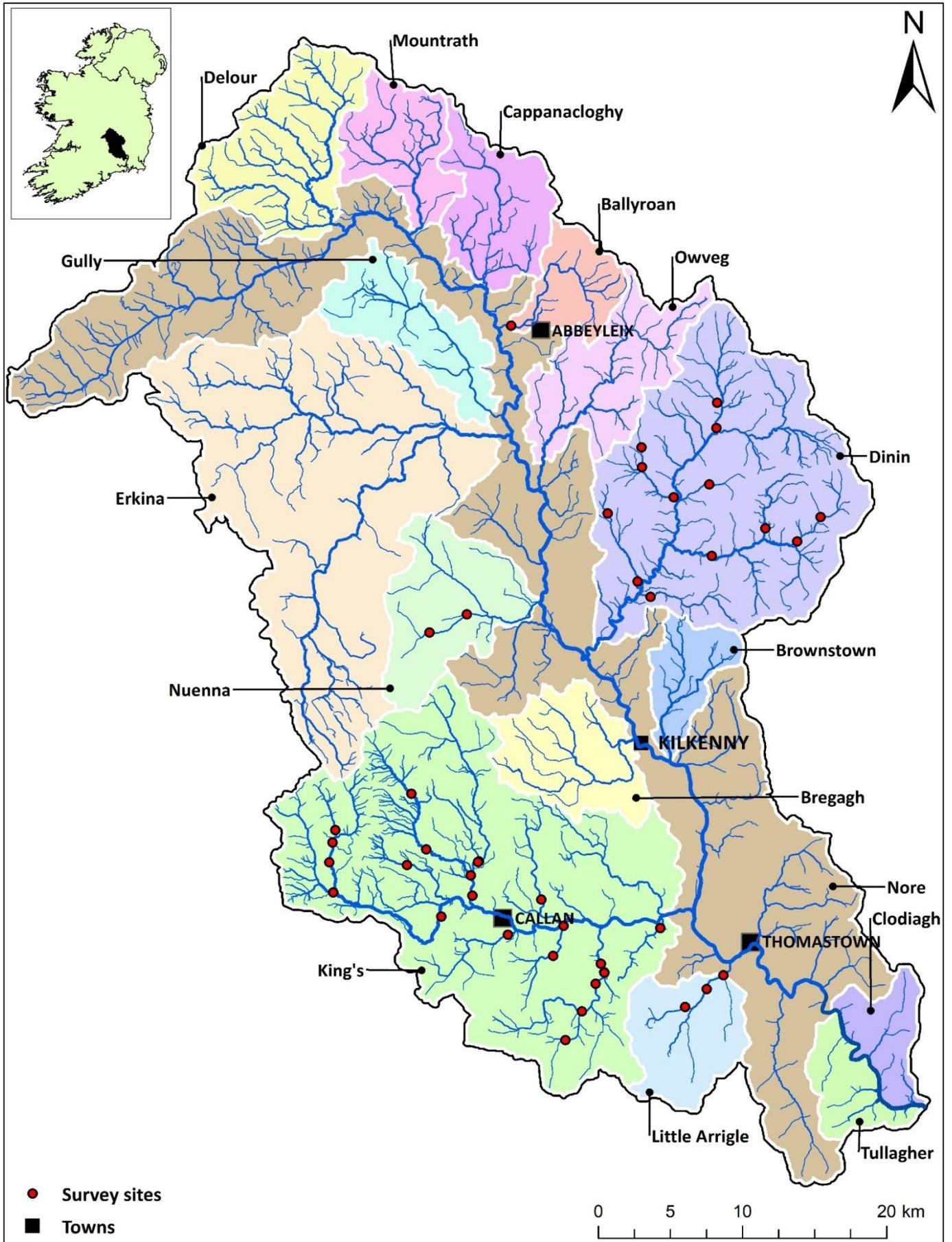


Figure 1. Nore sub-catchments and electrofishing survey sites, 2020.

## Little Arrigle and King's sub-catchment

A total of twenty six sites were surveyed in the Little Arrigle River (sites 1-3) and Kings River sub catchments (sites 4-26) in Co. Kilkenny during 2020 (Fig. 2 and Table 1).

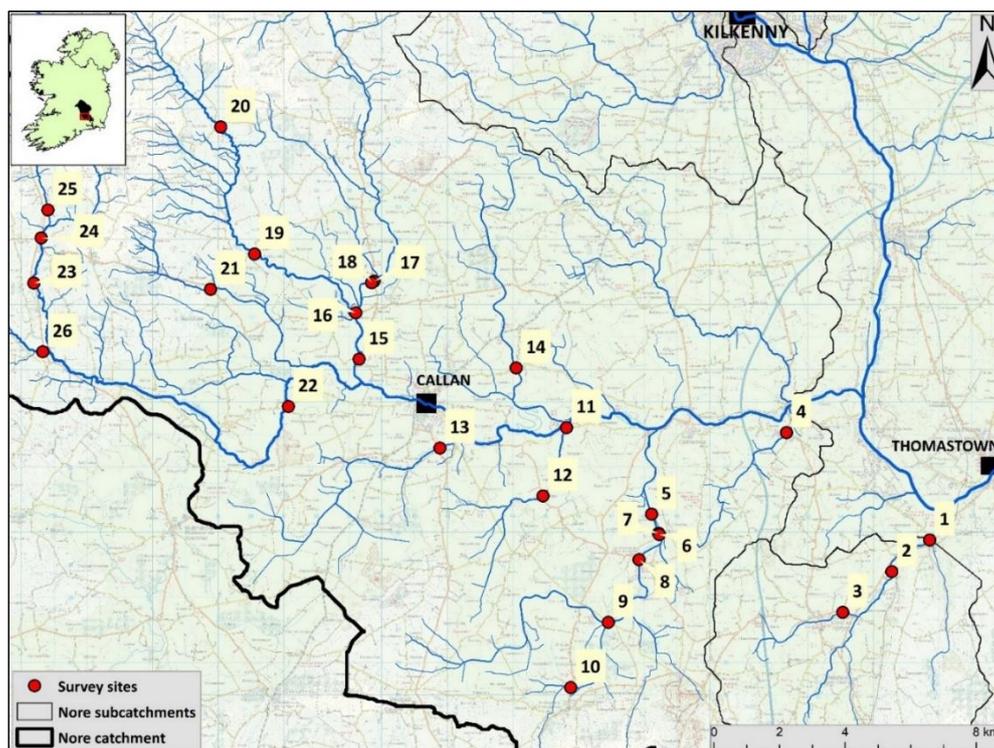


Fig. 2. Little Arrigle (sites 1-3), and King's (sites 4-26) sub-catchments, 2020.

Table 1. Site survey details for the Little Arrigle and King's sub-catchments, 2020.

No.	River	Site	WFD	Date
<b>Little Arrigle sub-catchment</b>				
1	Little Arrigle River	Goat's Br.	–	29/09/2020
2	Little Arrigle River	Ballylowra North	–	29/09/2020
3	Little Arrigle River	Knocktopher East	–	29/09/2020
<b>King's sub-catchment</b>				
4	Stoneyford River	Stoneyford Br.	–	30/09/2020
5	Glory River	Chapelizod Br. North	–	29/09/2020
6	Glory River	Br. E of Raheen_B	YES	22/09/2020
7	Glory River	Br. E of Raheen_A	–	07/07/2020
8	Glory River	Dunnamaggan	–	24/09/2020
9	Glory River	Rogerstown	–	29/09/2020
10	Glory River	Rossenarra	–	30/09/2020
11	Rathculbin River	Cormick Bend	–	22/09/2020
12	Rathculbin River	Caherlesk Br.	–	24/09/2020
13	Owbeg River	Drimeen	–	24/09/2020
14	Greatwood River	Corbally Northeast	–	30/09/2020
15	Munster River	Gortnacurragh	–	28/09/2020
16	Tullaroan River	Ballyclovan	–	28/09/2020
17	Tullaroan River	Bigmeadow	–	22/09/2020
18	Tullaroan River	Killaloe Br.	–	22/09/2020
19	Munster River	Cappagh Br.	–	29/09/2020
20	Munster River	Bolakeale	–	23/09/2020
21	Foilmarnell River	Ballintaggart	–	28/09/2020
22	King's River	Carbine Br.	–	22/09/2020
23	King's River	Garrynoe	–	23/09/2020
24	King's River	Copper East	–	23/09/2020
25	King's River	Clashduff	–	29/09/2020
26	Knocknahown River	Wilford's Br.	–	28/09/2020

Table 2. Minimum density estimates (no. fish/m<sup>2</sup>) for the Little Arrigle sub-catchment, 2020.

Little Arrigle sub-catchment			
Site no.	1	2	3
Species	2020	2020	2020
Brown trout	0.838	0.508	0.547
0+ brown trout	0.138	0.220	0.529
1+ & older brown trout	0.699	0.288	0.018
Salmon	0.111	0.052	0.036
0+ salmon	0.028	0.021	-
1+ & older salmon	0.076	0.031	0.036
European eel	0.021	0.052	-
Lamprey sp.	-	0.010	-
Minnow	0.035	-	-
Stone loach	-	-	-
Three-spined stickleback	-	-	-
<b>All Fish</b>	<b>1.004</b>	<b>0.623</b>	<b>0.582</b>

Table 3. Minimum density estimates (no. fish/m<sup>2</sup>) for the King's sub-catchments, 2020. Previous results are shown where applicable.

King's sub-catchment									
Site no.	4	5	6	7	8	9	10		
Species	2020	2020	2008	2020	2013	2020	2020	2020	2020
Brown trout	1.291	0.317	0.127	0.252	0.159	0.271	0.170	0.309	-
0+ brown trout	1.125	0.241	0.008	0.119	0.003	0.057	0.049	0.273	-
1+ & older brown trout	0.165	0.076	0.118	0.134	0.156	0.215	0.170	0.036	-
Salmon	-	0.036	0.020	0.104	0.003	0.090	0.097	-	0.028
0+ salmon	-	0.027	0.006	0.059	0.003	0.053	0.058	-	0.028
1+ & older salmon	-	0.009	0.014	0.045	-	0.038	0.039	-	-
European eel	0.045	-	0.003	-	0.006	0.011	-	-	-
Lamprey sp.	-	-	0.006	-	0.025	-	-	-	0.012
Minnow	0.075	-	-	-	-	-	-	-	-
Stone loach	-	0.009	-	-	0.006	-	0.01	-	-
Three-spined stickleback	0.54	-	-	-	0.047	-	-	0.145	0.106
<b>All Fish</b>	<b>1.951</b>	<b>0.361</b>	<b>0.155</b>	<b>0.356</b>	<b>0.247</b>	<b>0.373</b>	<b>0.277</b>	<b>0.455</b>	<b>0.790</b>

King's sub-catchment									
Site no.	11	12	13	14	15	16	17	18	
Species	2020	2020	2020	2020	2020	2020	2020	2016	2020
Brown trout	-	0.110	-	0.419	0.012	0.076	0.041	0.331	0.100
0+ brown trout	-	0.110	-	0.392	-	0.032	0.041	0.084	0.028
1+ & older brown trout	-	-	-	0.027	0.012	0.043	-	0.246	0.071
Salmon	0.028	-	-	-	0.047	0.032	0.021	0.182	0.047
0+ salmon	0.028	-	-	-	0.024	0.011	0.021	0.143	0.019
1+ & older salmon	-	-	-	-	0.024	0.022	-	-	0.028
European eel	-	-	-	-	-	-	-	-	-
Lamprey sp.	0.014	0.030	-	0.041	-	0.005	-	-	0.009
Minnow	-	-	0.013	-	0.437	0.054	0.642	0.019	0.076
Stone loach	0.028	-	0.013	-	0.035	0.011	0.026	-	0.043
Three-spined stickleback	0.517	0.641	0.661	0.298	0.183	0.135	1.585	0.182	0.796
<b>All Fish</b>	<b>0.587</b>	<b>0.781</b>	<b>0.687</b>	<b>0.758</b>	<b>0.715</b>	<b>0.314</b>	<b>2.316</b>	<b>0.713</b>	<b>0.796</b>

King's sub-catchment								
Site no.	19	20	21	22	23	24	25	26
Species	2020	2020	2020	2020	2020	2020	2020	2020
Brown trout	0.106	0.395	0.569	0.058	0.273	0.689	0.042	0.162
0+ brown trout	0.106	0.354	0.345	0.044	0.158	0.192	-	0.119
1+ & older brown trout	-	0.041	0.224	0.015	0.115	0.497	0.042	0.042
Salmon	0.137	0.068	-	0.058	0.061	0.017	-	0.028
0+ salmon	0.124	0.068	-	0.044	0.024	0.017	-	0.014
1+ & older salmon	0.012	-	-	0.015	0.036	-	-	0.014
European eel	-	-	-	-	-	-	-	-
Lamprey sp.	-	-	-	-	-	-	-	0.014
Minnnow	0.075	-	-	0.036	-	-	-	-
Stone loach	0.037	0.014	-	-	0.024	-	-	0.014
Three-spined stickleback	0.255	0.061	0.759	0.182	-	-	0.064	0.176
<b>All Fish</b>	<b>0.610</b>	<b>0.538</b>	<b>1.327</b>	<b>0.334</b>	<b>0.359</b>	<b>0.706</b>	<b>0.106</b>	<b>0.393</b>

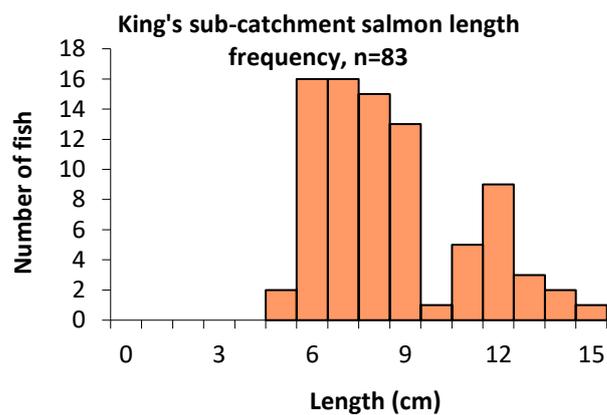
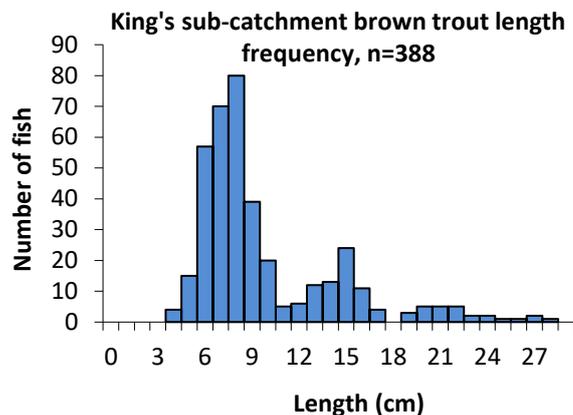
Table 4. Salmonid % age class structure (where recorded) for the Little Arrigle and King's sub-catchments, 2020

Site No.	Brown trout				
	% of catch				
	0+	1+	2+	3+	4+
Little Arrigle					
1	17	71	12	-	-
2	45	30	23	2	-
3	97	3	-	-	-
King's					
4	93	7	-	-	-
5	78	19	3	-	-
6	48	48	4	-	-
7	25	50	25	-	-
8	29	71	-	-	-
9	89	11	-	-	-
10	94	6	-	-	-
12	100	-	-	-	-
14	93	7	-	-	-
15	-	100	-	-	-
16	43	57	-	-	-
17	100	-	-	-	-
18	30	70	-	-	-
19	100	-	-	-	-
20	90	10	-	-	-
21	94	6	-	-	-
22	75	25	-	-	-
23	59	23	18	-	-
24	32	34	26	5	3
25	-	50	50	-	-
26	73	27	-	-	-

Site No.	Salmon				
	% of catch				
	0+	1+	2+	3+	4+
Little Arrigle					
1	25	75	-	-	-
2	40	60	-	-	-
3	-	100	-	-	-
King's					
5	75	25	-	-	-
6	57	43	-	-	-
7	58	42	-	-	-
8	60	40	-	-	-
11	100	-	-	-	-
15	50	50	-	-	-
16	33	67	-	-	-
17	100	-	-	-	-
18	40	60	-	-	-
19	91	9	-	-	-
20	100	-	-	-	-
22	75	25	-	-	-
23	40	60	-	-	-
24	100	-	-	-	-
26	50	50	-	-	-

**Table 5. Fish ecological status for the Little Arrigle and King’s sub-catchments, 2020. Previous results are shown where applicable.**

Site No.	2008	2013	2020
<b>Little Arrigle</b>			
1	-	-	H
2	-	-	H
3	-	-	G
<b>King's</b>			
4	-	-	M
5	-	-	G
6	M	-	G
7	M	G	G
8	-	-	G
9	-	-	G
10	-	-	G
11	-	-	M
12	-	-	Mo
13	-	-	P
14	-	-	M
15	-	-	M
16	-	-	M
17	-	-	P
18	-	-	M
19	-	-	M
20	-	-	G
21	-	-	G
22	-	-	M
23	-	-	G
24	-	-	G
25	-	-	P
26	-	-	M



**Little Arrigle River at Knocktopher East (site 3) (achieved Good fish ecological status in 2020).**



**Glory River, East of Raheen (SM - site 6) (achieved Good fish ecological status in 2020)**

## Nuenna, Dinin, and Ballyroan sub-catchments,

A total of sixteen sites were surveyed in the Nuenna (sites 27-28), Dinin (sites 29-41), and Ballyroan (site 42) sub-catchments of the River Nore during 2020 (Fig. 3 and Table 6).

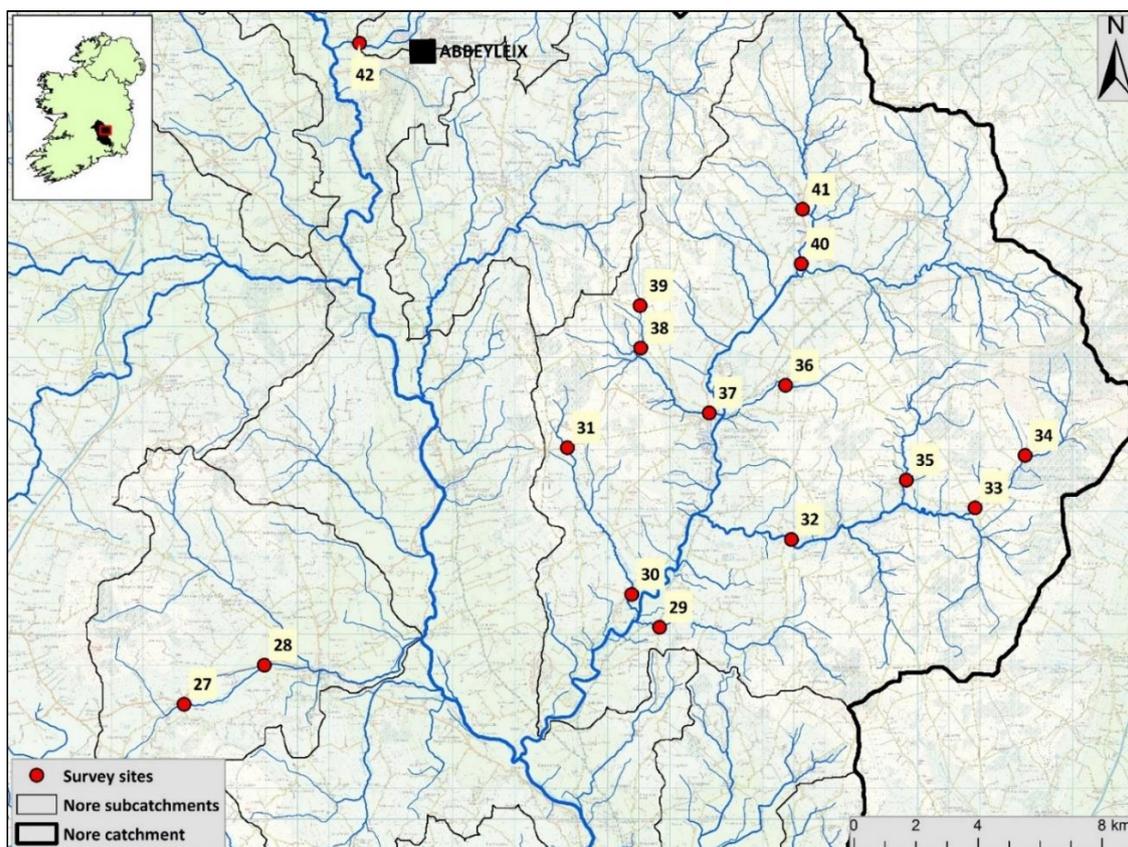


Fig. 3. Nuenna (sites 27-28), Dinin (sites 29-41), and Ballyroan (site 42) sub-catchments, 2020.

Table 6. Site survey details for the Nuenna, Dinin, and Ballyroan sub-catchments, 2020.

No.	River	Site	WFD	Date
<b>Nuenna sub-catchment</b>				
27	Nuenna River	Br. d/s Clomantagh	YES	20/07/2020
28	Nuenna River	Tobernapeastia	-	20/07/2020
<b>Dinin sub-catchment</b>				
29	Douglas River	Corbetstown	-	21/09/2020
30	Gloshia River	Kilcollan	-	21/09/2020
31	Gloshia River	East of Seven Crossroads	-	23/09/2020
32	Dinin River	Coolraheen North	-	21/09/2020
33	Dinin River	Black Br.	-	24/09/2020
34	Ardough River	U/s of Three Counties Br.	-	23/09/2020
35	Coan River	Burn's Br.	-	24/09/2020
36	Coolbaun River	Coolbaun	-	22/09/2020
37	Firoda River	North Br.	-	22/09/2020
38	Firoda River	North of Glenmagoo	-	23/09/2020
39	Firoda River	Skehana	-	22/09/2020
40	Clogh River	Clogh South	-	22/09/2020
41	Clogh River	Clogh North	-	23/09/2020
<b>Ballyroan sub-catchment</b>				
42	Ballyroan River	Gloreen Br.	YES	07/07/2020

**Table 7. Minimum density estimates (no. fish/m<sup>2</sup>) for the Nuenna, Dinin, and Ballyroan sub-catchments, 2020.**  
Previous results are shown where applicable.

Nuenna sub-catchment					Dinin sub-catchment				
Site no.	27			28	29		30	31	32
Species	2013	2017	2020	2020	2017	2020	2020	2020	2020
Brown trout	0.121	0.047	0.381	0.22	0.509	0.457	0.235	-	0.056
0+ brown trout	0.024	0.009	0.065	0.059	0.39	0.221	0.112	-	0.022
1+ & older brown trout	0.097	0.038	0.315	0.161	0.118	0.236	0.123	-	0.033
Salmon	-	-	-	-	0.167	0.315	0.129	-	0.323
0+ salmon	-	-	-	-	0.125	0.189	0.07	-	0.134
1+ & older salmon	-	-	-	-	0.042	0.126	0.059	-	0.189
European eel	-	-	-	-	0.021	0.024	-	0.082	-
Lamprey sp.	-	-	-	-	-	-	0.012	-	-
Minnow	-	-	-	-	-	-	0.047	-	0.323
Stone loach	-	-	-	-	0.063	-	0.023	0.049	0.022
Three-spined stickleback	-	-	-	-	-	0.126	-	-	-
<b>All Fish</b>	<b>0.121</b>	<b>0.047</b>	<b>0.381</b>	<b>0.22</b>	<b>0.759</b>	<b>0.922</b>	<b>0.446</b>	<b>0.13</b>	<b>0.724</b>

Dinin sub-catchment									
Site no.	33		34	35		36	37		38
Species	2017	2020	2020	2017	2020	2020	2017	2020	2020
Brown trout	0.395	0.094	0.501	-	-	-	0.200	0.058	0.113
0+ brown trout	0.337	0.033	0.209	-	-	-	0.139	0.039	0.064
1+ & older brown trout	0.058	0.062	0.292	-	-	-	0.060	0.019	0.048
Salmon	0.867	0.082	0.028	-	-	-	0.028	0.01	-
0+ salmon	0.848	0.082	-	-	-	-	0.019	-	-
1+ & older salmon	0.019	-	0.028	-	-	-	0.009	0.01	-
European eel	-	-	-	-	-	-	-	-	-
Lamprey sp.	-	-	-	-	-	-	-	-	-
Minnow	-	0.012	-	-	-	-	-	0.097	-
Stone loach	0.048	0.008	0.028	0.426	0.148	0.017	0.042	-	-
Three-spined stickleback	-	-	-	-	-	-	0.014	0.044	-
<b>All Fish</b>	<b>1.311</b>	<b>0.197</b>	<b>0.557</b>	<b>0.426</b>	<b>0.148</b>	<b>0.017</b>	<b>0.283</b>	<b>0.209</b>	<b>0.113</b>

Dinin sub-catchment				Ballyroan		
Site no.	39	40	41	42		
Species	2020	2020	2020	2013	2017	2020
Brown trout	0.123	0.018	-	0.257	0.071	0.202
0+ brown trout	0.041	-	-	-	0.005	-
1+ & older brown trout	0.082	0.018	-	0.257	0.066	0.202
Salmon	-	0.009	-	0.006	0.033	0.075
0+ salmon	-	0.009	-	-	0.033	0.045
1+ & older salmon	-	-	-	0.006	-	0.03
European eel	-	-	-	-	-	-
Lamprey sp.	-	0.009	-	0.018	0.005	-
Minnow	-	0.132	0.151	-	-	-
Stone loach	0.061	0.018	0.075	0.012	-	-
Three-spined stickleback	-	0.014	0.075	0.361	0.005	0.022
Pike	-	0.005	-	-	-	-
<b>All Fish</b>	<b>0.184</b>	<b>0.204</b>	<b>0.302</b>	<b>0.655</b>	<b>0.115</b>	<b>0.300</b>

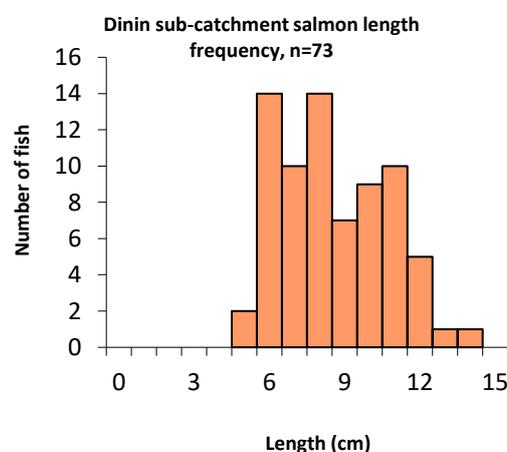
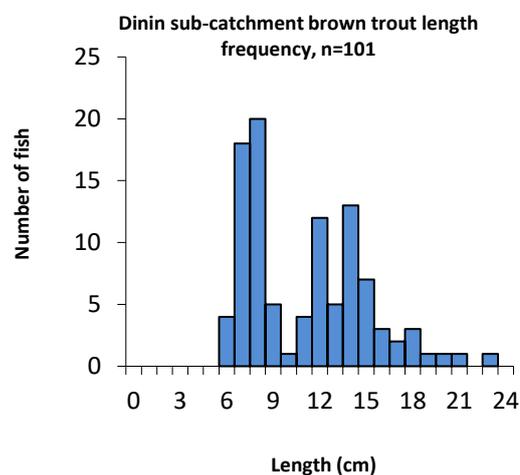
**Table 8. Salmonid % age class structure (where recorded) for the Nuenna, Dinin, and Ballyroan sub-catchments, 2020.**

Brown trout					
Site No.	% of catch				
	0+	1+	2+	3+	4+
<b>Nuenna</b>					
27	25	66	9	-	-
28	33	57	10	-	-
<b>Dinin</b>					
29	50	50	-	-	-
30	47	53	-	-	-
32	40	60	-	-	-
33	36	46	18	-	-
34	53	41	6	-	-
37	67	33	-	-	-
38	57	29	14	-	-
39	33	67	-	-	-
40	-	-	100	-	-
<b>Ballyroan</b>					
42	-	77	23	-	-

Salmon					
Site No.	% of catch				
	0+	1+	2+	3+	4+
<b>Dinin</b>					
29	55	45	-	-	-
30	55	45	-	-	-
32	41	59	-	-	-
33	100	-	-	-	-
34	-	100	-	-	-
37	-	100	-	-	-
40	100	-	-	-	-
<b>Ballyroan</b>					
42	60	40	-	-	-

**Table 9. Fish ecological status for the Nuenna, Dinin, and Ballyroan sub-catchments, 2020. Previous results are shown where applicable.**

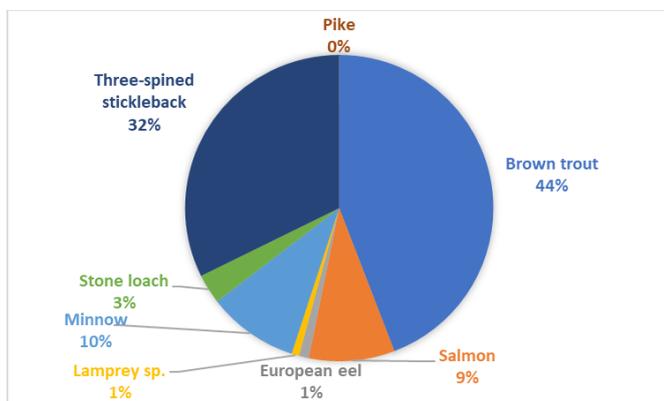
Site No.	2008	2011	2013	2017	2020
<b>Nuenna</b>					
27	M	G	M	M	M
28	-	-	-	-	M
<b>Dinin</b>					
29	-	-	-	H	H
30	-	-	-	-	G
31	-	-	-	-	P
32	-	-	-	-	G
33	-	-	-	H	M
34	-	-	-	-	G
35	-	-	-	-	P
36	-	-	-	-	P
37	-	-	-	G	M
38	-	-	-	-	M
39	-	-	-	-	M
40	-	-	-	-	P
41	-	-	-	-	P
<b>Ballyroan</b>					
42	-	-	M	M	M



## Summary

Eight fish species were recorded at 42 sites surveyed in the Nore catchment in 2020. Brown trout was the most common fish species at 35 sites (83%), followed by salmon at 27 survey sites (64%). This was followed by three-spined stickleback and stone loach at 22 sites each (52%). Minnow were recorded at 15 sites (36%), Lamprey sp. at 10 sites (24%) and European eel at six sites (14). Pike were recorded at one site (2%).

Brown trout was also the most abundant species representing 44% of the total fish density recorded at all sites. This was followed by three-spined stickleback (32%), minnow (10%) and salmon (9%).



### Fish species composition (% total density), River Nore catchment, 2020

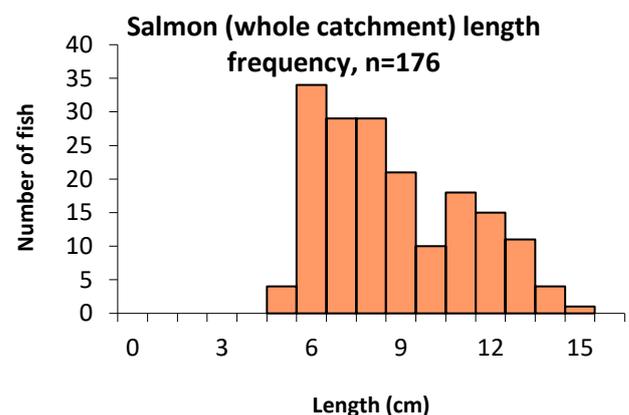
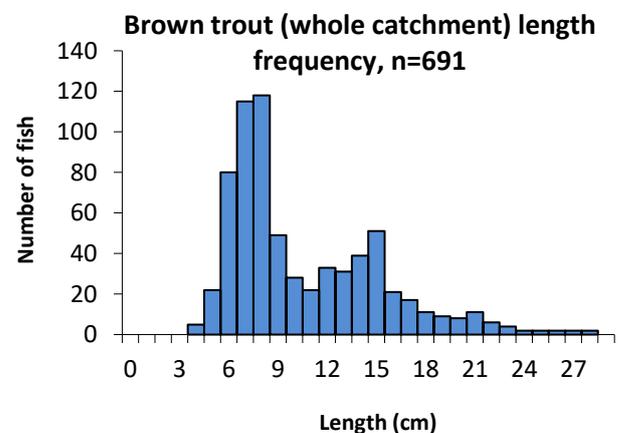
The highest total brown trout density was recorded at site 4 (1.291 fish/m<sup>2</sup>) on the Stoneyford River (King's sub-catchment). This was followed by site 1 (0.838 fish/m<sup>2</sup>) on the Little Arrigle River at Goatsbridge and site 24 (0.689 fish/m<sup>2</sup>) on the King's River at Clashduff. The highest density of 0+ brown trout was also observed at site 4 (1.125 fish/m<sup>2</sup>), followed by site 3 (0.529 fish/m<sup>2</sup>) on the Little Arrigle River at Knocktopher East and site 14 (0.392 fish/m<sup>2</sup>) on the Greatwood River (King's sub-catchment). The highest density of 1+ and older brown trout was recorded at site 1 (0.699 fish/m<sup>2</sup>) followed by site 24 (0.497 fish/m<sup>2</sup>) on the King's River at Copper East and site 27 (0.315 fish/m<sup>2</sup>) on the Nuenna River.

The highest total density of salmon was recorded at site 32 (0.323 fish/m<sup>2</sup>) on the Dinin River at Coolraheen North and 29 (0.315 fish/m<sup>2</sup>) on the Douglas River at Corbetstown. The highest density of 0+ salmon was also recorded at site 29 (0.189 fish/m<sup>2</sup>), followed by sites 32 (0.134 fish/m<sup>2</sup>) on the Dinin River at Coolraheen North and 19 (0.124 fish/m<sup>2</sup>) on the Munster River at Cappagh bridge. The highest density of 1+ and older salmon was observed at sites 32 (0.189 fish/m<sup>2</sup>), 29 (0.126 fish/m<sup>2</sup>) and 1 (0.076 fish/m<sup>2</sup>).

The highest density of three-spined stickleback was recorded at site 17 (1.585 fish/m<sup>2</sup>) on the Tullaroan River at Big Meadow. This was followed by site 18 (0.796 fish/m<sup>2</sup>) on the same river at Killaloe bridge, site 21 (0.759 fish/m<sup>2</sup>) on the Foilmarnell River at Ballintaggart, site 13 (0.661 fish/m<sup>2</sup>) on the Owbeg river at Drimeen and site 12 (0.641 fish/m<sup>2</sup>) on the Rathculbin River at Caherlesk Bridge. Relatively high densities of three-spines stickleback were also observed at site 4 (0.540 fish/m<sup>2</sup>) (Stoneyford River) and site 11 (0.517 fish/m<sup>2</sup>) on the Rathculbin River at Cormick Bend.

The highest densities of minnow were recorded at sites 17 (Tullaroan River at Big Meadow), 15 (Munster River at Gortnacuragh) and 32 (Dinin River at Coolraheen North). While the highest density of stone loach was observed at site 35 (Coan River at Burn's Bridge).

Brown trout ranged in length from 4.3cm to 28.3cm. Five age classes were present with 0+ and 1+ the most abundant cohort. The largest brown trout was recorded at site 24 on the Kings River. Salmon ranged in length from 5.4cm to 15.6cm. Two age classes (0+ and 1+) were present. Eel ranged in length from 13cm to 37cm and lamprey ranged in length from 4.8 to 16cm.



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 fish ecological status if all expected indicator species (e.g. both salmonid cohorts 0+ and 1+ and older) are present and have reached the expected abundance. Fish ecological status will normally deteriorate if such cohorts are missing, reach lower than expected abundance or if more tolerant fish species proliferate.

Fish ecological status was assigned to 42 sites surveyed in the River Nore catchment during 2020 (Fig. 4). Three (7%) sites achieved High status and 14 (33%) sites achieved Good fish status. The remaining sites (60%) were assigned a status of Moderate (17) and poor (8).

Seven sites were surveyed on at least one occasion previously. Of these, two sites (6 and 7 on the Glory River – King's sub-catchment) improved from moderate to Good status and two remained stable (site 29 (at High status – Douglas River at Corbetstown) and site 42 (at Moderate status – Ballyroan River). However two sites deteriorated, one from High to moderate (site 33 on the Dinin River at Black Bridge) and one from Good to Moderate (site 37 on the Firoda River at North Birdge). Both sites had missing age classes and lower than expected abundance of salmonids. Tolerant fish species were also dominant at site 37.

The reasons for the fish ecological status failures (less than good) at the remaining sites were due to lower-than-expected type specific indicator species (e.g. salmon and trout), absence of certain age cohort's indicative of a recruitment failure and/or the presence of tolerant fish species. Salmonids were absent at five sites, of which four were located in the Dinin sub-catchment, while tolerant species proliferated. These sites (13 (Owbeg River), 31 (Gloshia River), 35 (Coan River), 36 (Coolbaun River) and 41 (Clogh River)) achieved a fish ecological status of Poor. Three spined stickleback and other tolerant fish species (e.g. minnow and stone loach) dominated at an additional nine sites (15, 16, 17, 18, 19, 21, 22, 25 and 37) and most of these sites were assigned a moderate or poor status. These species are more tolerant to pollution than salmon or trout and therefore when dominant or present at a site in relatively high densities can be an indicator of poor water quality (Kelly *et al.*, 2007).

Failures in fish ecological status were likely caused by pressures such as nutrient enrichment, fish passage issues and habitat modification. Evidence of nutrient

enrichment, siltation and other pressures were noted during the surveys at numerous sites.



**Nuenna River at Bridge, downstream of Clomantagh (site 27) (achieved Moderate fish ecological status in 2020).**



**River Glory at Chapelizod Bridge (site 5) (achieved Good fish ecological status in 2020).**



**Clogh River at Clogh South (site 40) (achieved Poor fish ecological status in 2020).**

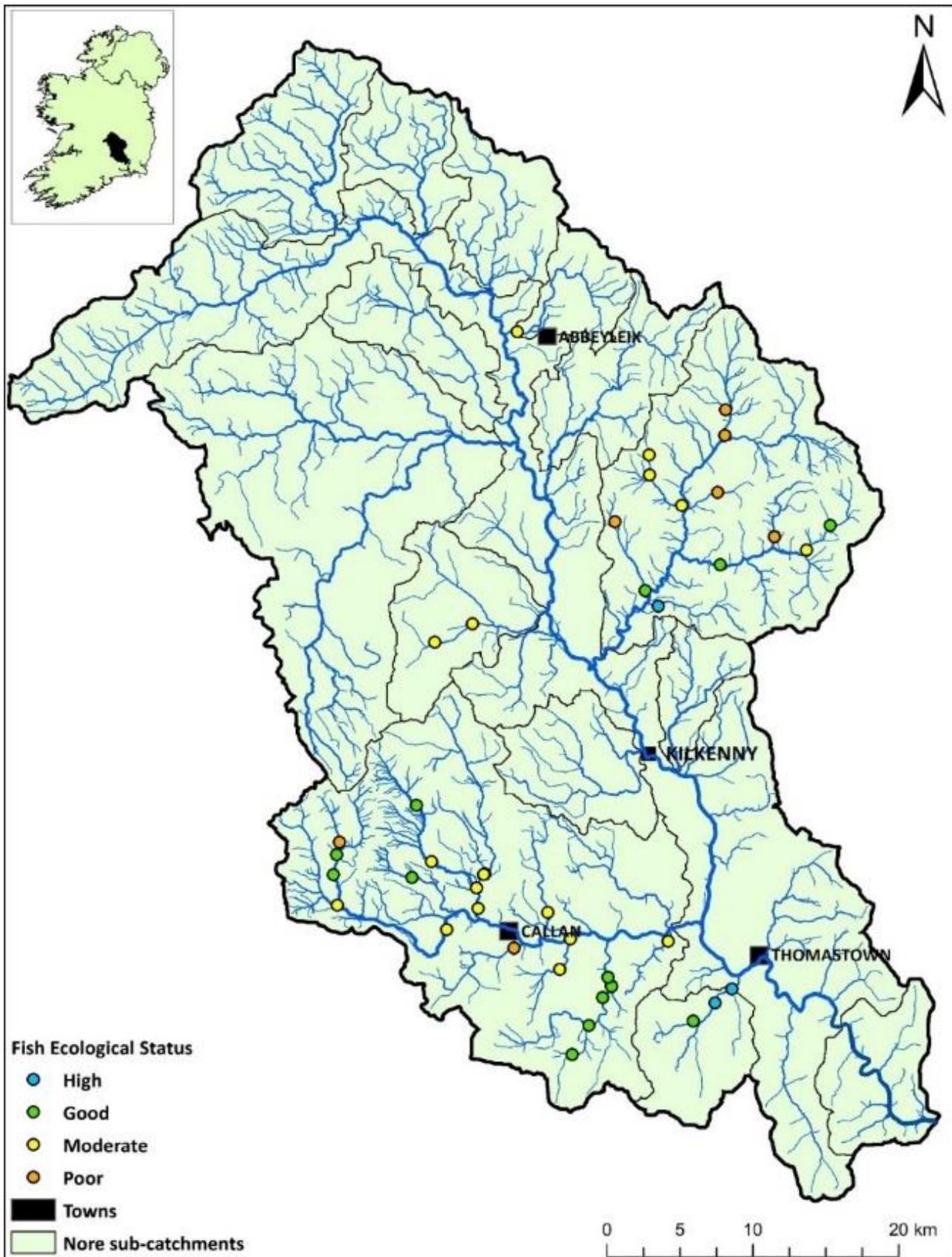


Fig. 4. Fish ecological status in selected sub-catchments of the River Nore catchment 2020.

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