

Fish in Rivers Factsheet

NWIRBD

Swanlinbar River Catchment

Factsheet: 2023/08

The Swanlinbar River rises in the Cuilcagh Mountains of northwest Co. Cavan. It flows north eastwards across the border into Co. Fermanagh and joins with Upper Lough Erne.

Inland Fisheries Ireland conducts annual nationwide fish sampling surveys to assess and report stocks in Ireland's rivers, lakes and transitional waters. This report presents the results of a catchment-wide survey of the Swanlinbar Catchment in 2023.

Thirteen sites were surveyed by electro-fishing (CEN 2003) on the Swanlinbar Catchment from the 4th to the 13th July 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).



The Swanlinbar River at Furnaceland, Co. Cavan (Site 3).



Iascach Intíre Éireann
Inland Fisheries Ireland

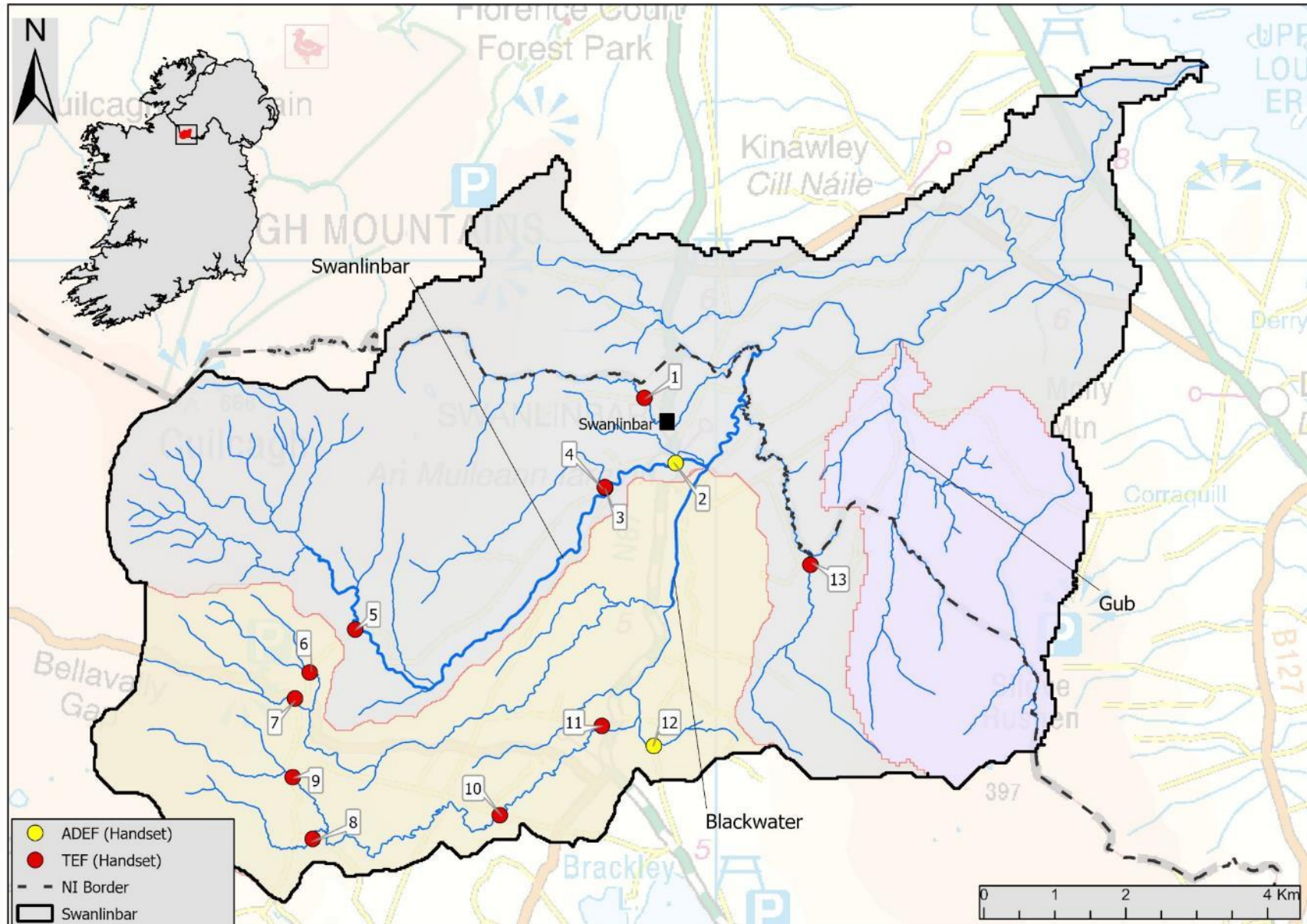


Figure 1. Location of electrofishing survey sites, Swanlinbar Catchment, July 2023.

Table 1. Site survey details, Swanlinbar River Catchment, July 2023.

No.	River	Site	Method	WFD	Date
Swanlinbar River Catchment					
1	Hawkswood	Corranearty	TEF (handset)	No	11/07/2023
2	Swanlinbar	Swanlinbar Bridge (Carpark)	ADEF (Handset)	Yes	04/07/2023
3	Swanlinbar	Furnaceland	TEF (handset)	No	11/07/2023
4	Alteen	Gorteennaglogh	TEF (handset)	No	11/07/2023
5	Claddagh	Tullydermot West	TEF (handset)	No	12/07/2023
6	Blackwater	Altbrean	TEF (handset)	No	12/07/2023
7	Legnadirk	Legnadirk	TEF (handset)	No	12/07/2023
8	Altateskin	Altateskin	TEF (handset)	No	12/07/2023
9	Owensallagh	Altachullion Upper	TEF (handset)	No	12/07/2023
10	Owensallagh	Corraclassy New Bridge	TEF (handset)	No	13/07/2023
11	Owensallagh	Drumcar East	TEF (handset)	No	13/07/2023
12	Gortmore	Derrynacreeve	ADEF (Handset)	No	13/07/2023
13	Gortacashel	Drumersee	TEF (handset)	No	13/07/2023



The Swanlinbar River at Legnadirk, Co. Cavan (Site 7).

Table 2. Minimum density estimates of fish (no. fish/m²), Swanlinbar catchment, July 2023 (previous results are shown where applicable).

Site no.	1	2			3	4	5	6
Species	2023	2011	2014	2023	2023	2023	2023	2023
Brown trout	0.054	0.145	0.104	0.117	0.05	0.161	0.025	-
0+ brown trout	0.054	0.041	0.013	0.064	0.027	0.127	0.008	-
1+ & older brown trout	-	0.104	0.092	0.053	0.023	0.034	0.016	-
Salmon	-	0.013	0.020	-	-	-	-	-
0+ salmon	-	0.010	0.000	-	-	-	-	-
1+ & older salmon	-	0.003	0.020	-	-	-	-	-
European eel	-	0.005	0.010	0.008	-	-	-	-
Lamprey spp.	-	-	0.003	0.003	-	-	-	-
Gudgeon	-	0.003	-	-	-	-	-	-
Perch	-	-	-	0.008	-	-	-	-
Three-spined stickleback	-	-	-	-	-	-	-	-
All fish	0.054	0.165	0.137	2.43	0.05	0.161	0.025	no fish
Site no.	7	8	9	10	11	12	13	
Species	2023	2023	2023	2023	2023	2023	2023	
Brown trout	0.191	0.428	0.169	0.341	0.21	0.046	0.339	
0+ brown trout	0.110	0.255	0.098	0.080	0.156	0.046	0.223	
1+ & older brown trout	0.080	0.173	0.071	0.261	0.054	-	0.115	
Salmon	-	-	-	-	-	-	-	
0+ salmon	-	-	-	-	-	-	-	
1+ & older salmon	-	-	-	-	-	-	-	
European eel	-	-	-	-	-	-	0.023	
Lamprey spp.	-	-	-	-	0.014	-	-	
Gudgeon	-	-	-	-	-	-	-	
Perch	-	-	-	-	-	-	-	
Three-spined stickleback	-	-	-	-	-	0.062	0.023	
All fish	0.191	0.428	0.169	0.341	0.223	0.108	0.385	

Note: Stocked salmon fry were recorded at site 4, these were excluded from the analysis.

Table 3. Salmonid age class structure Swanlinbar Catchment, July 2023.

Species	Site No.	% of catch		
		0+	1+	2+
Brown trout	1	100	-	-
	2	54	43	3
	3	57	43	-
	4	82	18	-
	5	33	67	-
	7	64	36	-
	8	67	33	-
	9	60	40	-
	10	29	61	10
	11	78	22	-
	12	100	-	-
	13	72	28	-

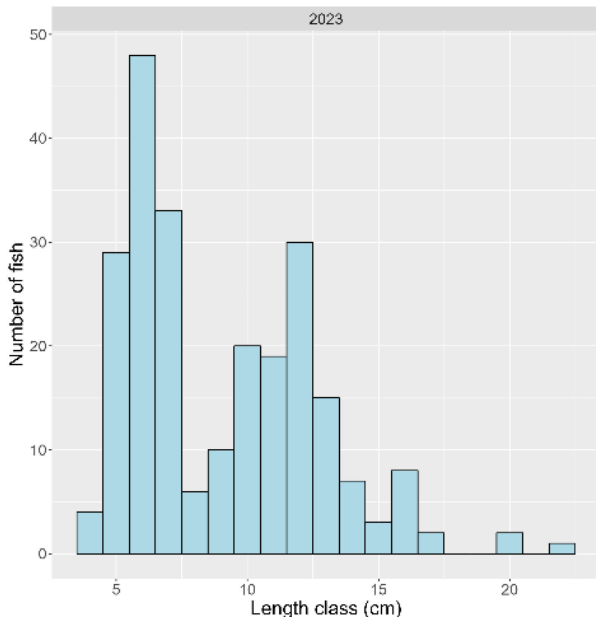


Figure 2. Length frequency distribution for brown trout (N=242) in the Swanlinbar Catchment, 2023 (No. sites=12).

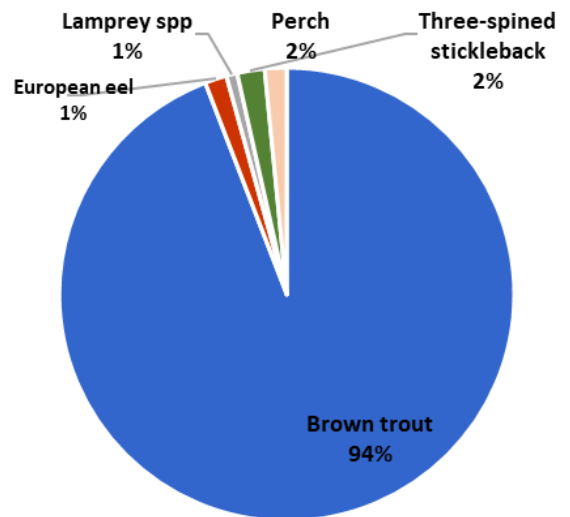


Figure 3. Fish species composition (%), Swanlinbar Catchment, 2023.

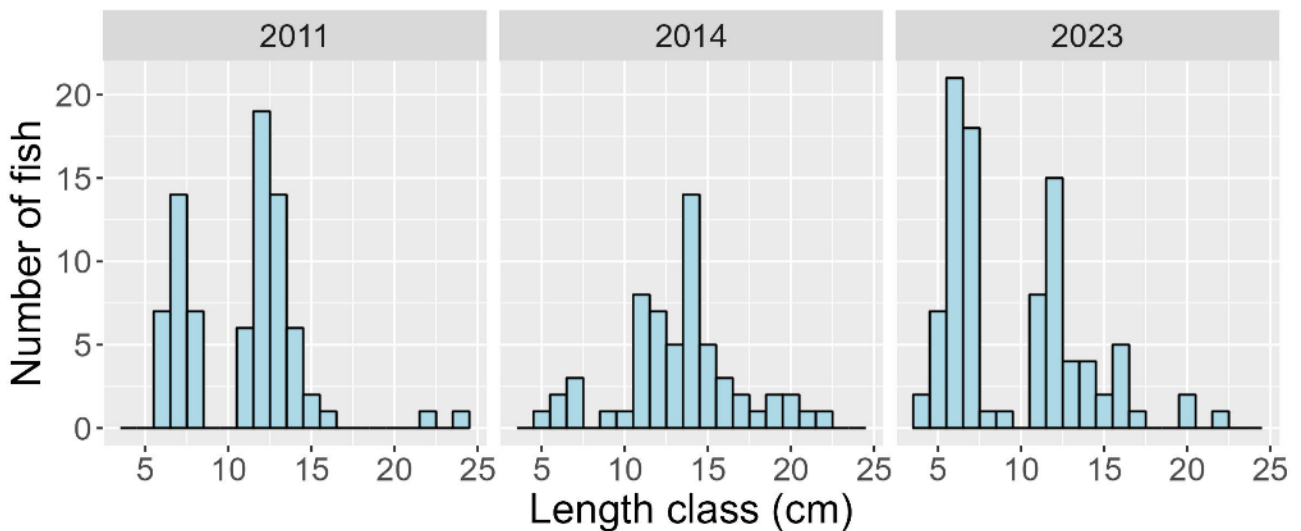


Figure 4. Length frequency distribution of brown trout (2011 N= 78; 2014 N=59; 2023 N=92) in the Swanlinbar Catchment at Site 2 (Swanlinbar Bridge), July 2023.



Alteen stream at Gorteenagloagh (Site 4)



Waterfall on the Claddagh River near Tullydermot West (u/s Site 5)

Table 4. Fish ecological status for the Swanlinbar Catchment, July 2023 (previous results are shown where applicable).

Site No.	2011	2014	2023
1	-	-	Poor
2	Good	Good	Moderate
3	-	-	Moderate
4	-	-	Moderate
5	-	-	Poor
6	-	-	N/A
7	-	-	Moderate
8	-	-	Good
9	-	-	Moderate
10	-	-	Moderate
11	-	-	Moderate
12	-	-	Moderate
13	-	-	Good



Altateskin stream (Site 8)

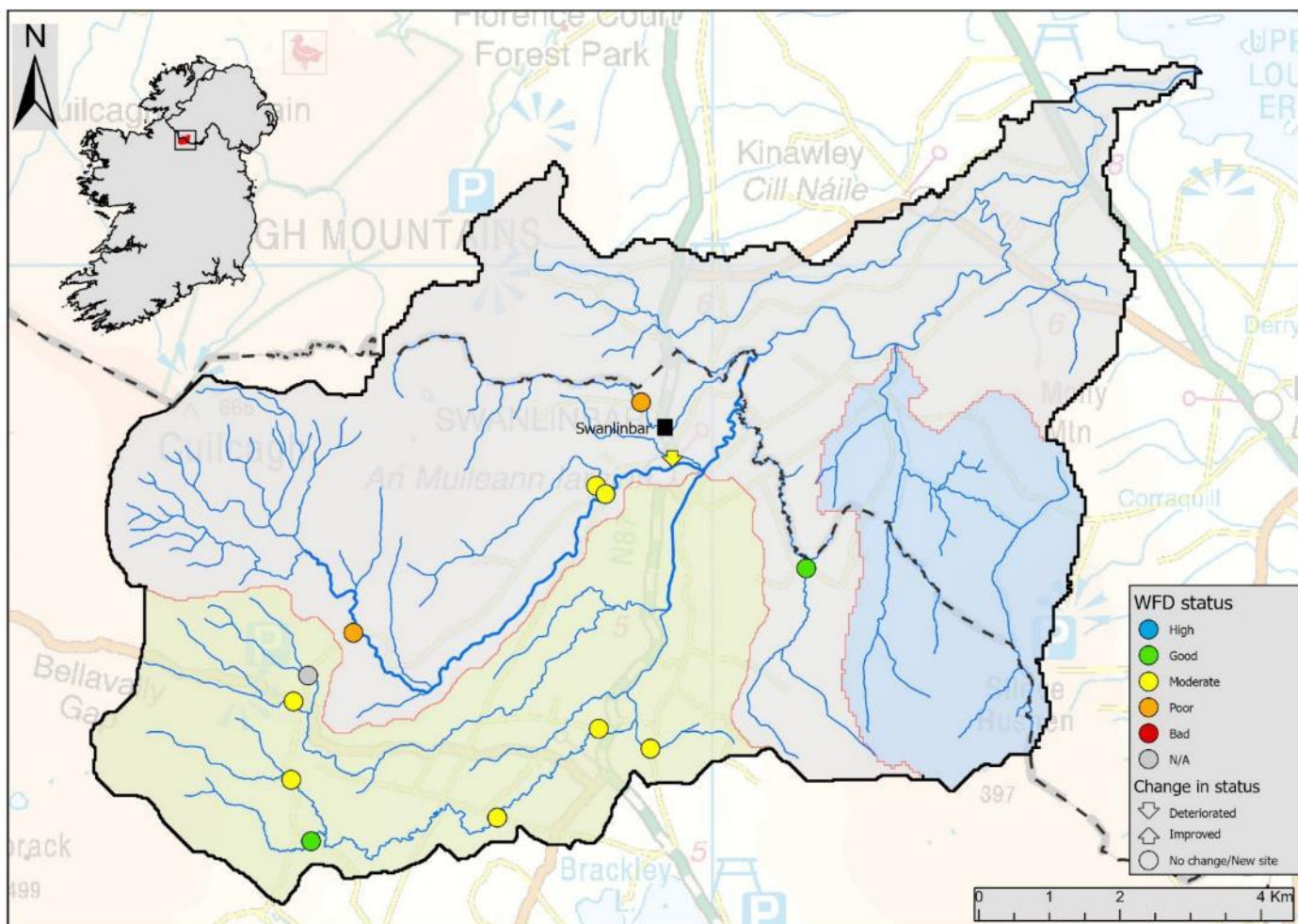


Figure 8. Fish ecological status in the Swanlinbar Catchment, 2023. Arrows indicate a change in status since previous surveys (where applicable).

Summary

A total of five fish species were recorded at thirteen sites electrofished on the Swanlinbar River Catchment in 2023.

Brown trout was the most common species present (twelve sites, 92%), followed by lamprey sp., three-spined stickleback and European eel (two sites each, 13%) and perch (one site, 8%).

Brown trout was also the most abundant species recorded, captured at 12 sites, followed by three-spined stickleback, perch, European eel, lamprey spp.

Brown trout ranged in length from 4.3 to 22.1cm. Three age classes were present (0+, 1+ and 2+), with 0+ being the most abundant cohort. The highest density of brown trout (all ages combined) (0.428 fish/m²) was recorded at Site 8 on the Altateskin River at Altateskin. The highest density of 0+ brown trout (0.255 fish/m²) was also recorded at Site 8 while the highest density of 1+ and older brown trout (0.261 fish/m²) was noted at Site 10 on the Owensallagh River at Corraclassy New Bridge. No salmon (except stocked salmon fry) were recorded at any site.

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 12 sites surveyed in the Swanlinbar catchment during 2023 (Table 4 and Figure 8). No sites achieved High status, while two sites were assigned Good, eight Moderate, and two Poor. Site 2 was surveyed previously; when compared to previous occasions it has deteriorated from Good to Moderate status.

The reasons for the failures (i.e. moderate and poor 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.

References

- CEN 2003 Water Quality Sampling of Fish with Electricity. CEN EN 14011:2000. Brussels. European Committee for Standardization.
- Matson, R., Delanty, K., Shephard, S., Coghlan, B. and Kelly, F. (2018). *Moving from multiple pass depletion to single pass timed electrofishing for fish community assessment in wadeable streams*. Fisheries Research, 198, 99-108.
- SNIFFER River Fish Classification Tool: Science Work. WFD68c, Phase 2. Final Report. Version 6. Edinburgh. Scotland and Northern Ireland Forum for Environmental Research.

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

CITATION: Matson, R., Gordon, P., Kelly, K., McCarthy, E., Corcoran, W., Hyland, J., Cornthwaite, Y. and Kelly, F.L. (2024) Sampling Fish in Rivers 2023 – Swanlinbar Catchment, Factsheet No. 2023/08. 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, 2024.