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# RECREATIONAL SALMON ANGLING LOGBOOK RETURNS

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# Recreational salmon angling logbook returns<sup>1</sup>

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## OVERVIEW

Recreational salmon anglers are required to maintain a logbook of their angling activity, including details about the fish they catch. Inland Fisheries Ireland (IFI) use information retrieved from angler logbooks to establish river-specific conservation harvest limits. This research uses the logbook data to compare the relative probability of catching a salmon across separate river systems and by different fishing methods.

While the most prolific salmon rivers include the Munster Blackwater and the river Moy in Co. Mayo, the river with the highest average catch per angler is the river Suir. For instance, the average season catch among district licence holders fly fishing on the river Suir is 5.7 salmon compared to an average of 2.3 salmon on the Blackwater. More anglers fish on the most prolific rivers, which are an important attraction for visiting anglers, whereas on other rivers a smaller number of anglers may fish more often over the course of the season.

Catch rates are the highest among anglers using shrimp as a bait, followed by fly-fishing, worms and spinners. During 2016 across all rivers, and fishing methods, the average catch was 1.4 salmon per angler but there is a substantial difference between specific rivers. On the river Drowes in Co. Leitrim the average catch per angler by flyfishing is 1 salmon, it is 2 salmon on the Ballysadare in Co. Sligo and 3.9 on the river Ilen in Co. Cork. Average catch per angler using a spinner as bait for the same rivers is 1.7 salmon on the river Drowes, 1.6 on the Ballysadare and 2.3 on the Ilen.

Not surprisingly the highest catches are amongst anglers with season-long licences. District licence holders have the highest catch rate at 1.7 salmon per season on average, whereas one-day licence holders have the lowest average catch rate, just 0.13 salmon per licensee. Based on average catch rates relative to the cost of salmon angling licences, district licence holders enjoy the best value for their licence fee with 1-day licence holders experiencing the least value for money.

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<sup>1</sup> This Bulletin summarizes the findings from: Grilli, G., Curtis, J., Hynes, S. "Using Angling Logbook Data to Inform Fishery Management Decisions", Journal for Nature Conservation, Vol. 61, <https://doi.org/10.106/j.jnc.2021.125987>

## **METHODS**

The research is based on anonymised salmon angling logbook returns for the 2016 season and covers a catch of 22,954 salmon caught by 4,662 anglers. The unit of analysis is the number of fish caught during the season per individual angler by single fishing method and in a specific river system (e.g. the seasonal catch by an angler fly-fishing on the river Liffey). The analysis includes salmon that were harvested, as well as catch-and-release fish. Using statistical methods, the analysis controls for anglers that did not catch any fish during the season (and did not return their logbook). The total angler-specific season catch across all rivers and fishing methods is used as a proxy for angler expertise and used as a weight in the analysis. The modelling calculates mean catch per season as a function of fishing methods, licence type, river system, and by angler origin.

## **POLICY IMPLICATIONS**

Information retrieved from angler logbooks is already being used to establish river-specific conservation limits, including catch-and-release only or closed fisheries. Regulations also set bag limits and prohibit specified fishing methods at certain times or locations. This research provides additional information useful for the regulation and management of fisheries, including informing decisions on the regulation of fishing methods, river-specific policies, licence types and costs. In particular, the regulation of angling methods within specific fisheries can be reviewed with the objective of controlling total catch and protecting stock sustainability.

Angling logbooks request information about anglers' total angling effort across the season but that information is poorly reported in the logbooks returned by anglers. Consequently, a shortcoming of the current research is a lack of information on angler effort. A key metric used in the management of many fisheries worldwide is catch per unit effort (CPUE). A recommendation for fisheries management is to collect better and more granular data on angling effort, which would enhance decision making around fishery management and sustainability.

An analysis of the expected value for money of licence types, which shows that the licence cost per average fish caught is highest for the 1-day licensee, suggests that a re-balancing of licence fees should be considered. Anglers that enjoy the greatest benefit pay the least in relative terms and those that fish least pay the most.

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