

PIKE STOCK MANAGEMENT IN DESIGNATED BROWN TROUT FISHERIES ANGLERS' PREFERENCES

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Pike stock management in designated brown trout fisheries: Anglers' preferences¹

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OVERVIEW

A policy review with respect to the active management of pike stocks within lakes that are designated as wild brown trout fisheries is currently underway. This paper examines trout and pike anglers' preferences for pike stock management. Pike stocks are controlled with the objective of protecting brown trout stocks, and a naive assumption is that trout anglers support and pike anglers oppose this management intervention. This research reveals that this is not the case and that angler preferences for pike stock control are complex and nuanced.

A majority of surveyed trout anglers, at 61%, revealed preferences opposing pike stock control, and all else equal, are more likely to choose fishing sites where pike stocks are not actively managed. The converse is that a substantial minority, 39%, of trout anglers are advocates of pike control, with about one-third of these being more extreme in their preferences. Not surprisingly, surveyed pike anglers do not support pike stock control measures, though the strength of their preferences varies across pike anglers. The research found that neither easily identifiable socio-demographic characteristics such as age and education, nor angler-type attributes such as fishing club membership and angler skill levels are associated with anglers' support or opposition to pike stock control. Consequently, we surmise that preferences on pike stock control are related to anglers' philosophical, ecological or political beliefs related to fishing or fishery management.

Some other significant results from the analysis relate to catch rates¹ and bag limits. Pike anglers are more responsive to catch rates than trout anglers. Pike anglers are 1.6 times more likely to visit a fishing site where the average catch rate is 1 fish higher compared to 1.1 times for trout anglers. At present there is a bag limit of 4 trout per day and the majority of trout anglers are not averse to a reduction in the

¹ This Bulletin summarises the findings from: Curtis, J., "Pike (*Esox lucius*) stock management in designated brown trout (*Salmo trutta*) fisheries: Anglers' preferences", *Fisheries Research* (2018) 207:37–48. Time limited open-access hyperlink <https://authors.elsevier.com/a/1XDfibiU1hQvz>. Permanent hyperlink (paywall): <https://doi.org/10.1016/j.fishres.2018.05.020>

daily bag limit. Only 1-in-8 trout anglers are opposed to reducing the daily bag limit.

BACKGROUND

This research, which was funded by Inland Fisheries Ireland, coincides with the 'National Policy Review – Management of Pike in Designated Wild Brown Trout Fisheries'. Inland Fisheries Ireland is leading the policy review and the review committee also comprises representatives from several recreational angling federations.

The research is based on a survey of trout and pike anglers. Instead of a simple poll about views on pike stock management, survey respondents were asked to express their preferences between multiple fishing scenarios, which, inter alia, incorporated different stock management options. Based on this data and using statistical methods we evaluate anglers' preferences and relative importance of different attributes of fishery management, including pike stock management.

IMPLICATIONS

Anglers' preferences for pike stock control, as well as other fishery management issues, are not homogeneous even within cohorts such as pike or trout anglers. In terms of advocacy, no single voice truly represents all anglers. In the context of pike stock management, campaigns supporting the continuation of pike stock control are not necessarily reflective of the majority of trout anglers.

The research considers only first order impacts with respect to pike stock management, i.e. the response of anglers to a change in policy. But a change in policy will have consequent impacts on the aquatic ecosystem. How anglers might respond to such changes, which are at present unknown, is not considered.

On the daily bag limit for trout, anglers' views are also quite diverse. A substantial majority are indifferent to the bag limit, whereas small minorities expressed preferences for an increased as well as a reduced bag limit. Any future policy changes in this area are likely to face a mixed reaction from anglers.

As one would expect anglers are responsive to catch rates but the research also suggests that anglers are willing to switch fishing locations in favour of higher catch rates, especially so in the case of pike anglers. Pike anglers are also very responsive to fish size and more likely to choose fishing locations with larger fish. Changes in pike stock management, and the consequent changes in pike stock composition, are likely to impact where pike anglers go fishing.

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