

Improving Management of Recreational Fisheries Data and Requirements for Monitoring Catch Shares

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DESCRIPTION

Recreational fisheries, which include fishing activities by noncommercial anglers for leisure, tourism, and sport, have become an increasingly important component of global fisheries management. In many regions, recreational fishing contributes significantly to the economy, particularly in coastal and freshwater communities, where it drives tourism and local businesses. However, despite its growing economic value, recreational fisheries have often been underrepresented in traditional management systems, which tend to focus on commercial fishing activities.

One of the critical advancements in fisheries management in recent years has been the adoption of catch shares-a system in which fishers are allocated a specific share of the Total Allowable Catch (TAC) for a particular species or fishing area. While catch shares have been effective in promoting sustainability and reducing overfishing in many commercial fisheries, they have raised questions about how to incorporate recreational fishing into the management framework. Given the significant role of recreational fisheries in the overall fishery system, there is a growing recognition that reliable data is essential for monitoring catch shares and ensuring fair and sustainable management.

This article explores the data requirements for monitoring recreational fisheries in the context of catch share systems, highlighting the challenges, methodologies, and best practices for obtaining the necessary data to support effective fisheries management.

Recreational fisheries and the need for accurate data

Recreational fishing represents a substantial portion of total fishing effort in many regions, especially in popular fishing destinations. However, unlike commercial fishing, where catch data is typically reported by fishers or fishing vessels, recreational fisheries often lack consistent and standardized data collection systems. The absence of comprehensive data from recreational fisheries can make it difficult to assess the total fishing pressure on a given stock, determine the sustainability of fish populations, and establish equitable catch limits.

In the context of catch shares, accurate and timely recreational fishing data becomes even more important. If recreational anglers are to be allocated a specific portion of the TAC, fishery managers must have reliable data on the number of anglers, the amount of fish caught, and the species targeted. Without this data, it is impossible to monitor whether recreational catch stays within its allocated share or if additional management interventions are needed.

Methods for collecting data on recreational fisheries

Effective data collection for recreational fisheries requires a combination of traditional and innovative methods, including:

Surveys and interviews: In-person or online surveys can collect catch, effort, and demographic data from anglers. Regular surveys are commonly used to track angler participation, fishing success, and behaviors.

Creel surveys: These in-person surveys, often conducted at fishing access points or boat ramps, gather detailed data on catch and effort in real-time. Creel surveys are particularly useful for estimating the harvest and release rates of specific fish species.

Smartphone apps and citizen science: Digital tools and mobile apps, such as FishBrain and iAngler, allow anglers to report their catches and fishing effort, providing real-time data collection opportunities. These platforms can also aggregate data from large numbers of users, providing valuable insights into recreational fishing patterns.

Electronic monitoring and tagging: Advances in electronic tagging, such as GPS and acoustic tags, allow scientists to track the movements and behaviors of individual fish, providing insights into fishing pressures, migration patterns, and stock health.

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Received: 28-May-2024, Manuscript No. FAJ-24-34975; **Editor assigned:** 29-May-2024, PreQC No. FAJ-24-34975 (PQ); **Reviewed:** 14-Jun-2024, QC No. FAJ-24-34975; **Revised:** 21-Jun-2024, Manuscript No. FAJ-24-34975 (R); **Published:** 28-Jun-2024, DOI: 10.35248/2150-3508.24.15.360

Citation: Jenkins E (2024). Improving Management of Recreational Fisheries Data and Requirements for Monitoring Catch Shares. Fish Aqua J. 15:360.

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CONCLUSION

The success of catch share systems depends on the ability to monitor all fishing activities, including those of recreational anglers. To ensure sustainability and fairness, fisheries managers need accurate, comprehensive, and timely data on catch, effort, release mortality, and angler demographics. Through innovative data collection methods, such as surveys, digital tools, and citizen science, fisheries scientists can bridge the gap in data for recreational fisheries, supporting effective catch share management. By improving data collection and fostering cooperation between stakeholders, fisheries managers can ensure that recreational fishing remains sustainable and wellregulated, contributing to the overall health of fish stocks and ecosystems.