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Science and Technology
Transition Plans for Modifications to Recreational Fishing Catch and Effort Survey Methods, NMFSPD 04-114

Guidance and Procedures for the Transition Process for Modification of Recreational Fishing Catch and Effort Methods

NOTICE: This publication is available at: http://www.nmfs.noaa.gov/op/pds/index.html

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SUMMARY:

The document specifies guidance and procedures for the transition process for modification of methods to estimate recreational fishing catch and effort that fall under the Marine Recreational Information Program to implement Policy Directive 04-114. It establishes and describes the role and responsibilities of the MRIP Transition Team, the general transition approach when new survey designs are implemented, and an example of a transition plan outline. It also describes the Terms of Reference for the Transition Team.

Signed _____
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Director, Office of Science and Technology

Introduction

The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) Marine Recreational Information Program (MRIP) recognized the need to appropriately transition from current to new recreational fishing surveys, in light of substantial design improvements. This procedures guidance implements Policy Directive 04-114, for transition to new recreational fishing catch and effort survey methods. The objective of the policy is to assure the comparability of long-term time series of recreational fishery catch and effort statistics as new, more statistically valid survey designs are implemented to replace legacy survey designs and the efficient integration of appropriately calibrated statistics into fishery science products and fishery management measures. Specifically, the PD 04-114 provides that a Transition Plan must be prepared for the implementation of any modifications of survey sampling or estimation methods that may result in consistently higher or lower statistical estimates of catch or effort. The MRIP Executive Steering Committee (ESC) established the MRIP Transition Team to develop and recommend standardized processes for transitioning from historical estimates to estimates derived from improved sampling and estimation designs. This procedure establishes and describes the role and responsibilities of the Transition Team and the general transition approach when new survey designs are implemented. An example transition plan outline is included to be used as a general guide for the Transition Team.

Transition Team Role and Responsibilities

The Transition Team is co-led by NOAA Fisheries Office of Science and Technology and Office of Sustainable Fisheries. The team comprises representatives from NOAA Fisheries, the regional fishery management councils, the interstate marine fisheries commissions, and several state agencies. In order for a new survey method to be implemented, historical catch statistics first need to be converted into the same 'currency' as the new estimates. The Transition Team develops and executes appropriate transition plans to ensure this happens. It is critical to establish processes that will enable scientists and fishery managers to make "apples to apples" comparisons between new and historical catch statistics, providing a framework that decision-makers can use for integrating new data into science and management activities at the regional and state level. The Transition Team plays an important role in coordinating consistent approaches and methods for councils, interstate commissions, and NOAA Fisheries Regions to apply to recreational catch estimates derived from new or improved survey designs for:

1. Determining the status of exploited stocks.
2. Setting annual catch limits.
3. Monitoring catch against catch limits.
4. Assessing the need for and selection of accountability measures.
5. Conducting analyses leading to the adoption of recreational fishing regulations.

General Transition Approach

The first step in the process is to develop a transition plan for the new design that describes the most appropriate processes for transitioning from historical estimates to estimates derived from improved sampling and estimation designs. Several steps must be taken before estimates based on any new design can be used effectively in the management process.

1. **Benchmarking:** The newly designed survey should be conducted side-by-side with the legacy survey to allow measurement and evaluation of consistent differences in the statistical estimates produced. During this benchmarking period, statistical estimates produced by the legacy design are still considered the "best available scientific information" for use in fishery stock assessments, establishing overfishing limits and annual catch limits (ACLs), monitoring catches relative to ACLs, and making management decisions.
2. **Calibration model development:** Differences between new design and legacy design estimates that are consistently unidirectional should be evaluated to determine possible sources of bias to explain those differences. In addition, literature research should be conducted to assess how biases identified in the legacy design would most likely have changed over time. Based on the information gained, one or more calibration models should be developed and evaluated for possible use in correcting past catch statistics. Alternative models should be considered and one should be selected and defended as the most appropriate, validated by an external peer review.
3. **Re-estimation of historical catch statistics:** Once a calibration model has been developed, independently reviewed, and approved, the model should be used to generate a corrected time series of recreational catch statistics that were generated by the legacy design. The revised time series should immediately be made available to stock assessment scientists and fishery managers.
4. **Incorporation of new estimates into stock assessments and economic analyses:** The revised catch statistics derived from the calibration model should be incorporated into stock assessments and economic analyses as soon as possible to provide the most accurate assessments of stock status, new ACLs for use in fisheries management, and update information relevant to sector allocations and economic impacts. Stocks with very substantial mortality levels due to recreational fishing (high proportion of total mortality relative to that caused by commercial fishing) should be identified as "key stocks" and prioritized for assessment scheduling. Depending on the magnitude of the estimation changes and potential disruption of the management process, assessments scheduled for key stocks may have to be moved to earlier dates while those scheduled for non-key stocks are moved to later dates.
5. **Incorporation of new estimates and ACLs into management actions:** As soon as catch statistics and new assessment results become available, management should begin to use both for decision making. If revised statistics are available but new assessments are not, then managers may need to continue using the statistics based on the legacy design until new assessment results are available. In years when the legacy design is no longer being conducted, the approved calibration model would be used to convert catch estimates based on the new design into estimates that are compatible with the legacy design for use in management.

An example of a plan outline is as follows:

I. Executive Summary
II. Introduction and Purpose
III. Description of Approach and Timeline
IV. Potential Stock Assessment Impacts and Schedule
V. Potential Management Impacts and Schedule

Attachments

Attachment A: Example Terms of Reference for the Marine Recreational Information Program (MRIP) Transition Team

National Oceanic and Atmospheric Administration
National Marine Fisheries Service (NOAA Fisheries)

Marine Recreational Information Program (MRIP) Transition Team

Terms of Reference
April 14, 2014

1. Develop and recommend a standardized process for transitioning from historical estimates to estimates derived from improved sampling and estimation designs. The recommended process will describe and provide consistent approaches and methods for Councils, Interstate Commissions, and NOAA Fisheries Regions to apply to recreational catch estimates derived from new or improved approaches for:

a) Setting annual catch limits;
b) Monitoring catch against catch limits;
c) Assessing the need for and selection of accountability measures; and
d) Conducting analyses leading to the adoption of recreational fishing regulations.

The process description should include flow diagrams and timelines for illustrative purposes.

2. Develop and recommend methods to be used to compare legacy estimates to estimates produced by using new or modified MRIP designs in a statistically robust manner.

3. Determine when calibration or other means of linking legacy data sets with MRIP-derived data sets are feasible and necessary, and identify the requirements and methods for making such linkages.

4. To minimize disruptions to stock assessments, catch monitoring, and management regulations, establish guidelines, in consultation with Regional Implementation Teams, to facilitate decisions on when and how implementation of changes to MRIP survey methods are introduced.

5. Report to the Executive Steering Committee (ESC) on the status of the transition and any impediments to progress, along with suggestions for overcoming the impediments, at least on an annual basis.

6. All recommendations will be submitted to the MRIP ESC for approval and conveyance to the NMFS Science Board and Regulatory Board.

In carrying out its work under these Terms of Reference, the Transition Team will consult with the MRIP Regional Implementation Teams and with the affected NOAA Fisheries Regional Offices and Fisheries Science Centers, the NOAA Fisheries Office of Sustainable Fisheries and Office of Science and Technology, and the States, Interstate Commissions, and Regional Fishery

Management Councils. The Transition Team may establish one or more Work Groups to develop proposed processes and analytical methods.