

## BAROTRAUMA DEVICE MORTALITY RATES

Rockfish that are brought up quickly from deeper depths suffer barotrauma caused by expansion of gasses, which may cause tissue damage and subsequent mortality. In June 2012, the Council discussed methods that can be employed to increase survival of rockfish released in recreational fisheries. The Council was briefed on improved survival of released rockfish by the use of descending devices that enable fish to be released at deeper depths. This allows recompression of expanded gasses that cause barotrauma in fish species that cannot quickly acclimate to the change in depth. Studies have shown there is both short and long-term survival of some of these fish when they are released at deeper depths using descending devices.

In April 2013, the Council adopted mortality rates for cowcod, canary rockfish, and yelloweye rockfish using descending devices; a decision informed by an analysis prepared by the Groundfish Management Team (GMT) (see [Agenda Item D.5.b, GMT Report, April 2013](#)). The Council adopted depth-based mortality rates when descending devices are used for these species based on the upper 90% confidence intervals (CIs) calculated in their report.

The GMT has provided a revised analysis of depth-based mortality rates using descending devices for these three species in Agenda Item D.3.b, GMT Report. They conferred with some members of the SSC on properly accounting for more of the uncertainty in calculating the CIs. They also provided alternative mortality rates for cowcod using the same methods presented in April 2013 with the addition of another year of research observations. Finally, they addressed the SSC concern that some of the mortality rates originally provided last year showed lower mortality rates associated with catch from deeper depths.

The Council task at this meeting is to consider adoption of new bycatch mortality rates associated with barotrauma reduction devices in recreational groundfish fisheries for cowcod, canary rockfish, and yelloweye rockfish. The Council should consider the advice of the SSC on the science that informs this issue and GMT, Groundfish Advisory Subpanel, and public advice on issues associated with refining recreational fishery discard mortality rates for these three species.

### **Council Action:**

- 1. Consider whether to adopt estimates and methods different than those adopted in April 2013.**
- 2. Confirm or alter the decision to utilize the 90% confidence interval estimates.**

Reference Materials:

1. Agenda Item D.3.b, GMT Report: Groundfish Management Team Report on Proposed Discard Mortality for Cowcod, Canary Rockfish, and Yelloweye Rockfish Released Using Descending Devices in the Recreational Fishery.

Agenda Order:

- a. Agenda Item Overview
  - b. Reports and Comments of Advisory Bodies and Management Entities
  - c. Public Comment
  - d. **Council Action:** Approve Bycatch Mortality Rates Associated with Barotrauma Reduction Devices in Groundfish Fisheries
- John DeVore

PFMC  
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