

PACIFIC HALIBUT STOCK ASSESSMENT

The International Pacific Halibut Commission (IPHC) introduced a modified approach to assessing the Pacific halibut stock at its 2007 Annual Meeting (Agenda Item H.3.a, Attachment 1). The closed-area assessments that have been standard for some years assume that the stock in each area is a closed population. There is now evidence of a continuing west-to-east migration of legal-sized fish that violates the assumption. While employing the same stock assessment model as had been used previously, the modified approach used the model to determine a single coastwide estimate of exploitable biomass, which does not require any assumptions about migration. This single coastwide estimate was then apportioned into IPHC regulatory area estimates using data from the fishery-independent IPHC setline stock assessment survey and estimates of bottom area from each regulatory area. The resultant allocation to Area 2A was a substantial reduction from recent years despite similar estimates of total abundance from the coastwide approach and from aggregating the closed-area assessments.

At the 2007 Annual Meeting, the IPHC Commissioners deferred adoption of the new approach until IPHC staff had conducted a workshop involving other stock assessment researchers and industry participants, to further explore the basis and implications of the new approach. The workshop was held June 27 and 28, 2007 in Seattle, and was well attended by staff from the various Area 2A agencies. At the workshop, presentations of the methodology used in the new coastwide assessment and abundance apportionment by catch area were made to a cross-section of attendees with science, policy, and industry backgrounds. Members of the Center for Independent Experts (CIE) were among the attendees, and they are reviewing the information presented, however their results are not yet available. The IPHC staff will also release a summary of the workshop, but not until after the September Council meeting.

The abundance index used to apportion the catch among areas was initially proposed to be average catch per unit of effort in the IPHC setline survey multiplied by bottom area less than 300 fathoms. Subsequent analysis indicated that adjustments may be appropriate for some areas due to survey depth distribution and hook competition factors in some areas, notably Area 2A (Agenda Items H.3.a, Attachments 2 and 3). The choice of an appropriate abundance index will likely have the greatest short term effect on Area 2A allocation if the coast-wide assessment methodology is adopted.

Council Action:

- 1. Discuss scientific basis for coastwide stock assessment and area apportionment.**
- 2. Develop recommendations for U.S. Commissioners on the IPHC for adoption of the proposed stock assessment and catch area apportionment methodology.**

Reference Materials:

1. Agenda Item H.3.a, Attachment 1; Summary of the 2006 stock assessment.
2. Agenda Item H.3.a, Attachment 2; Effect of station depth distribution on survey CPUE.
3. Agenda Item H.3.a, Attachment 3; Effect of hook competition on survey CPUE.

Agenda Order:

- a. Agenda Item Overview
- b. Reports and Comments of Advisory Bodies
- c. Public Comment
- d. **Council Action:** Recommendations to IPHC

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