

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON  
PACIFIC HALIBUT BYCATCH ESTIMATE FOR INTERNATIONAL PACIFIC HALIBUT  
COMMISSION (IPHC) ADOPTION

The Scientific and Statistical Committee (SSC) received a presentation by Dr. Jim Hastie and Mr. John Wallace (NWFSC), the authors of Agenda Item E.1.b, Supplemental NMFS Report, "Pacific halibut bycatch in IPHC Area 2A in the 2007 Groundfish Trawl Fishery."

The methodology for estimating annual total bycatch mortality of halibut has been reviewed on several occasions by the SSC. In this standard approach the West Coast Groundfish Observer Program (WCGOP) data on halibut bycatch rates (weight per hour of trawling) are coupled with corresponding information on hours of trawl effort to estimate to the total catch weight of halibut each year. The observer bycatch rates and logbook effort are stratified by season, depth, latitude, and arrowtooth flounder catch rate. In past years the mortality for trawl-caught halibut was estimated by applying a fixed 50 percent mortality rate. This year an additional set of catch mortality values was estimated based on WCGOP data on the "viability" of halibut using criteria developed by the International Pacific Halibut Commission. Since 2004 west coast observers have recorded three viability categories (dead, poor, excellent) for some of the individual observed halibut. The viability data are only available for a limited number of individual fish. These data were stratified by depth and year but pooled over the other factors used to stratify the halibut bycatch rate and logbook effort data (season, latitude, and arrowtooth flounder catch rates).

For 2006 the estimate of total mortality of exploitable halibut by the groundfish trawl fishery from the viability observations (345,648 lb) was very similar to the estimate from the fixed 50 percent west coast mortality rate (333,391 lb). For 2007, however, the estimate of exploitable halibut mortality from the viability observations (257,338 lb) was much greater than the estimate based on the fixed 50 percent mortality rate (175,133 lb). Although the 2007 groundfish trawl fishery generally fished in deeper waters with lower catch rates of halibut, the mortality rates for these halibut partially offset the reduced catch rates.

The SSC endorses using the observer viability data as a refinement that will produce better estimates of halibut bycatch mortality. For the estimates next year there should be further exploration of other stratification schema on the estimates of viability. For example, pooling the data across years might produce more stable estimates of the halibut mortality rate.

The SSC also recommends exploring the use of halibut viability data from observed longline fishing trips to derive estimates of halibut mortality by the west coast longline fishery. Currently the estimates for this fishery are based on a fixed 25 percent mortality rate, which appears to be high relative to mortality rates in North Pacific longline fisheries.