

News Release



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International Pacific Halibut Commission Staff Preliminary Catch Limit Recommendations: 2007

Assessment of the status and available yield from stocks of Pacific halibut is conducted annually during the fall and considers the results of stock assessment surveys, commercial fisheries and biological studies conducted by International Pacific Halibut Commission (IPHC, or Commission) staff. The staff then makes catch limit recommendations to the Commission and the halibut industry, for consideration at the Commission's annual meeting in January. In determining catch limit recommendations for 2007, the staff considered the results of the analytic assessment, changes in the commercial and survey indices used to monitor the stock, recruitment of incoming year classes, and an analysis of an optimal harvest rate to achieve coastwide management goals. Ongoing returns of the coastwide PIT (passively integrated transponder) tagging program have influenced the choice of an appropriate assessment model and the corresponding harvest policy.

Commercial catch per unit effort (CPUE) in 2006 did not exhibit a consistent trend coastwide, although the majority of regulatory areas showed lower catch rates than in 2005. Notable declines occurred in Area 2A, 2C, 3A, 4A, 4C, and 4D. Commercial fishery catch rates in Areas 2B, 3B, and 4B were largely unchanged.

The 2006 IPHC setline survey CPUE values were lower in almost all regulatory areas, compared with those of 2005. These declines were generally in the 14-20% range, although Area 2A exhibited a particularly sharp decrease of 43%. Only Area 4B showed a higher catch rate, continuing the modest increase in CPUE noted in 2005. However, it should be noted that in both Areas 2A and 4B the interannual variance of catch rates is high.

The 1994-1996 year classes continue to recruit in relatively strong numbers in most areas, particularly in Areas 2B, 2C, and 3B. Area 4B continues to show a notably low level of recruitment, in comparison with the same year classes in other regulatory areas.

Stock Assessment Changes

Information accruing from the PIT tag recoveries, as well as inconsistencies in the traditional closed-area stock assessments for some areas, prompted the staff to explore alternate stock assessment frameworks. In particular, movements of legal-sized fish among regulatory areas call into question the assumption inherent in the individual regulatory area assessments used by the Commission for the past two decades. It has been assumed that fish of legal size had largely completed their migratory behaviour by the time they were recruited to the exploitable stock in a given regulatory area. However, the PIT tag recaptures indicate greater movement among regulatory areas than believed previously. Accordingly, the staff developed a coastwide assessment based on a single stock, which does not invoke any assumptions regarding movement by fully-recruited fish, rather than an assessment for each regulatory area. A coastwide stock assessment is also coherent with the concept of a coastwide spawning stock for Pacific halibut, which has been verified by genetic analysis.

To conform to a coastwide stock assessment, the staff also examined the current harvest policy, to ensure that long-term stock management goals and reference points were appropriate. In 2005, an optimum harvest rate of 22.5% was adopted for the core stock areas (Areas 2 and 3A), while lower harvest rates were used in Areas 3B and 4. For the 2006 stock assessment, the staff re-examined the limit and threshold reference points in consideration of a coastwide stock unit. Movement of fully-recruited fish from outside of the core areas used in the original harvest rate analysis results in an underestimate of the historic minimum spawning biomass used as a basis for these reference points. Therefore, the reference point biomass levels are greater and the harvest rate must be lowered to achieve the same level of protection from reaching these levels.

The analysis of optimum harvest rates for a coastwide assessment resulted in a target harvest rate of 20% of coastwide exploitable biomass. While a 20% harvest rate was determined to be optimal for the aggregated coastwide biomass, regulatory areas which have net immigration of fish, such as Area 2, can sustain higher harvest rates. Accordingly, the staff recommends using a higher harvest rate of 25% for Area 2. For Area 4B, the staff continues to recommend a harvest rate of 15% as indicated by the analysis of productivity conducted in 2005. Similarly for Area 4CDE, the continued decline in survey and commercial catch rates supports the continued use of the 15% harvest rate for this area as well.

The staff also required a framework to partition the coastwide estimate of exploitable biomass into regulatory areas. This is similar to the process the staff has used to obtain a catch limit for Area 2A, through scaling the Area 2B catch limit assessment by the biomass distribution between Areas 2A and 2B, based on the survey. Using the distribution of biomass as determined by the three-year average CPUE of legal-sized fish obtained on the stock assessment survey, the survey results can be used to partition the coastwide exploitable biomass estimate into regulatory area biomass totals. However, such a static depiction of biomass does not capture the impact of fish movements on the apparent productivity of different areas.

Catch Limit Recommendations

The staff recommendations totaling 66.56 million pounds for 2007 are presented in Table 1. The Area 2A recommendation includes all removals (commercial, treaty Indian, sport) allocated by the Pacific Fishery Management Council's Catch Sharing Plan. The Area 2B catch limit recommendation includes the commercial and sport fisheries, which will be allocated to the sectors by the Canadian Department of Fisheries and Oceans.

The use of a coastwide assessment, with differing harvest rates by regulatory area, and partitioning of coastwide biomass with survey estimates of distribution creates some substantial changes in constant exploitation yields (CEY) and recommended catch limits among areas. The two major components of these differences are the different distribution of biomass associated with survey partitioning of a coastwide total biomass, compared with the traditional closed-area biomass distribution, and the real declines arising from incorporating recent commercial and survey data. As noted in the 2005 stock assessment, the survey distribution of biomass is more consistent with other estimates of biomass distribution that are not dependent on the stock assessment.

The recommended 2007 catch limits for Area 2 are lower than the 2006 catch limits adopted by the Commission, while Areas 3 and 4 have higher recommended limits. In partial contrast to these lower recommendations, the mid-term outlook for Area 2 is positive, with stronger than average recruitment projected for the 1994-1996 year classes.

The staff continues to recommend a slow rate of increase in catch limits when biomass is increasing and a more rapid reduction of catch limits when biomass is decreasing. For Area 2 the staff recommends catch limits that are lower by 50% of the difference between 2006 catch limits and the estimated fishery CEYs for 2007. For Areas 3 and 4, the staff recommends an increase over the 2006 catch limit equivalent to one-third of the difference between the 2006 catch limit and the estimated 2007 fishery CEY.

These recommendations, along with public and industry views on them, will be considered by IPHC Commissioners and their advisors at the IPHC Annual Meeting in Victoria BC Canada, during January 16-19, 2007. These recommendations are preliminary and, as final data are included in the assessment, may be updated for the Annual Meeting but are not expected to change significantly.

Proposals concerning changes to catch limits should be submitted to the Commission by December 31, 2006. [Catch limit proposals](http://www.iphc.washington.edu/halcom/default.htm) are available on the Commission's web page (<http://www.iphc.washington.edu/halcom/default.htm>) or from the Commission's office. Additional details about the [Annual Meeting](#) can also be found on the web page.

Table 1. IPHC staff recommended catch limits for 2007, by IPHC regulatory area (million lbs, net weight). The 2006 fishery catch limits are included for comparison.

Regulatory Area	2006 Fishery Catch Limit	2007 IPHC Staff Recommended Fishery Catch Limit
2A ^a	1.38	1.02
2B ^b	13.22	9.72
2C	10.63	7.50
3A	25.20	25.90
3B	10.86	12.83
4A	3.35	3.98
4B	1.67	1.97
4CDE ^c	3.55	3.65
Total	69.86	66.56

^a Includes sport, tribal, and commercial fisheries

^b Includes sport and commercial fisheries

^c Individual catch limits for Areas 4C, 4D, and 4E are determined by the North Pacific Fishery Management Council catch sharing plan

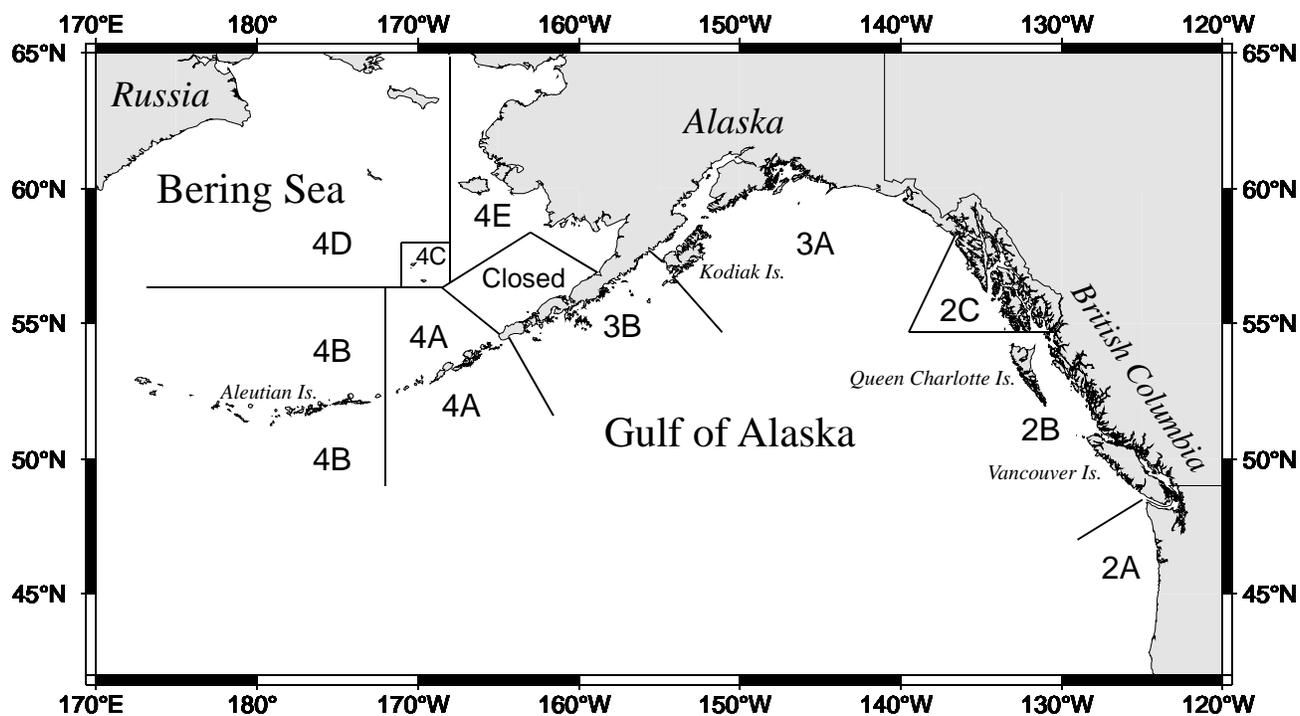


Figure 1. International Pacific Halibut Commission Regulatory Areas.