INTER-AMERICAN TROPICAL TUNA COMMISSION
COMISIÓN INTERAMERICANA DEL ATÚN TROPICAL

73RD MEETING

LANZAROTE (SPAIN)
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DOCUMENT IATTC-73-18

STAFF CONSERVATION RECOMMENDATIONS

Resolution C-04-09 on a multi-annual program for the conservation of tuna in the eastern Pacific Ocean (EPO) provides measures for the conservation of yellowfin and bigeye tuna in 2004-2006. The Resolution calls upon the Scientific Working Group to analyze, in 2005 and 2006, the effect of these measures on the stocks, and to propose, if necessary, appropriate measures to the Commission in 2005 and 2006 for its consideration.

This paper comments on the effectiveness of the measures for yellowfin and bigeye tuna, and makes a recommendation for the conservation of albacore. Summaries of the stock assessments for all species are provided in Document IATTC-73-04, *Tunas and billfishes in the eastern Pacific Ocean in 2004*.

1. YELLOWFIN TUNA

The stock assessment for yellowfin is similar to that of 2004. The base case assessment indicates that the spawning stock size has declined from a high point in 2001 to about 87% of the level corresponding to the average maximum sustained yield (AMSY), but with confidence intervals that include the AMSY. The fishing mortality rate in the most recent years that are well estimated, 2002-2003, is greater than that corresponding to the AMSY. Since that time the capacity of the purse-seine fleet has increased by about 2% and the Resolution has reduced purse-seine effort by up to 12%. The base case assessment did not include a stock-recruitment relationship; if that were incorporated (the alternative assessment), the current estimated stock size would be only 71% of the AMSY level.

The projections of the spawning biomass under the 2004 fishing effort remain below the AMSY level, but with wide confidence intervals.

Regardless of the recruitment, the total catch and stock size could be increased if the average size of the yellowfin in the catch were increased. The longline fishery catches the largest-sized fish, but takes less than 5% of the total catch. The purse-seine fishery takes yellowfin of a range of sizes, depending on set type. Increasing the proportion of the catch made by longlines or by purse-seine sets on tunas associated with dolphins would increase the sustainable yields and the biomass.

No further measures are proposed, but the condition of the stock should continue to be monitored, with the possibility of additional measures being introduced if the estimated stock size remains below the AMSY level.

2. BIGEYE TUNA

The stock assessment results are similar to those of previous assessments, and consistent with the previous stock projections.

The trends reported at the 72nd meeting of the IATTC in June 2004 have continued, and the stock is now below the AMSY level. The base case assessment estimates that the fishing mortality rate corresponding to the AMSY is 57% of the fishing mortality rate during 2002-2003, and the alternative assessment, which includes a stock-recruitment relationship, suggests that it is 41% of that rate. While the Resolution may have reduced the fishing effort from the levels of 2002-2003, reducing the likelihood of the continuing decline of the stock that was forecast last year, the reduction is not sufficient to allow the stock to recover towards the AMSY level.

Further measures, similar to those proposed by the staff last year[1], are necessary to allow the stock to rebuild to the AMSY levels. The AMSY has been significantly reduced by purse-seine catches of small bigeye, and measures that encourage purse-seine vessels to avoid catching bigeye while fishing for skipjack would be beneficial. The individual-vessel catch limits for bigeye proposed in 2004 are one way of allowing purse-seine vessels to continue fishing for skipjack while reducing catches of bigeye. This type of restriction would not unduly affect the vessels that primarily catch skipjack.

3. NORTHERN ALBACORE TUNA

The stock assessment for northern albacore suggests a need for management measures to avoid increases in fishing mortality. Northern albacore migrate between the eastern and western north Pacific, and management will require complementary measures by the IATTC and the Western and Central Pacific Fisheries Commission.

The estimated spawning stock biomass is at or below the AMSY level. The current fishing mortality may lead to further reductions in biomass, and a modest reduction in fishing mortality is thus necessary to ensure that the biomass is maintained above the lowest levels recently observed.

Comprehensive management requires action by both Commissions, but pending that, the staff recommends that measures be taken to ensure that there is no increase in fishing effort in the eastern Pacific for this stock

4. OTHER SPECIES OR STOCKS

The summaries of the other species reported do not indicate the need for any management measures.

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[1]The 2004 recommendations were:

1. Close the purse-seine fishery in the eastern Pacific Ocean for two months.

2. Reduce longline catches of bigeye in the eastern Pacific Ocean to the levels of 2000.

3. The three alternative options proposed below, in addition to recommendation 1 above, are intended to reduce the purse-seine fishing effort on bigeye in 2005 by 50%:

   a) Close the purse-seine fishery for six months in the area between 8°N and 10°S west of 95°W; this closure would not occur simultaneously with the two-month closure of the entire EPO recommended in (1) above, or

   b) Close the purse-seine fishery on floating objects for six months in the area west of 95°W; this closure would not occur simultaneously with the two-month closure of the entire EPO recommended in (1) above, or

   c) Limit the total annual catch of bigeye by each purse-seine vessel that is required to carry an observer to 500 metric tons, estimated either by the observer or, at the request of the captain, by scientific sampling of the vessel's catch conducted by IATTC staff at the time of unloading. If this latter option is chosen, the vessel would be responsible for the costs of the sampling.