

COMISION INTERAMERICANA DEL ATUN TROPICAL INTER-AMERICAN TROPICAL TUNA COMMISSION

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To: Commissioners

cc: Belize, Canada, China, Chinese Taipei, Cook Islands, European Union Kiribati



From: Guillermo Compeán, Director

Re: Pacific bluefin tuna

In response to an increasing number of requests to the Secretariat for scientific information on Pacific bluefin tuna, attached is a statement of the views of the Commission's scientific staff on the current status of Pacific bluefin.

Statement of the IATTC scientific staff views about the status of the Pacific bluefin tuna stock

The following summarizes the views of the scientific staff of the Inter-American Tropical Tuna Commission (IATTC) with respect to the current stock status of Pacific bluefin tuna, *Thunnus orientalis*.

Pacific bluefin tuna occur in temperate and tropical waters of the North Pacific Ocean, but mostly north of about 15°N. Extensive tagging data have shown frequent trans-oceanic migrations of bluefin in both directions. Spawning appears to be restricted to the western Pacific, and a fraction of the juvenile stock migrates to the eastern Pacific. As a result of this highly-migratory behavior, the hypothesis of a single stock of Pacific bluefin is accepted for management and conservation purposes.

The two regional fisheries management organizations in charge of making management recommendations for Pacific bluefin for the western and central Pacific and for the eastern Pacific are, respectively, the Western and Central Pacific Fisheries Commission (WCPFC) and the IATTC. As of this date, conservation and management recommendations adopted by the two commissions have been largely based upon the scientific work of the Pacific Bluefin Working Group (PBF-WG) of the International Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean (ISC).

The IATTC scientific staff's interpretation of the status of the Pacific bluefin stock, based on the most recent stock assessment by PBF-WG (see links to official ISC documents below), is as follows.

The total annual catch of Pacific bluefin has fluctuated widely within the range of 9,000-40,000 tons since the early 1950s. Since 2000, catches have averaged about 24,000 tons, close to the average historical level of 23,000 tons. The catch from the eastern Pacific represents, on average, about 30% of the recent catches of Pacific bluefin.

If commonly-used management reference points are considered in the evaluation of Pacific bluefin, the status of the stock is highly uncertain. The rate of natural mortality (M) of adult fish has been identified as the major source of uncertainty in the Pacific bluefin assessment, and this uncertainty has been evaluated using analyses of the sensitivity of the assessment to alternative hypotheses of M .

Regardless of these uncertainties, the following trends were not affected by different assumptions regarding natural mortality:

- 1) Recruitment has fluctuated, without trend, over the assessment period (1952-2006), and does not appear to have been adversely affected by exploitation by the fishery;
- 2) Recent (2000-2006) levels of spawning biomass (mature females) are above the median historic level;
- 3) The bluefin catch, in weight and numbers, is dominated by recruits (0 years old) and juveniles (1-3 years old). The fishing mortality of recruits has gradually increased, and been above the median historic levels since the early 1990s. Fishing mortality of fish 1-3 years old has also increased during this period, but these levels have fluctuated around median historic levels.

Considering the most recent stock assessment work conducted by the PBF-WG, its remaining uncertainties, and the trends summarized above, the IATTC scientific staff considers that further increases in fishing mortality, particularly of 0-year-old recruits, are of concern, and could potentially result in overfishing. It is important that future levels of fishing mortality are not increased until the remaining uncertainties of the stock assessment are minimized.

For detailed information about the PBF-WG stock assessment work, the 8th ISC Plenary report, and the summary report of the Northern Committee of the WCPFC, see:

<http://isc.ac.affrc.go.jp/isc9/pdf/ISC9%20Plenary%20Final.pdf>

http://isc.ac.affrc.go.jp/isc9/pdf/Annex_10_ISC9_PBFWG_July09.pdf

<http://www.wcpfc.int/system/files/documents/meetings/northern-committee/5th-regular-session/summary-report/NC5%20Summary%20Report%20-%20Final.pdf>