

COASTAL PELAGIC SPECIES MANAGEMENT TEAM REPORT ON PACIFIC MACKEREL HARVEST GUIDELINE FOR 2003 THROUGH 2004

For the 2003 Pacific mackerel assessment, the Coastal Pelagic Species Management Team (CPSMT) agreed that the mackerel biomass estimate from the ADEPT model was appropriate, because it is consistent with the approach used in recent years, and the resulting biomass estimate is reasonable relative to what is known about recent recruitment. The CPSMT notes that several improvements for future assessments are anticipated in the near future. These include pooling of the southern and northern California party boat logbook information into a single index, increased and enhanced fishery dependent data from aerial surveys, and new research surveys. These changes are scheduled for review at the CPS stock assessment review (STAR) meeting in 2004 and incorporation into the 2005-2006 fishery.

As the Pacific mackerel abundance estimate has decreased over the past several years, the CPSMT discussed overfishing concerns related to this fishery. Based on the current modeling approach and the harvest control rules in the fishery management plan (FMP), there is, currently, not a concern related to overfishing of Pacific mackerel. Historically, intermittent periods of high recruitment have supported relatively high amounts of fishing pressure. However, more recently, protracted periods of generally lower recruitment have contributed to lower levels of spawning stock and total biomass. Fishing pressure is largely influenced by availability of the resource to the fishery, as well as market factors. The U.S. West Coast Pacific mackerel fishery targets the mackerel in the northern parts of its overall range and in inshore waters. It is possible that mackerel abundance could be strong south of the U.S. border and/or in offshore waters beyond the range of the U.S. West Coast CPS fleet. Also, as in other CPS fisheries, market dynamics greatly influence total harvest. While mackerel is desirable it is not as important to the CPS fishery as Pacific sardine and market squid. In addition, most commercial harvest of Pacific mackerel occurs within the area under limited entry as defined by the CPS FMP. Under the limited entry system, overall effort on Pacific mackerel is constrained by a cap on harvest capacity. Thus, given the reasons above, the level of fishing effort relative to mackerel abundance should not give rise to immediate concern. However, model estimates of the spawning stock and recruitment relationship indicate little to no reproductive-related compensation at low levels of spawning stock biomass. Thus, issues surrounding recruitment-based overfishing should be monitored closely.

Overfishing for Pacific mackerel is defined in the CPS FMP as harvest exceeding acceptable biological catch (ABC) for two concurrent years. Recent landings have been well below ABC. Also, the cutoff value in the harvest control rule serves as a proxy for determining if mackerel is overfished. The cutoff value equates to a biomass estimate of 18,200 mt. The current biomass estimate, 68,924 mt is well above the cut off value.

PFMC
05/30/03