

COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON
ACOUSTIC TRAWL SURVEY METHODOLOGY REVIEW – FINAL APPROVAL

The Coastal Pelagic Species Advisory Subpanel (CPSAS) reviewed the Acoustic Trawl Methodology (ATM) Review Panel (Panel) Report (Agenda Item C.3, Attachment 2) and related documents. We reiterate the Panel's concerns with issues identified in the 2011 ATM Methods Review as well as the 2017 sardine Stock Assessment Review (STAR) Panel and CIE Reports.

We support the Panel's finding that current ATM biomass estimates cannot be used as absolute estimates of biomass (Q=1). The Report concluded, "The Panel does not support the use of the ATM biomass estimates as absolute estimates of biomass (Q=1) in assessments because of uncertainties related:

- (a) to target strength (borrowed relationships from other areas),
 - (b) the proportion of the biomass inshore, offshore, and to the north and south of the survey area,
 - (c) target species identification, avoidance, migration during the survey, and
 - (d) the surface blind zone, all lead to Q values that may differ substantially from 1."
- (Panel Report, p. 21)*

The Panel Report also identified the following concerns:

- Incomplete spatial and temporal surveys;
- Small biological sample size;
- Stratification and aging;
- Exclusion of schools below 70 meters (38.6 fathoms) – fishermen have observed both sardine and anchovy at this depth and below; and
- ATM selectivity (uniform vs. logistic)

For these reasons we can support use of the ATM methodology to the extent that the Panel's recommendations and caveats outlined in Table 3 of the Panel's Report are implemented.

The CPSAS, appreciates the Panel's acknowledgment of many of the concerns regarding ATM that have been raised by the CPSAS and the opportunity for collaborative research involving the fishing industry.

A minority of the CPSAS recommends that the ATM survey be considered the best available scientific information on the status and abundance of CPS stocks. The review panel identified potential sources of bias, both positive and negative, which the entire CPSAS supports addressing going forward; however, a minority of the CPSAS believes none of these presents an obstacle to the use of survey information in coastal pelagic species management in the near-term, particularly once a nearshore correction factor has been applied.