COASTAL PELAGIC SPECIES ADVISORY SUBPANEL REPORT ON THE FISHERY ECOSYSTEM PLAN CLIMATE AND COMMUNITIES INITIATIVE UPDATE

In a joint webinar on February 21 with the Coastal Pelagic Species Management Team, the Coastal Pelagic Advisory Subpanel (CPSAS) received an update from Josh Lindsay, National Marine Fishery Service and member of the Ecosystem Work Group (EWG), on progress of the EWG toward fulfilling the Council's Climate and Communities Initiative. The CPSAS also reviewed the EWG Report (Agenda Item F.2.a, EWG Report 1, March 2018). In addition, some subpanel members viewed the February 26 webinar, summarizing initiative objectives and timeline for next steps. The EWG also conducted four webinars highlighting key aspects of this climate crisis. The CPSAS compliments the EWG for its thoughtful approach to a subject that is cloaked in uncertainty now, but is certain to cause serious biological and socio-economic impacts in the future. For certain shellfish fisheries on the west coast, impacts are already occurring.

The EWG's goal for this initiative is to consider strategies to improve the flexibility and responsiveness of fishery management in the face of near-term climate shift and long-term climate change. The CPSAS appreciates that the EWG's first step is building an understanding of the best climate science forecasts for changes in the California Current Ecosystem (CCE) over the near and long term. It is important to identify what we know and what we don't but need to know to make reasoned decisions based on science, not conjecture.

Clearly, unusual events are happening in the ocean, from increased harmful algal blooms and hypoxic events to whale entanglements, precipitated by anomalous oceanic conditions from increasing ocean acidification and "Godzilla" El Niño to the "Blob." Based on current model projections, predictions are that we are entering an era of rapid ocean change that may be exacerbated if global society continues burning fossil fuels unabated (business as usual, or BAU). Anthropogenic carbon dioxide (CO^2) inputs are now internationally acknowledged as a significant cause of climate change.

The EWG's stepwise approach is both appropriate and necessary. Although ocean chemistry is measurable and predictable, the biological responses to the rise of sea temperature and corrosive waters are, as yet, largely unknown.

The EWG's near-term schedule provides for more meetings over the summer to consider Council input at the March meeting, along with other comments received, and to develop a proposal for the Council to consider in September. The CPSAS would appreciate consideration of the following points during this deliberation process:

- The EWG and Council can provide the cross-pollination between the States, Fishery Science Centers and current Open Access fishery community, including the regional Integrated Ocean Observing System associations and other groups now investigating ocean acidification. The fishing community also can play a key role in expanding the coast-wide monitoring system that will be needed to improve knowledge of potential future impacts on ecosystems and fisheries.

- It is critically important to expand monitoring and correlate water chemistry and upwelling along with other indicators in nearshore habitats along the west coast, particularly in important fishing areas. Indicators, as well as, impacts will likely differ between regions, so we repeat a recommendation made in CPSAS comments on the Integrated Ecosystem Assessment (IEA) report that, for future management considerations, the EWG and Council adopt a three-region structure as in the IEA report's section on Climate and Ocean Drivers, i.e. the northern CCE, central CCE and southern CCE, with breaks as noted at Cape Mendocino and Point Conception. This will facilitate understanding of the recognized high spatiotemporal variability among regions and potential regional impacts on fish stocks and fishing communities.

One discussion missing from this Climate and Communities Initiative is that the EWG has not touched on the potential to mitigate worst-case climate impacts by reducing carbon emissions. Future Council policies could acknowledge and promote efficiencies in fisheries and incentivize fishing communities, including both fishermen and processors, to increase efficiency and/or transition to alternative energy. For example, in a California study, the CPS purse seine fleet can produce about 2,000 pounds of protein for only six gallons of diesel fuel. In Norway, a new all-electric ferry is cutting emissions by 95% and costs by 80% compared to fuel-powered counterparts. We suggest that the EWG include discussion on how west coast fishing communities and fisheries can help to reduce their carbon footprint.

PFMC
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