

## HIGHLY MIGRATORY SPECIES MANAGEMENT TEAM REPORT ON FISHERY ECOSYSTEM INITIATIVES

The Highly Migratory Species Management Team ([HMSMT](#)) has reviewed the Ecosystem Initiatives Appendix to the Pacific Coast Fishery Ecosystem Plan. The ~~team~~-[HMSMT](#) supports the initiatives in general. In their supplemental report under Agenda Item E.2.b, the Ecosystem Work Group (EWG) recommends the inclusion of the Coordinated Ecosystem Indicator Review Initiative within the list of Ecosystem Initiatives. The HMSMT concurs with this recommendation.

The EWG supplemental report calls for a process to implement and develop Ecosystem Indicators. The HMSMT sees value in continuing with a Workgroup process similar to that for the initiative on Protecting Unfished Forage Fish. This would ensure that the appropriate expertise is engaged to provide the Council with high quality work products and recommendations.

The HMSMT recommends that any effort to complete initiative should include more direct engagement of the Council and its advisory bodies. Regardless of the specific process for engagement, the Council will need to prioritize which initiatives to address first. For their relevance to highly migratory species the HMSMT suggests prioritizing the following initiatives:

- A2.2 – Bio-Geographic Region Identification
- A2.6 – Human Recruitment to Fisheries
- A2.7 – Cross FMP Socio-Economic Effects
- A2.8 – Cross FMP Effects of Climate Shift
- A2.X – Coordinated Ecosystem Indicator Review

The HMSMT sees merit in these initiatives because several of the commercial fisheries in the HMS [Fishery Management Plan \(FMP\)](#), including the longline and drift gillnet swordfish fisheries and the tuna purse seine fishery, have dwindled over recent years in levels of effort, participation, landings and revenues to small fractions of their historic extent. For example, HMSAS members frequently comment on a lack of new recruitment to participation in HMS fisheries, and the aging of the existing cohort of participants. This trend in attrition from HMS fishery participation raises questions about what cross-FMP effects may have resulted, including socio-economic effects due to increased participation in other FMP fisheries by exiting HMS fishers, and possible additional catch and bycatch levels which may have resulted. These potential overarching impacts of dwindling HMS commercial fishery participation could potentially be addressed through the Fishery Ecosystem Initiative on Human Recruitment to Fisheries along with the Cross-FMP Socio-Economic Effects and Cross-FMP Catch and Bycatch Monitoring initiatives.

More broadly, defining Bio-Geographic Regions facilitates smaller scale understanding of ecosystem modeling. A review and assessment of indicators and their application will further inform ecosystem modeling and the Effects of Climate Shift. For highly migratory species these initiatives could have great value for understanding the effect on the future of HMS fisheries, yet there may be high costs in terms of human resources needed to develop and implement these initiatives.