

Agenda Item C.3.a
Attachment 2
September 2008

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PFMC



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National Oceanic and Atm-
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National Marine Sanctuary Program

West Coast Region
99 Pacific Street, Bldg 200, Suite K
Monterey, CA 93940

August 18, 2008

Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384

RE: Draft Research and Data Needs Document

Dear Dr. McIsaac: *Don*

Please accept comments from the research teams of the West Coast National Marine Sanctuaries (NMS) on the Pacific Fishery Management Council (PFMC) Draft Research and Data Needs document.

We thank the Pacific Fishery Management Council (PFMC) for the opportunity to comment on this draft document and applaud your efforts for expanding considerations and research topics related to ecosystem-based management. The West Coast NMS and ONMS WCR share some of the same questions and concerns of how fish dynamics and fishing activities are interrelated to broader ecosystem processes and relationships.

We encourage the PFMC to use West Coast NMS as sites for appropriate research activities related to habitat, marine protected areas, or non-lethal survey techniques. There are many opportunities to partner and accomplish common research goals among the West Coast NMS and the PFMC. This document in conjunction with the West Coast NMS's status and trends reports called 'Condition Reports' will help us consider joint and integrated research projects when developing our long-term research priorities and annual operating plans. In addition, further opportunities for expanded collaboration are available with the West Coast NMS. Many sites have research panels that advise site managers and our national program's research coordinators meet annually; inviting PFMC experts and scientists to future annual meetings would advance common agendas for research. Collaboration in our research activities should foster increased efficiency and effectiveness to our respective programs.

Sincerely,

William J. Douros, Regional Director
West Coast Regional Office

Attachment: ONMS Comments on PFMC Research & Data Needs

Olympic Coast
National Marine Sanctuary
115 E. Railroad Ave., Ste 301
Port Angeles, WA 98362

Cordell Bank
National Marine Sanctuary
P O Box 159
Olema, CA 94950

Gulf of the Farallones
National Marine Sanctuary
Building 991, Presidio of SF
San Francisco, CA 94129

Monterey Bay
National Marine Sanctuary
299 Foam Street
Monterey, CA 93940

Channel Islands
National Marine Sanctuary
113 Harbor Way
Santa Barbara, CA 93109

Attachment: ONMS Comments on PFMC Research and Data Needs

Comments on PFMC's Research & Data Needs 2008 Document
Office of National Marine Sanctuaries, West Coast Region
August 18, 2008

- (p. X): please change NMSP - National Marine Sanctuary Program to Office of National Marine Sanctuaries (ONMS).
- 2.1 (p.5), 2nd bullet: this is an important topic and the West Coast Sanctuaries endorse a strong emphasis on the study of trophic interactions among species.
- 2.1 (p.5), 3rd bullet: please include the suggestions in italics "The increasing application of new management approaches, including *habitat models* and spatial management measures to protect.....*active spawning grounds*, and complex stock structure."
- 2.2 (p.6): include the following reference, since it has a lot of recommendations similar to this section, Sydeman & Elliott's 'Developing the California Current Integrated Ecosystem Assessment, Module 1: Select Time-Series of Ecosystem State'.
- 2.2 (p.6): 3rd bullet: refer to West Coast National Marine Sanctuaries's status and trends reports called 'Condition Reports'.
- 2.2 (p.6), 5th bullet: demarcation points are a very good idea. We suggest consideration of other influential areas, including Pt Reyes (localized upwelling) and San Francisco Bay (nutrients and upwelling), and areas along the outer coast of Washington such as Cape Alava. Cape Flattery is mentioned and may have merit, though it has a lot of physical influences from the Straits of Juan de Fuca and is very close to the international boundary (Canada already has a 'Line P' that runs just north of this area). Olympic Coast NMS and others (e.g., ORHAB, NMFS) have been conducting oceanographic and biological surveys along both Washington areas for many years (related to pelagic wildlife and HAB surveys). A long-term data collection like CalCOFI lines would be an excellent idea to expand into the Pacific Northwest. Either line would partially transect the Juan de Fuca Eddy, which is an important seasonal oceanographic event, high primary productivity (and HAB site) and a highly productive area for both fisheries and for foraging wildlife.
- 2.3 (p.7), 4th bullet: ensure that adequate ground-truthing is conducted to test the models.
- 3.2.3 (p.12), 2nd bullet: we strongly support developing non-extractive assessments of rockfish in 'untraversable' areas. We suggest adding a reference to collection of fish-habitat association indices as well (e.g., are rockfish associated more frequently with biogenic habitats on hard-bottom sites or just with hard-bottom features?).
- 3.2.3 (p.13), 1st bullet: we recommend a cautionary note be inserted for using this method in areas that may harbor biogenic structures (e.g., coral/sponge communities). The Intergovernmental Policy Council we have established with the four coastal tribes and the state of Washington is also proposing to use long-line gear to assess these areas. Long-line gear can have negative impacts on some biogenic habitats (deep-sea coral and sponge communities). We have a cause for concern of damage to vulnerable biogenic habitat in Olympic Coast NMS (see Brancato et al. 2007), and by extension, for other west coast sanctuaries with vulnerable biogenic habitat.
- 3.2.3 (p.12), 2nd bullet: we encourage the collaboration between NOS/ONMS and NMFS in developing and implementing monitoring strategies that use non-extractive technologies, such as ROV and acoustic surveys.

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- 3.3 (p.14), 2nd bullet: please include the use of other NOAA web-based programs already established for posting interpreted findings, such as the ONMS West Coast Sanctuary Integrated Monitoring Network (SIMoN).
- 3.4 (p.16): we suggest you include the body of work currently underway by James Lindholm (James_Lindholm@csunmb.edu) and others of California State University at Monterey Bay, studying the impacts and recovery of bottom gear on benthic habitats. His investigations in collaboration with West Coast NMS are still on-going, and draft data are available. Additional Pacific Coast studies may provide beneficial insights, but additional field research is not critically needed to assess the effects of bottom fishing on benthic habitats, since there have been many well documented peer-reviewed publications on these effects around the world (see in part report compilations in AFS 2002; Brancato et al. 2007; Lumsden et al. 2007; NRC 2002). At the very least, this type of research on the Pacific Coast should not preclude management actions before final results are demonstrated. There is a concern that this is a delaying tactic to allow continued bottom fishing in some fragile biogenic habitats, which could result in these biogenic structures being impacted while the research is being conducted. We recommend that if such investigations are conducted, that fishery management zones be enacted based on the precautionary approach, and only opened if no significant impacts are determined.
- 5.1 (p.27): include the assessment of biogenic habitats as nurseries and foraging grounds for juvenile fish, e.g. assessment of drift algae – see citations below Laidig et al. 2007, Reed et al. 1988, Shaffer et al. 1995, and Vandendriessche et al. 2005.
- 5.2.1 (p.29), 1st bullet: we suggest including studies of krill on various scales: studies of krill concentrations have broader management uses, such as quantification of krill on fine-scale level that may be used in the Gulf of the Farallones region, integrated with environmental processes and influences such as localized upwelling and influences from San Francisco Bay nutrient output.
- 8.3 (p52), 4th bullet: we strongly endorse efforts to map benthic habitats to sufficient resolution. This is also a high priority item for the West Coast NMS, West Coast Governor's Agreement, etc. This effort should be well coordinated with ONMS West Coast Regional Office and other mapping institutions to reduce duplication and increase efficiency and effectiveness of data collection.
- 8.3 (p53), 1st bullet: these investigations are always good but they are not critical for the west coast with the amount of published literature that exists world-wide (in many cases the same type of habitat areas, same fishing gear, etc. are found in other regions). At the very least, we suggest referencing that a body of literature exists for this topic area.
- The document demonstrates many instances of issues and data needs shared among the different fishery management plans and research topics. It would be helpful to see these issues and needs reflected in a matrix to determine their relative importance, and priority. Those data needs that are cross-cutting may have more merit and efficiency than those that address an individual fishery management plan alone.

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References cited

American Fisheries Society. 2002. Symposium on effects of fishing activities on benthic habitats: linking geology, biology, socioeconomics, and management. Nov. 12-14, 2002. Tampa, Florida.

Brancato M.S., C.E. Bowlby, J. Hyland, S.S. Intelmann, and K. Brenkman. 2007. Observations of deep sea coral and sponge assemblages in Olympic Coast National Marine Sanctuary, Washington. Cruise Report: NOAA Ship *McArthur II* Cruise AR06-06/07. Marine Sanctuaries Conservation Series NMSP-07-03. NOAA National Marine Sanctuary Program. Silver Spring, Maryland. 48 pp.

Lumsden, S.E., T.F. Hourigan, A.W. Bruckner, and G. Dorr (eds.). 2007. *The State of Deep Coral Ecosystems of the United States*. NOAA Technical Memorandum CRCP-3. Silver Spring MD. 365 pp.

National Research Council. 2002. Effects of trawling and dredging on seafloor habitat. National Academy Press, 126 p., Washington D.C.

Sydeman, W.J. and M.L. Elliott. 2008. Developing the California Current Integrated Ecosystem Assessment, Module 1: Select Time-Series of Ecosystem State. Final Report.

Suggested references as background for developing biogenic habitat assessments

Laidig, T.E., J.R. Chess, D.F. Howard. 2007. Relationship between abundance of juvenile rockfishes and environmental variables documented off northern California and potential mechanisms for covariation. Fishery Bulletin, 2007.

Reed, D.C., M. Neushul, and A.W. Ebeling. 1988. Variation in algal dispersal and recruitment: the importance of episodic events. Ecology 58(4): 321-335.

Shaffer, J.A., D.C. Doty, R.M. Buckley, and J.E. West. 1995. Crustacean community composition and trophic use of the drift vegetation habitat by juvenile splitnose rockfish *Sebastes diploproa*. Marine Ecology Progress Series 123: 13-21.

Vandendriessche, S., M. Vincx, and S. Degraer. 2005. Floating seaweed in the neustonic environment: A case study from Belgian coastal waters. Journal of Sea Research 55(2): 103-112.