

UNIVERSITY OF CALIFORNIA
SANTA CRUZ, CALIFORNIA 95064

Marc Mangel
Director, Center for Stock Assessment Research
Professor of Mathematical Biology
The Jack Baskin School of Engineering
Department of Applied Mathematics and Statistics
831-459 5797(Message), 4015 (FAX)
msmangel@ams.ucsc.edu

2 September

Mr. Tom Barnes
California Department of Fish and Game
Southwest Fisheries Science Center
P.O. Box 271
La Jolla, CA 92038

Dear Tom,

I am delighted to forward the completed stock assessment of the status of California Sheephead.

The team conducting the assessment was lead by Dr. Suzanne Alonzo (then Assistant Researcher, Institute of Marine Sciences, UCSC and member of CSTAR; now Assistant Professor of Ecology and Evolutionary Biology, Yale University) and included Ms. Meisha Key (CDFG), Ms. Teresa Ish (M.Sc., Marine Sciences, UCSC and member of CSTAR) and Dr. Alec MacCall (NMFS/SCL).

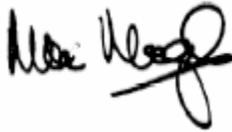
The initial phase of the work was conducted between mid-February and July 2004. Following the model established by the Fishery Management Councils, we held a Stock Assessment Review (STAR) Panel 8-9 July 2004. The date for the STAR panel was set on 25 March 2004, according to the calendar of panelist Dr. Richard Methot (NMFS/Seattle). The other panelists were Dr. Selena Heppell (Oregon State University) and Dr. Tom Jagielo (Washington Department of Fish and Wildlife). A brief biography of each of the panelists is appended to this letter.

Following the STAR and the report of the Review Panel (delivered on 6 August 2004), we revised the assessment, taking into account the points raised by the panel. This work occupied the period from 10 July until the end of August 2004. The final report that I am forwarding contains these revisions.

Meisha Key has a CD with all of the relevant data files, models, and output that she can deliver to CDFG for archiving.

As per the contract, we will continue to identify sources of data for the other species in the Nearshore Fishery Management Plan; we shall submit this report shortly after the end of the contract (that is, in early February 2005).

Sincerely yours

A handwritten signature in black ink, appearing to read "Marc Mangel". The signature is fluid and cursive, with a prominent loop at the end.

Marc Mangel

Biographies of STAR Panelists

Tom Jagielo is a quantitative Senior Research Scientist with the Washington Department of Fish and Wildlife, specializing in survey design and stock assessments for groundfish. He has prepared and reviewed groundfish stock assessments for the Pacific Fishery Management Council since 1994. Recently, he has focused on the development of survey methodology for estimation of groundfish density untrawlable habitats, which are not accessible to conventional survey gear. This work has resulted in the production of an innovative 3-Beam Quantitative video measurement system which has been used for management-scale survey applications.

Selina Heppell is Assistant Professor at Oregon State University in the Department of Fisheries and Wildlife. She received her PhD in Zoology at Duke University in 1998. Her research examines the effects of anthropogenic and natural perturbations on the population dynamics of marine species, with an emphasis on comparative life history analysis and extinction risk. She has served on numerous scientific review panels, including expert working groups for NOAA Fisheries (salmon and sea turtles) and the Marine Turtle Specialist Group of the IUCN. She has provided technical reviews on models for salmon extinction risk and sea turtle population dynamics, and has developed models to assess the status and responses of grouper, sturgeon, and sea turtle populations. Currently, Dr. Heppell is developing collaborative research projects with agency scientists, students and fishermen to study the distribution and life history characteristics of recovering groundfish populations on the Oregon coast.

Richard Methot is a national stock assessment expert in the NOAA Fisheries, Office of Science & Technology. In this role, he leads several national committees related to scientific guidance on marine fish stock assessment and providing scientific advice to fishery managers. These include the Marine Fisheries Stock Assessment Improvement Plan and the Working Group for

Revision of National Standards regarding optimum fishery yield, prevention of overfishing and rebuilding overfished stocks. Previously he has served as the senior scientist for groundfish issues in the NMFS Northwest Fisheries Science Center and as the Director of the NWFSC's Fishery Resource Analysis and Monitoring Division. During his 20+ year career at the Southwest Fisheries Science Center, Alaska FSC and Northwest FSC, his primary research area has been assessment of the abundance and productivity of groundfish and pelagic fish populations off the U.S. west coast. In addition to his national coordination role today, his current research interests include improvements in analytical methods to provide more comprehensive evaluation of the status of harvested fish stocks, including environmental and ecosystem factors, and better communication of these results to fishery managers. Dr. Methot's educational background includes a B.S. in Fisheries (1975) from the University of Washington; Ph.D. in Biological Oceanography from Scripps Institution of Oceanography, University of California at San Diego (1981); and a post-doctoral position at the Bodega Marine Laboratory, University of California.