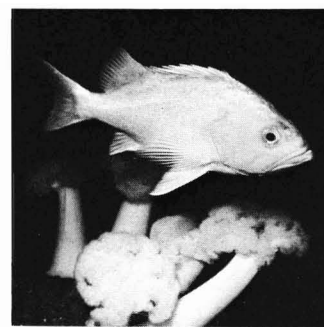


Marine Fisheries REVIEW



On the cover: A canary rockfish, *Sebastes pinniger*, photographed by William L. High, Northwest and Alaska Fisheries Center, NMFS, NOAA, 2725 Montlake Blvd., E., Seattle, WA 98112.



Articles

Vol. 42, No. 3-4, March-April 1980

- Cooperative Survey of Rockfish and Whiting Resources Off California, Washington, and Oregon, 1977: Introduction
Donald R. Gunderson and William H. Lenarz 1
- Distribution and Abundance of Rockfish Off Washington, Oregon, and California During 1977
Donald R. Gunderson and Terrance M. Sample 2
- The Distribution, Abundance, and Biological Characteristics of Pacific Whiting, *Merluccius productus*, in the California-British Columbia Region During July-September 1977
Thomas A. Dark, Martin O. Nelson, Jimmie J. Traynor, and Edmund P. Nunnallee 17
- Shortbelly Rockfish, *Sebastes jordani*: A Large Unfished Resource in Waters Off California
William H. Lenarz 34
- Abundance, Size and Age Composition, and Growth of Pacific Ocean Perch, *Sebastes alutus*, Sampled During 1977
James T. Golden, Robert L. Demory, and William H. Bars 41
- Size Composition, Age Composition, and Growth of Chilipepper, *Sebastes goodei*, and Bocaccio, *S. paucispinis*, From the 1977 Rockfish Survey
Mark E. Wilkins 48
- Yellowtail Rockfish, *Sebastes flavidus*, Length and Age Composition off California, Oregon, and Washington in 1977
Michael E. Fraidenburg 54
- Size Composition, Age Composition, and Growth of Canary Rockfish, *Sebastes pinniger*, and Splitnose Rockfish, *S. diploproa*, From the 1977 Rockfish Survey
George W. Boehlert 57
- Stock Separation of Five Rockfish Species Using Naturally Occurring Biochemical Genetic Markers
Lisa N. Wishard, Fred M. Utter, and Donald R. Gunderson 64
- Maturation and Fecundity of Four Species of *Sebastes*
Donald R. Gunderson, Pamela Callahan, and Bernard Goiney 74
- Morphology and Distribution Patterns of Several Important Species of Rockfish (Genus *Sebastes*)
Peter B. Adams 80
- Preliminary Analysis of Pacific Coast Demersal Fish Assemblages
Wendy L. Gabriel and A. V. Tyler 83

**U.S. DEPARTMENT OF
COMMERCE**
Philip M. Klutznick, Secretary

**NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION**
Richard A. Frank, Administrator
**Terry L. Leitzell, Assistant
Administrator for Fisheries**

National Marine Fisheries Service

Managing Editor: W. Hobart

Marine Fisheries Review (USPS 090-080) is published monthly by the Scientific Publications Office, National Marine Fisheries Service, NOAA, Rm. 336, 1700 Westlake Ave. N., Seattle, WA 98109. Single Copies and annual subscriptions are sold by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Prices are: Single copy, \$1.10 domestic, \$1.40 foreign; annual subscription, \$13.00 domestic, \$16.25 foreign. Copies of individual articles, in limited numbers are available from D822, User Services Branch, Environmental Science Information Center, NOAA, Rockville, MD 20852. News items are not reprinted. Publication of material from sources outside the NMFS is not an endorsement and the NMFS is not

responsible for the accuracy of facts, views, or opinions of these sources.

The NMFS does not approve, recommend or endorse any proprietary product or proprietary material mentioned in this publication. No reference shall be made to NMFS, or to this publication furnished by NMFS, in any advertising or sales promotion which would indicate or imply that NMFS approves, recommends or endorses any proprietary product or proprietary material mentioned herein, or which has as its purpose an intent to cause directly or indirectly the advertised product to be used or purchased because of this NMFS publication. Controlled circulation postage paid at Finance Department, USPS, Washington, DC 20260.