

also hindering the progress of this fishery.

Problems involving financing, which have forced some exporters to suspend activities, have also upset the industry, but seafood dealers see signs that local bankers are taking another look at the industry.

Finally, the establishment of the Marine Products Export Development Authority is seen as a move which may cause some initial hardships, but which the industry feels will have a long-range beneficial impact on the country's shrimp exports.

OTHER EXPORTS

The canning and dried seafoods industry apparently suffered from severe setbacks in 1972, with exports declining. The dried fish and prawn industry were reportedly the hardest hit. There were no explanations for these setbacks. ("Seafood Export Journal," Annual, January 1973 and other sources.)

Prepared by NMFS International Activities Staff.

Letters¹

Status of FPC in U.S.

ROBERT W. SCHONING
Acting Director, NMFS

...would you...ask someone on your staff to forward me an up-to-date report on the status of FPC in the U.S.A. if one is available...

HUGH MUNRO
566 Minette Circle
Mississauga, Ontario
Canada

Regarding the present status of FPC in the U.S., a decision was made recently to terminate the National Marine Fisheries Service's 12-year FPC research and development program. This was due in part

to the overall budget cutbacks experienced by our Agency, as well as the expiration of the FPC Act (PL-89-701, as amended) on June 30, 1972.

Plans are being developed to dispose of the Experiment and Demonstration Plant in Aberdeen, Washington, and the limited quantities of product remaining from its operation. We are also currently compiling information so as to provide as complete an information package as can be developed for anyone generally interested in FPC or considering its commercial development. This will make available all information generated by our activities over the past years, as well as a detailed discussion of the state-of-the-art and a description of the remaining unresolved problems. This information package will be put on microfilm and its availability publicized. If you would be interested in obtaining a copy, please write:

Dr. George Knobl
Director
College Park Fishery
Products Technology Laboratory
Regents Drive
College Park, Maryland 20740

It should be available in 2-3 months.

Limited domestic interest in FPC within the industry appears to be continuing, based upon our contacts, as well as the number of requests for samples of the product produced in Aberdeen. However, until the one pound packaging restriction presently in the U.S. Food and Drug Administration (FDA) regulations is removed, the emergence of a domestic industry is unlikely. A petition to remove this restriction is presently being considered by FDA and a favorable disposition is expected shortly.

Regarding international interest in FPC, I suggest you write Dr. Steve R. Tannenbaum at the following address and request a copy of the proceedings from an international conference on FPC held in Cambridge in June 1972.

Dr. Steve R. Tannenbaum
Associate Professor of
Food Science
Department of Nutrition
and Food Science
Massachusetts Institute of
Technology
Cambridge, Massachusetts 02139

This will give you a summary of both the interest and activities of the many countries represented at the conference.

JOSEPH W. SLAVIN
Associate Director for
Resource Utilization

Publications

"Our Living Oceans"

A new NMFS publication series, "Our Living Oceans," developed jointly by the NOAA Publications Office and the Extension Division, has been established. The first number issued is "Secrets of the Sea."

The series is primarily oriented toward educational user groups, ages 8 to 18. Much of the information, however, should also be useful to anyone interested in living marine resources.

Copies of "Our Living Oceans" are available from NMFS Regional Coordinators. Additional copies are also available from D83, Technical Information Division, Environmental Data Service, NOAA, Washington, DC 20235.

"Hawaiian Reef Animals"

NMFS scientist Edmund Hobson is co-author of a new book, "Hawaiian Reef Animals," published by the University of Hawaii Press with support in part from the State of Hawaii and from NOAA's Sea Grant Program. Dr. Hobson wrote the introduction and the section on fishes. E.H. Chave, University of Hawaii, contributed a section on invertebrates.

The book is illustrated with 86 superb full-color photographs of the fishes and invertebrates. These were all taken by Hobson, a skillful diver and photographer of professional ability.

Hobson received his doctorate from the University of California, Los Angeles. At present he is working at the Marine Science Center, Avalon,

¹Editor's Note: The plural here is an optimistic misnomer, since we have only one letter. But it deals with an important topic. We would like to use this space to print answers by NMFS specialists to fishery questions of general interest. If you have such a question, please address it to the Editor, *Marine Fisheries Review*, Room 450, 1107 N.E. 45th St., Seattle, WA 98105. We reserve the right to edit letters.

California, on a study of fishes associated with California's kelp forests.

The 135-page book, "Hawaiian Reef Animals" is available for \$7.50.

Marine Pollution

Five papers by NMFS scientists appear in the book, "Marine Pollution and Sea Life," issued by Fishing News (Books) Ltd., London (price 17 pounds, 45 pence). The book, the publishers say, deals with the most comprehensive effort ever made to scientifically assess, with a view to remedy, the extent of marine pollution throughout the world today and its effect on sea life. A congress of scientists in the areas concerned with pollution, and of administrators and executives associated with official and civic bodies, was organized by the Food and Agriculture Organization of the United Nations and held in Rome in 1970. The volume is one result of that conference.

NMFS authors and their papers are:

Rice, T.R., J.P. Baptist, F.A. Cross (all of the Atlantic Estuarine Fisheries Center, Beaufort, N.C.), and T.W. Duke (now of the Environmental Protection Agency, Gulf Breeze, Fla.), "Potential Hazards from Radioactive Pollution of the Estuary," p. 272-276.

Trent, W.L. (Gulf Coastal Fisheries Center, Panama City Laboratory, Fla.), E.J. Pullen (Corps of Engineers, Galveston, Tex.), and D. Moore (Water Resources Division, NMFS Southeast Region), "Waterfront Housing Developments: Their Effect on the Ecology of a Texas Estuarine Area," p. 411-417.

Stout, V.F. (Pacific Fishery Products Technology Center, Seattle, Wash.), F.L. Beezhold, and C.R. Houle (Pacific Fishery Products Technology Center, Seattle, Wash.), "DDT Residue Levels in Some U.S. Fishery Products and Some Treatments in Reducing Them," p. 550-553.

Glude, J.B. (Northwest Region, Seattle, Wash.), "Information Requirements for Rational Decision-Making in Control of Coastal and Estuarine Oil Pollution," p. 622-624.

Pearce, J.B. (Middle Atlantic Coastal Fisheries Center, Highlands, N.J.), "The Effects of Solid Waste Disposal on Benthic Communities in the New York Bight," p. 404-411.

Bioenvironmental Studies

A.T. Pruter, Deputy Director, Northwest Fisheries Center, Seattle, Wash., and D.L. Alverson, Director, Northwest Fisheries Center, are co-editors of an 882-page book, "The Columbia River Estuary and Adjacent Ocean Waters," published for the Atomic Energy Commission by the University of Washington Press (price, \$22.00).

The book is based on research carried out by the University of Washington, Oregon State University, Battelle Memorial Institute, and NMFS. It describes the physical, chemical, and biological aspects of the Columbia River estuary and adjacent ocean waters, and measures radionuclides in the physical environment and the biota.

Paper by NMFS staff members (all from the Northwest Fisheries Center) are:

Pruter, A.T., "Review of the Commercial Fisheries in the Columbia River and in Contiguous Ocean Waters," p. 81-120.

Heyamoto, H. (with Andrew J. Carey, Jr., Oregon State University), "Techniques and Equipment for Sampling Benthic Organisms," p. 378-408.

Pereyra, Walter T., and Miles S. Alton, "Distribution and Relative Abundance of Invertebrates off the Northern Oregon Coast," p. 444-474.

Alton, Miles S., "Bathymetric Distribution of the Echinoderms off the Northern Oregon Coast," p. 475-637.

Pereyra, Walter T., "Bathymetric and Seasonal Abundance and General Ecology of the Tanner Crab, *Chionoecetes tanneri* Rathbun (Brachyura: Majidae), off the Northern Oregon Coast," p. 538-582.

Alton, Miles S., "Characteristics of the Demersal Fish Fauna Inhabiting the

Outer Continental Shelf and Slope off the Northern Oregon Coast," p. 583-634.

Alverson, Dayton L., "Bioenvironmental Features: An Overview," p. 845-857.

Directories for Mariners

Directories of services for mariners covering Alaska, British Columbia, Washington, Oregon, California, and Hawaii have been issued in two publications sponsored by the Pacific Area Sea Grant Advisory Program (PASGAP).

PASGAP 1, "Directory of Services for Mariners: North Pacific Coast," a revision of "Commercial Fishermen's Directory of Emergency Services: North Pacific Coast," originally published in 1971, is a 158-page publication covering Alaska, British Columbia, Oregon, and northern California. It covers such topics as medical assistance available to fishing vessels; U.S. Public Health Service physicians and hospitals; Coast Guard stations; customs reminders; marine weather broadcasts; special broadcasts of warning message, and other topics. By port, it lists the names, addresses, and telephone numbers of agencies and businesses offering marine services and supplies.

PASGAP 8, "Directory of Services for Mariners: California and Hawaii," gives the same types of information for those states.

Both publications are available free from participating agencies.

PASGAP is a regional organization funded by NOAA's Office of Sea Grant. Its purpose is to identify regional marine needs and priorities and to fill these needs through publications, talent sharing, and workshops. Members include representatives of marine advisory programs from the University of Alaska, the University of British Columbia, University of California, University of Southern California, University of Hawaii, Oregon State University, University of Washington, and NMFS.

Russian Translations

The following six Russian publications were recently translated and printed in Israel for the National Marine Fisheries Service (NMFS), NOAA, under the Special Foreign Currency Science Information Program (financed with Public Law 480 funds). They are sold at the indicated prices by the National Technical Information Service (NTIS), Springfield, Va. 22151. When ordering, cite the publications' accession numbers.

1. "Soviet Fishery Investigations in the Northeastern Pacific," Part 5, edited by P.A. Moiseev, Proceedings of the All-Union Research Institute of Marine Fisheries and Oceanography (VNIRO), Vol. 70, and (jointly) Proceedings of the Pacific Research Institute of Fisheries and Oceanography (PINRO), Vol. 72, Moscow, 1970, 462 pp.

This collection of 25 papers is the last part of a five-volume series covering the comprehensive fisheries research done by the Soviets in the eastern Bering Sea, Gulf of Alaska, and adjacent waters. The papers deal with the following topics related to those areas: bottom relief; sediment; areas suitable for trawling; mineral composition; hydrological characteristics of whaling grounds; and primary production and quantitative distribution of plankton and benthos. Also covered is the distribution of several species of crustaceans and fish such as the deep-sea prawn, king crab, squid, rockfish, halibut, yellowfin sole, herring and walleye pollock. Accession number: TT 71-50127.

\$10.60.

2. "Theory and Design of Commercial Fishing Gear," by A.L. Fridman, Moscow, 1969, 489 p.

This textbook was compiled for the training of students of Soviet fishery colleges and faculties. The general principles involved in commercial fishing gear and their application to the design of basic types of gear are discussed. In addition to presenting traditional methods for the evaluation and testing of fishing gear, several new methods based on the theory of similarity and modeling are described. The design of trawls, seines, stationary gear and hooks and lines are discussed at great length. Also covered is

the gear utilized for fishing with electric light and electric current. Accession number: TT71-50129. \$6.00.

3. "The Sperm Whale," by A.A. Berzin, Pacific Research Institute of Fisheries and Oceanography (PINRO), Moscow, 1971, 394 pp.

The material in this volume was collected by the author during whaling expeditions in North Pacific in 1955-1956 as well as during cruises of research vessels. Covered in great detail are the systematics, morphology, distribution and biological features of the sperm whale. Also discussed are commercial whaling and processing and utilization of the whale's raw material. Accession number: TT71-50152. \$6.00.

4. "Fertilization in Fishes and the Problems of Polyspermy," by A.S. Ginzburg and published in Moscow in 1968.

The book is an extensive survey on fertilization patterns in relationship to polyspermy, especially pertaining to fishes. It describes in detail the organization and properties of fish eggs and spermatozoa, their interaction and changes during fertilization. A mechanism for protecting the egg from supernumerary spermatozoa is suggested. Factors determining change in types of fertilization (physiological monospermy and polyspermy) in evolution are also discussed. A useful supplement for fish culturists contains practical conclusions based on the presented data. Accession number: TT 71-50111.

\$6.00.

5. "Proceedings of the All-Union Research Institute of Marine Fisheries and Oceanography (VNIRO)," Vol. 79, edited by A.S. Bogdanov and published in Moscow in 1971.

A collection of 25 papers covering a variety of problems related to fish resources; perfection of fish finding; and the technology and mechanization of fish processing. Specifically, they deal with aspects of research and biological resources of the world ocean (paper by P.A. Moiseev, Director of VNIRO); water dynamics in areas of krill concentrations; surface currents in the Scotia Sea; biological productivity of aquatic biocenoses and problems of chemical ecology; physiology of marine and anadromous fishes; regression analysis as a method of forecasting; effect of radioactive contamination of the

aquatic medium on the reproduction capacity of fish; estimation on the number of fertile female harp seals; irradiation of fish under marine fishing conditions; krill as a food resource; new methods for the production of agaroid; and other papers on fish processing. Accession number: TT 71-50131. \$3.00.

6. "Fauna of the Kurile-Kamchatka Trench and its Environment (Based on Data of the 39th Cruise of RV *Vityaz*)," edited by V.G. Bogorov and published in Moscow in 1970.

The extensive material collected during the numerous comprehensive trips of RV *Vityaz* has revealed general patterns in the distribution of animals and plants in the water as related to physical and chemical factors. The Kurile-Kamchatka Trench area in NW Pacific was selected for investigation because its maximum depths exceed 30,000 feet. It was thus possible to study the vertical changes of fauna within a wide range of depths. In addition, the high productivity of surface waters in this area is responsible for the presence of a rich deep-water fauna which increased the diversity of material obtained and yielded larger samples per unit time than less productive parts of the ocean. Accession number: TT 71-50130. \$6.00.

Recent NMFS Scientific Publications PERIODICALS

Fishery Bulletin, Vol. 71, No. 1, January 1973, p. 1-324. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Subscription price: \$8.00 per year (\$2.00 additional for foreign mailing). Cost per single issue, \$2.25.

Marine Fisheries Abstracts. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Subscription price: \$6.50 per year (\$1.75 additional for foreign mailing). Single copy, 65 cents.

Vol. 26, No. 1, January 1973, 32 p.
Vol. 26, No. 2, February 1973, 32 p.
Vol. 26, No. 3, March 1973, 44 p.
Vol. 26, No. 4, April 1973, 30 p.
Vol. 26, No. 5, May 1973, 40 p.

Marine Fisheries Review. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Subscription price: \$12.50 per year (\$3.25 additional for foreign mailing). Single copy, \$1.25.

Vol. 35, Nos. 1-2, January-February 1973, 56 p.

Vol. 35, Nos. 3-4, March-April 1973, 80 p.

OTHER PUBLICATIONS

NOAA Technical Report NMFS CIRC-368, McNulty, J. Kneeland, William N. Lindall, Jr., and James E. Sykes. **"Cooperative Gulf of Mexico estuarine inventory and study, Florida: phase 1, area description."** November 1972. 126 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: \$1.25.

ABSTRACT

Newly-developed tables and maps depict the dimensions, submerged vegetation, tidal marshes, mangrove swamps, commercial oyster beds, leased oyster-rearing areas, sources of pollution, drained tidal marshes, and filled areas of Florida's west coast estuaries. Published and unpublished information on temperature, salinity, geology, artificial fishing reefs, stream discharge, human population, commercial fishing, and economic development is presented in new form.

If the total area of estuaries (3,003,312 acres = 1,215,440 ha) is considered to be the area of open water (2,081,525 acres = 842,393 ha) plus the area of mangrove swamps (393,160 acres = 159,112 ha) and tidal marshes (528,528 acres = 213,895 ha), then roughly one-half of the total area of estuaries is unvegetated; the remaining half is about equally divided among mangroves, tidal marshes, and submerged vegetation.

Human population in coastal counties increased from 614,616 persons in 1930 to 3,320,226 persons in 1970, resulting in adverse effects from pollution to 43 percent of estuarine areas, filling of 23,521 acres (9,519 ha) mainly for residential and industrial development, and draining of 26,676 acres (10,796 ha) of tidal marshes for mosquito control. Increasing population correlates di-

rectly with the number of sources of pollution, filled area, and the area closed to shellfishing by public health authorities; thus, failure to control the adverse effects of population growth will clearly result in continued rapid degradation of estuarine habitat on Florida's west coast.

NOAA Technical Report NMFS CIRC-369, Feddern, Henry A. **"Field guide to the angelfishes (Pomacanthidae) in the western Atlantic."** November 1972. 10 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Price: 25 cents.

ABSTRACT

A key illustrated by photographs and brief descriptions is presented to aid in identifying the six species of angelfishes, family Pomacanthidae, found in the western Atlantic.

NOAA Technical Report NMFS CIRC-370, Kramer, David, Mary J. Kalin, Elizabeth G. Stevens, James R. Thailkill, and James R. Zweifel. **"Collecting and processing data on fish eggs and larvae in the California Current region."** November 1972. 38 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 50 cents.

ABSTRACT

Descriptions are given for the methods used by the California Cooperative Oceanic Fisheries Investigations to collect and process plankton. These include details of the design of the station pattern in the survey area, the gear and methods used for plankton hauls, measuring plankton, and sorting plankton for fish eggs and larvae; some procedures for identifying fish eggs and larvae; details of "hand" processing data for standardization of numbers of organisms collected in all plankton hauls; calibration of flowmeters; and some new procedures for automatic data processing.

NOAA Technical Report NMFS CIRC-372, Manar, Thomas A. **"Fishery publications, calendar year 1971: lists and indexes."** October 1972. 24 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 30 cents.

ABSTRACT

The following series of fishery publications of the National Marine Fisheries Service, National Oceanic and Atmospheric Administration, in calendar year 1971 are listed numerically (with abstracts) and indexed by author, subject, and geographic area: NOAA Technical Report CIRC (formerly Circular); Data Report; Fishery Leaflet; and NOAA Technical Report NMFS SSRF (formerly Special Scientific Report—Fisheries).

NOAA Technical Report NMFS CIRC-377, Engett, Mary Ellen, and Lee C. Thorson. **"Fishery publications, calendar year 1970: lists and indexes."** December 1972. 34 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 45 cents.

ABSTRACT

The following series of fishery publications of the National Marine Fisheries Service, National Oceanic and Atmospheric Administration (until October, 1970 the Bureau of Commercial Fisheries of the U.S. Fish and Wildlife Service) in calendar year 1970 are listed numerically (with abstracts) and indexed by author, subject, and geographic area: Circular, Data Report, Fishery Industrial Research, Fishery Leaflet, and Special Scientific Report—Fisheries.

NOAA Technical Report NMFS SSRF-660, Ellis, James E., and Charles C. Hoopes. **"A Freshwater Fish Electro-Motivator (FFEM)—its characteristics and operation."** November 1972. 11 p.

ABSTRACT

A prototype Freshwater Fish Electro-Motivator (FFEM) system was developed as a research tool to test the application of electricity for use with active and passive fishing gear for increasing the gear's catching efficiency. The system's basic characteristics and operating modes are explained. The prototype system is extremely sophisticated, and its versatility permits single or multiple time-sequenced electrode loading and various pulse patterns, and allows duty cycles over a wide dynamic electrode load range. A summary of the field testing is discussed.

NOAA Technical Report NMFS SSRF-661. Hester, Frank J., and Tamio Otsu. "A review of the literature on the development of skipjack tuna fisheries in the central and western Pacific Ocean." January 1973. 13 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 25 cents.

ABSTRACT

There has been a rapid acceleration in efforts to develop skipjack tuna fisheries in the central and western Pacific. This is because the resources of the larger tunas (yellowfin, bigeye, bluefin, and albacore) are already being fished at or near the maximum sustainable level. The greatest potential for increased harvest appears to be the skipjack resource. To assist the skipjack development effort, pertinent information on the subject is summarized and a bibliography of selected references is included.

NOAA Technical Report NMFS SSRF-662. Wise, John P., and Charles W. Davis. "Seasonal distribution of tuna and billfishes in the Atlantic." January 1973. 24 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 35 cents.

ABSTRACT

Charts of the Atlantic Ocean for each quarter of the year—January-March, etc.—show the distribution of 10 species and groups of species fished by the Japanese Atlantic longline fishery in the years 1956-68. These charts are based on detailed catch and fishing effort data published by the Japanese Government. Quarterly average catch per unit of effort was calculated for each $5^\circ \times 5^\circ$ square, and contour lines were drawn through equal levels of catch per unit of effort. The text explains the calculation and contouring processes in detail, and has a section of remarks and explanation for each of the 10 species or groups.

NOAA Technical Report NMFS SSRF-663. Waldron, Kenneth D. "Fish larvae collected from the northeastern Pacific Ocean and Puget Sound during April and May 1967." December 1972. 16 p. For sale by the Superintendent of

Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 30 cents.

ABSTRACT

Fish larvae belonging to 24 families and the suborder Blennioidea were collected from Puget Sound and the Pacific Ocean off British Columbia, Washington, and Oregon during April and May 1967. All families and the Blennioidea were present in oceanic waters, but only 13 families and the Blennioidea were present in Puget Sound. The most abundant families in the oceanic area were Scorpaenidae, Myctophidae, and Pleuronectidae, whereas in Puget Sound the most abundant families were Gadidae, Pleuronectidae, and Scorpaenidae. Variations in composition and numbers of larvae in the catch were associated with area, water depth, water temperature, and time of day at which the collections were made.

NOAA Technical Report NMFS-664. Kroger, Richard L., and Robert L. Dryfoos. "Tagging and tag-recovery experiments with Atlantic menhaden, *Brevoortia tyrannus*." December 1972. 11 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

ABSTRACT

Laboratory tagging experiments with adult and juvenile Atlantic menhaden were conducted at Beaufort, N.C., in 1965 and 1969. Tag-recovery experiments were done at menhaden processing plants at Beaufort, N.C. Internal ferromagnetic body tags of appropriate sizes are suitable for tagging adults and juveniles, and the tags can be recovered effectively on magnets in the processing plants.

NOAA Technical Report NMFS SSRF-665. Eldridge, Maxwell B., and Charles F. Bryan. "Larval fish survey of Humboldt Bay, California." December 1972. 8 p. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Price: 25 cents.

ABSTRACT

As part of a series of investigations of the marine resources of Humboldt Bay, Calif., a larval fish survey was

conducted from January to December 1969. Bottom and oblique tows were made at five sampling stations with 1-m plankton nets on alternate biweekly intervals. Thirty-seven species of larval and juvenile fishes representing 17 families were collected. In terms of larval abundance, the dominant fish was the bay goby, *Lepidogobius lepidus*, followed by Pacific herring (*Clupea harengus pallasii*), Pacific staghorn sculpin (*Leptocottus armatus*), longfin smelt (*Spirinchus thaleichthys*) and the arrow goby (*Clevalandia ios*). These five species constituted 95% of all larvae captured.

The number of larvae captured increased with increasing distance from the mouth of the Bay. The lowest number of species captured was at a station which experienced the widest range of salinities and temperatures. Peaks of seasonal abundance occurred in January and February and in April and May. Relatively few fish were captured after June. Some notable appearances of offshore spawned fishes were found in Humboldt Bay.

Data Report 75. Ingraham, W. James, Jr., Donald M. Fisk, Charles J. Bartlett, and Stephen E. Turner. "Physical-chemical oceanographic data from the North Pacific Ocean and Bering Sea, 1971." 169 p. (3 microfiche). For sale by U.S. Department of Commerce, National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22131. Accession No. COM-73-10192. Price: \$0.95 (microfiche); \$3.00 (hard copy).

ABSTRACT

Temperature and salinity data were obtained in the North Pacific Ocean at 176 stations in 1971 during spring and autumn cruises of the RV *George B. Kelez* south of the Aleutian Islands, in the Bering Sea, and along the coasts of Washington and British Columbia. Values were obtained from STD traces at standard depths to 1,000 m (spring data) or 1,500 m (autumn data). Computations of density (σ_t), sound velocity, anomaly of specific volume, and dynamic height, which were performed by a shipboard PDP-8 computer, are also presented. The autumn data tabulations were obtained automatically through a new computer interface.