RECENT FISHERY PUBLICATIONS

FISH AND WILDLIFE SERVICE
PUBLICATIONS

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CFS - CURRENT FISHERY STATISTICS OF THE UNITED STATES
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SL - STATISTICAL SECTION LISTS OF DEALERS IN AND PRO­
DUCERS OF FISHERY PRODUCTS AND BYPRODUCTS.
SEP. - SEPARATES (REPRINTS) FROM COMMERCIAL FISHERIES
REVIEW.

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<td>CFS-1887</td>
<td>Rhode Island Landings, July 1958, 3 pp.</td>
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Wholesale Dealers in Fishery Products (Revised):
SL- 6 - New York Coastal Area, 1958.
SL- 21 - California, 1958.

Sep. No. 534 - A Survey of the American and Japa­
nese Albacore Tuna Fisheries in the Pacific Through Examination of Catch Statistics.


Sep. No. 536 - Research in Service Laboratories
(January 1959): "Technical Note No. 49 - Mea­
surement of Rancidity in Fishery Products by 2­Thiobarbituric Acid Method.

THE FOLLOWING SERVICE PUBLICATIONS ARE AVAILABLE ONLY
FROM THE SPECIFIC OFFICE MENTIONED.


Monthly Summary of Fishery Products Production in Selected Areas of Virginia, North Carolina, and Maryland, November 1958, 4 pp. (Market News Service, U. S. Fish and Wildlife Service, 18 So. King St., Hampton, Va.) Fishery landings and production for the Virginia areas of Hampton Roads, Lower Northern Neck, and Eastern Shore; the Maryland areas of Crisfield, Cambridge, and Ocean City; and the North Carolina areas of Atlantic, Beaufort, and Morehead City; together with cumulative and comparative data; for the month indicated.

New England Fisheries--Monthly Summary, No­
vember 1958, 21 pp. (Market News Service, U. S. Fish and Wildlife Service, 10 Common­wealth Pier, Boston 10, Mass.) Reviews the principal New England fishery ports, and presents food fish landings by ports and species; indus­trial fish landings and ex-vessel prices; im­ports; cold-storage stocks of fishery products in New England warehouses; fishery landings and ex-vessel prices for ports in Massachusetts (Boston, Gloucester, New Bedford, Provin­cence-town, and Woods Hole), Maine (Portland and Rockland), Rhode Island (Point Judith), and Con­necticut (Stonington); frozen fishery products prices to primary wholesalers at Boston, Gloucester, and New Bedford; and landings and ex-vessel prices for fares landed at the Boston Fish Pier and sold through the New England Fish Exchange; for the month indicated.

MISCELLANEOUS PUBLICATIONS

THESE PUBLICATIONS ARE NOT AVAILABLE FROM THE FISH AND WILDLIFE SERVICE, BUT USUALLY MAY BE OBTAINED FROM THE ORGANIZATION ISSUING THEM. CORRESPONDENCE REGARDING PUBLICATIONS THAT FOLLOW SHOULD BE ADDRESSED TO THE RESPECTIVE ORGANIZATION OR PUBLISHER MENTIONED. DATA ON PRICES, IF READILY AVAILABLE, ARE SHOWN.

ALGAE:


ANTIBIOTICS:

BIOCHEMISTRY:

CANNING:

COD-LIVER OIL:

CONTAINERS:
"A New Fish Box Made of Plastic," article, La Revue de la Conserve, March 1957, p. 83, printed in French. La Revue de la Conserve, 1 Rue de la Reale, Paris 1, France.

COOKERY:
"Favourite Fish Recipes, Consumer Bulletin No. 7, 11 pp., processed. Department of Fisheries, Ottawa, Canada, 1957.
Fish Recipes, 23 pp., processed. Queen's Print-
er and Controller of Stationery, Ottawa, Can-
ad, 1958.

The Way to Cook Fish, 8 pp., processed. Queen's
Printer and Controller of Stationery, Ottawa,
Canada, 1958.

ELECTRICAL FISHING:
"Die Fanggerate der Elektrofischerei" (The Fish-
ing Gear for Electrofishing), by E. Halsband,
article Der Kescher, vol. 7, no. 1, January-Feb-
uary 1957, pp. 3-8, illus., printed in German.

ENGLISH SOLE:
Problems of Sampling a Puget Sound Population
of English Sole, PAROPHYRIS VETULUS, by
Richard Van Cleve and Alonzo T. Pruter, Con-
tribution No. 13, 7 pp., illus., printed. School of
Fishes, University of Washington, Seattle, Wash.,
1956.

FACTORYSHIP:
"The Factoryship of the Future," by C. Birkhoff,
article, Hansa, vol. 94, no. 12-13, March 23,
1957, p. 593, printed in German. Hansa Zeit-
schrift Schiffbau, Hafen, C. Schroedter & Co.,
Stubbenhuk 10, Hamburg 11, Germany.

World Fishing, vol. 7, no. 11, November 1958,
132 pp., illus., printed. John Trundell, Ltd.,
St. Richards House, Eversholt St., London N. W.
1, England. Includes, among others, a section
entitled, "Factoryship Survey," which covers
the following topics: "Is the Full-Scale Factory
Trawler the Answer? A Modified View," by W.
Lochridge; "Is the Mothership Idea Better," by
C. Birkhoff; "Russians Will Have Over 90 Large
Factory Trawlers;" "Fish Freezing Problems
and Techniques," by M. B. F. Ranken; "Factory
Design Operations: The Russian Way,;" "Factory
Trawlers: the Crewing Position;" "The Two
New Salvesen Vessels;" by Norman James
Cheater; and "Machine Filleting at Sea--Some
of the Baader Range." In addition, there are
smaller articles on: "How Many Factory Trawl-
ers?;" "Fresh Water Supply for Factoryships;
"Fairtry Economics;" and "Factoryships: A
Merchant's View." These articles present
trends in factoryship fishing and were contrib-
uted by authors in Russia, Poland, Germany,
and the United Kingdom. The section deals with
the design, operation, economics, and manning
of factory trawlers. Many different opinions
and ideas are described in an interesting and
objective manner with a number of sketches and
photographs included.

FILSETS:
"The Expressible Fluid of Fish Fillets" (VII.
Freezing Damage and Protein Denaturation Un-
der Pressure: VIII. Cell Damage in Slow Freez-
ing: IX. Other Types of Cell Damage Caused by
Freezing), by R. M. Love and O. Karstli, article,
Journal of the Science of Food and Agriculture,
vol. 9, May 1958, pp. 249-268, printed. Society
of Chemical Industry, 9/10 Savile Row, W. 1,

"Should We Prewrap Fresh Fillets in Consumer
Packages?" by C. H. Castell, article, Canadian
Fisherman, vol. 15, June 1958, pp. 12, 15,
Gardenvale, Quebec, Canada.

FINGERLINGS:
A Factorial Study of the Response of Steelhead
"Trout, Chinook and Silver Salmon Fingerlings
To Chain Barriers in Moving Water, by P. E.
Fields and others, Technical Report No. 13, 7
pp., printed. School of Fisheries, University of

FISH MEAL:
Feeding Trials with Skim Milk, Meat Meal, Fish
Meal, and Soybean Oil Meal for Bacon Pigs, by
A. Hellberg, O. Dahl, and K. I. Appelgren,
National Animal Experiment Station, Royal Agri-
cultural College Bulletin No. 62, 26 pp., printed
in Swedish with English summary. Ultuna, Upp-
sala 7, Sweden, 1956.

"Fish Meal--Analysis," by D. Montequi and M. D.
Garcia Pineda, article, Boletin del Instituto Es-
panol de Oceanografia (Bulletin of the Spanish
Institute of Oceanography), No. 79, June 1956,
p. 79, printed. Boletin del Instituto Espanola
de Oceanografia, Alcala 27, Madrid, Spain.

FISH OILS:
Animal and Vegetable Fats and Oils, 1957 (Facts
for Industry), 48 pp., illus., processed, 20
cents. (For sale by the Superintendent of Doc-
uments, U. S. Government Printing Office,
Washington 25, D. C.) Bureau of the Census,
Washington 25, D. C., 1958. Includes data on cod,
cod-liver, fish, and marine-mammal oils in relation to factory pro-
duction and consumption, factory and warehouse
stocks, imports and exports.

"Manufacture of Vitamin A Concentrate from
Fish-Liver Oil. VII--Estrification of Vitamin
A Concentrate. 2--Acetylation with Keten," by
Hideo Higashi and Toyosuke Kinumaki, article,
500-503, printed in Japanese. Japanese Society
of Scientific Fisheries, Tokaiku Kenkyu-
jo, No. 3, Tsukiji, Chuo-Ku, Tokyo, Japan.

FISH PONDS:
Ranch Fish Ponds, by C. J. D. Brown and Nels
Thoreson, Bulletin No. 544, 26 pp., illus., print-
ed. Agricultural Experiment Station, Bozeman,
Montana, 1958.

FLORIDA:
Summary of Florida Commercial Marine Fish
Landingss for 1957, By Albert Rosen and Rob-
ert W. Ellis, in collaboration with Lloyd John-
son and Pierre Serio, 65 pp., illus., printed.
State Board of Conservation, Tallahassee, Fla.,
1958.

FOOD AND AGRICULTURE ORGANIZATION:
Indoor Drying of Salt Fish in South Brazil, by
S. A. Beatty, E. Barros, R. C. Lamprecht, and
M. Furuya, FAO Fisheries Papers No. 13, 13
pp., illus., processed. Fisheries Division,
Food and Agriculture Organization of the United Nations, Viale delle Terme di Caracalla, Rome, Italy, August 1958. The experiments carried out by the authors of this paper on indoor drying of salt fish in South Brazil is of practical interest to many semitropical and tropical countries where there is a need to introduce artificial drying of salt fish. As in other hot and humid countries, sun-drying of fish in southern Brazil is restricted for several reasons, chiefly that the sun is too hot for direct sun-drying in summer and climatic conditions are too humid in winter. Also, when fish are dried on racks, they often become dirty with sand and dust and the high summer temperatures favor the development of red halophilic bacteria, thus spoiling the fish. The authors constructed an experimental tunnel dryer which enabled them to obtain sufficient data to design a commercial dryer. A prototype was built with a capacity of 1,500-3,100 pounds of wet fish, depending on the size of fish, and operated through the hotter months of the Brazilian summer of 1957/58. It was found to be quite possible to dry the fish of South Brazil throughout the year in tunnels without dehumidification of the air. The fish were shown to withstand more heat than fish of the North Atlantic, gone being visibly damaged by exposure to 120°F. Air temperatures of 97 - 102°F, and air velocity of 1.5 m. (5 ft) a second, and a relative humidity of 50 percent maintained in the tunnel, were found to dry the fish rapidly.


FROZEN FOODS: Frozen Food, Leaflet R-5, 15 pp., illus., processed. Massachusetts Extension Service, University of Massachusetts, Amherst, Mass. A guide for personnel handling frozen foods in modern retail food stores. It contains suggestions on how store managers and employees can increase sales and profits from frozen foods by improved maintenance of quality, handling efficiency, and turnover rate. This leaflet is designed especially for use in the educational programs conducted with food retailers by the Cooperative Extension Services of the New England State Universities.

GEAR: "Behavior of Fishes Entering Trap Nets," by H. Miyamoto, article, Bulletin of the Tokai Regional Fisheries Research Laboratory, no. 15, January 1957, pp. 77-87, illus., printed. Tokai Regional Fisheries Research Laboratory, Tsukishima, Kuoashi, Tokyo, Japan.

"Dumping Deck Used to Chute Trash Overboard on Scalloper, Dartmouth," article, National Fisherman, vol. 38, no. 6, July 1957, p. 17, illus., printed. National Fisherman, Goffstown, N. H. A specially-constructed section of the deck of the 93-foot New Bedford scalloper Dartmouth can be raised hydraulically for dumping trash back into the sea. The captain of the Dartmouth claims that the hydraulic deck reduces the time at sea and makes more full trips possible. The device saves the work of shoveling overboard the debris brought up in the drags, and gives crew members more time for shucking and packing. When the deck raises, 16 feet of the side rails open at the same time and the upraised deck dumps its trash through the open rails.

"Maskanot rishonot al Avodat Reshet Kil ayim - Dgam B' b' Sefinat Hanisyonot Hatzvi" (Preliminary Results on the Operation of the Hybrid Net - Type B on the R/V Hatzvi), by E. Hamburger, article, Fishermen's Bulletin, no. 9, Sept. 1956, p. 43, printed in Hebrew. Fishermen's Bulletin, P. O. Box 699, Haifa, Israel.

Mechanization of Fishing Craft and the Use of Improved Fishing Gear, by E. R. A. de Zyliva, Bulletin No. 7, 25 pp., illus., printed. Fisheries Research Station, Department of Fisheries, Colombo, Ceylon, 1958. It is stated that "Since the year 1925, attention has been focussed periodically on the stagnation in the local fishing industry, and those who have studied the subject have been unanimous about the need to introduce modern fishing craft capable of working more fishing gear. This report outlines the stages through which the evolution of more effective fishing operations has progressed, both in the gradually increasing use of mechanical propulsion for boats and in the adoption of more modern gear and techniques by local fishermen."

"Mivne Reshet Kil 'ayim - Dgam "Dub" (The Design of the Hybrid Net - Type B), by M. Ben-Yami, article, Fishermen's Bulletin, no. 9, Sept. 1956, 1 p., illus., printed in Hebrew. Fishermen's Bulletin, P. O. Box 699, Haifa, Israel.

"Tatzpiot tat-meymiot shell Reshet Kil 'ayim - Dgam B" (Underwater Observations of the Hybrid Net - Type B), by Y. Assaff, article, Fishermen's Bulletin, no. 9, Sept. 1956, pp. 41-42, illus., printed in Hebrew. Fishermen's Bulletin, P. O. Box 699, Haifa, Israel.

"Unterwasserantriebs-, Transport- und Mehrzweckgeräte 'Jonas'" ('Jonas', a Multiple Gear for Underwater Observation, Transport, etc.), by O. Flössel, article, Gewässer, und Abwässer, Limnologische Schriftenreihe, no. 15/16, 1957, pp. 26-36, illus., printed in German. August Babel Verlag, Düsseldorf, W. Germany.

GENERAL: Bulletin of Marine Science of the Gulf and Caribbean, vol. 8, no. 3, 1958, pp. 201-298, illus., printed. The Marine Laboratory, University of Miami, I Rickenbacker Causeway, Virginia Key, Miami 49, Fla. Contains, among others, the following articles: "A Review of Ciguatera, Tropical Fish Poisoning, with a

United States Coast Pilot 5, 286 pp., printed, $2.50. "Coast and Geodetic Survey, U. S. Department of Commerce, Washington 25, D. C. The latest edition of this publication cancels two 1949 editions which formerly covered, in separate volumes, the Gulf Coast and West Indies. It has been more than two years in the making, covers the Gulf Coast of the United States from Key West to the Rio Grande and also Puerto Rico and the Virgin Islands in the West Indies. By eliminating certain duplicated material and adopting a radical new format, the new Coast Pilot now contains nautical information that previously required more than 800 pages. A Coast Pilot would probably be described by the layman as a combination atlas, encyclopedia, geography text, and nautical guidebook all rolled into one. Actually each book contains information required by the navigator that cannot be shown conveniently on the nautical charts. It's a welcome addition aboard anything that floats, from a 14-foot outboard to the high-speed passenger liner. The Coast Pilots are published to supplement the 814 nautical charts covering the coasts of the United States and its possessions. They include data relative to the coastline such as port information, sailing directions for coasting and entering harbors, and general information as to weather conditions, navigation regulations, and radio service. New editions are published about every seven years. Supplements, containing changes and new information, are published annually and distributed free. The new volume is the first to be published using the new and more compact format. Eventually only six volumes will be needed to cover the coasts of the United States and its possessions.

GERMANY:

This interesting book contains the official annual fisheries report of the West German Government. It is issued by the Ministry of Food, Agriculture, and Forestry which contains the Fisheries Directorate. The Bureau of Statistics cooperated in preparation of the report, which is in the style of the Yearbook of the United States Department of Agriculture and Agricultural Statistics. The 262 pages are divided into three parts.

Part I contains detailed statistics on 1957 German fishery catch, craft, gear, imports, exports, prices and consumption. It opens with a general review by the Director of Fisheries, Dr. G. Meseck. The 1957 fish and shellfish landings amounted to 685,800 metric tons, valued at DM 232,940,000 (US$56.2 million). Catches of 22,733 metric tons, valued at DM 11,732,000 (US$2.8 million) were landed in foreign ports, directly from the fishing grounds. Herring, ocean perch, cod, and coalfish (pollock), in that order, were the most important species. The distant-water fisheries of the North Atlantic yielded less in 1957, and for the first time since 1950 the North Sea was the source of over 50 percent of the catch. A biological analysis of the statistical data is given. Other sections contain a detailed description of the fishing fleet and foreign trade.

Part II is devoted to detailed descriptions of biological, hydrographic, and meteorological research. Protective services are also described. Three protection vessels were operated. They handled about 2,000 patients. The fishery research vessel Anton Dohrn made 9 cruises. Research work is described, and a very interesting listing of available fisheries courses of instruction in various disciplines is given.

Part III contains reviews of activity during the year in various fishing and fish-processing segments of the industry. The German distant-water high-seas fishery, the herring fishery (lugger-type vessels), the near-water high-seas and coastal fisheries, inland fisheries, fish meal and oil, and fish-processing segments are covered.

Each of the three parts of the book are subdivided into sections, ranging in number from 5 for Part I to 7 for Part III. The sections consist of individual articles by government officials or members of the industry on the various subjects described above. This is a convenient arrangement and one that the reader welcomes, since none of the sections becomes laboriously long or too detailed.

The text is written in German. However, there is a short summary written in English at the end of each section. The tables also have subtitles in English. These subtitles adequately explain their contents. A knowledge of German is essential to get the most out of the book, but there is enough in the way of English summaries and subtitles to make it useful for reference purposes, especially for the statistical data.

The report should prove helpful to anyone interested in the fisheries of West Germany. It contains a wealth of current information on numerous subjects which are quite broad in scope.

--Walter H. Stolting

HAKE ROE:
HERRING:

"Chemical Studies on Herring Meat," by Sasa Shigeo, article, Bulletin of the Faculty of Fisheries, Hokkaido University, vol. 8, no. 4, February 1958, pp. 373-375, printed. Faculty of Fisheries (Hokkaido) Hokkaido University, Hokkaido, Hokkaido, Japan.


ISRAEL:


LAVOR:


LAW OF THE SEA CONFERENCE:


The following reports have been issued:


LOBSTERS:

The Lobster Fishery of Wales, by A. C. Simpson, Ministry of Agriculture, Fisheries and Food, Fishery Investigations, Series II, Vol. XXII, No. 3, 36 pp., illus., printed, 9s. (US$1.26). Her Majesty's Stationery Office, London, England. A survey of the existing lobster and crab fisheries on the coast of Wales. After an account of the history of lobster fishing on the Welsh coast since 1800, the present fishery is described in detail. The report covers the boats used in the fishery, crews, and numbers of pots; types of lobster pot used; fishing methods; bait; storage; and marketing. The yields and potential facilities for lobster fishing off the Welsh coast are also discussed.


NORWAY:


OYSTERS:


POND CULTURE:

Pond Culture of Muskellunge in Wisconsin, by Leon D. Johnson, Technical Wildlife Bulletin No. 17, 54 pp., illus., printed. Game Manage-
PRESERVATION:
Comparative Studies of the Effects of the Tetra-
cyline Group of Antibiotics in the Preservation
of Fish, by Joseph A. Stern and others, Contribu-
tion no. 20, 17 pp., printed. School of Fish-
eries, University of Washington, Seattle, Wash.,
1957.

Investigations Concerning Preservation of Fish
Products for Feeding, by Nils Olsson and N.
Edvin Olofsson, National Animal Experiment
Station, Royal Agricultural College Bulletin No.
59, 38 pp., printed in Swedish with English sum-

"Protan Jelly Use Extended to Other Seafood
Products and Strawberries," by A. Olesen, arti-
cle, Quick Frozen Foods, vol. 20, no. 2, Sep-
tember 1957, pp. 238-239, printed. E. W.
Williams Publications, Inc., 82 Wall
Street, New York 5, N. Y.

PREVENTION BY IRRADIATION:
"Mulighederne for Konservering af Levedsmid-
ler Med Ioniserende Straling" (Possibilities of
Preserving Foods by Means of Ionizing Radia-
tion), by H. Riemann, article, Kulde, vol. 11,
no. 4, Aug. 1957, pp. 39-45, illus., printed in
Danish. Dansk Køle teknisk Tidsskrift, Øster
Volge 9, Copenhagen K., Denmark.

PROTEINS:
"Morphological Changes of Proteins and Effects
of Denaturation," by L. B. Gorbacheva, S. E.
Bresler, and S. Ya. Frenkel, article, Biochem-
66-76, printed in Russian. A. N. Bakh Institute
of Biochemistry, Moscow, Russia. (English
translation by Consultants Bureau, Inc., New
York, N. Y.) Blokhimiya, Akademiya Nauk
U. S. S. R., Podsoenski per. 21, Moscow,
U. S. S. R.

"Studies on the Protein of Skeletal Muscle.
4--Ultra-centrifugal Analysis of Codling Ex-
tracts," by J. J. Connell, article, The Biochem-
ical Journal, vol. 69, May 1958, pp. 5-12, print-
ed. Cambridge University Press, 51 Madison
Ave., New York 10, N. Y.

RAINBOW TROUT:
Development of Rainbow Trout Brood Stock by
Selective Breeding, by Lauren R. Donaldson
and Paul R. Olson, Contribution No. 23, 9 pp.,
illus., printed. School of Fisheries, University

SALMON:
The Application of Certain Conditioning and
Handling Techniques to the Guidance of Down-
stream Migrant Salmon, by Donald E. Johnson
and Paul E. Fields, Technical Report No. 23,
56 pp., illus., printed. School of Fisheries,
University of Washington, Seattle, Wash., 1957.

Conditions Under Which Light Attracts and Repels
Pre-Migratory Salmon in Clear and Turbid,
Still and Running Water, by Donald E. Johnson

and others, Technical Report No. 42, 15 pp.,
printed. School of Fisheries, University of

The Effectiveness of Constant and Intermittently
Flashing Light Barriers in Guiding Young Sil-
ver Salmon, by Paul E. Fields and Gary L. Fin-\nger, Technical Report No. 22, 22 pp., illus.,
printed. School of Fisheries, University of

The Effects of Electroshock (a.c.) Upon Tissue
Content of Inorganic Phosphate and Lactic Acid
in Yearling Silver Salmon, by D. E. Johnson,
R. E. Nakatani, and S. P. Felton, Technical Re-
port No. 26, 6 pp., printed. School of Fisher-
eries, University of Washington, Seattle, Wash.,
1956.

A Field Test of the Effectiveness of Two Inten-
sities of Shaded and Unshaded Lights in Guiding
Downstream Migrant Salmon, by Paul E. Fields
and others, Technical Report No. 21, 33 pp.,
illus., printed. School of Fisheries, University

Guiding Migrant Salmon by Light Repulsion and
Attraction in Fast and Turbid Water, by Paul E.
Fields and others, Technical Report No. 36,
44 pp., printed. School of Fisheries, University

The Reaction of Five Species of Young Pacific
Salmon and Steelhead Trout, by Paul E. Fields
and Gary L. Finger, Technical Report No. 7,
24 pp., printed. School of Fisheries, University

Reactions of Young Silver Salmon In Ten Velocity
Combinations, by R. E. Carney and R. J. Ad-
kins, Technical Report No. 23, 18 pp., illus.,
printed. School of Fisheries, University of

The Response of Young Silver Salmon to a Light
Barrier after Three Levels of Light Adaptation,
by Paul E. Fields and A. Keith Murray, Tech-
nical Report No. 27, 9 pp., printed. School of
Fisheries, University of Washington, Seattle,
Wash., 1956.

The Role of Light Adaptation on Negative Photo-
taxis in Silver Salmon, ONCORHYNCHUS
KISUTCH, by Gary L. Finger and Paul E.
Fields, Technical Report No. 34, 25 pp., illus.,
printed. School of Fisheries, University of

SANITATION:
"Chlorination in Fish Plants," by H. P. Dussault,
article, Progress Reports of the Atlantic Coast
Stations, no. 68, September 1957, pp. 13-14,
printed. Fisheries Research Board of Canada,
St. Andrews, N. B., Canada.

SAURY CANNING:
"Notas Sobre la Paparda y su Conserva" (Notes
on Saury and its Canning), article, Industria
Conservera, vol. 23, no. 222, December 1957,
pp. 325-329, illus., printed in Spanish. Indus-


SHRIMP CULTURE: Pond Cultivation of Shrimp in South Carolina, by G. Robert Lunz, Contribution no. 29 from the Bears Bluff Laboratory, 6 pp., printed. (Reprinted from Proceedings of the Caribbean Fisheries Institute, Tenth Annual Session, November 1957, pp. 44-48.) Bears Bluff Laboratory, Wadmalaw Island, S. C., 1958. Describes the work done at Bears Bluff Laboratory during the past 11 years in research on the growing of shrimp in salt-water ponds in the marshes of South Carolina. There are ample tidal marshes along the South Atlantic and Gulf Coasts where shrimp ponds could be built. The cost is estimated at $230 to $600 an acre for small individual ponds and $35 to $150 an acre for larger projects. According to the author, if continued research and management studies can produce the volume of shrimp per unit area being produced in the Orient, a shrimp farm comparable in cost to a modern trawler can yield a much greater poundage of shrimp than can the trawler."


SALMON TRAVEL TO GREAT SLAVE LAKE

The immense distances traveled by Pacific salmon after they leave the sea and enter fresh water are well known in British Columbia, the Yukon, and Alaska. Recently, however, a commercial fisherman on Great Slave Lake in the Northwest Territories of Canada netted a salmon near the mouth of the Buffalo River. It was later identified as a three-year-old chum which had made the long journey up the Mackenzie River from the Arctic Ocean. Salmon have been found in Great Slave Lake before, but the occurrence is rare. (March 1958 Trade News of the Canadian Department of Fisheries.)
SMOKE BARREL COOKERY

Making barrels for smoke-cooking fish is easy. Here's how it is done.

Start with a used 40-gallon charred oak whiskey barrel or anything similar. Saw around the barrel about 8 inches from the top. This is then used as the lid and is secured to the rest of the barrel with a heavy hinge. To keep the lid from toppling over backwards when salmon is removed, attach a chain stopper.

Because the two grill-supporting chains lap over the rim of the barrel and would prevent a complete closure of the lid, notch two shallow V's on either side of barrel. Attach hooks or pins at the base of the V's to fasten the chains.

Allow for 4 or 5 inches of sand in which the fire pot will eventually be imbedded, bore 5 or 6 draft holes, one-half inch in diameter, around the sides of the barrel just above the sand level. Make wooden plugs to fit the holes.

The fire pot can be any heavy metal cylinder such as the bottom of a dutch oven. An ideal pot is an old automobile brake drum. However, it should be small enough to allow for 3 or 4 inches of sand insulation between barrel and the pot.

The round grill for the top of the barrel can be purchased at any store that specializes in barbecue equipment.

The grill is supported by two Y-shaped chains. The upper legs of the Y are equipped with snap-ons to fasten the grill. The bottom leg of each Y fastens on the hooks at the base of the notched V's.

To use the barrel the sand at the bottom should first be soaked with water. The fire is started with charcoal briquets and then the smoke-producing wood is added.

While fish is smoking, care must be taken not to let the fire flare up. This is controlled by inserting the wooden plugs in the draft holes until an ideal balance between fire and smoke is achieved.

Wood used for smoking depends upon taste and availability. Any nonresinous hard wood such as alder, apple, maple, oak, birch, or beech can be used.

Wood should be cut into small chunks about 4 inches in length or just long enough so they can be pyramided in the fire pot.

Barrel is now ready for use. To prepare the salmon for smoking, fillet them and remove the backbone. Cut into chunks suitable for individual servings. Soak chunks in saturated brine solution for an hour and a half. (Soaking time can be varied to suit individual tastes.)

Remove the chunks from the solution and arrange a single layer on grill rack, avoiding crowding. Lower grill into smoke barrel about 8 inches. Close and cook for about an hour and a half or until done, making sure fire is smoking and not burning during entire cooking process.

If the barrel is not used for any length of time, it is necessary to remove fire pot, insert draft plug holes, and fill with water to keep barrel from warping.

Although salmon is often used, the "smoke barrel" method can also be used for many other kinds of fish like cod, whitefish, haddock, halibut, and lake trout. Method used is essentially the same as for the salmon. (Institutions, vol. 42, June 1958, pp. 41-43.)