

INDEX

| Page | Page |
|-----------------------|------------------------------------------------------------------------------------------------|
| UNITED STATES: | |
| 1 .. | Program To Strengthen U.S. Marine-Science Activities Is Announced |
| 4 .. | Wenk Comments on 5-Point Program |
| 6 .. | Hickel Urges World Action To Protect & Develop Arctic Resources |
| 6 .. | Interior Department Limits Fishery Loans To \$40,000 |
| 6 .. | Eastern Pacific Yellowfin Tuna Catch Rate Is Changed |
| 7 .. | The Shrimp Situation |
| 8 .. | Gulf Menhaden Fishery Sets Record |
| 8 .. | Management of Menhaden Fishery Is Suggested |
| 8 .. | Alewife Die-Off in Great Lakes Is Minor |
| 9 .. | Underwater Tuna School Tracked by Sonar |
| 10 .. | East Coast Clam Dredge Tested Off Oregon |
| 11 .. | Destroyer's Sonar Tracks Whale |
| 11 .. | University Curricula In Marine Sciences Published |
| 12 .. | U.S. Aids Gulf of Mexico Oyster Industry |
| 12 .. | Sensor Studies Temperature-Fish Migration Relationship |
| 15 .. | Soviet Research Vessel Arrives At Woods Hole |
| 16 .. | Foreign Fishing Off U.S., September 1969 |
| | States: |
| | Alaska: |
| 19 .. | 1969 Salmon Pack Is Nearly Million Cases Below 1968's |
| 19 .. | Largest Bristol Bay Run Predicted for 1970 |
| 20 .. | Fishery Economics Has Some Bright Spots |
| 20 .. | State Insurance Director Urges Fishermen's Co-Op |
| 21 .. | BCF Helps Cousteau Prepare Salmon Film |
| | California: |
| 21 .. | To Build First State-Owned Channel Catfish Hatchery |
| 22 .. | Tagged Sturgeon Migrate Far |
| | New York: |
| 22 .. | Long Island Sound Pollution Doubles in Decade |
| | Washington: |
| 23 .. | Hake Landings in Puget Sound Reach 9 Million Pounds |
| | Florida: |
| 23 .. | Shrimp Farming Study Wins EDA Funds |
| | Commonwealth of Puerto Rico: |
| 23 .. | 'Stahl' Finds Snappers & Groupers in Unexploited Area Off Puerto Rico |
| | ARTICLES: |
| 24 .. | A Trawler's Voyage Points Up U.S. Fishermen's Problems, by Elliot Carlson |
| 27 .. | Tuna Purse Seine Fishery in Eastern Tropical Atlantic, by John P. Wise |
| 29 .. | Fishery Oceanography--IV, Ocean Salinity and Distribution of Pacific Salmon, by Felix Favorite |
| 33 .. | Tropical Atlantic Tuna Larvae Collected During EQUALANT Surveys, by William J. Richards |
| 38 .. | BOOKS |
| INTERNATIONAL: | |
| 41 .. | FAO Holds Conference To Spur Fishery Investments |
| 42 .. | Hormones Stimulate Fish Growth |
| 43 .. | French Tag Tuna in Eastern Atlantic |
| 43 .. | 3 Nations Survey Barents Sea |
| 43 .. | Japan and South Korea Plan Joint Venture |
| | Canada: |
| 44 .. | Pair Seine Netting Proves Great Success |
| 44 .. | Fisheries Minister Proposes Stricter Salmon Licensing in British Columbia |
| 45 .. | Newfoundland Landings in First-Half 1969 |
| 46 .. | Government Buys Salt Cod for Foreign Relief |
| 46 .. | Conference on Automation & Mechanization Slated |
| 46 .. | October Was Fish Promotion Month |
| | Europe: |
| | USSR: |
| 47 .. | Proposes Dam To Protect Azov Sea |
| 47 .. | Deep-Water Trawling Takes Antarctic Cod |
| 47 .. | Vessel Seeks Shrimp Off Africa |
| 48 .. | Carp and Pike Bred in Reservoirs Supplied With Thermal Water |
| 48 .. | Artificial Culture of Sea Cucumbers & Scallops Begins |
| 48 .. | Bathyscaphe Used To Study Behavior of Fish in Trawl Nets |
| 48 .. | Finds Japanese Acoustical Devices Unsatisfactory |
| 48 .. | Purse Seining With Electric Lights May Be Developed |
| 49 .. | Fisheries Minister Promotes 'Minced Fish' |
| | Denmark: |
| 49 .. | First-Half 1969 Landings Drop Below 1968 Record Period |
| 49 .. | Faroese Catch Declines Further |
| 50 .. | High-Seas Salmon Fishing Increases |
| 50 .. | Minimum Prices To Be Established |
| | Norway: |
| 51 .. | Brisling Catch Is Smaller Than Expected |
| | Iceland: |
| 51 .. | Increases Salmon Hatchery |
| | France: |
| 51 .. | Fishing Fleet Dwindles |
| 51 .. | Subsidies Granted to Dried Cod Industry |
| | United Kingdom: |
| 52 .. | Dogfish Is Becoming Popular |
| 52 .. | White Fish Authority Raises Interest Rate |
| | Greece: |
| 52 .. | Foreign Trade Trends |
| | Latin America: |
| | Mexico: |
| 53 .. | Fisheries Declined in First-Half 1969 |
| 53 .. | Decline Expected in West Coast Shrimp Fishery |
| 53 .. | Shrimp Research Conducted on West Coast |
| 54 .. | Shrimp Vessels To Get New Refrigeration Plants in U.K. |
| 54 .. | Fish Meal Plant and Sardine Cannery Are Built in Guaymas |
| 54 .. | Veracruz Fisheries |
| | Peru: |
| 55 .. | Fish Meal Output & Exports, Jan.-July 1967-69 |

Index continued page 72.

INDEX (CONTINUED)

| Page | INTERNATIONAL (Contd.): | Page | INTERNATIONAL (Contd.): |
|-------|---------------------------------------------------------------|-------|-------------------------------------------------------|
| | <u>Latin America (Contd.):</u> | | <u>Asia (Contd.):</u> |
| | <u>Ecuador:</u> | | <u>Japan (Contd.):</u> |
| 56 .. | Tuna Production & Exports Declined in 1968 | 62 .. | Frozen Shrimp Imports Continued High in June |
| 56 .. | 1968 Shrimp Catch & Exports Set Records | 62 .. | Import Restrictions Lifted on Smoked Scallops & Squid |
| | <u>Asia:</u> | 62 .. | Yaizu Landings Rose in August |
| 57 .. | Korea Raises Issue of Japan's Import Restrictions | 63 .. | Shrimp Teams Visit Southeast Asia & Latin America |
| | <u>Japan:</u> | 63 .. | Japanese-Mauritanian Fishery Talks Fail Again |
| 58 .. | Purse Seiners Report Good Fishing Off West Africa | | <u>India:</u> |
| 58 .. | North Pacific Whaling Is Successful | 63 .. | Vessel Makes Record Lobster Catch |
| 58 .. | Eastern Pacific Saury Fishing Is Disappointing | | <u>Ceylon:</u> |
| 59 .. | Bait Saury Sample Shipped From U.S. | 63 .. | First Fish Cannery Is Operating |
| 59 .. | Research Vessel Finds Promising Grounds in S. Atlantic | | <u>Indonesia:</u> |
| 59 .. | Artificial Cultivation of Tuna Will Be Tried | 63 .. | Frozen Shrimp Exports Are Developing |
| | | | <u>South Pacific:</u> |
| 59 .. | Owners Hope To Improve Tuna Purse Seining in Eastern Pacific | 65 .. | <u>Australia:</u> |
| 60 .. | More Fishing Vessels Are Exported | 65 .. | Intensive Shrimp Research Program to Begin |
| 60 .. | Super Trawlers Planned | | Sets Up Fisheries Research Fund |
| 60 .. | New Tuna Longliner Performs Well | | <u>American Samoa:</u> |
| 60 .. | Two Modern Tuna Longliners Ordered | 65 .. | Tuna Prices Unchanged in September |
| 61 .. | Fisheries Agency Builds 1,500-Ton Purse-Seine Research Vessel | | <u>Africa:</u> |
| 61 .. | Frozen Tuna Commission Sales Grow | | <u>South-West Africa:</u> |
| 61 .. | Frozen Tuna Exports Dip In First-Half 1969 | 66 .. | Stricter Conservation Measures Announced |
| 61 .. | Premium on Export Canned Tuna Increased | | <u>South & South-West Africa:</u> |
| 62 .. | Canned Tuna In Oil Exports Decline | 66 .. | Fish Oil Production & Exports, First-Half 1968-1969 |
| | | | <u>South Africa:</u> |
| | | 66 .. | South African Company Enters Angolan Fishing Industry |
| | | 71 .. | INDEX |



HOW DEEP HAS A SKIN DIVER GONE?

The greatest depth to which a diver has ever descended without a pressure suit was reached in December 1962 when Hannes Keller, a Swiss mathematician, and Peter Small, a British journalist, descended to 1,000 feet in an open diving bell. At that depth, Keller swam outside for 3 minutes. He breathed a secret mixture of gases which was based on his own computations of what the human system requires and can tolerate; he also computed the decompression stages for the diver. Unfortunately, Small and another diver died during this attempt.

The deepest dive without breathing aids, mask, or fins was made in February 1967 by Robert Croft, a U.S. Navy submarine escape instructor. He carried a 29-pound weight and reached a depth of 212.7 feet. His unusual ability can be attributed to the fact that he had rickets in his childhood, which resulted in a flexible rib cage and a lung capacity about twice the normal. ("Questions About The Oceans," U.S. Naval Oceanographic Office.)