

from respiratory centers in swimming fish, such as mackerels, as the animals reach a speed at which the change from active to ram-gill ventilation occurs.

At the La Jolla facility, Roberts has access to one of the largest and best-equipped sea-water research aquarium laboratories in the world. Under Reuben Lasker, physiologist at the La Jolla Laboratory, a broad program of research on the physiology of marine fishes and their food organisms is in progress. Staff scientists there are measuring the effects of such environmental factors as salinity and temperature on the growth and survival of larval fishes, exercising large fishes in special tanks to observe physiological and behavioral changes, and developing successful techniques for spawning and rearing a variety of marine fishes for experimental work and mariculture. Lasker explained that Roberts' study will contribute important information on the effects of environmental factors on the survival, metabolism, and growth of fishes, particularly the family of fishes that includes the mackerels and tunas.

Foreign Fishery Developments

Canada Sets Atlantic Fishing Fleet Policy

A new fishing fleet development policy for Canada's Atlantic coast, aimed at matching fleet size to fish stocks by instituting a more selective subsidy program for vessel construction and by establishing a new license control program, was announced in mid-November by Fisheries Minister Jack Davis. The new policy ended a three-month freeze on construction subsidies and new vessel licenses announced by the Minister on August 13.

The three-month freeze was intended to give federal authorities time to fully assess the situation, in consultation with provincial governments, industry and fishermen. The consultations produced the decision to match more

closely the size of the fishing fleet to the stocks of fish available to Canadian fishermen. Where the fisheries resources are already fully exploited, the fishing effort will be controlled. Where it is in Canada's interest, as in the international fishery off the coast, expansion will be encouraged.

"Our share of international quotas in these areas will further increase only as our catch increases," Davis said. "Therefore, we must ensure that our catching capacity is encouraged and allowed to expand to provide us with larger shares of the available resources."

The new policy calls for special committees, representative of all fishery interests, to advise the management authority on all licensing matters. The committees will involve fishermen directly in the management of local fish resources.

U.S., Mexican Shrimp Prices Affect Japan

The high price of U.S. and Mexican shrimp of November 1973 was expected to affect the market price in Japan according to World Wide Information Services, Inc. Inspectors from the Tsukiji Fish Market went to Mexico City and Los Angeles to inspect the markets there. Full utilization of available supplies in those markets would reportedly make it difficult for the Japanese to import shrimp from there. Other sources of supply are being developed.

Of the 10,185 short tons of frozen shrimp imported by Japan in September, 1,936 short tons came from India, 347 short tons from Cuba, 293 short tons from Brazil, 709 short tons from Taiwan and 151 short tons from New Zealand. The trend of imports shows a decrease from Indonesia and an increase in shrimp from Brazil and Cuba. Japan had imported 55 tons of a type of shrimp (taisho-ebi) from China since August. The largest sizes were reported to sell for \$8.23 per pound. Frozen shrimp from Mexico brought \$2.96 per pound.

Japanese Fishermen Begin To Lease Boats

The Fishery Agency of Japan has started a system of leasing boats to fishermen in Yamaguchi Prefecture on a trial basis, reports World Wide Information Services, Inc. If successful, fishermen throughout the country may start using boats under lease instead of investing a large sum for building them.

The agency said the lease system was begun because the financial burden had increased owing to rising costs of building and incessant demand for modernization of fishing craft. It hopes the system will speed up the modernization of fishing technology and improve working conditions. The boats will be leased to fishermen under contracts valid from three to nine years. The boats will be made with fiberglass reinforced plastics and will be less than 10 tons each.

Norway's Fishery Exports Increase

Norway's Ministry of Fisheries estimates that Norwegian exports of fish and fish products for 1973 would be worth 3,100 million kroner (about \$554 million), an increase of 600 million kroner compared with 1972, according to a report in Norway Trade News. The increase is chiefly due to exceptionally high prices for fish meal, oil, and hardened fats, but prices for fish generally have also shown marked improvement.

Publications

New Editions of NOS Charts Are Available

New editions of charts cancel former editions. Mariners are warned against the use of obsolete charts as new editions contain information essential to safe navigation. Charts