

collectors and packers appeared in increasing numbers and fishing boats were able to stay on the fishing grounds for extended periods, where not long before they had been obliged to deliver their own catches daily to the cannery.

This was an era in which salmon canneries began to decline in numbers. Today there are only 19 of these plants, but many of them are million-dollar or more establishments, and all are mechanized to the highest degree utilize every scrap of raw material that science has found to be usable.

During the formative period of British Columbia's fisheries some costly lessons in conservation were brought home to the industry. Intensive fishing of the salmon runs, particularly into the Fraser River, had begun to affect salmon populations on the spawning grounds in the vast and normally productive areas of the upper Fraser system. Efforts of Canadian nationals to regulate the fishery proved ineffective in the face of the fact that the Fraser River salmon passed through United States waters on their way to the river, and that no restrictions were, in those days, placed on American fishermen.

Expansion of other industries also was affecting the salmon populations. Logging dams and small power dams had been erected in various localities and some of these had proved disastrous to the salmon runs in the area of their operations. Finally a heavy slide of rock occurred during railway construction at Hell's Gate on the Fraser River, dealing a death blow to one of the largest salmon cycle runs in existence.

All this is a matter of history and it is now well known how the two countries involved, Canada and the United States, got together to form an international agreement and subsequently to set in motion the machinery which today is functioning smoothly in the work of rehabilitating the great salmon runs to the Fraser.

Salmon, herring and halibut are, and always have been the "big three" in the British Columbia fisheries, but the coastal waters support stocks of several other species of food fishes, and many have been fished commercially for the better part of the last 100 years.

Several varieties of cod and bottom fish landings are mentioned in early fishery records. A small but active fleet of trawlers was operating from B.C. ports as far back as reports go. For many decades the only possible outlet for these species was in local markets, but in the past 20 years the great technical advances made in the preservation and packaging of fresh and frozen fillets, fish sticks and pre-cooked fish dishes has stabilized this branch of the industry and extended its market range far beyond former bounds.

Other fish and marine ventures have come and gone, and some may come again. Towards the end of the 19th century there was a thriving pelagic sealing operation off the Pacific

coast. In 1891 a fleet of 50 vessels, based at Victoria, sailed regularly to hunt Alaska fur seals on the surface of the sea for their skins. By 1908 the herds were so decimated that sealing was no longer profitable and this situation prompted the international sealing treaty between Great Britain, the United States, Russia and Japan, whereby pelagic sealing was forbidden in these seas.

THE PILCHARD FISHERY

At the time of the upsurge in the building of reduction plants a great continental fishery was booming on the B.C. coast. Vast schools of the species we know as pilchards were coming into the zone of the continental shelf off the coast of California in late spring. From there they followed the coastline northwards. In the southern latitudes they were young, small fish and they were caught in huge quantities by big fleets of ocean seiners to be canned as sardines. By the time they had migrated to the colder waters off British Columbia they had reached maturity and B.C. seiners had their turn at what, for a few years, was a steady annual marine harvest. By the late '30's annual production reached from 14,000 to 15,000 tons of meal and from 3,000,000 to 4,000,000 gallons of oil. However, the pilchard fishery proved to be a passing phase of the fishing industry. From 1940 onwards the fishery fell off, until today it is but a memory.

Another marine product which flared into prominence for a brief period was not even a whole fish but only a part of its insides. In the late twenties medical science was making headway in the study of vitamins and their beneficial effects on humans and animals. Cod liver oil, of course, had long been recognized. Next came halibut liver oil with even greater vitamin value. Then came the turn of dogfish livers. For a time there was a thriving fishery for dogfish and the sale of the livers of this species formed one of the major items in annual fishery values. From 1943 to 1949 the marketed value of dogfish livers exceeded a million dollars annually; in the peak year of 1944 a total sum of \$3,750,000 was paid for dogfish liver oil extracted by B.C. processors from raw material provided by B.C. fishermen. Science, which had pointed the way in, also showed the way out. Cheaply manufactured synthetic vitamins of potencies equal to or better than those in dogfish livers were produced in the eastern United States in quantity. This, coupled with heavy imports of Japanese caught dogfish livers, brought large scale B.C. operations to an end.

Tuna is another species which aroused bright hopes in the B.C. fishing industry, only to fade out as completely as the pilchards. At one period in the late '40's of this century B.C. tuna landings exceeded 2,000,000 pounds annually. The marketed value of tuna products in 1951 was a little more than \$1,600,000

(Over)