RESEARCH
IN SERVICE LABORATORIES

APRIL 1948

College Park, Md.

After six months in storage, sea trout fillets cut and frozen within a few hours after the fish were caught, or frozen after cutting from fish held in ice several days, showed less drip than fillets prepared from fish that were frozen and thawed before filleting and refreezing. Palatability scores were entirely satisfactory for all samples.

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Preliminary feeding studies with salmon egg protein were completed.

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Experimental packs of canned rosefish, smelt, pollock, tuna, and salmon were made for the school lunch sandwich spread project.

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Detailed laboratory examinations were made of commercial packs of South African snoek (jack), Atlantic Coast sardines in pound oval cans, and Spanish tuna in large lithographed cans.

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Bacteriological and palatability tests were conducted on freshly picked crab meat which had been exposed to ultraviolet light.

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The thiamine content of frozen raw cod was determined and scheduled for further checking.

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Open house held and attended by 100 persons. Seven exhibits were available for inspection: shad studies, oyster investigations, bacteriology, packaging and freezing, canning and preservation, nutrition and pharmacology, and home economics.

Boston, Mass.

The mobile laboratory was in use at Newburyport, Mass., and at Brunswick, Me., for bacteriological work on clams and water samples from clam flats.

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The head of the laboratory was recently appointed to the QMC Food and Container Institute's Liaison and Scientific Advisory Board. The Advisory Board is a part of the Research Planning Council and is composed of some 190 recognized specialists in the field of food and container research. One of its functions is to study major problems of food and container research and to recommend the programs best suited to solving them. Through this new activity, the progress in fisheries research can be brought to the attention of the leading food research organizations of the country.

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New processing developments in Maine, including the canning of East Coast tuna and preparations for packing large herring in one pound oval cans, were inspected.

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The Service consultant, a fishery technician from this laboratory, aboard the Deep Sea in Bering Sea reported good fishing for king crabs and the crew becoming more familiar with East Coast trawl net mending, assembly, and operating techniques.

Ketchikan, Alaska

Most of the important clam producing beaches in Southeastern Alaska have been surveyed since a little over two years ago when a considerable portion of the pack was seized because of the presence of possibly dangerous toxic material. The presence of toxin was determined by testing clam extracts with mice. The several hundred samples tested ranged from less than 200 mouse units, the least that can be determined by the present standard procedures, up to 9930 mouse units. Samples from over three-fourths of the clam beds tested below 1000 mouse units. Samples from beaches in narrow inlets and bays have always been low, while those from beaches and reefs at the entrance to bays, subject to coastwise currents, were frequently high. The necks (siphons) tested from 4 to 20 times as toxic as the remainder of the body. Removal of the necks reduces the toxicity of the clams about one-half. Processing, for 40 to 70 minutes at 10 pounds steam pressure, destroys approximately 50 percent of the remaining toxin. Grinding and washing the clam meats before canning resulted in further destruction.

Seattle, Wash.

One hundred Pribilof fur seal livers averaged about 3 percent oil with only one liver over 4 percent. The liver oil varied from 1,000 to 200,000 spectrophotometric units of vitamin A per gram.

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Service observers from Seattle and Ketchikan aboard the factory ship Pacific Explorer report the vessel working near Amak Island in Bering Sea with most preliminary problems as to equipment and techniques having been worked out. King crabs were being taken in otter trawls and tangle nets.