

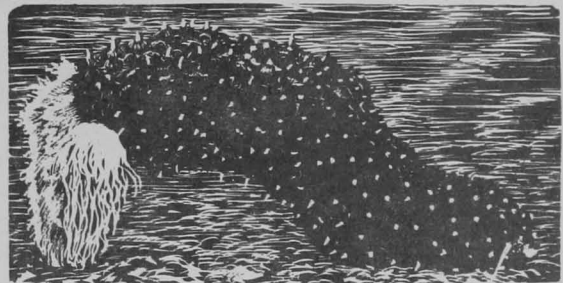
JANUARY 1948
Ketchikan, Alaska

Recipes for the use of canned sea cucumbers were developed and tested.

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A total of 115 samples of clams were collected and extracts made for use in the clam toxicity studies.

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SEA CUCUMBER

Tests were made on the storage qualities of 37 varieties of canned fishery products including the following:

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|---------------------------------------|---|
| King salmon liver spread | ' Cannery loaf-green bean salad pack |
| Smoked king salmon spread | ' Halibut cheeks in agar |
| Chum salmon spread | ' Butter clams |
| Pink salmon spread | ' Halibut cheeks in olive oil |
| Hard smoked pink salmon slices in oil | ' Halibut cheeks in brine |
| Lingcod fillets in peanut oil | ' Halibut fillets in oil |
| Octopus tentacle | ' Herring spread |
| Minced mantle of octopus in brine | ' Salmon backbone stock |
| Sea cucumbers | ' Sable fish fillets |
| Salmon eggs in brine | ' Abalone in brine |
| Salmon egg spread | ' Smoked abalone in oil |
| Cannery loaf porridge | ' Halibut and salmon head spread |
| Smoked herring in tomato sauce | ' Fish cakes made from edible cannery trimmings |
| Smoked minced salmon cheeks | ' Whole herring |
| Salmon milt | ' Kipperd salmon collars |

and eight products packed in glass:

- | | |
|------------------------------|-----------------------------|
| Cut spiced early run herring | ' Spiced clams |
| Small whole spiced herring | ' Kelp sweet spiced pickles |
| Spiced salmon | ' Kelp relish |
| Pickled salmon chunks | ' Kelp mustard pickles |



Boston, Mass.

At an informal meeting, technical personnel from local industry laboratories discussed with members of the Service's Laboratory, the bacterial flora of fish

and a suggested program of work on this subject; the use of chlorine in fish preservation in Russia; a preliminary report on antioxidant dips for frozen fish fillets; and the use of ascorbic acid in retarding rancidity in frozen mackerel.

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A Fisheries Engineer from the Laboratory spent the greater part of the month in the capacity of a gear consultant in connection with the operations of a new type otter trawling and processing vessel operating in Alaskan waters.



College Park, Md.

Experimental packs of chum salmon and cod were prepared as sandwich spreads in connection with the School Lunch Program.

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Analyses of the proximate composition of canned fishery products submitted for possible sale in emergency feeding programs indicated that most of the products contained only about 19 percent dry matter, and were of low calorie content due to little fat in the product.

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Four samples of whiting assayed for protein content averaged about 11 percent.

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A cooperative project with the U. S. Department of Agriculture--The Pilot Fish Programs--was initiated which includes the development of methods of preparing and serving the less expensive varieties of canned and frozen fish and testing their acceptability in school lunches.

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Meetings of the National Cannery Association at Atlantic City, N. J., January 17 to 20, were attended to assist in the cutting of canned fishery products and to discuss problems in canning technology.



Seattle, Wash.

After six months in frozen storage, examinations were made of dressed king and silver salmon which had been scaled before freezing. Surface discoloration and oil seepage were apparent on many of the silver salmon. Comparative taste tests indicated that the surface oxidation had not affected the normal color and flavor of the flesh. Although the king salmon did not discolor, deterioration of the oil in the fatty flesh and loss of flavor in the pink flesh occurred.

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Frozen rockfish fillets, which had the fatty surface layer removed by a skinning machine prior to freezing, were better in color and flavor after 10 months of storage than the fillets prepared in the usual commercial manner. However, although edible, they were not of high quality.

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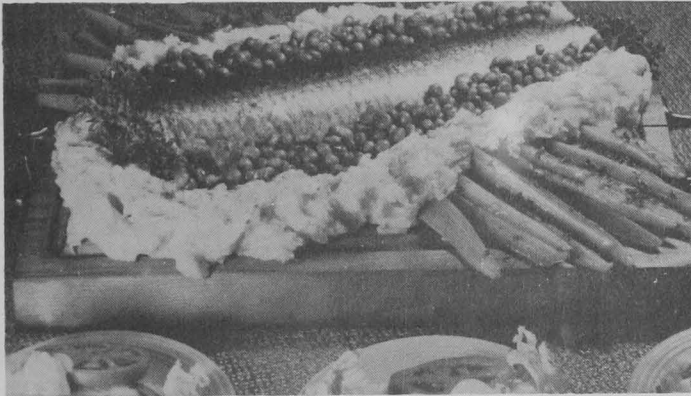
On examining king crab meat and glazed whole king crab legs stored for 20 weeks at 0° F., the best texture was found in samples frozen in one percent NaCl. The worst texture with pronounced toughening was in samples of the meat from whole crab legs frozen raw. The flavor and texture of the meat from frozen cooked crab legs was poorest in the smaller end sections exposed most to dehydration.

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Analyses for cholesterol have been completed on samples of egg oil from five species of salmon. Analyses for the lecithin content of salmon egg oils are being continued. Certain of the vitamin B complex assays were begun on various salmon waste products.



PLANKED SHAD



3- or 4-pound shad, dressed
 1½ teaspoons salt
 1/8 teaspoon pepper
 4 tablespoons butter or other fat

Seasoned mashed potatoes
 Seasoned cooked vegetables (peas,
 carrots, cauliflower, tomatoes
 or onions)

If hardwood plank is used, oil well and place in a cold oven and heat thoroughly as oven preheats.

Clean, wash and dry fish. Sprinkle inside and out with salt and pepper. Brush with melted fat. Place shad on the hot oiled plank or on a greased oven glass or metal platter. Bake in a moderate oven 400° F. for 35 to 45 minutes or until fish flakes easily when tested with a fork. Remove from oven and quickly arrange a border of hot mashed potatoes around fish. Place in a preheated broiler until potatoes are slightly browned, about 5 minutes. Remove and arrange two or more hot vegetables around fish. Garnish with parsley and lemon or tomato wedges. Serve immediately on the plank. Serves 6.