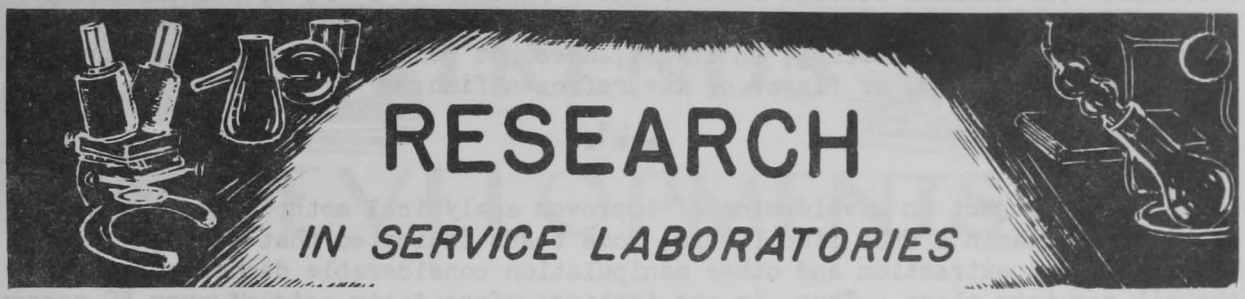

May 1949

Boston, Mass.

The initial studies on freezing fish at sea have been terminated with the examination of fillets of fish frozen at sea and the control samples which have been stored for seven months. The fillets of fish frozen at sea were found to be of better general quality than the fillets of fish iced at sea, although both sets of samples would be acceptable commercially. The specifications for a laboratory freezer to aid in the continuation of freezing studies have been completed, and the process for purchasing part of the equipment during the current fiscal year has started.

Cod were procured from a gill-net fisherman for tests on freezing, thawing, filleting, and refreezing the fillets. Also, the fillets from gill-net cod were compared with fillets from trawler-caught fish to determine differences in salt content. The salt content of the unbrined fillets showed the fillets from the frozen fish to have almost twice the amount of salt as the fillets from the iced fish.

College Park, Md.

Data from rat feeding tests indicate that baked haddock, broiled mackerel and roast beef were evacuated from the stomach at about the same rate. The greater amount of fat in the mackerel did not seem to have any influence on slowing down the time of evacuation. Three to five hours seemed to be needed for stomach evacuation. A single experiment with baked haddock indicated that the method which was developed quantitatively accounted for the emanations when radioactive phosphorus was used as a physical marker. The radioactive phosphorus, however, passed through the digestive organs at a greater rate than the food, so it was not a satisfactory marker under the conditions of the experiment.

Ketchikan, Alaska

Air shipments of samples of Alaska abalone were made to an interested California concern. Tests on quality and marketability of this species are to be made.

Seattle, Wash.

Control and refrozen fillets of three flounder species were examined after a total storage period of 11 months at 0° F. The maximum storage life at 0° F. for yellowfin and rock sole fillets is approximately 11 to 12 months, judged on the basis of commercial acceptability. Rancidification of the surface fatty flesh appeared to be the limiting factor in the storage life of lemon sole fillets. Lemon sole should be heavily glazed for storage in order to minimize development of incipient rancidity in the fatty flesh before the fish are thawed, filleted and

refrozen. The maximum storage life of these fillets at 0° F. is approximately 8-9 months. The 11-month examination has confirmed the conclusions drawn from previous ones that refreezing, in itself, does not result in significant changes of the color, texture, or flavor of the refrozen fish.

* * *

In the project on development of improved analytical methods for extraction of oil and vitamin A from fish livers, some tests indicated that during the prolonged solvent extraction and other manipulation considerable decomposition of the oil may take place. Thus, in one instance, free fatty acid of over 50 percent was present in the final oil after extraction and drying, and the iodine number was lower than would have been the case with a fresh oil.

* * *

Assay of a sample of brook lampreys (whole) showed only 0.8 percent oil present and less vitamin A than could be detected by spectrophotometric methods.

Crab Meat Salad

2 cups flaked crab meat
1/2 cup mayonnaise or salad dressing
1 cup celery, diced
2 tablespoons sweet pickle, chopped
2 tablespoons onion, chopped
2 hard cooked eggs, diced
1/2 teaspoon salt
1/8 teaspoon pepper
Lettuce

Remove any shell or cartilage from the crab meat, being careful not to break the crab into too small pieces. Combine all ingredients and serve in lettuce cups. Garnish with tomato wedges. Serves 6.

Shrimp, lobster or flaked fish may be used in the above recipe.