



June 1949

Boston, Mass.

Crystals recovered from a broth culture of a Gram variable, aerobic, non-spore forming, small rod bacteria were positively identified as a somewhat unusual form of struvite (magnesium ammoniumphosphate). Of the approximately 400 bacterial cultures isolated from fish, almost all have shown crystal production in culture media to a greater or lesser extent.

College Park, Md.

After seven months of storage, striped bass fillets held at a constant temperature of -10° and 0° F., and at temperatures fluctuating between these two points, received satisfactory scores. The scores are essentially the same for the three groups and practically no change has occurred since the previous month.

* * *

Fillets held at a constant temperature of 15° F. and at temperatures fluctuating between 0° and 15° F. have decreased considerably in quality. Those undergoing temperature changes have received the higher scores, however. The quantity of drip upon thawing for all groups has remained comparatively constant.

* * *

After two months of storage at 0° F., fillets coated with the pectinate film lost 35.4 percent in weight and those having the ice glaze lost 41.8 percent. Both lots obviously had an extremely dried-out appearance and would be unacceptable commercially. The pectinate film became white and fibrous after a short time in storage which would seemingly detract greatly from sales appeal.

* * *

The pan-dressed fish covered with different wrapping and glazing combinations have shown no changes in quality after three months of storage. Weight losses have been negligible.

Ketchikan, Alaska

Heavy concentrations of red water occurred several different times during June in many places in southeastern Alaska. A member of the Hooper Medical Research Foundation arrived at Ketchikan at the middle of the month to spend part of the summer investigating the red water plankton of this area. Samples of red

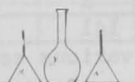
water were found to contain high concentrations of Noctiluca, Peridinium, Dinophysis, and Ceratium. A very few Gonyaulax catenella were found in a few of the water samples.

Seattle, Wash.

Further tests were carried out on solvent extraction to determine the best method of analytical determination of the oil and vitamin A content of fish livers. Results show that the analytical extraction with ethyl ether removes from the livers other substances than true oil or fat. Petroleum ether does not penetrate the liver material as does ethyl ether. Previous work with fish meal indicated that solvents which are entirely non-miscible with water do not give good extraction of oil.

* * *

The thiamine content was determined on raw beef liver, raw yellowfin tuna liver, raw albacore tuna liver, and of eight meals made from these various livers by three different processes of dehydration, namely vacuum drying with the aid of heat at 100° F., vacuum-freeze drying, and acetone extraction dehydration. Vacuum-freeze drying was least destructive of thiamin and meals prepared by this process would be rich food sources of this vitamin. Vacuum drying at 100° F. of the raw liver appeared to reduce the thiamin content by about 50 percent. Acetone extraction reduced the thiamin content in the beef liver meal 50 percent greater than vacuum-freeze drying, and in the case of yellowfin tuna, no thiamin could be detected in the acetone extracted meal. Albacore tuna meal prepared by acetone extraction contained only 20 percent of the thiamine content of the meal prepared by vacuum-freeze drying.



THE BLUE CRAB (CALLINECTES SAPIDUS)

Blue crabs have an extensive range along the Atlantic coast--from Massachusetts at least to the northern part of South America. They are animals of the shallow bays, sounds, and river channels, seldom found far out at sea, sometimes reported in fresh water. In summer, the crabs live close inshore, but in winter move off into deeper water to escape the cold. They do not appear to migrate extensively up and down the coast; probably each section has its own local population.

The blue crab resources of the Atlantic coast yield nearly 80 million pounds annually, of which 60 percent is taken in the waters from New York to North Carolina. Chesapeake Bay is the chief source of crabs, yielding about 42 million pounds annually.

-- Fishery Leaflet 282