## Problems of the Commercial Fishing Industry

C. P. IDYLL

Marine Laboratory, University of Miami, Coral Gables, Fla.

It would appear from the papers presented at the Commercial Fisherics Session, and from the subsequent discussion, that three major problems are uppermost in the minds of those connected with the commercial fishing industry. These problems are quality, new markets and imports. These three subjects came up repeatedly throughout the session, and fishermen, wholesalers, brokers and scientists alike made frequent reference to them.

The need for improved quality of fishery products appeared to be uppermost in the minds of most of those who engaged in the discussion. A general belief prevailed that a satisfactory solution to the other two problems—expanded markets and foreign imports—depends upon improvement of quality.

In the menhaden industry there is concern over dwindling markets for oil. An unprecedented worldwide surplus of fats and oils has aggravated the difficulties which the menhaden industry has been experiencing in maintaining markets for oil. The declining market for this product has been increasingly serious ever since detergents began to replace soaps. Suggestions that fish oils might be used as supplements in both human and poultry and stock feeds brought the reaction that such oil would have to be of high quality. The possibility was expressed that fish oils would give poultry and stock flesh undesirable flavors. This does not happen, it was stated, if the oil used is from good quality raw product and is carefully processed so as not to include unsaturated oils. Fish oil producers must find a new large volume outlet for their product, and new uses which absorb only small quantities will not solve present difficulties.

The question arose as to whether "whole meal" might not prove superior to the fish meal now produced. It was stated that Norwegian producers had found that some markets were willing to pay premium prices for whole meal. This was not a universal experience.

The plight of the small menhaden producer was discussed, and it was agreed that he can survive only if his plant can find some way of operating the year round. Here the question of imports was brought up, and some speakers thought this would be one way to insure an all-year supply of raw product. Another possible source of raw material in the off season, to supplement the menhaden supply, is "scrap" fish and shrimp waste. It was pointed out that the problem of collecting this material is the biggest difficulty. So far no satisfactory solution has been found.

Quality, increased markets and imports appear to be inseparately associated in the shrimp industry. Concern was expressed about the large and increasing volume of imports of shrimp into the United States, principally from Mexico. Some speakers suggested that imports be restricted to those foreign producers who could show that wages and living standards generally of those

engaged in the industry were comparable to American wages an living standards. The practical difficulties of dictating standards to another country, and more basic than that, of determining what are comparable standards, seemed to other observers to invalidate this approach.

Many of those present thought the solution lay in expanded markets. These would depend in large part on improved quality. How to achieve this improvement was also the subject of debate. The general consensus appeared to be that quality improvements could only be achieved through standards established by the industry itself and maintained by inspection by a government agency, preferably the Fish and Wildlife Service.

## Trends in Exploratory Fishing and Technological Research

LAWRENCE W. STRASBURGER Endvoldsen Shrimp Inc., New Orleans, La.

In the discussion of the paper by Louis S. Mowbray, it was brought out that the Larson trawl in its present form may be utilized only by two boats. Because of its size, it cannot be handled by a single boat, but it may be used as a bottom trawl. The government of Bermuda plans to continue studies on fishery problems, even though the current studies discussed failed to disclose the presence of fish, since gill nets were set with the wind and in the wrong tide. There is no demand for natural vitamin A from a shark fishery since synthetic vitamin A is very cheap and recent experiments show that there is no difference between the synthetic and natural products. There may however be a market in the future for shark meat as there is now in Bermuda where it is considered a delicacy when fried or boiled and heavily seasoned. It has been used in other countries when sold as "swordfish" and canned as "grayfish." Both vellow-fin and black-fin tuna occur to some extent in Bermuda waters. There does not seem to be too good a possibility of there being sufficient raw material to support a fishery. They do not enter the local fisheries, and are only taken while trolling. There is a greater prevalence of vellow-fin tuna when the waters are at 70° F. Apparently their range is between 57 and 84° F. Black-fin tuna are present all year. In the summer months when the water temperature approximately 80° F, the yellow-fin tuna are deep and the black-fin tuna are on the surface. While large amounts of bait-fish are present, there have been no appearances of menhaden-like fishes reported. There is a thermal layer in the water surrounding Bermuda where plankton seem to concentrate and while shrimp may have been present there are no pelagic fish.

Following the paper by C. B. Carlson, it was learned that, although TV gear was not utilized as had been hoped, television has a practical application, i.e. to note stress and strains on the nets and the way in which the nets are working rather than to view the shrimp actually entering the nets. The camera has a range of 200 feet in very clear water, but may not be used in turbid water. Experiments with a mud rope showed no handling difficulties at 35 fathoms, but at greater depths such as 250 to 300 fathoms, the mud rope was difficult to handle and it was necessary to substitute a chain breaker line.

According to Mr. Stewart Springer: The Gulf tuna boats are mainly using harengula for bait, Ground chum and other dead fish have been tried, but