What Does The Future Hold For The Independent Boat Owner?

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BEFORE EXAMINING the problems which may face the independent owner in the future, let us define our terms. By an independent boat owner is meant an individual or small company which owns one or more menhaden boats, shrimp boats or snapper boats but which makes no attempt to process or market its fish. If the owner of a boat has his own facilities for processing his catch he then becomes a small dealer or manufacturer and his problems are beyond the scope of this paper.

Since the writer's experience has been primarily in shrimping and menhaden fishing, it is proposed to limit the remarks to these fields. Further, while the remarks in general may apply to the entire Gulf and Caribbean area, they are based specifically on the East Coast of Florida.

Let us first consider the menhaden industry. From the standpoint of the private boat owner it is indeed a sick business. It is now faced with an acute shortage of colored labor and boat owners find it difficult to fill their 22 man crews. They have encountered the competition of synthetic animal protein factors this past year and have emerged a poor second, just as they came out badly in the competition between fish oil and synthetic detergents for the soap market.

One year ago fish scrap brought $220 per ton; today it sells for half that. In the early summer past, oil sold for 6 cents per pound—when it sold. Today, thanks mainly to stockpiling, export demands, and higher over-all fat levels, the price of oil has risen to roughly 10 cents per pound and has kept many firms in business.

As though depressed scrap prices were not bad enough, we are now entering a tight labor market. In Florida today colored crews are looking for security and a steady weekly wage in preference to the gamble of menhaden fishing. Since the eight lowest paid men in the crew can only earn a maximum, in Florida, of $800 gross each for a six month season, (from which they supposedly pay for their share of the ship's food bill), it is not surprising that the meanest work ashore looks more attractive. The above returns presume a catch of 10 million fish in six months, a feat that has not been accomplished since the war but which is still held as a goal.

While the menhaden factories, plants which process the fish taken by their own boats, have felt the impact of lower prices and production, coupled with increased costs of production, the independent owner has felt them more severely. Let us digress a moment to describe a small independent menhaden operator so that the picture may be seen more clearly. Most of these men are fishermen who saw an opportunity and seized it. After the war the Navy offered many surplus ships of the 100 foot class, mainly minesweepers or sub chasers, at a small fraction of their cost. With only a few thousand dollars involved—rarely more than $20,000—they bought these ships. With the help of the plant operators they set about converting them to menhaden boats, often at costs upwards of $50,000 each. Many people assisted the small independent: friendly shipyards, fuel dealers, marine suppliers and chandlers, for during the war the menhaden industry was a good customer to have. In return for the help offered by the menhaden plants, the independent fisherman delivers fish to them on a

60-40 basis. The plant processes the fish, sells the product and pays 60 per cent of the net sale price. By and large such an arrangement is quite profitable to the factory, and can be profitable to the boat owner as well in a good season. However, one important feature should be emphasized. The independent exists and continues to operate only because the factory owners permit him to. At any time, by concerted action, they could easily run him out of business. Hence, he follows factory custom, pays factory wage rates, and generally avoids setting any precedent which might embarrass or antagonize the factory owners.

The two main problems of the independent operator are labor and financing. Some men prefer working on independent boats, since, in theory, they gain closer contact with their employer and can count more on his assistance in their countless personal crises. Somehow, in any event, they do manage to collect crews. The owner's second headache is financing, and usually he is lost without the help of the factory. A menhaden seine today represents $5,000 invested and lasts less than a year. This is a large outlay for a small operator. Further, everything about a menhaden boat is costly. The annual outlay for replacement of gear and maintenance of engine and hull will pay for a fine small home. Hence, the independent occupies a position analagous to a man with only one million dollars who tries to compete with DuPont or U. S. Steel in their field. With the continued forbearance and cooperation of the factories he would probably continue to produce fish, but now economic factors are marshalling which will, in combination, virtually remove the independent from the scene.

Without further elaboration, it is safe to state that the cost of producing fish has increased far out of proportion to the increase in the cost of manufacturing and selling. Therefore, a factory owned fleet of boats can operate at a slight loss for a season, yet the factory will show an over-all profit on its operations, the slack being taken up by the processing operation. When the boat owner loses money his season is a loss; there are no other sources of revenue.

The heaviest expense, one which will continue to rise under our present political leadership, is labor. With a tightening labor supply throughout the country and un-controlled increases in wages and prices, our best men are being forced into other fields in order to make a bare living. Therefore, in order to stay in business, it will be necessary to raise labor rates. But, paradoxically, all prices are rising except those for menhaden products. Technological competition is forcing prices downward, and rising imports are giving them a downward helping hand.

To summarize the foregoing, the independents have an acute problem in financing and credit but the most important problem is labor. There is only one solution to the labor problem: the introduction of modern fishing methods. The menhaden industry is a complex paradox. It employs modern air planes, radios and depthfinders to locate fish and then catches them with pre-1900 methods. A research program is badly needed to work out methods of cutting down our crews to 12 or 14 men, whether through use of the West Coast purse seine gear or power devices in purse boats for handling the net. This work should be started immediately; in a year or two it may be too late. Only one organization, the Fish and Wildlife Service, is presently capable of handling the problem.

Mention should be made of the cost of operation and return per unit of

fish under today's prices. With scrap selling for $120 per ton FOB plant, the breakdown is as follows:

1 million fish produces 70 tons of scrap
70 tons @ $120 . . . . . $8400
60 per cent of $8400 . . . . . $5040

The boat share is thus $5.04 per thousand fish.

In Florida the cost of producing a thousand fish can be approximated as follows:

Labor, Social Security, etc.	$2.75
Nets and gear, salt for net	1.00
Fuel, lubrication, and gasoline	.50
Insurance	.25
Maintenance of ship	.25
Licenses, losses on advances, groceries, etc.	.25
	$5.00

Thus, unless the fish produce a reasonable amount of oil along with the scrap, it is literally useless for the private operator to fish. If the fish produce 3 gallons of oil per thousand we have the following breakdown:

3 gallons produces roughly 23 pounds
23 pounds @ .10 . . . . . $2.30
60 per cent of $2.30 . . . . . $1.38 per thousand, boat share.

If the fish produce 10 gallons of oil per thousand, the average of northern winter fish and of Gulf fish in the summer, we get a better picture:

10 gallons produces roughly 77 pounds
77 pounds @ .10 . . . . . $7.70
60 per cent of $7.70 . . . . . $4.62 per thousand, boat share.

Thus, it can easily be seen that the independent boat must produce fish with at least 3 gallons of oil in order to show a profit and survive the many expensive incidents which overtake him each season. On the East Coast this is virtually impossible south of Chesapeake Bay, since, for some unknown reason, the fish do not store any appreciable quantity of oil during the summer. It would thus follow that independent operators will tend to head for the Delaware area or, more than likely, come into the Gulf and fish for plants there.

There is one other alternative open to the independent operator. Since he cannot usually increase the size of his catch he can only try to increase its value. Therefore, instead of having the factory ship his scrap in carload lots to the large consumers at a low price, he might find it feasible to develop markets of his own for small lots of a ton or less, and deliver it direct to small consumers at a price well in excess of that paid by large buyers. This idea does not initially appear un-sound and our firm will attempt it next year.

In this respect, attention should be called to the only new use for fish meal which has been developed in recent years. A hand-full of fish meal mixed with mud and dropped in shallow water will attract all the bait shrimp for quite a radius, and an angler with a cast-net can easily secure the morning's bait supply with one or two casts. Fishing camp operators in Florida have begun selling meal in one pound bags and some operators in the Jacksonville area are buying more than 100 pounds each week. The fact that such a small market even merits attention points up the critical need for more research and promotion if the fish meal industry is to survive.

Let us leave the menhaden industry for the moment and turn to the in-

dependent shrimper. Here there is a much brighter outlook. The independent owner generally captains his own boat and can always pick up a fisherman, no matter how tight the labor supply. Data from companies selling modern 60 foot shrimp boats on generous time payments indicate that an able owner-captain with a good boat can show a net profit of about $12,000 a year. This has applied since the discovery of the new Gulf beds off Key West and Pensacola.

The Florida East Coast needs experimental fishing studies as badly as the Gulf, however. Our shrimp on the East Coast virtually disappear for months at a time, only to reappear after a northeaster. It appears that Gulf shrimp normally found in 50 fathoms of water move into 30 fathom and shallower water during and after storms. May not the same thing happen on the East Coast of Florida? In the absence of other information, is it not possible that somewhere off the East Coast there are undiscovered beds of shrimp such as are being found in the Gulf? Some fishermen have tried shrimping off-shore, usually with negative results. The plain truth is that a commercial fisherman cannot afford to experiment, since he runs too much chance of missing badly needed fish or of losing his crew through discouragement.

The last experimental fishing done on the East Coast was the offshore trawling done by the *Albatross* last winter in North Carolina. The work lasted three weeks and barely scratched the surface. Recent data indicate that since the success of the exploratory fishing in the Gulf that shrimp landings in the Gulf states have increased from 17 per cent to 100 per cent of previous years.

In short, an experimental vessel permanently stationed on the East Coast is needed to handle a two-fold investigation: first, locate and sample off-shore shrimp populations; second, work on the problem of reducing labor requirements in the menhaden fishery and at the same time start a thorough investigation of the life history of the menhaden. It is significant that the last work of importance on the menhaden was done in 1898. We do not presently know where or when they move nor what factors induce their migrations. For example: what are the economic possibilities of *Brevoortia smithii*, the yellow-tailed menhaden found only rarely north of Cape Canaveral, Florida? This large menhaden is commonly taken in shrimp trawls and appears to have an unusually high oil content. Where are its grounds and when does it move? It seldom appears in our fishery because its home waters are beyond the range of our menhaden boats. Recently in North Carolina there have been about 60 menhaden boats. Including boat and plant crews, over 2,000 men are employed in the industry. Men, boats, and factories have been idle because the run of menhaden have not yet appeared. In the past, November 10 has been the approximate arrival of the large fish. This year no one was positive they would appear at all. The willingness to spend large amounts of money on such simple faith has always been characteristic of the menhaden industry and may, some day, lead to its downfall.

To turn briefly to the snapper and hook and line fishermen, there have been a few full-time hook and line fishermen on the East Coast of Florida. When shrimping falls off, the boats occasionally run 30-50 miles off shore for two and three day trips. Good fishermen have landed 4,000 pounds per trip, but the price of about 20 cents per pound to the boat plus the unpredictability of the weather and the bank fishing do not encourage our shrimpers to devote their full time to hook and line fishing. As long as the new shrimp grounds around

Key West hold up, the independent owner will not concern himself with snapper fishing except on a casual basis.

On the East Coast the fishermen have barely scratched the surface of the marine resources, although some species have been fished almost to extinction. On any good fishing day when a hundred miles of coastline has two hundred boats at sea, hardly a boat can be found more than 5 miles off-shore. The boats plow up the narrow strip along the beach and ignore the off-shore waters. No one knows what schools of menhaden, herring, tuna and other pelagic species may exist there. Ten miles off shore the shrimp could be lying in solid beds and would never be encountered except by accident.

The independent boat owner who can keep his boat and crew busy all year round will enjoy the greatest advantage. A menhaden boat which can also engage in the off-shore shrimp fishery should be profitable.

We plan to fish our vessel *Barbet* this winter on the Gulf shrimp. With a weeks time required for the change-over, we feel we can profitably operate for three or four months when we would otherwise be idle.

To sum up the status of the independent boat owner, his continued survival depends largely upon the discovery of new grounds and fish populations. the improvement of menhaden fishing methods and the exploration of our fishing waters as far as the hundred-fathom curve. This can only feasibly be accomplished by the Fish and Wildlife Service with the cooperation of the fishing industry.

The Outlook For Continued Shrimp Production In Louisiana

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THE SUBJECT is one that is rather difficult to handle because it is very controversial. The writer's opinion about continued production of shrimp in Louisiana might be challenged by others in the industry, and here it is approached from practical experience with no knowledge of biology whatsoever. It is possible that opinions expressed here are contrary to the belief of the men of science who have made a study of the shrimp fishery. These opinions are given from results of many years of experience in the shrimp business, and operating exclusively in Louisiana.

The outlook for continued shrimp production in Louisiana is as good at this time as it has ever been at any time in the past. Only two factors could change the outlook at this time. First, serious damage to the vast nursery grounds, whether the damage be from natural or artificial causes. Secondly, overfishing. Since there appears to be no serious damage to the nursery grounds at this time, let us consider the fishing effort.

Is there overfishing in Louisiana waters? It appears not, for the following reasons: The industry is divided into two important groups, the inshore fishermen who, with the use of small boats and light equipment, produce small and medium shrimp, and the offshore fishermen who, with the deep sea trawler, fish in the Gulf and produce large or jumbo shrimp. From childhood the writer has watched the development of the fishery, starting first with the castnet, then the seine and then the otter trawl, on the inside lakes and bays, down to the