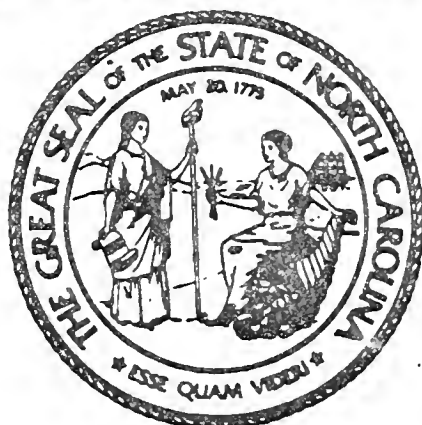


LEGISLATIVE RESEARCH COMMISSION

REPORT
TO THE

1979

GENERAL ASSEMBLY OF NORTH CAROLINA



FISHERIES

RALEIGH, NORTH CAROLINA

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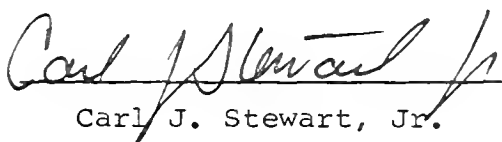


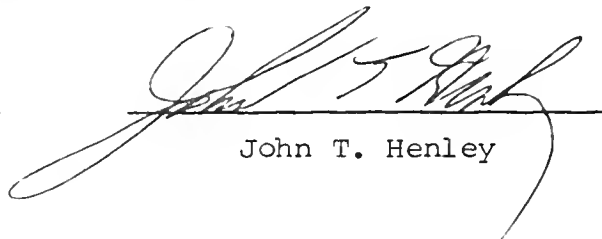
January 9, 1979

TO THE MEMBERS OF THE 1979 GENERAL ASSEMBLY:

Transmitted herewith is the report prepared by the Committee to Study Fisheries of the Legislative Research Commission. The study was conducted pursuant to House Joint Resolution 1385 (ratified Resolution 88) of the 1977 General Assembly (First Session, 1977), and this report is submitted to the members of the General Assembly for their consideration.

Respectfully submitted,


Carl J. Stewart, Jr.


John T. Henley

Co-Chairmen

LEGISLATIVE RESEARCH COMMISSION

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PREFACE

The Legislative Research Commission, authorized by Article 6B of Chapter 120 of the General Statutes, is a general purpose study group. The Commission is co-chaired by the Speaker of the House and the President Pro Tempore of the Senate and has five additional members appointed from each house of the General Assembly. Among the Commission's duties is that of making or causing to be made, upon the direction of the General Assembly, "such studies of and investigations into governmental agencies and institutions and matters of public policy as will aid the General Assembly in performing its duties in the most efficient and effective manner" (G.S. 120-30.17(1)).

At the direction of the 1977 General Assembly, the Legislative Research Commission has undertaken studies of numerous subjects. These studies were grouped into broad categories and each member of the Commission was given responsibility for one category of studies. The Co-Chairmen of the Legislative Research Commission, under the authority of General Statutes 120-30.10(b) and (c), appointed committees consisting of members of the General Assembly and of the public to conduct the studies. Co-Chairmen, one from each house of the General Assembly, were designated for each committee.

The Commission assigned the study to the Committee to Study Fisheries. Representative Thomas O. Gilmore was appointed to

chair the Committee. Upon the resignation of Representative Gilmore, Representative A. Hartwell Campbell was appointed as chairman. Senator D. Livingstone Stallings and Representative Joseph L. Bright were appointed co-chairmen. The membership list of the Legislative Research Commission and the Committee are attached as Appendix A.

The study of the commercial fishing industry was directed by House Joint Resolution 1385 (ratified Resolution 88) of the 1977 General Assembly (First Session, 1977). The charge to the Committee in Section 1 of the Resolution is to study the problems which commercial fishermen face due to price instability in the marketing of fish. A copy of this Resolution may be found in Appendix B of this report.

LEGISLATIVE RESEARCH COMMISSION

COMMITTEE ON FISHERIES

Committee Proceedings

The first meeting of the Legislative Research Commission Committee on Fisheries (hereinafter referred to as "the Committee") was held on November 17, 1977 (all meetings were held in the Legislative Building in Raleigh). The Committee was informed by the chairman, Representative Gilmore, of its function to study the problems of price instability in the commercial fishing industry. Representative Gilmore recognized former Representative Ronald Earl Mason who introduced House Joint Resolution 1385 directing that the subject be studied. Mr. Mason informed the Committee that price instability in marketing was the single greatest problem in North Carolina's fishing industry. Mr. Mason suggested that a marketing report program which had been established with Federal funds, but not supported by commercial fishermen, would be an aid in correcting the problem of price instability.

Mr. Victor Barfield, Assistant Secretary of the Department of Commerce, spoke before the Committee concerning the need for a uniform marketing program and state support for processing facilities. Mr. Barfield also informed the Committee that the marketing and promotion program which was established in the Division of Marine Fisheries in 1973, but deleted in 1975, was

intended to perform the same services to the fishing industry as Agricultural Extension Agents do for farmers. He indicated that refunding this program would aid market price stability.

Senator Stallings, Committee co-chairman, distributed copies of a University of North Carolina Sea Grant Newsletter article which discussed the problem of skates and rays destroying shellfish along North Carolina's coast (see Appendix D). The Committee asked for additional information concerning this problem.

The Committee met for the second time on December 6, 1977. This meeting was devoted to hearing from the Committee to Protect the Rights of Commercial Fishermen, Harkers Island, North Carolina (hereafter referred to as "the Commercial Fishermen Committee"), and various state departments.

Mr. Perry Guthrie of the Commercial Fishermen Committee discussed with the Committee the problems of the cow nose ray in coastal North Carolina. This ray weighs approximately 30 to 40 pounds and glides along the sea bottom drawing oysters, clams, and other seafood into it's mouth where the shellfish are crushed and digested. The population of these rays has increased in recent years and Mr. Guthrie said that they are destroying much of the shellfish in Eastern North Carolina.

The Commercial Fishermen Committee asked for state aid in developing a market for the cow nose ray and increasing the take of the ray for food purposes so to reduce the population their

devastating effect on shellfish. (See Appendix D for discussion of skates and rays in North Carolina Sea Grant publication.)

Mr. Ed McCoy of the Division of Marine Fisheries informed the Committee that there is presently no money available to combat the cow nose ray problem, but the Division is interested in developing such a program for fishermen. Mr. McCoy also discussed areas of concern by coastal North Carolinians including dredging of inlets, more serious penalties for commercial fisheries laws, loan programs for commercial fishermen, a marine fisheries newspaper and revival of the artificial fishing reef program.

The Assistant Director of the Marine Fisheries Division, Mr. Lee Barham, began a discussion of the commercial fisheries fee structure. He focused on the four main elements of North Carolina's fee structure: I. Vessel License, II. Seafood Dealers License, III. Taxes, and IV. Fines. Mr. Barham proposed that North Carolina begin to license fishing gear as part of the commercial fishing control program. This proposal came as a result of the number of Maryland and Virginia vessels fishing in North Carolina waters with licensed North Carolina captains. Virginia and Maryland will not now license North Carolina captains.

Due to the protracted illness and in December, 1978 the death of Sen. D. Livingstone Stallings, co-chairman, the Committee was not able to meet again and has not made any findings relative to the

problems in the commercial fisheries industry of North Carolina. The Committee recommends to the General Assembly that the study of the Commercial Fisheries industry be continued into the 1979-81 biennium. (See Appendix E.)

The Committee wishes to express to the family and friends of Senator D. Livingstone Stallings their sincere sympathy for their loss. Senator Stallings' interest in the problems of the fishing industry was the key element behind the study and his knowledge and abilities in this area will be missed.

APPENDIX A

1977-1979

LEGISLATIVE RESEARCH COMMISSION MEMBERSHIP

House Speaker Carl J. Stewart, Jr. Chairman	Senate President Pro Tempore John T. Henley, Chairman
Representative Chris S. Barker, Jr.	Senator Dallas L. Alford, Jr.
Representative John R. Gamble, Jr.	Senator Russell Walker
Representative A. Hartwell Campbell	Senator Cecil J. Hill
Representative H. Parks Helms	Senator Robert B. Jordan, III
Representative Lura S. Tally	Senator Vernon E. White

LEGISLATIVE RESEARCH COMMISSION
COMMITTEE TO STUDY FISHERIES

Membership

Representative A. Hartwell Campbell,* LRC member responsible for
study

Representative Joseph L. Bright, Co-Chairman

Senator D. Livingstone Stallings, Co-Chairman

Mr. Mike Bowlings

Representative Howard B. Chapin

Senator Bobby Lee Combs**

Representative S. Thomas Rhodes

*Representative Campbell was appointed to replace Representative
Thomas D. Gilmore upon Representative Gilmore's resignation.

** Not a member of the 1979-81 General Assembly.

APPENDIX B

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 1977
RATIFIED BILL

RESOLUTION 88

HOUSE JOINT RESOLUTION 1385

A JOINT RESOLUTION DIRECTING THE LEGISLATIVE RESEARCH COMMISSION TO STUDY THE PROBLEM OF PRICE INSTABILITY IN THE COMMERCIAL FISHING INDUSTRY AND TO REPORT TO THE NEXT APPROPRIATE SESSION OF THE GENERAL ASSEMBLY.

Whereas, the commercial fishing industry is a vital component in the economic well-being of the State; and

Whereas, fish are perishable and hence are subject to special marketing problems; and

Whereas, the abundance or scarcity of fish during certain times of the year causes wide fluctuations in the price which commercial fishermen are able to obtain for their catch; and

Whereas, it is desirable to assure a greater degree of stability in the price which commercial fishermen receive for their catch in order to assure the maximum contribution of the fishing industry to the economy of the State;

Now, therefore, be it resolved by the House of Representatives, the Senate concurring:

Section 1. The Legislative Research Commission is directed to study the problems which commercial fishermen face due to price instability and to report on the desirability and feasibility of legislation which would address this problem to the next appropriate session of the General Assembly.

Sec. 2. The co-chairmen of the Legislative Research Commission are authorized to appoint additional members of the General Assembly to study committees to assist the regular members of the commission in conducting this study, and they are authorized to appoint members of the public to advisory subcommittees. In appointing study committees the co-chairmen of the Legislative Research Commission should appoint one senator and one representative from the coastal area of the State.

Sec. 3. This resolution shall become effective upon ratification.

In the General Assembly read three times and ratified, this the 1st day of July, 1977.

JAMES C. GREEN, SS

James C. Green

President of the Senate

CARL J. STEWART, JR.

Carl J. Stewart, Jr.

Speaker of the House of Representatives

APPENDIX C

WITNESSES APPEARING

Firm or State Agency

Mr. Victor Barfield	Department of Commerce
Mr. Bob Barker	Department of Commerce
Mr. Lee Barham	Department of Natural Resources and Community Development (NRCD)
Mr. G. P. Guthrie	*Commercial Fishermen Committee
Mr. Horace Loftin	Department of Administration
Honorable Ronald Earl Mason	NRCD
Mr. Ed McCoy	NRCD
Ms. Betsy Warren	NRCD

*Committee to Protect the Rights of Commercial Fishermen

APPENDIX D



UNIVERSITY OF NORTH CAROLINA

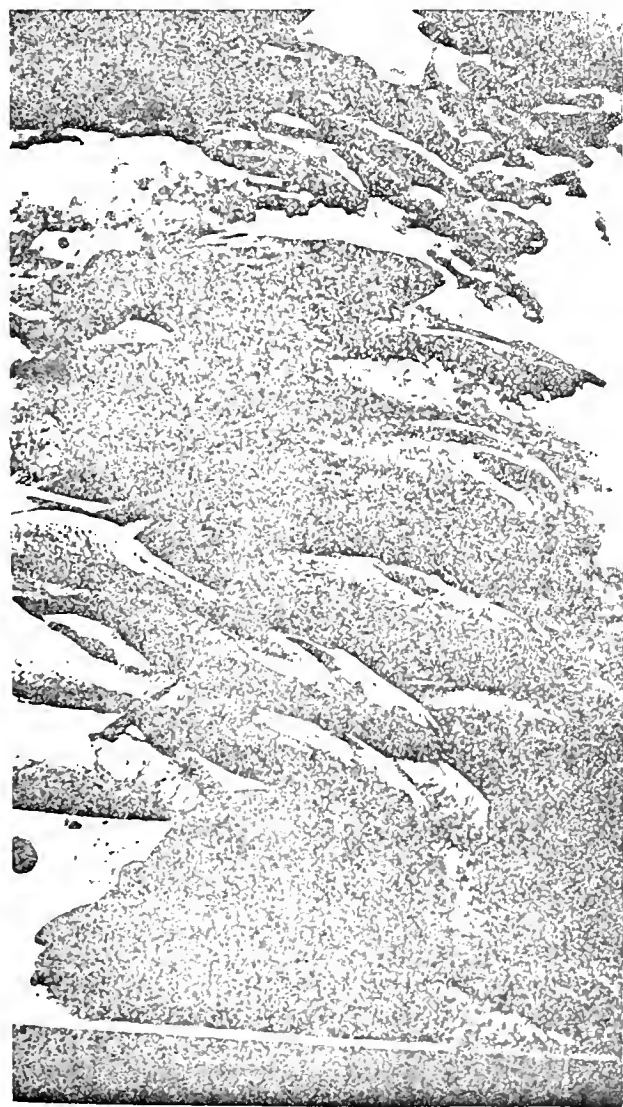
SEA GRANT COLLEGE NEWSLETTER

September 1977

1215 Burlington Laboratories
NCSU, Raleigh, N.C. 27607 Tel. (919) 757-2151

The underutilized fish market

Creating demand for a plentiful supply



Two pounds of minced fish tissue mixed with eleven ounces of dry milk, liquid artificial smoke and miscellaneous spices, baked in a hot oven for 45 to 50 minutes. . .

While this curious concoction for fish luncheon loaf may not sound as exotic as James Beard's Shrimp de Jonghe, it does have a special meaning to nutrition experts, budget-minded consumers and to the fishermen of North Carolina. What do these three groups have in common? According to seafood researchers, fish luncheon loaf is just one of the many ways in which presently "underutilized" fish species such as the croaker, spot, mullet, Spanish mackerel and grey trout, could be used to provide a low cost, low fat, high protein food product, while creating a ready market for resources currently left at sea.

Representatives from virtually every segment of the seafood industry are beginning to perk up their ears at the word *underutilized* as researchers in North Carolina and other coastal states examine the marketing potential for underutilized fish species at home and abroad.

Nearly every time that a fisherman retrieves his nets, various non-target or incidental fish are caught. These are species that the fisherman is not particularly interested in because of size or because the fish will not bring a high enough return on the market. What the fisherman then does with these incidental fish varies from boat to boat. He either throws the fish back overboard or packs them on ice as he would the target catch.

Although figures vary, one estimate concludes that along the north central Gulf coast (including Alabama, Mississippi, and Louisiana), nearly 19 pounds of finfish are thrown overboard for every pound of shrimp caught. That means that approx-

(See "Processing," p. 2)

Processing and promotion . . .

(Continued from p 1)

imately 750 million pounds of fish are discarded annually. A study by the North Carolina Division of Marine Fisheries indicates that some 4.6 to 6.3 pounds of fish are discarded for every pound of shrimp caught along Pamlico Sound.

Do these fish have to be wasted? Sea Grant marine advisory agent Skipper Crow doesn't think so. He views discarded fish as a resource that could be converted into dollars. "I am absolutely convinced," Crow stresses, "that there is no fish today that you can't sell. It's just a matter of promotion."

Like any commodity, the selling of fish is intimately tied to the law of supply and demand. Without demand there is no incentive to create a supply. Though perfectly edible (in fact, delicious), croaker, spot and mullet have never been in high demand because few consumers are aware of their food potential and high protein value. As a result, fishermen have continued to go after the more traditional, higher yield species, such as flounder, shrimp and crab, while croaker and spot have been relegated to



the "underutilized" category. According to Crow through massive educational and promotional efforts a significant demand could be created for these species by exposing previously untried markets to the products. He suggests that once one market is created, other "spin-off" markets for other underutilized species will naturally follow suit. Coupled with existing operations, Crow contends these "new" fisheries will stimulate year round job opportunities in regions historically faced with only seasonal employment.

Southeastern coastal marketing specialists are currently working in coordination with the Gulf and South Atlantic Fisheries Development Foundation and the Coastal Plains Regional Commission to explore market possibilities for such underutilized species as croaker, mullet and Spanish mackerel in 15 major Midwestern cities. Preliminary indications suggest the potential is "tremendous." A. Paul Allsbrook, marketing specialist with North Carolina's Department of Commerce, recently returned from a marketing conference in Chicago. He notes that while the potential there is good, the real marketing success will depend upon whether or not North Carolina fishermen are willing to gear up for the kind of product the consumer wants.

"It has to be convenient. A housewife is simply not going to want to bother with a fish in the round," Allsbrook adds, "There is a market for underutilized fish, but it has to be prepared in a particular manner from the consumer's point of view."

Traditionally North Carolina fishermen have gone along with what he terms "the line of least resistance"—simply icing and boxing the fish, and shipping them in the round to the wholesaler. But Allsbrook stresses that to develop a market for certain underutilized species such as the croaker, the fishermen will have to greatly expand their processing efforts.

Fisherman Charles Jones of Newport agrees with Allsbrook that the keys to the underutilized market are processing and diversification of operations. And while he admits that he will someday have to make this change, he has strong reservations about the half million dollar investment he predicts will be necessary to gear up for processing. "There are so many other ways of making money that we really don't need that market," he explains.

Glenn Hieronymus, who runs an operation out of Wrightsville Beach, thinks that there is great potential in the underutilized fish market. "I'd like to do it," but he adds, "the price of the ice and labor is high that it's absolutely not feasible to bring it in. . . . I know I can get 5¢ maybe 8¢ a pound for it [in the round]. But when they're out there catching shrimp



ing the fish on ice: the line of least resistance

"\$2 and \$3 a pound, then it's just not worth going for the small stuff."

The dilemma facing the underutilized fish market epitomized by these attitudes. Fishermen, disgruntled by the low per unit yield from the fish, are reluctant to part with the substantial outlays required to capture the market. Yet in so doing, they are virtually closing the door to a potentially lucrative market that has been given only minimal attention in the U.S. Interestingly enough, in terms of market potential, shrimp were considered to be underutilized along the North Carolina coast prior to World War II. Today the shrimp fishery is the single most valuable within the state, with a landed value of only \$8.2 million in 1976.

Perhaps the greatest potential in the underutilized market lies overseas. According to Roger Anderson, executive director of the Gulf and South Atlantic Fisheries Development Foundation, "Export markets play a very, very important role in the development of these 'underutilized' species." Because markets have already been established in Europe and the Orient for such domestically underutilized species as squid, eel, skate and dogfish, marketing specialists suggest that greater attention must be paid to the export market. In light of the recently extended fisheries jurisdiction, it is apparent that the significance of these markets will increase in the coming decades as new species of fish are exploited.

And why not skates and rays?

To the oysterman it is a threat. To the crabber it is a competitor. To the finfisherman it is a nuisance. But to Sea Grant marine advisory agent Skipper Crow and NCSU graduate student Steve Otwell, it is a potentially marketable food item. It is . . . the skate.

While the skate may not be so popular on this side of the Atlantic, in Europe there is no ambivalence when it comes to the skate or his relative, the ray; they are delicacies. Like many underutilized fish species that have never found a market in the U.S., these boneless, "winged" creatures are an accepted and valued item on the European seafood market. In the U.S., however, tremendous quantities of these fish are incidentally caught, discarded, and literally lost at sea.

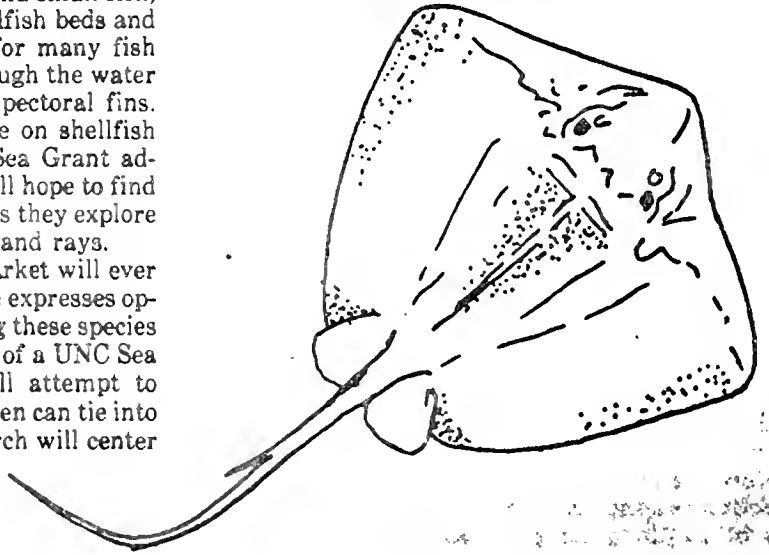
The skate and ray have never had a particularly favorable reputation among coastal fishermen here. Feeding primarily on crabs, mollusks and small fish, these unique fish can also disturb shellfish beds and tear eel grass (a prime habitat area for many fish species) as they propel themselves through the water with a flap of their fleshy, wing-like pectoral fins. Just what impact these activities have on shellfish production is not really known. But Sea Grant advisory agent Crow and researcher Otwell hope to find the answer to some of these questions as they explore export marketing potential for skates and rays.

Crow is doubtful that a domestic market will ever evolve for skates and rays. However, he expresses optimism over the potential for marketing these species in Europe and Japan. Under the funds of a UNC Sea Grant mini-grant, he and Otwell will attempt to assess just how North Carolina fishermen can tie into this export market. Much of the research will center

on the quality criteria which must be met before export is possible. "We have to know how the quality of the domestic skate and ray compares with foreign species," Crow explains.

Other criteria such as size requirements, packaging and processing techniques will be thoroughly explored before any test samples are shipped abroad. In addition, by documenting the destruction of oyster and scallop beds by skates and rays, they will attempt to evaluate just how effective marketing could be as a management tool.

Crow stresses that the findings of their research will be "purely preliminary," and that far more in-depth studies will be required before actual export can be possible. But if their efforts pan out, the domestically unpopular skate and ray may gain a little more respect in these parts.



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Sea Grant College Program
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APPENDIX E

Draft Resolution to Extend the Study of Fisheries

A JOINT RESOLUTION DIRECTING THE LEGISLATIVE RESEARCH COMMISSION TO STUDY THE PROBLEM OF PRICE INSTABILITY IN THE COMMERCIAL FISHING INDUSTRY AND TO REPORT TO THE 1981 SESSION OF THE GENERAL ASSEMBLY.

Whereas, the commercial fishing industry is a vital component in the economic well-being of the State; and

Whereas, fish are perishable and hence are subject to special marketing problems; and

Whereas, the abundance or scarcity of fish during certain times of the year causes wide fluctuations in the price which commercial fishermen are able to obtain for their catch; and

Whereas, it is desirable to assure a greater degree of the fishing industry to the economy of the State; and

Whereas the Legislative Research Commission was not able to complete the study authorized by House Joint Resolution 1385; Now, therefore, be it resolved by the House of Representatives, the Senate concurring:

Section 1. The Legislative Research Commission is directed to study the problems which commercial fishermen face due to price instability and to report on the desirability and feasibility of legislation which would address this problem to the 1981 session of the General Assembly.

Section 2. This resolution shall become effective upon ratification.

