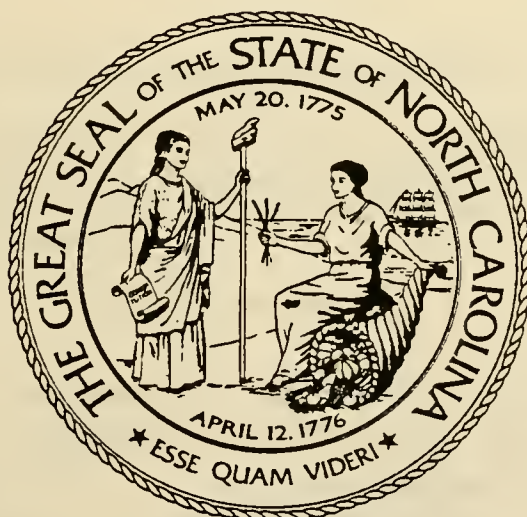


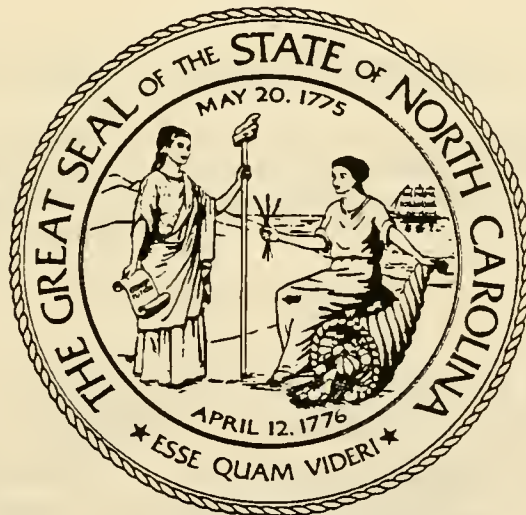
JOINT LEGISLATIVE COMMISSION ON SEAFOOD AND AQUACULTURE



REPORT TO THE
1991 GENERAL ASSEMBLY
OF NORTH CAROLINA
1991 SESSION

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REPORT TO THE 1991 GENERAL ASSEMBLY OF NORTH CAROLINA 1991 SESSION

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NORTH CAROLINA GENERAL ASSEMBLY

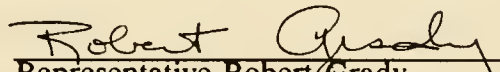
January 30, 1991

TO THE MEMBERS OF THE 1991 GENERAL ASSEMBLY:

Pursuant to Section 12.1, of Part XII of Chapter 802 of the 1989 Session Laws, (G.S. 120-70.60, et seq.), the Joint Legislative Commission on Seafood and Aquaculture hereby submits its report of recommendations and findings to the 1991 North Carolina General Assembly.

Respectfully submitted,


Senator Marc Basnight
Co-chairman


Representative Robert Grady
Co-chairman

Joint Legislative Commission on Seafood and Aquaculture

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I. INTRODUCTION

North Carolina's coastal fishing industry, including both commercial and recreational fishing, has an annual value to the State's economy of almost one billion dollars. According to the Division of Marine Fisheries and the National Marine Fisheries Service, between 9,000 and 15,000 (full-time equivalent positions; many more part-time) persons are employed in the commercial fishing industry in coastal North Carolina. In addition, based on 1985 data from the Sport Fishing Institute, approximately 6,000 coastal sport fishing jobs are provided in this State (equivalent to 4,500 full-time positions).¹ The Division of Marine Fisheries estimates that there are approximately one million recreational fishermen on the State's coasts. Note, the figures for both commercial and recreational fishermen are estimates based on available data and should be used with caution. The General Assembly created the Seafood Study Commission to monitor and make recommendations relating to this important industry.

The Seafood Study Commission was originally authorized by Section 24.4 of Chapter 873, Part XXVII of the 1987 Session Laws. In 1989, the General Assembly expanded and made permanent the commission and renamed it the Joint Legislative Commission on Seafood and Aquaculture (hereinafter the "Joint Legislative Commission"). The authorizing legislation for the Joint Legislative Commission may be found in Art. 12F of Chapter 120 of N.C.G.S. 120-70.60 - 70.66. (See Appendix A). The designation of members to the Joint Legislative Commission remained the same as the original Seafood Study Commission described as follows: three members by the President of the Senate; three members by the Speaker of the House; three members appointed by the Governor; and two members appointed by the

Commissioner of Agriculture. One of the three Senators and one of the three Representatives was appointed co-chairman. (See Appendix B).

The Joint Legislative Commission was directed to continue to monitor and study the seafood industry. In addition, the scope of the Joint Legislative Commission was expanded to: 1) study the potential for increasing the role of aquaculture in all regions of the State; 2) evaluate the feasibility of creating a central permitting office for fishing and aquaculture matters; 3) evaluate actions of boards, commissions, and departments concerning activities relating to seafood and aquaculture; and 4) make recommendations concerning regulatory matters.

The Joint Legislative Commission was co-chaired by Senator Marc Basnight of Dare County and Representative Robert Grady of Carteret and Onslow Counties. The Joint Legislative Commission did not file a formal report to the 1990 General Assembly, but recommended legislation to provide water column leases for perpetual shellfish franchises ("deeded bottoms") at the request of fishermen during a public hearing. Legislation was also passed to extend the deadline that the Secretary of the Department of Environment, Health, and Natural Resources must resolve claims to land under navigable waters from December 31, 1990 to December 31, 1994 (also referred to as "submerged land claims").

In order to adequately address the serious nature of the problems affecting the seafood industry, the Joint Legislative Commission felt it was important to review the history of a representative sample of the seafood industry over the past ten years.

II. HISTORICAL OVERVIEW

A. Shellfish

1. Oysters

North Carolina's commercial landings during the past ten years have varied from a high in 1987 of 225,000 bushels to a low in the Spring of 1990 of 23,000 bushels. Disease, water quality, and overfishing have contributed to the massive decline in shellfish production. (See Appendix C).

In 1988, the oyster diseases MSX and Dermo were identified in many North Carolina oyster-producing areas. While not harmful to humans, MSX and Dermo can be devastating to oyster populations.² Carteret County contained the majority of the highly infected sites. Dare and Hyde Counties were generally found to be free of the Dermo infection, but were found to be contaminated with MSX. In 1990, 77% of oysters sampled from 61 sites along the North Carolina coast were found to be infected with Dermo (compared with 78% in 1989).

In addition, oysters are vulnerable to environmental changes and may bioaccumulate many bacteria, toxins, and heavy metals which can be harmful to humans when oysters are consumed raw. It is believed that declining levels of water quality have directly affected the North Carolina Oyster Industry with respect to increased oyster mortality, reduced marketability, and decreasing availability of stocks due to closing of shellfish bottoms because of pollution. There is some indication that increases in "runoff" can directly affect spat settlement.³

Until recently, North Carolina did not have reliable population estimates of oyster stocks in this State. With improvements in fishing methods and depletion of stocks it is difficult to determine if the oyster stocks have been overfished. Some researchers have noted that the decline in North Carolina landings began during the same period that the oyster dredge was introduced as a more efficient tool.⁴ During the late 1970's, dredging was essentially unrestricted and caused a severe impact on sea grass beds and oyster beds. Since then, more stringent rules have been implemented.

In an attempt to enhance oyster production in this State, the Oyster Rehabilitation Program was expanded in 1979 and the Division of Marine Fisheries more than doubled its shellplanting efforts. An average of 384,000 bushels were planted each year during the 1980's. The highest total cultch planting occurred in 1989 with 483,290 bushels.

2. Shrimp, Bay Scallops and Blue Crab

There are three species of shrimp in North Carolina: brown, pink, and white. Brown shrimp represent 65% of the catch; pink 27%; and white 8%. The Christmas freeze of 1989 depressed the pink shrimp catch in the spring of 1990. During the period from 1979-89, 1981 represents one of the poorest years on record. Note, that during the same period, 1985 represents one of the best years since the mid 1950's. (See Appendix D). Stocks and landings will continue to vary widely because of environmental conditions as they have in the past.

As with pink shrimp, extremely cold weather causes severe kills of bay scallops. This is especially true when winter storms resulting in low tides expose sea grass flats in which bay scallops live. Examples include the winters of 1976-77; 1977-

78; and late December 1989. In addition, the red tide of 1987-88 killed at least 50% of the harvest and more than 90% of the juveniles from the 1987 spawn. The bay scallop has been severely depressed since the red tide and recovery was hindered by the December 1989 freeze. (See Appendix E).

According to the Division of Marine Fisheries, in terms of total catch, value, participation, amount of processing and product value, the blue crab supports North Carolina's most valuable commercial fishing. Landings for 1979-89 were the highest for any similar period. (See Appendix F). Based on the Division's commercial vessel license data, rough estimates of the number of crab pots in use has increased four-fold between 1979-89. The estimated annual value of blue crab is approximately \$50 million dollars.

B. Flounder

North Carolina harvests more southern flounder than any other state. Landings of summer flounder in the State are obtained almost entirely from the winter trawl and have declined by 69% since 1980. Atlantic Coast recreational landings have fallen by over 80%. Data indicates there is poor spawning success and that the flounder is heavily overfished. During the early 1980's, the Division of Marine Fisheries recommended that the Marine Fisheries Commission institute a minimum mesh size of five and one-half inches for flounder trawl tail bags to protect immature fish. The Marine Fisheries Commission enacted the rule in 1982, but deleted it after opposition from the commercial fishing industry. In 1987, the Director of Marine Fisheries was given authority to issue a proclamation limiting the size. The proclamation became effective November 1, 1990. The Division of Marine Fisheries

estimates it will be five years before the flounder catch reaches its former level of abundance.

C. Aquaculture

North Carolina's aquaculture industry has an annual value to the State of between \$9-12 million dollars. In 1989, the General Assembly enacted legislation which created the "Aquaculture Development Act." The Act marks the first time that "aquaculture" is recognized as "agriculture" in North Carolina. As part of the new Act, the General Assembly created a special advisory board to help it and the Department of Agriculture encourage the expansion of this industry. By definition, aquaculture means "the propagation and rearing of aquatic species in controlled or selected environments." (G.S. 106-758(1)).

According to the Department of Agriculture, commercial aquaculture production in North Carolina, excluding mariculture, began in approximately 1950 with the Rainbow Trout industry. Trout production and catchout facilities now number approximately 110 and produce 4-6 million pounds of fish annually.

The catfish industry is characterized by two types of operations. The "salt and pepper" fish camp production of catfish is a localized industry in the western piedmont. More intensive production began in the coastal plain in 1985 and has resulted in the construction of over 1,100 acres of production ponds for catfish. The trend is for continued expansion of production. Production potential for the current ponds will exceed 4 million for 1991.

Hybrid striped bass production began on a commercial scale in 1987 near Aurora in Beaufort County. North Carolina is one of the leaders in producing striped bass and this species now accounts for approximately 150 acres of water area. Plans are currently in place to expand to over 400 acres within the next three years.

Crawfish production was initiated in 1986 with an initial 32 growers. Conflicting demands on labor and time have reduced this to 14 growers and 170 acres. Improvements in harvesting techniques and marketing will assist the slow growth of this sector over the next few years.

Although there are some uncontrollable problems such as weather and disease, the State should continue its efforts to minimize damage to the fisheries industry. Examples of enacted legislation by the 1989-90 General Assembly include a requirement that the forestry and agricultural operations utilize best management practices; as well as state regulations concerning wastewater and sewage discharges. There is also a movement toward reduction of chemicals, which will improve water quality. The Marine Fisheries Commission has broad powers to regulate fisheries directly and to promote recovery of depleted stocks. The Marine Fisheries Commission may also delegate such power to the Director of the Division of Marine Fisheries. As noted in the recommendations, the relationship between the Marine Fisheries Commission and the Division of Marine Fisheries is an important one which merits further study in an effort to improve communication.

III. RECOMMENDATIONS AND FINDINGS

Recommendation 1: The Joint Legislative Commission recommends that a detailed study of the organizational structure of the Division of Marine Fisheries and the Marine Fisheries Commission be made by the Joint Legislative Commission in an effort to improve communication and management of marine fisheries.

The Joint Legislative Commission finds that communication between the fishermen, the Division of Marine Fisheries, and the Marine Fisheries Commission is at its lowest ebb. The Division of Marine Fisheries recommends regulations for consideration by the North Carolina Marine Fisheries Commission which Commission is charged by the General Assembly to "manage, restore, develop, cultivate, conserve, protect, and regulate the marine and estuarine resources of the State of North Carolina" (G.S. 143B-289.3(b)(1)). While there are limited public hearings, the Joint Legislative Commission finds that commercial and recreational fishermen do not feel that they are being offered adequate opportunities for input in decisions relating to marine fisheries. In addition, the Division of Marine Fisheries is frustrated due to cuts in funding, increased shellfish disease, and decreased shellfish harvests.

While the Joint Legislative Commission makes its study of the organizational structure of the Division of Marine Fisheries and the Marine Fisheries Commission, it recommends that the Division of Marine Fisheries increase the number of public meetings to get input from fishermen on implementing new management concepts such as closing some areas to dredging, setting daily catch limits, and limiting the number of days per week for dredging.

Recommendation 2: The Joint Legislative Commission recommends that the 1991 Session of the General Assembly enact Legislative Proposal I entitled: A BILL TO BE ENTITLED AN ACT TO INCREASE FINES FOR VIOLATION OF RULES ADOPTED BY THE MARINE FISHERIES COMMISSION OR THE WILDLIFE RESOURCES COMMISSION, AS APPROPRIATE SET FORTH IN G.S. 113-135.

The Joint Legislative Commission was asked by the Division of Marine Fisheries to recommend legislation increasing the general penalties set forth in G.S. 113-135. This request was made to make this statute consistent with other penalty statutes affecting marine resources. Recommendations for increasing the fines are as follows:

1. For a first conviction a fine of not less than \$50.00 (previously \$10.00) to not more than \$100.00 (previously \$50.00).
2. For a second or subsequent conviction within three years, a fine of not less than \$100.00 (previously \$50.00) nor more than \$500.00 (previously \$200.00).

Recommendation 3: The Joint Legislative Commission recommends that the 1991 Session of the General Assembly enact Legislative Proposal II entitled: A BILL TO BE ENTITLED AN ACT TO MAKE TECHNICAL CORRECTIONS TO SUBCHAPTER IV OF CHAPTER 113 OF THE NORTH CAROLINA GENERAL STATUTES CONCERNING MARINE FISHERIES.

The Joint Legislative Commission recommends three technical corrections to the General Statutes which are described as follows:

1. Deletes prohibition against dredges weighing more than 100 pounds (statute originally enacted in 1902).
2. Adds "or" between buoys and beach markers in G.S. 113-185(a) to clarify that it can be one or both.
3. Adds "Kemp's ridley" to the list of protected sea turtles in G.S. 113-189(a).

Recommendation 4: The Joint Legislative Commission recommends that the Division of Marine Fisheries work with other eastern states to organize a cooperative network to provide information concerning shellfish disease, disease resistant oysters, shellfish hatcheries and other issues.

The Joint Legislative Commission finds that problems with disease and unusual fluctuations in temperature have affected fishing resources in many eastern states. Shellfish production in other eastern states has also markedly decreased. Several eastern states are pursuing separate research programs to study issues such as the MSX disease, use of disease-resistant oysters, shellfish hatcheries, etc. The Division of Marine Fisheries should work with other states to coordinate an information bank with states sharing results of various efforts and should report those efforts to the Joint Legislative Commission.

IV. PROCEEDINGS

The Joint Legislative Commission, guided under the leadership of Senator Marc Basnight of Dare County, and Representative Robert Grady of Carteret and Onslow Counties, held four meetings during the 1989-91 biennium and one public hearing. It is evident from the meetings and public hearing that communication is a major problem. Not only is it a problem between the Division of Marine Fisheries and the Marine Fisheries Commission, but fishermen cannot agree amongst themselves (See public hearing discussion on February 26, 1990 concerning oyster lease program). Following is a brief discussion of the meetings and public hearing.

January 12, 1990

At its first meeting, the Joint Legislative Commission discussed the Oyster Rehabilitation Program and problems with oyster production. Over the past ten years oyster production has been disastrous due to a number of factors, including the red tide, disease, water pollution, and mechanical means such as oyster dredging. Note that not all agree that oyster dredging has contributed to the problem. Adult populations are low due to disease and harvesting. The problems are not unique to North Carolina, but are being felt all along the east coast. In addition, the Division of Marine Fisheries has only two biologists working on the oyster program in North Carolina. Efforts to preserve the oyster beds by the Division of Marine Fisheries within the Department of Environment, Health, and Natural Resources have been met with outrage by the local fishermen. Such efforts include: closing the season early in 1989 (only being forced to reopen it); limiting the production to fifteen bushels a day; and closing some areas to oyster dredging.

Dr. Jay Levine, Associate Professor of Epidemiology and Public Health at North Carolina State University, College of Veterinary Medicine, discussed the disease called "MSX." MSX thrives when the water has a high salinity. It is not clear how the disease is transmitted, but one possibility may be by crustaceans. Certain compounds affecting water quality may increase susceptibility to the disease.

One possible solution discussed would be to build a hatchery with disease resistant shellfish. While initially expensive to build and set-up a hatchery, according to Dr. William Hogarth, Director of the Division of Marine Fisheries, North Carolina currently spends \$350,000-\$400,000 on out-of-state shells. Several other states, including Virginia, Maryland, and Washington have hatcheries. There was considerable discussion concerning the effect that disease-resistant shellfish would have on the State's natural shellfish.

February 26-27, 1990

On February 26, the Joint Legislative Commission held a public hearing in Beaufort, North Carolina. The purpose of the public hearing was to hear from interested persons concerning seafood and seafood production. The fishermen expressed frustration with the Division of Marine Fisheries and the Marine Fisheries Commission. Many felt that the commercial fishermen were constantly blamed for the problems with shellfish production when, in fact, red tide and disease were to blame. Several fishermen argued that closing the area to "clam kicking" or "oyster dredging" would destroy their livelihood. Some said not only did the dredging not destroy the

oysters, but it riddled the bottom of pollutants and rejuvenated the soil for future growth and was just another example of blaming commercial fishermen for the problem.

One fisherman discussed the shellfish leasing program and said it was ineffective. If the Division of Marine Fisheries thought a lease was not working effectively, they should take it back. The Division should pass strict regulations to help people with leases and should not lease bottoms in the bays or rivers in the Pamlico Sound. Another fisherman who supported the oyster lease program said the problem was water quality not leases. The advantage to leases is that the water is not worked as hard as public bottoms and polluters can be found and forced to clean up easier. He suggested the Division of Marine Fisheries needed to work directly with commercial fishermen, because money alone would not produce oysters. Another fisherman said the lease program would not work because the fishermen cannot grow oysters now. He said the problem was with trawlers and that part of the sound should be left for mother nature. He also suggested that state funds for aquaculture for individual projects (not just research projects) be set aside. Another fisherman was against the oyster lease program because he argued the area is overworked and the Division of Marine Fisheries cannot verify what is put on or taken off the bottom. This person argued that fishermen should have to choose between working a public bottom or having a lease. One fisherman argued that with a leased bottom you could use the water column, but with a "deeded bottom" (or perpetual franchise) you could not. (Note: legislation concerning leasing of water columns with deeded bottoms was enacted during the 1990 Session and can be found in G.S. 113-202.2).

On February 27, the Joint Legislative Commission met. Dr. William Hogarth, Director of the Division of Marine Fisheries, discussed shellfish leases and the

permitting process. Over 50% of the permits for leases are appealed. According to Dr. Hogarth, mechanical gear such as dredging and clam kicking is allowed on a perpetual franchise ("deeded bottom") or a leased bottom if the area is not within a "Primary Nursery Area" as designated by the Marine Fisheries Commission, or an "Outstanding Resource Water" as designated by the Coastal Resource Commission. Dr. Hogarth said it was difficult to manage marine fisheries because of the conflicts of use by various people. Dr. Hogarth said the red tide, disease, and recent freezes had hurt the fish industry in the past three years and the commercial fisherman was not to blame. Dr. Hogarth said water quality needs to be addressed and "Primary Nursery Areas" need to be protected. The problem is not just on the coast, but across the state.

David Bradley, Chairman of the Carteret County Advisory Board of Marine Fisheries commented on aquaculture leases. Mr. Bradley suggested that the Division of Marine Fisheries needs to: 1) do away with tests that leave only the least productive areas for aquaculture; 2) decrease the amount of time it takes for approval of a lease (currently 2+ years); 3) increase the acreage allowed (currently G.S. 113-202(c) restricts leases to 50 acres or less); 4) change fees so that the applicant does not have to pay \$1,000 to \$1,500 upfront, but instead, pays a percentage); and 5) have different rules governing aquaculture so that smaller clams could be sold if there is a market.

Dr. Charles Peterson, Professor of Marine Sciences, Biology and Ecology, University of Chapel Hill, Institute of Marine Science, believes water quality is very important. Dr. Peterson said the State could replenish stocks with a State Shellfish Hatchery. The hatchery could breed disease-resistant oysters.

Following the meeting, Mr. Skip Kemp, Marine Advisory Specialist and Mr. Jim Murray, Director, both with the University of North Carolina Sea Grant Program provided a tour of the hatchery and other demonstration projects. Other projects included: a crab shedding/peeler pound project; and a frozen whole blue crab project.

October 5, 1990

The Joint Legislative Commission met in Atlantic Beach, North Carolina at its fourth meeting. The Joint Legislative Commission heard from Dr. Harold Haskin, Professor Emeritus at Rutgers, Shellfish Research Laboratory, Port Norris, New Jersey concerning oyster management in the eastern states. Following Dr. Haskin, a panel discussion concerning oyster disease took place with Dr. Haskin, Mike Marshall, Chief of Fisheries Development Section, Division of Marine Fisheries, DEHNR, and Dr. Jay Levine, DVM MPH, Associate Professor of Epidemiology and Public Health, North Carolina State University.

Dr. Haskin said production of the eastern oyster has decreased over the years. New Jersey does not currently have a hatchery, but is moving in that direction. If North Carolina decides to build a hatchery, Dr. Haskin recommended using resistant stocks. Dr. Haskin said there are no pollution problems in the Delaware Bay where most of the oysters are grown. There is no limit on the amount of acreage leased, but the lease has to be in an individual's name as opposed to commercial.

The panel discussed New Jersey's lease program. Dr. Haskin said people cannot fish in the Delaware Bay unless they have a lease. Also, trawling on oyster beds

is not allowed. Pollution problems in North Carolina are critical. Problems include dioxin contamination, excessive gypsum growth, raw sewage and fresh water contaminating salt water.

January 18, 1991

The Joint Legislative Commission met to approve its report and proposed legislation to the 1991 General Assembly. One proposal discussed would direct the Department to establish Fisheries Management Plans for managing specified species of fish. The Joint Legislative Commission thought the plans would help in the management of the fisheries industry in this State, but wanted to give all interested persons an opportunity to comment. Thus, the Joint Legislative Commission recommends that this legislative proposal not be included in this report to the 1991 General Assembly, but instead recommends that it be studied in detail after the 1991 Legislative Session.

Detailed minutes of the meetings are available in the Legislative Library.

V. FOOTNOTES

1Sport Fishing Instit. (1988) "Economic Activity Associated With Marine Recreational Fishing in 1985. Vol. 2 - State Level and Species Level Estimates," Report prepared for National Marine Fisheries Serv., Washington, D.C.

2French, J., NC Dept. Environ., Health, and Nat. Resour., Div. Mar. Fish. "Eastern Oyster Stock Status," p. 2, October 4, 1990.

3Kennedy, V.S., (1980). "Comparison of recent and past patterns of oyster settlement and seasonal fouling in Broad Creek and Tred Avon River, Maryland," Nat. Shellfish. Ass. Process. 70 (1): 36-46.

4Marshall, M. (In press), "North Carolina Oyster Management Plan," NC Dept. Environ., Health, and Nat. Resour., Div. Mar. Fish. 8p.

APPENDICES

sure of their appointing officer. The President Pro Tempore of the Senate shall designate one Senator to serve as cochairman and the Speaker of the House of Representatives shall designate one Representative to serve as cochairman. Vacancies occurring on the Commission shall be filled in the same manner as initial appointments. A quorum of the Commission shall consist of six members. (1989, c. 802, s. 12.1.)

§ 120-70.62. Powers and duties.

The Commission shall have the following powers and duties:

- (1) To monitor and study the current seafood industry in North Carolina including studies of the feasibility of increasing the State's production, processing, and marketing of seafood;
- (2) To study the potential for increasing the role of aquaculture in all regions of the State;
- (3) To evaluate the feasibility of creating a central permitting office for fishing and aquaculture matters;
- (4) To evaluate actions of the Marine Fisheries Division of the Department of Environment, Health, and Natural Resources, the Wildlife Resources Commission of the Department of Environment, Health, and Natural Resources and of any other board, commission, department, or agency of the State or local government as such actions relate to the seafood and aquaculture industries;
- (5) To make recommendations regarding regulatory matters relating to the seafood and aquaculture industries including, but not limited to:
 - a. Increasing the State's representation and decision-making ability by dividing the State between the Atlantic and South Atlantic regions of the National Division of Marine Fisheries; and
 - b. Evaluating the necessity to substantially increase penalties for trespass and theft of shellfish and other aquaculture products;
- (6) To review and evaluate changes in federal law and regulations, relevant court decisions, and changes in technology affecting the seafood and aquaculture industries;
- (7) To review existing and proposed State law and rules affecting the seafood and aquaculture industries and to determine whether any modification of law or rules is in the public interest;
- (8) To make reports and recommendations, including draft legislation, to the General Assembly from time to time as to any matter relating to the powers and duties set out in this section; and
- (9) To undertake such additional studies as it deems appropriate or as may from time to time be requested by the President of the Senate, the President Pro Tempore of the Senate, the Speaker of the House of Representatives, either house of the General Assembly, the Legislative Research Commission, or the Joint Legislative Commission on Governmental Operations, and to make such reports and recommendations to the General Assembly regarding such studies as it deems appropriate. (1989, c. 802, s. 12.1.)

122 through 122E

Chapters

123 through 129

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§ 120-70.63. Additional powers.

The Commission, while in the discharge of official duties, may exercise all the powers of a joint committee of the General Assembly provided for under the provisions of G.S. 120-19, and G.S. 120-19.1 through G.S. 120-19.4. The Commission may meet at any time upon the call of either cochairman, whether or not the General Assembly is in session. The Commission may meet in the Legislative Building or the Legislative Office Building upon the approval of the Legislative Services Commission. (1989, c. 802, s. 12.1.)

§ 120-70.64. Compensation and expenses of members.

Members of the Commission shall receive per diem and travel allowances in accordance with G.S. 120-3.1 for members who are legislators, and shall receive compensation and per diem and travel allowances in accordance with G.S. 138-5 for members who are not legislators. (1989, c. 802, s. 12.1.)

§ 120-70.65. Staffing.

The Legislative Administrative Officer shall assign as staff to the Commission professional employees of the General Assembly, as approved by the Legislative Services Commission. Clerical staff shall be assigned to the Commission through the Offices of the Supervisor of Clerks of the Senate and Supervisor of Clerks of the House of Representatives. The expenses of employment of clerical staff shall be borne by the Commission. (1989, c. 802, s. 12.1.)

§ 120-70.66. Funding.

From funds available to the General Assembly, the Legislative Services Commission shall allocate monies to fund the Joint Legislative Commission on Seafood and Aquaculture. (1989, c. 802, s. 12.1.)

§§ 120-70.67 to 120-70.69: Reserved for future codification purposes.

ARTICLE 12G.

Commission on the Family.

§ 120-70.70. Commission established.

The Commission on the Family is hereby established as a permanent commission. As used in this Article, the term "Commission" means the Commission on the Family. (1989, c. 802, s. 10.1.)

Editor's Note. — Session Laws 1989, c. 802, s. 25.1 makes this Article effective July 1, 1989.

Session Laws 1989, c. 802, s. 10.3 pro-

vides that funds appropriated to the Commission on Children and Youth are transferred to the Commission on the Family.

§ 120-70.71. Pov

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(919)353-3579

Rep. Howard B. Chapin
212 Smaw Road
Washington, NC 27889
(919)946-3480

Rep. Marty E. Kimsey
48-A Pine Lane
Franklin, NC 28734
(704)369-6822

**Commissioner of Agriculture's
Appointments**

Mr. Tom Caroon
Route 1, Box 352
Oriental, NC 28571
(919)249-1042

M. Wayne Miller, Director
Division of Marketing
N.C. Department of Agriculture
Agriculture Building
1 W. Edenton Street
Raleigh, NC 27601-1094
(919)733-7887

Clerk:
Peggy Murray
Room 509
Legislative Office Building
O: (919)733-5936
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APPENDIX C

NORTH CAROLINA OYSTER LANDINGS

<u>YEAR</u>	<u>BUSHEL 1 x 1,000</u>	<u>YEAR</u>	<u>BUSHEL 1 x 1,000</u>
1887	382	1978	97
1888	367	1979	138
1889	1,795	1980	123
1890	1,447	1981	97
1897	1,539	1982	112
1902	1,833	1983	117
1908	1,350	1984	115
1918	389	1985	94
1923	1,003	1986	129
1927	779	1987	225
1928	743	1988	138
1929	918	1989	90
1930	716	1990 (Spring)	23
1931	487		
1932	390		
1934	377		
1936	805		
1937	630		
1938	463		
1939	343		
1940	224		
1945	554		
1950	225		
1951	247		
1952	331		
1953	310		
1954	223		
1955	150		
1956	285		
1957	239		
1958	228		
1959	287		
1960	289		
1961	233		
1962	192		
1963	133		
1964	153		
1965	166		
1966	138		
1967	100		
1968	84		
1969	81		
1970	78		
1971	83		
1972	93		
1973	101		
1974	105		
1975	79		
1976	66		
1977	70		

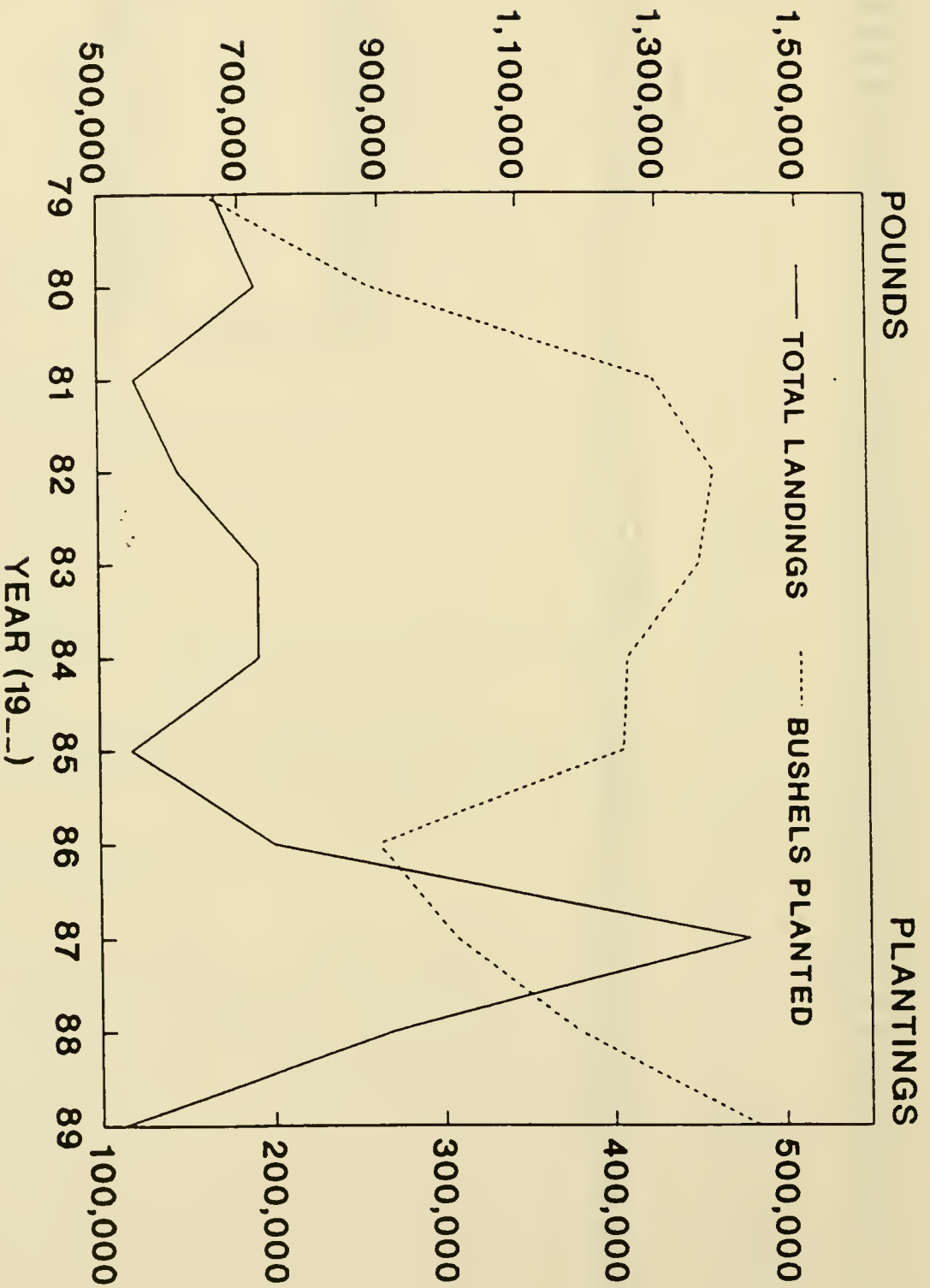


Figure 7. Reported commercial landings of oyster meats in North Carolina and bushels of cultch planted on state oyster bottoms, 1979-89.

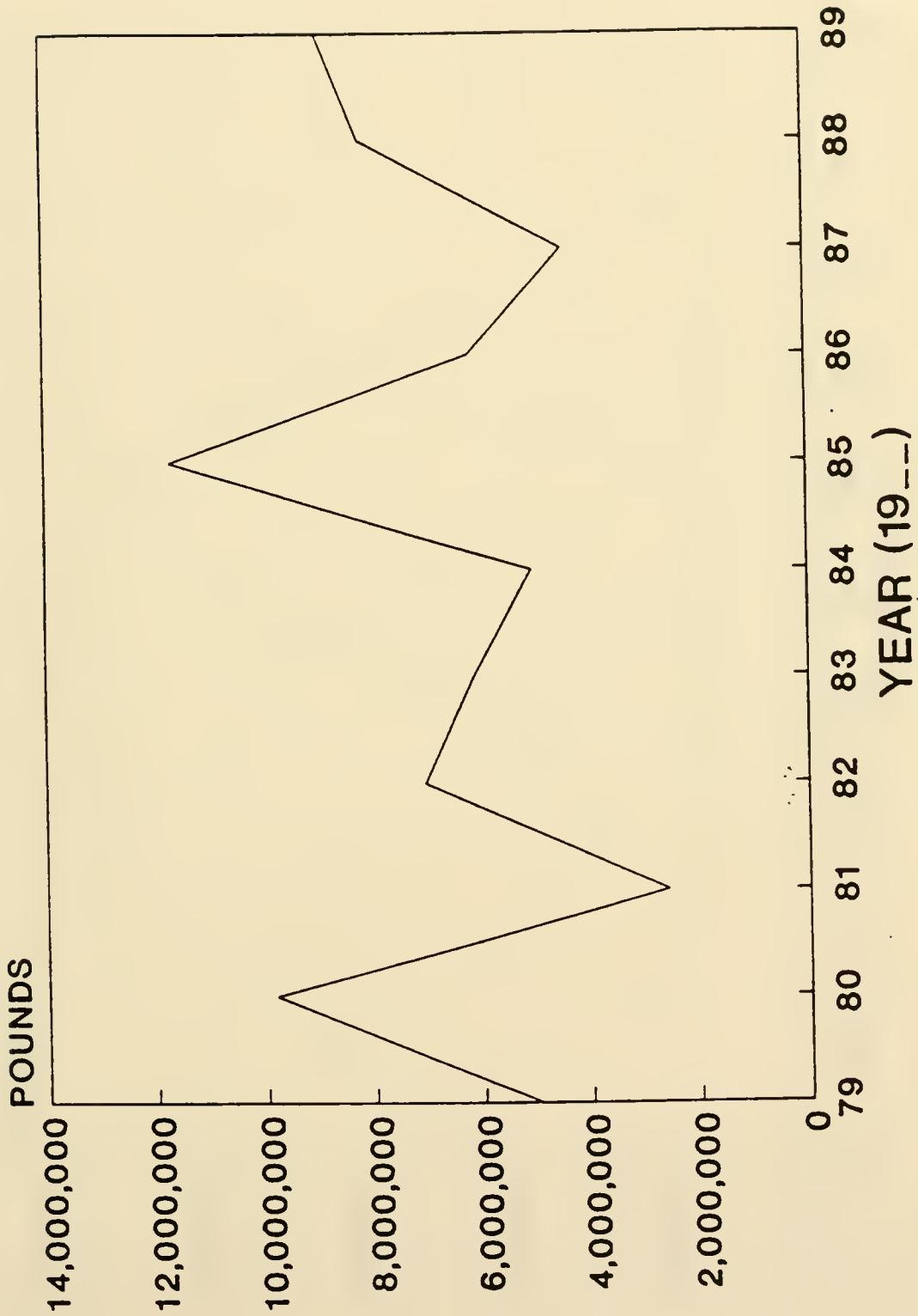


Figure 2. Reported commercial landings of shrimp (all species combined) in North Carolina, 1979-1989.

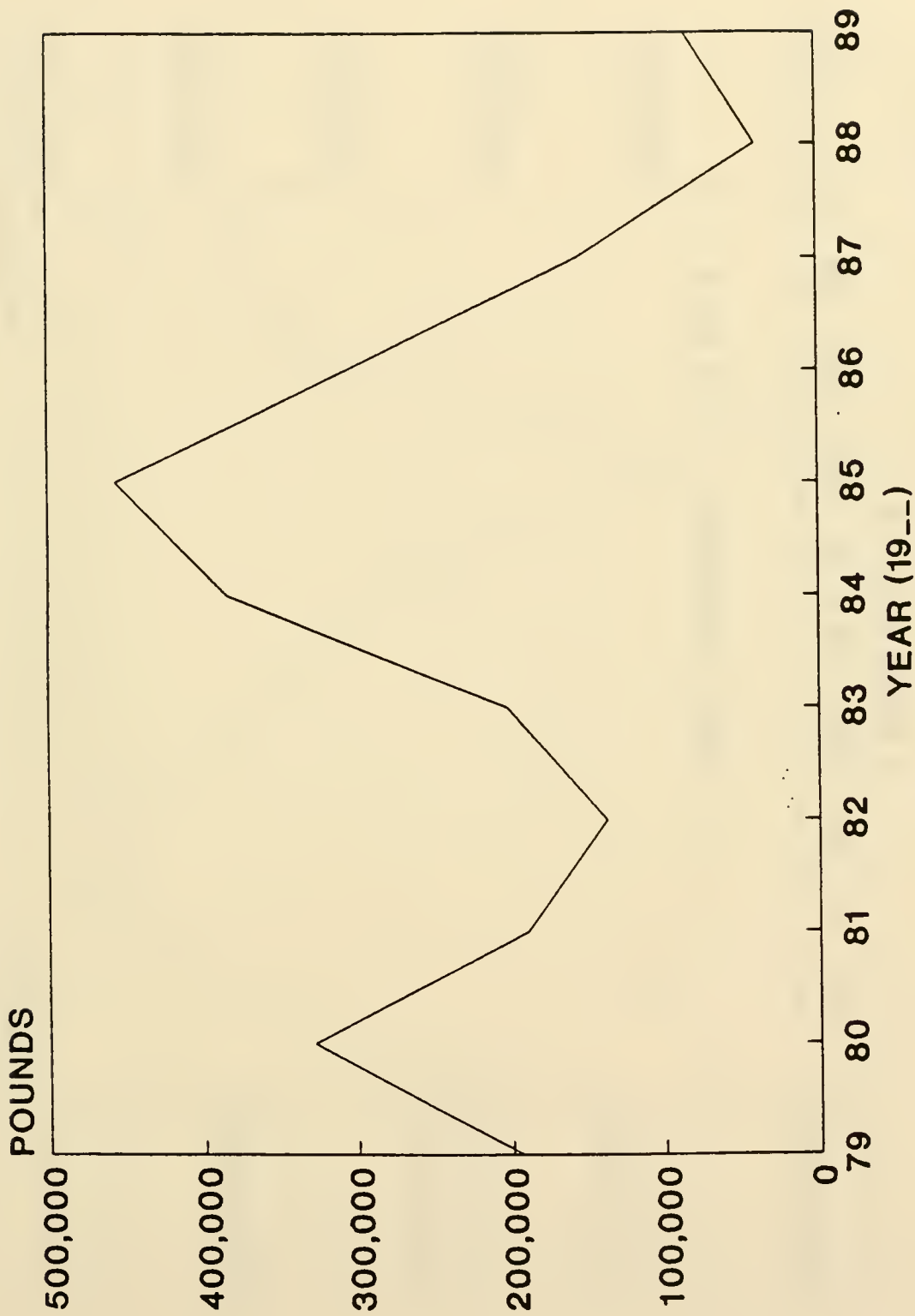


Figure 6. Reported commercial landings of bay scallop meats in North Carolina, 1979-1989.

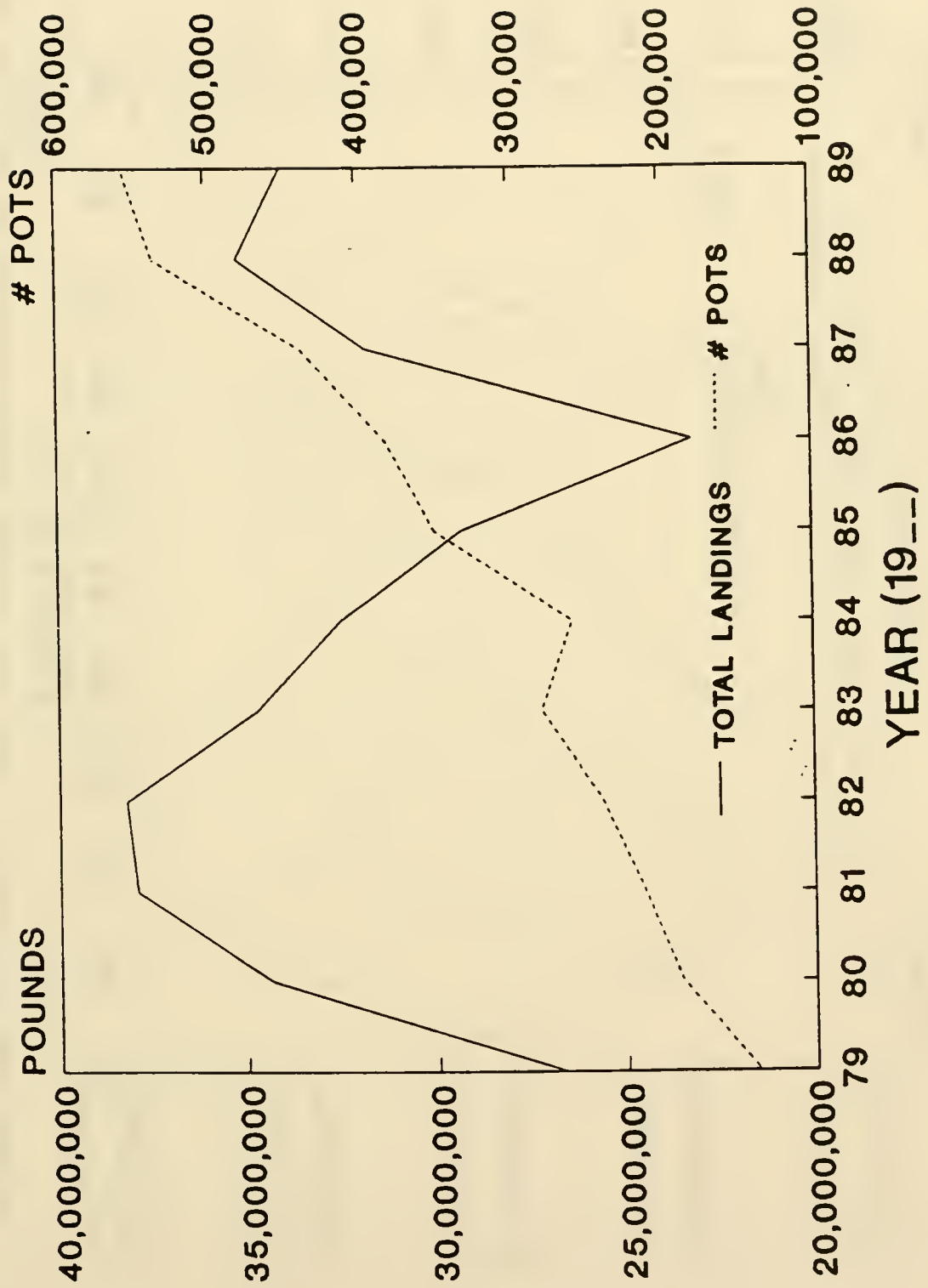


Figure 3. Reported commercial landings of blue crabs in North Carolina and fishing effort expressed as the number of crab pots estimated in use, 1979-1989.

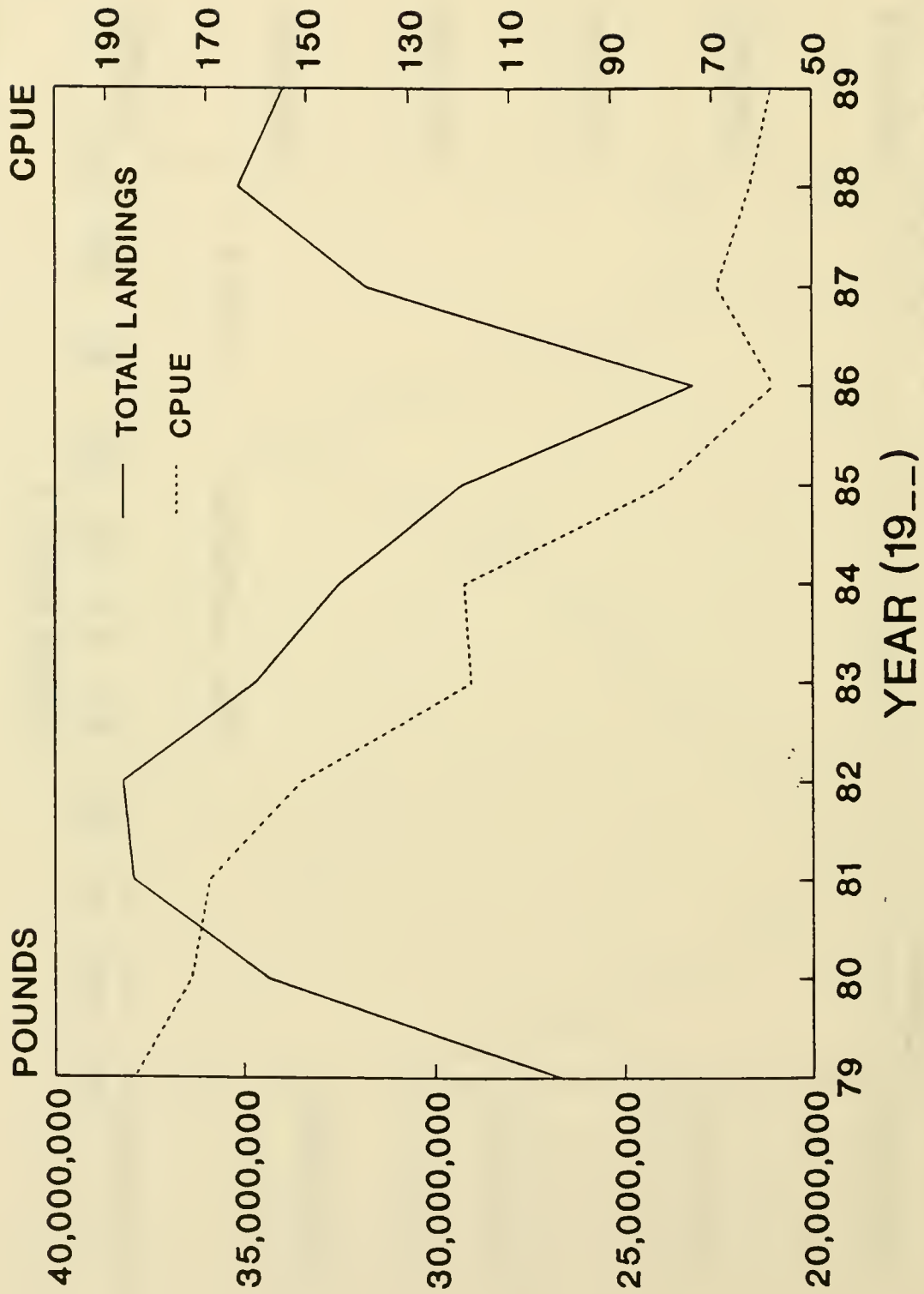


Figure 5. Reported commercial landings of blue crabs in North Carolina and catch-per-unit-effort (CPUE) for crab pots, 1979-1989.

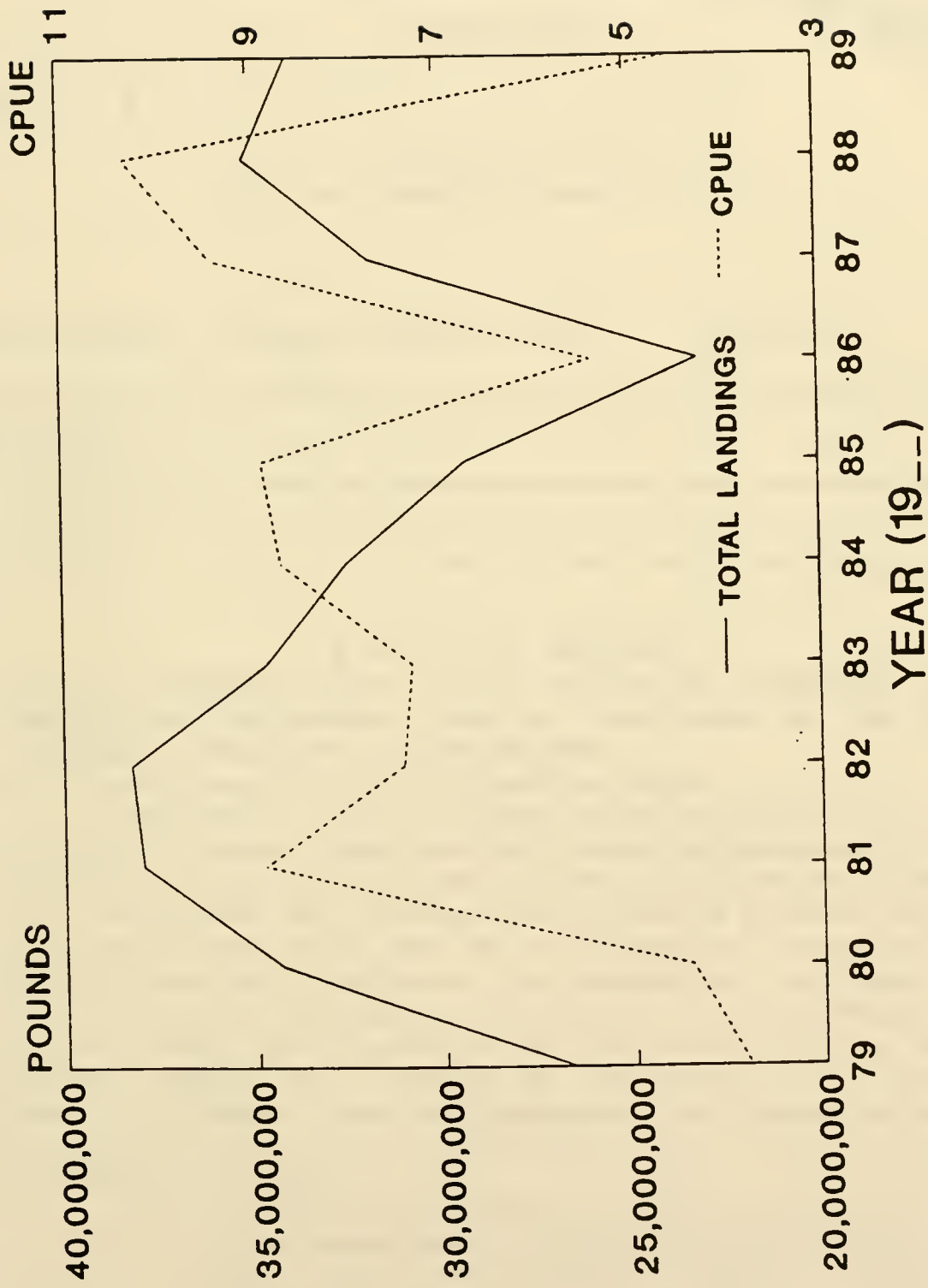


Figure 4. Reported commercial landings of blue crabs in North Carolina and juvenile abundance expressed as catch-per-unit-effort (CPUE), 1979-1989.

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GENERAL ASSEMBLY OF NORTH CAROLINA

SESSION 1991

S/H D

91-RDU-032(1.18)

THIS IS A DRAFT 22-JAN-91 16:46:13

Short Title: Increase Fisheries Fines. (Public)

Sponsors:

Referred to:

1 A BILL TO BE ENTITLED
2 AN ACT TO INCREASE FINES IN G.S. 113-135 FOR VIOLATION OF RULES
3 ADOPTED BY THE MARINE FISHERIES COMMISSION OR THE WILDLIFE
4 RESOURCES COMMISSION, AS APPROPRIATE.
5 The General Assembly of North Carolina enacts:
6 Section 1. G.S. 113-135(a) reads as rewritten:
7 "§ 113-135. General penalties for violating Subchapter or rules;
8 increased penalty for prior convictions; interpretive provisions.
9 (a) Any person who violates any provision of this Subchapter
10 or any rule adopted by the Marine Fisheries Commission or the
11 Wildlife Resources Commission, as appropriate, pursuant to the
12 authority of this Subchapter, is guilty of a misdemeanor except
13 that punishment for violation of the rules of the Wildlife
14 Resources Commission is limited as set forth in G.S. 113-135.1.
15 Unless a different level of punishment is elsewhere set out,
16 anyone convicted of a misdemeanor under this section is
17 punishable as follows:
18 (1) For a first conviction, a fine of not less than ~~ten~~
19 ~~dollars (\$10.00)~~ twenty-five dollars (\$25.00) nor
20 more than ~~fifty (\$50.00) dollars~~ one hundred
21 (\$100.00) dollars or imprisonment not to exceed 30
22 days.

1 (2) For a second or subsequent conviction within three
2 years, a fine of not less than ~~fifty dollars~~
3 ~~(50.00)~~ one hundred dollars (\$100.00) nor more than
4 ~~two hundred dollars (\$200.00)~~ five hundred dollars
5 (\$500.00) imprisonment not to exceed 90 days, or
6 both."

7 Sec. 2. This act is effective August 1, 1991.

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1 scoops, scrapes, dredges, lines, or deck wet, indicating the
2 taking of oysters, constitutes prima facie evidence that the
3 vessel was engaged in taking oysters unlawfully with scoops,
4 scrapes, or dredges at the time or place prohibited.

5 ~~(c) It is unlawful to carry aboard any vessel subject to~~
6 ~~licensing requirements under Article 14 under way or at anchor in~~
7 ~~coastal fishing waters any dredge weighing more than 100 pounds."~~

8 Sec. 2. G.S. 113-185(a)(1) reads as rewritten:

9 "§ 113-185. Fishing near ocean piers; trash or scrap fishing.

10 (a) It is unlawful to fish in the ocean from vessels or with a
11 net within 750 feet of an ocean pier licensed in accordance with
12 G.S. 113-156.1. The prohibitions shall be effective when:

13 (1) Buoys and or beach markers, placed at the owner's
14 expense in accordance with the rules adopted by the
15 Marine Fisheries Commission, indicate clearly to
16 fishermen in vessels and on the beach the requisite
17 distance of 750 feet from the pier, and

18 (2) The public is allowed to fish from the pier for a
19 reasonable fee.

20 The prohibition shall not apply to littoral proprietors whose
21 property is within 750 feet of a duly licensed ocean pier."

22 Sec. 3. G.S. 113-189(a) reads as rewritten:

23 "§ 113-189. Protection of sea turtles and porpoises.

24 (a) It is unlawful to willfully take, disturb or destroy any
25 sea turtles including green, hawks bill, loggerhead, Kemp's
26 ridley, and leatherback turtles, or their nests or eggs."

27 Sec. 4. This bill is effective upon ratification.

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