

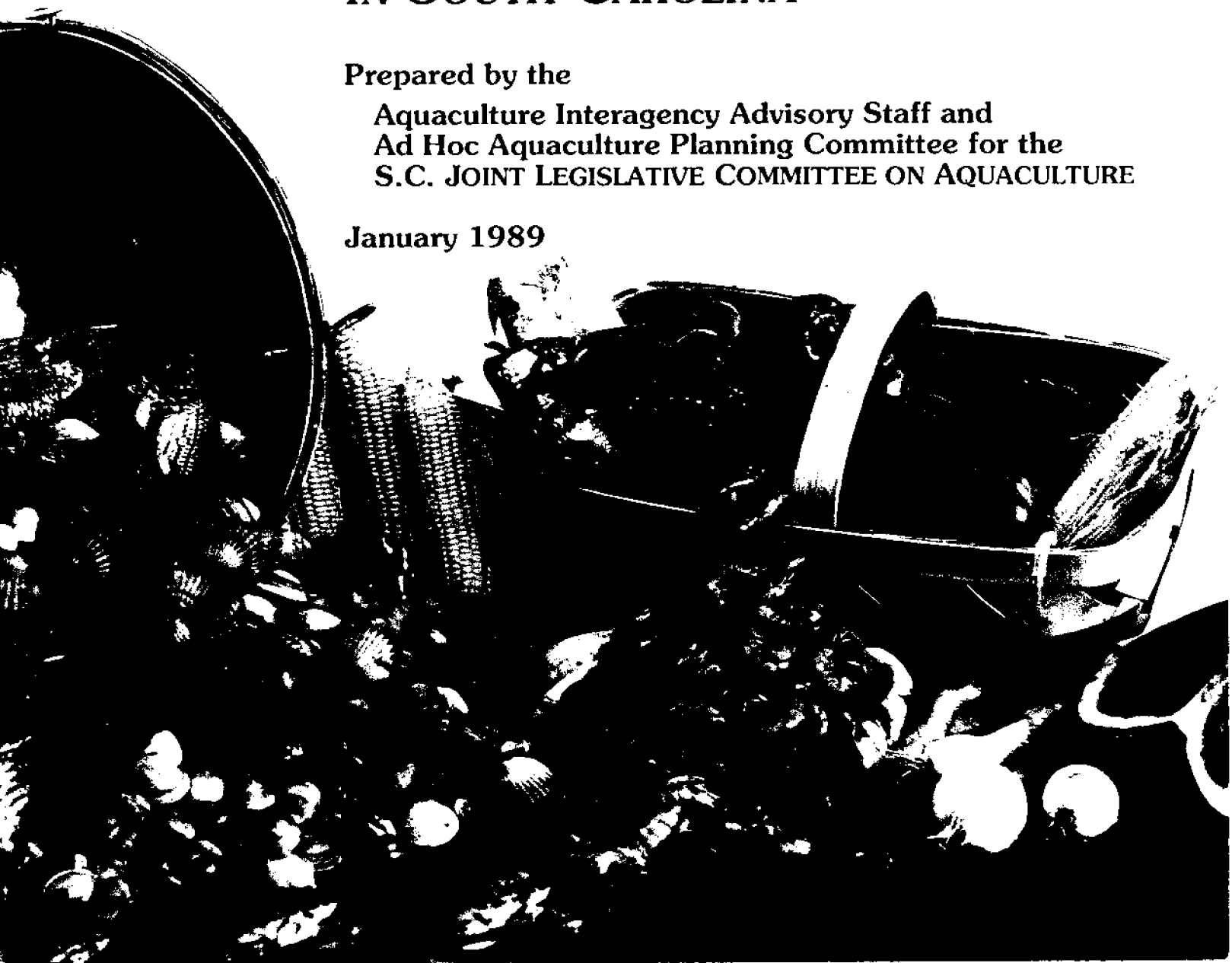
**EXECUTIVE SUMMARY
OF
THE
STRATEGIC PLAN
FOR AQUACULTURE DEVELOPMENT
IN SOUTH CAROLINA**

CIRCULATING COPY
Sea Grant Depository

Prepared by the

**Aquaculture Interagency Advisory Staff and
Ad Hoc Aquaculture Planning Committee for the
S.C. JOINT LEGISLATIVE COMMITTEE ON AQUACULTURE**

January 1989



REGULATORY RECOMMENDATIONS

Regulatory concerns that confront the state's aquaculture industry focus on access and use of state lands and navigable waters, protection of navigation and water resources, species of organisms to be cultivated and the role of local government in siting an aquaculture operation. The *Strategic Plan* explores these issues and offers recommendations which include:

- Establishment of a state-wide aquaculture leasing program to make available state-held waters and submerged lands for aquaculture operations.
- Standardization of criteria used in the National Pollutant Discharge Elimination System (NPDES) permit process to regulate effluent discharges from aquaculture facilities.
- Exemption of aquaculture operations from traditional fisheries laws and regulations where appropriate and development of legislation to balance the needs of the aquaculturist with those of other aquatic users.
- Development of regulations to allow commercial aquaculture production of gamefish while protecting natural stocks of wild gamefish.
- Identification and development, by the ten Councils of Government (COG's) in South Carolina, of tools to use in accommodating aquaculture in local planning and zoning activities.

SOUTH CAROLINA'S PROGRESS TO DATE:

- Regulations governing the possession, importation, and transportation of organisms used in aquaculture.
- Preparation of an *Interim Guide to Aquaculture Permitting in South Carolina* by the S.C. Sea Grant Consortium.
- Creation of an Aquaculture Permit Assistance Office within the S.C. Department of Agriculture to enable prospective culturists to apply for all necessary permits at one location.
- Legislation legalizing the commercial culture and sale of reciprocal hybrid striped bass.

National Sea Grant Depository
Pell Library Building - GSO
University of Rhode Island
Narragansett, RI 02882-1197USA

B BUSINESS RECOMMENDATIONS

Significant growth of the aquaculture industry will depend on the availability of capital at reasonable rates. Furthermore, production and marketing options must be considered jointly. Thus, the aquaculture industry desires lowered start-up and operating costs, reduced risks associated with obtaining financing and the establishment of viable markets for aquaculture products produced in South Carolina. The *Strategic Plan* reviews these concerns and included with its recommendations are the following:

- Development of a plan to allocate space for all users of aquatic resources with particular emphasis placed on aquaculture.
- Enactment of legislation to protect property of aquaculture operations through the provision of severe penalties for theft and vandalism.
- Generation of production budgets and economic feasibility updates for those species that have the greatest potential for aquaculture development.
- Establishment of a program of tax credits to stimulate investment in aquaculture and to attract investors from inside and outside the state.
- Creation of a revolving loan program for start-up capital for aquaculture to attract investors.
- Identification of the existing seafood marketing structure and potential markets for aquaculture products produced in South Carolina.
- Provision of assistance to aquaculturists interested in establishing producer cooperatives.
- Analysis of the feasibility of establishing joint processing facilities to accommodate agricultural, seafood and aquaculture products.

SOUTH CAROLINA'S PROGRESS TO DATE:

- Initiation of a campaign to promote investment in the state's aquaculture industry by the S.C. State Development Board, the S.C. Department of Agriculture, the S.C. Wildlife and Marine Resources Department and the S.C. Sea Grant Consortium.
- Legislation providing tax credits of up to \$2,500 for pond construction.
- Official designation of aquaculture as agriculture. Aquaculture operations can now receive comparable sales tax exemptions and have access to a seed capital fund.

R ESEARCH AND EDUCATION RECOMMENDATIONS

Continued development of the aquaculture industry in South Carolina will depend, to a great extent, on the generation, analysis and delivery of new data and information. It will also depend on the availability of and access to trained technicians and scientists.

The state's academic institutions offer training at its technical schools and baccalaureate and graduate level programs at Clemson University, the University of South Carolina and the College of Charleston. Research has focused on species that have potential for commercial culture such as catfish, crawfish, marine shrimp, hard clams, and hybrid striped bass and on the development of new technologies to improve production yields. The transfer of new information and technologies from academia to industry relies upon technical assistance available to aquaculturists through the South Carolina Marine Extension Program, Clemson's Cooperative Extension Service and the Waddell Mariculture Center. The *Strategic Plan* calls for strengthening all of these programs and offers the following research, education and technical assistance recommendations:

- Provision of funding to support training programs for state personnel involved in aquaculture extension work at research and education institutions located throughout the state.
- Strengthening of academic degree programs to provide the exposure and training necessary for the growth of the industry.
- Development of education programs to provide retraining opportunities to culturists and to develop skilled technical support persons for the industry.
- Expansion of youth education programs to introduce young people to aquaculture as an occupation and as a quality food source.
- Establishment of a mechanism (e.g., an institute) to focus and coordinate existing research and educational programs in the state.
- Development of institutional plans at state universities and colleges to enhance their respective programs and capabilities in the field of aquaculture.

SOUTH CAROLINA'S PROGRESS TO DATE:

- Introduction of a technical certification program in Aquaculture Operations at the Technical College of the Lowcountry (formerly Beaufort Technical College).
- Construction in 1988 of the Clemson University Aquaculture demonstration farm in Estill, S.C.
- Establishment of a 4-H program for cultivating and marketing catfish.
- Introduction of five new graduate level courses in aquaculture at Clemson University.

T HE PLAN

In June 1985, the South Carolina General Assembly formally declared that "... it is in the State's interest, and it is the State's policy, to encourage the development of aquaculture in South Carolina." A Joint Legislative Committee on Aquaculture was established by the General Assembly to oversee the preparation of a state-wide aquaculture plan. The Joint Committee published "*The Strategic Plan for Aquaculture Development in South Carolina*" in 1989, which provides an assessment of resources, opportunities and constraints related to the development of a viable aquaculture industry in South Carolina. It offers 41 recommendations that address regulatory, financial, marketing, research and education issues. Compiled and written by the S.C. Sea Grant Consortium, the *Plan* is a blueprint for action to further enhance aquaculture development in South Carolina.

WHY AQUACULTURE?

Aquaculture, the cultivation, production and marketing of domesticated aquatic organisms, has a role to play in South Carolina's agricultural future. A viable aquaculture industry will enable the state to secure a more competitive place in the rapidly expanding seafood market. It will contribute to the diversification of agricultural income for South Carolina's farmers and provide opportunities for rural economic development.

South Carolina's abundant resources lend themselves well to aquaculture. **Healthy water resources.** Four major river basins, large freshwater lakes, wetland impoundments, ponds, bays and estuaries offer considerable potential for aquaculture development. In fact, 78% of the state's coastal waters are suitable for shellfish harvesting. **Good soil.** Approximately 70% of the soils in South Carolina have fair to good potential for pond embankment construction, necessary for upland aquaculture operations. **Moderate climate and long growing season.** The coastal plain is well-suited to the culture of warm-water species while the piedmont and mountain regions offer opportunities to grow cold-water species. **Necessary infrastructure.** South Carolina is able to provide the infrastructure needed by the industry, including an excellent road system and abundant sources of electricity.

South Carolina has invested millions of dollars in aquaculture research and development, including facilities such as the James M. Waddell, Jr. Mariculture Research and Development Center and the Marine Resources Research Institute of the S.C. Wildlife and Marine Resources Department. In addition, Clemson University, the University of South Carolina and other state colleges and universities continue to expand their research facilities and programs dedicated to advancing knowledge about aquaculture species, production methods and economics. Clemson's Agricultural Experiment Stations along with its Cooperative Extension Service and S.C. Marine Extension Program networks enhance information exchange among culturists and scientists.

**TO OBTAIN A COPY OF
The Strategic Plan For Aquaculture Development In South Carolina
CONTACT:**

South Carolina Sea Grant Consortium
287 Meeting Street
Charleston, South Carolina 29401
(803)727-2078

TO OBTAIN TECHNICAL ASSISTANCE CONTACT:

S. C. Marine Extension Program
Aquaculture Specialist
P.O. Drawer 1100
Georgetown, SC 29440
(803)546-4481

S. C. Wildlife & Marine
Resources Department
P.O. Box 12559
Charleston, SC 29412
(803)795-6350

Department of Aquaculture
Fisheries and Wildlife
Clemson University
Clemson, SC 29634
(803)656-3117

Waddell Mariculture Center
P.O. Box 809
Bluffton, SC 29910
(803)757-3795

NATIONAL SEA GRANT DEPOSITORY
PELL LIBRARY BUILDING
URI, NARRAGANSETT BAY CAMPUS
NARRAGANSETT, RI 02882

TO OBTAIN BUSINESS AND MARKETING ASSISTANCE CONTACT:

S.C. Department of Agriculture
Wade Hampton Office Building
P.O. Box 11280
Columbia, SC 29211
(803)734-2210

S.C. State Development Board
1201 Main Street
P.O. Box 927
Columbia, SC 29202
(803)737-0400

TO OBTAIN EDUCATIONAL INFORMATION CONTACT:

Clemson University
Clemson, SC 29634
(803)656-2287

College of Charleston
Charleston, SC 29424
(803)792-5670

State Board for Technical and
Comprehensive Education
111 Executive Center Drive
Columbia, SC 29210
(803)737-9333

University of South Carolina
Columbia, SC 29208
(803)777-7700

RECEIVED
NATIONAL SEA GRANT DEPOSITORY
DATE JUN 14 1989

*Photo by Richard P. Felder, Jr.
S.C. Department of Agriculture*

Prepared by S.C. Sea Grant Consortium
...your key to the coast!

