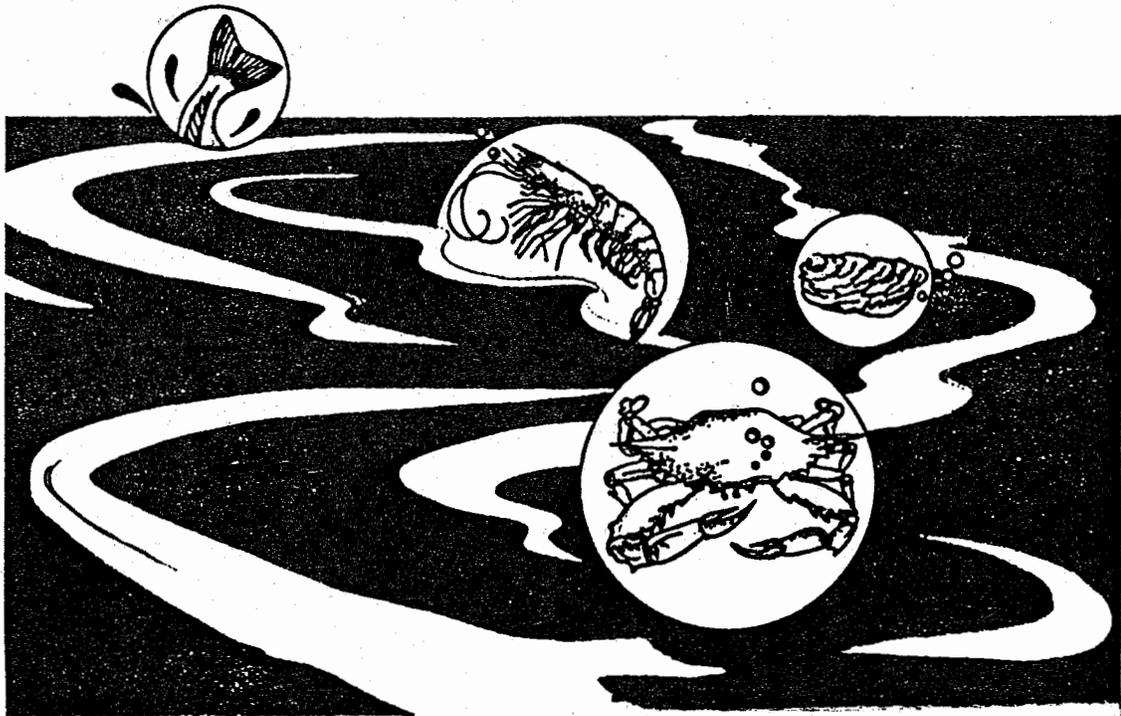


Summary of Aquaculture Programs by State



Gulf States Marine Fisheries Commission
P.O. Box 726
Ocean Springs, MS 39564

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A REPORT TO THE TECHNICAL COORDINATING COMMITTEE (TCC)

"Summary of Aquaculture Programs by State"

presented by the

TCC Habitat Subcommittee

Wednesday, March 14, 1990
Orange Beach, Alabama

TCC HABITAT SUBCOMMITTEE

Larry Lewis, Chairman
Mississippi Bureau of Marine Resources
2620 Beach Boulevard
Biloxi, MS 39531

R. Vernon Minton
Alabama Dept. of Conservation
and Natural Resources
Marine Resources Division
Gulf Shores, AL 36542

Arthur Williams
Louisiana Dept. of Wildlife
and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

Ken Haddad
Florida Marine Research Institute
100 Eighth Avenue, SE
St. Petersburg, FL 33701-5095

C. E. Bryan
Texas Parks and Wildlife Dept.
4200 Smith School Road
Austin, TX 78744

Scott Willis
Florida Marine Research Institute
100 Eighth Avenue, SE
St. Petersburg, FL 33701-5095

James M. Barkuloo
U.S. Fish and Wildlife Service
1612 June Avenue
Panama City, FL 32405

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SUMMARY OF AQUACULTURE PROGRAMS BY STATE

INTRODUCTION

At the October 20, 1989 meeting of the Gulf States Marine Fisheries Commission (GSMFC), the Technical Coordinating Committee (TCC) established a subcommittee on Habitat and charged that committee with several responsibilities. The TCC was interested in aquaculture on a regional basis and requested that top priority be given to an overview of aquaculture activities in the various states which are part of the GSMFC.

The following report summarizes the aquaculture activities of the member states and represents a brief synopsis of the ongoing work in that area. This report is not intended to be a definitive work, but a compilation of basic facts that will serve as a nucleus for additional efforts which will be developed by the Habitat Subcommittee to keep the TCC advised of the latest work in aquaculture in the Gulf of Mexico region.

BACKGROUND

In the United States, edible fishery products are supplied by domestic commercial landings, imports, recreational catches, and aquaculture. Because of recent increases in demand for fishery products and the inability of the domestic commercial fisheries to supply that demand, aquaculture activities may play a significant role in supplying a fisheries product to meet that demand.

Aquaculture is the fastest growing agricultural industry in the United States. Farm raised catfish accounts for the largest quantity of aquaculturally grown species, however other species such as baitfish, oysters, salmon, shrimp and tropical fish are experiencing increasing levels of production.

Most states have developed regulatory plans and policies to manage aquaculture activities. The approach within each state varies, and regulations regarding aquaculture of marine species are slowly evolving as the interest in the industry grows.

From a management perspective, it is important to know how each state is addressing the issues relating to aquaculture.

THE REPORT

This report represents a compilation of the member states responses to two separate questionnaires. The first inquiry was entitled "Synopsis of State Aquaculture Programs." The second inquiry was entitled "Aquaculture Issues." Each state representative of the Habitat Subcommittee was asked to complete the questionnaires and provide documents pertaining to the programs for his state.

The responses have been compiled and are arranged in the following order:

- I. Synopsis by State
- II. Aquaculture Issues by State
- III. Appendices.

No summary was included and further efforts to continue this summary compilation will be based on the availability of additional information and the pleasure of the TCC. An effort will be made to update this report where pending legislation and draft documents were provided.

SECTION 1. SYNOPSIS OF STATE AQUACULTURE PROGRAMS

FLORIDA

I. LEGISLATION

A. The Florida Aquaculture Policy Act Chapter 597 took effect October 1988. This policy delineates public policy concerning aquaculture and establishes the Department of Agriculture and Consumer Services as the lead agency. It also establishes an Aquaculture Review Council composed of industry representatives and an Aquaculture Interagency Coordinating Board composed of governmental agencies. A copy of the Act is shown in Appendix A-1.

B. The Florida Department of Natural Resources is developing a Marine Stocking Policy that is currently in draft form undergoing departmental review. The policy addresses the collection of broodstock, husbandry, genetics, health inspection and mark/recapture of cultured organisms destined for stock enhancement. A copy of the draft policy is also shown in Appendix A-1.

II. POLICIES

The Florida Aquaculture Plan of January 1985 (see Appendix A-2) was the first attempt to address aquaculture on a statewide level and united freshwater and marine aquaculture activities. The Florida Aquaculture Policy Act of 1988 delineates Florida's aquaculture policy in detail.

The Florida Department of Natural Resources has conducted aquaculture research at the Marine Research Institute since the late 1960s. The Institute supports aquaculture by dissemination of research results through publications, public meetings and seminars and Institute tours.

III. REGULATIONS

A. Florida Aquaculture Policy Act (Appendix A-1).

B. Florida Statutes Chapter 253; submerged land especially for oyster/clam culture (Appendix A-1).

IV. LIST OF SPECIES REGULATED

A. Marine regulated species are defined in Florida Statutes Chapter 370.081 (see Appendix A-1).

B. The draft Marine Stocking Policy will place restrictions on genetically altered fishes, as well as translocation of genetically unidentified stocks.

V. STATE REGULATORY AGENCY AND/OR AGENCIES

- A. Florida Department of Agriculture and Consumer Services - Aquaculture lead agency
- B. Florida Department of Natural Resources - Marine waters
- C. Florida Game and Freshwater Fish Commission - Freshwater
- D. Florida Department of Environmental Regulation - Wetland use, permitting
- E. Various Water Management Districts - Water use restrictions.

VI. INTERAGENCY COORDINATION

The Florida Aquaculture Policy Act established an Aquaculture Interagency Coordinating Council to foster interagency cooperation in development of governmental regulations relating to aquaculture. The Council is composed of the heads or designees of various state and local agencies (see Section 597.006 of Chapter 597 Laws of Florida - Appendix A-1).

VII. PERMIT APPLICATION PROCEDURES

Permits which would be applicable to the development of a marine aquaculture facility are outlined below.

- A. Local City or County Governments
 - 1. Site plan permit - for construction site approval
 - 2. County or city easement permit - to cross roads, etc.
 - 3. Water use permit - to pump from wells 5" or less
- B. Florida Department of Natural Resources
 - 1. Administrative review of the project to assess impacts on natural resources
 - 2. Special activity license - to possess and to collect broodstock for aquacultural purposes
- C. Florida Department of Environmental Regulation
 - 1. Industrial wastewater treatment and disposal permit
 - 2. Dredge and fill permit
- D. Water Management Districts (contact pertinent district)
 - 1. Consumptive water use permit
 - 2. Stormwater management permit
 - 3. Management and storage of surface water permit

E. Florida Game and Freshwater Fish Commission

1. Aquaculture permit
2. Various permits are required for specific controlled species i.e. Macrobrachium spp., Tilapia culture.

F. U.S. Environmental Protection Agency

1. National pollutants discharge elimination system (NPDES) permit - for industrial waste discharge

VIII. FEES

Permit application fees are required and range from \$25 for a special activity license to hundreds or thousands of dollars for the other permits, etc.

A. Fee to cover cost of survey of submerged lands to be used for aquaculture.

B. Rental fee for submerged lands. The fee is based upon probable production rates and marketability of the aquaculture product.

ALABAMA

I. LEGISLATION

No response.

II. POLICIES

Presently there is not a specific state or agency policy on the development of aquaculture.

III. REGULATIONS

Alabama statutes provide that the Commissioner is empowered to prohibit by regulation the importation of any species of animal which would not be in the interest of the state (Section 9-2-13, 1065 Code). Section 9-11-84 prohibits the sale, shipment or possession for sale any species of native gamefish caught within or without the State of Alabama. Exceptions are gamefish used for stocking ponds and fee fishing in private ponds, both requiring permits from the Commissioner.

IV. LIST OF SPECIES REGULATED

Regulations specifically prohibit importation of walking catfish, piranha, rudd (Scardinus) or roach (Rutilus).

V. STATE REGULATORY AGENCY AND/OR AGENCIES

- A. Alabama Department of Conservation and Natural Resources
- B. Alabama Department of Environmental Management

VI. INTERAGENCY COORDINATION

Aquaculture activities are reviewed by the Alabama Department of Conservation and Natural Resources and the Alabama Department of Environmental Management if the proposed activity involves wetland alteration, lease of public trust water bottoms or discharge of waters into the public water of the State.

VII. PERMIT APPLICATION PROCEDURES

Gamefish used for stocking ponds and fee fishing in private ponds require permits from the Commissioner of the Department of Conservation and Natural Resources.

VIII. FEES

No response.

MISSISSIPPI

I. LEGISLATION

Mississippi Aquaculture Act of 1988 passed during the 1988 regular session (see Appendix B-1).

II. POLICY

To protect the water quality of the state's wild waters while encouraging and aiding in the appropriate production and marketing of Mississippi cultured aquatic products.

III. REGULATIONS

The Mississippi Department of Wildlife, Fisheries and Parks has developed regulations for Mississippi aquaculture activities. Currently, these guidelines are under review for modifications to bring them up to date based upon past aquaculture permitting experiences in the state. These guidelines are shown in Appendix B-2.

IV. SPECIES REGULATED

On a mandatory basis, the culture of all non-native species, all organisms genetically modified by means other than breeding and cross breeding, bait minnows, alligators and all designated game species are regulated through an aquaculture permit. Under present regulations, the only gamefish that is allowed to be cultured and marketed as a food fish is the striped hybrid bass. Other gamefish can be produced and sold only for the purpose of stocking ponds or public waters for recreational and sports fishing.

No aquaculture permit is required to culture native Mississippi aquatic species unless otherwise specified (example, native gamefish). However, on a voluntary basis, aquaculturists can request and obtain an aquaculture permit that can aid in the marketing of the cultured native species. In fact, in some cases, an aquaculture permit is a necessity for the intrastate marketing of such species.

It should be noted that all naturally occurring, marine finfish species in Mississippi are classified as both recreational and commercial and therefore do not require an aquaculture permit to be cultured.

V. STATE REGULATORY AGENCIES

A. Mississippi Department of Environmental Quality

1. Bureau of Land and Water Resources - Issues permits for use of surface and ground waters.
2. Bureau of Pollution Control - Issues water quality related certifications and permits applicable to effluents and cage culture systems placed in leased, public waters.

B. Office of the Secretary of State - Issues leases for aquaculture activities in the water column of the public, coastal waters of the state.

C. Mississippi Department of Wildlife, Fisheries and Parks - Issues the Mississippi Aquaculture Permit.

1. The Bureau of Marine Resources

- a. Issues, as applicable, coastal program use changes, consistency certifications and wetlands permits in the state's estuarine and marine waters.
- b. Issues water bottom leases for the culture of oysters and other species requiring direct use of the water bottoms.
- c. Regulates sanitation procedures applicable to the processing of oysters and other seafood species, including species that may be cultured and processed in Mississippi.
- d. Issues Dealer Live Bait License for shrimp and the Boat Live Bait License for catching and holding bait shrimp. Each license is \$50.00.

2. Mississippi Department of Health - Regulates cultured aquatic products at retail outlets. Issues retail permits and conducts on-site inspections.

VI. INTERAGENCY COORDINATION

The Mississippi Aquaculture Act of 1988 emphasizes coordination efforts applicable both to enhancing and regulating aquaculture activities in the state. On the regulatory side, the Act requires that the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) coordinate an Aquaculture Permit request with all state and federal agencies that have related regulatory responsibilities. The requirements of the respective agencies must be met prior to the aquaculture permit becoming valid. Thus, in addition to the state agencies specified herein, the Aquaculture Permit, coordinated review process includes the U.S. Army Corps of Engineers which in turn coordinates review activities with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service.

VII. PERMIT APPLICATION PROCEDURES

For a culturist to obtain an Aquaculture Permit, the culturist must submit a completed form titled "Mississippi Aquaculture Activities Application and Notification" (see Appendix B-3).

The Act specifies a one-stop permitting procedure to expedite, for the benefit of the culturist, the Aquaculture Permit review and decision process. Therefore, rather than having to make numerous initial contacts and paperwork submissions, the aquaculturist has only to see that the MDWFP receives the previously referenced form. After receipt of the form, the MDWFP, the one-stop agency, processes the permit by conducting a coordinated review with all applicable state and federal agencies. Subsequently, a decision is made on issuance of the Aquaculture Permit.

VIII. FEES

A \$100 fee per year is required for an Aquaculture Permit. Additionally, for a resident of the state to sell bait minnows, a \$25 Dealers License is required. For a non-resident, a \$200 Non-Resident Commercial Fishing License is required. Also, to culture alligators, a \$50/year Alligator Ranchers License is required and \$1.00 is required for each alligator that is exported from the state or processed in it.

LOUISIANA

I. LEGISLATION

A. R.S. 56:356 defines aquaculture as the production of fish in a controlled environment in private waters on private lands. It includes, but is not limited to, the production of catfish, crawfish, freshwater prawns and shiners and other bait species.

B. R.S. 56:411 and following generally governs domestic fish farming in this state. It is unlawful for any person to engage in the propagation, production, transportation and possession of fish except as provided in Section 412.

II. POLICIES

A. The use of public bodies of water to propagate, raise or grow any species of finfish is prohibited.

B. Section 411 - important definitions:

1. "cultivate crop" includes domesticated fish which are grown, managed or harvested on an annual, semi-annual, biennial or short-interval basis.

2. "Domesticated fish" - any fish that are spawned and grown, managed, harvested and marketed on an annual, semi-annual, biennial or short-term basis in privately owned waters.

Does not include bass, crappie, striped bass, bream or tetra or other exotic fish without prior approval from Wildlife and Fisheries. This means for bass, crappie, striped bass or bream, in addition to a fish farmer's certificate, a special gamefish farmer's permit is required. If this permit is issued, it will limit sales to fingerlings not exceeding three inches in length.

Domesticated fish does include hybrid striped bass which can be sold at any size as a domesticated fish. See 327A.1.a and b.; 411(6); 412(4).

3. "Privately owned waters" means artificial earthen reservoirs constructed with levees to prevent at all times ingress and egress of fish life from public waters and shall not include lands of natural streams or natural lake beds.

III. REGULATIONS

In each sale or transportation of fish or minnows over state highways, a bill of lading must accompany each shipment showing a) species; b) pounds of fish; c) origin; d) destination; e) names of the consignee and consignor; f) grower certificate number and name.

Obnoxious or undesirable species of fish or minnows shall not be grown or sold to the public for human consumption or be used as bait.

Certified fish farmers are exempted from the requirement of a wholesale/retail dealer's license and are entitled to sell without limit as to quantity or size hybrid striped bass, catfish, carp, drum and buffalo fish. (This has the effect of exempting almost all species from statutory size or quantity requirements - See Section 326 - sheepshead possible exemption).

Farmers are required to notify Wildlife and Fisheries 48 hours prior to shipment.

Section 413. The harvest can be carried out with seines or tackle selected by the owner provided that such tackle, unless it is otherwise legal, should not be used in public waters without special permission of Wildlife and Fisheries. Farmers are permitted to transport on the public roads and highways of the state any and all such equipment except for electric fish shocking devices.

IV. LIST OF SPECIES REGULATED

A. R.S. 56 - 415 exemptions from aquacultural restrictions:

1. Crawfish
 - a. harvesting
 - b. transporting from the place of harvest to the first point of sale
 - c. sale from harvester to first purchaser
2. Catfish in private ponds
 - a. production and harvest
 - b. transport to first point of sale
 - c. sale to first purchaser

Wildlife and Fisheries has no jurisdiction over the above activities and transactions.

B. Underlying premise of fish farming program is that obnoxious or undesirable species of fish or minnows shall not be grown or sold to the public for human consumption or be used as bait. This determination would have to be made by the Department and would have to be supported by some technical, biological or scientific evidence. The Department could not be arbitrary or capricious in denial of a permit on this basis.

C. Section 319 - Exotic fish. Section 319 has some effect on what can be permitted by the Department. There is an absolute prohibition against the possession of piranhas or Rio Grande Tetras.

The following fish can only be possessed or transported into this state with the written permission of the Secretary of the Department.

1. carnero catfish (walking catfish)
2. all of the family Clariidae (family that carnero catfish belong to)
3. freshwater electric eel
4. carp - exceptions:
 - a. carp taken in state waters, which must be dead when in possession
 - b. common or German carp
 - c. goldfish
5. rudd
6. tilapia

Section 319.1 enacted in 1988, the Department has general authority to regulate or prohibit the possession, sale or transportation of any freshwater fish not native to Louisiana. (We feel this can be used to regulate aquarium fish despite Section 318).

PERMITTED - catfish, crawfish, minnows (shiners), hybrid striped bass, red drum, freshwater prawns, turtles, bullfrogs, black bass fingerlings, bream fingerlings, crappie fingerlings, striped bass fingerlings, white bass fingerlings, yellow bass fingerlings

DENIED - grass carp, big head carp, silver carp

V. STATE REGULATORY AGENCY AND/OR AGENCIES

- A. Louisiana Wildlife and Fisheries Commission
- B. Louisiana Department of Wildlife and Fisheries

VI. INTERAGENCY COORDINATION

No response.

VII. PERMIT APPLICATION PROCEDURES

Every person must make application to the Commission for a certificate. The application shall include a description of the land by lot, block number or other legal description.

VII. FEES

Certificates cost \$15 and are issued on a calendar year basis ending on December 31. They may be renewed annually upon payment of a \$15 annual renewal fee.

TEXAS

I. LEGISLATION

Senate Bill 1507 was enacted by the Texas Legislature in 1989. A copy of the Bill is shown in Appendix C-1.

II. POLICIES

Any species of exotic fish, shellfish or aquatic plant whose documented first occurrence in Texas public waters takes place after the effective date (12/11/89) of these rules would be, as a matter of Department policy, prohibited at the first scheduled Commission meeting (or as soon thereafter as possible) subsequent to its discovery and documentation.

III. REGULATIONS

Regulations for Potentially Harmful Fish, Shellfish or Aquatic Plants are included in Appendix C-2. These are in the process of amendment.

IV. LIST OF SPECIES REGULATED

All native species may be regulated. A list of non-native species is in the regulations shown in Appendix C-2.

V. STATE REGULATORY AGENCY AND/OR AGENCIES

Fish farming is regulated by the Texas Department of Agriculture. The regulation of exotic fish, shellfish and aquatic plant species to protect indigenous Texas species and aquatic habitats is by the Texas Parks and Wildlife Department.

VI. INTERAGENCY COORDINATION

An Aquaculture Executive Committee consisting of the Chairman of the Texas Parks and Wildlife Commission, Commissioner of the Texas Department of Agriculture and Commissioner of the Texas General Land Office coordinates interagency activities through an aquaculture liaison officer. The Texas Department of Health regulates food-processing plants.

VII. PERMIT APPLICATION PROCEDURES

A summary of license and permit requirements for shellfish culture in Texas is provided in Appendix C-3. Authority for issuance of licenses and permits for fish farmers has been recently transferred to the Texas Department of Agriculture and forms or procedures are unavailable.

VIII. FEES

Shellfish Culture License - \$50.00

Fish Farmer's License - Set by Agriculture Commissioner not to exceed \$100.

Cultured-fish Processing Plant License - amount necessary to cover the cost of administration of processing plant.

SECTION 2. AQUACULTURE ISSUES

FLORIDA

How is your State addressing the following aquaculture issues?

1. Private use and/or control of public resources such as use of public trust wetlands, waterbottoms or water column for exclusive aquaculture activities.

Lease of submerged lands and water column for aquacultural purposes is addressed by Florida Statutes Chapter 253.

2. Introduction of exotic species, genetically altered species, hybrids or natural stocks from other areas.

The Department of Natural Resources has a draft Marine Stocking Policy that deals directly with genetics and stock transfers. Florida Statutes Chapter 370.081 deals with regulated marine species.

The Game and Freshwater Fish Commission has a written policy concerning import, export, genetic alteration and stocking of fishes (Appendix A-2).

3. Disease control and monitoring for disease associated with cultivation or processing aquaculture or imported species.

The Florida Department of Natural Resources Marine Stocking Policy addresses health inspection procedures that are required prior to release of stocks for stock enhancement purposes.

The Department of Agriculture and Consumer Services has a Diagnostic Lab with expertise in fish health and disease analysis.

The Institute of Food and Agricultural Sciences has a permanent staff position devoted to fish health and disease analysis.

4. Marsh management activities for aquaculture.

Marsh and wetlands areas in the State of Florida are managed for their protection and conservation.

5. Other issues. (Please identify any other issues you may have identified for your state and explain briefly.)

The Department of Agriculture and Consumer Affairs has addressed the issue of financial assistance for current and new aquaculture businesses. They have a report available detailing procedures and a grant program to assist progressive research and development projects.

ALABAMA

How is your State addressing the following aquaculture issues?

1. Private use and/or control of public resources such as use of public trust wetlands, water bottoms or water column for exclusive aquaculture activities.

Alabama has empowered to control its land area under the act which admitted it as the 22nd State of the Union (United States at Large, Volume 3. Fifteenth Congress Sess. II. Ch. 47, 1819).

Code of Alabama 9-15-2

The Department of Conservation and Natural Resources shall have jurisdiction over and control of all unused lands...

The Commissioner of the Department of Conservation will evaluate each case in the use or control of public resources for aquaculture ventures.

2. Introduction of exotic species, genetically altered species, hybrids or natural stocks from other areas.

Alabama statutes provide that the Commissioner is empowered to prohibit by regulation the importation of any species of animal which would not be in the interest of the state (Section 9-2-13, 1065 Code). Section 9-11-84 prohibits the sale, shipment or possession for sale any species of native gamefish caught within or without the State of Alabama. Exceptions are gamefish used for stocking ponds and fee fishing in private ponds, both requiring permits from the Commissioner.

3. Disease control and monitoring for disease associated with cultivation or processing aquaculture or imported species.

Presently, no state agency is directly responsible for the monitoring of diseases associated with the aquaculture industry. Cases of disease outbreak are generally referred to the cooperative fish disease unit at Auburn University School of Fisheries and Allied Aquacultures.

4. Marsh management activities for aquaculture.

Marsh and wetland areas in the State of Alabama are managed for their protection and conservation.

5. Other issues, (Please identify any other issues you may have identified for your state and explain briefly.)

No response.

MISSISSIPPI

How is your State addressing the following aquaculture issues?

1. Private use and/or control of public resources such as use of public trust wetlands, waterbottoms or water column for exclusive aquaculture activities.

The State of Mississippi provides aquaculturists the potential to use delineated portions of public trust wetlands, water bottoms and water columns for aquaculture activities. To date, aquaculture activities have been granted for the use of estuarine water bottoms. For example, bottom leases have been granted for the cultivation of oysters, however, concurrently the water column may be used by the public for recreational and commercial finfishing activities. Through the Secretary of State, leases can be granted for aquaculture activities in the water column. Though large acreage potentially can be leased, it is envisioned for practical purposes that the lessee would be given exclusive water column use rights to only the water column area that is in direct use along with a small buffer zone outside the immediate use area.

2. Introduction of exotic species, genetically altered species, hybrids or natural stocks from other areas.

The following aquatic plants and animals are not permitted for culture in Mississippi: Sea lamprey Petromyzon marinus, all species of piranhas (including the genus Serrasalmus, Rooseveltiella, Serrasalmo, Phygocestrus, Teddyella, Pygopristis); Banded tetra, Mexican tetra or Silvery tetra Astyanax fasciatus and Astyanax mexicanus; Tiger characin Hydrolycus scomberoides; Skinny Tiger characin Raphiodon vulpinus; Family Trichomycteridae Pygididae Parasitic catfishes - all species; Family Claridae, air breathing catfishes, walking catfishes - all species; Hydrilla verticillata, water hyacinth Eichhornia crassipes; Eurasian Watermilfoil Myriophyllum spicatum.

All other exotics as well as organisms that are genetically modified by means other than breeding and cross breeding can potentially be cultured in Mississippi provided the aquaculture facility is designed to physically prevent escapement of the early life and adult stages of these organisms into wild waters. Cage culture of the exotics and the specified genetically altered organisms in open wild waters is prohibited.

It should be noted that with an approved Aquaculture Permit, endangered, threatened and protected species can be cultured in Mississippi.

Natural stocks, from other states that are also native to Mississippi and that are not known to be a different genetic sub-population, can be cultured in Mississippi without an Aquaculture Permit.

3. Disease control and monitoring for disease associated with cultivation or processing aquaculture or imported species.

Presently, the state largely relies upon the expertise, facilities and management efforts of the U.S. Fish and Wildlife Service for monitoring and preventing the importation of diseased organisms into the state. We believe that as the aquaculture industry in Mississippi expands production of species already in the state and diversifies into production of new culture species, disease control and monitoring will become an increasingly critical management need.

4. Marsh management activities for aquaculture.

Aquaculture and marsh management are viewed as potentially complementary activities. There is the potential to enhance marsh plant productivity by utilizing the marsh plants as biofilter systems for aquaculture effluents, provided the effluent water does not significantly change the plant community species structure or otherwise adversely impact the plant community.

5. Other issues. (Please identify any other issues you may have identified for your state and explain briefly.)

None.

LOUISIANA

How is your State addressing the following aquaculture issues?

1. Private use and/or control of public resources such as use of public trust wetlands, waterbottoms or water column for exclusive aquaculture activities.

The Department has control over waterbottoms and leases those waterbottoms for the propagation of oysters. Additionally, the waterbottoms are leased for the mining of fossil shells, sand, gravel and fill material. A severance royalty is charged to the lessee for removal of the shells, etc. We have no provision for leasing the water column. We are currently exploring that possibility as it relates to culture of mussels.

2. Introduction of exotic species, genetically altered species, hybrids or natural stocks from other areas.

Exotics: Must have written permission from the Secretary of the Department to import, transport, sell or possess.

Genetically altered: No specific ordinance, except non-native fish prohibited.

Hybrids: No specific ordinance.

Natural stocks: No fish from without the state can be liberated within the state. Fish from within the state can be liberated within the state.

3. Disease control and monitoring for disease associated with cultivation or processing aquaculture or imported species.

Act 729 of the 1985 Legislature gives regulatory authority for disease control associated with cultivation, processing and importation.

4. Marsh management activities for aquaculture.

Marsh management and some forms of mariculture work hand-in-hand. The mariculture of species such as redbfish in the marsh can only be permitted on an area that has an approved marsh management plan. The approval must be secured not only from Wildlife and Fisheries, but also from Coastal Management Section of DNR which administers the Coastal Zone Management Program in Louisiana. No mariculture operation in the marsh may be conducted in a total impoundment unless the impoundment was permitted prior to it being permitted for mariculture. Total impoundment of the coastal marshes, which excludes ingress and egress of marine or estuarine dependant organisms is discouraged and in most cases not permitted. Therefore, mariculture is being conducted in cages or in isolated, screened off, man-made structures such as pipeline canals and dead-end oilfield slips to prevent mixing of wild and stocked organisms. This allows for stocking of certain areas while allowing the remainder of the marsh to be naturally accessible to wild organisms.

5. Other issues. (Please identify any other issues you may have identified for your state and explain briefly.)

None.

TEXAS

How is your state addressing the following aquaculture issues?

1. Private use and/or control of public resources such as use of public trust wetlands, waterbottoms or water column for exclusive aquaculture activities.

Aquaculture must be done in private waters, not public.

2. Introduction of exotic species, genetically altered species, hybrids or natural stocks from other areas.

Permit required from the Texas Parks and Wildlife Department (TPWD) to import exotic species or release any species in public water.

3. Disease control and monitoring for disease associated with cultivation or processing aquaculture or imported species.

Exotic shellfish must be certified by source hatchery as disease free if coming from the United States. Exotic species coming from outside the United States must be examined by a disease specialist.

4. Marsh management activities for aquaculture.

Aquaculture prohibited in publicly-owned marsh.

5. Other issues. (Please identify any other issues you may have for your state and explain briefly.)

Use or destruction of public organisms through pumping from public water to private facilities. TPWD has requested 0.55 mm mesh screens and 0.5 ft/second velocity of water across the mesh in U.S. Corps of Engineer permit requests.

SECTION 3. AQUACULTURE CONTACTS

Alabama

R. Vernon Minton
Alabama Dept. of Conservation
and Natural Resources
Marine Resources Division
P.O. Drawer 458
Gulf Shores, AL 36542

Florida

Charles Futch
Florida Dept. of Natural
Resources
Marine Resources Division
3900 Commonwealth Boulevard
Tallahassee, FL 32399

Louisiana

Arthur Williams
Louisiana Dept. of Wildlife
and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898-9000

Mississippi

Dr. Cornell Ladner
Mississippi Bureau of Marine
Resources
2620 Beach Boulevard
Biloxi, MS 39531

Texas

C. E. Bryan
Texas Parks and Wildlife
Department
4200 Smith School Road
Austin, TX 78744

APPENDIX A - FLORIDA

CHAPTER 597

AQUACULTURE

- 597.001 **Florida Aquaculture Policy Act; short title.**
 597.002 **Legislative declaration of public policy respecting aquaculture.**
 597.0021 **Legislative intent; chapter 87-367, Laws of Florida.**
 597.003 **Powers and duties of Department of Agriculture and Consumer Services.**
 597.005 **Aquaculture Review Council.**
 597.006 **Aquaculture Interagency Coordinating Board.**

597.001 Florida Aquaculture Policy Act; short title.--This act may be cited as the "Florida Aquaculture Policy Act."

History.--s. 1, ch. 84-90.

597.002 Legislative declaration of public policy respecting aquaculture.
 --The Legislature declares that, in order to effectively support the growth of aquaculture in this state, there is a need for a state aquaculture plan that will provide for the coordination of state aquacultural efforts and the conservation and enhancement of aquatic resources and will provide mechanisms for increasing aquaculture production which may lead to the creation of new industries, job opportunities, income for aquaculturists, and other benefits to the state.

History.--s. 2, ch. 84-90.

597.0021 Legislative intent; chapter 87-367, Laws of Florida.--

(1) It is the intent of the Legislature to enhance the growth of aquaculture in this state, while protecting Florida's environment.

(2) It is also the intent of the Legislature to give the Department of Agriculture and Consumer Services the duty to coordinate the development of aquaculture and provide assistance, without infringing on the existing responsibilities of other state agencies.

History.--s. 1, ch. 87-367.

597.003 Powers and duties of Department of Agriculture and Consumer Services.--

(1) The Department of Agriculture and Consumer Services is hereby designated as the lead agency in encouraging the development of aquaculture activities in the state and shall have and exercise the following functions, powers, and duties with regard to aquaculture, which is the cultivation of animal and plant life in a water environment.:

(a) Coordinate the development, revision, and implementation of a state aquaculture plan.

(b) Develop memorandums of agreement, as needed, with the Department of Natural Resources, the Florida Game and Fresh Water Fish Commission, the Florida Sea Grant Program, and other groups as provided in the state aquaculture plan.

(c) Coordinate with public and private institutional research extension, and service programs in identifying problems and providing assistance in the development of the state aquaculture plan.

(d) Provide staff for the Aquaculture Review Council and the Aquaculture Interagency Coordinating Council.

(e) Provide developmental assistance to the various sectors of the aquaculture industry as determined in the state aquaculture plan; provided that such assistance shall not conflict with or duplicate existing State University System extension or research programs.

(f) Assist persons seeking to engage in aquaculture when problems arise when applying for the necessary permits.

(g) In cooperation with other agencies, develop and propose to the Legislature legislation necessary to implement the state aquaculture plan or to otherwise encourage the development of aquaculture activities in the state.

(2) The Department of Agriculture and Consumer Services may employ such persons as are necessary to perform its duties under this chapter.

History.--s. 3, ch. 84-90; s. 1, ch. 86-111; s. 5, ch. 87-367

597.005 Aquaculture Review Council.--

(1) COMPOSITION.--There is created within the Department of Agriculture and Consumer Services the Aquaculture Review Council to consist of nine members as follows: the chairman of the State Agricultural Advisory Council or his designee; the chairman of the Aquaculture Interagency Coordinating Council as established in s. 597.006 or his designee; and seven additional members to be appointed by the Commissioner of Agriculture, including an alligator farmer, a food fish farmer, a shellfish farmer, a tropical fish farmer, an aquatic plant farmer, a representative of the commercial fishing industry, and a representative of the aquaculture industry at large. Upon the expiration of the present terms of office, the commissioner shall appoint two members for terms of 4 years, two members for terms of 3 years, two members for terms of 2 years, and one member for a term of 1 year. Thereafter, members shall be appointed for 4-year terms. Each member shall be selected from no fewer than two or more than three nominees submitted by recognized statewide organizations representing each industry segment or the aquaculture industry at large. In the absence of nominees, the commissioner shall appoint persons who otherwise meet the qualifications for appointment to the council. Members shall serve until their successors are duly qualified and appointed. An appointment to fill a vacancy shall be for the unexpired portion of the term.

(2) MEETINGS; PROCEDURES; RECORDS.--

(a) The members of the council shall meet at least annually, shall elect a chairman, a vice chairman, and a secretary, and shall use accepted rules of procedure. The terms of such officers shall be for 1 year.

(b) The council shall meet at the call of its chairman, at the request of a majority of its membership, at the request of the department, or at such times as may be prescribed by its rules of procedure. However, the council shall hold a joint annual meeting with the Aquaculture Interagency Coordinating Council as established in s. 597.006.

(c) A majority of the members of the council constitutes a quorum for all purposes, and an act by a majority of such quorum at any meeting constitutes an official act of the council.

(d) The council secretary shall keep a complete record of the proceedings of each meeting, which record shall include the names of the members present and the actions taken. Such records shall be kept on file with the department and these and other documents about matters within the jurisdiction of the council shall be subject to inspection by the members of the council.

(3) RESPONSIBILITIES.--The primary responsibilities of the Aquaculture Review Council are to:

(a) Formulate and recommend to the Commissioner of Agriculture rules and policies governing the business of aquaculture by studying and evaluating aquacultural issues.

(b) In consultation with the Aquaculture Interagency Coordinating Council, provide all necessary assistance, review, and recommendations for implementation and revision of the state aquaculture plan.

(4) EXPENSES; PER DIEM.--Members of the council shall receive expenses and per diem for travel, including attendance at meeting, as allowed state officers and employees pursuant to s. 112.061.

597.006 Aquaculture Interagency Coordinating Council.--

(1) CREATION.--The Legislature finds and declares that there is a need for interagency coordination with regard to aquaculture by the following agencies: the Department of Agriculture and Consumer Services, the Department of Commerce, the Department of Education, the Department of Environmental Regulation, the Department of Health and Rehabilitative Services, the Department of Labor and Employment Security, the Department of *Natural Resources*, the *Game and Fresh Water Fish Commission*, the statewide consortium of universities under the Florida Institute of Oceanography, the Institute of Food and Agricultural Sciences at the University of Florida, the Florida Sea Grant Program, the regional planning councils, and water management districts. It is therefore the intent of the legislature to hereby create an Aquaculture Interagency Coordinating Council to act as an advisory body as defined in s. 20.03(9).

(2) COMPOSITION.--The head of each agency listed in subsection (1) or his designee shall be a member of the Aquaculture Interagency Coordinating Council, except that the Vice President for Agricultural Affairs of the University of Florida, or his designee, shall represent the Institute of Food and Agricultural Sciences, and one member shall be chosen by the regional planning councils to represent all the regional planning councils, and one member shall be chosen by the water management districts to represent all the water management districts. The Commissioner of Agriculture, or his designee, shall serve as chairman of the coordinating council.

(3) MEETINGS; PROCEDURES; RECORDS.--The coordinating council shall be organized and hold its first meeting no later than January 1, 1989.

(a) The chairman shall preside at all meetings and shall call a meeting of the coordinating council as often as necessary to transact business. Meetings shall include at least one joint annual meeting with the Aquaculture Review Council as established in s. 597.005. The coordinating council shall annually elect a vice chairman who shall act as chairman during the absence or disability of the chairman. The coordinating council may designate subcommittees from time to time to assist in carrying out its responsibilities.

(b) A majority of the members shall constitute a quorum, and action by a majority of a quorum shall be official.

(c) The Department of Agriculture and Consumer Services shall have primary responsibility for providing administrative and staff-support services for the coordinating council and shall maintain a complete record of the proceedings of each meeting, which record shall include the names of members present and the actions taken. Such records shall be kept on file with the department and these and other documents about matters within the jurisdiction of the coordinating council shall be subject to inspection by the members of the coordinating council.

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(4) PURPOSE AND RESPONSIBILITIES.--The purpose of the coordinating council is to foster interagency cooperation in the state's aquacultural efforts. In carrying out this purpose, the coordinating council shall:

(a) Serve as a forum for the discussion and study of governmental regulations relating to aquaculture.

(b) Formulate solutions and recommend policy alternatives to facilitate implementation and revision of the state aquaculture plan.

(c) Establish and maintain effective and cooperative linkages between member agencies, the Aquaculture Review Council, and public and private institutional research, extension, and service programs, so that recommendations for improvement are responsive to the needs of aquaculture.

(d) Prepare an annual report to be submitted by February 1 of each year to the Governor, the Legislature, and the heads of each agency represented on the coordinating council. This report shall describe all actions and include all recommendations of the coordinating council.

Section 5. Notwithstanding the provisions of the Sundown Act or of any other provision of law which provides for review and repeal in accordance with s. 11.611, Florida Statutes, ss. 597.005 and 597.006, Florida Statutes, shall not stand repealed on October 1, 1988, and shall continue in full force and effect as amended herein.

Section 6. Sections 597.005 and 597.006, Florida Statutes, are repealed on October 1, 1993, and shall be reviewed by the Legislature pursuant to s. 11.611, Florida Statutes.

Section 7. This act shall take effect October 1, 1988.

RULES
OF THE
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MARINE RESOURCES

CHAPTER 16R-3

PERMIT SPECIAL ACTIVITY LICENSE FOR CATCHING AND
COLLECTION, MAINTENANCE AND DISPOSITION
POSSESSION OF FISH PROTECTED OF SALTWATER ANIMALS
BY LAW AS STOCK FOR ARTIFICIAL CULTIVATION

16R-3.001 Introduction and Scope.

16R-3.002 Severability of Rules.

16R-3.003 General Permit License Application Procedures and
Requirements.

16R-3.004 Review, Expiration, Revocation, Penalty.

16R-3.005 ~~Penalties.~~ Non-indigenous Marine Plants and Animals.

16R-3.006 Penalties.

16R-3.001 Introduction and Scope. A number of marine animals of certain length and size are protected from capture and/or commercial exploitation. Among those protected are species which have been or may be subjects of artificial cultivation ~~(mariculture)~~ (aquaculture) for commercial production, including, but not limited to, oysters, clams, queen conch, bluefish, pompano, permits, flounder, snook, mackerel, redfish, trout, weakfish, striped bass, black mullet, red grouper, jewfish, Nassau grouper, black grouper, and gag. The Department, through its ~~Divisions of Marine Resources and Law Enforcement,~~ may issue permits special activity licenses to initially capture stock for mariculture operations with protected species, or to continue such stocking operation, or to release stock into marine waters of the state. ~~The Division may cease issuing such permits when it determines that the permitted operation is not in the public's~~

Specific Authority 370.021, (1) F.S.

Law Implemented 370.081(4), 370.06(4), 370.101(2), ~~370.101(3)~~,
F.S. History - New 11-27-80 Formerly 16B - 43.01, Transferred
from 16B - 43.001, Amended _____.

~~16R-3.002 Severability of Rules. If any provision of this code
or application thereof to any person or circumstance is held
invalid, the invalidity shall not affect other provisions or
applications of this code which can be given effect without the
invalid provision or application and to this end, the provisions
of this code are severable.~~

~~Specific Authority 370.02, 370.021, F.S.~~

~~Law Implemented 370.02, F.S.~~

~~History - New 11-27-80~~

16R-3.003 General Permit Application Procedures and
Requirements.

(1) ~~Pursuant to Section 370.101(3)~~, No permit special
activity license for capture and maintenance of protected species
may shall be issued ~~under Section 370.101(2)~~ until the Department
determines that the artificial cultivation activity complies with
the provisions of Sections 253.67 through 253.75, F.S., or any
other specific provision or rule promulgated thereto that may
apply to protected species, submerged land and water column
leases, licenses, or other permits required by Florida Statutes
or Rules.

(2) ~~Application~~ A request for a permit special activity
license(s) to take and possess protected species for ~~mariculture~~
aquaculture stock must include the following:

(a) Copies of all permits, licenses, leases,
assurances, and assessments required by Sections 253.67 through
253.75, F.S.

(b) Copies of studies, evaluations, or
recommendations specifically required by Section 253.75, F.S.

(c) ~~If the Department determines that the information received in subsections (a) and (b) above are insufficient to properly evaluate the permit application, then the Department may request additional information including, but not limited to: economic impact and cost effectiveness of the proposed artificial cultivation of the target species, and the biological and ecological impact of the proposed mariculture operation.~~

A detailed written report describing:

- 1 Desirability of the proposed aquaculture from a resource management perspective.
- 2 Proposed broodstock capture location.
- 3 Number of wild-caught specimens sought.
- 4 Facility plans including effluent controls and copies of all required permits.
- 5 Ability of the applicant to perform the work.
- 6 Contingency plans in the event of a natural disaster, such as a hurricane, to prevent specimens from entering the state's waters.

~~(d) A statement regarding the location and time and method or proposed capture of protected species sought for mariculture stock must accompany the application.~~

(3) No permit special activity license shall be issued for release of stock produced by artificial cultivation into salt marine waters of Florida if such action is inconsistent with the eight standards cited in Section 370.025(2), F.S.

(4) Applications A request for a permit special activity license(s) to release stock produced by artificial cultivation into salt waters of Florida must include the following:

(a) A report on the rationale of the proposed stocking operation.

(b) Documentation that animals to be released have undergone a disease screening program by a licensed veterinarian or pathologist in accordance with Department health certification guidelines.

(c) Documentation that stock to be enhanced or

supplemented has been genetically identified. If either stock (captive or feral) has not been genetically identified or if the two stocks are genetically distinct, the stocking must be within 15 miles the of the location the general area (less than 20 miles) of broodstock capture. Reference Department genetic guidelines.

(d) A plan to tag or mark a sufficient number of fish to be stocked to allow determination of survival and percentage of contribution to feral stocks. The Department shall reserve the right to tag or mark any and all organisms that are released into public marine waters of the State of Florida. All costs necessary to accomplish such tagging will be borne by the State of Florida. All costs incurred in the fulfillment of other sections of rule 16R-3.006 shall be the responsibility of the producer.

(e) A summary of hatchery population and breeding procedures used to minimize inbreeding and loss of genetic diversity. Reference Department broodstock and husbandry guidelines.

(5) All permit special activity license holders shall submit a written report to the Department on all phases of operation by 15 December of each year.

(6) The American oyster, Crassostrea virginica, and hard clams of the genus Mercenaria are exempt from provisions of 16R-3.003 subsections (3)-(5) above, and may be released into Florida waters without such permit special activity license.

Specific Authority 370.02, 370.012, F. S.

Law Implemented 370.025(2), 370.06(4), 370.081(4), 370.101(2), 370.101(3), F.S.

History - New 11-27-80 Amended _____.

16R-3.004 Review, Issuance, Expiration, Revocation, Penalty.

(1) Permit Special activity license applications will shall be reviewed and approved by the Directors of the Divisions of Law Enforcement and Marine Resources or designated repre-

representatives thereof Department of Natural Resources. All approved special activity license holders are required to notify the Marine Patrol office nearest the collection area prior to each collection trip, or notify the Division of Marine Resources 14 days before release of stock into saltwaters marine waters of Florida.

(2) All ~~permits~~ special activity licenses automatically expire ~~January 31~~ June 30 of each year and are renewable in writing each year. ~~Permits~~ Special activity licenses are nontransferable.

(3) ~~Permits~~ Special activity licenses may shall be ~~forfeited~~ suspended and revoked for cause by the Department. Cause for ~~forfeiture~~ suspension or revocation would ~~include, but not be limited to be,~~ violating violation of or otherwise failing failure to comply with any of the provisions of Rule 16R-3.

(4) ~~The Division may~~ shall cease issuing such permits special activity licenses when it determines that the permitted licensed operation is not in the public's best interest.

Specific Authority 370.02, 370.021, F.S.

Law Implemented 370.06(4), 370.101(2), ~~370.101(3)~~, 370.021, F.S.

History - New 11-27-80, Amended 8-6-81. Amended _____.

16R-3.005 Non-indigenous Marine Plants and Animals.

(1) It is unlawful to release into waters of the state any non-indigenous marine plant or animal.

(2) Laboratory, pond, or raceway culture of non-indigenous marine plants and animals must include treatment of effluent to assure that none of the cultured organisms, nor their diseases or their parasites are released into waters of the state.

Specific Authority ~~370.02~~, 370.021, (1) 370.081(3) F.S.

Law Implemented 370.081(4), F.S.

History New _____.

16R-3.006 Penalties.

(1) Any person violating or otherwise failing to comply with any of the rules and regulations adopted as ~~16R-3~~ in this chapter shall be guilty of a misdemeanor of the second degree, punishable as provided in Section 775.082 or Section 775.083, F.S.

~~(2) Any person violating any provisions of Chapter 370, F.S., unless otherwise provided, shall be guilty of a misdemeanor of the first degree, punishable as provided in Section 775.082 or Section 775.083, F.S.~~

~~Specific Authority 370.02, 370.021, F.S.~~

~~Law Implemented 370.02(1), (2), F.S.~~

~~History New 11-27-80.~~

shore where seining is prohibited. Such nets may be gathered or taken in or taken up by power on the open waters of the Gulf of Mexico or the Atlantic Ocean.

(8) USE OF GEAR AND OTHER EQUIPMENT.—Whenever it shall appear in the best interests of conservation and will result in a more efficient use of offshore fisheries resources, the Division of Marine Resources of the department may issue a special activity license pursuant to s. 370.06 for the use of gear and equipment essential to such exploitation. The provisions of this section do not apply to shrimping and sponging operations and all local and general laws pertaining to shrimps and sponges remain in effect.

(9) SNATCH HOOKS, USE OF PROHIBITED TO TAKE SNOOK.—The taking of the game fish snook in state waters is prohibited except by use of the standard bait, lure, plug or spoon. It is unlawful to take snook by use of gig or grain, gang hook, multiple hooks, snatch hooks, or any other device designed to impale or hook the fish. What is commonly called snook snatching is prohibited in the waters of this state.

(10) ILLEGAL USE OF POISONS, DRUGS, OR CHEMICALS.—

(a) It is unlawful for any person to place poisons, drugs, or other chemicals in the marine waters of this state unless that person has first obtained a special activity license for such use pursuant to s. 370.06 from the Division of Marine Resources of the Department of Natural Resources.

(b) Upon application on forms furnished by the division, the division may issue a license to use poisons, drugs, or other chemicals in the marine waters of this state for the purpose of capturing live marine species. The application and license shall specify the area in which collecting will be done, the drugs, chemicals, or poisons to be used, and the maximum amounts and concentrations at each sampling.

(11) USE OF GILL NETS FOR TAKING KING MACKEREL.—No person may take king mackerel from the waters within or without this state in any county bordering on the Atlantic Ocean, except Monroe County, or land any king mackerel so taken with a gill net having a hanging depth of more than 200 meshes of 4³/₄-inch stretched mesh, measured from the cork line to the lead line or its equivalent. Possession of such a net is prima facie evidence of a violation of this subsection.

(12) SIZE OF MESH IN KING MACKEREL NETS.—No person may set a school of king mackerel within or without the waters of this state with a net having a mesh size of less than 4³/₄ inches.

History.—s. 2, ch. 28145, 1953; s. 1, ch. 57-765; s. 1, ch. 57-766; s. 1, ch. 59-477; s. 1, ch. 65-182; ss. 25, 35, ch. 69-106; s. 1, ch. 69-231; s. 283, ch. 71-136; s. 1, ch. 73-66; s. 1, ch. 76-101; s. 1, ch. 78-80; s. 1, ch. 78-159; s. 2, ch. 78-404; s. 2, ch. 79-263; s. 7, ch. 83-134; s. 2, ch. 84-121; s. 1, ch. 85-163; ss. 6, 17, ch. 85-234; s. 6, ch. 86-240.

Note.—Repealed effective July 1, 1985, by s. 7, ch. 83-134, as amended by s. 2, ch. 84-121, and by s. 1, ch. 85-163, which further provides that if the Governor and Cabinet have not adopted appropriate rules by July 1, 1985, this subsection shall remain in force until such rules are effective. Section 9, ch. 83-134, provides that, prior to the adoption of rules amending, readopting, or repealing those provisions set forth in s. 7, the Marine Fisheries Commission shall hold a public hearing thereon, and no such amendment, re-adoption, or repeal shall be acted upon until it has been determined, based upon appropriate findings of fact, that such action will not adversely affect the resource.

370.081 Illegal importation or possession of non-indigenous marine plants and animals; rules and regulations.—

(1) It is unlawful to import or possess any marine plant or marine animal, not indigenous to the state, which, due to the stimulating effect of the waters of the state on procreation, may endanger or infect the marine resources of the state or pose a human health hazard.

(2) Marine animals not to be imported shall include, but are not limited to, all species of the following:

- (a) Sea snakes (Family Hydrophiidae);
- (b) Rabbitfishes (Family Siganidae);
- (c) Weeverfishes (Family Trachinidae); and
- (d) Stonefishes (Genus *Synanceja*).

(3) The department is authorized to adopt, pursuant to chapter 120, rules and regulations to include any additional marine plant or marine animal which may endanger or infect the marine resources of the state or pose a human health hazard.

(4) It is unlawful to release into the waters of the state any nonindigenous marine plant or marine animal not included in subsection (2) or prohibited by rules and regulations adopted pursuant to subsection (3).

History.—s. 1, ch. 71-68; s. 1, ch. 77-65.

1370.082 Use of gill nets, wing nets, and similar devices regulated; penalties; confiscation of equipment.

(1) It is unlawful for any person, firm, or corporation to set, lay out, or fish, or cause to be set, laid out, or fished, any gill net, wing net, or similar device, unattended, in any of the inland salt waters of the Counties of Walton, Santa Rosa, Okaloosa, Franklin, Escambia, Volusia, Brevard, Indian River, Pinellas, or Duval. However, the Department of Natural Resources may issue permits for the use of such nets or similar devices used for research contrary to the provisions of this section, with respect to Franklin County and Volusia County only, and the department may limit the use of such permits to such times and places in Franklin County and Volusia County as the department deems advisable. Any such net or device, while being fished between sunset and sunrise, shall, in addition to being attended, be marked by a light or lights in a manner causing the net or device to be visible to any approaching vessel.

(2) Any gill net, wing net, or similar device found unattended or unlighted in or on the waters of the Counties of Walton, Santa Rosa, Okaloosa, Franklin, Escambia, Volusia, Brevard, Indian River, Pinellas, and Duval, in violation of the provisions of this act, may be summarily seized and destroyed by the Division of Marine Resources of the Department of Natural Resources.

History.—s. 1, ch. 75-272; s. 1, ch. 77-206; s. 1, ch. 78-404; s. 1, ch. 79-162; s. 1, ch. 80-372; s. 7, ch. 83-134; s. 2, ch. 84-121; s. 1, ch. 85-163; ss. 16, 17, ch. 85-234; s. 7, ch. 86-240.

Note.—Repealed effective July 1, 1985, by s. 7, ch. 83-134, as amended by s. 2, ch. 84-121, and by s. 1, ch. 85-163, which further provides that if the Governor and Cabinet have not adopted appropriate rules by July 1, 1985, this section shall remain in force until such rules are effective. Section 9, ch. 83-134, provides that, prior to the adoption of rules amending, readopting, or repealing those provisions set forth in s. 7, the Marine Fisheries Commission shall hold a public hearing thereon, and no such amendment, re-adoption, or repeal shall be acted upon until it has been determined, based upon appropriate findings of fact, that such action will not adversely affect the resource.

1370.0821 St. Johns County; use of nets.—

(1) In addition to all other restrictions imposed by this section, the use of any type of net or seine, other

**DIVISION OF FISHERIES' RATIONALE AND POLICY ON
IMPORTATION, EXPORTATION, GENETIC ALTERATION AND
STOCKING OF FISHES**



STATE OF FLORIDA

Colonel Robert M. Brantly
Executive Director

Mr. Dennis E. Holcomb
Director of Fisheries

Mr. Forrest J. Ware
Chief of Fisheries Research

Dr. Allan L. Egbert
Assistant Executive Director

Mr. Robert J. Wattendorf
Assistant Director of Fisheries

Mr. Thomas L. Vaughn
Chief of Fisheries Management

DIVISION OF FISHERIES POLICY ON: FISH GENETICS & STOCKING
EXECUTIVE SUMMARY¹

The Division of Fisheries' primary goal with regard to game fish is: "to maintain and enhance the abundance and size structure of game fish populations." A secondary goal is: "to provide quality angling opportunities and enjoyment for the diversity of anglers fishing in Florida." Four management policies describe Division priorities regarding fish genetics and stocking: 1) The concept of optimum sustained use of native freshwater game fishes for Florida's citizens and visitors will be reflected in operational plans for habitat restoration/enhancement, management regulations, stock enhancement/supplementation and public education. 2) It will be our policy to provide special sportfishing opportunities (e.g., trophy-bass waters, urban fisheries, fishing rodeos), to enhance enjoyment by a variety of anglers in selected waters without compromising the quality of native fisheries. 3) Management priorities will emphasize protection of native stocks and natural ecosystems. 4) Hybridization, or other genetic alteration, of native fishes will be treated as a viable management tool in meeting game fish objectives. Thorough investigations into safe use of altered and/or non-native fishes will be conducted prior to potential introduction, to ensure adequate safeguards of native genetic resources and ecosystems.

To safeguard native stocks importation of fishes from outside Florida shall be regulated. With regard to native stocks of fish, it is Division policy to use wild broodfish from the area into which the progeny are to be placed whenever possible.

Exportation of fish from Florida to other states or countries is not likely to affect Florida's fisheries, except that exportation of threatened or endangered species is prohibited by rule. We will cooperate with appropriate Game and Fish agencies to ensure their rules are not violated, and that they are aware of the danger of importing maladapted stocks or non-native species.

Only after extensive research efforts, in-house review, and review by the scientific community will the Division of Fisheries consider stocking fertile genetically-altered fishes. Such stockings will only be conducted to remedy a deficiency in the native fish's gene pool, which has been shown to be counter-productive.

Supplemental stockings of naturally recruiting populations generally do not result in a long-term increase in numbers of harvestable fish, and consequently this management alternative is used but not emphasized in Florida. Enhancement stockings seek to enhance a fishery by adding a type of fish not already there, or by altering the fish (e.g., sunshine bass). Such stockings can provide many benefits, but must be evaluated and controlled to ensure no harm comes to native fish stocks. Generally, such assurances are provided by using sterile fish, to prevent detrimental effects on native gene pools.

¹See the Division of Fisheries Rationale and Policy on Importation, Exportation, Genetic Alteration and Stocking of Fishes for a more thorough explanation and details, the signed copy of which is the official policy.

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In summary, the intent of the Division of Fisheries' policy is to ensure native fisheries resources are given primary consideration, and they are protected at the stock level from inadvertent genetic alteration. However, the Division recognizes that confronted by the challenge of an ever-increasing human population, and the concomitant increases in pollution, habitat loss and fishing pressure, we must consider all of the tools at our disposal to provide sustained, quality fishing opportunities. Consequently within the guidelines provided herein, we will actively seek to improve Florida's freshwater sportfisheries using enhancement stocking techniques.

RJW/jka
A/GENE.SUM
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DIVISION OF FISHERIES' RATIONALE AND POLICY ON
IMPORTATION, EXPORTATION, GENETIC ALTERATION AND STOCKING OF FISHES

The Division of Fisheries' primary goal¹ with regard to game fish is: "to maintain and enhance the abundance and size structure of game fish populations." A secondary goal is: "to provide quality² angling opportunities and enjoyment for the diversity of anglers fishing in Florida."

The following four management policies generally describe the Division's priorities regarding native, genetically altered and non-native fishes:

1. The concept of optimum sustained use³ of native freshwater game fishes for Florida's citizens and visitors will be reflected in operational plans for habitat restoration/enhancement, management regulations, stock enhancement/supplementation and public education.
2. It will be our policy to provide special sportfishing opportunities (e.g., trophy-bass waters, urban fisheries, fishing rodeos), to enhance enjoyment by a variety of anglers in selected waters without compromising the quality of native fisheries.
3. Management priorities will emphasize protection of native stocks and natural ecosystems.
4. Hybridization⁴, or other genetic alteration⁵, of native fishes will be treated as a viable management tool in meeting game fish objectives, provided that safeguards are employed to protect native genetic resources and ecosystems. Thorough investigations into safe use of altered and/or non-native fishes will be conducted prior to potential introduction, to ensure

¹Division Goals, Policies, Objectives, Problems and Strategies are all contained in the Florida Game & Fresh Water Fish Commission Strategic Plan.

² The Commission understands that quality angling means different things to various people. Consequently, through diverse public opinion surveys we attempt to define this phrase for sundry user groups and address their desires where possible. For instance some of our constituents are interested in trophy fishing, while in highly urbanized areas other individuals just want an opportunity to fish.

³ The concept of "Optimum Sustained Use" reflects the Commission's desire to sustain the resource. By referring to optimum use, rather than maximum yield, we recognize the variety of values associated with living aquatic resources, which not only include sport, food and commercial fishing, but also relate to the beauty and diversity of Florida's ecosystems.

⁴ Hybridization is the production of hybrids by interbreeding between different genera, species or stocks. Hybrids sometimes occur in nature but are produced more frequently through man's intervention in the breeding process.

⁵ Genetic Alteration is used here as a generic term to indicate any activity that would result in a genotype not normally found in the subject stock's gene pool. This term is somewhat synonymous with genetic engineering or genetic manipulation and the variety of activities encompassed are explained in the text.

adequate safeguards of native resources.

With these goals, and general management priorities in mind, our purpose herein is to expand on the Division of Fisheries' policy, with regard to importation, exportation, genetic alteration and stocking of fishes. This policy is intended to at first apply to how the Division of Fisheries and the Commission internally deal with these issues; however, it is our intention to modify this policy when needed and expand it to the public sector, in the future.

Importation

To safeguard native stocks⁶ importation of fishes from outside Florida shall be regulated. With regard to native stocks of fish, it is Division policy to use broodfish from the area into which the progeny are to be placed whenever possible. Consequently, importation of native species of fish for stocking will not be condoned unless the broodfish originated in appropriate areas⁷ and have not been domesticated⁸.

Importation of non-native⁹ (either exotic¹⁰ or transplanted¹¹ species) fishes generally will be restricted to bringing in broodfish for experimental use. Such broodfish will be quarantined to protect native resources from possible contamination by introduced parasites and diseases, and their progeny

⁶ Stocks are populations of organisms that share a common environment and that freely interbreed among themselves. However, they are sufficiently different from other interbreeding groups of the same species to be considered as self-perpetuating, manageable groups. According to the "stock concept" this is the level of genetic integrity that should be managed to prevent loss of important, naturally evolved genetic material.

⁷ Appropriate Areas are those areas that coincide with the shared environmental range experienced by an identified stock, or a hypothesized stock that is being evaluated genetically. This area normally would be isolated to a significant extent with regard to the subject species' range, either geographically or by the subject species' physiology. For instance, various drainage basins for northern versus southern largemouth bass, or the Gulf of Mexico and Atlantic Ocean for striped bass.

⁸ Domesticated refers to fish which have been selected in an artificial environment, for instance a hatchery or aquaculture ponds. The simplest method of avoiding domestication is to use new broodfish each year, which are collected from the wild. In addition, the youngest possible fish should be stocked from the standpoint of preventing domestication, since differential mortality in the ponds can affect the gene pool, and learned behaviors, such as coming to artificial feed, can detract from the fish's ability to survive in the wild.

⁹ Non-Native and Introduced are umbrella terms for organisms that come from somewhere else and are introduced by man into a new area.

¹⁰ Exotic organisms are ones that come from other nations.

¹¹ Transplanted or Transferred organisms are organisms that are introduced into new areas by man but which occur naturally somewhere within the same country.

will be tested thoroughly in secure facilities¹² to evaluate potential benefits and hazards associated with their release into the wild. Under appropriate circumstances eggs, fry or fingerlings may be imported for testing, provided there is adequate justification. Such fish, eggs or fry will not be released into the wild unless one of the following conditions can be assured:

- 1. Physiological requirements restrict the fish to a niche and locale where the introduction's impact can be limited and predicted, and where such predictions indicate that there will be no unacceptable detrimental effects on native fisheries (e.g., peacock bass).
- 2. The fish are functionally sterile¹³ and consequently populations can be controlled by stocking, or lack thereof (e.g., triploid grass carp).

Once the value and safety of such importations are demonstrated, fish for stocking may be imported directly, provided that adequate measures are available to ensure the quality of the fish. The certification procedure for triploid grass carp is an example of such a program:

Exportation

Exportation of fish from Florida to other states or countries is not likely to affect Florida's fisheries, except that exportation of threatened or endangered species is prohibited by rule. However, the Division will cooperate with appropriate Game and Fish agencies wherever possible, to ensure their rules are not violated, and that they are aware of the potential danger of importing maladapted stocks¹⁴ or non-native species.

Genetic Alteration

Genetic alteration of fish can be simple or complex. Simple changes include selection¹⁵, domestication or inbreeding¹⁶ that alter a population's

¹²Secure Facilities are those in which all water is recirculated or put through a filter which ensures that no eggs, fry, fish or pathogens will reach natural waters, which provides exclusionary features such as fences and bird nets to prevent predators (human and others) from removing the fish, and would contain the fish during a 50-year flood event.

¹³ Functionally Sterile means that an organism is incapable of reproducing on its own in the wild. However, an organism can physiologically be fertile and still be functionally sterile--meaning that to some limited degree gametes (eggs and sperm) are produced but at such reduced rates and with such depleted vitality that they are unable to successfully reproduce in the wild.

¹⁴ Maladapted Stocks refer to stocks that have either been altered by man's intervention, or are unaltered but have been introduced by man into new environments in such a way that they are not well adapted to the environment they are being exposed to. For instance, temperate zone fish may be well adapted to survive and reproduce in that area but when introduced into tropical or subtropical climates may not do well due to temperature or other differences.

¹⁵ Selection is a breeding process where individual spawners are chosen based on some specific character, for instance size or color. The intent is to develop a line of progeny which have these parental characteristics to a greater degree than if parents were selected randomly.

gene pool¹⁷ either intentionally or accidentally, but leave the genome¹⁸ basically intact (i.e., proportions of certain genetic traits may vary, but they remain within the range of the parent species' traits).

More complex, but relatively fundamental, changes include sex manipulation¹⁹ and polyploidization²⁰. Examples include our early work on producing all female (gynogenetic) grass carp and current work with triploid grass carp. These procedures do not incorporate any genetic material from another species, but do represent a major change in the population's genomic structure and often affect reproductive potential.

The next tier of genetic alteration involves hybridization and allows incorporation of genetic information from one species of fish into another, in a manner that rarely occurs in nature. Sunshine bass (white bass and striped bass hybrids) are an example of how this can be beneficial. These techniques have been used for centuries in animal husbandry to produce organisms with superior performance characteristics for a specific use.

Finally, certain molecular techniques²¹ which have been used in other fields of biology are being adapted to fisheries, to allow the direct transfer of limited amounts of genetic material from one organism to another. This methodology involves insertion of foreign genetic materials, even when sperm from a donor species cannot be made to fertilize eggs of a recipient species. In Florida this technique has not been experimented with, but an example from Auburn University is the insertion of human growth hormone genes into catfish.

Molecular techniques have tremendous potential for helping man, but inappropriate use could result in deterioration of naturally evolved fish

¹⁶ Inbreeding is the result of having a limited number of parents producing a population. It results in loss of genetic variation and frequently manifests lethal or maladaptive recessive genes that result in a loss of vigor in the offspring. In selection programs inbreeding can be intentional.

¹⁷ A Gene Pool is the total amount of genetic variability available among a population of organisms.

¹⁸ A Genome or Genotype refer to the total set of genes within an individual organism.

¹⁹ Sex Manipulation refers to changing the percentages of male and female organisms or their fertility. These changes can be accomplished in a variety of ways such as using sex hormones to sex reverse animals (make a male into a female or vice versa), to produce gynogenetic (all female) or androgenetic (all male) populations by affecting the genome, or using drugs to sterilize organisms.

²⁰ Polyploidization refers to creating organisms that have more than the normal two sets of chromosomes. The most common product is triploids, which have three sets of chromosomes, such as triploid grass carp. This is achieved by causing retention of the second polar body of the egg once it is fertilized. The result is a functionally sterile organism that may grow faster in its mature years, since energy is not diverted to egg or sperm production.

²¹ Molecular Techniques are those which affect the organism at the molecular level (for instance, the structure of DNA and the genetic code).

stocks. Therefore, to safeguard natural genetic resources at the stock level, use of these techniques should be restricted and monitored, but not prohibited. ✓

Regulation of molecular techniques can best be accomplished by using these techniques only for aquaculture or very specific stocking purposes, where impacts can be predicted and controlled. In the case of aquaculture, suitable containment facilities are essential to prevent the organism's escape into the wild where it might become established or interbreed with native fishes. In the case of purposeful stocking programs, functional sterility generally will be required, to protect native resources from most long-term impacts.

Only after extensive research efforts, in-house review and review by the scientific community at large will the Division of Fisheries consider purposeful stocking of fertile genetically-altered fishes, due to the potential danger if they interbreed with native stocks and alter their genome. Such stockings would only be conducted to remedy a documented deficiency in the native fish's gene pool, which has been shown to be counter productive to its fitness²² and sportfishing performance, in spite of existing in a relatively natural habitat.

Stocking

Fish stockings can be categorized as supplemental or enhancement. Supplemental stockings are intended to increase numbers of existing fish, with fish from the same stock, without altering them in any way. Supplemental stockings of naturally recruiting²³ populations generally do not result in a long-term increase in numbers of harvestable fish, and consequently this management alternative is used but not emphasized in Florida. Exceptions include stocking newly created waters, replacing a population that has been eliminated or severely reduced due to intensive harvest or some calamity, or helping the fish population past some clearly identified bottleneck in their life cycle, such as a deficiency of food for fry. Another potential use for this type of stocking is in areas of high fishing pressure to support a put-grow-take²⁴, or put-and-take²⁵ fishery, but this is not an option we generally pursue, unless it is part of a specific project (such as urban fisheries, or fisheries education rodeos).

Enhancement stockings seek to enhance a fishery by adding a type of fish not already there, or by altering the fish in some fashion, such as with sunshine bass. Such stockings can provide many potential benefits, but must be evaluated carefully and controlled to ensure no harm comes to native fish stocks. Generally, such assurances are provided by only using functionally sterile fish, to prevent direct affects on native gene pools and indirect effects are time limited (i.e., if no additional fish are stocked, when the

²²Fitness is the degree of success to which an organism matures and passes on its genotype to subsequent generations.

²³Recruiting refers to fish attaining harvestable size.

²⁴ Put-grow-take stockings involve stocking small fish, which need to grow in the wild before they are ready to be harvested.

²⁵ Put-and-take stockings involve stocking harvestable-sized fish which have been grown out at a hatchery and are ready to be harvested any time after they are stocked.

original fish die, the biotic balance²⁶ should return to normal).

Summary

In summary, the intent of the Division of Fisheries' policy is to ensure native fisheries resources are given primary consideration, and that they are protected at the stock level from inadvertent genetic alteration. However, the Division recognizes that confronted by the challenge of an ever-increasing human population, and the concomitant increases in pollution, habitat loss and fishing pressure, we must consider all of the tools at our disposal to provide sustained, quality fishing opportunities.

APPROVED: Dennis Holcomb
Dennis E. Holcomb, Director
Division of Fisheries

Robert J. Wattendorf
Robert J. Wattendorf, Ass't Dir.
Division of Fisheries

Thomas L. Vaughn
Thomas L. Vaughn, Chief
Bureau of Fish Management

Forrest J. Ware
Forrest J. Ware, Chief
Bureau of Fish Research

DATE: 1 July 1988

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²⁶ Biotic Balance refers to the natural relationships between various organisms within an ecosystem and includes species diversity, the food web and predator-prey relationships.

ply to the requirements of this chapter relating to the setting of bulkhead lines and to dredging and filling.

(4) The legislative intent embodied in this section is to authorize the board of trustees to convey or obligate itself to convey the herein referred to state-owned lands in accordance with the provisions of Pub. L. No. 90-606. Upon certification to the board by the United States Government that all private lands intended to be acquired have been acquired and that owners of private property who have not donated or otherwise conveyed their lands have been paid therefor, the conveyance herein authorized shall become absolute. Nothing herein shall alter the right of the United States Government to immediate possession of said state-owned lands.

History.—ss. 1, 2, ch. 23617, 1947; s. 11, ch. 25035, 1949; s. 2, ch. 61-119; ss. 27, 35, ch. 69-106; s. 1, ch. 70-364; s. 1, ch. 70-439.

253.66 Change in bulkhead lines, Pinellas County.

(1) As soon as a county bulkhead line as provided in s. 253.122 has been fixed by the water and navigation control authority of Pinellas County around the mainland of the county and the offshore islands therein, and the bulkhead line has been formally approved by the Board of Trustees of the Internal Improvement Trust Fund of the state, all in accordance with the provisions of s. 253.122, no further change in said bulkhead line shall be made notwithstanding the provisions of s. 253.122(5).

(2) It is hereby declared to be the intent of the Legislature that subsection (1) is necessary for the protection of navigable waters in Pinellas County and the fish, wildlife and natural resources therein.

History.—ss. 1, 2, 3, 4, 5, ch. 59-522; s. 2, ch. 61-119; s. 1, ch. 61-264; ss. 27, 35, ch. 69-106.

Note.—See s. 26, ch. 75-22, which repealed s. 253.122, relating to the power to fix bulkhead lines, and s. 7(3), ch. 75-22 (s. 253.1221), which reestablished all previously established bulkhead lines at the line of mean high water or ordinary high water.

253.665 Grant of easements, licenses, and leases.

(1) The Board of Trustees of the Internal Improvement Trust Fund of this state is authorized and empowered to grant unto riparian owners as herein defined, their heirs, successors and assigns, perpetual easements and easements, licenses and leases for specified terms of years, permitting such riparian owners, their heirs, successors and assigns, to construct, maintain and operate structures and facilities on, in and under the bed of any navigable stream or any river owned in whole or in part by the state, for the purpose of providing water of a suitable quality for industrial, domestic or other use; provided, however, any instrument granting such easement, lease or license may contain provisions to the effect that such structures and facilities shall be so constructed as not to obstruct the channel of the stream or river or unreasonably interfere with navigation, commerce or fishing thereon.

(2) For the purposes of this section, the term "riparian owners" shall include the owners of uplands bounded by either the high-water or low-water mark of any stream or river and shall include lessees and licensees of any such owners or grantees in easements from such owners of such uplands or river bottoms. The term "channel" shall mean the marked, buoyed, or artificially dredged channel, if any, and if none, shall mean a space equal to 20 percent of the average width of the river or

stream at the point concerned which furnishes uninterruptedly, through its course, the deepest water at mean low water.

(3) This section is cumulative and shall not restrict or limit any title, right, interest or privilege of any riparian owner under the common law.

History.—ss. 1, 2, 3, ch. 57-325; s. 2, ch. 61-119; ss. 27, 35, ch. 69-106.

Note.—Former s. 271.10.

253.67 Definitions.—As used in ss. 253.67-253.75:

(1) "Aquaculture" means the cultivation of animal and plant life in a water environment.

(2) "Water column" means the vertical extent of water, including the surface thereof, above a designated area of submerged bottom land.

(3) "Department" means the Department of Natural Resources.

(4) "Board" means the Board of Trustees of the Internal Improvement Trust Fund.

History.—s. 1, ch. 69-46; ss. 25, 27, 35, ch. 69-106.

253.68 Authority to lease submerged land and water column.—To the extent that it is not contrary to the

public interest, and subject to limitations contained in ss. 253.67-253.75, the board of trustees may lease submerged lands to which it has title for the conduct of aquaculture activities and grant exclusive use of the bottom and the water column to the extent required by such activities. Such leases may authorize use of the submerged land and water column for either commercial or experimental purposes. However no lease shall be granted by the board when there is filed with it a resolution of objection adopted by a majority of the county commission of a county within whose boundaries, if the same were extended to the extent of the interest of the state, the proposed leased area would lie. Said resolution shall be filed with the board of trustees within 30 days of the date of the first publication of notice as required by s. 253.70. Prior to the granting of any such leases, the board shall establish and publish a list of guidelines to be followed when considering applications for lease. Such guidelines shall be designed to protect the public's interest in submerged lands and the publicly owned water column.

History.—s. 1, ch. 69-46; ss. 27, 35, ch. 69-106.

253.69 Application to lease submerged land and water column.—Any applicant desiring to lease a portion of the submerged lands of this state for the purpose of conducting aquaculture activities shall file with the board a written application in such form as it may prescribe, setting forth the following information:

(1) The name and address of the applicant.

(2) A reasonably concise description of the location and amount of submerged land desired and either:

(a) Attaching a map or plat of a survey of such lands; or

(b) Enclosing a sum sufficient to defray the cost of such a survey as estimated by the department.

(3) A description of the aquaculture activities to be conducted, including a specification whether such activities are to be experimental or commercial and an assessment of the current capability of the applicant to carry on such activities.

APPENDIX B - MISSISSIPPI

MISSISSIPPI LEGISLATURE

REGULAR SESSION 1988

By: Senators Tate, Gollott, Taylor,
Woodfield, Usey, Bilbo, HaleTo: Wildlife & Marine
ResourcesSENATE BILL NO. 2652
(As Sent to Governor)

1. AN ACT TO ENACT THE MISSISSIPPI AQUACULTURE VENTURES ACT OF
 2. 1988; TO INCREASE OPPORTUNITIES FOR THE CULTIVATING AND MARKETING
 3. OF AQUATIC PRODUCTS; TO AUTHORIZE THE LEASING OF STATE WATERS FOR
 4. AQUACULTURE; TO AUTHORIZE THE DEPARTMENT OF WILDLIFE CONSERVATION
 5. TO REGULATE AND ISSUE PERMITS FOR CERTAIN AQUACULTURE OPERATIONS;
 6. TO ASSESS THE FEASIBILITY OF THE ESTABLISHMENT OF AN AQUATIC
 7. VENTURES CENTER; TO ENCOURAGE THE DEVELOPMENT OF COMMERCIAL
 8. AQUACULTURE PARKS; TO PROVIDE PENALTIES FOR VIOLATIONS OF THIS
 9. ACT; TO EXEMPT CATFISH FARMING FROM THE PROVISIONS OF THIS ACT;
 10. AND FOR RELATED PURPOSES.
11. BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MISSISSIPPI:
12. SECTION 1. This act shall be known and may be cited as
 13. the Mississippi Aquaculture Act of 1988.
 14. SECTION 2. The Legislature declares that, to effectively
 15. encourage and support United States citizens in expanded and new
 16. growth of aquaculture in this state, there is a need to amend
 17. existing regulations and to improve the effectiveness of
 18. coordination of aquacultural efforts among state agencies while
 19. conserving and enhancing aquatic resources and providing
 20. mechanisms for increasing aquaculture production which will lead
 21. to the creation of new industries, job opportunities, income for
 22. aquaculturists, tax revenues and other benefits to the state.
 23. SECTION 3. For the purpose of this act, unless the
 24. context clearly requires otherwise:
 25. (a) "Aquaculture" means the process of growing,
 26. farming, cultivating and/or harvesting cultured aquatic products
 27. in marine or freshwaters and includes management by an
 28. aquaculturist.

29. (b) "Aquaculturist" is a person who is engaged in the
30. cultivating of cultured aquatic products.

31. (c) "Aquaculture facility" means any facility or
32. resources that are used for aquaculture activities and operations
33. in Mississippi.

34. (d) "Cultured aquatic products" are marine or
35. freshwater plants and animals that are propagated, farmed or
36. cultivated in an aquaculture facility under the supervision and
37. management of an aquaculturist or that are naturally produced in
38. an aquaculture facility which at the time of production are under
39. the active supervision and management of an aquaculturist.

40. (e) "Department" means the Department of Wildlife
41. Conservation.

42. (f) A "cultivation permit" is a permit issued by the
43. department, applicable to design criteria to prevent release of
44. certain cultured aquatic products from an aquaculture facility
45. into the environment.

46. (g) A "marketing permit" is a permit issued by the
47. department to provide a mechanism for tracing certain marketed and
48. cultured aquatic products to verify that they were cultured in an
49. aquaculture facility and were not harvested from wild stocks and
50. to prevent the release of undesirable species into the
51. environment.

52. SECTION 4. All currently recognized native aquatic
53. plants, animals and nongame fish may be freely produced and
54. marketed by an aquaculturist unless specifically regulated
55. elsewhere. If a marketing permit is needed to aid in selling such
56. cultured aquatic products in other states or countries, then the
57. department shall issue such a permit when requested by an
58. aquaculturist.

59. SECTION 5. An aquaculturist shall obtain a cultivation
60. and marketing permit for cultured aquatic products produced from
61. the following aquatic plants and animals:

62. (a) All nonnative aquatic plants and animals, including
63. those that are well established in limited or extensive areas of
64. natural lakes, rivers and streams in this state;

65. (b) Fish classified as game fish in Mississippi;
66. however, the department shall not issue any such permits for the
67. following game fish: black bass, bream, crappie, flathead
68. catfish, walleye and all members of the family Centrarchidae and
69. Percidae.

70. (c) Endangered, threatened or protected species;

71. (d) Any aquatic plants or animals which have been
72. genetically modified or are to be genetically modified by means
73. other than breeding and crossbreeding.

74. The department shall not issue the permits required in this
75. section until the department approves the proposed aquaculture
76. facility design or the actual facility and such permits shall only
77. be issued to citizens of the United States. The department may
78. inspect the aquaculture facility prior to the introduction of the
79. aquatic products to be cultured to insure compliance with the
80. approved permit specifications. The department may also conduct
81. periodic inspections to insure that operational activities comply
82. with approved permit specifications. All required permits shall
83. be renewed annually. The fee for a marketing or cultivation
84. permit shall not exceed One Hundred Dollars (\$100.00) for each
85. permit.

86. SECTION 6. By withholding a culture and/or marketing
87. permit, the department may prohibit the aquaculturing of any
88. species at any location if the department determines it would be
89. detrimental to the public interest and presents its determination
90. in writing with supporting justification.

91. SECTION 7. Failure by an aquaculturist to provide any
92. information required by the department to verify that cultured
93. aquatic products are produced under controlled aquacultural
94. conditions and are not harvested from native wild stock shall
95. result in nonrenewal of the permit.

96. SECTION 8. (1) Permits may provide that game fish be
97. obtained for use as brood stock in accordance with regulations
98. promulgated by the Department of Wildlife Conservation.

99. (2) In promulgating these regulations, the department may
100. specify that a permittee:

101. (a) Obtain a temporary variance permit from the
102. department; and

103. (b) Provide compensation for each fish taken for brood
104. stock as established by the department and outlined in the permit.

105. (c) Shall not sell or transport out of the state brood
106. fish taken from state waters.

107. (3) The department shall not permit the collecting of wild
108. brood stock in any waters where the department determines that the
109. collection is not in the long-term best interest of the resource.

110. SECTION 9. Buildings associated with aquaculture
111. facilities shall not be required to exceed the building
112. requirements specified for agricultural operations.

113. SECTION 10. All state governmental entities that are
114. involved in the regulation and enforcement of aquaculture
115. activities or related activities shall develop a coordinated
116. procedure for one-stop permitting applicable to aquaculture
117. activities. One-stop permitting is defined as a procedure that
118. allows an aquaculturist to fill out a joint application form and
119. deposit it with any of the aforementioned governmental entities.
120. The receiving agency will forward the joint application and/or
121. copies of it to the appropriate entities for review and

122. expeditious action. The one-stop permitting procedure document
123. shall state the time schedules for review and action by the
124. applicable agencies after the permit has been received and dated.

125. SECTION 11. In addition to compliance with applicable
126. department regulations, aquacultural operations shall comply with
127. applicable Department of Natural Resources regulations.
128. Processors of cultured aquatic products shall comply with
129. Department of Health regulations if such product is processed for
130. human consumption.

131. SECTION 12. The Secretary of State, upon recommendation
132. of the commission, may lease waters as provided by Section
133. 29-1-107, Mississippi Code of 1972, within the jurisdiction of the
134. state to a person for aquaculture or the production of aquatic
135. products. The commission is authorized to develop an aquaculture
136. lease management program and may adopt such rules and regulations
137. as may be necessary to implement the aquaculture lease management
138. program and to regulate the growth of aquaculture.

139. SECTION 13. The department shall develop a management plan
140. in conjunction with the federal government to assess the
141. feasibility of establishing an Aquatic Ventures Center at the
142. National Space Technology Laboratories provided federal regulatory
143. requirements are met. Such center shall be managed by the
144. department.

145. This management plan may address but shall not be limited to
146. the following activities and others as determined useful by the
147. department.

148. (a) Plan and conduct a program promoting cultured
149. aquatic products and associated technologies, including
150. demonstration, training and technical assistance;

151. (b) Disseminate information about the technologies and
152. species suitable for Mississippi and provide informal education
153. relative thereto;

154. (c) Produce and coordinate the production of species of
155. aquatic products that can be introduced into the state's waters,
156. particularly its marine waters, to increase recreational and
157. commercial fishing opportunities;

158. (d) Encourage expanding or new aquaculture activities
159. which add to the economy of the state;

160. (e) Provide an opportunity for all state agencies,
161. universities and colleges and federal agencies that are involved
162. in activities that relate directly or indirectly to aquaculture to
163. participate in the Center's program and to display their products;

164. (f) Maintain a coordinated liaison with other
165. aquacultural enterprises, including federal agencies;

166. (g) Provide opportunity for Mississippi aquaculture
167. associations to participate in the Center's program to advertise
168. their cultured aquatic products.

169. (h) Provide for increased opportunities to market all
170. Mississippi cultured aquatic products by exposing the large number
171. of tourists, who visit the National Space Technology Laboratories
172. and the Center, to such products. The exposure can include the
173. sampling of finger-size samples of prepared products.

174. (i) Increase tourism to the Mississippi Gulf Coast area
175. by attracting tourists to visit the Center, to stay in coastal
176. hotels and to utilize restaurants and the services provided by
177. other Mississippi businesses.

178. (j) Inform aquaculturists of the availability of
179. forming aquatic products marketing associations under the state
180. "Co-operative Aquatic Products Marketing Law" and, as needed, aid
181. them in forming such associations.

182. The department may solicit and accept financial and
183. professional support from any private or public sources, including
184. the federal government.

185. SECTION 14. Establishment of commercial aquaculture
186. parks where a number of entrepreneur aquaculturists can establish
187. aquaculture ventures is encouraged and authorized. All
188. Mississippi governmental entities, universities and colleges are
189. to provide coordinated support for investors who are citizens of
190. the United States and would like to establish a commercial
191. aquaculture park in Mississippi and who intend to provide for
192. innovative and effective coordinated efforts within the park, as
193. well as among other parks, relative to water resource utilization,
194. production, processing, marketing, etc., applicable to cultured
195. aquatic products.

196. SECTION 15. Any person violating this act or any
197. regulation of the department issued under this act shall be
198. subject to a fine of not more than One Thousand Dollars
199. (\$1,000.00) for each violation nor less than Two Hundred Fifty
200. Dollars (\$250.00). In the case of a violation involving the
201. marketing of non-cultured game fish, each fish is counted as a
202. separate violation.

203. SECTION 16. State educational institutions shall be
204. subject to the above regulations but shall be exempt from fees.

205. SECTION 17. This act shall not apply to the catfish farming
206. industry and the provisions of this act shall not be construed to
207. regulate the growing, farming, harvesting, processing and sale of
208. catfish or catfish products which are harvested from privately
209. owned ponds and have been fed commercially prepared feed and have
210. been subject to a quality check before harvesting and processing.

211. SECTION 18. This act shall take effect and be in force from
212. and after July 1, 1988.

GUIDELINES
FOR
AQUACULTURE ACTIVITIES IN MISSISSIPPI

MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS
POST OFFICE BOX 451
JACKSON, MISSISSIPPI 39205-0451

1.0 INTRODUCTION

Summarized in the brochure are laws and regulations that were created by the Mississippi Aquaculture Act of 1988 and apply to aquaculturists and their activities in Mississippi.

The purpose of this Act is to improve coordination of aquaculture activities and enhance related opportunities and benefits to U.S. Citizens who are interested in pursuing aquaculture operations in Mississippi. The Act also provides a means of regulating these operations in the state that would not only be beneficial to aquaculturists, but will enhance and conserve a desired quality in our natural aquatic resources. The Act encourages aquaculture activities in Mississippi that enhances existing aquaculture enterprises and develops new ones to provide increased job opportunities and incomes for the benefit of Mississippians.

1.1 DEFINITIONS TO AQUACULTURE ACTIVITIES

"AQUACULTURE" means the process of growing, farming, cultivating and/ or harvesting of cultured aquatic products in marine or freshwaters and includes management by an aquaculturist.

"AQUACULTURIST" is a person who is engaged in the cultivating of cultured aquatic products.

"AQUACULTURE FACILITY" means any facility or resources that are used for aquaculture activities and operations in Mississippi.

"CULTURED AQUATIC PRODUCTS" are marine or freshwater plants or animals that are propagated, farmed or cultivated in an aquaculture facility under the supervision and management of an aquaculturist or that are naturally produced in an aquaculture facility which at the time of production are under the active supervision and management of an aquacultuist.

"DEPARTMENT" means the Mississippi Department of Wildlife Conservation.

"CULTIVATION/MARKETING PERMIT" is a permit issued by the DEPARTMENT, applicable to design criteria to prevent release of certain cultured aquatic products from an aquaculture facility into the environment. Also, this permit is to provide a mechanism for tracing certain marketed and cultured aquatic products to verify that they were cultured in an aquaculture facility and were not harvested from wild stocks and to prevent the release of undesirable species into the environment.

"BROODFISH COLLECTION PERMIT" is an approval by the DEPARTMENT for the collection of game fish broodstock from natural waters of the state. (case by case basis)

1.2 APPLICATION PROCEDURES

The aquaculturist must procure a permit application form from the department as identified below or any coordination review agency. Applications must be completed with appropriate information requested.

Requests and completed applications should be mailed to:

MISSISSIPPI DEPARTMENT OF WILDLIFE, FISHERIES AND PARKS

AQUACULTURE PERMIT
BUREAU OF FISHERIES
AND WILDLIFE
P. O. BOX 451
JACKSON, MS 39205

OR

AQUACULTURE PERMIT
BUREAU OF MARINE
RESOURCES
2620 BEACH BLVD.
BILOXI, MS 39531

Upon receipt of the application the DEPARTMENT will follow procedures which involve a one stop permitting process. This process benefits the applicants by increasing the effectiveness of the permit review and decreasing the amount of time needed to properly evaluate the permit.

Other agencies designated for regulatory and review actions are:

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
MISSISSIPPI DEPARTMENT OF HEALTH AND HUMAN RESOURCES
OFFICE OF THE SECRETARY OF STATE
MISSISSIPPI DEPARTMENT OF AGRICULTURE AND COMMERCE
MISSISSIPPI ECONOMIC DEVELOPMENT DEPARTMENT
U. S. ARMY CORPS OF ENGINEERS

This coordinated review process and state actions regarding permits should be completed within 90 calendar days from the date the application is received by the DEPARTMENT in the Jackson office.

1.3 AQUACULTURE ACTIVITIES REQUIRING PERMITS

Specific permit(s) are required of an Aquaculturist who produces aquatic products from the following aquatic plants and animals:

A. All non-native aquatic plants and animals, except as specified in Section 1.5.

B. Game fish in Mississippi with following exceptions:

1. Black basses, bream, crappie, flathead catfish, walleye and other members of the families Centrarchidae and Percidae cannot be produced and sold for food consumption but can be produced and sold for private recreational sportfishing waters only.

C. Endangered, Threatened or Protected species.

D. Genetically modified aquatic plants and animals by means other than breeding or crossbreeding.

State educational institutions and State and Federal agencies shall be subject to the act but shall be exempt from fees.

1.4 PERMIT SPECIFICATIONS

A. CULTIVATION/MARKETING PERMIT is required for all previously specified categories stated in section 1.3.

(\$100.00 Annual Fee)

1. Such permitted aquatic products must be accompanied by a bill of lading, way bill, invoice or other accountable document detailing the following:

a. Name, address and phone number of both the buyer and the seller.

b. Scientific or common name of product.

c. Quantity (weight and/or number) by species packaged for delivery to buyer.

d. The Cultivation/Marketing permit number issued by the DEPARTMENT.

e. Date of Shipment.

f. The permittee shall retain a copy of the bill of lading or similar accountable document for two years and make it available to the DEPARTMENT upon request.

2. All dead or live plants and animals specified in Section 1.3 must conform to one of the following categories.

CATEGORY I Live animals and plants transported from the permitted facility in containers.

a. Each container or box must be clearly labeled with information specified in 1.4A 1-6.

b. Live animals and plants transported using a live haul vehicle must be accompanied with information stated in 1.4A 1-6. This information must be maintained in the vehicle at all times during transport of the product.

1.5 PERMIT EXEMPT AQUACULTURE ACTIVITIES

- A. Culture of any currently recognized native aquatic plants, animals and non-game fish. However, marketing permits may be needed to aid in marketing products in other states or countries. The DEPARTMENT shall issue cultivation/ marketing permits requested for such reasons for \$100.00.
- B. Culture of catfish by the catfish industry, where initially catfish and catfish products are grown, farmed, and processed for sale and no other species of aquatic plants or animals are cultured for sale.
- C. Culture and retailers of tropical fish maintained in closed systems utilized by pet shops , hobbyist and their suppliers.
- D. Culture of minnows by Licensed Minnow Dealers. These activities are covered in 49-7-29 (DEPARTMENT regulations).
- E. Operation of fish-out lakes (pay-fishing lakes)

Although permit exceptions have been addressed above, it is recommended that all persons anticipating involvement in aquaculture activities in Mississippi should submit an application to the DEPARTMENT for review.

1.6 ISSUANCE OF PERMITS

- A. Only U.S. citizens are eligible to receive approved Cultivation/ Marketing permits in Mississippi.
Proof of Citizenship should be provided with application.
- B. Only after the DEPARTMENT approves application should the aquaculture facility receive or possess any of the aquatic products requested in application.
- C. Permits are valid for a period of one year from date of issuance. Permit fees will be \$100.00 for Cultivation/Marketing Permit. Other permit fees will be set by administering agencies.
- D. The permittee is required to submit the following information to the DEPARTMENT.
 - 1. The amounts by species of cultured aquatic products harvested and marketed, the amounts being in pounds and/or numbers depending on how organisms are marketed. If no such product have been marketed, this must be reported.
 - 2. Harvest data will be reported within 60 days of the end of each calendar year for permitted aquaculture activities.
 - 3. Failure to submit the specified information or any requested information to the DEPARTMENT shall result in cancellation within 60 days of the issuance of a certified written notice.

1.7 FACILITY INSPECTION AND HEALTH CERTIFICATION

1. The DEPARTMENT reserves the right to periodically inspect each facility for permit compliance.
2. Cultivation/marketing permits may include provisions for live animals or plants to be inspected for disease.

1.8 PROHIBITED SPECIES

The following animals and plants have been determined to be detrimental to our state's native resources and further sales or distribution are prohibited in Mississippi.

Sea lamprey Petromyzon marinus , All species of piranahs (including the genus Serrasalmus , Rooseveltiella , Serrasalmo , Phygoctrus , Teddyella , Pygoprictis).

Banded tetra, Mexican tetra or Silvery tetra Astyanax fasciatus , and Astyanax mexicanus .

Tiger characin Hydrolycus scomberides

Skinny Tiger characin Raphiodon vulpinus

Family Trichomycteridea Pygididae Parasitic catfishes; all species

Family Claridea; Air Breathing catfishes, Walking catfishes; all species

Hydrilla verticillata ; Water Hyacinth Eichhornia crassipes

Eurasian Watermilfoil Myriophyllum spicatum

1.9 BROODSTOCK ACQUISITION

Broodstock for aquaculture facilities may be obtained as follows:

- A. By legal sportfishing and commercial fishing harvest methods as allowed by existing regulations.
- B. By purchase of broodstock from a permitted aquaculture facility.
- C. Through use of an approved BROODSTOCK COLLECTION PERMIT from the DEPARTMENT.
 1. Harvest involves taking certain species from natural waters by temporarily approved methods not covered under existing regulations and limits.
 2. Collection under this permit requires compensation by:
 - a. Stocking waters with a specified size and number of organisms at time(s) and place(s) specified by the DEPARTMENT.
 - b. Providing a specified level of funds to the DEPARTMENT for production by the DEPARTMENT or its contractors of a specified number and size of organisms of a given species for stocking natural waters.

1. Determination of the level of compensation, if any, that is required will be made by the DEPARTMENT on the basis of the probable impact on wildstocks.
2. State educational institutions and state and federal agencies shall not be required to pay compensation for broodstock.
3. No broodstock taken from state waters will be allowed for sale or transport out of the state, except state educational institutions and state and federal agencies may transport such broodstock out of the state.

2.0 AQUACULTURE BUILDING REQUIREMENTS

Construction associated with aquaculture facilities shall not be required to exceed the building requirements specified for agricultural operations.

2.1 PENALTIES FOR VIOLATIONS

- A. Any person violating these guidelines or any regulations dealing with aquaculture shall be subject to a fine of not more than one thousand dollars (\$1,000.00) for each violation nor less than two hundred fifty dollars (\$250.00). In the case of violations involving marketing of non-cultured game fish, each fish will be counted as a separate violation.
- B. The permit(s) issued may be cancelled or suspended at any time by the DEPARTMENT upon conviction of a violation of the regulations by a court or competent jurisdiction or failure to follow specified requirements stated in the approved regulations. Cancellation or suspension may be appealed to the Commission on Wildlife Conservation.

MISSISSIPPI AQUACULTURE ACTIVITIES
APPLICATION AND NOTIFICATION

MISSISSIPPI DEPARTMENT OF WILDLIFE CONSERVATION
MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
U. S. DEPARTMENT OF ARMY, CORPS OF ENGINEERS

This form is to be used for proposed aquaculture activities in Mississippi. Note that some items apply only to activities located in the coastal area of Hancock, Harrison, and Jackson Counties. This application is not required for activities involving cultured catfish and other native plants and animals.

1. Date _____
month day year

2. Application Type (check one)
New _____
Renewal _____

3. Applicant (mailing address and telephone) _____

4. Project Location
Street Address _____
City/Community _____
Name of Nearest Natural Body of Water _____
Latitude _____ Longitude _____ (if known)
Geographic location Section _____ Township _____ Range _____
County _____ Southern Portion: _____ Northern Portion: _____
Directions to project site - vicinity map, etc. should be included with Attachment "A".

5. Proposed Activities
List specie(s) desired to purchase, culture, or sell. _____

Briefly describe culture method (ie pond, tanks, raceways, pens, etc.) Attach drawings or plans of proposed facility as Attachment "A".

If tags will be needed for marketing product (as specified in Category III in Guidelines) - Specify Quantity Needed: _____

6.

What is your proposed source for water? _____

If your source for well water involves a surface casing diameter of six inches or larger or is a lake or continuous free-flowing stream, you must complete an application for water withdrawal (BLW-AP-1) for each withdrawal point (Attachment C).

At maximum capacity, specify the following:

Surface Acreage: _____ Gallons Per Minute: _____

If your operation utilizes a flow-through water system, you must complete a wastewater discharge application (EPA Form 1 and Form 2C) (Attachment D).

Will your facility require broodstock collected from the waters of the State of Mississippi? If yes, explain and state the number required.

7.

Does the project area contain any marsh vegetation or wetland areas or bottomland hardwoods? Yes _____ No _____
If yes, state type and your estimate of the acreage amount.

Is any portion of the activity for which authorization is sought now complete? Yes _____ No _____ (If yes, Explain).

Has any agency denied approval for the activity described herein or for any activity that is directly related to the activity described herein? Yes _____ No _____ (If yes, Explain).

List expected start-up operational date(s) for permitted activities.

8.

Are you a U.S. Citizen? Yes _____ No _____

Complete enclosed form 1-9 (03/20/87) OMB No. 1115-0136 as Attachment "B".

9.

Certification and Signatures

Application is hereby made for authorization to conduct the activities described herein. I agree to provide any additional information/data that may be necessary to provide reasonable assurance or evidence to show that the proposed project will comply with the applicable state water quality standards or other environmental protection standards both during construction and operational modes. I also agree to provide entry to the project site for inspectors from the environmental protection agencies for the purpose of making preliminary analyses of the site and monitoring permitted works. I certify that I am familiar with and responsible for the information contained in this application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities and that I have read the Department of Wildlife Conservation Guidelines Governing the Permitting of Aquaculture Activities in Mississippi and agree to operate under these regulations.

Signature of Applicant or Agent

Date

10.

Mississippi Coastal Program Certification (Coastal area only)

I certify that the proposed project for which authorization is sought complies with the Mississippi Coastal Wetlands Protection Act and the Mississippi Coastal Program and will be conducted in a manner consistent with these regulatory programs.

Signature of Applicant or Agent

Date

11.

For Agency Use Only

Inspected by _____

Date _____

Permit(s) Required _____

Permit Issued & Permit Number _____

Other Agencies Permit Numbers _____

12.

Fees

Payable to State of Mississippi

State of Mississippi Fee to be included with application to the Bureau of Fisheries and Wildlife.

13.

Send one completed copy of this application form to each agency listed below:

Mississippi Department of Wildlife, Fisheries and Parks,
P. O. Box 451
Jackson, MS 39205
Attn: Aquaculture Permit
Phone: (601) 961-5342

District Engineer
U.S. Army Engineer
District Mobile
Attn: SAMOP-S
P.O. Box 2288
Mobile, AL 36628
Phone: (205) 694-3775

OR

Mississippi Department of Wildlife, Fisheries and Parks, Bureau of Marine Resources
2620 Beach Blvd.
Biloxi, MS 39531
Attn: Aquaculture Permit
Phone: (601) 385-5860

District Engineer
U.S. Army Engineer
District Vicksburg
Attn: LMKOD-FE
P. O. Box 60
Vicksburg, MS 39180
Phone: (601) 634-5289

14.

In addition to the completed application form, to aid in a one stop permitting process, the following attachments are required:

Attachment "A" Drawings/Plans

Provide a vicinity map showing the location of the proposed site along with a written description of how to reach the site from major highways or landmarks. Provide accurate drawings of the project site with proposed activities shown in detail. All drawings must be to scale or with dimensions noted on drawings and must show a plan view and cross section or elevation. Use 8 1/2" X 11" white paper or drawing sheet attached.

Attachment "B" Employment Eligibility Verification

Form 1-9 (03/20/87) OMB No. 1115-0136. Completion is required to supply information specified by the Ms. Aquaculture Act of 1988.

Attachment "C" - If applicant needs assistance in completing this Form (BLW-AP-1) contact:
Bureau of Land & Water, P. O. Box 10361, Jackson, MS 39205, Phone (601) 961-5203.

Attachment "D" - Assistance in completing EPA-Form 1-2C contact:
Bureau of Control Pollution, P. O. Box 10385, Jackson, MS 39205, Phone (601) 961-5171.

Attachment "E" Authorized Agent

If applicant desires to have an agent or consultant act in his behalf for permit coordination, a signed authorization designating said agent must be provided with the application forms. The authorized agent named may sign the application forms and the consistency statement.

Attachment "F" Environmental Assessment (Coastal area only)

Provide an appropriate report or statement assessing environmental impacts of the proposed activity and the final project dependent on it. The project's effects on the wetlands and the effects on the life dependent on them should be addressed. Also provide a complete description of any measures to be taken to reduce detrimental offsite effects to the coastal wetlands during construction and operational modes.

Attachment "G" Variance or Revisions to Mississippi Coastal Program (Coastal area only)

If the applicant is requesting a variance to the guidelines in Section 2, Part III, or a revision to the Coastal Wetlands Use Plan in Section 2, Part IV, of the Rules, Regulations, Guidelines and Procedures of the Mississippi Coastal Program a request and justification must be provided.

List all approvals or certifications received or applied for from Federal, state, or local agencies for any activities described in this application. Note that the signature in "Certification and Signatures" certifies that application has been made to or that permits are not required from the following agencies. If permits are not required, place NA in space for Type Approval.

<u>Agency</u>	<u>Type Approval</u>	<u>Application Date</u>	<u>Approval Date</u>	<u>Permit Category</u>	<u>Permit Number</u>
Bureau of Fisheries and Wildlife	_____	_____	_____	_____	_____
Bureau of Pollution Control	_____	_____	_____	_____	_____
Bureau of Marine Resources	_____	_____	_____	_____	_____
U.S. Army Corps of Engineers	_____	_____	_____	_____	_____

City (if applicable): _____

County: _____

APPENDIX C - TEXAS

30--170

1

AN ACT

2 relating to the promotion and regulation of the fish farming
3 industry and to the introduction of fish, shellfish, and aquatic
4 plants into public water; providing penalties.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

6 SECTION 1. This Act shall be known as the Fish Farming Act
7 of 1989.

8 SECTION 2. Except as provided by Section 134.020,
9 Agriculture Code, as added by this Act, regulating exotic fish
10 species, the powers and duties of the Parks and Wildlife Commission
11 and the Parks and Wildlife Department with regard to the regulation
12 of fish farms are transferred, as provided by this Act, to the
13 commissioner of agriculture and the Department of Agriculture on
14 the effective date of this Act.

15 SECTION 3. Chapter 48, Parks and Wildlife Code, is
16 transferred to Subtitle A, Title 6, Agriculture Code, designated as
17 Chapter 134, and amended to read as follows:

18 CHAPTER 134 [48]. REGULATION OF FISH FARMS AND CULTURED

19 FISH-PROCESSING PLANTS [FARMER'S LICENSE]

20 SUBCHAPTER A. GENERAL PROVISIONS

21 Sec. 134.001 [48-001]. DEFINITIONS. In this chapter:

22 (1) "Cultured fish" means farm-raised fish or
23 shellfish.

24 (2) "Exotic fish species" means a nonindigenous fish
25 or shellfish species that is not normally found in the water of the

1 state.

2 (3) "Fish farmer" means any person engaged in fish
3 farming.

4 (4) "Fish farming" means the business of producing,
5 propagating, transporting, possessing, and selling cultured fish
6 raised in a private pond, but does not include [~~a-person-engaged~~
7 ~~in~~] the business of producing, propagating, transporting,
8 possessing, and selling cultured fish propagated for bait purposes.

9 (5) [~~2~~] "Private pond" means a pond, reservoir, vat,
10 or other structure capable of holding cultured fish in confinement
11 wholly within or on the enclosed land of an owner, [~~e~~] lessor, or
12 lessee.

13 (6) [~~3~~] "Owner" means a fish farmer licensed by the
14 department.

15 Sec. 134.002. FISH FARM PROGRAM. The department shall
16 establish a fish farm program that:

17 (1) develops and conducts a plan for promoting fish
18 farm products;

19 (2) licenses and regulates fish-farming operations;

20 (3) licenses and regulates cultured fish-processing
21 plants;

22 (4) provides technical assistance, including
23 demonstrations, to fish farmers;

24 (5) provides coordinated support through colleges and
25 universities and other governmental entities;

26 (6) solicits financial support from the federal

1 government for the fish farm industry;

2 (7) develops and expands the fish farm industry to:

3 (A) stimulate the state's economy; and

4 (B) offer alternative crop opportunities; and

5 (8) performs other functions and activities as
6 required by law.

7 Sec. 134.003. PROGRAM ADMINISTRATOR; STAFF. (a) The
8 department may designate a person to administer the fish farm
9 program.

10 (b) The department or the program administrator may employ
11 the necessary staff to carry out the functions and duties of the
12 department under this chapter.

13 Sec. 134.004. CONTRACTS. The department may contract with
14 the General Land Office, the Parks and Wildlife Department, and the
15 Texas Agricultural Extension Service for assistance in carrying out
16 the purposes of this chapter.

17 Sec. 134.005. RULES. (a) The department shall adopt rules
18 to carry out the fish farm program.

19 (b) The rules may not conflict with rules issued under
20 Section 134.020 of this code.

21 Sec. 134.006. FISH FARM FUND. (a) The fish farm fund is
22 established in the state treasury.

23 (b) The department shall deposit to the credit of the fund
24 the fees received from licenses issued under this chapter.

25 (c) The fish farm fund may be used only to administer this
26 chapter.

1 [Sections 134.007-134.010 reserved for expansion]

2 SUBCHAPTER B. FISH FARMS

3 Sec. 134.011 [~~48-002~~]. FISH FARMER'S LICENSE REQUIRED. A
4 [~~No~~] person may not be a fish farmer without first having acquired
5 from the department a fish farmer's license.

6 Sec. 134.012 [~~48-003~~]. FISH FARM VEHICLE LICENSE REQUIRED.

7 (a) Except as provided by Subsection (b) of this section, a
8 vehicle used to transport fish from a fish farm for sale from the
9 vehicle is required to have a fish farm vehicle license.

10 (b) A fish farm vehicle license is not required for a
11 vehicle owned and operated by the holder of a fish farmer's
12 license.

13 Sec. 134.013 [~~48-004~~]. BILL OF LADING REQUIRED FOR CERTAIN
14 VEHICLES. A vehicle, from which no fish sales are made,
15 transporting cultured fish from a fish farm shall carry a bill of
16 lading that shows the number and species of cultured fish carried,
17 the name of the owner and the location and license number of the
18 fish farm from which the fish were transported, and the destination
19 of the cargo.

20 Sec. 134.014 [~~48-005~~]. LICENSE FEES. The department shall
21 issue a fish farmer's license or a fish farm vehicle license on the
22 payment of a fee, in [~~\$10-fer-each-license-or~~] an amount set by the
23 commissioner, not to exceed \$100 [~~commissioner, whichever amount is~~
24 ~~more~~].

25 Sec. 134.015 [~~48-006~~]. FORM, [AND] DURATION, AND RENEWAL OF
26 LICENSE. (a) A fish farmer's license and a fish farm vehicle

1 license must be on a numbered form provided by the department.

2 (b) A license is valid for two years after the date of
3 issuance. The department shall renew a license on submission by
4 the licensee of a completed application and a renewal fee in an
5 amount set by the commissioner under Subsection (c) of this section
6 unless the department determines that the licensee has violated
7 this chapter or a rule adopted under this chapter [~~from-September-1~~
8 ~~or--the--date--of--issue,-whichever-is-later,-through-the-following~~
9 August-31].

10 (c) The department shall establish by rule a graduated
11 renewal fee schedule designed to recover an amount that, when added
12 to the fees collected under Section 134.014 of this code, is
13 sufficient to administer this subchapter. The fee schedule shall
14 be based on the gross receipts from the sale of cultured fish sold
15 by a licensee during the first 21 months of the period covered by
16 the expiring license. The fee schedule shall require that
17 licensees having a relatively large amount of gross receipts pay
18 the highest fee.

19 (d) The department shall suspend a license if the
20 aquaculture executive committee makes a determination as provided
21 by Section 1.204, Parks and Wildlife Code.

22 Sec. 134.016 [48-008]. RECORDS. The holder of a fish
23 farmer's license shall maintain a record of the sales and shipments
24 of cultured fish. The record is open for inspection by designated
25 employees of the department.

26 Sec. 134.017 [48-009]. HARVESTING AND SALE OF FISH.

1 Cultured fish [~~Fish~~] of any size from a fish farm may be harvested
2 and sold at any time and in any county.

3 Sec. 134.018 [~~48-010~~]. SALES OF BASS AND CRAPPIE LIMITED.

4 (a) Except as provided in Subsection (b) of this section, a [~~no~~]
5 person may not sell bass or crappie from a fish farm for
6 consumption or for resale.

7 (b) Bass and crappie may be sold for resale to a licensed
8 fish farmer only, and to any person for stocking purposes.

9 (c) Other kinds of cultured fish from a fish farm may be
10 sold for any purpose unless prohibited by other law.

11 Sec. 134.019 [~~48-010~~]. MARKETING OF CULTURED REDFISH AND

12 CULTURED SPECKLED SEA TROUT. (a) The commissioner [~~commissioner~~]
13 shall adopt rules providing for the raising, sale, transportation,
14 and possession of cultured redfish and cultured speckled sea trout
15 raised by a fish farmer licensed under this chapter.

16 (b) The rules shall provide for and require the
17 identification of cultured redfish and cultured speckled sea trout
18 raised by a fish farmer under this chapter.

19 Sec. 134.020. EXOTIC FISH SPECIES. (a) The Parks and

20 Wildlife Commission shall adopt rules regulating the importation,
21 possession, propagation, and sale of harmful or potentially harmful
22 exotic fish species by a fish farmer.

23 (b) The Parks and Wildlife Commission, after consulting with
24 the commissioner and an individual designated by the chairman of
25 the board of regents of The Texas A&M University System, shall
26 determine and publish a list of harmful or potentially harmful

1 exotic fish species that a fish farmer may not import, possess, or
2 sell as part of the person's fish-farming activities.

3 (c) A fish farmer may not release in public water harmful or
4 potentially harmful exotic fish species except as provided by
5 Section 66.007, Parks and Wildlife Code.

6 (d) The Parks and Wildlife Department shall enforce the
7 rules adopted under this section.

8 Sec. 134.021 [48-011]. FEDERAL GRANTS. Federal grants for
9 research and development of commercial fisheries may be used for
10 individual fish farm [fishery] projects [~~with-the-approval--of--the~~
11 ~~department~~].

12 [~~Sec--48-012--PENALTIES----(a)---Except---as--provided--by~~
13 ~~Subsection-(b)-of-this-section,-a-person-who-violates-any-provision~~
14 ~~of-this-chapter-or-rule--adopted--under--this--chapter--commits--an~~
15 ~~offense-that-is-a-Class-C-Parks-and-Wildlife-Code-misdemeanor-~~

16 [~~(b)--A--person--who--violates-Section-48-013-of-this-code-by~~
17 ~~taking-fish-of-a-value-of-more-than-\$200-commits-an-offense-that-is~~
18 ~~a-Class-B-Parks-and-Wildlife-Code-misdemeanor-~~]

19 Sec. 134.022 [48-013]. FISH FARMS PROTECTED. (a) A [No]
20 person, other than the owner or operator of a fish farm [~~or-a~~
21 ~~person-with-the-owner's-or-operator's-consent~~], may not fish on [~~or~~
22 ~~take-fish-from~~] a fish farm without the consent of the owner or
23 operator.

24 (b) A person may not unlawfully, as defined by Section
25 31.03(b), Penal Code, acquire or otherwise exercise control over
26 cultured fish with intent to deprive the owner of the cultured

1 fish.

2 Sec. 134.023. PENALTIES. (a) Except as provided by
3 Subsection (b), (c), or (d) of this section, a person who violates
4 any provision of this chapter or rule adopted under this chapter
5 commits an offense that is a Class C misdemeanor.

6 (b) A person who violates Section 134.019 or 134.020 of this
7 code commits an offense that is a Class B misdemeanor.

8 (c) A person who violates Section 134.022(b) of this code by
9 taking fish of a value of \$200 or more but less than \$750 commits
10 an offense that is a Class A misdemeanor.

11 (d) A person who violates Section 134.022(b) of this code by
12 taking fish of a value of \$750 or more commits an offense that is a
13 felony of the third degree.

14 [Sections 134.024-134.030 reserved for expansion]

15 SUBCHAPTER C. PROCESSING PLANTS

16 Sec. 134.031. LICENSE REQUIRED. (a) A person may not
17 operate a cultured-fish processing plant unless the person has a
18 license for that plant.

19 (b) A separate license is required for each plant.

20 Sec. 134.032. LICENSE ISSUANCE. (a) The department shall
21 issue a license to a person who operates a plant that conforms to
22 the rules adopted under this subchapter.

23 (b) A license is nontransferable.

24 (c) A person who operates a cultured-fish processing plant
25 must annually apply for a new license for each plant.

26 (d) The department may consult with other state agencies on

1 the requirements for a license issued under this section.

2 Sec. 134.033. LICENSE FEE. The department shall set the fee
3 for a cultured-fish processing plant license in an amount necessary
4 to cover the cost of administering this subchapter.

5 Sec. 134.034. RULES. The department shall adopt rules for
6 the licensing of a cultured-fish processing plant.

7 Sec. 134.035. PENALTY. (a) A person commits an offense if
8 the person violates this subchapter or a rule adopted under this
9 subchapter.

10 (b) An offense under this section is a Class C misdemeanor.

11 Sec. 134.036. TEXAS DEPARTMENT OF HEALTH REGULATIONS. This
12 subchapter does not affect the authority of the Texas Department of
13 Health to regulate food-processing plants.

14 SECTION 4. Section 12.009, Agriculture Code, is amended by
15 amending Subsection (a) and adding Subsection (c) to read as
16 follows:

17 (a) The department shall inquire into subjects relating to
18 stock raising, dairying, and poultry, the obtaining and rearing of
19 the most valuable domestic animals and fowls, and the breeding and
20 improvement of those animals and fowls. The department shall
21 encourage the [~~raising-ef-fish-and-the~~] culture of bees.

22 (c) The department shall encourage the raising of cultured
23 fish, the development of the fish-farming industry, and the
24 marketing of fish farm products. In this subsection, "cultured
25 fish" and "fish farming" have the meanings assigned by Section
26 134.001 of this code.

1 SECTION 5. Chapter 1, Parks and Wildlife Code, is amended by
2 adding Subchapter D to read as follows:

3 SUBCHAPTER D. AQUACULTURE EXECUTIVE COMMITTEE

4 AND LIAISON OFFICER

5 Sec. 1.201. AQUACULTURE EXECUTIVE COMMITTEE. The
6 aquaculture executive committee consists of the chairman, the
7 commissioner of agriculture, and the commissioner of the General
8 Land Office.

9 Sec. 1.202. DEFINITION. In this subchapter, "fish farming"
10 has the meaning assigned by Section 134.001, Agriculture Code.

11 Sec. 1.203. RULES. The aquaculture executive committee with
12 the advice of the department shall adopt rules to ensure that
13 fish-farming operations do not have a negative impact on the
14 existing marine or biological ecosystem.

15 Sec. 1.204. SUSPENSION OF LICENSE. If the aquaculture
16 executive committee determines that a particular fish-farming
17 operation has violated a rule adopted under Section 1.203 of this
18 code, the Department of Agriculture shall suspend the license of
19 that fish-farming operation until the committee issues a notice
20 approving the continuation of the fish-farming operation.

21 Sec. 1.205. EMPLOYMENT OF OFFICER. (a) The aquaculture
22 executive committee shall employ an aquaculture liaison officer to
23 perform the duties listed in Section 1.206 of this code.

24 (b) The committee shall set the salary of the officer. The
25 department, the Department of Agriculture, and the General Land
26 Office shall each provide one-third of the salary of the officer.

1 (c) The officer serves at the pleasure of the committee.

2 Sec. 1.206. DUTIES OF OFFICER. (a) The aquaculture liaison
3 officer shall:

4 (1) coordinate activities concerning the aquaculture
5 industry between the state agencies having regulatory authority
6 over that industry;

7 (2) report to the aquaculture executive committee
8 every six months, or more often in the discretion of the officer,
9 and to the legislature before the beginning of each regular
10 session, concerning the status of the aquaculture industry in the
11 state; and

12 (3) assist the commission in drafting the rules
13 required to be adopted under Section 134.020(a), Agriculture Code.

14 (b) A report under Subsection (a)(2) of this section may
15 include recommendations to promote the state's aquaculture industry
16 or to improve the cooperation between the state agencies having
17 regulatory authority over the industry.

18 SECTION 6. Section 11.032, Parks and Wildlife Code, is
19 amended to read as follows:

20 Sec. 11.032. GAME, FISH, AND WATER SAFETY FUND: SOURCES.

21 The department shall deposit to the credit of the game, fish, and
22 water safety fund all revenue, less allowable costs, from the
23 following sources:

24 (1) all types of fishing licenses and stamps and
25 shrimping licenses;

26 (2) all types of hunting licenses and stamps;

1 (3) trapping licenses and other licenses relating to
2 the taking, propagation, and sale of fur-bearing animals or their
3 pelts;

4 (4) sale of marl, sand, gravel, shell, and mudshell;

5 (5) oyster bed rentals and permits;

6 (6) federal funds received for research and
7 development of commercial fisheries and state funds appropriated
8 for this purpose;

9 (7) sale of property, less advertising costs,
10 purchased from this fund or a special fund that is now part of this
11 fund;

12 (8) fines and penalties collected for violations of a
13 law pertaining to the protection and conservation of wild birds,
14 wild fowl, wild animals, fish, shrimp, oysters, game birds and
15 animals, fur-bearing animals, alligators, and any other wildlife
16 resources of this state;

17 (9) sale of rough fish by the department;

18 (10) fees for importation permits;

19 (11) [~~fish-farm-licenses~~;

20 [~~{12}~~] fees from supplying fish for or placing fish in
21 water located on private property;

22 (12) [~~{13}~~] sale of seized pelts;

23 (13) [~~{14}~~] sale or lease of grazing rights to and the
24 products from game preserves, sanctuaries, and management areas;

25 (14) [~~{15}~~] contracts for the removal of fur-bearing
26 animals and reptiles from wildlife management areas;

- 1 (15) [~~16~~] motorboat registration fees;
- 2 (16) [~~17~~] motorboat manufacturer or dealer
- 3 registration fee;
- 4 (17) [~~18~~] fines or penalties imposed by a court for
- 5 violation of water safety laws contained in Chapter 31 of this
- 6 code;
- 7 (18) [~~19~~] alligator hunter's or alligator buyer's
- 8 licenses;
- 9 (19) [~~20~~] sale of alligators or any part of an
- 10 alligator by the department; and
- 11 (20) [~~21~~] any other source provided by law.

12 SECTION 7. Section 12.015, Parks and Wildlife Code, is

13 amended to read as follows:

14 Sec. 12.015. REGULATION OF FISH, SHELLFISH, AND [NOXIOUS]

15 AQUATIC PLANTS. The department shall regulate the introduction and

16 stocking of fish, shellfish, and aquatic plants into the public

17 water of the state. [~~(a)~~--In this section, "noxious-aquatic-plant"

18 ~~means--a--plant-that-thrives-in-water,-marshes,-or-swamps-and-that-~~

19 ~~[~~(1)~~--is-harmful-or-potentially-harmful-to-human--life,~~

20 ~~[~~(2)~~--may-impede-navigation,-or~~

21 ~~[~~(3)~~--may---diminish---the--quality--of--water-oriented~~

22 ~~recreational-areas-~~

23 [~~(b)~~--The-department-shall:-

24 [~~(1)~~--identify-noxious-aquatic-plants,

25 [~~(2)~~--publish-a-list-of-the-names--of--noxious--aquatic

26 ~~plants-identified-by-the-department,-and~~

1 [~~(3)~~--make-rules-and-regulations-necessary-to-carry-out
2 this-section-

3 [~~(c)~~--The--department--may-issue-permits-for-the-importation,
4 sale,-transport,-or-release-of-noxious-aquatic-plants-identified-by
5 the-department-if-the-department-finds-that-the-proposed-use-of-the
6 noxious-aquatic-plants-by-the-permit--applicant--will--not--pose--a
7 danger-to-persons,-wildlife-resources,-or-water-resources-

8 [~~(d)~~--No--person--may--intentionally--or--knowingly-import-or
9 intentionally-or-knowingly-sell,-transport,-or--release--in--this
10 state--a--noxious-aquatic-plant-identified-by-the-department-unless
11 the-person-has-an-unexpired-written-permit-issued-by-the-department
12 authorizing-the-importation,-sale,-transportation,-or-release-]

13 SECTION 8. Section 66.007, Parks and Wildlife Code, is
14 amended to read as follows:

15 Sec. 66.007. EXOTIC HARMFUL OR POTENTIALLY HARMFUL
16 [TROPICAL] FISH, SHELLFISH, AND AQUATIC PLANTS. (a) No person may
17 import, possess, sell, or place [release] into water of this state
18 exotic harmful or potentially harmful [tropical] fish, shellfish,
19 or aquatic plants except as authorized by rule or permit issued by
20 the department [or--fish--eggs--unless--he--has--acquired--from--the
21 department--a--written--permit].

22 (b) The department shall [determine-and] publish a list of
23 exotic [tropical] fish, shellfish, and aquatic plants for which a
24 permit under Subsection (a) of this section is required [that--are
25 harmful-or-potentially-harmful-to-human-or-other-animal-life].

26 (c) The department shall make rules to carry out the

1 provisions of this section.

2 (d) A fish farmer may import, possess, or sell harmful or
3 potentially harmful exotic fish species as provided by Section
4 134.020, Agriculture Code.

5 (e) In this section, exotic fish, shellfish, or aquatic
6 plant means a nonindigenous fish, shellfish, or aquatic plant that
7 is not normally found in the public water of the state.

8 SECTION 9. Subsections (b), (c), and (d), Section 66.012,
9 Parks and Wildlife Code, are amended to read as follows:

10 (b) Except as otherwise provided by this section, a [A]
11 person who violates Section 66.003, 66.004, 66.005, 66.007, 66.009,
12 66.015, or 66.0091 of this code commits an offense that is a Class
13 B Parks and Wildlife Code misdemeanor.

14 ~~(c) [If--it--is--shown--at--the--trial--of--the--defendant--for--a~~
15 ~~violation--of--Section--66.004--of--this--code--that--he--has--been--convicted~~
16 ~~within--five--years--before--the--trial--date--of--a--violation--of--that~~
17 ~~section,--on--conviction--he--shall--be--punished--for--a--Class--B--Parks--and~~
18 ~~Wildlife--Code--misdemeanor--~~

19 [~~d~~] If it is shown at the trial of the defendant for a
20 violation of Section 66.004, 66.007, or 66.015 of this code that he
21 has been convicted once before the trial date [two--or--more--times]
22 of a violation of the same [that] section [and--that--one--conviction
23 occurred--within--five--years--before--the--trial--date], on conviction he
24 shall be punished for a Class A Parks and Wildlife Code
25 misdemeanor.

26 (d) If it is shown at the trial of the defendant for a

1 violation of Section 66.004, 66.007, or 66.015 of this code that he
2 has been convicted two or more times before the trial date of a
3 violation of the same section, on conviction he shall be punished
4 for a Parks and Wildlife Code felony.

5 SECTION 10. Chapter 66, Parks and Wildlife Code, is amended
6 by adding Section 66.013 to read as follows:

7 Sec. 66.013. FEDERAL GRANTS. Federal grants for research
8 and development of commercial fisheries may be used for individual
9 fishery projects with the approval of the department.

10 SECTION 11. Chapter 66, Parks and Wildlife Code, is amended
11 by adding Section 66.015 to read as follows:

12 Sec. 66.015. INTRODUCTION OF FISH, SHELLFISH, AND AQUATIC
13 PLANTS. (a) In this section, "public water" means the bays,
14 estuaries, and water of the Gulf of Mexico within the jurisdiction
15 of the state, and the rivers, streams, creeks, bayous, reservoirs,
16 lakes, and portions of those waters where public access is
17 available without discrimination.

18 (b) No person may place any species of fish, shellfish, or
19 aquatic plant into the public water of the state without a permit
20 issued by the department.

21 (c) The department shall establish rules and regulations
22 governing the issuance of permits under this section.

23 (d) This section does not apply to native, nongame fish as
24 defined by the commission.

25 (e) A person violates this section if fish, shellfish, or
26 aquatic plants the person possesses or has placed in nonpublic

1 water escape into the public water of the state and the person does
2 not hold a permit issued under this section.

3 (f) An employee of the department acting at the direction of
4 the commission is exempt from this section.

5 SECTION 12. (a) This Act takes effect September 1, 1989.

6 (b) The Department of Agriculture shall implement the fish
7 farm program under Section 134.003, Agriculture Code, as added by
8 this Act, not later than January 1, 1990, and the department shall
9 adopt rules under Chapter 134, Agriculture Code, not later than
10 that date. The department shall publish notice of implementation
11 of the program in the Texas Register not later than the 30th day
12 before the date the department implements the program. The initial
13 rules adopted by the department under Chapter 134, Agriculture
14 Code, as added by this Act, take effect on the date the program is
15 implemented by the department.

16 (c) Section 134.023, Agriculture Code, as added by this Act,
17 applies to an offense under Chapter 134, Agriculture Code, as added
18 by this Act, that occurs on or after the date the fish farm program
19 is implemented. An offense under Chapter 48, Parks and Wildlife
20 Code, that occurs or occurred before the date the program is
21 implemented is covered by the law as it existed at the time of the
22 offense, including rules in effect at that time, and the former law
23 is continued in effect for that purpose. For purposes of this
24 subsection, an offense is committed before the date the program is
25 implemented if any element of the offense occurs before that date.

26 (d) The changes in law made by Sections 66.007 and 66.012,

1 Parks and Wildlife Code, as amended by this Act, and Section
2 66.015, Parks and Wildlife Code, as added by this Act, apply only
3 to offenses committed on or after the effective date of this Act.
4 For purposes of this subsection, an offense is committed before the
5 effective date of this Act if any element of the offense occurs
6 before that date. An offense committed before the effective date
7 of this Act is covered by the law in effect when the offense was
8 committed, and the former law is continued in effect for this
9 purpose.

10 (e) A fish farmer's license or a fish farm vehicle license
11 issued by the Parks and Wildlife Department that is in effect on
12 August 31, 1989, expires on the 31st day after the date the fish
13 farm program is implemented.

14 (f) A person operating a processing plant that produces
15 cultured fish products must apply for the license required by
16 Section 134.031, Agriculture Code, as added by this Act, not later
17 than the 30th day after the date the fish farm program is
18 implemented.

19 (g) The rules adopted under Chapter 48, Parks and Wildlife
20 Code, and in effect on the effective date of this Act, remain in
21 effect until the effective date of initial rules adopted by the
22 Department of Agriculture under Chapter 134, Agriculture Code, as
23 added by this Act.

24 (h) The Parks and Wildlife Commission shall adopt rules
25 under Subsection (a), Section 134.020, Agriculture Code, as added
26 by this Act, and the chairman of the Parks and Wildlife Commission

1 shall publish the list required by Subsection (b), Section 134.020,
2 Agriculture Code, as added by this Act, not later than three months
3 after the effective date of this Act. The authority granted under
4 Subsection (d), Section 66.007, Parks and Wildlife Code, as added
5 by this Act, does not apply until the date that rules adopted under
6 Subsection (a), Section 134.020, Agriculture Code, as added by this
7 Act, take effect.

8 SECTION 13. The importance of this legislation and the
9 crowded condition of the calendars in both houses create an
10 emergency and an imperative public necessity that the
11 constitutional rule requiring bills to be read on three several
12 days in each house be suspended, and this rule is hereby suspended.

President of the Senate

Speaker of the House

I hereby certify that S.B. No. 1507 passed the Senate on April 20, 1989, by a viva-voce vote; and that the Senate concurred in House amendment on May 28, 1989, by a viva-voce vote.

Secretary of the Senate

I hereby certify that S.B. No. 1507 passed the House, with amendment, on May 26, 1989, by a non-record vote.

Chief Clerk of the House

Approved:

Date

Governor

LEGISLATIVE BUDGET BOARD

Austin, Texas

FISCAL NOTE

May 10, 1989

TO: Honorable Robert Saunders, Chair In Re: House Committee Substitute for
Committee on Environmental Affairs Senate Bill No. 1507
House of Representatives
Austin, Texas

FROM: Jim Oliver, Director

In response to your request for a Fiscal Note on House Committee Substitute for Senate Bill No. 1507 (relating to the promotion and regulation of the fish farming industry; and to the introduction of fish, shellfish, and aquatic plants into public water; providing penalties) this office has determined the following:

The bill would make no appropriation but could provide the legal basis for an appropriation of funds to implement the provisions of the bill.

The bill would transfer the regulation and promotion of fish farming from the Parks and Wildlife Department to the Department of Agriculture. The bill would also establish the Fish Farm Fund in the treasury to be used for administration, promotion and regulation of cultured fish farming activities in the State. Authority to issue fish farming licenses and collect fees for those licenses would be given to the Department of Agriculture by the bill. License fees specified by the bill and collected by the Department of Agriculture would be deposited into the Fish Farm Fund. The department would be required to establish, by rule, a graduated renewal fee schedule designed to recover an amount that when added to the initial license fees specified by the bill, is sufficient to administer the regulation of Fish Farms. The bill would require the department to set the fee for a cultured-fish processing plant in an amount sufficient to recover the cost of administering the regulation of cultured-fish processing plants.

The bill would establish the Aquaculture Executive Committee and designate an Aquaculture Liason Officer who would assist in developing rules and regulations and coordinate the activities of State agencies pertaining to aquaculture.

The bill would remove all authority to regulate, promote, and collect fees relating to aquaculture, with the exception of that relating to harmful or potentially harmful exotic fish species, from the Parks and Wildlife Department.

The bill would result in a revenue loss to the Game, Fish and Water Safety Fund No. 9 of \$563,728 per year. This revenue is in the form of a federal grant to the Parks and Wildlife Department for individual fisheries projects.

Fee revenue estimates are based on current fee revenue collection. The amount of fee revenue which would be collected by the Department of Agriculture, as required by the cost recovery provisions of the bill, cannot be determined.

The probable fiscal implication of implementing the provisions of the bill during each of the first five years following passage is estimated as follows:

<u>Fiscal Year</u>	<u>Probable Cost Out of the Game, Fish, and Water Safety Fund No. 9</u>	<u>Probable Cost Out of the General Revenue Fund</u>	<u>Probable Cost Out of the Fish Farm Fund</u>
1990	\$17,267	\$172,148	\$22,600
1991	17,267	156,148	22,600
1992	17,267	156,148	22,600
1993	17,267	156,148	22,600
1994	17,267	156,148	22,600

<u>Probable Revenue Gain to the Fish Farm Fund</u>	<u>Probable Revenue Loss to the Game, Fish, and Water Safety Fund No. 9</u>	<u>Change in Number of State Employees from FY 1989</u>
\$22,600	\$563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4

Similar annual fiscal implications would continue as long as the provisions of the bill are in effect.

No fiscal implication to units of local government is anticipated.

Criminal Justice Policy Impact Statement: No change in the sanctions applicable to adults convicted of felony crimes is anticipated.

Source: Department of Agriculture; General Land Office; Parks and Wildlife Department; Attorney General;
LBB Staff: JO, JWH, AL, LD, CKM

LEGISLATIVE BUDGET BOARD

Austin, Texas

FISCAL NOTE

April 18, 1989

TO: Honorable H. Tati Santiesteban, Chairman In Re: Committee Substitute
Committee on Natural Resources for Senate Bill
Senate Chamber No. 1507
Austin, Texas

FROM: Jim Oliver, Director

In response to your request for a Fiscal Note on Committee Substitute for Senate Bill No. 1507 (relating to the promotion and regulation of the fish farming industry; providing penalties) this office has determined the following:

The bill would make no appropriation but could provide the legal basis for an appropriation of funds to implement the provisions of the bill.

The bill would transfer the regulation and promotion of fish farming from the Parks and Wildlife Department to the Department of Agriculture. The bill would also establish the Fish Farm Fund in the treasury to be used for administration, promotion and regulation of cultured fish farming activities in the State. Authority to issue fish farming licenses and collect fees for those licenses would be given to the Department of Agriculture by the bill. License fees specified by the bill and collected by the Department of Agriculture would be deposited into the Fish Farm Fund. The department would be required to establish, by rule, a graduated renewal fee schedule designed to recover an amount that when added to the initial license fees specified by the bill, is sufficient to administer the regulation of Fish Farms. The bill would require the department to set the fee for a cultured-fish processing plant in an amount sufficient to recover the cost of administering the regulation of cultured-fish processing plants.

The bill would establish the Aquaculture Executive Committee and designate an Aquaculture Liason Officer who would assist in developing rules and regulations and coordinate the activities of State agencies pertaining to aquaculture.

The bill would remove all authority to regulate, promote, and collect fees relating to aquaculture, with the exception of that relating to harmful or potentially harmful exotic fish species, from the Parks and Wildlife Department.

The bill would result in a revenue loss to the Game, Fish and Water Safety Fund No. 9 of \$563,728 per year. This revenue is in the form of a federal grant to the Parks and Wildlife Department for individual fisheries projects.

Fee revenue estimates are based on current fee revenue collection. The amount of fee revenue which would be collected by the Department of Agriculture, as required by the cost recovery provisions of the bill, cannot be determined.

The probable fiscal implication of implementing the provisions of the bill during each of the first five years following passage is estimated as follows:

<u>Fiscal Year</u>	<u>Probable Cost Out of the Game, Fish, and Water Safety Fund No. 9</u>	<u>Probable Cost Out of the General Revenue Fund</u>	<u>Probable Cost Out of the Fish Farm Fund</u>
1990	\$17,267	\$172,148	\$22,600
1991	17,267	156,148	22,600
1992	17,267	156,148	22,600
1993	17,267	156,148	22,600
1994	17,267	156,148	22,600

<u>Probable Revenue Gain to the Fish Farm Fund</u>	<u>Probable Revenue Loss to the Game, Fish, and Water Safety Fund No. 9</u>	<u>Change in Number of State Employees from FY 1989</u>
\$22,600	\$563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4

Similar annual fiscal implications would continue as long as the provisions of the bill are in effect.

No fiscal implication to units of local government is anticipated.

Source: Department of Agriculture; General Land Office; Parks and Wildlife Department; Attorney General;
LBB Staff: JO, JWH, AL, LD, CKM

LEGISLATIVE BUDGET BOARD

Austin, Texas

FISCAL NOTE

April 5, 1989

TO: Honorable H. Tati Santiesteban, Chairman In Re: Senate Bill No. 1507
Committee on Natural Resources By: Brooks, et. al.
Senate Chamber
Austin, Texas

FROM: Jim Oliver, Director

In response to your request for a Fiscal Note on Senate Bill No. 1507 (relating to the promotion and regulation of the fish farming industry; providing penalties) this office has determined the following:

The bill would make no appropriation but could provide the legal basis for an appropriation of funds to implement the provisions of the bill.

The bill would transfer the regulation and promotion of fish farming from the Parks and Wildlife Department to the Department of Agriculture. The bill would also establish the Fish Farm Fund in the treasury to be used for administration, promotion and regulation of cultured fish farming activities in the State. Authority to issue fish farming licenses and collect fees for those licenses would be given to the Department of Agriculture by the bill. License fees specified by the bill and collected by the Department of Agriculture would be deposited into the Fish Farm Fund.

The bill would establish the Aquaculture Executive Committee and designate an Aquaculture Liason Officer who would assist in developing rules and regulations and coordinate the activities of State agencies pertaining to aquaculture.

The bill would remove all authority to regulate, promote, and collect fees relating to aquaculture, with the exception of that relating to harmful or potentially harmful exotic fish species, from the Parks and Wildlife Department.

The bill would result in a revenue loss to the Game, Fish and Water Safety Fund No. 9 of \$563,728 per year. This revenue is in the form of a federal grant to the Parks and Wildlife Department for individual fisheries projects.

The probable fiscal implication of implementing the provisions of the bill during each of the first five years following passage is estimated as follows:

Fiscal Year	Probable Cost Out of the Game, Fish, and Water Safety Fund No. 9	Probable Cost Out of the General Revenue Fund	Probable Cost Out of the Fish Farm Fund
1990	\$17,267	\$172,148	\$22,600
1991	17,267	156,148	22,600
1992	17,267	156,148	22,600
1993	17,267	156,148	22,600
1994	17,267	156,148	22,600

<u>Probable Revenue Gain to the Fish Farm Fund</u>	<u>Probable Revenue Loss to the Game, Fish, and Water Safety Fund No. 9</u>	<u>Change in Number of State Employees from FY 1989</u>
\$22,600	\$563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4
22,600	563,728	+ 4

Similar annual fiscal implications would continue as long as the provisions of the bill are in effect.

No fiscal implication to units of local government is anticipated.

Source: Department of Agriculture; General Land Office; Parks and Wildlife Department; Attorney General;
LBB Staff: JO, JWH, AL, LD, CKM

APPENDIX C-2

Texas Parks and Wildlife Department
Fisheries

Page 1 of 13

POTENTIALLY HARMFUL FISH, SHELLFISH, OR AQUATIC PLANTS PROCLAMATION

1. Introduction.

The Texas Parks and Wildlife Department adopts new §§57.111-57.119. Sections 57.111 and 57.117 are adopted with changes to the proposed text as published in the October 3, 1989 issue of the Texas Register (14 TexReg 5232). Sections 57.112-57.116 and 57.117-57.119 are adopted without changes and will not be republished.

These changes were the result of public comment, consultation with Texas A&M University and the Texas Department of Agriculture, consultation with other governmental agencies, and continued review of available scientific literature. In general, conservation interests agreed with these changes or did not feel the sections were as stringent as necessary. Aquaculture interests felt that the sections were too restrictive, particularly as they pertain to the Tilapia species and the carps. In addition, opposition was voiced to the policy of defining an exotic species as harmful or potentially harmful upon first documented occurrence of the species in the public waters of Texas.

Changes in §57.111, as adopted, include:

(A) Redefinition of those genera of family Cyprinidae considered harmful or potentially harmful to include *Abramis*, *Aristichthys*, *Aspius*, *Aspiolucius*, *Blicca*, *Catla*, *Cirrhinna*, *Ctenopharyngodon*, *Elopichthys*, *Hypophthalmichthys*, *Leuciscus*, *Megalobrama*, *Mylopharyngodon*, *Parabramis*, *Pseudaspius*, *Rutilus*, *Scardinius*, *Thynnichthys*, *Tor*, and the species *Barbus tor* (synonymous with *Barbus hexoagoniolepis*) except grass carp hybrid (*Ctenopharyngodon idella* x *Aristichthys/Hypophthalmichthys nobilis*). This redefinition resulted in a substantial reduction in the number of cyprinid species defined as harmful or potentially harmful;

(B) Redefinition of the harmful or potentially harmful parasitic catfish species as all species of the family Trichomycteridae to only those in subfamilies Stegophilinae and Vandelliinae. This redefinition decreased the number of species of the family Trichomycteridae defined as harmful or potentially harmful;

(C) Redefinition of the harmful or potentially harmful crayfish with removal of the genus *Cherax*.

2. Justification for the rules.

All species of exotic fish, shellfish, and aquatic plants can be designated as harmful or potentially harmful and prohibited, except under permit, from importation, possession, sale, purchase, propagation, and release in Texas public waters. While this is the most conservative approach to protection of the state's aquatic resources, this is not the most practical approach.

The sections as adopted are intended to concomitantly protect the native fish, shellfish, and plant resources of the state with minimum impact on those industries which use aquatic organisms. A limited number of exotic species is defined as harmful or

potentially harmful based upon current scientific literature, consultation with other state and federal agencies, and comments received from the public.

3. How the Rules Will Function.

The sections as adopted provide adequate safeguards at this time for protecting native aquatic species by: (1) defining those exotic aquatic species which can not be imported, sold, purchased, propagated, possessed, or released into Texas public waters except by permit from the Department; and (2) providing a policy whereby exotic species can be defined as Harmful or Potentially Harmful.

4. Summary of Comments.

Comments by the public about the proposed new rules were presented to the Parks and Wildlife Commission in the form of compromise rules, petitions, letters, and summaries of phone calls. No comments were received via the Texas Register. Comments received in opposition to the proposed rules include: (1) Texas Aquaculture Association, Texas A&M University, Texas Department of Agriculture stated that rules interfere with development of the aquaculture industry; (2) Texas Aquaculture Association commented that the sections should allow all Tilapia species due to inherent poor cold tolerance of these species; (3) Red Ewald Inc. commented that all species of tilapia, carp species, and other fishes with economic potential should be allowed under the same permitting procedure as is in place for *Tilapia aurea*, *T. mozambique*, and the hybrids of these species; (4) Texas Aquaculture Association and Texas Department of Agriculture supported rules to allow those carp species necessary for development of aquaculture; (5) Texas Department of Agriculture commented that species should be placed on the banned list only upon presentation of clear and convincing evidence of their threat to Texas' waterways, that the burden of proof as to the potential harm of a species should rest with the regulatory agency, and that a process should be implemented for the permitting of tilapia and carp species; (6) Texas A&M University stated that the process for petitioning changes in the list of harmful or potentially harmful species was unclear and potentially cumbersome; (7) Texas Freshwater Lobster and the University of Texas at Austin commented that crayfishes of the genus *Cherax* should not be listed as harmful or potentially harmful; (8) Lilypons Water Gardens Inc. commented that grass carp (*Ctenopharyngodon idella*) should not be considered harmful or potentially harmful; (9) Texas Aquaculture Association commented that allowing use of the hybrid grass carp (*Ctenopharyngodon idella* x *Aristichthys/Hypophthalmichthys nobilis*) hybrids while prohibiting the parental species could result in litigation; (10) Sportsmen Conservationists of Texas and the Sierra Club suggested that the sections are not strict enough, all non-native species should be banned, and that the burden of proof about potential for harm as a result of species importation should rest with the entity wishing to bring it into Texas; (11) Sportsmen Conservationists of Texas and the University of Texas at Austin commented that a list of acceptable species should be published instead of a list of

prohibited species; (12) several aquarium interests commented that state government should not interfere with the private maintenance of aquaria; (13) The Texas Association of Bass Clubs, the Texas Shrimpers Association, and Texas Black Bass Unlimited commented that the rules as proposed by the department appear to be sufficient to protect the state's aquatic resources; (14) Lilypons Water Gardens Inc. commented that waterlettuce (*Pistia stratiotes*) should not be considered harmful or potentially harmful; (15) University of Texas at Austin Marine Science Institute commented that the definition of the exotic aquatic plant species which appear in the section "closing the gate after the cows are out"; (16) Fritz Pet Product suggested that the banded knifefishes (family Gymnotidae) should not be defined as harmful or potentially harmful; (17) Texas Aquaculture Association commented that the Legislative intent of the phrase "not normally found in the waters of the state" (the Agriculture Code, Chapter 134, §134.001) was meant to exclude tilapia and established exotic plant species from definition as harmful or potentially harmful; (18) a legislative representative stated that while the legislative intent of Senate Bill 1507 was that of protection of native natural aquatic resources and promotion of aquaculture, it was not intended to allow non-regulated use of any species exotic fish, shellfish, and aquatic plants. All public comments are available for public inspection at the Texas Parks and Wildlife Department Headquarters Complex, 4200 Smith School Road, Austin, Texas 78744, 1-800-792-1112, ext. 4641 or (512) 389-4641.

5. Names of Groups or Associations Making Comments For and Against the Rules.

Those groups or Associations who made comments against the sections as proposed included: Texas Aquaculture Association, University of Texas at Austin, Texas A&M University, Texas Department of Agriculture, Lilypons Water Gardens Inc., Red Ewald Inc., Texas Freshwater Lobsters, Fritz Pet Products, the Sierra Club and Sportsmen Conservationists of Texas. The Sierra Club and Sportsman Conservationists of Texas indicated that the proposed sections were not restrictive enough, whereas the remainder of these groups generally opposed the restrictions of the sections upon the aquaculture industry.

Groups of Associations who supported the sections included: Texas Black Bass Unlimited, the Texas Association of Bass Clubs, and Texas Shrimpers Association.

6. Reasons Why Agency Disagrees With Comments.

With the exception of Comment 13, the agency disagrees with the preceding comments as follows (using the same numbering system as in the summary of comments): (1) the current scientific literature supports the designation of all species of exotic fish, shellfish, and aquatic plants as "Harmful or Potentially Harmful." However, the sections as adopted serve to protect native aquatic resources from degradation and depletion resulting from releases of exotic species that pose the most serious threat should they escape into public waters. These sections have no effect on the use of native

species in the aquaculture industry; (2) previous commission policy has recognized the harm of tilapia species in Texas. Tilapia have become more widespread than previously thought possible despite reported poor low temperature tolerance. An extensive review of the available information was conducted by the agency in 1988 and resulted in sections similar to those proposed in these sections. No new information has been given the agency that would change the substance of these sections; (3) allowing harmful or potentially harmful exotic species not presently in the state increases the risk of accidental escapement and establishment in the state's public waters; (4) carp species pose a threat to native fish species through direct and indirect competition and degradation of aquatic habitat. Species of carp allowed into the state are likely to be introduced, either directly or through accidental release, into the waters of the state. Feral bighead carp have become established in Missouri, feral silver and bighead carp are surviving in Arkansas; (5 and 6) the agency believes the information available to the commission for the listing of each species is persuasive. The Administrative Procedure and Texas Register Act provides the process for petition for adoption of sections. The agency has an established procedure for the consideration of petitions for section changes; (7) after review of scientific literature and contact with Australian biologists, staff agreed with these comments and the *Cherax* species were not defined as harmful or potentially harmful; (8) grass carp is a harmful or potentially harmful exotic species because its ability to eliminate aquatic vegetation habitat necessary for production of native fishes, and any action to liberalize the proposed sections should at least await the outcome of current grass carp research being conducted by the agency and Texas A&M University; (9) reproduction and survival of both bighead carp and grass carp in river systems of the Midwest have been well documented. These species have been defined as harmful or potentially harmful based upon their potential for becoming established in the Texas waters and their destructive tendency to vegetative fish habitat and food chains; (10) exclusion of all non-native fish, shellfish, and aquatic plants is both impractical and unwarranted. Such an exclusionary process would seriously affect industries which pose little or no danger to native aquatic species; (11) a list of acceptable species would be prohibitively long, cumbersome, and likely incomplete. For example, many of the variants of species used in the aquarium business can not be listed by species and would therefore be prohibited from use; (12) many of the species of exotic fish and most of the exotic aquatic plant species that have become established in the United States have been introduced through the aquarium trade. The sections, as adopted, are intended to minimize the potential risk of release and establishment in Texas public waters of species that could be maintained in aquaria; (13) staff agreed with these comments; (14) waterlettuce appears to be more cold tolerant than previously reported. This species, at the time of adoption of these sections, is problematic in at least Lake Jackson; (15) while many exotic aquatic plant species are widespread throughout the state, eradication programs are in place for these species and the sections are meant to prevent further spread of these species; (16) knifefishes (family Gymnotidae) were first listed as

prohibited in 1974 because of their aggressive behavior. At the time of adoption of these sections, the available information did not warrant removal of knifefishes from the list of species defined as harmful or potentially harmful; (17) exotic species are not "normally" found in the waters of the state. Tilapia species and exotic aquatic plant species, while often widespread in the state, were introduced and are not part of the indigenous Texas fauna and flora; (18) comments from the legislative representative were in support of Agency interpretation of the phrase not normally found in the waters of the state (the Agriculture Code, Chapter 134, §134.001).

The factual basis for the sections as adopted is drawn from: (1) published scientific investigations and reports of introductions of exotic fish, shellfish, and aquatic plants in Texas, other states, and other countries; (2) published scientific reports of the effects of introductions of exotic fish, shellfish, and aquatic plants on indigenous species; (3) information about current species prohibited, partially prohibited, or permitted by other governmental agencies; (4) published scientific literature describing the taxonomy, life history, and biology of exotic fish, shellfish, and aquatic plants; (5) an inventory of those species of fish, shellfish, and aquatic plants which are indigenous to Texas and normally found in the public water of the state. The review of these information sources by the department's scientific staff resulted in the staff's reports and expert testimony in commission hearings that each of the species listed in these regulations is an exotic harmful or potentially harmful species.

7. Statutory Authority; Interpretation of How Provisions Authorize or Require the Rules.

The new rules are adopted under the Parks and Wildlife Code, §66.007 and §66.015 and the Agriculture Code, §134.020 as amended by the 71st Legislature, 1989, which provides the Texas Parks and Wildlife Department authority to determine and regulate exotic harmful or potentially harmful fish, and aquatic plants.

By their terms, the cited statutes expressly require the sections adopted herein. The Parks and Wildlife Code, §66.007, requires that the agency publish a list of exotic harmful or potentially harmful fish, shellfish, and aquatic plants for which a permit is required. The Texas Agriculture Code, §134.020, requires that the agency determine and publish a list of harmful or potentially harmful fish species, and the Parks and Wildlife Code, §66.015, requires the agency to establish rules and regulations governing the issuance of permits for the introduction of fish, shellfish, and aquatic plants into public waters.

§57.111. Definitions.

The following words and terms, when used in these rules, shall have the following meanings:

Culture - the business of producing, propagating, transporting, possessing, and selling of fish raised in a private pond.

Department - The Texas Parks and Wildlife Department.
Director - The Executive Director of the Texas Parks and Wildlife
Department.

Harmful or Potentially Harmful Exotic Fish -

- | | | |
|------|---|---|
| (1) | Lampreys
Family: Petromyzontidae | All Species except
<u>Ichthyomyzon</u>
<u>castaneus</u>
and <u>I. gagei</u> |
| (2) | Freshwater Stingrays
Family: Potamotrygonidae | All Species |
| (3) | Arapaima
Family: Osteoglossidae | <u>Arapaima gigas</u> |
| (4) | South American Pike
Characoids
Family: Characoids | All Species of genus
<u>Acestrorhyncus</u> |
| (5) | African Tiger Fishes
Subfamily: Hydrocyninae | All Species |
| (6) | Piranhas and Priambebus
Subfamily: Serrasalminae | All Species |
| (7) | Rhaphiodontid Characoids
Subfamily: Rhaphiodontinae | All Species of genera
<u>Hydrolycus</u> and
<u>Rhaphiodon</u>
(synonymous
with <u>Cynodon</u>) |
| (8) | Dourados
Subfamily: Bryconinae | All Species of genus
<u>Salminus</u> |
| (9) | South American Tiger Fishes
Family: Erythrinidae | All Species |
| (10) | South American Pike
Characoids
Family: Ctenolucidae | All Species of genera
<u>Ctenolucius</u> and
<u>Luciocharax</u>
(synonymous) |

- | | | |
|------|--|---|
| | | with <u>Boulengerella</u>
and <u>Hydrocinus</u>) |
| (11) | African Pike Characoids
Families: Hepsetidae
Ichthyboridae | All Species |
| (12) | Knifefishes
Family: Gymnotidae | All Species |
| (13) | Electric eels
Family: Electrophoridae | <u>Electrophorus</u>
<u>electricus</u> |
| (14) | Carps and Minnow
Family: Cyprinidae | All Species
of genera:
<u>Abramis</u> ,
<u>Aristichthys</u> ,
<u>Aspius</u> ,
<u>Aspiolucius</u> ,
<u>Blicca</u> , <u>Catla</u> ,
<u>Cirrhina</u> ,
<u>Ctenopharyngodon</u>
<u>Elopichthys</u> ,
<u>Hypophthalmichthys</u>
<u>Leuciscus</u> ,
<u>Megalobrama</u> ,
<u>Mylopharyngodon</u> ,
<u>Parabramis</u> ,
<u>Pseudaspius</u> ,
<u>Rutilus</u> , <u>Scardinius</u> ,
<u>Tinnichthys</u> , <u>Tor</u> ,
and the species
<u>Barbus tor</u>
(synonymous with
<u>Barbus</u>
<u>hexoagoniolepis</u>)
Except grass carp
hybrid
(<u>Ctenopharyngodon</u>
<u>idella</u> x
<u>Aristichthys</u> / |

- Hypophthalmichthys nobilis)
- (15) Walking Catfishes
Family: Clariidae All Species
 - (16) Electric Catfishes
Family: Malapteruridae All Species
 - (17) South American Parasitic
Subfamilies: Stegophilinae All Species
Vandelliinae Candiru Catfishes
 - (18) Pike Killifish
Family: Poeciliidae Belonesox belizanus
 - (19) Marine Stonefishes
Family: Synanceiidae All Species
 - (20) South American Pike
Cichlids All Species of genera
Family: Cichlidae Crenicichia and
Batrachops
 - (21) Tilapia
Family: Cichlidae All Species of genus
Tilapia (including
Sarotherodon and
Oreochromis)
 - (22) Asian Pikeheads
Family: Luciocephalidae All Species
 - (23) Snakeheads
Family: Channidae All Species
- (c) Harmful or Potentially Harmful Exotic Shellfish -
- (1) Crayfishes
Family: Astacidae Astacopsis gouldi
 - (2) Mittercrabs
Family: Grapsidae All Species of genus
Eriocheir

Harmful or Potentially Harmful Exotic Plants -

- (1) Giant Duckweed (*Spirodela oligorhiza*)
Family: Lemnaceae
- (2) Salvinia (*Salvinia rotundifolia*)
Family: Salviniaceae
- (3) Water Fern (*Azolla caroliniana*)
Family: Salviniaceae
- (4) Waterhyacinth (*Eichhornia crassipes*)
Family: Pontederiaceae
- (5) Waterlettuce (*Pistia stratiotes*)
Family: Araceae
- (6) Hydrilla (*Hydrilla verticillata*)
Family: Hydrocharitaceae
- (7) Egeria (*Egeria densa*)
Family: Hydrocharitaceae
- (8) Lagarosiphon (*Lagarosiphon major*)
Family: Hydrocharitaceae
- (9) Eurasian Watermilfoil (*Myriophyllum spicatum*)
Family: Haloragaceae
- (10) Alligatorweed (*Alternanthera philoxeroides*)
Family: Amaranthaceae
- (11) Rooted Waterhyacinth (*Eichhornia azurea*)
Family: Pontederiaceae
- (12) Paperbark (*Melaleuca quincuenervia*)
Family: Myrtaceae
- (13) Torpedograss (*Panicum repens*)
Family: Gramineae

Private pond - means a pond, reservoir, vat or other structure capable of holding cultured species of fish, shellfish or aquatic plants in confinement wholly within or on the enclosed land of an owner, lessor or lessee.

Public waters - bays, estuaries, and water of the Gulf of Mexico within the jurisdiction of the state, and the rivers, streams, creeks, bayous, reservoirs, lakes and portions of those waters where public access is available without discrimination.

§57.112. General Provision.

Except as provided by these rules, it is an offense for any person to release into public waters, import, sell, purchase, propagate or possess any species, hybrid among species, subspecies, eggs, seeds, or any reproductive part of any species defined as harmful or potentially harmful exotic fish, shellfish, or aquatic plant.

§57.113. Exceptions.

(a) A person may possess harmful or potentially harmful exotic fishes if that person has documented evidence that the person possessed the species prior to July 2, 1974.

(b) A person who holds a scientific or zoological permit issued by the department may possess the exotic harmful or potentially harmful fish, shellfish, and aquatic plants authorized in the permit.

(c) Exotic harmful or potentially harmful fish may be possessed by any person without a permit if the intestines are removed.

(d) A person licensed as a fish farmer who also holds a Texas Tilapia Permit issued by the department may possess and culture blue tilapia (*Tilapia aurea*), Mozambique tilapia (*Tilapia mossambica*) and hybrids between these two species as provided in these rules.

(e) Except as provided in subsection (f) live blue and Mozambique tilapia and hybrids of these two species may be sold only by a Texas Tilapia Permit holder.

(f) A licensed retail or wholesale fish dealer is not required to have a Texas Tilapia permit to purchase, sell, or possess live blue tilapia, Mozambique tilapia or hybrids between the two species unless the retail or wholesale fish dealer cultures one or more of these species.

(g) Tilapia may not be delivered to the final consumer unless dead with the intestines removed or packaged on ice, except for Mozambique tilapia may be sold live as forage for stocking in private ponds.

§57.114. Transportation of Live Tilapia.

(a) Transport of live tilapia is permitted by a licensed Fish Farmer who has in his immediate possession a valid Texas Tilapia Permit, by a commercial shipper acting for the permittee, or when transported between a warehouse and retail outlet within a company possessing a retail fish dealers license, and persons holding a valid zoological or scientific permit authorizing the transportation.

(b) Any person transporting live tilapia must have a Texas Tilapia Transport Invoice; except that tilapia covered under zoological or scientific permits may be transported under rules governing zoological or scientific permits.

(c) All motor vehicles, trailers or semitrailers transporting live tilapia for commercial purposes shall exhibit the inscription "Tilapia" on the right, left, and rear sides of the vehicle. The inscription shall read from left to right and shall be plainly visible at all times while transporting live tilapia. The inscription "Tilapia" shall be attached to or painted on the vehicle, trailer, or semitrailer in letters of good proportion in contrasting color to the background and be at least eight inches in height.

§57.115. Texas Tilapia Transport Invoice.

(a) A Texas Tilapia Transport Invoice shall contain all the following information correctly stated and legibly written: invoice number; date of shipment; name, address, and phone number of the shipper; name, address, and phone number of the receiver; Texas Fish Farmers License number and Texas Tilapia Permit number, if applicable; number and total weight of tilapia by species; a check mark indicating interstate import, interstate export, or intrastate type of shipment. A completed invoice must individually accompany each shipment of tilapia, and must be sequentially numbered during the permit period; no invoice number shall be used twice or more during any one permit period by a permittee.

(b) The Texas Tilapia Transport Invoice must be provided by the permittee; one copy shall be retained by the permittee for a period of at least one year following shipping date.

(c) The permittee is responsible for supplying Texas Tilapia Transport Invoice copies to out-of-state dealers from which the permittee has ordered tilapia so that shipment will be properly marked and numbered upon delivery to the permittee in Texas.

(d) Owners, or their agents, of private waters stocked with Mozambique Tilapia by a Texas tilapia Permit holder must retain a copy of the Texas Tilapia Transport invoice for a period of one (1) year after the stocking date or as long as the tilapia are in the water, whichever is longer.

§57.116. Texas Tilapia.

(a) The director may issue a Texas Tilapia Permit to a licensed fish farmer for commercial production if the following requirements are met:

(1) Culture facilities must be designed to prevent discharge of water containing adult or juvenile tilapia or their eggs from the permittee's property.

(2) Facilities containing blue tilapia or hybrids between blue and Mozambique tilapia which are within the 100 year flood plain, referred to as Zone A on the National Flood Insurance Program Flood Insurance Map, are enclosed within an earthen or concrete dike or levee raised to an elevation of at least one foot above the 100 year flood elevation. This dike is constructed in such a manner to exclude all flood

waters. Dike construction must be approved by the department before the issuance of a permit.

- (b) To be considered for a Texas Tilapia Permit, the applicant must:
 - (1) Complete an initial Texas Tilapia Permit Application;
 - (2) Submit this application to the department;
 - (3) Possess a valid Texas Fish Farmer's License;
 - (4) Demonstrate to the Department's satisfaction that an

existing culture facility meets specifications described in §57.117 of this title (relating to Permits), or present plans for facilities in planning or in construction that will meet these specifications.

§57.117. Texas Tilapia Permit; Expiration, Renewal and Inspection.

(a) Permits required by these rules expire on August 31 of each year. Permits are renewable upon submission of a certificate to the Department by the owner of the facility stating that no material or substantial changes to the facility have been made during the prior permit period. Permits shall bear the same number each year.

(b) Permits are not transferable from site to site or from person to person. If substantial or material changes have been made to a facility during the permit period, the permittee must comply with the requirements stated in §57.116(b) for an initial permit.

(c) Permits must be made available to authorized department personnel upon request.

(d) An application for a permit must agree to allow inspection of their facilities by authorized employees of the department during normal business hours.

(e) An applicant for a permit must agree to provide a limited number of fish to authorized Department employees upon request for identification and analyses.

(f) If a permittee terminates tilapia production, the permittee shall lawfully remove or destroy all remaining tilapia.

(g) Texas Tilapia Permits are not required for holders of zoological or scientific permits who do not commercially propagate tilapia or for commercial shippers.

(h) An applicant for a permit must agree to provide documentation necessary to identify tilapia.

§57.118. Reports.

(a) Holders of harmful or potentially harmful exotic fish permits issued prior to January 1, 1974 may retain those live fish in their possession on that date and thereafter. The permit holder must submit an annual report on a form provided by the Department. The Department will then issue a new permit, renewable annually, only for those live fish legally possessed under the current permit.

(b) The Texas Tilapia Permit holder must submit an annual report on a form provided by the Department.

§57.119. Penalties.

The penalties for violation of this subchapter are prescribed by Parks and Wildlife Code, Section 66.012.

This agency hereby certifies that the proposed new rules have been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

**Texas Parks and Wildlife Department
4200 Smith School Road
Austin, Texas 78744**

License and Permit Requirements for Shellfish Culture in Texas

I. Shellfish Culture License

- A. This permit is required to culture aquatic species of crustaceans and mollusks, including oysters, clams, shrimp, prawns, and crabs of all varieties.
- B. The Shellfish Culture License applies only to private waters, not public.
- C. Fee - \$50.00
- D. Write Ron Simpson, License Sales, Texas Parks and Wildlife Department, enclose fee and include the following information:
 - 1. Owner's or manager's name;
 - 2. Home address;
 - 3. Business address; and
 - 4. County where business is located.

II. General Exotic Shellfish Culture Permit

- A. Needed for culture of exotic (non-native) species.
- B. Fee - None
- C. Apply to George C. Adams, Legal Counsel and Permits Branch, Texas Parks and Wildlife Department, with the following information:
 - 1. Name and address of permittee;
 - 2. Location where exotic species will be held;
 - 3. Species of exotic shellfish;
 - 4. Source of the exotic shellfish;
 - 5. A brief description of the hatchery facilities and efforts taken to insure that non-native species do not escape to the wild; and
 - 6. Agents, if any, who will be handling the shellfish.
- D. This permit will contain:
 - 1. A stipulation that, in the event that overflow or flooding of the ponds or tanks containing these