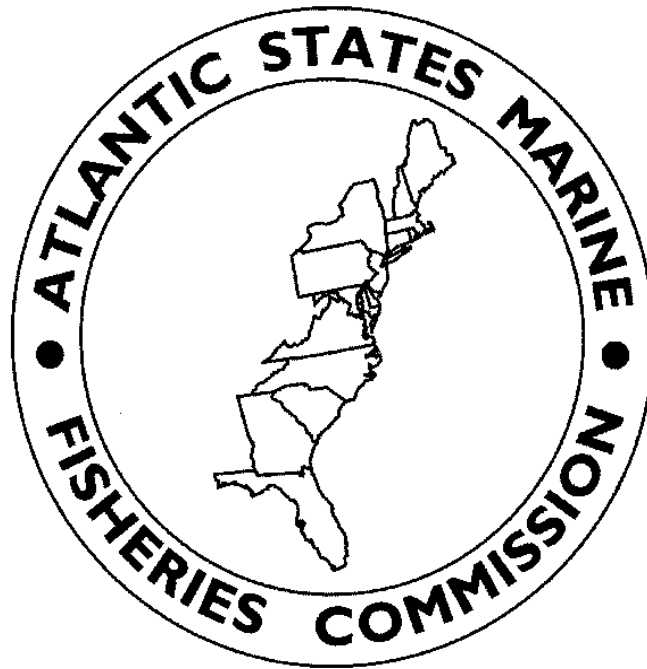


*Fishery Management Report No. 31c
of the
Atlantic States Marine Fisheries Commission*



**ADDENDUM II TO AMENDMENT 1 OF THE INTERSTATE
FISHERY MANAGEMENT PLAN FOR ATLANTIC STURGEON**

Prepared by the Atlantic Sturgeon Plan Review Team

May 2005

INTRODUCTION

North Carolina requested that the Atlantic States Marine Fisheries Commission's (Commission or ASMFC) Sturgeon Management Board (Board) begin development of an addendum for Amendment 1 to the Interstate Fishery Management Plan (FMP) for Atlantic Sturgeon. The purpose of the addendum is two fold: 1) to permit the importation of non-indigenous Atlantic sturgeon and 2) to permit the development of a private Atlantic sturgeon aquaculture facility in North Carolina.

Amendment 1 to the Atlantic Sturgeon FMP was approved in July 1998. The goal of Amendment 1 is to restore Atlantic sturgeon spawning stocks to population levels that will provide for sustainable fisheries, and ensure viable spawning populations. In order to achieve this goal the plan sets forth the following objectives:

- Establish 20 protected year classes of females in each spawning stock;
- Close the fishery for a sufficient time period to reestablish spawning stocks and increase numbers in current spawning stocks;
- Reduce or eliminate bycatch mortality;
- Determine the spawning sites and provide protection of spawning habitats for each spawning stock;
- Where feasible, reestablish access to historical spawning habitats for Atlantic sturgeon; and
- Conduct appropriate research as needed.

A moratorium on the possession and harvest of Atlantic sturgeon (whole or parts) currently exists throughout the Commission's member states and jurisdictions of the U.S. East Coast. Section 4.5 of the FMP provides flexibility to vary certain requirements as specified in Amendment 1 via adaptive management. For example, Addendum I to Amendment 1 was approved in January 2001, granting the Florida Department of Agriculture and Consumer Services an exemption, which allows possession of Atlantic sturgeon imported from Canadian sources for the purpose of commercial aquaculture production and sale.

Addendum II includes documentation supporting exemption requests for the purposes of 1) importation of non-indigenous Atlantic sturgeon and 2) the development of a private aquaculture facility. It requires compliance with ASMFC Terms, Limitations, Enforcement and Reporting Requirements (Fishery Management Report No. 31b) for each exception to the harvest and possession moratoria as outlined in Section 4 of the FMP. Upon adoption of this addendum by the Management Board, the affected state, North Carolina, shall prepare plans to carry out the addendum, and submit them to the Board for approval, according to the schedule contained in this addendum. States may, at any time, elect for more conservative regulations governing the importation/possession of Atlantic sturgeon.

EXEMPTIONS

Exemption 1 (LaPaz Group LLC)

Background on LaPaz Exemption

The LaPaz Group LLC (LaPaz) requested an exemption to allow for the importation of non-indigenous Atlantic sturgeon for commercial aquaculture production and sale.

LaPaz proposed to purchase from Acadian Sturgeon and Caviar (ASC; see below Exemption 2) up to 5,000 Atlantic sturgeon fry and/or fingerling per year for five years. Initially, the fry/fingerlings will be held at the North Carolina State University (NCSU) Coldwater Fisheries Facility in Fletcher, North Carolina. Dr. Jeff Hinshaw will oversee the holding of the fry/fingerlings while confirming identification and acceptable health. The sturgeon will then be transferred to LaPaz's grow-out facility in Lenoir, North Carolina. Dr. Tom Losordo (NCSU) provided LaPaz design assistance for its 'closed' recirculation aquaculture facility.

LaPaz's primary intent is to produce Atlantic sturgeon for sale as food fish and caviar. It plans to sell its products to individuals, retailers, and restaurants. LaPaz will sell to buyers within North Carolina as well as buyers in states within and outside of the Commission's jurisdiction. International sales are also an option provided such transactions are accompanied by CITES (Convention on International Trade of Endangered Species) permits for export. Atlantic sturgeon products will be tracked and documented by invoices, bills of sale, bills of lading, and other appropriate forms of documentation (e.g. aquaculture certification numbers and/or labeling).

Possession and Commercial Operation Exemption

The LaPaz Group requested an exemption to allow possession in North Carolina of Atlantic sturgeon fry/fingerlings that have been imported from Canadian sources for the purposes of commercial aquaculture production and sale. The exemption applicant will be required, at a minimum, to follow the ASMFC Terms, Limitations, Enforcement and Reporting Requirements (See Fishery Management Report No. 31b). North Carolina is required to monitor and report such adherence on an annual basis.

Additional Requirements (Request Specific)

In accordance with the requirements of Amendment 1, the following requirements are specific to the LaPaz exemption and shall be implemented, upon the approval of Addendum II, in addition to the ASMFC Terms, Limitations, Enforcement and Reporting Requirements. Additional requirements include:

- Sale of Atlantic sturgeon caviar from North Carolina culture sources will not be permitted until LaPaz meets an acceptable standard for traceability.
 - LaPaz must prove to ASMFC's satisfaction prior to its sale of caviar that such caviar was produced from LaPaz cultured fish.
- Sale of live Atlantic sturgeon from North Carolina culture sources for pet trade/aquarium trade will not be allowed. Live Atlantic sturgeon may however be provided to bona fide research or educational institutions with proper tracking and documentation, including eventual disposal procedures in accordance with Technical Addendum #1 to Amendment 1 to the FMP for Atlantic Sturgeon.
- Culture of live Atlantic sturgeon in North Carolina will not be allowed in any facility that fails to meet LaPaz Best Management Practice requirements (See Appendix A).

Implementation Schedule

The provisions and additional requirements listed above are considered compliance requirements and are effective immediately upon adoption of the addendum by the ASMFC. Within 90 days of adoption of Addendum II by the Management Board, North Carolina shall prepare a plan to carry out the addendum, and submit them to the Board for approval.

Rationale for LaPaz Exemption and Requirements

Commercial production of Atlantic sturgeon is expected to: 1) provide an alternative to land-based agriculture which in turn will create new employment opportunities, provide a quality seafood product to consumers, and reduce importation of seafood products; and 2) provide relevant scientific and technical information that will contribute to further understanding of sturgeon, including native species, which can be directed towards the recovery of natural populations.

Strategies developed by the Atlantic Sturgeon Plan Review Team (PRT) supplement those listed above to further reduce biological and ecological risks to native and wild sturgeon stocks. The PRT has concern about the potential for selling caviar from wild Atlantic sturgeon as caviar from cultured Atlantic sturgeon. No known laboratory or field test exists for criminal investigations distinguishing caviar from wild Atlantic sturgeon with that from cultured Atlantic sturgeon. The PRT recommends that sale of caviar from cultured sturgeon not be permitted until it is proven to ASMFC's satisfaction that such caviar was produced from cultured fish. The Board should consult with the appropriate parties (e.g. Law Enforcement Committee, Technical Committee) in deciding whether to accept LaPaz's proof of origin of its caviar. In addition, the PRT cannot control the accidental or planned release of live Atlantic sturgeon made available as a result of aquarium and/or pet trade. Therefore, the PRT has recommended prohibition of aquarium/pet trades for Atlantic sturgeon.

Exemption 2 (Acadian Sturgeon and Caviar)

Background on Acadian Sturgeon and Caviar Exemption

Acadian Sturgeon and Caviar (ASC) has requested an exemption to allow for the importation of live Atlantic sturgeon fry/fingerlings. The sale of live fry/fingerlings will involve a joint initiative between the ASC and a private aquaculturist, LaPaz. ASC's intent is to sell Atlantic sturgeon fry/fingerlings to a buyer, LaPaz, in the state of North Carolina.

Live Fingerlings Exemption (ASC's North Carolina Proposal)

An exemption has been requested by ACS, which would allow for the importation of non-indigenous Atlantic sturgeon fingerlings into the state of North Carolina. The exemption applicant is required, at a minimum, to follow the ASMFC Terms, Limitations, Enforcement and Reporting Requirements (See FMR No. 31b). North Carolina is required to monitor and report such adherence on an annual basis.

Additional Requirements (ASC Request Specific)

In accordance with the requirements of Amendment 1, the following requirements are specific to the ASC exemption and shall be implemented in addition to the ASMFC Terms, Limitations, Enforcement and Reporting Requirements. Additional requirements include:

- Importation/sale of Atlantic sturgeon live fry/fingerlings will be the only exemption allowed. Caviar importation/sale will not be permitted under this exemption.
- ASC will sell Atlantic sturgeon live fry/fingerlings to state permitted or licensed processors/buyers only.
- Fish will be sold and labeled as a Product of Canada.
- All shipments will be accompanied by a CITES permit as well as an inventory document which specifies the total weight, the number of fish in the shipment and inventory control numbers.
- One week prior to shipment, copies of all documentation will be sent to the concerned federal, state, and jurisdictional fisheries conservation and enforcement officials.
- Failure to provide appropriate documentation will result in forfeiture of exemption permit.

Implementation Schedule

The provisions and additional requirements listed above are considered compliance requirements and are effective immediately upon adoption by the ASMFC. Within 90 days of adoption of Addendum II by the Management Board, North Carolina shall prepare plans to carry out the addendum, and submit them to the Board for approval

Rationale for ASC Exemption

This exemption will provide the ASC with access to traditional American markets, while generating revenue from commercial sales. Currently, no suppliers in the United States can provide sufficient Atlantic sturgeon fry/fingerlings for the purpose of commercial production and sale. This exemption may also provide aquaculturists with the opportunity to develop new culture technologies for Atlantic sturgeon.

Appendix A: LaPaz Group Atlantic Sturgeon Best Management Practices

Management

Atlantic sturgeon will be cultivated by LaPaz Group LLC in a facility located at 1815 Highway 268, Lenoir, North Carolina. The design and operation of this facility will be predicated on measures that reduce or eliminate the potential for accidental introductions of sturgeon into any natural water course. LaPaz will adhere to all International, State, and Federal regulations regarding importation and aquaculture licensing/permitting processes.

Procurement Procedures

Under this exemption Lapaz Group LLC intends to import up to 5,000 fish (fry and /or fingerlings) per year for a period of five years. Fry or fingerlings will be purchased from Acadian Sturgeon & Caviar. All sturgeon will originate from either domesticated stock or properly authorized wild caught stock from viable populations of non-U.S. origin. Additionally,

- Importation or sale of caviar will not be permitted under this request, only the importation/sale of live Atlantic sturgeon fry/fingerlings.
- LaPaz Group LLC will buy live Atlantic sturgeon fry/fingerlings from Acadian Sturgeon & Caviar only.
- Fry/fingerlings will be sold and labeled as a Product of Canada.
- All shipments will be accompanied by a CITES permit and inventory document which specifies the total weight, the number of fish in the shipment and inventory control numbers.
- One week prior to shipment, copies of all documentation will be sent to the concerned federal, state, and jurisdictional fisheries conservation and enforcement officials as required.

Best Management Practices (BMPs)

In general, BMPs provide environmental protection related to wetland and storm-water impacts, water quality issues related to aquaculture effluents, the containment of non-native and restricted species, and minimize or limit the transmission of disease pathogens.

LaPaz Group LLC BMPs specify the conditions and management practices under which the LaPaz aquaculture facility must operate, and specifically address the conditions under which sturgeon can be imported, possessed, and cultured. LaPaz intends to: (1) document the source; (2) certify the health of the fish; (3) describe the operating plan for the facility; (4) reduce or eliminate the risk of cultured sturgeon being released or escaping into any natural water course; (5) maintain accurate records; and (6) require that the facility remain in compliance with other permits, licenses, and authorizations (e.g., permits, zoning, building codes). The Best Management Practices described in the following sections will be applied to culturing Atlantic sturgeon.

Growout Production

The LaPaz aquaculture facility is to be a 200,000-gallon ‘closed’ system utilizing circular tanks or rectangular raceways. The re-circulating system will incorporate oxygenation and bio-filter

mechanics, and a settling pond with any effluent subsequently applied to agricultural land with no discharge into any natural watercourse. The facility will use on-site well water. Dr. Tom Losordo and Dennis Delong, both of NC State University, will assist in design and startup phases of this project. The facility will provide barriers to prevent the escape of all life stages under cultivation.

All life stages will be cultivated within this facility.

Facility Operations

The LaPaz facility will be operated in compliance with resource management policies and recommendations, which prohibit the capture of wild native anadromous sturgeon, regardless of life stage, for broodstock or seedstock and prohibits the release of sturgeon fry, fingerlings, juveniles, or adults. Cultured Atlantic sturgeon cannot be sold or transferred to the aquarium/ornamental trade.

To avoid potential adverse impact, LaPaz will ensure that the facility has no discharge into any natural watercourse.

Approval for the culture of Atlantic sturgeon has been granted by NC Wildlife Resources Commission, subject to the following conditions:

- There will be no releases or sale of live fish without prior approval from the Wildlife Resources Commission.
- There will be no culture of any other non-indigenous fishes without specific written approval from the Wildlife Resources Commission.
- There will be no direct release of wastewater into any natural watercourse.
- Any material changes in the culture facilities must be approved in advance by the Wildlife Resources Commission.

Site Specifications

The LaPaz facility will be designed, operated and maintained with geographical and/or physical barriers in place to prevent the release of cultured sturgeon. The facility site at 1815 Highway 268, Lenoir, North Carolina is one-quarter mile from the Yadkin River, and is above the 100-year flood zone delineated by FEMA-Flood Insurance Rate Maps.

The LaPaz facility will meet all local and state zoning and construction requirements.

LaPaz will adhere to all International, Federal and State regulations, where applicable, which regulate habitat-altering activities such as containment facility discharge, facility location and operations.

Health Management

The Atlantic sturgeon fry/fingerlings shipped from Acadian Sturgeon & Caviar will be received by Dr. Jeff Hinshaw at NCSU's coldwater and coolwater aquaculture facility near Fletcher, NC, for initial evaluation of species validation and good health.

Tracking

LaPaz will identify sturgeon and all aquaculture products while possessed, transported or sold. Additionally, LaPaz will maintain documentation identifying the source of all life stages of sturgeon. This record-keeping process is designed to track the movement of sturgeon as an aquaculture product from its source to the consumer. Importation, transport, and sale of sturgeon products can be documented by invoices, bills of sale, bills of lading, and other appropriate forms of documentation.

All stock will be marked or tagged for identification. Forensic techniques of identification may be used in the future as they are developed and proven.

In the event of a release of sturgeon into surface waters of the state, the facility manager or designated representative will report, within 24 hours, the release to NC Wildlife Resources Commission. The report should include the species released, the approximate size and number of fish released, and the exact location of release.

Sale

Meat from LaPaz-raised Atlantic sturgeon will likely be sold in fillet or “bullet” form. LaPaz will sell to buyers within North Carolina and to buyers in other states under the regulations required for sale of sturgeon within the receiving state. International sales will require that the LaPaz obtain any required federal and CITES permits for export. Additionally,

- Sale of Atlantic Sturgeon caviar by LaPaz will not be allowed unless it is proven to ASMFC’s satisfaction that such caviar was produced from LaPaz cultured fish.
- Sale of live Atlantic Sturgeon for the pet trade/aquarium trade in any ASMFC state/jurisdiction will not be allowed. Live Atlantic Sturgeon may be provided to bona fide research or educational institutions with proper tracking and documentation, including eventual disposal procedures in accordance with ASMFC Technical Addendum #1.