



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, MD 20910

Permit No. 16645

Expiration Date: December 31, 2022

Report Due Dates

Monthly: end of February, March, April,
and May (when appropriate)

Annual: July 31

Final: 180 days after expiration

PERMIT TO INCIDENTALLY TAKE ENDANGERED/THREATENED SPECIES

I. AUTHORIZATION

The Georgia Department of Natural Resources [GA DNR; Principal Officers: Dan Forster and A.G. "Spud" Woodward] and all persons conducting covered activities¹ described in the Permit Holder's application, Conservation Plan, and supporting documents, signed in March 2012, are hereby authorized to incidentally take the endangered and threatened sturgeon specified below in the Georgia commercial shad fishery. This permit is subject to the provisions of Section 10 of the Endangered Species Act of 1973 (ESA)(16 U.S.C. " 1531-1543), the National Marine Fisheries Service (NMFS) regulations governing listed species permits (50 CFR Part 222), and the conditions in this permit.

II. ABSTRACT

On March 6, 2012, GA DNR submitted a complete application for an incidental take permit (ITP) for ESA-listed shortnose and Atlantic sturgeon that may be caught incidental to the otherwise lawful Georgia commercial shad fishery. On April 11, 2012, NMFS published a notice of receipt of GA DNR's application (File No. 16645) in the Federal Register (77 FR 21751). The comment period ended on June 11, 2012.

The State of Georgia has amended their commercial fishing regulations for the Georgia shad fishery to minimize the incidental capture of ESA-listed shortnose sturgeon (*Acipenser brevirostrum*) and Atlantic sturgeon (*A. oxyrinchus*, including South Atlantic, Carolina, and Chesapeake Bay Distinct Population Segements). The new regulations restrict fishing to the lower portions of the Savannah, Ogeechee, and Altamaha Rivers and close the fishery in the Satilla and St. Mary's River. The Georgia shad fishery is open from January 1 to as late as April 30 each year, but would typically end March 31. Georgia regulations require that sturgeon captured in shad nets must be released unharmed into the waters from which they were taken.

¹ This includes licensed commercial shad fishermen and GA DNR staff conducting monitoring activities.



GA DNR requested 3-year running averages for takes to account for the potential for a high-take year before or after low-take years. GA DNR estimates that incidental bycatch would not exceed 175 shortnose sturgeon per year (no more than 525 in a 3-year period) and 140 Atlantic sturgeon per year (no more than 420 in a 3-year period) in the Altamaha River, 75 shortnose sturgeon per year (no more than 225 in a 3-year period) and 50 Atlantic sturgeon per year (no more than 150 in a 3-year period) in the Savannah River, and 10 shortnose sturgeon per year (no more than 30 in a 3-year period) and 10 Atlantic sturgeon per year (no more than 30 in a 3-year period) in the Ogeechee River. A mortality rate of approximately 2.3 percent is anticipated based on recent research.

NMFS expects the number of sturgeon incidentally captured under the new fishing regulations to be lower than that calculated by GA DNR because the Conservation Plan submitted by GA DNR:

- includes closures to areas of the rivers that were open to shad fishing when those data were collected
- decreases the number of days per week that certain areas are open to fishing.

NMFS anticipates that incidental capture by fisherman will not exceed 140 shortnose sturgeon per year (no more than 420 in a 3-year period) and 140 Atlantic sturgeon per year (no more than 420 in a 3-year period) in the Altamaha River, 70 shortnose sturgeon per year (no more than 210 in a 3-year period) and 35 Atlantic sturgeon per year (no more than 110 in a 3-year period) in the Savannah River, and 5 shortnose sturgeon per year (no more than 20 in a 3-year period) and 5 Atlantic sturgeon per year (no more than 20 in a 3-year period) in the Ogeechee River. A mortality rate of approximately 2.3 percent is anticipated.

In addition to sturgeon incidentally captured by fisherman, GA DNR is also expected to incidentally capture sturgeon during monitoring of the shad run. GA DNR will set drift nets in the Altamaha River during the fishing season to monitor the shad run and approximate the rate of incidentally captured shortnose and Atlantic sturgeon. Nets would be 4.5-5 in stretch. GA DNR would generally monitor the shad run:

- 1 day per week the first 3 weeks in January.
- 2 days per week from late-January through mid-March.
- 1 day per week in late March when the shad run starts tapering off.

On average, 18 days of sampling during the shad spawning run would be expected. Records from the past 16 years of monitoring indicate that GA DNR captures an average of 6.4 Atlantic sturgeon and 6.8 shortnose sturgeon each year, with occasional years of higher-than-normal incidental captures. Based on this, the GA DNR expects to capture up to 10 shortnose and 10 Atlantic sturgeon during annual monitoring activities in the Altamaha River, with no more than 50 shortnose sturgeon and 50 Atlantic sturgeon captured during any three consecutive years. No mortalities are anticipated.

During processing of the permit application and Conservation Plan, GA DNR agreed to PIT tag and collect genetic samples from Atlantic sturgeon incidentally captured during monitoring in order to better determine what DPSs of Atlantic sturgeon are being captured in the fishery. NMFS believes these monitoring measures are important to properly evaluate and predict

incidental take authorized under the permit and thus considers the take to be incidental and appropriately covered under the Section 10(a)(1)(B) permit.

A consultation with NMFS' Endangered Species Act Interagency Cooperation Division under section 7 of the ESA resulted in the determination, described in its Biological Opinion, that issuance of the permit and the impacts of the authorized incidental take are not likely to jeopardize the continued existence of NMFS ESA-listed species or to result in the destruction or adverse modification of designated critical habitat. The taking authorized by this permit, therefore, will not appreciably reduce the likelihood of survival or recovery of any covered species in the wild.

GA DNR's conservation plan describes measures which NMFS has determined will minimize, monitor, and mitigate the impacts of incidental take of ESA-listed sturgeon to the maximum extent practicable. The conservation plan includes continued implementation of Georgia's amended commercial fishing regulations for the Georgia shad fishery, which are expected to minimize the bycatch of sturgeon by closing to shad fishing sections of the rivers that previously had the highest bycatch rates. These closures would also protect known and suspected sturgeon spawning sites.

GA DNR will identify all participants in the commercial shad fishery prior to the opening of the season annually and will provide educational materials on identifying sturgeon species, safely handling and releasing captured animals unharmed, and proper reporting through completion of modified trip tickets. GA DNR will use a combination of a trip ticket system (self-reporting by fishermen), direct observations of fisherman, and setting drift nets to monitor the incidental take of sturgeon in the commercial shad fishery. Other monitoring or mitigation actions will be undertaken as required. Monitoring will be funded by GA DNR's Annual Operating Budget.

GA DNR considered and rejected two other alternatives: (1) no change to commercial shad regulations, and (2) establishing new upper boundaries for commercial shad fishing on the Altamaha and Savannah rivers, while completely closing the Ogeechee, Satilla, and St. Mary's rivers to commercial shad fishing. Alternative (1) was rejected because it would not have provided additional conservation measures for sturgeon. Alternative (2) was rejected because a total closure would have had negative economic impacts on Ogeechee River commercial shad fishermen.

III. INCIDENTAL TAKE AUTHORIZATION

Listed Species Affected:

Endangered

Shortnose sturgeon

Acipenser brevirostrum

Atlantic sturgeon

A. oxyrinchus

South Atlantic DPS

Carolina DPS

Chesapeake Bay DPS

New York Bight DPS

Threatened

Gulf of Maine DPS²

Table 1. Authorized annual take and 3-year total takes under Permit No. 16645 by licensed commercial shad fishermen.

Species	Maximum No. incidental captures (live release ³) per year ⁴ /over 3 consecutive years/over the life of the permit			Maximum No. incidental mortalities per year/over 3 consecutive years ⁵		
	Altamaha River	Savannah River	Ogeechee River	Altamaha River	Savannah River	Ogeechee River
Sturgeon, shortnose	140 / 420 / 1,680	70 / 210 / 840	5 / 20 / 80	3 / 8	2 / 6	1 / 1
Sturgeon, Atlantic ⁶	140 / 420 / 1,680	35 / 110 / 440	5 / 20 / 80	3 / 5	1 / 1	1 / 1

Table 2. Authorized annual take and 3-year total takes under Permit No. 16645 during GA DNR monitoring of the shad fishery. Note: Monitoring is proposed for only the Altamaha River. However, the Savannah and Ogeechee are included in the table in the event an incident occurs and triggers incident report permit Condition A.2.

Species	Maximum No. incidental captures (live release ³), with PIT tagging and genetic sampling of Atlantic sturgeon, per year ⁴ /over 3 consecutive years/over the life of the permit			Maximum No. incidental mortalities per year/over 3 consecutive years/over the life of the permit		
	Altamaha River	Savannah River	Ogeechee River	Altamaha River	Savannah River	Ogeechee River
Sturgeon, shortnose	10 / 50 / 200	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0
Sturgeon, Atlantic	10 / 50 / 200	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0	0 / 0 / 0

2 As of the date this permit was issued, no take prohibitions exist for the Gulf of Maine DPS. Should take prohibitions be extended to include this DPS, incidental takes are covered by this permit as long as GA DNR remains in compliance with the terms and conditions of the permit.

3 Capture and release may result in the harm and harassment of some individuals. This is authorized by the permit.

4 In Tables 1 and 2, authorized annual takes are the expected average of incidental captures. Exceeding a single annual number does not require activities to cease. The "action level" is the 3 consecutive year total.

5 Shortnose sturgeon mortality rates are based on estimated 2.3% mortality of incidentally captured sturgeon reported in Bahn and Peterson (2012) for set nets and 1% mortality in drift nets, rounded to whole fish. Atlantic sturgeon mortality rates are based on 1% mortality observed in drift nets reported by shad fisherman and researchers, rounded to whole fish.

6 NMFS expects the maximum intercept rate for each Atlantic sturgeon DPS to be: South Atlantic DPS 95%; Chesapeake Bay DPS 20%; Carolina DPS 15%; New York Bight DPS 10%; and Gulf of Maine DPS 2% of the total number of incidental captures.

IV. CONDITIONS OF PERMIT

The incidental take of ESA-listed sturgeon is authorized during otherwise lawful commercial shad fishing and monitoring activities as described in the application, Conservation Plan, and supporting documents and subject to both the provisions of the conservation plan and the conditions specified in this permit. The monitoring, minimization and mitigation measures are incorporated as conditions of this permit. NMFS has included additional conditions determined necessary or appropriate to minimize the impacts of incidental take to the covered species.

A. Duration of Permit

1. This permit covers incidental take from the date of issuance through December 31, 2022.
2. If incidental captures or mortalities of any species in any river reach or exceed the established levels (Tables 1 and 2), activities authorized under this permit must stop and the Permit Holder must submit an Incident Report as described in Condition C.4.

B. Conditions to Monitor, Minimize, and Mitigate Impacts to Listed Species

1. GA DNR must continue to implement the commercial shad fishing regulations last amended on November 4, 2010. If during the effective period of this permit the State of GA proposes to amend commercial shad fishing regulations in a manner that could affect the taking authorized in this permit, GA DNR must work with NMFS to ensure that amended regulations are not less protective of the species covered by this permit.
2. Sturgeon incidentally captured by fisherman must be released unharmed into the waters from which they were taken. Fishermen must abide by safe handling instructions provided by GA DNR and report any incidental take on modified trip tickets provided by GA DNR.
3. Atlantic sturgeon incidentally captured by GA DNR staff must be PIT tagged and fin clipped as described in the monitoring plan, up to the limits in Table 2, before being released into the waters from which they were taken.
 - a. Extreme care must be used when collecting genetic samples. Instruments must be disinfected and gloves must be changed between each fish sampled to avoid possible disease transmission or cross contamination of genetic material.
 - b. Prior to placement of PIT tags, the entire dorsal surface of each fish must be scanned with a PIT tag reader to ensure detection of fish tagged in other studies. Previously tagged fish must not be retagged.

- c. PIT tags must be inserted immediately anterior to the dorsal fin of the sturgeon.
 - d. Researchers must not insert PIT tags larger than 11.5 mm x 2.1 mm into juvenile sturgeon less than 330 mm in length.
 - e. Sturgeon less than 250 mm (10 inches) must not be tagged.
4. If sturgeon incidentally captured by fishermen are retrieved dead from shad nets, they may not be retained, consumed, sold, landed, offloaded, or transported. Dead sturgeon should immediately be returned to the waters from which they were retrieved and fishermen should report them to GA DNR on modified trip tickets.
5. If sturgeon incidentally captured by GA DNR staff are retrieved dead from shad nets, monitoring activities that could result in take (Table 2) must stop as specified in Condition A.2 and the Permit Holder must submit an Incident Report as described in Condition C.4.
6. If practicable, GA DNR staff may retain dead sturgeon retrieved from shad nets and submit an Incident Report as described in Condition C.4. Upon submission of the Incident Report, the Endangered Species Conservation Division will direct GA DNR on the final disposition of dead sturgeon. If retaining dead sturgeon is not practicable, they should immediately be returned to the waters from which they were retrieved.
7. GA DNR must implement the mitigation and monitoring described in the Conservation Plan to remain in compliance with the conditions of this permit. This includes:
 - a. Identifying all participants in the commercial shad fishery prior to the opening of the season annually to provide educational materials and trip tickets.
 - b. Educating all commercial shad fisherman on recording incidental captures of sturgeon on modified trip tickets, identifying sturgeon species, and proper handling of sturgeon, including their safe release to waters from where they were taken and disposition of dead or injured animals.
 - c. Collecting trip tickets from authorized commercial fishermen to monitor incidental captures of shortnose and Atlantic sturgeon.
 - d. Conducting direct observations on a minimum of 10% of commercial shad fishing trips annually on each of the rivers where commercial shad fishing is authorized. Monitoring efforts will be adaptive to the timing of the sturgeon spawning migration and the number of observed sturgeon intercepts.

- e. Setting drift nets in the Altamaha River during the fishing season to monitor the shad run and approximate the rate of incidentally captured shortnose and Atlantic sturgeon.
- f. During monitoring conducted under conditions B.6.d and B.6.e above GA DNR must gather data, to the greatest extent practicable, on post-release injury and mortality of sturgeon.
- g. Using information from monitoring of the shad run to make adjustments to efforts to conduct direct observations of commercial shad fishing trips.
- h. Increasing law enforcement presence and educational efforts if unusually high sturgeon catch rates are observed.
- i. Evaluating modifications to the commercial shad fishing regulations for the next year if unusually high sturgeon catch rates are observed.

C. Reporting Requirements

1. *Take Reports.* All incidental takes of sturgeon covered by this permit must be reported to the Chief, Endangered Species Conservation Division, Office of Protected Resources, NMFS. Data collected from trip tickets submitted by fisherman and direct observations by GA DNR must be summarized and provided to the National Marine Fisheries Service no later than the end of February, March, April, and May (if appropriate) each year to the address in Condition C.2. Reports of the incidental take should include the date of the take, the condition of the sturgeon, the species (if known), the river fished, gear type (set or drift net), length of net, total soak time, and number of net sets.

2. *Annual Report.* An annual report must be submitted to:

Chief, Endangered Species Conservation Division
 Office of Protected Resources
 National Marine Fisheries Service
 1315 East-West Highway
 Silver Spring, Maryland 20910
 Phone: (301) 427-8403; Fax: (301) 713-4060

on or before July 31 each year. The annual report must include:

- a. A report of the total sturgeon takes during the fishing and monitoring activities authorized by the permit.
- b. The number of fishermen permitted by GA DNR to participate in the commercial shad fishery.

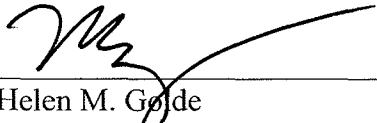
- c. The percentage of permitted fishermen that returned trip tickets each month.
 - d. The number of direct observations of commercial shad fishing activities conducted each month, for each river.
 - e. The number of days GA DNR set nets.
 - f. Any violations of the commercial fishing regulations for the Georgia shad fishery.
3. *Final Report:* The Permit Holder must submit a final report within one hundred eighty (180) days of the expiration of this Permit summarizing the total take that occurred under the permit and the circumstances surrounding it. Reports must be submitted to the address in Condition C.2.
 4. *Incident report:* The Permit Holder must submit an incident report as soon as possible after reaching or exceeding authorized takes, as specified in Condition A.2. Reports must be submitted to the address in Condition C.2.
 - a. The incident report must include a complete description of the events and identification of steps that will be taken to reduce the potential for additional exceedence of authorized take.
 - b. In addition to the written report, the Permit Holder must contact the Endangered Species Conservation Division by phone (301-427-8403) as soon as possible, but no later than within two business days of the incident.
 - c. The Endangered Species Conservation Division may grant authorization to resume permitted activities based on review of the incident report and in consideration of the Terms and Conditions of this permit.

D. General Permit Conditions

1. The Permit Holder may not transfer or assign this permit to any other person(s), as person is defined in Section 3(12) of the ESA. This permit is not in force or effective if transferred or assigned to any other person.
2. Upon request by the Director of the Office of Protected Resources, the Permit Holder must permit any employee(s) of NMFS, or any other person(s) duly designated by the Director, to inspect the Permit Holder's records and facilities if such records and facilities pertain to activities for which a take of ESA-listed species is authorized by this permit, relate to ESA-listed species covered by this permit, or pertain to the Director's responsibilities under the ESA.

3. The provisions of this permit may be amended upon reasonable notice by the Director of the Office of Protected Resources.
4. In the event any ESA-listed species not included in this permit is killed, injured, or collected during the course of activities in the action area of this permit, the Permit Holder must notify NMFS as soon as possible, but not later than two days after the event. The Permit Holder must then submit a written report to the Chief of the Endangered Species Conservation Division describing the circumstances of the unauthorized take (see Condition C.2 for contact information). Pending review of these circumstances, NMFS may suspend or amend this permit.
5. The Permit Holder is responsible for the activities of any individual who is operating under the authority of this permit.
6. Under the terms of the regulations, a violation of any of the terms and conditions of this permit will subject the Permit Holder, and/or any individual who is operating under the authority of this permit, to penalties as provided for in the ESA, including suspension or revocation of the permit.


7. 50 CFR Section 222.23(d)(8) provides for a reasonable fee to be charged to cover the costs of issuance of permits under the ESA. The fee for this permit has been waived.



Helen M. Gojde
Acting Director
Office of Protected Resources

1/8/13

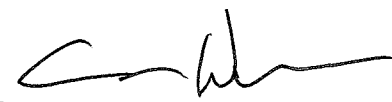
Date



Dan Forster
Director, Wildlife Resources Division
Georgia Department of Natural Resources

1/22/13

Date



A.G. "Spud" Woodward
Director, Coastal Resources Division
Georgia Department of Natural Resources

1/22/13

Date

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