

**From:** Strait, Kenneth A. <Kenneth.Strait@pseg.com>  
**Sent:** Friday, April 10, 2020 8:02 PM  
**To:** incidental.take@noaa.gov; EndangeredSpecies Resource  
**Cc:** jeanette.bowers@dep.nj.gov  
**Subject:** [External\_Sender] SALEM GENERATING STATION-INCIDENTAL TAKE OF ATLANTIC STURGEON  
**Attachments:** #1 Sturgeon Incidental Take Report for 04-10-20.pdf; #2 Sturgeon Incidental Take Report for 04-10-20.pdf; #3 Sturgeon Incidental Take Report for 04-10-20.pdf

Attached are the Incidental Take Reports and Data Collection Forms for the three moderately decomposed Atlantic sturgeon collected on 04/10/2020 at the Salem Generating Station cooling water intake. This incidental take is authorized under Biological Opinion NER-2010-6581.

Please let me know if you have any questions or need additional information. Thanks.

Ken

\*\*\*\*\*

**Kenneth A. Strait**

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Hancocks Bridge, NJ 08302 [kenneth.strait@pseg.com](mailto:kenneth.strait@pseg.com)  
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**Hearing Identifier:** NRR\_DRMA  
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**Mail Envelope Properties** (cd41645dd1944975a182023a79f405de)

**Subject:** [External\_Sender] SALEM GENERATING STATION-INCIDENTAL TAKE OF ATLANTIC STURGEON  
**Sent Date:** 4/10/2020 8:01:50 PM  
**Received Date:** 4/10/2020 8:11:41 PM  
**From:** Strait, Kenneth A.

**Created By:** Kenneth.Strait@pseg.com

**Recipients:**

"jeanette.bowers@dep.nj.gov" <jeanette.bowers@dep.nj.gov>

Tracking Status: None

"incidental.take@noaa.gov" <incidental.take@noaa.gov>

Tracking Status: None

"EndangeredSpecies Resource" <EndangeredSpecies.Resource@nrc.gov>

Tracking Status: None

**Post Office:** pseg.com

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1377	4/10/2020 8:11:41 PM
#1 Sturgeon Incidental Take Report for 04-10-20.pdf	313634	
#2 Sturgeon Incidental Take Report for 04-10-20.pdf	314755	
#3 Sturgeon Incidental Take Report for 04-10-20.pdf	380996	

**Options**

**Priority:** Normal

**Return Notification:** Yes

**Reply Requested:** No

**Sensitivity:** Normal

**Expiration Date:**

### Appendix C, Part 2A (Sturgeon)

*Photographs should be taken and the following information should be collected from all sturgeon (alive and dead). Please submit all necropsy results (including sex and stomach contents) to NMFS upon receipt. You must also complete and submit the "Sturgeon Data Collection Form"*

Observer's full name: Alex Riehle (Environmental Consulting Services, Inc. [ECSI])

Reporter's full name: Alex Riehle

Species Identification : Atlantic sturgeon (Acipenser oxyrinchus)

Site of Collection: PSEG Salem Generating Station, Circulating water Intake

Date animal observed: 04/10/2020 Time animal observed: 08:50 am

Date animal collected: 04/10/2020 Time animal collected: 09:00 am

Environmental conditions at time of observation (i.e., tidal stage, weather):

Air temp. – 10.0 °C; Sal. – 7.5 ppt; Wind – W; sky – overcast; waves – moderate; tide- flood 1 (91.5ft)

If removed from intakes (trash racks or traveling screens):

Date and time of last inspection of screen: 04/10/2020; 01:00am

Water temperature (°C) at site and time of observation: 13.0 °C

Number of pumps operating at time of observation: Unit 1: 6 circulators / Unit 2: 5 circulators

Average percent of power generating capacity achieved per unit at time of observation: Unit 1: 100.0% / Unit 2: 89.5%

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation: Unit 1: 99.9% / Unit 2: 90.4%

# STURGEON DATA COLLECTION FORM

For use in documenting sturgeon injury or mortality incidental to a federal action

## OBSERVER'S CONTACT INFORMATION

Name: First **Alex** Last **Riehle**  
 Agency Affiliation **PSEG subcontractor** Email **Alexander.Riehle@pseg.com**  
 Address **100 South Cass Street, Middletown, DE 19709**  
 Area code/Phone number **(302) 378-9881** (Environmental Consulting Services, Inc.)

SEC 7 UNIQUE IDENTIFIER (PCTS  
 No. Assigned by NMFS)

**DATE REPORTED:**  
 Month 04 Day 10 Year 2020  
**DATE EXAMINED:**  
 Month 04 Day 10 Year 2020

## SPECIES: (check one)

- shortnose sturgeon  
 Atlantic sturgeon  
 Unidentified *Acipenser* species  
 Check "Unidentified" if uncertain. See reverse side of this form for aid in identification.

**LOCATION FOUND:**  Offshore (Atlantic or Gulf beach)  Inshore (bay, river, sound, inlet, etc)  
 River/Body of Water **Delaware River** City **Lower Alloways Creek** State **NJ**  
 Descriptive location (be specific) **Removed from Circulating Water Intake Structure (CWIS) during routine trash rack cleaning at the Salem Generating Station, PSEG Nuclear LLC.**  
 Latitude **39.460603°** (Dec. Degrees) Longitude **-75.536133°** (Dec. Degrees)

## CARCASS CONDITION at time examined: (check one)

- 1 = Fresh dead  
 2 = Moderately decomposed  
 3 = Severely decomposed  
 4 = Dried carcass  
 5 = Skeletal, scutes & cartilage

## SEX:

- Undetermined  
 Female  Male  
 How was sex determined?  
 Necropsy  
 Eggs/milt present when pressed  
 Borescope

## MEASUREMENTS:

	Circle unit
Fork length	<b>83.3 cm</b>
Total length	<b>96.2 cm</b>
Length <input checked="" type="checkbox"/> actual <input type="checkbox"/> estimate	
Mouth width (inside lips, see reverse side)	<b>5.3 cm</b>
Interorbital width (see reverse side)	<b>6.6 cm</b>
Weight <input checked="" type="checkbox"/> actual <input type="checkbox"/> estimate	<b>3.4 kg</b>

**TAGS PRESENT?** Examined for external tags including fin clips?  Yes  No Scanned for PIT tags?  Yes  No

Tag #	Tag Type	Location of tag on carcass
No Tags found		
_____	_____	_____
_____	_____	_____

## CARCASS DISPOSITION: (check one or more)

- 1 = Left where found  
 2 = Buried  
 3 = Collected for necropsy/salvage  
 4 = Frozen for later examination  
 5 = Other (describe).

## Carcass Necropsied?

Yes  No  
 Date Necropsied: \_\_\_\_\_  
 Necropsy Lead: \_\_\_\_\_

## PHOTODOCUMENTATION:

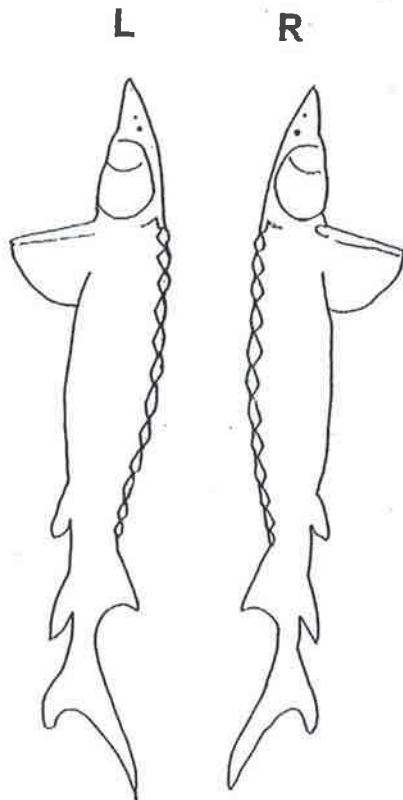
Photos/video taken?  Yes  No  
 Disposition of Photos/Video **PSEG Nuclear Environmental Affairs**

**SAMPLES COLLECTED?**  Yes  No

Sample	How preserved	Disposition (person, affiliation, use)
Pelvic fin clip	stored in non-denatured ethanol and refrigerated.	Held at the office of ECSI for aggregated shipment to designated laboratory.
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments: A deceased and slightly decomposed Atlantic sturgeon was collected from the Salem Circulating Water Intake Structure on 04/10/20, at 09:00am during routine trash rack cleaning. After positive identification was made by Environmental Consulting Services personnel, the specimen was measured, photographed, and inspected for tags. No evidence of external tags was found, and no existing PIT tags were indicated. A pelvic fin clip was collected for future DNA analysis. Upon completion of processing, the specimen was placed on ice and prepared for transport back to the ECSI main office, where it will be stored under refrigeration, awaiting direction on further disposition. The fin clip sample has been stored in refrigeration and will be held for aggregated shipment to a designated laboratory.

Draw wounds, abnormalities, tag locations on diagram and briefly describe below



Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). **Please note if no wounds / abnormalities are found. Specimen was deceased at the time of collection and was observed to be slightly decomposed. No evidence of major damage was exhibited.**

**Submit completed forms (within 24 hours of observation of fish): by e-mail to [IncidentalTake@noaa.gov](mailto:IncidentalTake@noaa.gov) or by fax (978-281-9394).** Questions can be directed to NMFS Protected Resources Division at 978-281-9328.

**Data Access Policy:** Upon written request, information submitted to National Marine Fisheries Service (NOAA Fisheries) on this form will be released to the requestor provided that the requestor credit the collector of the information and NOAA Fisheries. NOAA Fisheries will notify the collector that these data have been requested and the intent of their use.

## Photographs



A dorsal view showing the size and condition of the deceased, Atlantic sturgeon (*Acipenser oxyrinchus*), retrieved at 09:00am on 04/10/2020 from the circulating water intake by Salem Yard Crew personnel during routine trash rack cleaning at Salem Nuclear Generating Station (04/10/2020).



A left, ventral view of the specimen showing some evidence of minor decomposition, but no indications of major external damage (04/10/2020).

## Photographs



A right, ventral view of the specimen, again showing some evidence of minor decomposition, but no indications of major external damage (04/10/2020).

**Appendix C, Part 2A (Sturgeon)**

*Photographs should be taken and the following information should be collected from all sturgeon (alive and dead). Please submit all necropsy results (including sex and stomach contents) to NMFS upon receipt. You must also complete and submit the "Sturgeon Data Collection Form"*

Observer's full name: Alex Riehle (Environmental Consulting Services, Inc. [ECSI])

Reporter's full name: Alex Riehle

Species Identification : Atlantic sturgeon (Acipenser oxyrinchus)

Site of Collection: PSEG Salem Generating Station, Circulating water Intake

Date animal observed: 04/10/2020 Time animal observed: 08:50 am

Date animal collected: 04/10/2020 Time animal collected: 09:00 am

Environmental conditions at time of observation (i.e., tidal stage, weather):

Air temp. - 10.0 °C; Sal. - 7.5 ppt; Wind - W; sky - overcast; waves - moderate; tide- flood 1 (91.5ft)

If removed from intakes (trash racks or traveling screens):

Date and time of last inspection of screen: 04/10/2020; 01:00am

Water temperature (°C) at site and time of observation: 13.0 °C

Number of pumps operating at time of observation: Unit 1: 6 circulators / Unit 2: 5 circulators

Average percent of power generating capacity achieved per unit at time of observation: Unit 1: 100.0% /Unit 2: 89.5%

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation: Unit 1: 99.9% /Unit 2: 90.4%



# STURGEON DATA COLLECTION FORM

For use in documenting sturgeon injury or mortality incidental to a federal action

## OBSERVER'S CONTACT INFORMATION

Name: First Alex Last Riehle  
Agency Affiliation PSEG subcontractor Email Alexander.Riehle@pseg.com  
Address 100 South Cass Street, Middletown, DE 19709  
Area code/Phone number (302) 378-9881 (Environmental Consulting Services, Inc.)

SEC 7 UNIQUE IDENTIFIER (PCTS  
No. Assigned by NMFS)

DATE REPORTED:  
Month 04 Day 10 Year 2020  
DATE EXAMINED:  
Month 04 Day 10 Year 2020

## SPECIES: (check one)

- shortnose sturgeon  
 Atlantic sturgeon  
 Unidentified *Acipenser* species  
Check "Unidentified" if uncertain. See reverse side of this form for aid in identification.

LOCATION FOUND:  Offshore (Atlantic or Gulf beach)  Inshore (bay, river, sound, inlet, etc)  
River/Body of Water Delaware River City Lower Alloways Creek State NJ  
Descriptive location (be specific) Removed from Circulating Water Intake Structure (CWIS) during routine trash rack cleaning at the Salem Generating Station, PSEG Nuclear LLC.  
Latitude 39.460603° (Dec. Degrees) Longitude -75.536133° (Dec. Degrees)

## CARCASS CONDITION at time examined: (check one)

- 1 = Fresh dead  
 2 = Moderately decomposed  
 3 = Severely decomposed  
 4 = Dried carcass  
 5 = Skeletal, scutes & cartilage

## SEX:

- Undetermined  
 Female  Male  
How was sex determined?  
 Necropsy  
 Eggs/milt present when pressed  
 Borescope

## MEASUREMENTS:

Circle unit  
Fork length 58.9 cm  
Total length 68.0 cm  
Length  actual  estimate  
Mouth width (inside lips, see reverse side) 3.3 cm  
Interorbital width (see reverse side) 4.8 cm  
Weight  actual  estimate 1.9 kg

TAGS PRESENT? Examined for external tags including fin clips?  Yes  No Scanned for PIT tags?  Yes  No

Tag #	Tag Type	Location of tag on carcass
No Tags found		

## CARCASS DISPOSITION: (check one or more)

- 1 = Left where found  
 2 = Buried  
 3 = Collected for necropsy/salvage  
 4 = Frozen for later examination  
 5 = Other (describe).

## Carcass Necropsied?

Yes  No

Date Necropsied: \_\_\_\_\_

Necropsy Lead: \_\_\_\_\_

## PHOTODOCUMENTATION:

Photos/video taken?  Yes  No

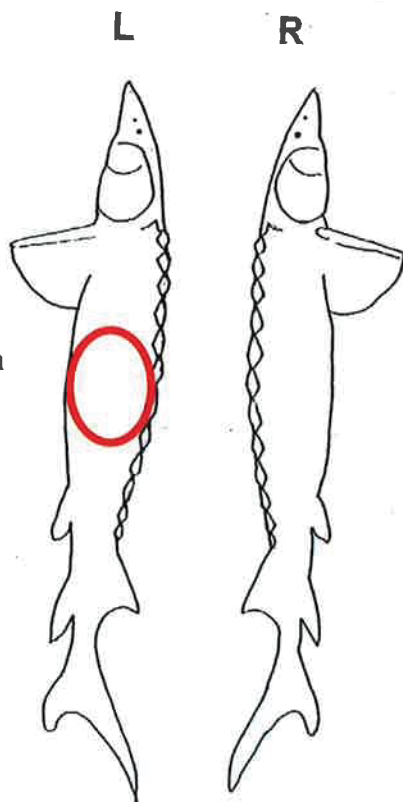
Disposition of Photos/Video PSEG Nuclear Environmental Affairs

SAMPLES COLLECTED?  Yes  No

Sample	How preserved	Disposition (person, affiliation, use)
Pelvic fin clip	stored in non-denatured ethanol and refrigerated.	Held at the office of ECSI for aggregated shipment to designated laboratory.

Comments: A second, deceased and damaged Atlantic sturgeon was collected from the Salem Circulating Water Intake Structure on 04/10/20, at 09:00am during routine trash rack cleaning. After positive identification was made by Environmental Consulting Services personnel, the specimen was measured, photographed, and inspected for tags. No evidence of external tags was found, and no existing PIT tags were indicated. A pelvic fin clip was collected for future DNA analysis. Upon completion of processing, the specimen was placed on ice and prepared for transport back to the ECSI main office, where it will be stored under refrigeration, awaiting direction on further disposition. The fin clip sample has been stored in refrigeration and will be held for aggregated shipment to a designated laboratory.

Draw wounds, abnormalities, tag locations on diagram and briefly describe below



**Location of large laceration on left side of the torso.**

Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). **Please note if no wounds / abnormalities are found. Specimen was deceased at the time of collection and was observed to have a large, laceration on the left side of the torso (refer to diagram above). Specimen exhibited some evidence of decomposition.**

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## Photographs



A dorsal view showing the size and condition of a second, deceased and damaged Atlantic sturgeon (*Acipenser oxyrinchus*), retrieved at 09:00am on 04/10/2020 from the circulating water intake by Salem Yard Crew personnel during routine trash rack cleaning at Salem Nuclear Generating Station (04/10/2020).



A right, ventral view of the specimen showing some evidence of minor decomposition and minor bruising, but no indications of any severe damage (04/10/2020).

## Photographs



A left, ventral view of the specimen, showing the existence of a large laceration located mid-torso (04/10/2020).

**Appendix C, Part 2A (Sturgeon)**

*Photographs should be taken and the following information should be collected from all sturgeon (alive and dead). Please submit all necropsy results (including sex and stomach contents) to NMFS upon receipt. You must also complete and submit the "Sturgeon Data Collection Form"*

Observer's full name: Alex Riehle (Environmental Consulting Services, Inc. [ECSI])

Reporter's full name: Alex Riehle

Species Identification : Atlantic sturgeon (Acipenser oxyrinchus)

Site of Collection: PSEG Salem Generating Station, Circulating water Intake

Date animal observed: 04/10/2020 Time animal observed: 08:50 am

Date animal collected: 04/10/2020 Time animal collected: 09:00 am

Environmental conditions at time of observation (i.e., tidal stage, weather):

Air temp. - 10.0 °C; Sal. - 7.5 ppt; Wind - W; sky - overcast; waves - moderate; tide- flood 1 (91.5ft)

If removed from intakes (trash racks or traveling screens):

Date and time of last inspection of screen: 04/10/2020; 01:00am

Water temperature (°C) at site and time of observation: 13.0 °C

Number of pumps operating at time of observation: Unit 1: 6 circulators / Unit 2: 5 circulators

Average percent of power generating capacity achieved per unit at time of observation: Unit 1: 100.0% /Unit 2: 89.5%

Average percent of power generating capacity achieved per unit over the 48 hours previous to observation: Unit 1: 99.9% /Unit 2: 90.4%

# STURGEON DATA COLLECTION FORM

For use in documenting sturgeon injury or mortality incidental to a federal action

## OBSERVER'S CONTACT INFORMATION

Name: First Alex Last Riehle  
 Agency Affiliation PSEG subcontractor Email Alexander.Riehle@pseg.com  
 Address 100 South Cass Street, Middletown, DE 19709  
 Area code/Phone number (302) 378-9881 (Environmental Consulting Services, Inc.)

SEC 7 UNIQUE IDENTIFIER (PCTS)  
 No. Assigned by NMFS

DATE REPORTED:  
 Month 04 Day 10 Year 2020  
 DATE EXAMINED:  
 Month 04 Day 10 Year 2020

## SPECIES: (check one)

- shortnose sturgeon  
 Atlantic sturgeon  
 Unidentified *Acipenser* species  
 Check "Unidentified" if uncertain. See reverse side of this form for aid in identification.

LOCATION FOUND:  Offshore (Atlantic or Gulf beach)  Inshore (bay, river, sound, inlet, etc)  
 River/Body of Water Delaware River City Lower Alloways Creek State NJ  
 Descriptive location (be specific) Removed from Circulating Water Intake Structure (CWIS) during routine trash rack cleaning at the Salem Generating Station, PSEG Nuclear LLC.  
 Latitude 39.460603° (Dec. Degrees) Longitude -75.536133° (Dec. Degrees)

## CARCASS CONDITION at time examined: (check one)

- 1 = Fresh dead  
 2 = Moderately decomposed  
 3 = Severely decomposed  
 4 = Dried carcass  
 5 = Skeletal, scutes & cartilage

## SEX:

- Undetermined  
 Female  Male  
 How was sex determined?  
 Necropsy  
 Eggs/milt present when pressed  
 Borescope

## MEASUREMENTS:

	Circle unit
Fork length	<u>70.6 cm</u>
Total length	<u>83.0 cm</u>
Length <input checked="" type="checkbox"/> actual <input type="checkbox"/> estimate	
Mouth width (inside lips, see reverse side)	<u>4.5 cm</u>
Interorbital width (see reverse side)	<u>6.1 cm</u>
Weight <input checked="" type="checkbox"/> actual <input type="checkbox"/> estimate	<u>2.5 kg</u>

TAGS PRESENT? Examined for external tags including fin clips?  Yes  No Scanned for PIT tags?  Yes  No

Tag #	Tag Type	Location of tag on carcass
No Tags found		
_____	_____	_____
_____	_____	_____

## CARCASS DISPOSITION: (check one or more)

- 1 = Left where found  
 2 = Buried  
 3 = Collected for necropsy/salvage  
 4 = Frozen for later examination  
 5 = Other (describe).

## Carcass Necropsied?

Yes  No  
 Date Necropsied: \_\_\_\_\_  
 Necropsy Lead: \_\_\_\_\_

## PHOTODOCUMENTATION:

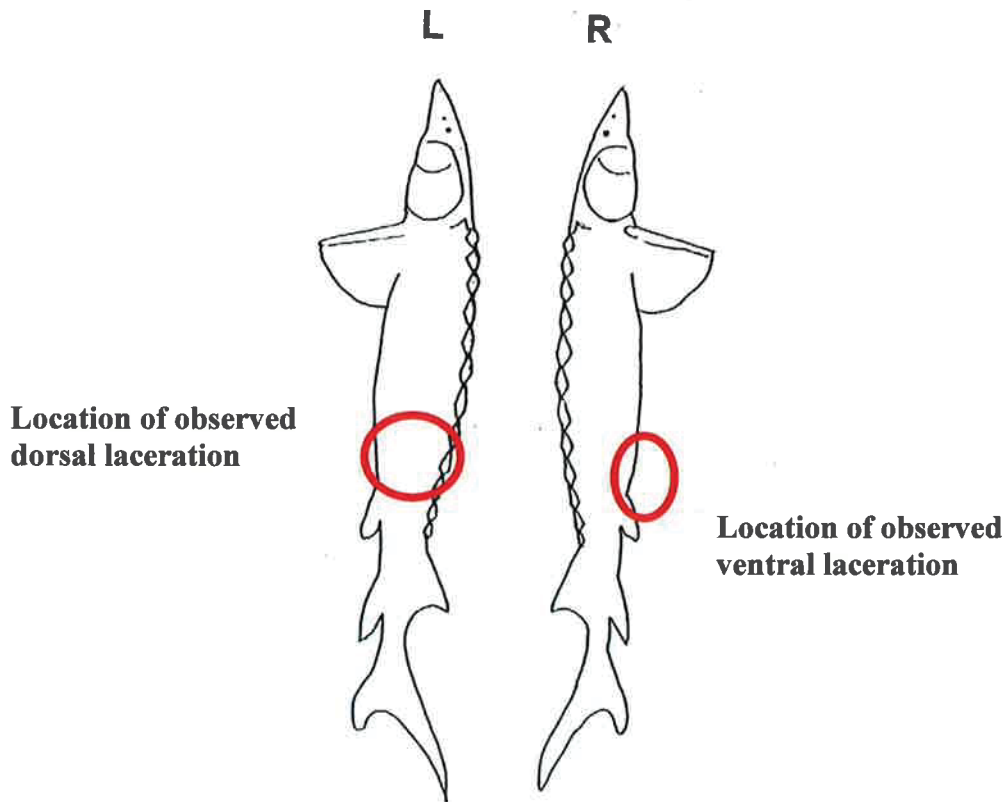
Photos/video taken?  Yes  No  
 Disposition of Photos/Video PSEG Nuclear Environmental Affairs

## SAMPLES COLLECTED? Yes No

Sample	How preserved	Disposition (person, affiliation, use)
Pelvic fin clip	stored in non-denatured ethanol and refrigerated.	Held at the office of ECSI for aggregated shipment to designated laboratory.
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments: A third, deceased and damaged Atlantic sturgeon was collected from the Salem Circulating Water Intake Structure on 04/10/20, at 09:00am during routine trash rack cleaning. After positive identification was made by Environmental Consulting Services personnel, the specimen was measured, photographed, and inspected for tags. No evidence of external tags was found, and no existing PIT tags were indicated. A pelvic fin clip was collected for future DNA analysis. Upon completion of processing, the specimen was placed on ice and prepared for transport back to the ECSI main office, where it will be stored under refrigeration, awaiting direction on further disposition. The fin clip sample has been stored in refrigeration and will be held for aggregated shipment to a designated laboratory.

Draw wounds, abnormalities, tag locations on diagram and briefly describe below



Describe any wounds / abnormalities (note tar or oil, gear or debris entanglement, propeller damage, etc.). Please note if no wounds / abnormalities are found. Specimen was deceased at the time of collection and was observed to have a large, dorsal laceration, as well as a smaller, ventral laceration, anterior to the pelvic fins (refer to diagram above). Specimen exhibited some evidence of decomposition.

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## Photographs



A dorsal view showing the size and condition of a third, deceased and damaged Atlantic sturgeon (*Acipenser oxyrinchus*), retrieved at 09:00am on 04/10/2020 from the circulating water intake by Salem Yard Crew personnel during routine trash rack cleaning at Salem Nuclear Generating Station (04/10/2020).



A right, ventral view of the specimen showing some evidence of minor decomposition, as well as surface bruising and a small laceration anterior to the pelvic fins (04/10/2020).



## Photographs



A close-up of the laceration observed on the ventral aspect of the torso, anterior to the pelvic fins (04/10/2020).



A left, ventral view of the specimen, showing the existence of a large laceration located mid-torso (04/10/2020).