From: Cary, Richard H. <Richard.Cary@pseg.com>
Sent: Friday, January 10, 2025 1:34 PM
To: Mangold, Mike
Cc: nmfs.gar.incidental-take@noaa.gov; EndangeredSpecies Resource; Brian.Neilan@dep.nj.gov; Josie.Castaldo@dep.nj.gov
Subject: [External_Sender] 2024 PSEG Sturgeon PIT Tag Data
Attachments: LR-E25-0006 PSEG 2024 PIT Tag Data Report.pdf; LR-E25-0006 PSEG USFWS PIT Tag Data 2024.xlsx

Hi Michael,

Attached is the PSEG Sturgeon PIT Tag Data for 2024. Six sturgeon were newly tagged this year, and one previously tagged was encountered. Please let me know if you have any questions or need additional information.

Richard Cary
Manager - Biological Programs
PSEG Nuclear Environmental Affairs
856-339-1487

Hearing Identifier: NRR_DRMA
Email Number: 2695

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Subject: [External_Sender] 2024 PSEG Sturgeon PIT Tag Data
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From: Cary, Richard H.

Created By: Richard.Cary@pseg.com

Recipients:
"nmfs.gar.incidental-take@noaa.gov" <nmfs.gar.incidental-take@noaa.gov>
Tracking Status: None
"EndangeredSpecies Resource" <EndangeredSpecies.Resource@nrc.gov>
Tracking Status: None
"Brian.Neilan@dep.nj.gov" <Brian.Neilan@dep.nj.gov>
Tracking Status: None
"Josie.Castaldo@dep.nj.gov" <Josie.Castaldo@dep.nj.gov>
Tracking Status: None
"Mangold, Mike" <mike_mangold@fws.gov>
Tracking Status: None

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MESSAGE	986	1/10/2025 1:34:42 PM
LR-E25-0006 PSEG 2024 PIT Tag Data Report.pdf	201266	
LR-E25-0006 PSEG USFWS PIT Tag Data 2024.xlsx	25025	

Options
Priority: Normal
Return Notification: No
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Sensitivity: Normal
Expiration Date:

Energy & Environmental Resource Center
c/o Richard Cary
244 Chestnut Street
Salem, New Jersey 08079
856-339-1487
Richard.Cary@pseg.com

SEND VIA EMAIL

January 10, 2025
LR-E25-0006
EEP 25003

Michael Mangold
Assistant Project Leader
Region 5 MOCC Coordinator
United States Fish & Wildlife Service
Maryland Fish & Wildlife Conservation Office
177 Admiral Cochrane Drive
Annapolis, MD 21401
Mike_mangold@fws.gov

SALEM AND HOPE CREEK GENERATING STATIONS
BIOLOGICAL OPINION GAR-2020-02842
2024 ANNUAL PIT TAG DATA REPORT

The U.S. Nuclear Regulatory Commission (USNRC) and the National Marine Fisheries Service (NMFS) concluded formal consultation under Section 7 of the Endangered Species Act of 1973, as amended, on April 27, 2023, with NRC's issuance of a Biological Opinion for Continued Operations of Salem and Hope Creek Nuclear Generating Stations and Incidental Take Statement (ITS) to PSEG. In accordance with Terms and Conditions (T&Cs) #21 and #31 of the ITS, PSEG must report all captured sturgeon that are scanned and have an existing PIT Tag or new PIT Tags that are inserted into sturgeon for inclusion in the United States Fish and Wildlife Service (USFWS) tagging database.

During the 2024 calendar year, five Atlantic sturgeon and one Shortnose sturgeon were newly tagged. Additionally, one previously tagged deceased Atlantic sturgeon was recovered from the intake structure. Table 1 (below) provides a summary of field data collected during each event where sturgeon were tagged or an existing tag was encountered. Additional information for each collection is included in the PSEG 2024 spreadsheet which is being provided electronically to the USFWS for inclusion into the tagging database.

If you have any questions or require additional information, please do not hesitate to contact me at richard.cary@pseg.com.

Sincerely,

Richard Cary
Manager Biological Programs

Cc :

National Marine Fisheries Service
Greater Atlantic Regional Fisheries Office
nmfs.gar.incidental-take@noaa.gov

United States Nuclear Regulatory Commission
endangeredspecies@nrc.gov

New Jersey Department of Environmental Protection
Department of Fish and Wildlife
Brian.Neilan@dep.nj.gov

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Surface Water and Pretreatment Permitting
Josie.Castaldo@dep.nj.gov

(Distributed via email)

David Golden, Assistant Commissioner
New Jersey Department of Environmental Protection
Department of Fish and Wildlife
501 East State Street
P.O. Box 400
Trenton, NJ 08625-0400

(Distributed via UPS)

Table 1. 2024 PIT Tag Data Summary for sturgeon tagged by PSEG in the DelawareBay/River.

Species	TL(mm)	FL(mm)	Wt(kg)	Water Temp	Salinity	Tissue Sample	Capture Date	Disposition	Release Date	Capture Gear	Dorsal PIT Tag #
Atlantic Sturgeon	489	418	0.54	9.2°C	.1 ppt	Pelvic Fin	4/9/2024	Released	4/9/2024	Bottom Trawl	#933000320501373
Atlantic Sturgeon	398	345	0.32	11.0°C	2.0 ppt	Pelvic Fin	4/12/2024	Released	4/12/2024	Intake	#933000220017824
Shortnose Sturgeon	828	717	2.3	28.3°C	.4 ppt	Pelvic Fin	7/9/2024	Released	7/9/2024	Bottom Trawl	#933000320501371
Atlantic Sturgeon	725	619	1.47	26.6°C	.2 ppt	Pelvic Fin	8/14/2024	Released	8/14/2024	Bottom Trawl	#933000320501374
Atlantic Sturgeon	650	560	1.22	21.4°C	2.5 ppt	Pelvic Fin	10/2/2024	Released	10/2/2024	Bottom Trawl	#933000320184006
Atlantic Sturgeon*	640	690	1.64	6.0°C	10.0 ppt	Pelvic Fin	12/19/2024	Deceased	12/19/2024	Intake	#982000406255341
Atlantic Sturgeon	648	609	1.7	5.0°C	14.0 ppt	Pelvic Fin	12/30/2024	Released	12/30/2024	Intake	#933000320501352

*Previouly tagged Atlantic sturgeon recovered from the intake sturcture.

FishID	Event	Species	TL(mm)	FL(mm)	ngth Estimat	Wt(kg)	Weight Est	Hatchery o
(xxxx)24000	0	Atlantic	489	418	No	0.54	No	Wild
(xxxx)24000	0	Atlantic	398	345	No	0.32	No	Wild
(xxxx)24000	0	Shortnose	828	717	No	2.3	No	Wild
(xxxx)24000	0	Atlantic	725	619	No	1.47	No	Wild
(xxxx)24000	0	Atlantic	650	560	No	1.22	No	Wild
(xxxx)24000	1	Atlantic	640	690	No	1.64	No	Wild
(xxxx)24000	0	Atlantic	648	609	No	1.7	No	Wild

Hatchery C	Tissue Sample	Biological Remarks	Capture Agency	Sample Type	Capture Date
N/A	Pelvic Fin Clip	Alive	PSEG	Independent	4/8/2024
N/A	Pelvic Fin Clip	Alive	PSEG	Independent	4/12/2024
N/A	Pelvic Fin Clip	Alive	PSEG	Independent	7/9/2024
N/A	Pelvic Fin Clip	Alive	PSEG	Independent	8/14/2024
N/A	Pelvic Fin Clip	Alive	PSEG	Independent	10/2/2024
N/A	Pelvic Fin Clip	Deceased	PSEG	Independent	12/19/2024
N/A	Pelvic Fin Clip	Alive	PSEG	Independent	12/30/2024

Capture Region	Capture Waterbody	Capture Site	Capture State	Capture Latitude
Delaware Bay	Delaware River	In Delaware River	DE	39.647783
Delaware Bay	Delaware River	PSEG	NJ	39.460603
Delaware Bay	Delaware River	In Delaware River	NJ	39.7432
Delaware Bay	Delaware River	In Delaware River	NJ	39.744333
Delaware Bay	Delaware River	In Delaware River	NJ	39.738417
Delaware Bay	Delaware River	PSEG	NJ	39.460603
Delaware Bay	Delaware River	PSEG	NJ	39.460603

Capture Longitude	Disposition	Released Without T	Capture Remarks	Release Date
-75.5697	Released	No	Alive	4/8/2024
-75.536133	Released	No	Alive	4/12/2024
-75.479833	Released	No	Alive	7/9/2024
-75.478333	Released	No	Alive	8/14/2024
-75.481017	Released	No	Alive	10/2/2024
-75.536133	Deceased	No	Deceased	N/A
-75.536133	Released	No	Alive	12/30/2024

Release Region	Release Waterbody	Release Site	Release State	Release Latitude
Delaware Bay	Delaware River	Delaware River	DE	39.647783
Delaware Bay	Delaware River	Delaware River	NJ	39.460603
Delaware Bay	Delaware River	Delaware River	NJ	39.7432
Delaware Bay	Delaware River	Delaware River	NJ	39.744333
Delaware Bay	Delaware River	Delaware River	NJ	39.738417
N/A	N/A	N/A	N/A	N/A
Delaware Bay	Delaware River	Delaware River	NJ	39.460603

Release Longitude	Capture Gear	Soak Time	Mesh Stretc	Water Depth	Water Temp
-75.5697	Bottom Trawl - semi-balloon otter trawl	10 min	1.5", 1.25"	N/A	9.2°C
-75.536133	None	N/A	N/A	N/A	11.0°C
-75.479833	Bottom Trawl - semi-balloon otter trawl	10 min	1.5", 1.25"	N/A	28.3°C
-75.478333	Bottom Trawl - semi-balloon otter trawl	10 min	1.5", 1.25"	N/A	26.6°C
-75.481017	Bottom Trawl - semi-balloon otter trawl	10 min	1.5", 1.25"	N/A	21.4°C
N/A	None	N/A	N/A	N/A	6.0°C
-75.536133	None	N/A	N/A	N/A	5.0°C

Salinity	Conductivit	Dissolved (	Dorsal PIT Tag #	sal T-Bar T	oral T-Bar T	Carlin Tag #	Dart Tag #
.1 ppt	N/A	N/A	#933000320501373				
2.0 ppt	N/A	N/A	#933000220017824				
.4 ppt	N/A	N/A	#933000320501371				
.2 ppt	N/A	N/A	#933000320501374				
2.5 ppt	N/A	N/A	#933000320184006				
10.0 ppt	N/A	N/A	#982000406255341				
14.0 ppt	N/A	N/A	#933000320501352				

Other Tag #	Other Tag Ty	Capture Tag	Release Tag	Tag Remarks
		No	Yes	PIT
		No	Yes	PIT
		No	Yes	PIT
		No	Yes	PIT
		No	Yes	PIT
		Yes	N/A	PIT
		No	Yes	PIT

Species	TL(mm)	FL(mm)	Wt(kg)	Water Temp	Salinity
Atlantic Sturgeon	489	418	0.54	9.2°C	.1 ppt
Atlantic Sturgeon	398	345	0.32	11.0°C	2.0 ppt
Shortnose Sturgeon	828	717	2.3	28.3°C	.4 ppt
Atlantic Sturgeon	725	619	1.47	26.6°C	.2 ppt
Atlantic Sturgeon	650	560	1.22	21.4°C	2.5 ppt
Atlantic Sturgeon*	640	690	1.64	6.0°C	10.0 ppt
Atlantic Sturgeon	648	609	1.7	5.0°C	14.0 ppt

*Previouly tagged Atlantic sturgeon recovered from the intake sturcture.

Tissue Sample	Capture Date	Disposition	Release Date
Pelvic Fin	4/9/2024	Released	4/9/2024
Pelvic Fin	4/12/2024	Released	4/12/2024
Pelvic Fin	7/9/2024	Released	7/9/2024
Pelvic Fin	8/14/2024	Released	8/14/2024
Pelvic Fin	10/2/2024	Released	10/2/2024
Pelvic Fin	12/19/2024	Deceased	12/19/2024
Pelvic Fin	12/30/2024	Released	12/30/2024

Capture Gear	Dorsal PIT Tag #
Bottom Trawl	#933000320501373
Intake	#933000220017824
Bottom Trawl	#933000320501371
Bottom Trawl	#933000320501374
Bottom Trawl	#933000320184006
Intake	#982000406255341
Intake	#933000320501352

Field	Data Type	Description
FishID	Number	Unique 9 digit number for each fish in the database. FishID is developed by combining the 3-digit Agency Code, the 2-digit tagging year, and a 4-digit sequential fish number starting with 0001. FishID remains the same through all recaptures, regardless whether or not capture agency or capture year changes with recapture.
Event	Number	First tag and release of fish receives Event 0, subsequent recaptures start at Event 1 with FishID number remaining consistent for the same fish through all recaptures.
Species	Text	Atlantic Sturgeon or Shortnose Sturgeon
TL (mm)	Number	Total length of the fish in millimeters
FL (mm)	Number	Fork Length of the fish in millimeters
Length Estimated	Yes/No	Was the Length measurement estimated?
Wt (kg)	Number	Weight of the fish in kilograms
Weight Estimated	Yes/No	Was the Weight measurement estimated?
Hatchery or Wild	Text	Was the fish of Hatchery or Wild origin?
Tissue Sample	Text	Tissue vial number or yes/no if vial number not known
Biological Remarks	Text	Any additional comments regarding the fish
Capture Agency	Text	Agency that captured the fish on the respective event (not necessarily the original tagging Agency if a fish was recaptured).
Sample Type	Text	Type of sampling resulting in capture of fish. Should use one of the following three types: *Independent* (fishery independent) *Dependent* (fishery dependent – including commercial fishermen tagging for your program) *Report* (report from public or commercial fisherman, but fish was not examined by researcher)
Capture Date	Date	Date the fish was captured (mm/dd/yyyy)
Capture Region	Text	Region where fish was captured, select from the following list: *Northeast* – Cape Cod, MA and north *LIS* – Long Island Sound to Cape Cod (including CT River) *Hudson* – Hudson River *Coast NJ-NY* – Atlantic Ocean of NJ and NY *Delaware Bay* – Delaware River and Bay *Coast NC-DE* – Atlantic Ocean from Hatteras, NC to DE Bay *Chesapeake* – Chesapeake Bay and tributaries *Inland NC* – Northern NC Sounds (Pamlico/Albemarle) & Rivers *Southeast* – Atlantic Ocean from FL to Hatteras, NC including all rivers south of Pamlico Sound that empty into the ocean
Capture Waterbody	Text	Waterbody where fish was captured
Capture Site	Text	Descriptive capture site location
Capture State	Text	2-digit state code where fish was captured
Capture Latitude	Text	Latitude where fish was captured in Decimal Degrees
Capture Longitude	Text	Longitude where fish was captured in Decimal Degrees
Disposition	Text	Disposition of the fish, select from the following list: *Released* – released alive *Kept* – kept for research purposes *Sold* – fish was sold in commercial fishery (pre-1998 data) *Gear Mortality* – fish killed in gear *Non-Gear Mortality* – fish died from handling or other causes *Found Dead* – fish was found dead, without gear association *Killed* – sacrificed for research purposes *Tag Only* – tag found only, not attached to fish

Released Without Tags	Text	Was the fish released without tags? Yes / No Leave field blank if fish is not released.
Capture Remarks	Text	Additional information regarding the capture of the fish
Release Date	Date	Date the fish was released (mm/dd/yyyy)
Release Region	Text	General Region where fish is released, see Capture Region for list.
Release Waterbody	Text	Waterbody where fish was released
Release Site	Text	Descriptive release site location
Release State	Text	2-digit state code where fish was released
Release Latitude	Text	Latitude where fish was released in Decimal Degrees
Release Longitude	Text	Longitude where fish was released in Decimal Degrees, this is a negative number
Capture Gear	Text	Gear that the fish was captured in (Anchored Gillnet, Drift Gillnet, Pound Net, Fyke Net, Trawl, etc.)
Soak Time	Number	Number of hours the gear was fishing
Mesh Stretch	Number	Stretch mesh size of gear in inches (particularly important for trawls and gillnets)
Water Depth	Number	Depth of water at capture location in meters
Water Temp	Number	Water temperature at capture location in degrees Celsius (C)
Salinity	Number	Salinity at capture location in parts-per-thousand (ppt)
Conductivity	Number	Conductivity at capture location in umhoms
Dissolved Oxygen	Number	Dissolved Oxygen at capture location in milligrams per liter (mg/L)
Dorsal PIT Tag #	Text	The identification number of the tag
Dorsal T-Bar Tag #	Text	The identification number of the USFWS tag
Pectoral T-Bar Tag #	Text	The identification number of the USFWS tag
Carlin Tag #	Text	The identification number of the USFWS tag
Dart Tag #	Text	The identification number of the USFWS tag
Other Tag #	Text	The identification number of the tag
Other Tag Type	Text	The type of tag applied (agency tag, radio, sonic, etc.)
Capture Tag	Yes/No	Was the tag on the fish at the time of capture?
Release Tag	Yes/No	Was the tag on the fish at the time of release?
Tag Remarks	Text	Additional information regarding the particular tag

Agency Name	Agency Acronym	Agency ID Number
Maine Department of Marine Resources	MEDMR	100
University of Maine	UME	101
University of New England	UNE	102
Umass Amherst Fisheries Coop	UMass-Amherst	250
Rhode Island DEM Div. of Marine Fisheries	RI-T	251
Connecticut Department of Environmental Protection	CTDEP	300
U. S. Geological Survey - Conte Lab	USGS-CAFRC	301
Holyoke Gas & Electric	HGE	302
New York Department of Environmental Conservation	NYDEC	350
Cornell University	CORNELL	351
U.S. Fish and Wildlife - Northeast Fishery Center	NEFC	352
University of Maryland - CBL - Hudson River	UMDCBL	353
Normandeau Assoc. - Hudson River	NORMANDEAU	354
Stony Brook University - New York	SUNY	355
New Jersey Department of Environmental Protection	NJDEP	400
U.S. Fish and Wildlife Service - Maryland	USFWS-MFRO-D	401
Environmental Research Center	ERC	402
Army Corps of Engineers - Delaware	ACEDE	403
Stony Brook University - New Jersey	SUNY	404
American Littoral Society	ALS	405
Delaware Division of Fish and Wildlife	DEFW	500
Delaware State University	DESU	501
Delaware Division of Fish and Wildlife-Trawl Survey	DEDFW_T	502
Maryland Dept. of Natural Resources - Ches. Bay	MDDNR	550
Maryland Dept. of Natural Resources - Atlantic	MDDNR-A	551
U.S. Fish and Wildlife Service - Maryland	USFWS-MFRO	552
U.S. Geological Survey	USGS-MD	553
Maryland Dept. of Natural Resources - Trawl Survey	MDDNR-T	554
Maryland Dept. of Natural Resources - Pound Net Survey	MDDNR-P	555
Virginia Marine Resources Commission	VMRC	600
U.S. Fish and Wildlife Service - Virginia	USFWS-VA	601
Virginia Institute of Marine Science	VIMS	602
Virginia Commonwealth University	VCU	603
North Carolina Division of Marine Fisheries	NCDMF	650
North Carolina Div. Mar. Fish. - Wilmington	NCDMF-W	651
University of North Carolina	UNC	652
North Carolina Coop Unit	NCCOOP	653
Cooperative Tagging Cruise - USFWS	NCCRUISE	654
South Carolina	SCDNR	700
Fort Stewart Environmental & Natural Resource Div.	GAFS	750
Georgia Department of Natural Resources	GADNR	751
University of Georgia	UGA	752
Georgia Department of Natural Resources-Trawl Survey	GADNR-T	753

US Army Corps of Engineers - South Atlantic Division	USACE-SAD	754
National Marine Fisheries Service	NMFS	850
NEAMAP Cruise - Virginia Inst. Marine Science	NEAMAP	851
Acadia University	AUC	852
USFWS - Call-in tag return data from Public	USFWS	999