Science, Service, Stewardship

NOAA Fisheries Shortnose Sturgeon Salvage Network

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What is the Shortnose Sturgeon Salvage Permit?

- Permit required to conduct research on dead or live shortnose sturgeon due to status under the Endangered Species Act (ESA) as endangered.

- **Salvage permit (#1614)** enhances accessibility to dead shortnose sturgeon in the wild to facilitate research.

Photo Credit: G. Wipplehauser, Maine Department of Marine Resources

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Areas of Research Enhanced by Salvage Permit

- Morphology
- Genetics
- Histopathology
- Contaminants
- Age and Growth
- Virology
- Maturity
- Biotoxins
- Cryopreservation of sperm
- Food Habits
- Parisitology
- Anthropogenic Impacts

M. Kieffer, USGS

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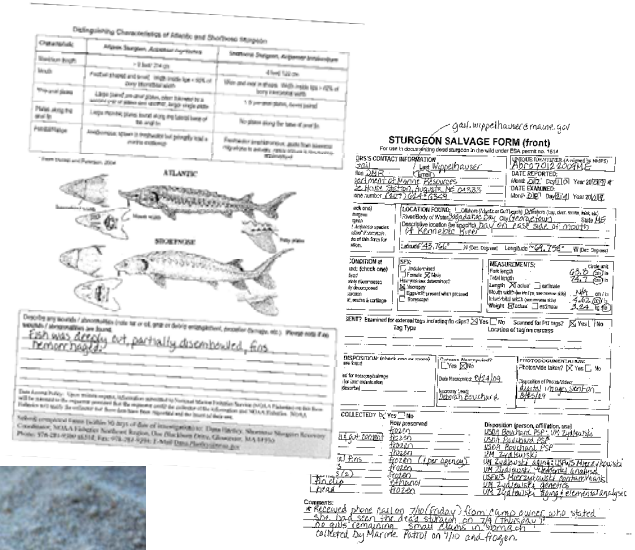
Accomplishments of the Salvage Network

- First documented vessel strike of a shortnose sturgeon in the Northeast in the Kennebec River
- Contaminants analysis performed on 8 shortnose sturgeon from the Penobscot River and Bears Bluff National Fish Hatchery, and age analysis is being performed on the fish from Bears Bluff
- University of Maine researchers have obtained scute samples from salvaged fish for stable isotope analysis
- Specimens or scutes have been obtained for education/ outreach efforts
- Specimens obtained through this permit are being used by the NMFS Observer Program for training purposes
- Investigation of possible seal predation in the Kennebec



Dorsal Scute, NMFS, NER

S. Mierzykowski, USFWS

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Accomplishments of the Salvage Network (cont'd)

Unusual Mortality Event (UME), Sagadahoc Bay, Kennebec, Maine

- 13 shortnose sturgeon and 1 Atlantic mortalities
- UME and Harmful Algal Bloom (HAB)
- Results of Necropsy's
  - Gut Contents included clams (*Gemma gemma)*
  - Saxitoxin analysis
- Conclusions
  - Lack of data on impacts of biotoxins on sturgeon health
- Next Steps
  - Continued collection of tissue samples
  - HABs: an emerging or newly identified threat to shortnose and Atlantic sturgeon?
  - Development of protocols

Collaborating Researchers on UME:

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Acknowledgement: Quay Dortsch

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