Summary of General Discussion:

Existing Population Estimates

Saint John and St. Lawrence rivers, Canada
- A rough estimate of ~10,000 Atlantic sturgeon for the Minas Basin but sturgeon originate from multiple rivers.

Kennebec River, ME
- For shortnose – an estimate of 5,000-7,000 for sampling conducted 1977-1983 while estimates for later work were ~30% higher. However, we now know that this is not a closed system.
- For Atlantics – no estimate; some were caught during capture of shortnose sturgeon.

Saco River, ME
- No population estimates.
- An average of 1 Atlantic sturgeon capture for every 5 minutes
- Given recent amendments to permits, effort can now be directed at capturing shortnose sturgeon.

Merrimack River, MA
- <100 shortnose sturgeon adults several years ago. Using new approach, have an estimate of ~2,000. Again, now know this is not a closed population so don’t know the numbers of shortnose sturgeon specific to (that originate from) this river.
- Shortnose sturgeon are still spawning in the river.
- For Atlantics, do see transients. Some spend the winter but most move out (e.g., CT river and Minas Basin).

Connecticut River (lower (CT) and upper (MA))
- Lower river - hundreds of shortnose sturgeon recaptures. Population is in the low thousands for the lower river portion.
- For Atlantics, average 150 fish per year with a fair number of recaptures (4-18 per year).
- Estimate ~7500 sturgeon in CT waters each year (range of 5000-12000) but originating from multiple rivers.
- Within Long Island Sound, there are 200 tows per year for the Long Island Sound trawl survey. Sampling is random based on their grid (sturgeon are incidentally captured).
- Other related info - Telemetry data shows first arrivals and last departures.
- Upper River - In 1994, there was an estimate of 400-700 adult shortnose for the upper river (above the Holyoke Dam). Needs re-evaluating. Don’t believe the sturgeon are reproducing there. Size range is 60-200 cm.

Suggested Follow-Up and Comments
- Mine the tagging database for recaptures.
- Genetic composition of Atlantics in the CT River is different that composition of Atlantics in the Sound (see I. Wirgin Workshop presentation); there is also a size difference.
Hudson River, NY
• No population estimate – there is an on-going study for Atlantics but not enough recapture data yet to generate an estimate (Stony Brook and State DEC work).

Suggested Follow-Up
• The DEC may still be doing a trawl survey even though the shad fishery is no longer active – if so, look into no. of incidentally caught sturgeon.

Delaware River, DE
• Shortnose sturgeon – estimate of 13,000 adults. Seems stable but there is no estimate of juveniles. Year class strength appears to be very variable. In 1999-2003, saw quite a few old fish.
• Atlantic sturgeon - estimate of 5,000-7,000 based on work in the 90’s. Since 1997, have been getting low recaptures of juveniles. Also noted, however, that the number of adults from the river is unknown. Only a few recaptures with the A5 haplotype so can’t get an estimate.

Suggested Follow-up
• Ike questions whether the 5-7 K were Delaware fish. He will look into the genetics.

Chesapeake Bay
• (MD) – no evidence of shortnose spawning. Potomac, found a female making an apparent spawning run but no clear evidence of spawning.
• (VA) - no population estimate for Atlantics in the James River. Have collected ~80 adults and have had a single recapture. So, no estimate. Per Greg Garman – the recaptured fish was captured 50’ from where it was caught the year before.

North Carolina
• No population estimates but have tagged 800-900 fish.
• On the Roanoke River, have captured 3 fish on the spawning grounds and they were VEMCO tagged. No info for shortnose.
• A few shortnose in the Cape Fear River.

South Carolina
• Winyah Bay – no shortnose sturgeon population estimate but know that spawning is occurring. Cooper River – for shortnose, ~300 spawning fish. Fish are trapped above the dam but they are reproducing there.
• Edisto River – shortnose sturgeon have been captured – a reproducing population but maybe from a hatchery. An age study of Atlantics has been conducted (1994 – present). Captured 7000 fish including hundreds of age 1 fish. Transmittered 30 adults. Estimate in process but not done yet.
• Savannah River– shortnose spawning occurs; juvenile habitats may be affected by harbor deepening).
• Altamaha River– for Atlantics, the lowest number of age 1’s was 400 for the three years of study; this year number of age 1’s = 6200.
• Satilla River - shortnose genetics pending. Have only caught a few Atlantics. Caught subadult migrants. In the 3rd year caught about 80. Genetics pending but don’t think they originated from the Altamaha.
• St. Mary’s River – 3 years with lots of effort. Not much caught of either Atlantics or shortnose. Have caught a couple dozen Atlantics but none are age-1 fish.
Research Questions –

What are the key factors limiting assessments of populations and how to get past these?
Several remarked on a lack of “interest” in sturgeon given that there is no fishery for either species and no or very limited public interest. A coordinated approach such as that which will be undertaken for Gulf sturgeon was suggested. There was some discussion of this and the need for an essential group to come together to make this work. Using a more holistic ecosystem approach was also suggested as a means of raising awareness. Such an approach has been used to show how a depletion of forage fish would affect fish species that generally garner more public interest. Using the local knowledge of commercial fishermen was also suggested as a means of gaining additional information on sturgeon abundance.

Other issues?
Lack of information on age-0 habitat and spawning sites is a critical data gap, even with available technology, was also raised as a key factor. Finally, there was a question of whether (unintentional) duplicate sampling of the same sturgeon (for genetic analyses) is a problem. The general response from the geneticists was, “No.” Per Tim King, an identical sample of a shortnose sturgeon would likely be detected and identified as a duplicate sample. Per Ike Wirgin, duplicate samples are really a small error in the scheme of things.

Action Items - see above; imbedded in river reports