

Review of Striped Bass Indicators of Abundance

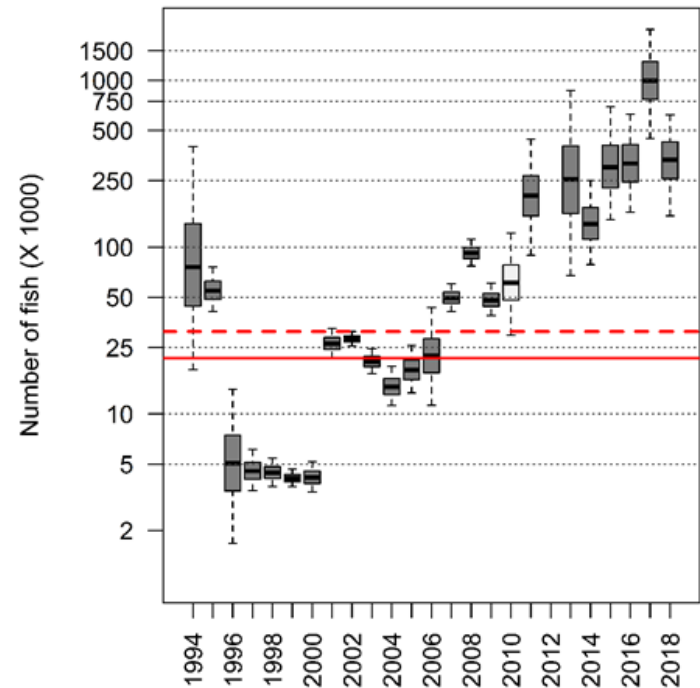


Illustration by Jeffrey C. Dorn

Spawner abundance estimates

Update of indices of spawners and biological characteristics of Striped Bass from the southern Gulf of St. Lawrence to 2018 (SR Dec 12, 2018)

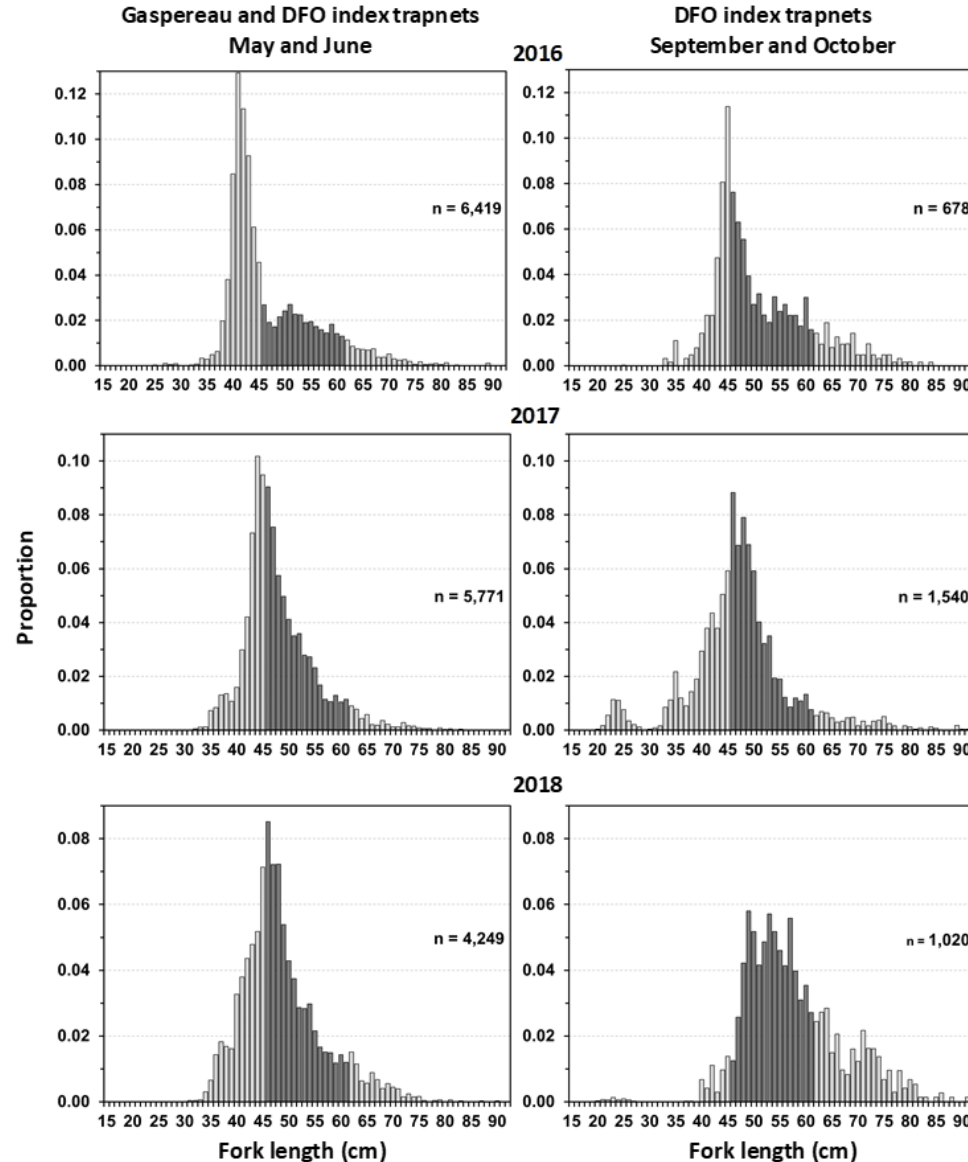
- First reported date of spawning in the Northwest Miramichi in 2018 was 29 May. First dates of spawning in other years were 30 May 2017 and 23 May 2016.
- Median estimated spawner abundance in 2018 of 333,000 (5th and 95th percentile range of 154,000 and 623,000).
- The extended distribution of bass beyond its historic range in 2017 did not occur in 2018.
- Bass that remained in southern Labrador and lower north shore seemed to have incurred significant loss.
 - Losses of these Striped Bass may in part explain the reduced abundance of Striped Bass spawners in 2018.



Estimated abundance of adult Striped Bass spawners in the Northwest Miramichi estuary between 1994 and 2018. The estimates are shown on a logarithmic scale for visibility of the full range of abundance values over the time series, from low abundances of approximately 5,000 spawners during 1996 to 2000 to the 2017 high value of approximately 1 million fish. The estimate for 2010 (unshaded interquartile box) is considered to be an underestimate due to the earlier timing of the spawning events. There is no estimate for 2012 because spawning was very early and bass left the sampling area prior to monitoring activities. Box plots are interpreted as follows: dash is the median, boxes are the interquartile range, and the vertical dashes are the 5th to 95th percentile ranges. The solid and dashed horizontal lines show the recovery objectives defined in the Recovery Potential Assessment in support of the Species at Risk Act listing decision process.

Update of indices of spawners and biological characteristics of Striped Bass from the southern Gulf of St. Lawrence to 2018 (Science Response Dec 12, 2018)

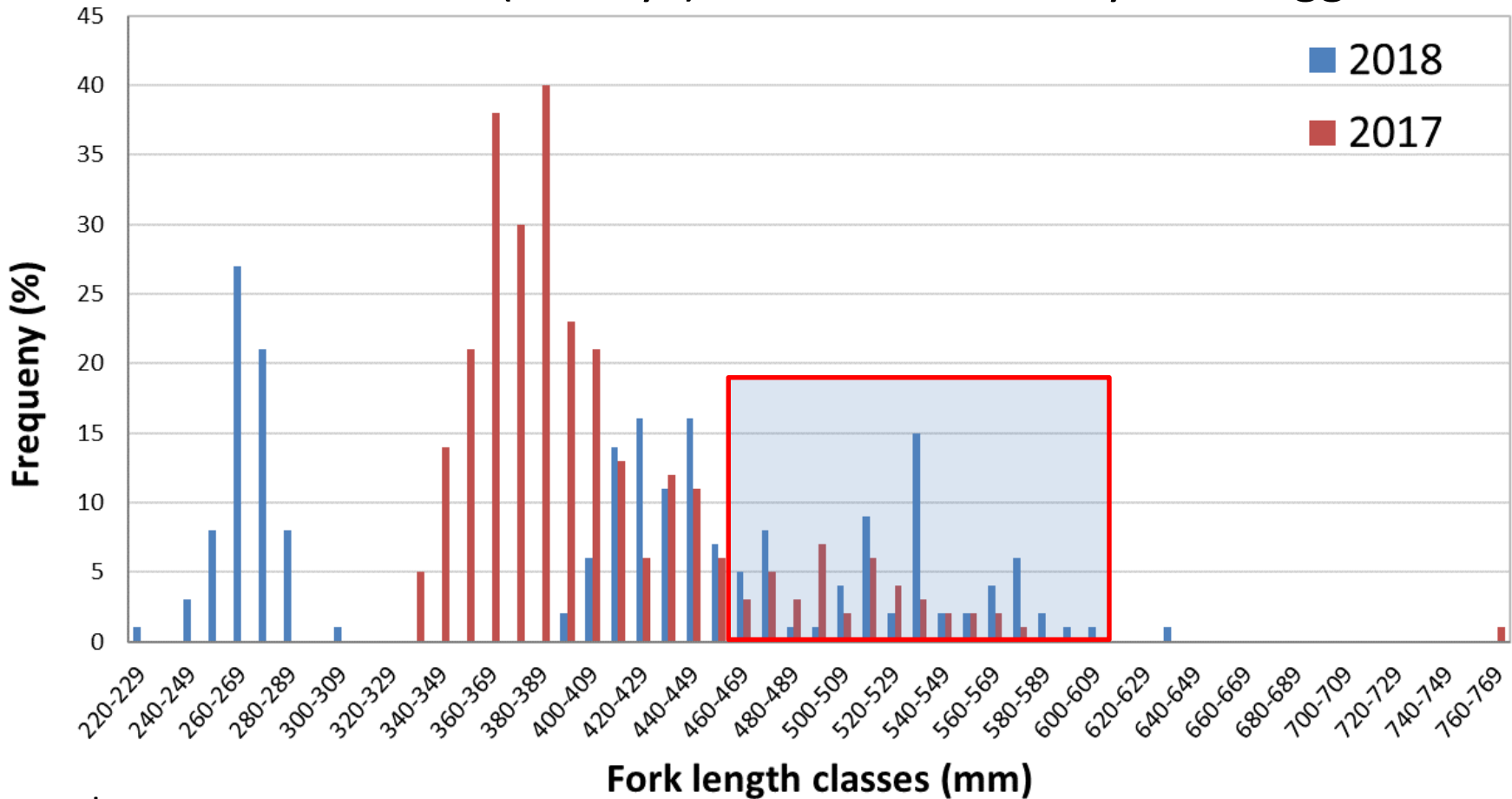
- 56% in the spring and 67% in the fall of sampled Striped Bass were within the recreational fishery retention size slot.



Fork length (cm) distributions of Striped Bass sampled in May and June from the Gaspereau trapnet in the Northwest Miramichi and DFO index trapnets (left panels) in 2016 (upper row), 2017 (middle row), and 2018 (lower row). The right panels summarize the frequency by fork length of Striped Bass sampled at DFO index trapnets in September and October for 2016 (top row), 2017 (middle row), and 2018 (lower row). The dark grey shading represents Striped Bass between 46 and 61 cm fork length which is equivalent to the current regulation slot size between 50 and 65 cm total length.

Margaree trapnet:

- 2017: 281 bass (24 days) CPUE 11.7 bass/day. 191 tagged.
- 2018: 219 bass (42 days) CPUE 5.2 bass/day. 100 tagged.



*recaptures:

East River Pictou on 23 Feb. 2018 (tagged Oct 6th 2017)

Mabou on 24 sept 2018 (tagged Sept 5 2018)

mouth of Margaree River on 5 Sept 2018 (tagged Oct 3rd, 2017)