NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Striped Bass Cooperative Angler Program

2018 Season Newsletter

NYSDEC Diadromous Fish Unit, Marine Resources

March 2019

Fellow Cooperative Anglers,

We want to welcome the new participants who joined this year and to thank all of you for being a part of this program. Without your help, we would be missing an integral part of data on the striped bass recreational fishery. The information you provide as cooperative anglers goes a long way in assessing the health of striped bass stocks along the coast.

As some of you may know, striped bass (*Marone saxatilis*) are the official New York State marine fish. Its' mild white flesh and exhilarating fight have made the striped bass an important fish for commercial and recreational fisheries up and down the eastern seaboard. When populations started to drastically decline in the 1980's, the U.S. Government passed the Atlantic Striped Bass Conservation Act of 1984. This empowered the Atlantic State Marine Fisheries Commission (ASMFC) to enforce The Atlantic Coast Striped Bass Interstate Fisheries Management Plan. One of the requirements for states with large recreational fisheries (such as New York) is to supply catch composition data and catch-effort information. Hence, the creation of the Striped Bass Cooperative Angler Program (SBCA). Since 1985, the SBCA has been recruiting volunteer anglers to log their fishing efforts and collect size information on striped bass. The information that is provided, including the number of fishing trips, hours spent fishing, and the number of fish caught, allows us to determine catch per unit effort (CPUE=fish caught / hours spent fishing) or fishing success for striped bass in New York's marine waters. Additionally, scale samples and the associated length information is used to create length-at-age keys which are incorporated in striped bass population assessments and ultimately help guide fishery management decisions. Consequently, the data you send helps us monitor the striped bass population and gives you an active role in striped bass conservation and management.

To date, the SBCA program has had over 1100 anglers join and a combination of 294 anglers report within the past 5 years. So what have been anglers reporting this year? Let's take a look at some of the numbers below.

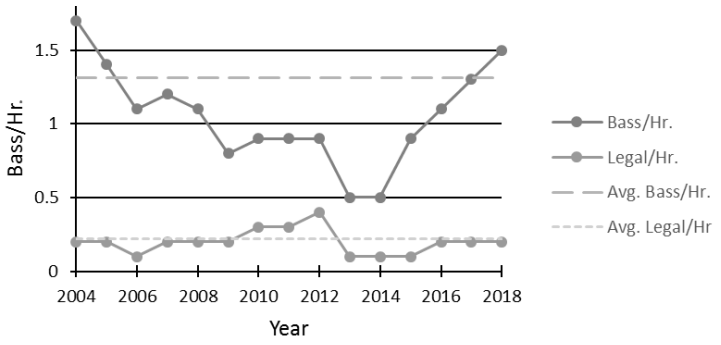
The Numbers

In 2018 we had 76 new anglers join, 11 of which participated. In total there were 34 out of 134 active anglers who submitted fishing logs and/or striped bass scale samples. We also had 69 new anglers join in 2019 so far and look forward to their cooperation in the upcoming fishing season.

Since the closing of the fishing season we have been entering all of your fishing logs and aging the 264 scale samples

that have been provided. Collectively, you spent at least 1,282 hours fishing last year (some of the trips in your logbooks didn't include the number of hours spent fishing, so this number is lower than what actually occurred), averaging about 3.0 hours per trip. A total of 1,874 striped bass were caught with 305 of them being legal (>=28"), making your CPUE (Catch Per Unit Effort= total bass caught/ total hours fished) 1.5 bass/hr and 0.2 legal/hr respectively (Fig.1). Out of the 305 legal bass, 112 (36.7%) were kept. Overall, the CPUE in 2018 was better than it was in 2017 and was above the program average of 1.3 bass/hr.

Fig. 1 CPUE and Legal CPUE 2018



Fishing Methods

2018 saw 53% of striped bass taken from shore, 42% by boat, and 5% by kayak. The most popular bait used by anglers was artificial (81%), with other 19% using dead/real, live, or a combination of the previous baits. However, 77% of legal striped bass were caught from a boat and 50% were caught using artificial.

Characteristic of the striped bass migration, fish move from south to north in the spring and from north to south in the fall. Consequently, the greatest number of fish caught in 2018 were in the months of May and October. The majority of fishing effort was spent in Zone 3 (Rockaway Inlet to Smiths Point), and the majority of bass were caught in Zone 2 (Throgs Neck Bridge to Rocky Point).

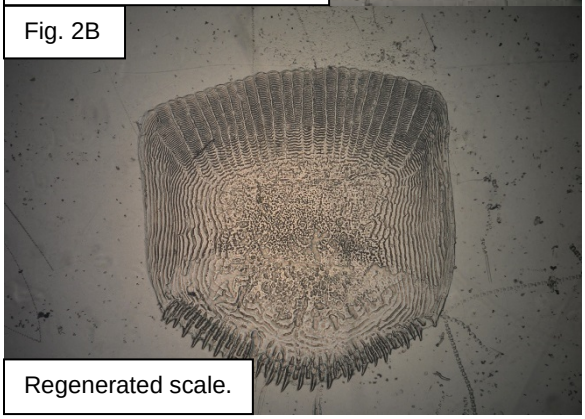
Age/Size Information

From the 264 scale samples that you have provided, we were able to age 248 of them. We age the scales by first pressing them on a plastic sheet and then counting the annuli (rings) on the scale, in the same way one would count rings on a tree (Fig. 2A). Sometimes scales are not able to be aged due to poor scale quality or regeneration (Fig. 2B). When a scale falls off a fish, it begins to grow back; during this regeneration time the growth pattern that was previously on the scale is not recognizable.

Fig. 2A

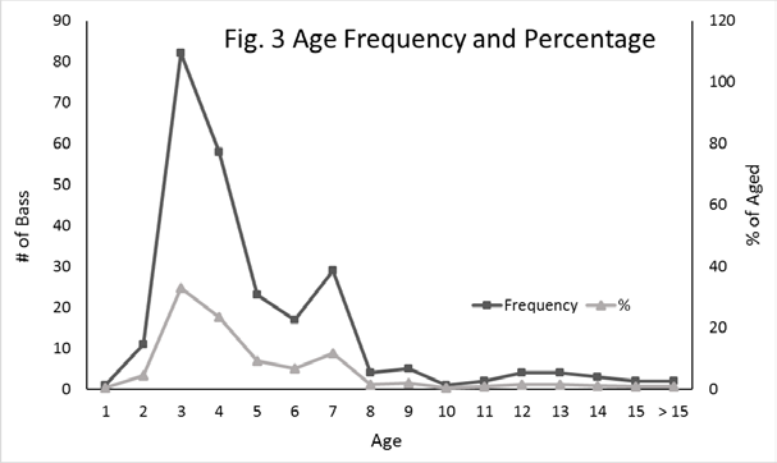
Two-year old striped bass.

Fig. 2B



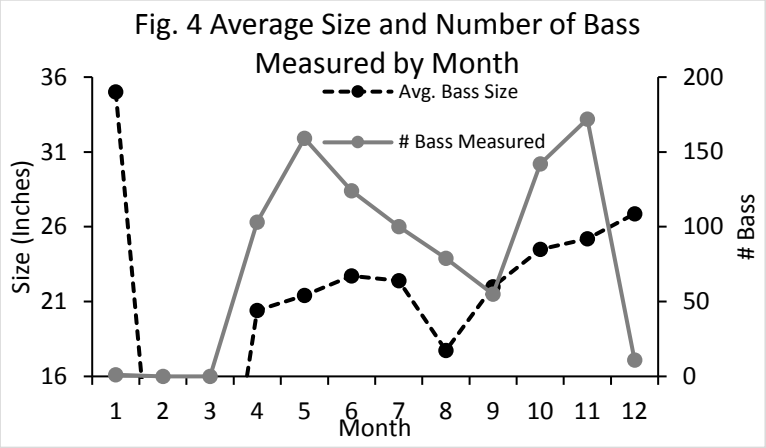
Regenerated scale.

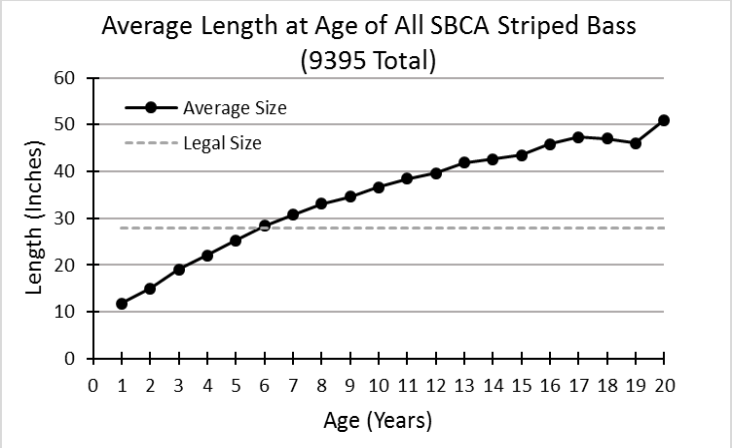
From the 248 scales we were able to age, the 2014 and 2015 year classes were most abundant with a small peak of the 2011 year class (Fig. 3). This correlates with the strong recruitment numbers from those years. Because environmental and biological factors change from year to year, spawning success rates vary causing some year classes to be more abundant than others.



Many anglers reported this year that there were a great number of smaller striped bass in the stock. From the 1,874 fish caught, a total of 946 measurements were taken and the average size of these fish were plotted by month. If you look at Fig. 4 you can see the average size each month never exceeded 27 inches (except 1 fish caught in January at 35 inches)

Overall, the average size of all of the bass cooperative anglers were able to measure was 22.5 inches. The smallest fish caught was 6" inches, and the largest was a 52 inches fish that weighed about 55 pounds. When we have both age and length information, we are able to create length-at-age keys (Fig.5). These keys help scientists estimate growth rates and the abundance of particular year classes over time. Length-at-age also becomes an important contributor to adjusting regulations, particularly when the sexual maturity of a species is based on age, and therefore size. For example, if length-at-age data showed that anglers are catching legal sized fish that are below ages when they mature, regulations would have to be changed so the fish could have the opportunity to spawn before being removed from the population. Striped bass grow and mature at different rates from year to year due to a variety of factors including fishing pressure, and genetic and environmental influences. In general, female striped bass mature between 4-8 years old and males between 2-4 years old. Thus, the information you provide plays an important role in monitoring and managing striped bass.



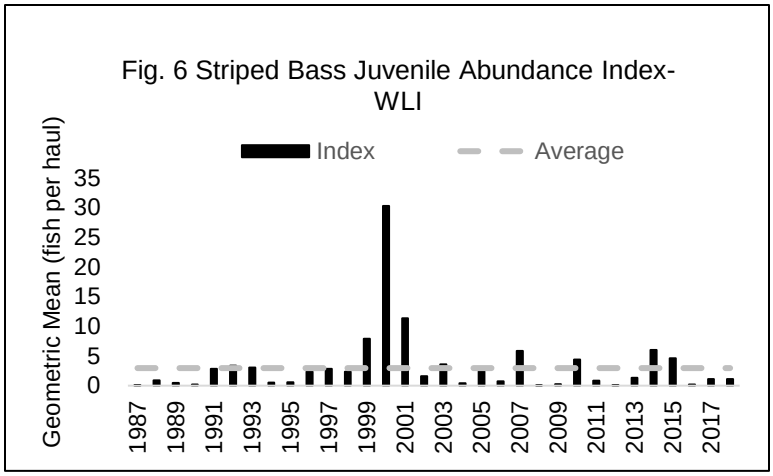


NYS DEC Sampling

In addition to this program, the DEC also conducts a survey for juvenile striped bass on the Hudson River and in the western bays on Long Island. These surveys are used to create an index of abundance for young striped bass helping us to assess striped bass spawning success. Our unit runs the survey on Long Island and we sample in Little Neck Bay, Manhasset Bay, Hempstead Harbor, Oyster Bay, and Jamaica Bay. In each bay, we set a beach seine at fixed stations from May-October. All of the fish we capture in our seine are counted, measured, and released. When we catch striped bass, we measure, weigh, and take scales from them to age them. Additionally, if the bass is 6" or greater, we tag it. You may occasionally catch a striper with a tag. A variety of different agencies tag them and if you catch a fish with a tag, please report it to the appropriate agency as these tags help us understand striped bass migration patterns and survival rates.

We wanted to share some of our findings with you from our 2018 sampling. We tagged 263 bass, and caught a total of 533 striped bass ranging in size from 1.5" to 36". The abundance index for juvenile striped bass on Long Island in 2018 was below average for the third consecutive year (Fig.6).

While this is discouraging, it is not uncommon for the abundance of juveniles to vary from year to year, since a lot of it has to do with the environmental conditions. We did have two above average years in 2014 and 2015, and hopefully this year will be better than the last.



Complaints, Concerns, and Public Participation in Fisheries Management

While recruiting anglers at some of the fishing expositions this year, I was able to talk to a few of you about the program. A few suggestions that were made, included making a video on how to take scales and safe handling techniques. This year we are working to coordinate with the correct staff members to create a short clip on handling striped bass and successfully taking scale samples for ageing. This video may not be available until later in the season.

Regulations

The 2019 striped bass regulations in marine waters, will be 1 fish at 28" from April 15-December 15. This means you can only keep one striped bass per day, per person, that is 28" or greater. For information on other regulations check the NYS DEC website (www.dec.ny.gov). Please remember to sign up for the no cost recreational fishing license/registry (https://decals.dec.ny.gov/DECALSCitizenWeb/citizenhome.htm) before heading out to fish.

Important Reminders

- If you would like to receive updates via email and haven't already supplied us with one, please consider contacting us stating you would like to become paperless.
- Report all of your trips, even when you catch nothing. Zero catch trips are just as important as ones when you catch fish.
- Fill in the "hours fished" in your logbook and/or on the scale envelopes.
- Take the time to fill in as much information as you can provide in the logbook or on a scale envelope.
- Remember to take multiple scales (10-20) when collecting scale samples.
- If you need a new logbook or more scale envelopes, email Zach or contact him directly.

Closing Remarks

We would like to thank all of you for putting in the time and effort to collect data for the program. We understand that when the fishing is fast and furious it may become a task stop and take lengths and/or scale samples from every fish you catch. We want to remind you that any information you provide us with is information we otherwise wouldn't have; however, try and be as accurate as possible when recording this into your logs.

We hope that you enjoyed this newsletter. As always, feel free to contact me with comments, ideas, suggestions, or stories. If you are receiving this via email, please find an attached PDF of the graphs and tables summarizing the years' data. You may have noticed our letters contain your Angler ID#. This is so you can reference your contributions to the SBCA program in the PDF. If you are receiving this by mail and are interested in obtaining the PDF, please contact us using the information below.

Wishing you tight lines in the upcoming season!

- The Diadromous Fish Unit

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