

Black Sea Bass Management:

What's Best for
the Fish *and*
the Fishermen?

By Peter Clarke, Senior Fisheries Biologist



Andrew Nichols

Arguably one of the most popular recreational fish pursued by anglers along the New Jersey coast is the black sea bass. Anchoring the spring and fall fishery for boat fishermen and providing shore-based anglers the opportunity to bring fine table fare back from a day of fishing, black sea bass are abundantly available from the coastal jetties and beaches to offshore reefs, wrecks and rock piles.

Having a unique life-history strategy, black sea bass are protogynous hermaphrodites, meaning that most individual fish begin their life as females but can switch their gender to male when the number of males in the population declines. While it is unknown what proportion of females make this gender shift, it is certain that this strategy helps to safeguard the population by securing the future reproductive success of the species.

With an extensive distributional range, recent years find black sea bass from the Gulf of Mexico up through Maine, although they are most abundant in the mid-Atlantic region—particularly off our Jersey coast where they provide anglers with countless opportunities for success. Recent stock assessments place black sea bass at the top of their population abundance curve, with their spawning stock biomass at its 30-year peak.

Management efforts naturally lag behind population abundance for this species. As the black sea bass population doubled and tripled, regulatory constraints tightened, largely due to angler success. It can be difficult *not* to catch a black sea bass when a baited hook is dropped in the water—they are just that plentiful. The result: because angling success is so high, harvest regulations are now quite conservative.

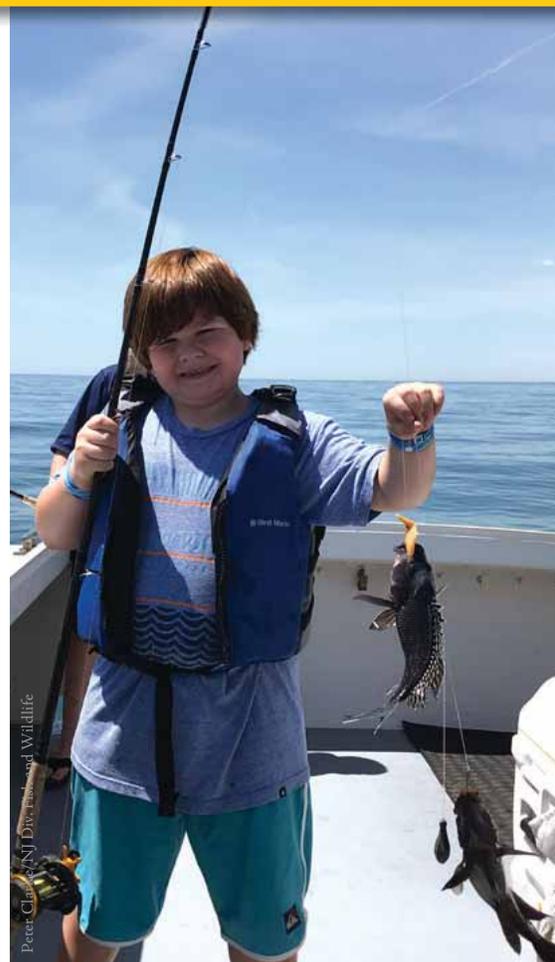
The cause of this abundance is the extremely large 2011 year-class that entered the fishery as 12- to 14-inch fish over the past several years. When a year class of baby fish is spawned at record numbers, within four or five years those fish “recruit” into the recreational and commercial fisheries, meaning they grow to a size that makes them available to harvest. To compound this sea bass management dilemma, the 2011 year-class is now part of the overall spawning stock biomass and has provided an equally—or possibly stronger—2015 year-class as detected in fisheries survey data like the New Jersey Ocean Trawl Survey and the National Marine Fisheries Service Bottom Trawl Survey. As the available black sea bass biomass and size of fish from the 2015 year-class increases, anglers will continue to see regulations that prevent surpassing the recreational harvest limit.

To address this dilemma, the Atlantic States Marine Fisheries Commission, Mid-Atlantic Fishery Management Council (Council), National Marine Fisheries Service and partner states like New Jersey

initiated two new addenda (31 and 32) to the Black Sea Bass Fishery Management Plan. These two addenda follow many others that have similarly attempted to address management of the black sea bass fisheries.

Draft Addendum 31 is aimed at allowing “conservation equivalency,” meaning that states would have increased flexibility when crafting measures that still constrain that state to recreational harvest limits, but do not require following closely to established federal regulations. Draft Addendum 32 addresses management strategies based on distribution of the resource stemming from coastal changes of black sea bass abundance and distribution. Options included in this addendum would allow the fisheries management boards and Council to act in a more progressive nature based on biomass and fishery performance.

Through these addenda, New Jersey is optimistic that as biomass increases within the black sea bass population, coastwide management will not fall behind, but instead will use real-time and accurate indicators of the stock and the fishery to craft sensible measures for both the fishermen and the fish.



Henry Clarke enjoys fishing for black sea bass, along with his brother Jack Clarke shown on the Contents page.



Sonar is used to detect what lies beneath the water's surface. This display reveals the prevalence of sea bass in New Jersey's waters.

Marine Fisheries: Recreational Surveys

Be Counted

The Access Point Angler Intercept Survey (APAIS) has been conducted by New Jersey Division of Fish and Wildlife's Marine Fisheries staff since 2016. You may see our interviewers at marine public access fishing sites throughout New Jersey. The survey targets marine recreational anglers to obtain information about fishing effort, catch and participation. The more fishing catch data collected, the more successful this survey becomes for estimating overall catch, a crucial data component on which fisheries managers depend.

Along with increased outreach at public events, our Marine Fisheries staff are interested in talking with fishing clubs/groups about the importance of the APAIS. We rely heavily on our valued anglers, creating a joint venture to preserve New Jersey's natural resources. Contact Maryellen Gordon at (609) 748-2020 for us to come to your meeting or event. We look forward to meeting you!

If you're not "intercepted" for an interview while fishing or contacted through the Saltwater Registry, you can still participate by submitting a fishing report after each saltwater trip to the New Jersey Volunteer Angler Survey. Your reports have a real impact on how New Jersey's ocean resources are managed. Submit online reports at www.NJfishandWildlife.com/marinesurvey.htm.

Access Point Angler Intercept Survey Totals 2018

Month	Site Assignments	Headboat Assignments	Intercepts				Total
			Charter	Private/Rental	Shore	Headboat	
March	54	3	0	1	26	23	50
April	60	3	5	55	82	39	181
May	121	8	36	251	139	80	506
June	120	12	46	369	229	149	793
July	124	13	41	433	192	203	869
August	146	13	97	497	356	183	1,133
September	130	12	46	216	137	151	550
October	127	11	37	261	119	121	538
November	107	5	35	198	83	66	382
December	97	3	9	64	35	42	150
	1,086	83	352	2,345	1,398	1,057	5,152



Maryellen Gordon/NJ Div. Fish and Wildlife

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May 19, 2019

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New Jersey Division of Fish and Wildlife, along with our co-sponsors—New Jersey Division of Parks and Forestry, New Jersey State Federation of Sportsmen's Clubs, Jersey Coast Anglers Association, and New Jersey Beach Buggy Association—congratulate Keri Mauger of Mohonton, PA who took the grand prize and NJ Governor's Cup by catching a 36-inch



1st Place in the High School Team Category, Toms River High School South, with Acting Commissioner Catherine McCabe at the Governor's Surf Fishing Tournament.

bluefish during the 2018 tournament. Ms. Mauger received two-rod and reel combinations, a pair of Costa Del Mar sunglasses, a plaque and will have her name engraved on the Governor's Cup.

Also, congratulations to Toms River High School South for winning first place in the High School Team Category with a 35 1/2-inch bluefish. Toms River High School South had their name engraved on the new High School Team Cup and received a 1st place plaque.

All participants who **mailed** their registration were entered into an **early entry raffle** for a Coastline Surf System.

Prizes are awarded in different species and age categories. For more information and to register, visit NJFishandWildlife.com/gaft.htm

A special thanks to our 2018 donors:

- American Angler
- Chestnut Neck Boat Yard
- Grumpy's Bait and Tackle
- Jersey Coast Surfcasters
- NJ Div. of Fish and Wildlife's Hooked on Fishing—Not on Drugs Program
- World Jeep

A special thanks to our 2018 High School Team Category donors:

- The Fisherman
- Shark River Surf Anglers
- The Reel Seat

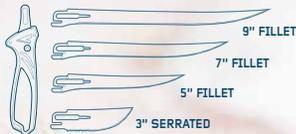
Register now for the 28th Annual Governor's Surf Fishing Tournament to be held on May 19, 2019!

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Blueline Tilefish:

A PROFILE



Dale Dirks, courtesy of Maryland DNR

By Tom Sanfilippo, Hourly Fisheries Technician

Common Name: Blueline tilefish, gray tilefish

Scientific Name: *Caulolatilus microps*

Background

Blueline tilefish are frequently caught as bycatch by long-liners and charter/party boats fishing for golden tilefish. Tilefish are relied upon on to "save a trip," meaning that the catch of a tilefish by anglers fishing for species like tuna can still make the trip worthwhile, even if the original target species is not biting.

Management

Tilefish are non-migratory, making them highly susceptible to the pressures of overfishing. Previously, blueline tilefish had no regular federal regulations for fish caught north of Virginia, because the fishery is data-deficient in the mid-Atlantic region. For this reason, along with the increasing number of catches, an interim fishery management plan went into effect in June 2016 to limit the number of tilefish caught and to prevent overfishing while data is gathered and the stock is further assessed. New Jersey Division of Fish and Wildlife cooperated with the Mid-Atlantic Fishery Management Council to collect gonads (reproductive organs) and otoliths (bone-like structures within the head used to age fish) in hopes of gaining a better understanding of the population, age and reproduction rates of blueline tilefish off New Jersey's coast.

Biological Characteristics

Blueline tilefish are dull-olive gray, gradually turning white moving toward their underside. They lack a fleshy structure behind their head which visually separates them from the popular golden tilefish. Blueline tilefish have a long snout, a narrow gold stripe underlined in fluorescent blue from the snout to the tip of the eye and a strong, flat spine on their gill cover. These fish also have an elongated, continuous dorsal and anal fin that is roughly half the length of the body. Males tend to be larger than females, can grow up to 32 inches long and live for up to 15 years.

Range

Western mid-Atlantic Ocean south to Florida; northern and eastern Gulf of Mexico.

Habitat

Bluelines live in deep water around the continental shelf and upper slope. Their preferred water temperature range is 59°–73°F, with a depth range from 240–780 feet in a mud and rubble substrate, allowing them to construct and inhabit burrows that are shared with other fish. In New Jersey, blueline tilefish are most commonly found near golden tilefish, and in shallower waters, near black sea bass.

Food and Feeding

Being a bottom dwelling fish, blueline tilefish are opportunistic feeders that prey mainly on benthic invertebrates associated with the seafloor substrate that they inhabit. These invertebrates include portunid crabs, mollusks, polychaete worms and brittle stars, although blue-lines occasionally feed on smaller fish.

Spawning

Blue-line tilefish typically begin to spawn at 4–5 years old when they reach 17–18 inches in length for females and 23.5 inches for males. Spawning occurs April–October. During this time, females can release upwards of four million free-floating eggs into the water column. It is speculated that blue-line tilefish are hermaphroditic—able to reverse gender.

Migration

Blue-lines are not known to migrate, however, they will move if the constant deep-water temperature they prefer drops to below their minimum survival threshold.

How to Catch

Because blue-line tilefish live at depths of up to 780 feet, a reel packed with lots of line (multifilament preferred) is essential, along with a rod stout enough to handle a one-pound weight. A multi-hook rig is the most common set-up with a maximum of five hooks per rod. This allows the angler—when fishing in 700 feet of water—to keep fishing if a bite is missed rather than serving as an attempt to hook multiple fish per drop. A variety of baits are used—from crabs to clams—but the bait must be fresh to stay on the hook and entice the bite. While many avid fisherman use tricks such as glow beads or lights, the key to catching tilefish is location, location, location. 

References:

The IUCN Red List of Threatened Species: *Caulolatilus microps*
www.iucnredlist.org/details/190191/0

South Atlantic Fisheries Management Council: Blue-line Tilefish
<https://safmc.net/regulations/regulations-by-species/blue-line-tilefish/>

Reproductive Biology of The Blue-line Tilefish, *Caulolatilus Microps*, off North Carolina and South Carolina
https://archive.org/stream/cbarchive_54318_reproductivebiologyoftheblueli1971/reproductivebiologyoftheblueli1971#page/n15/mode/2up

Tilefish, *Lopholatilus chamaeleonticeps*, Life History and Habitat Characteristics (NOAA)
www.nefsc.noaa.gov/nefsc/publications/tm/tm152/tm152.pdf



Mark Milici retains the N.J. State Record blue-line (gray) tilefish from 2015 at 23 pounds, 4 ounces.

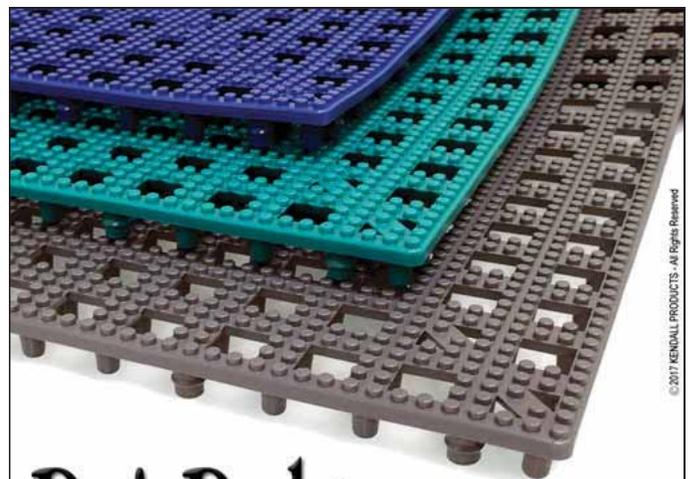
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