



National Oceanic and Atmospheric Administration  
National Marine Fisheries Service



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# FishWatch - U.S. Seafood Facts

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## Black Sea Bass (*Centropristis striata*)

- According to the most recent assessment, black sea bass in the Mid-Atlantic is considered rebuilt and overfishing is not occurring. In the South Atlantic, black sea bass is overfished and overfishing is occurring.
- An amendment was enacted in 2006 to end overfishing for black sea bass in the South Atlantic by gradually reducing fishing mortality for the species.
- Black sea bass is a good low-fat source of protein and magnesium. For more on nutrition, see Nutrition Facts. (USDA)
- Black sea bass is an important recreational and commercial species along the Atlantic coast of the U.S.



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### Nutrition Facts

Servings 1	
Serving Weight 100g	
<b>Amount Per Serving</b>	
<b>Calories 97</b>	
<b>Total Fat</b>	<b>2 g</b>
<b>Total Saturated Fatty Acids</b>	<b>0.511 g</b>
<b>Carbohydrate</b>	<b>0 g</b>
Sugars	0 g
Total Dietary Fiber	0 g
<b>Cholesterol</b>	<b>41 mg</b>
<b>Selenium</b>	<b>36.5 mcg</b>
<b>Sodium</b>	<b>68 mg</b>
<b>Protein</b>	<b>18.43 g</b>

### Sustainability Status

**Biomass:** The results from the most recent stock assessment of black sea bass in the Mid-Atlantic were found to be uncertain, but biomass was estimated to be 3% above the target level in 2008. In the South Atlantic, biomass is only 27% of the target level.

**Overfishing:** Yes (South Atlantic); No (Mid-Atlantic)\*

**Overfished:** Yes (South Atlantic); No (Mid-Atlantic)\*

**Fishing and habitat:** In the Mid Atlantic, primary gear includes sea bass pots, otter trawls, and hook and line. In the South Atlantic, the most common commercial gear is traps (or pots), with some fish taken by handline as well. Some impacts have been reported from traps and trawl gear but no specific mitigation has been proposed in the Mid-Atlantic. Trawling has been banned in the South Atlantic since 1989.

**Bycatch:** Bycatch in the pot fishery is minor as the gear is often not baited (black sea bass are drawn to structure so they will enter without bait). Floating traps and weirs take a variety of marketable species incidentally including squids, flounders, striped bass, bluefish, and scup. The amount of bycatch in the trawl fishery is dependent on the mesh size.

**Aquaculture:** The demand for black sea bass exceeds supply, and the high market value has prompted research to evaluate their potential for commercial aquaculture. NOAA researchers recently evaluated the aquaculture potential of black sea bass and found promising results - that **sea bass can be grown from larvae to adults in recirculating aquaculture systems.**

\*Results from the most recent assessment of Mid-Atlantic black sea bass were found to be uncertain.

Close-up of black sea bass adult being stripped for eggs for use in aquaculture research.



### Science and Management

Black sea bass north of Cape Hatteras, North Carolina are managed cooperatively by the Mid-Atlantic Fishery Management Council (MAFMC) and the Atlantic States

### Did you know?

During spawning season, males

Marine Fisheries Commission (ASMFC) under the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP). The commercial fishery is managed through an annual coastwide quota, size limits, and gear restrictions, while recreational fisheries are controlled by size, season, and bag limits. Recreational regulations are generally the same in Federal and State waters, but in cases where they differ, federally permitted charter/party vessels are required to abide by the more restrictive measure.

The stock of black sea bass south of Cape Hatteras down to Florida is managed by the South Atlantic Fishery Management Council (SAFMC) under the South Atlantic Snapper-Grouper FMP. Amendment 13C was implemented in 2006 to gradually reduce fishing mortality to end overfishing. Commercial fishery regulations include a limited access permit, an annual commercial quota, a 12 inch total length minimum size limit, and gear restrictions. Recreational regulations include an annual recreational allocation, a 12 inch total length minimum size limit, a daily bag limit of 15 black sea bass per person, and gear restrictions.

**develop a pronounced blue hump on their heads and aggressively defend their territory.**

**Black sea bass are protogynous hermaphrodites - they mature first as females, and as they grow larger, they change sex to males.**

**There are three distinct stocks of black sea bass in the United States: Northern, Southern, and Gulf of Mexico.**

**Adult black sea bass are attracted to structures, so they will enter a trap or pot without bait.**

## Life History and Habitat

Life history, including information on the habitat, growth, feeding, and reproduction of a species, is important because it affects how a fishery is managed.

- **Geographic range:** Along the U.S. Atlantic coast from the Gulf of Maine to Cape Canaveral, Florida, and in the Gulf of Mexico.
- **Habitat:** Black sea bass inhabit temperate and subtropical waters. They prefer structured habitats such as reefs, wrecks, or oyster beds.
- **Life span:** Up to 15 years, although black sea bass older than 9 years are rare.
- **Food:** Black sea bass are opportunistic feeders, eating whatever prey is available, but especially crabs, shrimp, worms, small fish, and clams.
- **Growth rate:** Slow
- **Maximum size:** Up to 23.5 inches and 8 pounds. Larger black sea bass are males, and smaller ones are female.
- **Reaches reproductive maturity:** Most black sea bass mature between the ages of 2 and 3.
- **Reproduction:** Black sea bass change sex from female to male. Most females will change to males between ages 2 to 5; no females have been found among fish over age 7. Although some fish may have always been male, the majority of adult males are sexually reversed females. Researchers are not certain why females change to males but speculate that the relative scarcity of males in a spawning group may be the stimulus for a female to switch sex. Females produce between 30,000 and 500,000 eggs in a spawning season, depending on the size of the fish.
- **Spawning season:** Spawning begins in March off North Carolina and occurs progressively later (until September) further north.
- **Spawning grounds:** Coastal areas at depths ranging from 65 to 160 feet on the intercontinental shelf.
- **Migrations:** Black sea bass in the Mid-Atlantic migrate to inshore coastal areas and bays in the spring and offshore wintering areas in the fall with changes in water temperature. In the South Atlantic, there is relatively limited migration.
- **Predators:** Predators include little skate, spiny dogfish, monkfish, spotted hake, and summer flounder.
- **Commercial or recreational interest:** Both
- **Distinguishing characteristics:** Large black sea bass are black, while smaller ones are more of a dusky brown. The exposed parts of their scales are paler than the margins, giving the fish the appearance of being barred with a series of longitudinal dots. The belly is only slightly paler than the sides. The fins are dark with dusky spots, and the dorsal fin is marked with a series of white spots and bands. During spawning, males turn bright blue and have a conspicuous blue hump on their heads.



Small black sea bass, like this one, are dusky brown, while larger ones are black.



A NOAA Fisheries Service scientist attaching a tube tag on a black sea bass as part of a [joint research project](#) among federal and state governments and commercial and recreational fishermen to better understand black sea bass abundance, distribution, and harvest.

## Role in the Ecosystem

## Additional Information

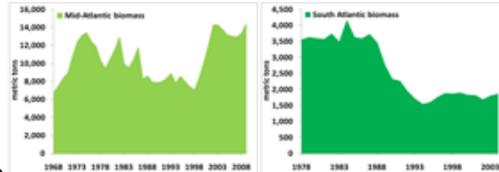
**Market name:** Bass, Sea

**Vernacular names:** Blackfish, Rock Bass, Black Bass, Tallywag

## Biomass

Biomass refers to the amount of black sea bass in the ocean. Scientists cannot collect and weigh every single fish to determine biomass, so they use models to estimate it instead.

These biomass estimates can help determine if a stock is being fished too heavily or if it may be able to tolerate more fishing pressure. Managers can then make appropriate changes in the regulations of the fishery.



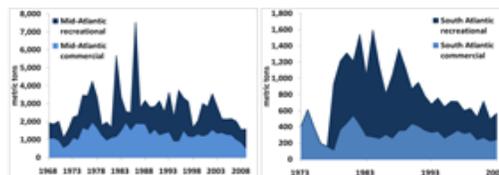
In the Mid-Atlantic, adult survey abundance indices peaked in 2003 but recently declined to below average levels. Total biomass has increased in recent years as several above average year classes contribute to the population biomass. Mid-Atlantic black sea bass was declared rebuilt in 2009.

In the South Atlantic, total biomass and spawning stock biomass have shown similar trends - relatively unstable until the mid-1980s, declines between the mid-1980s and mid-1990s, and slight increases since then. By 1995, both total biomass and spawning stock biomass had declined to less than half of their 1978 values.

## Landings

Landings refer to the amount of catch that is brought to land. In the Mid-Atlantic, commercial landings of black sea bass declined dramatically from the peak of 9,900 metric tons reported in the 1952 to a low point in 1971 of 566 metric tons.

Commercial landings since 1974 have remained relatively steady around 1,400 metric tons. In the past decade, recreational fisheries have accounted for half of total landings by weight, averaging 1,600 metric tons annually. In 2007, recreational landings were 1,026 metric tons, a substantial decrease from the 2002 landings of 1,961 metric tons and below the 1981-2005 average of 1,600 metric tons.

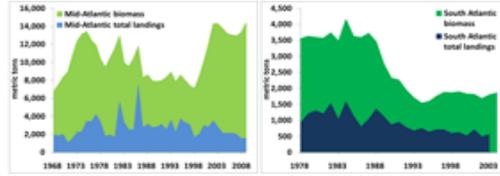


In the South Atlantic, commercial and recreational fisheries contribute fairly equally to black sea bass total landings. Black sea bass commercial landings peaked in 1974 at 615 metric tons (1.36 million pounds) and again in 1981 at 543 metric tons (1.20 million pounds). Since then, landings have fluctuated between 250 and 250 metric tons (0.6 to 1 million pounds) with little trend over the past 20 years. Recreational landings were high and variable in the 1980s, peaking in 1984 at 1,014 metric tons (2.2 million pounds). They declined through the 1990s, averaging 291 metric tons, or 0.64 million pounds since 1990. Headboat landings (larger, for-hire recreational vessels) peaked in 1982 at 318 metric tons (0.70 million pounds), then declined and since 1990 have averaged 81 metric tons (0.18 million pounds).

Note: Total landings (commercial and recreational) are shown in the graph. For the Mid-Atlantic, landings from 1950 to 1978 are commercial only. From 1979 forward, recreational landings are included. For the South Atlantic, recreational landings are not included in the total from 1973 to 1977.

## Biomass and Landings

Biomass and landings data can sometimes be used to detect trends in a fishery. They may influence each other, and factors such as changes in management measures, fishing effort, market preferences, or environmental conditions may impact landings and biomass as well.



Data sources:

Biomass and landings from [2005 South Atlantic Black Sea Bass Stock Assessment Update](#), [Black Sea Bass 2009 Stock Assessment Update](#)

## Important Dates

### South Atlantic

**1983** – Snapper Grouper Fishery Management Plan (FMP) implemented, establishing an 8 inch minimum size limit for black sea bass, a 4 inch trawl mesh size, and gear limitations and designating modified habitats or artificial reefs as Special Management Zones

**1989** – Amendment 1 prohibits trawling south of Cape Hatteras, North Carolina and north of Cape Canaveral, Florida

**1991** – Amendment 4 prohibits fish traps, except for black sea bass traps, and other gear north of Cape Canaveral, Florida; requires permit, gear, and vessel id for specified black sea bass traps

**1992** – Regulatory Amendment 4 modifies definition of black sea bass pot, allows multi-gear trips for black sea bass, and allows retention of incidentally-caught fish on black sea bass trips

**1997** – Amendment 8 establishes a program to limit effort in the snapper grouper fishery

**1997** – Amendment 9 increases the black sea bass minimum size limit from 8 inches total length to 10 inches total length for both recreational and commercial fishermen and establishes a recreational bag limit of 20 black sea bass per person per day; also requires escape vents and escape panels with degradable fasteners in black sea bass pots

**2006** – Amendment 13C addresses overfishing for black sea bass by gradually reducing fishing mortality for black sea bass

### Mid-Atlantic

**1996** – Black Bass FMP is incorporated into the Summer Flounder FMP; establishes black sea bass management measures including commercial quotas, recreational harvest limits, size limits, gear restrictions, permits, and reporting requirements

**1997** – Amendment 10 modifies commercial minimum mesh requirements, continues commercial vessel moratorium, and prohibits transfer of fish at sea

**1998** – Amendment 11 modifies certain provisions related to vessel replacement and upgrading, permit history transfer, splitting, and permit renewal regulations

**2001** – Framework 1 establishes quota set-aside for research

**2003** – Amendment 13 revises the black sea bass commercial quota system

**2004** – Framework 5 establishes multi-year specification setting of quota

**2007** – Framework 7 builds flexibility into the process to define and update status determination criteria for species

**2009** – Mid-Atlantic black sea bass is considered rebuilt

## Notes and Links

### General Information:

[South Atlantic Fishery Management Council Fish ID and Regulations for Black Sea Bass](#)

[NOAA Fisheries Service Northeast Fisheries Science Center \(NEFSC\) Status of Fishery Resources off the Northeastern U.S. - Black Sea Bass](#)

[Atlantic States Marine Fisheries Commission \(ASMFC\) Black Sea Bass page](#)

[ASMFC Species Profile: Black Sea Bass](#)

[ASMFC Habitat Fact Sheet for Black Sea Bass](#)

[NEFSC Cooperative Black Sea Bass Tagging Project](#)

[NEFSC Black Sea Bass: Life History and Habitat Characteristics](#)

**Fishery Management:**

[History of Management for the Snapper Grouper Fishery of the South Atlantic](#)

[Fishery Management Plan \(FMP\) for the Snapper Grouper Fishery of the South Atlantic](#)

[History of the Summer Flounder, Scup, and Black Sea Bass FMP](#)

[Amendment 13 to the Summer Flounder, Scup, and Black Sea Bass FMP](#)

[ASMFC FMP for Black Sea Bass](#)

**Stock Assessments:**

[2005 South Atlantic Black Sea Bass Stock Assessment Update](#)

[Black Sea Bass 2009 Stock Assessment Update](#)

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