

Life History of Black Sea Bass and Fishing for them off Maryland's Coast

June Feature Story
by Jim Casey



Black sea bass (*Centropristes striatus*) is a salt water fish that ranges in the Atlantic coastal waters, from northern Florida to Cape Cod. In Maryland, they are found in the inland bays and in the ocean out to 70 fathoms (420 feet), depending on the season of the year. They appear on the inshore wrecks and reefs during the first or second week in May and withdraw back to the continental shelf in early November. Some of the population combines the offshore movement with a slight southerly migration to offshore Virginia and North Carolina, as they prefer temperatures higher than 46-47 degrees.

When black sea bass are inshore, they prefer structure and are most plentiful on live bottom, around wrecks and the pilings of bridges and wharves. They are bottom feeders, and subsist primarily on crabs, shrimp, mollusks, small fish and squid. They are very aggressive feeders and will readily take a baited hook. As their name indicates, they are usually black when removed from the water but in the water they give the appearance of being barred with longitudinal stripes.

Black sea bass spawn from the middle of May to the end of June and are protogynous hermaphrodites. This means that they have the ability to change their sex. Most sea bass are females until they are 10 inches long and then they change to males. During the mating season the males develop a hump on their forehead and develop strikingly beautiful cobalt blue and teal marking on the edges of their fins.

Black sea bass in our area generally grow to a maximum weight of 5 pounds, but mature fish average about 1½ pounds. In Maryland, in 2003, the minimum size is 12 inches. A 12 inch fish weighs about one pound, and is 3 years old.

Because they are mostly caught in the United States Exclusive Economic Zone, (EEZ) more than 3 miles offshore, and they migrate between states, management of the species is done cooperatively by coastal regulation. The Atlantic States Marine Fisheries Commission working in concert with the Mid Atlantic Fisheries Management Council provide management regulations. The black sea bass fishery management plan was initially put together in 1996 because the stock was overfished and at a low level of abundance.

As part of the plan, in 1999, the minimum size for recreational harvest of black sea bass was increased from 9 to 10 inches. As most of the females are less than 10

inches, the effect was to protect all the females and reproduction responded immediately. Adult stocks grew and reproduction has been very good since then. The Maryland Coastal Bays Finfish Investigation Project catches juvenile black sea bass in its trawl and seine surveys. As evidence of improved reproduction, young of the year black sea bass are being captured in increasing numbers in the samples.



For the 2001 fishing season, the minimum size was increased from 10 inches to 11 inches and for the 2002 fishing season the minimum size was increased to 11.5 inches. In 2003, the minimum size was again increased to 12 inches, with a 25 fish creel limit and closed seasons from September 2 to 15 and the month of December. The size increases have been great for recreational fishing. Black sea bass have a very low natural mortality; as the minimum sizes have been increased, the fish have grown into the size limits. The results are that we have some of the best black sea bass fishing off the coast of Maryland that we have had in many years.

While fisheries managers are relatively confident that the stocks of black sea bass are improving, the magnitude of that improvement is not precisely known. Most finfish surveys done along the Atlantic coast are trawl surveys, where a net is dragged along the bottom and the fish that are caught are counted and measured. Black sea bass inhabit rocks and structure that cannot be sampled by trawl surveys. The National Marine Fisheries Service started a coastal tagging study of the black sea bass population along the coast in the fall of last year. Maryland biologists and members of the Maryland Saltwater Sportfishermen's Association went out on the Ocean Princess from Ocean City and tagged 1130 fish in one day to help with this survey. The fish were tagged with tags that promise a reward of a hat or \$100, depending on the tag, to whomever catches the tagged fish and sends the tag to the NMFS for their reward. The objective is to be able to better estimate the number of fish and the total fishing mortality rate along the coast and manage the stock more precisely.

Fishing for black sea bass can be a very pleasant experience. There are several head boats operating out of Ocean City that take fishermen to the offshore wrecks for a reasonable fee (\$30-\$70 per trip). They supply bait (usually squid) and rent rods for another small fee. Some fishermen bring along small crabs and plastic worms put on the hook with the squid to attract larger fish. Generally anglers use a regular boat rod or a stout spinning rod. Black sea bass are very aggressive feeders and if you are in the right place they are most surely ready to bite.

After a successful fishing trip, you will find that black sea bass are very good on the table. The meat is very white and has a unique taste. Pan cooking them with butter and lemon pepper is a good start. Black sea bass fishing is expected to



be very good this year so you may want to get out and give it a try.

The following is a link to a short video clip of staff doing research on the black sea bass. [Black sea bass tagging](#) (file size = 625KB)