

Species Spotlight: Bluefish (*Pomatomous saltatrix*)

A.K.A.: blue, snapper, tailor, cocktail blue, chopper, 'gator

By Dery Bennett



Class: Actinopterygii (ray-finned fishes)

Order: Perciformes (perch-like fishes)

Family: Pomatomidae (bluefishes)

Genus: *Pomatomous*

Species: *saltatrix*

This month we highlight the bluefish, much sought after, much maligned. It is an oceanic fish of worldwide distribution, known for its voracious appetite and superb fighting qualities. Millions of pounds are landed each year by recreational anglers; a much smaller number enter the commercial harvest. Aggressive and competitive, they sometimes overwhelm other popular sport fish like weakfish and striped bass in pursuit of prey. They are fast and strong and armed with sharp teeth – altogether a formidable fish.

Taxonomy of the Family Pomatomidae:

Pomatomidae is usually thought to be a monotypic family, that is one with only one genus and species – the bluefish. Some put bluefish together with Scombridae (mackerels), which they somewhat resemble.

Description: They are typically “fish shaped” with a deep head, short first dorsal fin with about seven spines separated slightly by a much longer second dorsal. The caudal fin (tail) is broad and moderately to sharply forked. The lateral line goes from head to tail, arched slightly over pectoral fin.

Color/Size: Sea green/blue above, silver white below. There is a black blotch at the base of the pectoral fin. Bluefish grow to a maximum length of about 44 inches. The IGFA all-tackle game fish record was a 31.5 pounder caught off Cape Hatteras, NC, in January 1972 (it broke a long-held record by an impressive four pounds). Generally speaking, a 10 to 15-pound bluefish is considered big.



Range: There are eight isolated populations of bluefish in all oceans except the eastern Pacific. On the U.S. east coast they range regularly to Cape Cod and often in warm water years as far north as Nova Scotia, and south all along the coast to Florida and south to Brazil and Argentina. They are also found in Bermuda, the eastern Atlantic, the Azores, Spain, northwest Africa, the Mediterranean and Black seas, both coasts of southern Africa and Madagascar, eastern Indian Ocean and Malay Peninsula, and southeastern and southwestern Australia.

Reproduction: Bluefish become sexually mature by age 2 and spawn offshore, deep in the water column – water temperature around 20C and salinity around 30 parts per thousand. Eggs are pelagic (they drift); they hatch in about 48 hours and the larvae stay near the ocean's surface for about an hour and then sink to midwater. They feed actively on plankton and grow rapidly, seeking food and shelter inshore, near beaches and into inlets and back bays when they are an inch or so long. Feeding increases with temperature; in productive estuaries, these blues, called snappers, can grow almost an inch per week. As they mature they go back to sea. There are some differences of opinion about bluefish spawning strategies off the U.S. east coast. Some believe there are two spawning events, one at the edge of the Gulf Stream off Florida and the Carolinas in April and May, and a second in the Mid-Atlantic Bight in summer. This would account for there appearing to be two surges of juvenile bluefish into estuaries. More recent research indicates that there might be continuous spawning as bluefish make their northern migration from March through September.

Bluefish are fast growing, strong swimming, warm water predators. They school by size, they swim continuously, and they feed aggressively.

Habits: Along the U.S. east coast, schools of bluefish move north with spring, preferring a water temperature of 60F or above. They are seldom in waters beyond the continental shelf, preferring to stay close to land; they often enter estuaries to feed. They are sometimes encountered in mid-Atlantic estuaries in May as very lean fish (sometimes called "runners"), fattening up on prey species and then heading offshore. If summer water temperatures allow, bluefish will migrate north and east of Cape Cod and into Canadian waters. In the fall, they move south or offshore as water temperature drops. Juveniles tend to move farther south than adults; some adults move offshore and spend winter in warmer deep water. But adults are also found off Florida in winter, and one bluefish, tagged in New York August 1936 was recaptured off Matanzas, Cuba, January 1939.

To sum up bluefishes' typical year in the eastern Atlantic, they move north or inshore as water temperature rises in the spring, spawn off the mid-Atlantic from April-August, feed heavily

through the summer and early fall months, and then head for warmer water as winter approaches.

Feeding: Bluefish are voracious, sharp-toothed predators. Even as juveniles they are armed to cut their prey in two, and as they grow, their ability to chop bigger prey grows also. A five-pound bluefish can snap off the back half of a full grown menhaden. Stories abound of bluefish feeding frenzies – anglers call them blitzes – when a school of blues will drive a school of menhaden, anchovies, or mullet into shallow surf or up against a jetty and then decimate the prey fish which sometimes swim onto the beach to avoid the blues' chomping teeth (some of the internet references at the end of this piece illustrate this). So much is made of bluefish feeding behavior that they have earned a bad but not necessarily accurate reputation.

There is no question about it: bluefish actively swim down and eat prey species. The list of fishes that have been found in bluefish stomachs is long: add two of their favorites -- butterfish and squid -- to the prey fish mentioned above and continue with silversides, herring, mackerel, spot, scup, sand lance, young weakfish and striped bass, sea robins, puffers, shrimp, crabs, and worms. Don't forget to slip in -- yes -- other, smaller bluefish. Then finish the list with almost any fish they might come across (for example, sea lamprey).

Anglers pursuing striped bass, considered by many the number one near shore marine game fish from Maine to Maryland, fail to appreciate the bluefish's habits, one of which is to bite in half and thus spoil the effectiveness of live eels and menhaden, highly favored striper baits. In addition, bluefish often beat stripers to an angler's lure, and they can inflict serious bodily damage to an angler's prized cedar plugs.

However, one of the most common unfounded ichthyologic legends concerns the reported Roman-like eating orgies of bluefish. Seldom is a fishing book or article written that doesn't label the fish as voracious and cruel, a species that even practices induced vomiting so it can start off empty and enjoy another meal. This legend has been tracked back to G.B. Goode's generally useful book, "American Fishes," (1888). Goode credits Spencer Baird with the following description: "There is no parallel in the point of destructiveness to the bluefish among the marine species on our coast. The bluefish has been well likened to an animated chopping machine, the business of which is to cut to pieces and otherwise destroy as many fish as possible in a given space of time. All writers are unanimous in regard to the destructiveness of the bluefish. Going in large schools, they move along like a pack of hungry wolves, destroying everything before them. Their trail is marked by fragments of fish and by the stain of blood in the sea. It is even maintained with great earnestness that such is the gluttony of the fish that, when the stomach becomes full, the contents are disgorged, and then again filled."

In one fell swoop, Baird gives blues credit for setting a timer, destroying as many fish as possible, staining the ocean red, filling their stomach with ill gotten gain, and then practicing piscatorial bulimia, so they can enjoy more killing. In other places in his book, Goode calls bluefish "an unmitigated butcher" and quotes a Captain Spindle who believes they may destroy 1000 fish a day and that they are "like a pack of hungry wolves."

Here's Goode quoting another New England local: "Call them, sir, whatever you please: either the blue-fish of Massachusetts Bay; snapper of New Bedford; horse mackerel on the shore of Rhode Island; or tailor in Delaware Bay, they are the same...still, and deal out death to other species in all local waters they visit."

These quotes and their derivatives appear throughout bluefish literature, even down to that suspect source, Wikipedia, which at least as of February 12, 2009, states that bluefish "are the

only fish known to kill for the sake of killing," which leads to an obvious question: "What bluefish told you that?" Another posting on the internet titled "Free Bluefish Pictures," states, among other missteps, that recreational anglers catch 15% of yearly landings (it's more like 75%), "since 1992 it has only been (landed) in the thousands of pounds of fish," (U.S. landings in 2007 were 29 million pounds), that the record bluefish was caught off Massachusetts in 1903 and weighed 27 pounds (wrong), and that "they are so voracious they will even kill prey they don't eat."

The source of this belief can probably be traced to a bluefish habit of vomiting while fighting a hook. Often you will hook a bluefish that has already chopped up and swallowed some prey, which it then regurgitates in the throes of fighting a hook and line (this can be seen when fishing from a chumming boat offshore in clear water). Best understand that bluefish, like all predators, kill to eat and live, and that predation is not always pretty, but gluttony is probably only a human frailty.

It should also be noted here, to balance the scales of justice, that bluefish are a favorite prey of bluefin tuna and some shark species, especially shortfin mako sharks. Several studies indicate that bluefish can make up well over half the stomach contents of makos sampled along the U.S. east coast, and they are prey for other sharks: tiger, thresher, sand tiger, dusky, and blue.

Angling for Bluefish: There are times when you can catch bluefish almost anywhere with bait or lure and plenty of times when you can't. If bluefish are around, your chances of success are high, because they are often present in big numbers and seldom choosy about what they eat. From boat or shore, if blues are showing, the best lure is shiny metal with a foot or two of wire leader. Look for birds or swirls. They will also hit surface poppers and swimmers. Sometimes if the bluefish are feeding on small bait fish like bay anchovies and you are not getting hits, try changing to a lure close to bay anchovy size.

It is sometimes interesting to see if you can cast a lure into a feeding school of bluefish and not hook one. Or, cast a hook-less popper into the school and watch bluefish bat it around.

Bluefish can be caught with cut bait, menhaden or mullet -- fished from beach or bank. Another popular tactic is to go out to sea on a charter or head (party) boat and anchor up or drift for blues. Often the boat will scatter chum -- chopped bait -- overboard to attract bluefish which anglers then fish for with baited hooks. Bluefish boats go out day or night -- a night trip for blues offshore in summer can be a special treat.

One word of caution: be careful handling bluefish. They have a knack of chopping fingers. A barbless hook makes life easier.

Bluefish are one of the most popular recreational fishes off the mid-Atlantic coast. In numbers, the top five are: croaker, bluefish, fluke, spot, and striped bass; by weight it's striped bass, bluefish, dolphin, fluke, and croaker. The 2007 recreational catch of bluefish was estimated at 24 million fish; 10 years ago it was 9.2 million fish. Over the same period of time, the commercial catch has been between a quarter and a third of that.

Bluefish are prime table fare except for those who find them tasting "too strong or too fishy." Because they are a fatty fish, they need to be treated with care: to eat good bluefish, take fish three pounds or under, bleed them upon capture (a knife in the gills does this), ice them immediately, and eat them within 48 hours, the fresher the better. Richard Ford's leading male character in his novel, "The Lay of the Land," set at the New Jersey shore, often celebrates an extra good day with a bluefish dinner. Ford and thousands of mako sharks can't be wrong.

Conservation status: Like many species, bluefish are subject to big population swings. For example, old records from New England mention an absence of bluefish in 1787, many fish in 1814 and 1825, and an "immense school" in Vineyard Sound in 1841. Blues were uncommon along the New Jersey coast in the early 1940s, while 2-pounders were plentiful 10 years later in the fall. As far as recent records are concerned, total bluefish landings along the Atlantic coast peaked in 1981 and since then have settled in at about 25% of that total. Fisheries managers classify bluefish as overexploited.

References: Much of this information comes from *Fishes of the Gulf of Maine*, Third Edition, Collette and Klein MacPhee, Smithsonian Institution Press 2002. For some of the earlier history, try G.B. Goode's "American Fishes: A Popular Treatise upon the Game and Food Fish of North America." A good natural history and recreational fishing guide is "Blue Fishing," by Hal Lyman, written in 1950 but hardly dated. For a different slant, try "Blue," by John Hersey (author of "Hiroshima" and "A Bell for Adano" Among other things, he describes research work done with big bluefish in the 60,000-gallon tank at the Sandy Hook Marine Laboratory, observing feeding and schooling patterns.

Partake of more Pomatomus info:

<http://www.youtube.com/watch?v=sFpZwhnywuo>

<http://www.youtube.com/watch?v=hSfX8jg7mK0>

<http://www.youtube.com/watch?v=750FO32j8LI&feature=related>

<http://www.youtube.com/watch?v=3SiqZ2dAc3w&feature=related>

<http://www.youtube.com/watch?v=LPEIUyRdv5s&feature=related>

<http://www.youtube.com/watch?v=5AckoLhbeuU&feature=related>

http://www.youtube.com/watch?v=-zfP_pA5iNI&feature=related

<http://www.youtube.com/watch?v=qu9XXobEiwk>

http://www.youtube.com/watch?v=z_5wHIUOy14

<http://www.youtube.com/watch?v=pfhqZnaK2JA>