As the sun dips below the shoreline treetops, I arrive at the confluence of the Piscataqua River and Little Bay. Another long summer day on the job has ended, and I’m doing what I love most — fishing! I pass beneath the General Sullivan Bridge and throttle up to race to my current “honey hole,” just 50 yards from shore. Intent on striped bass, I position the bow of my boat up-tide in the eddy of a moored lobster boat. I kill the engine, and the sounds of rushing water and gulls fill my ears. The drift begins and the depth sounder indicates 20 feet, 15 feet, then 10 feet…

Predatory sportfish prowl New Hampshire’s coastal waters during seasonal migration

BY KEVIN SULLIVAN
Each spring thousands of blueback herring and alewife, collectively known as river herring, migrate up N.H.'s coastal rivers to spawn. Stripers follow in hot pursuit, gorging themselves where the herring congregate below the dams.

“We’re approaching the ridge; drop your line,” I shout to my friend Matt. He eases thumb pressure off the spool and his baited harbor pollock swims away from the boat. The rod tip bounces as the pollock tugs toward the safety of the bottom. In an instant, his line starts spooling out rapidly, which is my cue. “Count to three, then set the hook.”

This is Matt’s first striped bass trip in New Hampshire, but, being an avid angler, he executes the hook set perfectly. Fish on! I know from the squealing drag and the bend in the rod, it’s a big one. After a few minutes fight and maneuvering around lobster traps, the silver flash of the fish is visible in the water alongside the boat. Then the fish dives – it hasn’t given up and is determined to win. In the end, the striped bass is netted, lifted into the boat; just as we thought, he’s a big fish at 46 inches. Its long migration from the south will come to an end on Matt’s dinner plate.

**Moveable Feast**

Residents and tourists are not the only flocks that amass along New Hampshire’s cool, crisp Atlantic coast each summer. Their arrival is preceded by large migratory schools of fish, including the striped bass (*Morone saxatilis*) that fills angler’s dreams. Striped bass inhabit east coast waters from Florida to Canada, and many exhibit an annual migration pattern. The journey that moves these fish northward into New Hampshire’s waters from May to October begins each spring to our south.

Reproduction of striped bass occurs consistently in a limited number of coastal rivers; virtually the entire population of stocks along the east coast are spawned in a few specific locations. Those that frequent New Hampshire most likely originate in Chesapeake Bay, though fish from the Hudson River and Delaware systems also regularly return here in the summer months.

In April and early May, adult fish of reproductive age depart the salt-laden sea and swim upstream to the head of tide or even further into freshwater, where their eggs will be released and, hopefully, fertilized. They enter into the world in brackish or fresh water, move into the estuaries as they mature, leave to inhabit the saltwater ocean, and then return to their natal stream (where they were born) to produce their own offspring — a reproductive strategy termed anadromous. Juvenile striped bass spend their first few years (2 to 4) near the place of their birth before embarking on a future of repeated seasonal migrations.

Once spawning activity has completed, the adult fish return to the sea and continue their travels northeast in search of cold waters and food. Unlike many other migratory fish, striped bass come to N.H. waters not to spawn, but rather to feed on other species making similar migrations. Ahead of the large schools of strippers in New England, it is common to find schools of Atlantic menhaden, Atlantic herring, Atlantic mackerel, American eels and river herring. Predatory striped bass are fiercely piscivorous (fish-eating) and will devour almost any smaller fish. When they are hungry and prey fish are unavailable, invertebrates like lobsters, crabs and worms suffice.

**Crash and Rebound**

Striped bass have been an extremely important resource to New Englanders, both recreationally and commercially, but their abundance has varied greatly over time. While recreational anglers target striped bass primarily with fishing rod and tackle, commercial harvesters employ gill nets, pound nets, hook and line, haul seines and trawls. Commercial striped bass landings in the U.S. peaked at nearly 15 million pounds in the 1970s; from that point onward, however, the number of landings quickly declined until the mid-1980s.

Before the 1970s, management of striped bass was
What a catch! Live bait is irresistible to predatory striped bass; fishing is best from dusk to early morning.

Striped bass (Morone saxatilis)
Stripers are fiercely piscivorous (fish eating) predators. While they dine on most of the smaller fish they encounter, some favorite menu items include alewives, Atlantic herring and American eels. Feeding most actively from dusk to dawn, the striped bass will often frequent the wash of breaking waves and prey on crabs, lobsters and clams that become vulnerable in the turbulent water.
Striped bass are one of the most highly prized sportfish for New Hampshire saltwater anglers, and their recovery is often referred to as one of the most successful fisheries management programs in recent history.

In New Hampshire, the estimated recreational catch of striped bass by New Hampshire anglers has risen from a low point of fewer than 1,000 fish in the early 1980s to more than 580,000 fish in 2006!

Last year did not fit the pattern. In 2008, the recreational catch of striped bass for New Hampshire anglers was lower than expected. Biologists still do not know why the presence of striped bass in our waters was so limited, though there are indications that above-normal levels of bait to the south of New Hampshire, as well as slightly colder than usual water temperatures, may have kept the fish from coming this far north last year.

**Flourishing Fishery**

Annual variations in population abundance, like the 2008 occurrence, demonstrate the importance of the data that the Fish and Game Department collects each year. These efforts, which help sustain high levels of striped bass and other species, will be further improved once the new federal saltwater angler registry goes into effect in January of 2010 and begins yielding data.

Striped bass are one of the most highly prized sportfish for New Hampshire saltwater anglers, and their recovery is often referred to as one of the most successful fisheries management programs in recent history. The health of the fishery has been helped by reduced pollution levels, increasing angler awareness, more precise data collection and participation by Fish and Game staff on interstate fisheries management committees like the ASMFC. With the continued increase in population numbers, the legal size for striped bass has been lowered over time in New Hampshire; this year anglers are permitted to keep two striped bass a day that are greater than 28 inches, but only one of the two fish can be above 40 inches. Thanks to this flourishing fishery, anglers can look forward to targeting striped bass on New Hampshire’s seacoast for many years to come.

Kevin Sullivan is a N.H. Fish and Game Department marine biologist. Whenever possible, he begins and ends his day on the water fishing, under the water diving, or just making saltwater memories with friends.
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