Salter Quest

By Mark Taylor

Steve Dewick of the Merrymeeting Bay chapter fishes at the lower end of a small stream near Freeport, Maine.
In New England and along the Northeast coast, sea-run brook trout, or “salters,” are largely overlooked as anglers tend to be smitten by glamorous species such as Atlantic salmon, striped bass and trophy inland brook trout.

But the pretty fish haven’t always been relatively anonymous, garnering plenty of attention from high-profile fishermen in the 1860s, including American statesman Daniel Webster, who legend has it pulled a 14 ½-pound salter from a Long Island stream in 1871.

While parts of the tale of Webster’s “world record brook trout” may be apocryphal, some of those 19th century salters were of trophy size, best measured in pounds instead of inches.

But the fisheries declined in the wake of industrialization and damming, and as demand for property for residences along the picturesque coast grew.

“The fish loved the real estate,” said Merrymeeting Bay chapter member Randy Clark, a volunteer in the salter restoration program.

Crabberry farming also had an impact in areas as flooding bogs degraded critical habitat.

“The bogs went everywhere,” said Warren Winders, of the Massachusetts/Rhode Island TU Council and a long-time salter advocate. “It was a way for people to survive. You can’t blame them.”

As salter brook trout populations declined, anglers shifted their focus elsewhere.

“Anglers who had money to fish moved away to where the big fish were,” Winders said.

With the loss of salters we were losing more than just fishing opportunities: we were losing one of our most fascinating coldwater fish. Salters spawn in freshwater and show variable degrees of migration to saltwater. Some fish move between the stream and the ocean frequently, while others may never leave their home brooks. Thanks to efforts led by Steve Hurley of the Massachusetts Department of Fish and Game, we’re just starting to understand the complexity and benefits of these movements.

Hurley’s survey work found individual brook trout growing as much as four inches in single winter living in the salt, and brook trout spawning in lower parts of streams as they are being flooded with salt water on high tides. The ability to be able to seamlessly move between fresh and saltwater had been known as an advantage for escaping harsh conditions in either environment, but the diversity of salter behavior in terms both growth and reproduction has only recently been discovered.

With salter populations depleted and the attention of many anglers focused elsewhere, salter brook trout entered into a period of relative anonymity, off the radar of most state agencies and conservation organizations. That began to change, however, in the 1970s, when TU’s Cape Cod Chapter started working to recover salters on Cape Cod’s Quashnet River and Red Brook.

Because much of the Quashnet’s watershed was protected by public ownership, the stream provided an excellent opportunity for restoration work. With cranberry farming also having an impact in the area, the restoration of the stream included the planting of woody cover along the stream.

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Surveys showed a 400 percent increase in salter numbers over a 20-year span.

Nearby, spring-fed Red Brook flows through the 210-acre Lyman Reserve and a 450-acre state-owned wildlife management area, on land donated by the Lyman family.

Since the land was donated, TU has helped spearhead significant restoration work, such as dam removals and the addition of woody cover on the stream. One survey found a nearly seven-fold increase in trout numbers from 1997 to 2008. Through its faith, hard work and persistence the TU Cape Cod Chapter had accomplished something remarkable: it had proven that it was possible to recover self-sustaining salter populations, and in doing so it inspired a new wave of salter conservation efforts.

In recent years, salter conservation efforts have focused on habitat protection, restoration, reintroduction, and the question of whether the stream’s healthy population of resident brook trout will regain salter behavior now that access to the salt has been restored.

Salters Conservation efforts have also experienced setbacks. The Santuit River is an example of the fragility of some of these populations. In 2015 it was confirmed that the river’s salter brook

The Lyman family and their guests commemorated trophy brook trout from Red Brook with wooden cutouts. Some of the cutouts date the early 1900s.

Volunteers from the chapter, which earned TU’s Golden Trout award in 1988, have invested more than 40,000 hours installing in-stream structures and planting as many as 5,000 trees and shrubs along the riparian corridor."

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“WE KNOW WE HAVE SALTER BROOK TROUT IN MANY OF OUR COASTAL STREAMS, BUT THEY’VE NEVER BEEN FORMALLY SURVEYED. THESE ANGLER SURVEYS ARE THE FIRST STEP TO GETTING THEM DOCUMENTED SO WE CAN PRIORITIZE CONSERVATION WORK.” —JEFF REARDON

Along with restoration and reintroduction efforts came increased attention on salter research. Since 2007, the Massachusetts Division of Fisheries and Wildlife has been tagging trout to study their movements. The Sea-Run Brook Trout Coalition has been a key funder and supporter of the tagging work.

“Science is a heavy investment for us,” said Geoffrey Day, the organization’s executive director. “But we feel it’s important.” At several places in the stream monitoring stations record the movement of trout implanted with passive integrated transponder (PIT) tags.

Hurley frequently visits the sites to upload data. Tracking movements will show how the trout use the system, including saltwater. A tagging effort that used more complex GPS systems also showed how species that use the system interact.

“We had a tag end up in the Chesapeake Bay,” Winders said. “That trout obviously ended up in the belly of a striped bass.

“Their real role is not to entertain us,” he added. “It’s to be a part of a healthy ecosystem.”

As we look toward the future of salter conservation, there are some encouraging signs. Salter reintroduction efforts on Cape Cod are showing indications of success, and surveys of streams in Maine are documenting previously unknown populations of salters.

In 2015, TU used state agency data to map out 457 historical coastal and anadromous brook trout streams from Long Island, N.Y., to Maine in the first range-wide assessment of salters.

The historical presence of brook trout varied across the states, with a high of 337 streams in Maine to a low of seven in Rhode Island.

Striking was the finding that the species’ status in 201 streams was unknown. Grants from the National Fish and Wildlife Foundation, the Maine Outdoor Heritage Fund and the Horizon Foundation are helping fund the Maine effort to survey at least 80 coastal streams where the status of brook trout is uncertain.

Since 2014 volunteers have been working their way through a list of coastal streams, fishing intensely in hopes of catching wild brook trout. More than 130 coastal streams have been surveyed, with brook trout caught in nearly half of them, often at or below the head of tide.

“We know we have salter brook trout in many of our coastal streams, but they’ve never been formally surveyed,” said Jeff Reardon, TU’s Maine Brook Trout Project director. “These angler surveys are the first step to getting them documented so we can prioritize conservation work.”

Catch information is passed on to the Maine Department of Inland Fisheries and Wildlife, which can then formally survey the stream. Beginning in 2016, Maine fisheries biologists conducted electrofishing surveys in sub-watersheds where brook trout were caught by volunteers, confirming brook trout in all 12 sub-watersheds surveyed.

Clark, of the Merrymeeting Bay chapter, has been involved since the outset, and was thrilled when he pulled a 13-inch long brook trout out of one of the first streams he sampled.

“It was so silver I knew there was no way it was a stocked fish,” Clark recalled. And another salter stream was found.

That you could still discover populations of salter brook trout along the heavily populated Atlantic coast is a reminder of how little attention has been paid to these remarkable fish. Thankfully, that is changing. Through the efforts of TU, the Sea-Run Brook Trout Coalition, and standout agency biologists like Massachusetts’ Steve Hurley, salter brook trout are back on the radar. Through decades of hard work started by TU in the 1970s, we know how to successfully restore habitat and reintroduce salters. Armed with this knowledge, along with new data on salter presence, we have new hope for bringing salters back to their former glory.
Nate and Sophie’s Miracle on Red Brook by Lori Day

Somehow along the Mekong River, in the lahar zone, famous scientist Max Holmes was on a boat with 15 other river scientists from around the world when he got a curious text from his wife, Gabby. The words did not come through in the message, but a single photo could be seen on his phone. This was the photo.

Max wondered why he’d received the photo, becoming slightly obsessed. “It was killing me! What was the story? I was going crazy.” He would have to wait a couple of days to finally have internet access and learn that 15 time zones away, while he was on the Mekong, his 10-year-old son Nate was on another river, Red Brook in Plymouth, Mass., catching a native sea-run brook trout on a unique hand-tied fly made by his sister, Sophie, age six. Weeks ago, with fly rods and waders, Max and Nate had begun their search for this rare fish, but they had been skunked. At the photo and its eventual backstory emerged, Max delighted in being out-fished by his own son.

It was an epic fish story, Hemingway-esque and full of drama in the telling: Nate, using a yellow Woolly Bugger he assumed would produce, found that it just wasn’t producing. At one point he saw a trout “explode” on his fly, “but of course it had to jump right over it, totally missing it,” Nate explained, reliving the anguish. Next he tried a Royal Coachman. Nothing. He changed flies repeatedly. Still nothing. As the sun was setting and the temperature dropping, Nate’s mom, Gabby, said it was time to go home. At that point Sophie approached her brother and reminded him of some unfinished business. He had to keep his promise to her, which was one of the conditions for the afternoon fishing excursion. The promise involved a fly later dubbed “Sophie’s Pink Shrimp,” and no amount of protest on Nate’s part was going to get him out of using it. The alternative was leaving, and Gabby told Nate that if he wanted to keep fishing, he knew what he needed to do.

Sophie has a nice assortment of flies she has tied in many different colors, but she made this particular specimen by recycling the pink plastic grass from an old Easter basket. Here it is, and what a beauty!

“I did not want to use a hook with pink on it,” Nate explained, “because…you know…(eye roll, head drop)…but, whatever!” So he gripped his teeth and tied it on. It was “a pretty bad knot, because I wasn’t really trying.” He knew it could never work. So he just cast it out there with a heavy sigh, let it sink, and looked at his mom as if to say, you made me do this, come on!

Immediately Nate felt a tug, imagining he’d hit a snag. But he quickly realized he had a fish on. He reeled it in and saw that it was perhaps nine to 10 inches long, “probably more on the nine side.” But size doesn’t mean squat. What did matter was that he’d landed a prized trout—a native spece historically caught by Daniel Webster and several U.S. presidents, among other famous anglers. Once thought to have disappeared from these waters, there it was on the end of Nate’s line, thanks in part to his sister! After releasing the salmon from the hook on Sophie’s Pink Shrimp, Nate held it briefly for a picture before releasing it back into Red Brook. And Gabby tested the trophy photo to Max, along with a few words that didn’t survive the long digital journey.

Gabby, a nurse with a PhD in biology/marine ecology, backfilled the story for me, and gave me the kind of context any parent can appreciate. “Nate was—how do I put this—winning a bit about daddy traveling, saying he couldn’t fish when his dad was away, and that it’s terrible when he’s gone.” So she told Nate that if he had a good week and did what he was supposed to do, she’d pick him up from school early one day to go fishing. “It was a sweet little bribe that worked!” she joked.

At first Sophie wasn’t sure she wanted to go along that day, but she decided she’d like to draw the scenery while Nate was fishing. However, not one to miss an opportunity to gain some advantage on her older brother, she said she would only go if Nate would fish with one of her flies. “Of course Nate agreed! He made every promise under the sun,” Gabby laughed. When he caught the trout on his sister’s fly, he was utterly shocked. “I think we have a video of that,” Gabby said. “Of the utter shock.”

Fishing is something these siblings can do without fighting and without involving electronics. Tying flies is a craft Sophie loves, and Nate enjoys it too. The packaged craft kits from toy stores are “for little kids,” according to Nate. Gabby explained that he’d been so into arts & crafts when he was young, but now that he’s older, it is seen as uncool. Tying flies is an activity both Holmes children enjoy, together. The positive response they receive from more experienced anglers makes them feel proud and respected. That’s a win.

“So it’s a craft, and it’s them do something different than their peers, but it’s something bigger as well.” Gabby

Nate Holmes creates a fly (above) with his sister Sophie, who caught a fish (left) on one of her hand-tied flies.

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