

*Recycling wildlife: Patrick Dunn sets a stake to hold bags of oyster shells in place at a reef site at Camp Ho Non. The shells serve as a makeshift home for live oysters.*



# RESTORING THE REEFS

When oysters faced a housing shortage, Scouts became builders.

BY DALE E. MILLER

**P**atrick Dunn nudges a sackful of oyster shells into place on Bohicket Creek, then glances around uneasily. It's 9:13 a.m. Though the creek bed is dry right now, Patrick knows that an Atlantic tide six feet high soon will wash in, submerging his work area and ending all reef-building for the day. With 6,000 pounds of shells to deploy, the 15-year-old Life Scout

from Troop 750 in Summerville, S.C., has little time for such interruptions.

Patrick is helping build homes, restoring habitat for the depleted local oyster population, as well as other animals. The pile of oyster shells resembles a levee.

#### No Vacancy

"Oyster larvae are floating in the creek," he explains. "The natural

place for them to land and attach themselves is on oyster shells. But if adult oysters are harvested and the shells thrown away, the larvae float down the creek and become food for predators. So we're providing them with a safer environment in an oyster reef of their own."

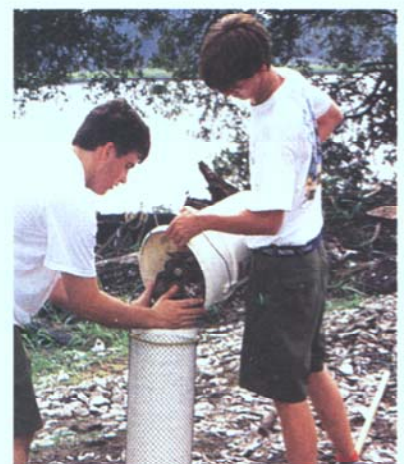
Patrick and Boy Scouts from several troops are targeting two spots to build oyster reefs. One is on Bohicket Creek, not far from

PHOTOGRAPHS BY GREGORY W. SMITH

*Anything that works: Scouts rake, shovel and bag oyster shells.*



*Brad Richardson guides 'em, Patrick Dunn pours 'em.*





Charleston. The second location, near the little town of Rockville, is Patrick Dunn's Eagle Scout project. At each site they will position 300 20- to 40-pound sacks of oyster shells, thus creating reefs, or beds, about 75 feet long and eight feet wide.

The Scouts are guided in their work by scientists with the South Carolina Department of Natural Resources (SCDNR) Marine Resource Research Institute: Dr. Loren D. Coen, and biologists J. D. Dubick and Nancy Hadley.

"It becomes increasingly important to return these shells to the water," says Dr. Coen. "Living oyster beds are critical to water quality and aquatic life."

Oysters are filter feeders; that is, they draw in water, as much as 50 gallons a day, from which they extract oxygen and a mixture of tiny plants and animals called plankton. When oysters clump together into a living reef, they also provide homes and hunting grounds to many other species of coastal life, from birds to crustaceans (such as crabs) and small fish.

### A Shrinking World

Many factors add to the loss of oyster habitat, explains Nancy Hadley. "Over-harvesting contributes, as does the increase in coastal [building] development.

Boat wakes undermine the natural oyster bar and erode adjacent salt-marshes. Storm runoff of fertilizers and insecticides also endanger shellfish."

Oyster populations to the north in Maryland's famous Chesapeake Bay have been devastated by these problems.

"We're in much better shape in South Carolina," says Ms. Hadley, "but our oyster population is declining. We want to work on the problem before it gets any worse."

That's where Patrick and the other Boy Scouts step in.

An ongoing part of the restoration project will be to monitor the new reefs to record growth and the variety of marine life using them for food and shelter. Patrick will be responsible for part of the monitoring in cooperation with the scientists.

### Building Boom

Back on Bohicket Creek it is now 9:30 a.m. The tide already laps at the outermost row of sacks, which are made of mesh so that the shells inside will be maximally available to the waterborne oyster larvae. The Scouts work quickly to place as many sacks as possible.

Eagle Scout Aaron Power, 17, of Troop 725 in Summerville, is positioning sacks of shells, keeping count in this race against the tidal

*"He was a brave man who first ate an oyster."*

—ANONYMOUS



### You Ate What?

Oyster is a common name for several species of marine bivalve mollusks. Many are edible. And once you get over the idea of what they actually look like and what they feel like sliding down your throat, they're quite tasty.

So-called pearl oysters, those that produce gem-quality pearls used in jewelry, are of a difference species. Pearls are made of nacre, the smooth material that lines the inside of oyster shells. When a grain of sand finds its way into an oyster shell, it irritates the mollusk. The oyster coats the itchy sand with smooth nacre, thus creating a pearl.

*Building homes for oysters requires elbow grease.*



*Tom Sulkowski, background, helps measure an oyster bed.*



*Aaron Power counts bags of shells as others stock the bank.*





clock. "Patrick told me about this project one day at school," he says. "I like it. It's cool."

Building the reef requires such excitement and teamwork.

Patrick explains, "We have four rows of 25 bags each lying parallel to the shore in this section. They will be secured at the end row with steel bars pounded into the shore to keep them from rolling. Each bar is bent at the end to help lock the bags in place."

More than 40 Scouts work filling the sacks with oyster shells, passing the bags to the shore and placing them on the reef. "SCDNR sent about 2,000 feet of tubular netting," Patrick says. "We cut it off in four and a half foot lengths, and knot one end."

Some of the Scouts shovel the shells into buckets. First Class Scout Michael Miles, 12, mans a shovel. "It's pretty hard," he admits. "It's like going through rocks. They're pretty heavy, too."

Others dump the shells through an eight-inch-diameter plastic pipe into the waiting mesh bags, which are then tied off.

Thomas Willi and Wade Mayes, both 14-year-old Life Scouts from Troop 15 in Mount Pleasant, are two of 30 guys assigned to passing the mesh bags from the bagging operation to the shore.

### Incoming!

Suddenly, a bell alerts the Scouts to cease operations; the tide is now coming in too fast. In prior weeks, they've filled and positioned 128 sacks. Today, they've added perhaps 100 more. All the guys are muddy from their work. They look tired. But they have much for which to be pleased and proud.

After all, their work means a healthier water and land environment for their community. And they would all like to see more oysters growing fat along the local coastline. Thanks to these guys, it's going to happen.♣

*"Living oyster beds are critical to water quality and aquatic life."*

—Dr. Loren D. Coen



### Be a Home Builder

Boy Scouts whose troops choose next month's suggested program theme, Environment, will have the opportunity to explore the many reasons why projects such as the Bohicket Creek oyster reef are so important to healthy ecology.

Besides working on the Camping and the Environmental Science merit badges, Scouts will study the "web of life"—how all living things are interdependent and what each of us can do to help the environment. And they'll have a chance to help by building habitat and more.

Find complete details of the theme in "Troop Program Features," Volume II (BSA Supply No. 33111; 1-800-323-0732; [www.scoutstuff.org](http://www.scoutstuff.org)).

Scouts on the reef with more.



Moving more than three tons of oyster shells makes for a muddy day.

