FOREST ECOSYSTEM REGENERATED

Schaier Brothers Saw Mill helps sustain Atlantic white cedar.

BY BOB WILLIAMS

Schaier Brothers' Valmet 911 harvester clear-cuts thick white cedar stand in New Jersey. In addition to tree tops and branches, the machine operator often uses edgings developed in the sawmill to help reduce rutting (inset).

Cedar-laden flatbed trailer is ready for the road.

EGG HARBOR CITY, NJ

Atlantic white cedar (*Chamaecyparis thyoides*) is found along the Atlantic and Gulf coasts from Maine to Florida and west to Mississippi. Historically, this species has been a very valuable timber species, and remains so today.

Over the last three centuries, the area occupied by Atlantic white cedar has declined drastically, and it is now classified as a globally threatened forest ecosystem. Hurricanes, flooding, wildfires, natural plant succession, and a rising sea level all continue to affect a decline in the overall acreage of this important wetland forest ecosystem.

The most recent and dramatic example of cedar loss was the impact of Hurricane Isabel on the Great Dismal Swamp National Wildlife Refuge in southeastern Virginia in 2003. This loss exceeded 2,000 acres. The U. S. Fish and Wildlife Service is managing this loss by salvaging downed trees with helicopters. Since white cedar is shade intolerant, it must be clear-cut to enable it to regenerate in full sunlight. Much of the wood from this salvage operation is going to Gates Custom Milling in Gatesville, NC.

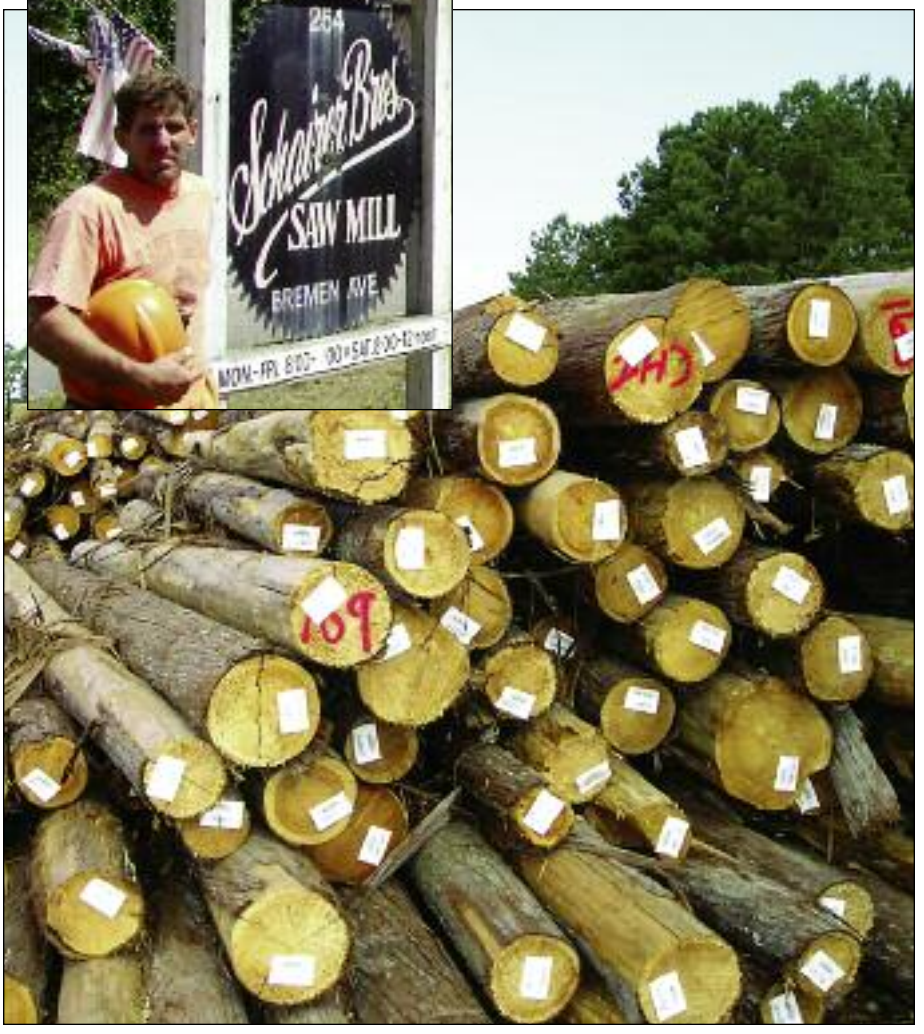
Timeless Species

White cedar has a long historical and cultural link to New Jersey. There was significant cutting between 1653 through 1750 following European settlement. As early as 1749, Peter Kalm from the Swedish Academy of Science warned that heavy cutting may be eliminating white cedar entirely from the region. Kalm indicated cedar was used extensively for shingles in the cities of Philadelphia and New York and was heavily cut for export. As early as 1858, white cedar products formed about 20% of the exports from Cape May County, NJ.

Cedar was highly prized because of its resistance to rot and insects, and it was mined from the Great Cedar Swamp in Cape May County. Trees that had been buried in the muck soil for centuries still were sound and were sawn into various products. Today, New Jersey, with about 35,000 acres, retains the largest acreage of Atlantic white cedar of all states.

Cedar remains a highly prized wood for a wide variety of products, including boats, tanks, siding, fencing, decking,

Schaier's crew clear-cuts cedar but subcontractor Vinh Lang uses compact Forcat 2000 skidder to thin young cedar stands on New Jersey's Haines Stewardship Forest. Powered by a 27 HP Kohler engine, the machine's ground pressure is about 2.5 PSI.



These quality logs are stored on sawmill yard and will be sawn into various products. Paul Schaier, inset, operates New Jersey's last viable commercial cedar sawmill.

shingles, posts, pilings, stakes, channel markers and clam stakes. It has a rich history in coastal areas because of its durability; there is no need to treat it with preservatives. Cedar from New Jersey forests is still used to shingle the roof of Independence Hall in Philadelphia.

Today, most people have come to believe it is illegal to harvest cedar because of environmental regulations since cedar is a wetland species. Markets for local landowners who own cedar timberland have dwindled and landowners struggle to sell their timber.

Schaier's Example

Paul Schaier of Schaier Brothers Saw Mill in Egg Harbor City hangs on as the state's last viable commercial cedar mill. Schaier Brothers has been in business for more than 72 years and saws logs originating throughout southern New Jersey. Schaier's father, Carl, and his two brothers, John and Joseph Jr., started the Galloway Township Mill in 1936. Before that, his grandfather ran another mill. The first mill burned in 1936 and its replacement sustained itself until 1941 when Carl Schaier and his brothers went out of business to fight in World War II.

The family rebuilt the mill after a devastating fire in the 1960s. Today, Paul runs the mill and logging operations with

A fire started by a flare from an Air Force plane in 2007 burned 17,000 acres of state forest, including this stand of white cedar. There are no plans to salvage this seared but sound timber.

his uncle, Anthony Schaier, 82-year-old mother and eight employees. It carries on this area's long tradition of using locally produced cedar forest products.

Paul Schaier also owns and manages more than 500 acres of forestland with the assistance of a certified forester in yours truly. Schaier hopes to pass both the mill and lands on to another generation that will continue the cedar culture.

Beginning in the '90s, there has been an increase in public awareness about the importance of white cedar, both ecologically and economically, and the necessity for active management of this important species. George Zimmermann, Ph.D. of Richard Stockton College, has done extensive research on its silvilculture and regeneration.

After 15 years of harvesting and follow-up forest management, Schaier points to many successful projects throughout southern New Jersey, notably that cedar acreage has actually increased in post-harvest years.

Cedar management is difficult and can be expensive. In many instances, erecting deer exclusion fences or planting seedlings are cost prohibitive. Successful projects are ones in which a logger can make a profit that allows for money to be reinvested into the forest for cedar restoration and future timber supplies. Anyone who harvests or manages timberland understands the economics of forestry. Someone must make a profit and money must be reinvested in the land.

In most cases, those who claim to care more about forests, or in this case, Atlantic white cedar ecosystems, would have the public believe it is wrong to make a profit from a forest. They would have us believe that state government can continue to spend up to $3,000 per acre to restore cedar forests at taxpayer expense when in fact, if the forest was allowed to, it would pay for its own stewardship more than tenfold.

Many forest restoration projects are going to be expensive. We now see the hundreds of millions of tax dollars spent in our western forests to thin the forest and return them to a fire-safe condition. In addition, we see a growing interest from wildlife biologists in returning forestry for ecological objectives. Yet there is little thought or effort given to the economics that clearly would pay for all forest stewardship needs. ➤ 18

17 ➤ Spending hundreds of thousands of dollars to restore a white cedar swamp, located in the middle of fire-excluded pitch pine forests that insure the cedar will burn some day without consideration for the management of the adjacent forestlands, makes no sense. And we see this approach to sustaining our forests all over North America.

As far back as 1931, a senior silviculturalist with the Appalachian Experiment Station, C.F. Korstian, prepared a technical bulletin that laid out the future for white cedar. He stated then that unusually large, clear boards sold for $250 per thousand board feet. In 1931! Seventy-seven years later, we are still studying this species when we know what is needed: forest management and logging!

Market Needed

Atlantic white cedar provides an economic model that insures a landowner's profitability and restoration of a critically imperiled forest ecosystem. Yet in today's wood markets, eastern society would rather import western red cedar or Alaskan yellow cedar to the east coast to satisfy its need for cedar lumber products.

Landowners in New Jersey who wish to manage and sustain vital cedar forests for watersheds and important wildlife habitat, as is the case with New Jersey's large cranberry farms, struggle to sell their cedar stumpage due to the lack of viable markets. Potential markets struggle to commit to buying cedar out of concern for a longer term supply. It's the chicken or the egg syndrome. The supply and stumpage is here, but the forest just needs a more sustainable market.

Schaier's Mill presently sells products in a 40 to 50 mile radius of Atlantic County. The mill only cuts around 300MBF of timber annually. The operation does its own logging with a cut-to-length system. A Valmet harvester allows for utilization of the tops and slash as temporary corduroy road material, a necessity in mucky swamp conditions. Roads are further enhanced with slab material from the mill from time to time. To further subsidize the operation, hardwood that is suppressing cedar regeneration is harvested for the local firewood market.

There are some who would like to see New Jersey's last cedar mill fade into the sunset. They would then push for government grants to restore the mill as a historical artifact. Of course this is ludicrous. We need to begin to support existing, local forest industries and promote their return to areas where they have faded away. Children need to be able to visit working mills and working forests to truly appreciate their importance in their daily lives.

As the greening of America explodes, the catch phrase "think globally, act locally" actually does mean something. Encouraging the use of local forest products is, in fact, the "green" thing to do. But it depends on whose green you are speaking about.

One small sawmill, against all odds in southern New Jersey, is leading the way by example. The only wood sawn in this mill is wood that comes from lands that have stewardship approvals and all state and local forestry permits.

This historical mill is an example of how to sustain critically important forest ecosystems. At the same time, it perpetuates cultural and historical uses, provides jobs and economic opportunities and profits from trees to landowner—all while reducing the mill's carbon footprint. Schaier Brother's Saw Mill sets an example to all throughout North America who are struggling to steward and manage their local forest resources. TH

The author, CF RPF, is a certified forester and vice president of New Jersey Forestry Assn. who works with Landdimensions Engineering in Glassboro, NJ. He may be contacted at bob@landdimensions.com.

New Web Poll: What market conditions do you anticipate in 2009 and how will you manage your business around them? To respond, visit www.timberharvesting.com or email dk@hattonbrown.com.