

3 Meatless Grilling Ideas | Outdoor Fun: 10 Essential Items

cottage

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Beneath The Surface

Recovering B.C.'s underwater forests.



Cutting-edge cutting technology: Triton Logging's Sawfish at work.



Most people — and cottage and cabin owners in particular — are preoccupied with the recreational possibilities of lakes. But what lies beneath? About 20 million trees, or five billion board feet of lumber. A legacy of mid-20th century hydroelectric projects like Lois Lake, near Powell River, and Ootsa Lake, there is an estimated \$1.5 billion dollars worth of standing trees under water, long dead, but well preserved in an environment that is nearly oxygen free.

The nature of these submerged forests varies with the reservoir. Lois Lake, flooded in the 1940s (ironically enough, to create a power supply for a nearby pulp and paper mill) is primarily fir, with lesser quantities of hemlock, cedar and Sitka spruce. Much of the wood is merchantable second growth; some is previously inaccessible old growth.

But until recently, getting at those trees wasn't an easy proposition. Although the B.C. government grants licences to harvest underwater timber, most operations have been confined to the waters' edge. Divers, working with saws, were limited to a depth of about 60 feet. Another option, simply uprooting the trees, was hazardous to the underwater environment.

Then came Triton Logging, a Vancouver Island-based company, and the Sawfish, a submersible, remotely controlled saw that can move through the submerged forest, cutting and floating a tree every three to six minutes, or about 100 trees per shift. When Triton's system was evaluated by strict marine habitat protection standards, Fisheries and Oceans Canada and commended the company, "on its innovation in developing this new technology which has the potential of mitigating many of the known impacts associated with underwater logging."

Furthermore, when harvesting these forests, there are no clear cuts, no roads to build, no pest or fire control costs, no replanting required and no soil disturbance. Also, removing these trees makes the man-made reservoirs more attractive and less hazardous for recreational users.

For the past three years the company has been selling the wood commercially, and it has found its way into flooring, furniture, shaved posts



Underwater logging offers a second chance for old-growth trees.

Facts & Figures

- There are an estimated 200 million submerged trees worldwide — enough to add 30 per cent to Earth's forests.
- The estimated \$2 billion worth of lumber B.C. has beneath its waterways is only five per cent of the world's total.
- Underwater wood is well-preserved, due to the low-oxygen environment, making it prized by craftspeople.
- Harvesting costs underwater are about the same as on land, but sustainable wood commands as much as three times the price of conventional lumber on the world market.
- It would take Triton's Sawfish 2,000 years to completely harvest all of Earth's submerged lumber.

and rough-cut timber products. The company's methods have earned Triton's wood a significantly "green" credential—"Smart-Wood Rediscovered" certification, given by the Rainforest Alliance based on a review of harvesting practices and technology, and the nature of the wood.

According to Jim Hayhurst, Triton's vice president of Marketing and Communications, the clarity of that

certification is important, but it's just one pillar of the company's plan for their wood. "The problem with 'eco' products has always been the eco premium," he says. "The high price makes more sustainable choices harder." Getting the wood on the shelf at a competitive price has traditionally been a challenge, and supply is a major part of that issue.

Supply won't be a problem, says Hay-

hurst. This year, working with Cheslatta First Nation, which holds the salvage rights, Triton plans to recover about 45,000 lodgepole pine logs from Ootsa Lake, which was created in 1949 with the damming of the Nechako River to create power for Alcan. In addition to abruptly displacing the Cheslatta First Nation, that project flooded nearly 50,000 hectares of forest — about 500 square km. That's

CottageSources

Building: (p. 56)

Triton logging wood products can be purchased at many retailers. To obtain a list of retailers, e-mail the company at wood@tritonlogging.com.



High-density rediscovered wood is ideal for furniture.



High-quality rediscovered wood from Triton is available at a variety of retailers.

enough to keep six Sawfish busy for the next 100 years, and that doesn't even put a dent in the 35,000 square kilometres of forest underwater worldwide.

The company doesn't want to settle for recovering the wood; Hayhurst says they want to create a market for it. From that supply of wood, the company is aiming squarely at the cottage and cabin market — the first of a line of branded products will be three-inch tongue and groove paneling, 38-inch wainscot and project boards. Child-sized twin beds are also on the drawing board since, as Hayhurst says, parents are more likely to choose green where their kids are concerned and the company believes that kids will be fascinated by the magic of the Sawfish and where the wood comes from.

Homebuilders and cottage do-it-yourselfers can now use all the wood they want without contributing to another potentially destructive clearcut of standing trees.

A member of the Canada's Green Building Council and privately held Canadian corporation, Triton is partnering with local sawmills and suppliers to bring these reclaimed wood products to a market outlet near you. ●

Fishing for Lumber

The Sawfish is a remote-controlled, submersible, cutting edge technology developed by Triton Logging, a Vancouver Island-based forestry company named after the half-man, half-fish god of ancient Greek mythology.

The Sawfish technology is the brainchild of President and CEO Chris Godsall, a former log salvager, and his team of scientists, loggers, naturalists and engineers at Triton. Perfecting the Sawfish, took three years of often-frustrating effort and \$4 million.

A 12-foot-long, 7,000-pound ROV (remote operated vehicle), the Sawfish is lowered below the surface of the reservoir each day by a crane situated on an anchored boom.

Tethered to a barge-mounted pilot control booth on the surface by cable and powered by a 40 to 75 HP electric motor, the buoyant Sawfish navigates its way easily through the murky depths of the underground forest, using sonar waves to locate groves of trees.

Once a tree is identified, chief pilot Josh Chernov takes over, maneuvering two large mandible-like arms with the help of eight video cameras to clamp onto the base of the selected tree. Here the operation is somewhat similar to the operation of a traditional piece of logging equipment, the feller buncher. He then secures a 450-pound airbag into the tree with lag bolts, and inflates it with compressed air.

Next, a 55-inch saw blade cuts through a 24-inch diameter tree in 15 seconds. Once the tree is free, propelled by the airbag it flies to the surface — one every three to six minutes. This time frame is what makes this new innovation in logging commercially viable.

After surfacing, the logs are collected and loaded onto a barge. While the trees weigh more on the surface and the hauling costs can be greater, the milling process is easier — the waterlogged trees, with their long, old-growth fibres, are more stable, and the wet wood offers less resistance. There is no difference in the way the wood behaves in the drying process.

While the underwater forests in these reservoirs are considered lost, Triton operates under the same parameters for stumpage and timber harvest licenses agreements as regular logging companies. However, given that the stumpage fees are based on accessibility, market potential and competition, Triton fees are considered quite low.