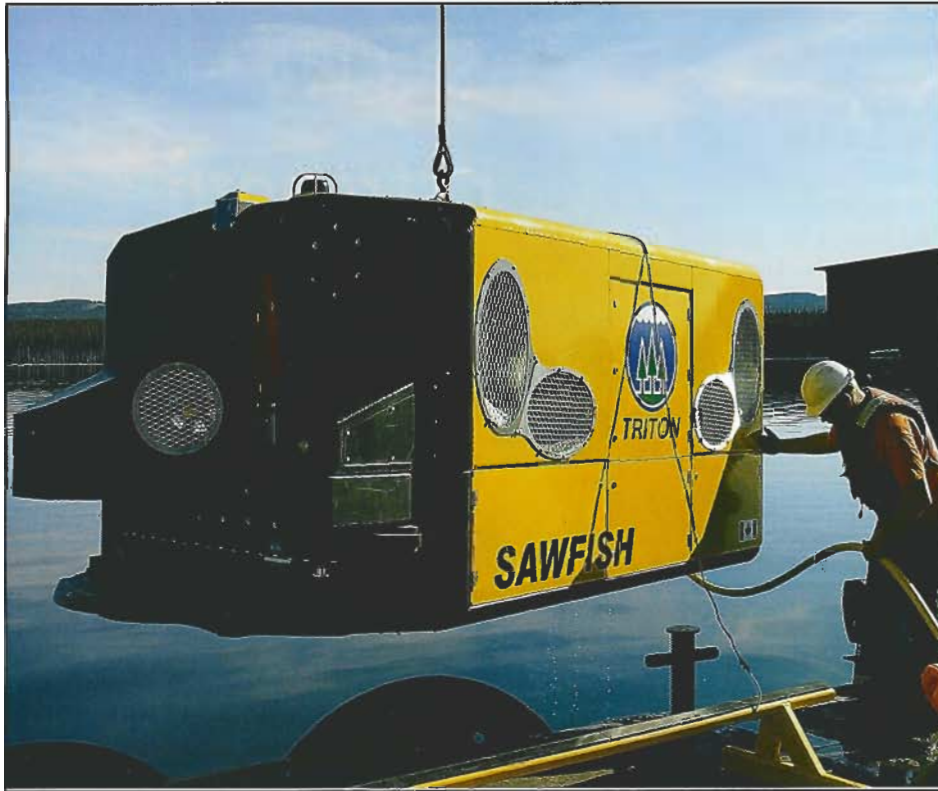


Ingenious Application of High Technology Produces New Source of Quality Panels

By Ward Williams



The Sawfish is a remotely operated vehicle (ROV) about the size of a small minivan outfitted with eight video cameras, sonar, GPS and seven thrusters powered by a 75 HP electric motor.

Triton Logging Inc. finds a winning strategy by extracting long-submerged trees in British Columbia operations. The company sees further opportunities existing on a global scale.

Question: (By Specialty Wood Journal)
How did Triton Logging Inc. get started in the business of harvesting old trees which

have stood in the water for many years?

Answer: (By Jim Hayhurst, Vice President, Marketing & Communications) Triton Logging) Triton's founder and CEO, Chris Godsall, was in the log salvage business for many years, retrieving logs that had sunk during transport on BC's lakes and rivers. As he searched for these lost logs, he discovered a few man-made lakes with forests

standing underwater. After some initial research verified that there were millions more trees underwater than logs, the only question was 'How do you cut a tree in 150 feet of water?' The answer that he and the engineers at Triton came up with was the Sawfish.

Q: Where exactly is your current logging taking place?

A: Triton's current operations are on Ootsa Lake in north central BC during the summer season and on Lois near Powell River during the fall/winter/spring. Though BC holds an estimated \$1.5 billion worth of submerged standing timber, it only represents about 5% of the global inventory. So we are also readying our Sawfish and harvest teams for deployment overseas in 2007.

Q: What species are you cutting? And their ages?

A: At Ootsa it is mainly lodgepole pine and spruce. At Lois Lake, we harvest mostly western red cedar and Douglas fir, with some white pine, hemlock and spruce mixed in. Most everything we cut is classified as "old growth", a definition that varies region to region and depends on fire cycles. The trees at Ootsa were flooded in the early 1950's, making them over 150 years old. At Lois (flooded in the 1930's), a natural fire wiped out most of the valley in the mid-1800's, so most of the trees are in the 150-200 year range, with some over 300 years old that survived the original fire.



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Q: What's the diameter range of these trees?

A: This of course depends on the reservoir and species. The lodgepole pine at Ootsa are a northern species which grows slowly and have tight, stable growth rings. They range from 12"-24". The older, coastal species found in Lois Lake can be 3 feet in diameter and sometimes more.

Q: Please describe the technology applied by Triton in the under-water extraction involved?

A: Traditional underwater logging techniques have ranged from divers and chain-saws to cranes and grapples, both of which can be unsafe and environmentally damaging. To solve those problems, plus the challenge of reducing cut/retrieval cycle times, Triton invented the Sawfish Underwater Harvester. The Sawfish is a remotely operated vehicle (ROV) about the size of a small minivan outfitted with eight video cameras, sonar, GPS and seven thrusters powered by a 75 HP electric motor. The Sawfish grabs the tree with 4-foot grapples, attaches an airbag, and then cuts the tree - the airbag providing lift to the waterlogged tree which would otherwise sink. At the



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surface, the harvest team collects the trees and places them in floating bunks or on barges for transport. This represents the world's safest, most reliable and productive underwater logging system.

Q: Are there dangers to the "loggers" out on the job?

A: Because the Sawfish is remotely operated, there are no loggers in the cutting. Continued on page 48...

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theatre and therefore it is one of the safest ways to cut trees anywhere. Human safety and environmental protection are paramount to Triton, so every precaution is taken to ensure that people are working safely and systems are in place to protect aquatic life.

Q: The quality of the recovered wood is reputed to be first class. What exactly happens to the tree or log under water over time?

A: The quality of Triton's underwater wood is excellent. Because oxygen is the agent that rots wood (and there is very little oxygen underwater), our wood is perfectly preserved. Once dried, there is no discernable difference between Triton's wood and wood cut on land.

Q: It was reported by Triton that there are vast submerged forests around the globe. Does this offer commercial opportunities for you and other loggers?

A: The global underwater forest resource is estimated to be over 300 million trees. We believe that this supply could have a significant impact on alleviating the pressure on land-based forests. To that end, we consider the challenge of harvesting this wood to be a great opportunity - both from a commercial perspective and from an environmental perspective. While there are other underwater logging operations in the world, Triton is committed to ensuring that the resource is managed with the highest environmental standards and encourage all operators to do the same.

Q: Who manufactures this specialized equipment? What are the costs involved to set up an actual logging operation?

A: Triton invented the Sawfish and manufactures it at our headquarters on Vancouver Island. Though we do not disclose our specific numbers, the costs of setting up our operation can be significantly lower than a land-based system since we do not build roads or incur silviculture costs such as fire/pest control, replanting.

Q: How did you select the name "Triton" for your company? (Jim: I did some research on Triton, the sea god son of Poseidon, king of the seas; I didn't realize just how rough and tough this legendary creature was but he was apparently a wizard in blowing tunes on conch shells!)

A: The name comes from Greek mythology. Triton was sea god son of Poseidon, ruler of the seas. We believed that the name Triton invoked the mystique and power of what we were trying to accomplish as a company.

Q: Where can your special Triton wood/lumber be obtained?

A: Triton wood products, such as laminated beams and specialty lumber, are sold directly to contractors and developers and can be specified by architects and designers for a variety of uses. Certain consumer products (paneling, wainscot, project boards and furniture) can be found at local building supply stores on Vancouver Island or ordered directly from Triton.

Acknowledgment: The author thanks Jim Hayhurst and Triton Logging for their cooperation in making this report available to our readers. Further information may be obtained via Email from Jim.Hayhurst@tritonlogging.com

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