

The Research Vessel (RV) “John Le Conte”

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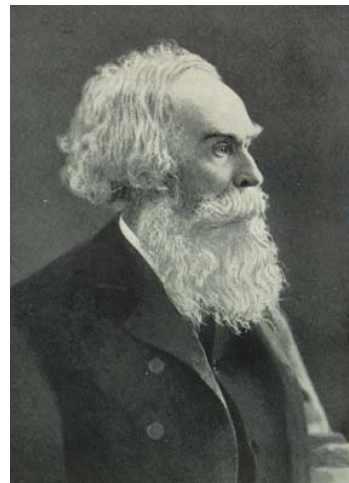
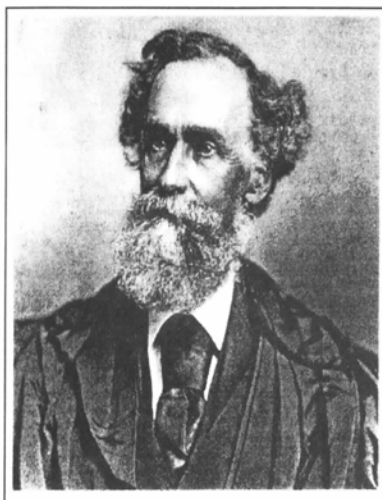
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- Custom built in 1976 by Freeman Marine in Gold Beach, Oregon at the mouth of the Rogue River. It was specifically designed to do a broad range of limnological research projects on Lake Tahoe for the UC Davis Tahoe Research Group.
- Cost: About \$75 K from an \$86 K National Science Foundation grant awarded to Dr. Charles Goldman originally intended for the construction of a new research field station and laboratory. Environmental restrictions and land acquisition delays led to re-directing the funds into construction of the LeConte to replace the old, inadequate research vessel “San Giuseppe”, a converted wooden horseshoe-stern salmon fishing trolling boat from San Francisco’s Fisherman’s Wharf.
- Length: 37 ft., Beam Width: 13.5 ft., Draft to Keel: 4.5 ft., Weight: 13 tons. Hull and Superstructure is 1061 Kaiser Aluminum, Heliarc welded. Powered by a Detroit Diesel 6V-53, 180 HP engine driving a 24” diameter stainless steel single propeller. Twin Disc Power Take-Off runs 10 and 20 GPM hydraulic pumps powering a 4-spool Kohlstrand gurdie winch, and two Gearmatic 4000 lb. pull large winches with ¼ “ and ½ “ wire rope 3000 ft. long to reach the lake bottom.
- Top Speed: 10 knots with a clean hull. Algal growth can reduce speed by at least one third and increase fuel use by 30-40%. Fuel capacity: Port and Starboard aft tanks hold 360 gallons. Fuel use averages 4.5-5 gallons per hour.
- Cabin was built oversize to house research electronics; extra bench space for filtrations and water sample processing. House current (115V) is provided by a 7.5 KW Lima generator powered by a hydraulic motor supplied by two variable-pitch hydraulic piston pumps attached to the camshafts of the boat diesel engine. Transmission is an oil-cooled Twin Disc. Two 12 Volt 8D batteries power the engine, electronics and cabin, deck, flood, navigation and running lights.
- Electronics: VHF multi-channel marine radio, two depth sounders (paper chart), compass, 20 mile-range radar, Global Positioning System, computers, etc.
- Aft work space is well-decked to provide safety rails for researchers and lower center of gravity with hinged stern doors to provide access to the water surface. Overhead boom and hydraulic “A” Frame are capable of 2000 lb. lift and they are able to swing equipment from the mid-deck storage hold out and over the stern into the water. Buoys, piston corers, multi-probe sensors, etc. are deployed here.

- The LeConte was named for Professor John LeConte, an original faculty member and President (1869-1881) of the University of California, Berkeley. He and his brother, Joseph, came west from the University of Georgia in 1868 to teach at UC. Joseph was known for his geological interpretations of the formation of the Sierra Nevada. John was a doctor, ornithologist and physicist. He published over 100 scientific papers in these fields and was interested in the transmission of light through water. It was, thus, a natural thing for him to come to Lake Tahoe in the 1870's to study its physical characteristics and light penetration. He used one of his wife's white china dinner plates to take the first Tahoe clarity readings and obtained a reading of 33 meters in 1883. He presented his results in a series of papers called "Physical Studies of Lake Tahoe" in the Overland Monthly. This was the same journal used by Mark Twain to publish his writings.



"RV John LeConte"



John LeConte 1818-1891

This "replica" of the R/V John LeConte was fabricated in the Engineering workshop at UC Davis by Bill Sluis, Daret Kehlet, Tom Bell and Mike Banducci. It is an approximate two-thirds sized reproduction of the stern of the real vessel.