

Drone for Aquatic Habitat Surveys



BioSonics and The Oceanscience Group (USA) have released a portable, remotely operated habitat-mapping survey boat, the Z-Boat 1800MX. A combination of Oceanscience's remote hydrographic survey boat and BioSonics' MX echosounder, the Z-Boat 1800MX allows researchers to obtain quantitative measurements of aquatic vegetation and substrate distribution without the expense and effort of launching a manned boat.

With the Z-Boat's position displayed on navigation software on the shore acquisition computer in real time, guiding the boat along planned survey lines is aided by on-board GPS. Simultaneously, BioSonics Visual Acquisition 6 software provides the operator with instant bathymetry and vegetation data courtesy of a high-definition full water column

echogram.

With real-time control of all echosounder settings through the Ethernet network radio connection, data quality is not compromised with the switch to the remote platform. Building on the successful integration of their DT-X fisheries echosounder on the Liquid Robotics Wave Glider in 2013, BioSonics recognises the advantages and importance of utilising unconventional platforms to deploy environmental monitoring equipment.

Eric Munday of Subsea 20/20 contacted Oceanscience with the idea for a remotely operated platform for the MX echosounder. Adrian McDonald of Oceanscience was immediately enthusiastic about the potential of the combination. For BioSonics the integration was simple, as it turned out the existing case fit in the boat's instrument compartment. With the MX integration complete, the two companies look forward to field demonstrations of the system in action, as well as more remote instrument projects.