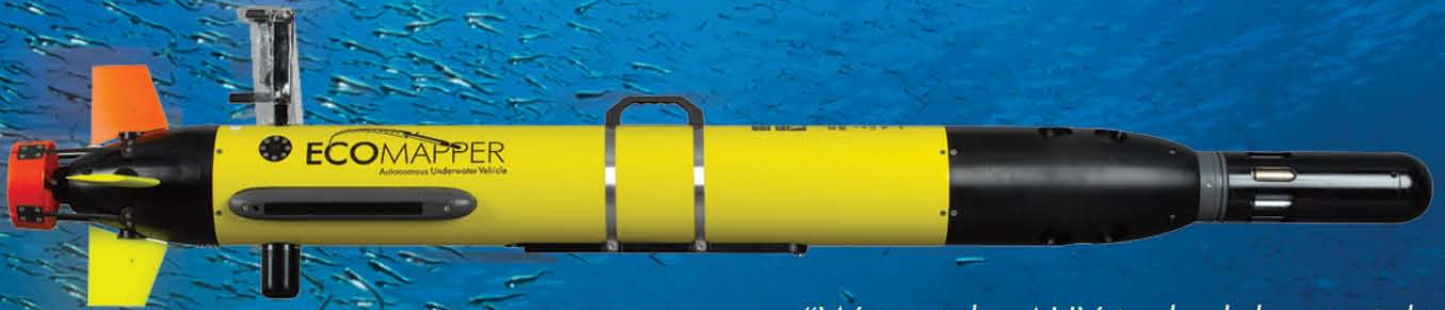




# ECOMAPPER™

Autonomous Underwater Vehicle



*"We put the AUV in the lake at night, went to bed, woke up and picked it up. That's how easy field work should be."*

*Dr. Cary Troy  
Purdue University*

Generate **high-resolution maps** of **water quality, water currents** and **bathymetry** without getting your feet wet.

## Data Collection Suite



**EcoMapper** is a unique AUV designed specifically for mapping water quality, water currents, and bathymetry.

Navigate challenging natural environments with a monitoring platform that will generate the highest-resolution data at a low cost and low risk to your personnel.

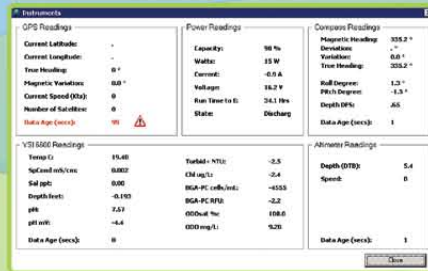
### Key features

- Reliable autonomous underwater vehicle with DVL navigation
- Flexible options for water quality, bottom mapping, water current profiling, and side-scan sonar
- Data logged continuously as vehicle moves through water column
- Deployable by one person
- Easy and fast mission planning
- 8-14 hour run times at speeds of 2-4 knots

## 5 Steps to an **EcoMapper Mission**



**1** Using VectorMap software, create a point-and-click mission on a geo-referenced map.

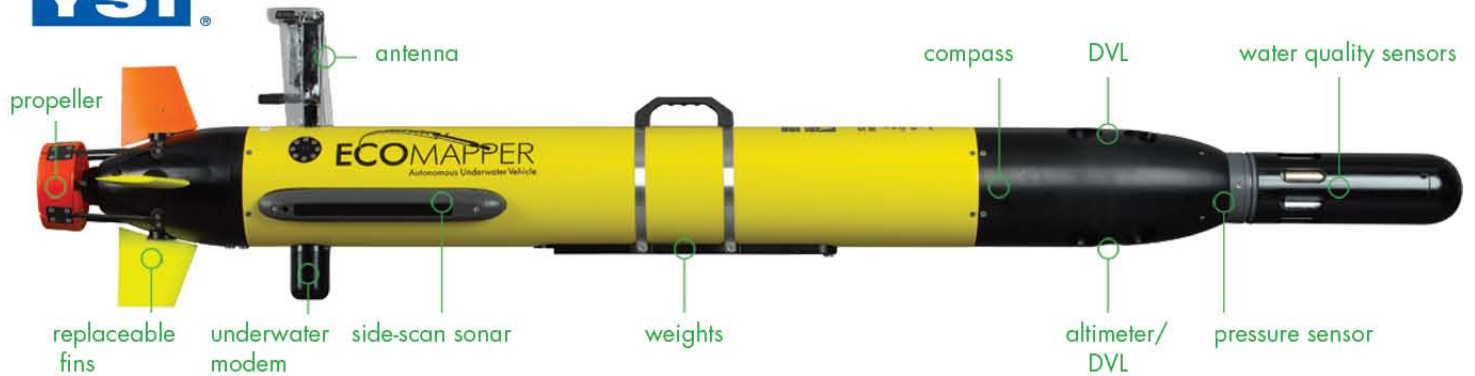


**2** Start EcoMapper with key fob. Using Windows™ Remote Desktop, load mission onto EcoMapper's UVC Software.



**3** Place vehicle in water and start mission.





[www.ySI.com/ecomapper](http://www.ySI.com/ecomapper)

### Sales, Rental and Support Centers

YSI Integrated Systems & Services  
13 Atlantis Drive  
Marion, MA 02738  
800 363 3269  
+1 508 748 0366  
systems@ysi.com

YSI Incorporated  
Yellow Springs, OH 45387  
+1 937 767 7241  
environmental@ysi.com

YSI Gulf Coast  
+1 225 753 2650  
gulfcoast@ysi.com

SonTek/YSI  
+1 858 546 8327  
inquiry@sontek.com

YSI Hydrodata (UK)  
+44 1462 673581  
europe@ysi.com

YSI Middle East  
+971 2 56 31316  
samer@nanotech.co.jp

YSI Australia  
+61 7 3162 1064  
australia@ysi.com

YSI China  
+86 10 5203 9675  
beijing@ysi-china.com

YSI/Nanotech (Japan)  
+81 44 222 0009  
nanotech@ysi.com

### Who's Minding the Planet?®

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E87-03 0610

## Specifications

<b>Dimensions</b>	Length: 60.1 in (152.6 cm) standard; 63.6 in (160.8 cm) with DVL Diameter: 5.8 in (14.73 cm)
<b>Weight (air)</b>	45 lbs (20.41 kg) standard; 60 lbs (27.2 kg) with DVL
<b>Energy</b>	600-800 WHrs of rechargeable Lithium-Ion batteries (>300 cycles)
<b>Depth</b>	200 ft (60 m)
<b>Endurance</b>	8 hours at speeds of 2.5 knots; battery configuration dependent
<b>Speed Range</b>	1-4 knots
<b>Communication</b>	Data: wireless 802.11g Ethernet 2.4 GHz radio link when on the surface
<b>Navigation</b>	Surface: GPS (WAAS corrected) Subsurface: A) Bottom tracking to 40 m with DVL; B) Dead reckoning with compass, depth sensors, and vehicle speed
<b>Sensors</b>	CTD (conductivity, temperature, depth), height from bottom, three-axis digital compass
<b>Onboard Electronics</b>	Intel® ATOM processor with Windows® XP embedded; 80 GB drive for data collection
<b>Software</b>	VectorMap: Mission planning and data viewing Sonar Mosaic: Processing sonar records for overlay in VectorMap UVC: Underwater Vehicle Control, operation, run mission, remote control
<b>Options</b>	
<b>Sensors</b>	Optical dissolved oxygen, turbidity, chlorophyll fluorescence, blue-green algae fluorescence, pH, ORP
<b>Side-Scan Sonar</b>	Dual-frequency 330/800 kHz
<b>Doppler Velocity Log</b>	6-beam DVL for navigation, bathymetry, current profiling (down) 10-beam DVL for navigation, bathymetry, current profiling (up and down)
<b>Security System</b>	Safety tow float: Emergency airbag recovery system Acoustic pinger: Underwater location and tracking

## Mapping Service

YSI offers a complete mapping service with the EcoMapper AUV. Please contact us.