



**JOHN H. RYTHER, JR.**

CR Environmental, Inc., 1994 to Present  
 Years with Other Firms: 16  
 Citizenship: U.S.A.

**SENIOR PROJECT MANAGER  
 UNDERWATER VIDEOGRAPHER  
 BIOLOGICAL OCEANOGRAPHER  
 USCG LICENSED CAPTAIN**

**AREAS OF SPECIALIZATION**

- Vessel Operations
- Underwater Videography and Marine Epifauna Identification
- Hydrographic & Geophysical Surveys (side-scan sonar, magnetometer, bathymetric)
- Sediment Grab Sampling and Coring
- Surface Water Sampling

**EDUCATION/CERTIFICATIONS**

2023 April      USCG Certified Safety & Survival Training  
 2023 March      Updated First Aid - CPR/AED Training  
 2007              US FWS Certified in Principles and Techniques of Electrofishing  
 1997-Present    OSHA 40-Hour HAZWOPER, 8 hr Supervisor, and refresher courses, 10 hr OSHA Construction;  
                          AED/First Aid and CPR  
 1991              EPA/NOAA Diving Certification; Hyperbaric International Nitrox Diving Certification  
 1986              U.S. Coast Guard 100 ton Near Coastal Motor Vessel License (last renewal 2014)  
 1978              NAUI Diving Instructors Course, Rockport, MA - No. 5110  
 1974              B.S., Journalism/Biology, Syracuse University

**PROFESSIONAL SOCIETIES/AFFILIATIONS**

Coastal & Estuarine Research Federation      Marine Technology Society  
 Marine & Oceanographic Technology Network      Hydrographic Society of America

**WORK HISTORY**

CR Environmental, Inc., Falmouth, MA	Senior Project Manager	2020- present
	Manager Oceanographic Operations	1994 - 2019
Minnow Diving, Inc., Falmouth, MA	President/Owner	1994 - present
TG&B Marine Services, Inc., Falmouth, MA	Treasurer/Co-Owner	1987 - 1994
Battelle Ocean Sciences, Duxbury, MA	Program Manager	1990 - 1993
EG&G, Waltham, MA	Operations Manager	1979 - 1990
Marine Biological Lab, Woods Hole, MA	Diver/Field Biologist/Captain	1975 - 1979

**SUMMARY OF PROFESSIONAL EXPERIENCE**

Mr. Ryther has over 40 years of experience providing project management, and technical logistical field support on marine and freshwater hydrographic, geophysical and biological surveys. He is the senior vessel captain at CR and is experienced in the design and outfitting of vessels for oceanographic and geophysical surveys. He manages CR's fleet of sampling and survey vessels, inventory of equipment and has designed specialized underwater video sled systems to obtain high resolution video imagery of bottom substrate and biota. His skills include identification of marine fish and invertebrates and management of field studies and reporting for sediment coring, bathymetric, side-scan sonar, and underwater video data collection for remediation, archaeological investigations, marine cable and pipeline corridors, and dredge monitoring projects.

**RELEVANT PROJECT EXPERIENCE**

**Field Project Manager, U.S. Army Corps of Engineers, New Bedford Harbor Superfund Site (1999- present)**

Mr. Ryther has managed site investigations at the PCB contaminated New Bedford Harbor Superfund Site for AECOM, Foster Wheeler, TetraTech/FW, Battelle, and currently Jacobs. Work has included multibeam and single beam dredge monitoring

bathymetric surveys, marine archaeological investigations, and sediment vibracoring, push coring, and surface grab sample collections

**Project Manager/Marine Biologist, Mayflower Wind Falmouth, MA Landing Site Eelgrass Surveys (2020)**

Mr. Ryther managed and provided technical support on a three-week eelgrass mapping survey for AECOM at three wind turbine cable route landing sites off Falmouth, MA. Survey operations included detailed single beam bathymetry with RTK navigation, side scan sonar, and underwater video sled surveys.

**Field Project Manager, U.S. Army Corps of Engineers New England Division (2007-2020) and NY District DAMOS/HARS Dredge Disposal Site Monitoring Surveys (2010-present)**

For over a decade has coordinated personnel, vessels, equipment for multibeam bathymetric, Sediment Profile Imaging (SPI), water collection, and sediment sampling surveys in Gulf of Maine, Massachusetts Bay, Cape Cod Bay, Rhode Island Sound, Long Island Sound, and New York Bight as a JV partner in DAMOSVision and then as a subcontractor to Battelle, AECOM, and Inspire Environmental.

**Marine Biologist, Woods Hole Oceanographic Institution (WHOI) Dock Modernization Project (2020)**

Managed an eelgrass and bottom habitat survey at the WHOI dock using single beam bathymetry and CR's underwater video sediment grab sampler. Sediment samples for sediment chemistry, benthic biology, and shellfish

**Senior Project Manager, U.S. Army Corps of Engineers, Environmental Services Contracts (2019)** Managed sediment grab and vibracoring efforts throughout New England waters from Maine to Connecticut for 20 years. Most recent effort for AECOM included vibracore sampling at Milford Harbor and grab sampling at the Central Long Island Disposal Site for proposed harbor dredging.

**Project Manager/Marine Biologist Vineyard Wind Barnstable Landing Site Surveys (2019)**

Program manager and marine biologist providing vessels, equipment, and geophysical survey support to Seaforth Geosurvey and Vineyard Wind on shallow water geophysical surveys off Centerville Harbor in Barnstable, MA. CR also collected 10 foot vibracore samples, sediment grabs, and performed underwater video surveys with CR's video sled and video grab systems. Mr. Ryther also performed video analysis and reporting using the CMEC classification system.

**Project Manager/Marine Biologist HEEC Pre and Post cable installation surveys Boston Harbor, MA (2018-2019)**

Managed and participated in multiple pre and post cable installation surveys performing multibeam and geophysical surveys, detailed single beam eelgrass surveys, underwater video sled surveys, and sediment grab sampling for Epsilon Associates and Stantec.

**Project Manager/Marine Biologist CT State Pier Port Facility Expansion Project New London, CT (2018-2019)**

Mr. Ryther managed and provided technical support on multibeam bathymetric and geophysical surveys, vibracore operations, eelgrass surveys using single beam bathymetry and video sled survey, shellfish surveys, and benthic sample collection for AECOM and WSP.

**Project Manager and Senior Field Biologist 2017 MACZM Sand Resources Study (2017)** Acted as program manager and field biologist for sediment grab sampling, underwater video survey, and fish and invertebrate identification at five potential sand resource sites for beach nourishment along the Massachusetts coast. Sites were off Cuttyhunk Island, east of the Cape Cod Canal, in Cape Cod Bay, off Duxbury Bay, off Nantasket Beach, Hull, and outside the mouth of the Merrimack River. CR's vessels the 25-ft Parker *Charlotte Anne*, 26-ft *Lophius* equipped with a boat mounted hydraulic A-frame and hydraulic winch, and the *Cynthia Lee* a 40-ft lobster boat were used for the video survey and grab sampling. CR also provided the 55-ft WesMac, *Jamie Hanna* to APTIM for offshore vibracore sampling at the sites.

**Marine Biologist, 2017-2018 Vineyard Winds Preliminary Cable Routes, Underwater Video Analysis (2017-18)**

Reviewed underwater video data from 72 video transects taken along alternative cable routes in Nantucket Sound, Vineyard Sound, and south of Martha's Vineyard for the proposed Vineyard Winds wind turbine project. Prepared a report with illustrative screen captures and data on the major substrate types, observed and dominant biota, and the presence of potential SSUs for reporting to BOEM.

**Field Program Manager, Massachusetts Water Resources Authority (MWRA), Hard Bottom ROV Surveys (1994-2017)**

Managed and participated in the routine hard bottom ROV survey for the Boston Harbor and Outfall Monitoring Program. Pre- and post-construction surveys in the vicinity of the diffusers included the collection of data on bottom habitat and biota.

**Project Manager, Massachusetts Bays National Coastal Conditions Assessment (2015)**

Managed and provided technical and field support on a summer-long water sampling, water quality monitoring, and sediment sampling effort for MACZM and USEPA. Sampling was conducted at 57 stations across the coastal waters of Massachusetts, including sites off Newburyport, Plum Island Sound, Cape Cod Bay, Buzzards Bay, Martha's Vineyard, and Nantucket Island. The project was conducted within budget and on schedule, and all data and methods were transferred to CZM.

**Underwater Videographer/Program Manager, U.S. Navy VLF Transmitter Cutler to Machias, ME (2012-14)**

Program manager for power cable route studies conducted for Ecology & Environment. Completed bathymetric, side scan sonar, underwater video eelgrass and biota surveys, and collected grab samples to characterize the bottom habitats for environmental permitting of the transmission cable route. Responsible for video analysis and bottom classification and reporting.

**Hydrographer/Underwater Videographer, Comcast/NStar Fiber Optic Cable, Vineyard Sound, MA (2014)**

Managed and participated in pre- and post-construction side scan sonar and multibeam bathymetric surveys along a cable route from Woods Hole to Martha's Vineyard. Collected underwater video along and at cross transects of the cable route and anchor locations to monitor bottom disturbances and recovery. Reported data was used for the first permit issued under the Massachusetts Ocean Management Act filed by Epsilon Associates.

**Field Manager, Geophysical and Biological Surveys Neptune LNG Pipeline, Mass Bay (2005-2011)** Conducted pre-construction bathymetry, SPI, underwater video, side scan and benthic sampling for Ecology & Environment on the Suez Neptune LNG project in Massachusetts Bay. Post-construction monitoring included underwater video and side-scan.

**Biological Oceanographer, NOAA, Fishing Industry Grants (2000-2002)** Managed a NOAA Fishing Industry Grant for the training of fishermen and conversion of their fishing vessels for oceanographic research; a grant to study the impacts of otter trawls on soft bottom habitat in the Gulf of Maine; and participated in grants to characterize EFH in the Gulf of Maine, and loggerhead turtle feeding habitat off the Delaware and Maryland coast where CTD casts and zooplankton tows were part of the study to assess turtle behavior and distribution.

**CONTRIBUTED POSTERS, PAPERS AND TALKS**

- October 2012    **PIANC USA/COPRI Conference, San Diego, CA**  
*"Integrated Interpretation of Dredged Material Placement Site Survey Data and Pre-dredge Clearance Survey Data using Multibeam Backscatter, Towed Side Scan, AUV Side Scan, and Sub-bottom Sonar"* C. Wright, et al.
- 2007            **Non-Destructive Bridge Inspection Techniques, Technical Exchange Conference, Newington, CT**  
*"Integration of Aquatic Geophysical Survey Data with GIS"* C. Wright and J.H. Ryther, Jr. Conference hosted by ConnDOT, FHWA, and the Association for Bridge Construction and Design, NE Division.
- 2006            **NEERS Spring 2006 Symposium Boston Harbor, Hull, MA**  
*"Effects of Smooth Bottom Trawl Gear on Soft Bottom Habitats in Western Massachusetts Bay"* Cogswell, C.M., J.H. Ryther, Jr., C.F. Wright, F. Mirarchi, B. Hecker, A.D. Michael, D.C. Rhoads, D. Stevenson and R. Valente
- 2002            **USGS, NOAA, ASF and ESA Symposium on the Effects of Fishing Activities on Benthic Habitats: Linking Geology, Biology, Socioeconomics and Management, Tampa, FL**  
*"Effects of Smooth Bottom Trawl Gear on Soft Bottom Habitat"* Cogswell, C., B. Hecker, A. Michael, F. Mirarchi, J. Ryther, Jr., D. Stevenson, R. Valente, and C. Wright
- 2001            **CZM Gulf of Maine Marine Habitat Conference, Sebasco, ME**  
*"Near Term Observations of the Effects of Smooth Bottom Net Trawling on the Seabed NOAA/NMFS Cooperative Research Project"*. CR Environmental, Inc. and Boat Kathleen A. Mirarchi, Inc.

- 1998 Dredging Conference, Los Vegas, Nevada  
 “Monitoring Results from the First Boston Harbor Navigation Improvement Project Confined Aquatic Disposal Cell”. Murray, P.M. and T.J. Fredette, P.E. Jackson, S.H. Wolf and J.H. Ryther, Jr.
- 1998 Invited by New York Sea Grant to speak at the East Coast Commercial Fisherman’s and Aquaculture Trade Show, Ocean City, Maryland  
 “Use of Fishing Vessels for Oceanographic Survey” J.H. Ryther, Jr.
- 1997 Oceans 97, Halifax, Nova Scotia  
 “Conversion of Fishing Vessels and Training of Fishermen for Oceanographic Surveys, Research and Resource Assessment” Ryther, J.H. Jr. and C.M. Cogswell.

## PUBLICATIONS

J. Ryther, C. F. Wright, E.J. Perrone. October 2012. *Launching the Jamie Hanna*. Marine Technology Reporter.

Ryther, J.H., Jr. April 2007. *Standard Field Issue: Camera and Fishing Rod*. Marine Technology Reporter – Offshore Edition. pp. 18-19.

C. Cogswell, B. Hecker, A. Michael, F. Mirarchi, J. Ryther, Jr., D. Stevenson, R. Valente and C. Wright. 2005. *Effects of Smooth Bottom Trawl Gear on Soft Bottom Habitat*. In: Benthic Habitats and the Effects of Fishing, Eds. P.W. Barnes and J.P. Thomas, American Fisheries Society, Bethesda, Maryland: 890 pp.

Ryther, J.H., Jr., S.G. Harris and C.F. Wright. May 1998. *New York Catskill Reservoir Surveys -Application of Marine Technology to Freshwater Reservoirs; Surveys of and Bottom Samples from Seven Reservoirs*. Sea Technology.

Ryther, J.H., Jr., R.S. Lane and F. Mirarchi. 1996. *Fishing Vessels Successfully Used for Oceanographic Surveys*. Sea Technology.

Ryther, J.H., Jr., S. McDowell and C.S. Albro. 1991. *Mini-BOSS: Portable Sewage Effluent Monitoring System for Boston Harbor - integrated profiling system for Boston Harbor*. Sea Technology.

Ryther, J.H., Jr., D.B. Harris, John P. Fish. 1990. *Putting ROVs to Work Investigating Shipwrecks*. Sea Technology.

Magnell, B.A., C.L. Greengrove, J.H. Ryther, Jr., and C.D. Winant. 1988. *Real-time Data Telemetry Northern California Coastal Circulation Study*. Argos. V 37, pp. 7-11.

Ryther, J.H., Jr., B.A. Magnell, C.L. Greengrove, and C.D. Winant. 1988. *Real-time Data Telemetry*. SeaTechnology, 29(8): 10-16.

Menzie, C.A., J.H. Ryther, Jr., L.F. Boyer, J.D. Germano, and D.C. Rhoads. 1982. *Remote methods of mapping seafloor topography, sediment type, bedforms and benthic biology*. In: Oceans '82 Conference Record, pp. 1046-1051 IEEE Catalog Number 82CH1827-5.

Menzie, C.A., G.M. Mariani, and J.H. Ryther, Jr. 1981. *Seafloor Mapping System Applied to Biological, Environmental Surveys*. Sea Technology 22(2): 15-16.