

Ryan M Fochs

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EDUCATION

- 2023 Master of Arts: Environmental Science, & Policy
University of Miami, *Coral Gables, FL*
Abess Center for Ecosystem Science and Policy | Advisor: Frederick Hanselmann, Ph.D.
Interdisciplinary Approach to Aerial & Marine Archaeology, Geophysical Remote Sensing, Environmental Science, & Policy
- 2021* Master of Professional Science: Underwater Archaeology
University of Miami, Rosenstiel School of Marine & Atmospheric Science, *Miami, FL*
Department of Marine Ecosystems & Society | Advisor: Frederick Hanselmann, Ph.D.
Thesis: The Wreck of Thiorva: An Archaeological Investigation Introducing UAV-Based Geophysical Survey and Vessel-Towed Photogrammetric Modelling.
- 2014 Bachelor of Science: Anthropology & Archaeology, Philosophy
University of Wisconsin, *Oshkosh, WI*
Department of Anthropology & Archaeology | Advisor: Stephanie Spehar, Ph.D.
Department of Philosophy | Advisor: Lawrence Carlin, Ph.D.
Thesis: Can Gibbon Long Calls Differentiate Species? An Acoustic Analysis of Wild Hylobates funereus and Hylobates muelleri.

CURRENT ROLES

- Jan 2023-
Present RAVEN REMOTE SENSING, LLC
Owner
- Providing Aerial Remote Sensing expert consultation and survey services
 - Aerial Magnetometry, Aerial Photogrammetry, and Aerial LiDAR survey services
 - Management of Client Relations
- Sept 2023-
Present GEM SYSTEMS INC (Geophysical ElectroMagnetic Systems Incorporated)
Aerial Magnetometry Research & Development Group
- UAV Test Pilot specializing in integration and deployment of aerial systems
 - Development of Training Program for Aerial Magnetometry Best Practices
 - Training international clients on use and best practices for DroneMag Operations
- Sept 2023-
Present Maritime Legacy Project: Jamaica
An Aerial Magnetometer and Maritime Cultural Landscape Survey of Seville Heritage Park, St. Ann's Bay, Jamaica
PIs: Andrew J Van Slyke, Marianne Franklin, Dorrick Gray
Role: Consulting Expert, Director of Aerial Archaeology

PROJECT HISTORY: MARINE ARCHAEOLOGY

Aug 2021	<p>Technical Report: GoM Magnetic Anomaly Identification and Scientific Dive Operations PIs: Douglas Jones, Brandi Carrier Host: Bureau of Ocean Energy Management Roles: Site mapping and technical report preparation</p>
Jul 2021- Dec 2021	<p>Maritime Heritage in America's Inland Seas: A Multi-tiered Autonomous Vehicle based Survey of Two Proposed Great Lakes National Marine Sanctuaries PIs: Russ Green, Madeline Roth, Frederick Hanselmann, Art Trembanis Host: NOAA Office of Exploration Research, Maritime Heritage Program Roles: Drone pilot, Aerial archaeologist, Remote Sensing Specialist</p>
Jul 2021	<p>Magnetic Anomaly Identification and Scientific Dive Ops in Support of Wind Energy Areas Host: Bureau of Ocean Energy Management, Univ. Miami Roles: Scientific Technical Diver (CCR), Photogrammetrist</p>
Jun 2021	<p>Quicksands Archaeological Survey, Florida Keys National Marine Sanctuary PIs: Matthew Lawrence, Frederick Hanselmann Host: Florida Keys National Marine Sanctuary, NOAA Office of Exploration Research Role: Archaeological Scientific Diver, Remote Sensing Specialist, Photogrammetrist</p>
Jun 2021	<p>Aerial Archaeological Geophysical Remote Sensing Section 106 Compliance Survey Host, RECON Offshore, Georgia Department of Transportation Role: Drone Pilot, Aerial Archaeologist, Remote Sensing Specialist</p>
May 2021	<p>Aerial Archaeological Geophysical Survey of Wormsloe Historic Site, <i>Savannah, GA</i> PIs: Kurt Knoerl, Ryan Fochs, Frederick Hanselmann Host: Wormsloe Institute of Environmental History, Southern Georgia Univ., Univ. of Miami Role: Marine archaeologist, Remote sensing specialist, Drone pilot</p>
May 2021	<p>Archaeological Remote Sensing Field School Technical Report: FKNMS Archaeological Remote Sensing Survey 2021 Host: Florida Keys National Marine Sanctuary, Univ. Miami RSMAS Roles: Crew Chief, Teaching Assistant</p>
May 2020	<p>Archaeological Remote Sensing & Hydrographic Survey, <i>Gulf of Mexico</i> PI: Will Wilson, Steve James Host: PanAmerican Consultants, Inc. Roles: Marine archaeologist, Remote sensing specialist</p>
Nov 2019- Current	<p>Baseline Characterization of Northern Florida Keys National Marine Sanctuary's Submerged Cultural Resources Utilizing Aerial Geomagnetic Survey PIs: Frederick Hanselmann, Kevin Hurley, Matthew Lawrence, Ryan Fochs Host: National Geographic Expedition Council, Univ. of Miami, NOAA FKNMS Roles: Co-Investigator, Marine archaeologist, Drone pilot</p>
Jul 2019- Current	<p>Lost Ships of Cortés Project, <i>Villa Rica de la Veracruz, Mexico</i> PIs: Chris Horrell, Melanie Horrell, Frederick Hanselmann, Roberto Junco Host: University of Miami & Instituto Nacional de Anthropología e Historia Roles: Field technician, Scientific diver</p>
Feb 2019- May 2020	<p>Technical Report: NOAA FKNMS Site Mapping & Assessments, <i>Upper Florida Keys</i> Prepared for: Univ. of Miami & NOAA Florida Keys National Marine Sanctuary</p>

Feb 2019- Technical Report: Biscayne National Park Remote Sensing Survey, *BNP, FL*
Nov 2019 Prepared for: Univ. of Miami & Biscayne National Park

Oct 2018- Manasota Key Offshore Project, *Sarasota County, FL*
Dec 2018 PI: Ryan Duggins
Host: Florida DHR, Bureau of Archaeological Research, Univ. of Miami
Roles: Field technician, Scientific diver

PROJECT HISTORY: TERRESTRIAL ARCHAEOLOGY

Jul 2015- Verteba Cave Project, *Borschiv, Ternopil O'blast, Ukraine*
Aug 2015 PIs: Jordan Karsten, James Johnson
Host: Univ. Wisconsin, Oshkosh & Borschiv Regional Museum of Local Lore
Role: Field technician, excavation & survey

May 2013- Lasley's Point Archaeological Survey & Excavation Project, *Winnebago, WI*
May 2014 PI: Jeffrey Behm
Host: Univ. Wisconsin, Oshkosh & Wisconsin Archaeological Society
Roles: Field technician & independent research on petraform mapping

PROJECT HISTORY: ECOLOGY, EVOLUTION, & ENVIRONMENTAL BIOLOGY

Jun 2019 FGBNMS Mosaics: Coral Mapping Utilizing DPV Mounted Multi-Camera Arrays
PI: Arthur Gleason, Michelle Johnston
Host: NOAA Flower Garden Banks National Marine Sanctuary, Univ. Miami
Role: Scientific diver, Photogrammetrist

Jan 2019- Diver's Paradise supporting Shark Research and Conservation
Mar 2020 Roles: Captain in training, Deck Mate, Divemaster, Support Diver

Oct 2014- LuiKotale Bonobo Project, *Democratic Republic of the Congo*
July 2015 PI: Gottfried Hohmann, Barbara Furth
Host: Max-Planck Institute for Evolutionary Anthropology
Roles: Research assistant & longitudinal dataset field manager

Jul 2014- Kakamega Monkey Project, *Kenya*
Oct 2014 PI: Marina Cords
Host: Columbia University, New York Consortium of Evolutionary Primatology
Roles: Research assistant & Field site manager

May 2014- Tonkolili Chimpanzee Project, *Sierra Leone*
June 2014 PIs: Andrew Halloran, Tina Cloutier, Catherine Bolton
Hosts: Lynn University Departments of Biology & Environmental Science
Roles: Research assistant & habituator

Jan 2014- Cross-Cultural Ethnography & Howler Monkey Habitat Assessment, *Nicaragua*
Apr 2014 PIs: Ryan Fochs, Douglas Haynes, Pete Brown
Host: University of Wisconsin, Oshkosh & Compas de Nicaragua
Roles: Independently grant funded ethnographer

May 2013- Bornean Orangutan Project & Bornean Gibbon Project, *Indonesian Borneo*
May 2014 PIs: Ryan Fochs, Stephanie Spehar, Brent Lokken
Hosts: University of Wisconsin, Oshkosh & Integrated Conservation
Roles: BGI PI, BOP Research Assistant

PROJECT HISTORY: AmeriCorps

Feb 2012- Aug 2012 Energy Service Corps, AmeriCorps, *Madison, WI*
Lead: Adam Sturm
Roles: Energy conservation research assistant & Volunteer intern

PRESENTATIONS AND PROFESSIONAL CONFERENCE CONTRIBUTIONS

Jan 2022 Society of Historical and Underwater Archaeology
SHA 2022 55th Annual Conference on Historical and Underwater Archaeology
Presentation: Aerial Magnetometry: Using Drones to Close the Remote Sensing Accessibility Gap
Contributor: Recent Research and Public Outreach Efforts in South Florida and Georgia

Jan 2022 Florida Keys National Marine Sanctuary Lecture Series, Diving with a Purpose
Presentation: Interpretation of the wreck of the *Thiorva*

Jan 2020 Society of Historical Archaeology
SHA 2020 53rd Annual Conference on Historical and Underwater Archaeology
Presentation: *Analysis and Interpretation of Cannon Assemblages Near Carysfort Reef, Florida Keys*
Contributor: Recent Developments of Maritime and Historical Archaeology Programs in South Florida
Scholarship Awarded.

Dec 2019 University-National Oceanographic Laboratory System (UNOLS)
Deep Submergence Science Committee New User Program (DeSSC)
Early-Career Scientist Workshop
Scholarship Awarded.

Apr 2016 American Association of Physical Anthropologists, 85th Annual Meeting
Contributor: Primate Interest Group

Feb 2016 South Florida Primate Conference, 2nd Annual Meeting
Contributor: South Florida Primate Interest Group

Apr 2014 Chancellor's Celebration of Scholarship, University Research Symposium
University of Wisconsin System
Podium Presentation: *Can Gibbon Long Calls Differentiate Species? An Acoustic Analysis of Wild Hylobates funereus and Hylobates muelleri.*
Award Granted.

Mar 2014 UW Research Powers Wisconsin: 2014 Posters in the Rotunda
Poster Presentation: *Can Gibbon Long Calls Differentiate Species? An Acoustic Analysis of Wild Hylobates funereus and Hylobates muelleri.*
Award Granted.

Mar 2014 Brown Bag Series, University of Wisconsin Department of Anthropology Guest
Speaker, Undergraduate Research Symposium

Nov 2013 American Anthropological Association 112th Annual Meeting
Attendee

GRANT & SCHOLARSHIP AWARDS

2020	Graduate Career Development Fund – <i>Univ. Miami Graduate School</i>	\$1000
2019	Graduate Student Travel Fund – <i>Univ. Miami Graduate School</i>	\$1000
2019	Deep Submergence Science Committee New User Program – <i>UNOLS</i>	\$800
2019	Student Travel Fund Award – <i>Marine Science Graduate Student Org</i>	\$700
2014	Field Research Grant – <i>Univ. Wisconsin Dept of Anthropology</i>	\$200
2014	Clow Social Science Award – <i>Univ. Wisconsin Office of the Chancellor</i>	\$225
2013	Student-Faculty Collaborative Research Grant – <i>Univ. Wisconsin</i>	\$3500
2013	Great Lakes Independent Research Grant – <i>Univ. Wisconsin</i>	\$1500
2013	Field Studies International Grant – <i>Univ. Wisconsin</i>	\$500
2012	AmeriCorps Education Award – <i>Corp. for National and Community Service</i>	\$1175

CERTIFICATIONS / AUTHORIZATIONS

2018	Commercial Drone Pilot, FAA Part 107 Airman #4111797 (Recurrent)
2021	Drone TRUST Certificate (The Recreational UAS Safety Test)
Exp. 10/23/24	TWIC: Transportation Worker Identification Credential # 19088711
In Progress	Merchant Mariner Credential: Master 100 Ton, Near Coastal USCG
Jan 2019	NOAA Small Boat Operator, NOAA DOC
Dec 2018	MOCC: Motorboat Operator Certification Course, DOI
Lifetime	FL Boater: NASBLA # 0000000996460
Lifetime	WI Boater: NASBLA # 060-574-928
July 2021	AAUS/UM RSMAS Rebreather Scientific Diver, Inspiration, 50m, Air Dil
Oct 2019	NOAA Scientific Diver (130ft)
Oct 2019	NOAA Working Diver (130ft)
Dec 2018	AAUS/UM RSMAS Scientific Diver (130ft, Doubles, DPV, Night)
Aug 2017	PADI DiveMaster # 403382
Aug 2017	PADI Technical Diver (OC 50m 2stages 100%O ₂) #1708AD8056
Oct 2018	DAN Diving First Responder # 2783491
Dec 2010	Emergency Medical Technician – Basic (Inactive) # 81289
Apr 2010	Firefighter EL-I, EL-II, FF-1 # 47-503-408
Dec 2010	Weapons of Mass Destruction Awareness
Apr 2010	Hazardous Material Operation, HAZMAT # 47-503-448
Nov 2009	FEMA Incident Command System, ICS-100, ICS-200, IS-700, IS-800
-	Drivers (Vehicle) License (MN)
-	Drivers (Motorcycle) License (MN)
-	Passport (USA)