

# KIMBERLY C. GALVEZ

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Silver Spring, MD

## EDUCATION

**Ph.D., Marine Geology and Geophysics**, University of Miami, RSMAS. December 2020  
Dissertation: The Distribution and Growth Patterns of Cold-water corals in the Straits of Florida  
Advisor: Gregor P. Eberli

**Bachelor of Arts**, Biological Sciences, University of Miami, Coral Gables. December 2013

## RESEARCH EXPERIENCE

**Doctoral Research**, University of Miami, RSMAS. August 2014 – December 2019

Defined gaps in scientific knowledge and technologies and formulated guidelines to address these challenges in order to advance scientific knowledge on ocean exploration and deep-sea environments. Used gravity cores to assess the structure of cold-water coral bearing carbonate mounds by absolute age-dating and stable isotope analyses of coral fragments, grain size analysis, core descriptions, and 3-D rendering of corals in situ within cores (using CT scans – working with Dr. Jürgen Titschack at MARUM). Established, assessed, and quantified patterns and distributions of benthic geomorphological features via ArcGIS and Fledermaus based on local geomorphology, hydrodynamic, acoustic and bathymetric data (i.e. multibeam echosounder swath data, sub-bottom profiles, remote sensing). Represented University of Miami and CSL at scientific meetings and public forums.

PI: Gregor P. Eberli

**Research Assistant**, CSL – Center for Carbonate Research, University of Miami, RSMAS. August 2011 – August 2014

Served as scientific and technical representative for scientific projects and report to leadership. Projects included Data Image Analysis (DIA) on rocks to determine permeability, porosity, and resistivity on samples using MatLab. Conducted XRD, XRF, Gamma, Stable Isotope analyses. Conducted U-Th series and Sr-series geochronometry protocols on a MC-ICP-MS with carbonate samples.

PI: Dr. Gregor P. Eberli

**Research Assistant**, Marine Biology and Fisheries, University of Miami, RSMAS. March 2013 – December 2013

Served as scientific and technical representative for scientific projects and report to leadership. Projects included collecting and preserving samples in a mixed solution for archive. Sample preparation for various experiments and measurements. DNA Sequence Analysis from conducting qPCR (Quantitative Polymerase Chain Reaction) analysis and electrophoresis on samples.

PI: Dr. Andrew Baker

## PROFESSIONAL EXPERIENCE

**Scientist/Expedition Coordinator**, National Oceanic and Atmospheric Administration (NOAA) Ocean Exploration and Research (OER) via contract Cherokee Federal. June 2020 - Present

Coordinate, manage and oversee communication of exploratory expedition cruises with NOAA – OER to investigate and evaluate ocean exploration and mapping and applied technologies on the NOAA Ship *Okeanos Explorer*. Collaborate, support, and communicate with ship crew, research scientists, remotely operated vehicle (ROV) pilots and engineers and outreach teams to achieve a successful scientific mission. Define technical problems and gaps in ocean exploration and applied technologies to OER leadership to inform discussions on implementation of project plans, technical reports, and direction for solutions.

**Offshore Senior Geoscientist**, NOAA Ocean Exploration and Research. October – November 2019

Geologic Senior Science Lead onboard the NOAA Ship *Okeanos Explorer* Ship for the 2019 Southeastern U.S. Deep-sea Exploration (EX1907) Expedition. Performed as the scientific and technical representative for geologic observations of previously unmapped and uncharacterized deep-sea environments on the Blake Plateau and the Straits of Florida through live video footage with remotely operated vehicles. Provided scientific mission support through collecting and archiving biologic and geologic samples obtained by ROV, including possible new species and/or range expansions of known areas and contributed to DNA collection of species according to NOAA's ASPIRE Campaign. Participated, supported scientific missions, and contributed to the development of education and outreach activities, such as live interactions with education facilities and ship tours, while building and maintain effective relationships with OER and NOAA partners.

## **Geoscience Intern, ExxonMobil, Houston, TX, USA. May – August 2018**

Intern for the Carbonates Team in the Upstream Research Company. Developed and applied scientific and technical workflows for data from petrophysical techniques to be used interchangeably [QDP (Quantitative Digital Petrography), NMR (Nuclear Magnetic Resonance), and MICP (Mercury Injection Capillary Pressure)] using carbonate samples from various areas. Assisted in scientific fieldwork for San Salvador Island, The Bahamas in field-checking LiDAR maps (remote sensing) and mapped depressions along with karst features and aided in core description and technical reports.

## **Onshore Geoscientist, NOAA's Ocean Exploration and Research. 2014 - 2019**

Participated and communicated via telepresence to research vessels on expeditions of ocean exploration with seafloor mapping in unknown and poorly understood regions. Provided insight into benthic ecosystems and documented biological, chemical, physical, geological, and archaeological aspects of the ocean during ROV live video streaming.

Expedition participation in (hyperlinked to profiles):

- o [Océano Profundo 2018: Exploring Deep-sea Habitats off Puerto Rico and the U.S. Virgin Islands](#)
- o [Windows to the Deep 2018: Exploration of the Southeast U.S. Continental Margin](#)
- o [Gulf of Mexico 2018](#)
- o [Gulf of Mexico 2017](#)
- o [Deep-Sea Symphony: Exploring the Musicians Seamounts](#)
- o [Hohonu Moana: Exploring the Deep Waters Off Hawai'i](#)
- o [E/V Nautilus: 2014 Field Season - Caribbean](#)

## **AWARDS, HONORS, AND CERTIFICATES**

PADI Open Water Certified Diver	
ESRI Going Places with Spatial Analysis Course Certificate	2020
Florida Sea Grant – Newell Scholarship	2018
ECORD Summer School 2017, Certificate of Completion	2017
EGU Outstanding Student Poster and PICO Award	2017
Advanced Computing for Earth Sciences (ACES) Program, Certificate of Completion	2016
Imperial Barrel Award (IBA) participants	2016

## **SOFTWARE SKILLS**

Complete and advanced skill set of Microsoft Office Suite; Adobe Suite; ESRI GIS packages (e.g. ArcGIS; ArcMAP); Fledermaus; Trinity; Kinex; Kingdom; Petrel; Google Earth Pro; Seasave; MacBook Terminal and TextWrangler

Introductory skills to Website Design, MatLab and R; proficient in coding with Python and HTML

## **PUBLICATIONS**

**Galvez K.C.**, 2020, The Distribution and Growth Patterns of Cold-water Corals in the Straits of Florida. Dissertation. University of Miami, Miami, FL. 217 pp.

Bashah, S., **Galvez, K. C.**, Eberli, G. P., & Cantwell, K., 2020, Control of Deep Currents on Sediment and Cold-Water Coral Distribution on the Northern Manihiki Plateau: *Frontiers in Marine Science*, v. 7, 288, p. 1-9. doi:10.3389/fmars.2020.00288

White, M., Farrington, S., **Galvez, K.**, Hoy, S., Newman, M., & Rabenold, C., 2019, Cruise report: EX-19-07, 2019 Southeastern U.S. Deep-sea Exploration (Mapping & ROV), Southeastern U.S. Continental Margin, Miami, Florida, to Key West, Florida (October 31-November 20, 2019). doi:https://doi.org/10.25923/h510-x193

**Galvez, K.C.**, Swart, P.K., Eberli, G.P., Mulder, T., Reijmer, J., Changes in benthic seawater temperature during climate cycles in the Straits of Florida using clumped isotope thermometry: in prep.

**Galvez, K.C.**, Wienberg, C., Eberli, G.P., Titschack, J., Mulder, T., Reijmer, J., and Enochs, I., Cold-water coral mounds in the Straits of Florida: Growth throughout glacial/interglacial intervals over the last 600,000 years: in prep.

**Galvez, K.C.,** Bashah, S. Eberli, G.P., Hanisak, D., Masterson, J., Reed, J., Exploring the lower Limits of Cold-water Corals near the Johnston Atoll, Equatorial Pacific: *Frontiers in Marine Science*, in prep.

Cunning, R., Gillette, P., Capo, T., **Galvez, K.C.,** Baker, A.C., 2015, Growth tradeoffs associated with thermotolerant symbionts in the coral *Pocillopora damicornis* are lost in warmer oceans: *Coral Reefs*, v. 34, p. 155-160. doi:10.1007/s00338-014-1216-4.

Kennedy, B., Cantwell, K., **Galvez, K.,** France, S., Schnur, S., Lobecker, M., McKenna, L., Martinez, C., Drewniak, J., Reser, B., Lovalvo, D., Gregory, T., 2014, Cruise Report: EX-14-04 Legs 2 & 3, Deepwater Backyard: Exploring Atlantic Canyons and Seamounts (ROV and Mapping). Office of Ocean Exploration and Research, Office of Oceanic and Atmospheric Research, NOAA, Silver Spring, MD 20910. OER Expedition Rep. 14-04. 38p. doi: <https://doi.org/10.25923/cgd6-pq50>

## TEACHING EXPERIENCE

**Teaching Assistant - GSC114-Earth Processes Lab**, University of Miami. 2015-2016

Led and assisted in presenting information and formulated guidelines to address course lab work for 3 classes of 20 students each. Prepared samples and necessary materials for each class and administered and graded exams and homework. Provided daily instruction and guided students in proper scientific data assessment, identifying and classifying minerals and rocks, and writing technical lab reports.

**Tutor - Athletics**, University of Miami. 2014-2015

Tutored University of Miami Athletes in all major concepts of Geography (including Hydrology, Geology, Biology, and Anthropology). Defined technical problems in understanding and research, formulating guidelines to address these challenges in order to deliver an effective learning environment.

## PRESENTATIONS AND SCIENTIFIC CONFERENCE PROCEEDINGS

**Galvez, K.C.,** Swart, P.K., Eberli, G.P., Grasmueck, M., Correa, T., Rosenberg, A., Wienberg, W., Hebbeln, D., Mulder, T., and Reijmer, J., 2019, Temperatures of Benthic Water through Glacial-Interglacial Cycles in the Straits of Florida. Annual Meeting of the CSL – Center for Carbonate Research, Miami, FL, USA. Student Presentation.

Bunge, E., Buono, T., Gulley, J., **Galvez, K.,** LeBlanc, S., Fernandez-Ibanez, F., Fullmer, S., Nolting, A., Moore, P., Nachtgaele, L., 2019, Mapping and Distribution of Karst Features on San Salvador Island, Bahamas Using a Morphometric Pattern Recognition Technique to Identify Depressions. 2019 AAPG Annual Convention and Exhibition, San Antonio, TX, USA.

Buono, A., Bunge, E., Fullmer, S., **Galvez, K.,** Moore, P., Ijasa, O., Rivers, J., 2019, Integration of NMR, MICP, and Quantitative Digital Petrography for Improved Understanding of Carbonate Pore System Complexity. 2019 AAPG Annual Convention and Exhibition, San Antonio, TX, USA.

**Galvez, K.C.,** Eberli, G.P., Grasmueck, M., Wienberg, C., Hebbeln, D., Correa, T., 2018, Mapping and Quantifying Cold-water corals in the Straits of Florida. Annual Meeting of the CSL – Center for Carbonate Research, Miami, FL, USA. Student Presentation.

**Galvez, K.C.,** Schnyder, J.S.D., Eberli, G.P., Grasmueck, M., Wienberg, C., Hebbeln, D., Mulder, T., Correa, T., 2018, Mapping Cold-water Coral Mounds in the Straits of Florida. GeoHab2018, Santa Cruz, California, USA, Student Poster.

**Galvez, K.C.,** Eberli, G.P., Wienberg, C., Titschack, J., and Mulder, T., 2017, Coral Density and Temperatures of CWC Mounds in the Straits of Florida. Annual Meeting of the CSL – Center for Carbonate Research, Miami, FL, USA. Student Presentation.

**Galvez, K.C.,** Sianipar, R., Eberli, G.P., Titschack, J., Hebbeln, D., Wintersteller, P., Freiwald, A., Mulder, T., and Beuck, L., 2017, Pleistocene-Recent Growth Pattern of Cold-water Corals in the Straits of Florida. ECORD Summer School 2017, University of Bremen, Bremen, Germany. Student Presentation.

**Galvez, K.C.,** Eberli, G.P., Hebbeln, D., Wienberg, C., and Titschack, J., 2017, The Variability of Cold-water Coral Growth within the Straits of Florida. EGU - General Assembly, Vienna, Austria, Student Poster EGU2017-452, A.2. Outstanding Student Poster and PICO (OSPP) Award Winner.

**Galvez, K.C.,** Sianipar, R., Eberli, G.P., Wienberg, C., and Titschack, J., 2016, Variable Composition and Growth Rates in CWC Mounds in the Straits of Florida. Annual Meeting of the CSL – Center for Carbonate Research, Miami, FL USA. Student Presentation.

**Galvez, K.C.,** Sianipar, R., Eberli, G.P., Wienberg, C., Titschack, J., and Pourmand, A., 2016, Variability of Cold-water Coral Growth in Glacial versus Interglacial Times. 6th International Deep Sea Coral Symposium, Boston, MA, USA. Student Poster 48.

**Galvez, K.C.,** Sianipar, R., Eberli, G.P., Titschack, J., Hebbeln, D., Wintersteller, P., Freiwald, A., and Beuck, L., 2015, Pleistocene-Recent Growth Pattern of Cold-water Corals in the Straits of Florida. Annual Meeting of the CSL – Center for Carbonate Research, Miami, FL, USA. Student Presentation.

Schnyder, J., **Galvez, K.C.,** Sianipar, R., Eberli, G.P., Grasmueck, M., Mulder, T., Hebbeln, D., Wintersteller, P., Freiwald, A., Beuck, L., Raineault, N., Mayer, L., and shipboard scientists, 2014, Habitats of Benthic Communities in the Straits of Florida, Annual Meeting of the CSL – Center for Carbonate Research, Miami, FL, USA. Student Presentation.

## ACADEMIC SERVICE

**Student Representative,** Department of Marine Geosciences, University of Miami. (2017 – 2020)

Led representative of the student body. Responsible for providing student support to faculty and leadership to inform discussions on student plans, issues and direction including budgetary negotiations and preparation for tools and services that provided effective and efficient work environments.

**Vice President,** American Association of Petroleum Geologists (AAPG) – Student Chapter at the University of Miami. (2017 – 2020)

Served as program manager and representative to chapter priorities and led discussions on project plans, reports, and direction.

**Treasurer,** American Association of Petroleum Geologists (AAPG) – Student Chapter at the University of Miami. (2014 – 2017)

Managed the budgetary and finance processes of the Student led chapter, ensuring the effective use of resources to meet chapter priorities.

**Outreach Representative,** Department of Marine Geosciences, University of Miami. (2014 – 2017)

Led representation and coordination of communication between laboratories, projects, and students with university partners and schools to maintain effective relationships among younger generations to lead into STEM fields.

## OUTREACH & VOLUNTEER

**‘Women in Science’ Day Program,** University of Miami - RSMAS. (2014 – 2020)

**MAST Academy Professional Development,** University of Miami – RSMAS. (2018)

**Career Day,** Kenwood Elementary, Miami, FL. (2018)

**National Ocean Science Bowl Judge,** Florida Manatee Bowl, 21<sup>st</sup> & 23<sup>rd</sup> East Florida Regional Ocean Sciences Bowl. (2018 - 2020)

**Beach Cleanups,** Shake-a-Leg, Florida Keys, Everglades National Park, Galapagos Islands. (2009-2020)

## LANGUAGES

**English** – Fluent in speaking, writing, and reading.

**German** – Partial in speaking, writing, and reading.

**Spanish** – Partial in speaking, writing, and reading.

**Italian** – Beginner in Speaking, writing, and reading.