

2019 UNOLS COUNCIL SLATE

UNOLS Elections will be held to fill the Council member term that will expire this year. UNOLS Nominating Committee members Dennis Hansell, David Smith, and Debbie Steinberg have assembled a slate of candidates for the UNOLS Council positions to be filled. This election will be held in accordance with the UNOLS Charter as readopted 1 December 2017.

The slate and information about the candidates is available on the following pages.

NON-OPERATOR REPRESENTATIVE (3 year term) – Individual affiliated with any designated UNOLS Non-Operator Member Institution

- Amy R. Baco-Taylor - Florida State University
- John A. Goff - University of Texas Institute for Geophysics



May 6, 2019

UNOLS Council Membership Committee

Dear Committee:

This letter is a self-nomination for a position on the UNOLS council in the Non-Operator Institution category. I am currently a tenured Associate Professor in the Earth, Ocean and Atmospheric Sciences Department at Florida State University. As a part of my research focusing on the ecology and biology of deep-sea corals and chemosynthetic ecosystems, I have led or participated in oceanographic expeditions in many locations in the world including, Hawaii, Alaska, New Zealand, Antarctica, the Bahamas and the Gulf of Mexico, using human-occupied submersibles, ROVs, and AUVs.

I have been working on both UNOLS and non-UNOLS vessels as well as with deep submergence assets since the start of my graduate career in 1995, which kicked off with a research cruise to study deep-sea whale falls off San Diego, using the Navy-operated HOV Turtle and the ROV ATV. During my career I have participated in cruises that included the RVs Lawrence Gould, New Horizon, Atlantis II, Sproul, Laney Chouest, Ka`Imikai-O-Kanaloa, Edwin Link, Western Flyer, Revelle, Atlantis, Sikuliaq, and Kilo Moana. I have served as Chief Scientist or co-Chief Scientist on cruises utilizing the Pisces/ ROV RCV-150, the AUV Sentry, and Alvin, as well as a cruise as co-Chief Scientist on the New Zealand ship the RV Tangaroa. I have also utilized the Johnson-Sealink II, as well as ROVs Jason II, ATV, Scorpio, Tiburon, and RCV-150.

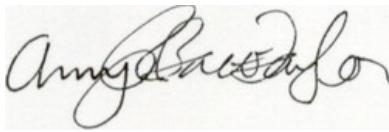
The array of ships and vehicles I have worked with is unusually broad and has provided many insights I can bring to the table to make a contribution to the UNOLS committee. I am particularly interested in contributing to in two areas, support of human-occupied vehicle (HOV) assets, and development of new technologies. Over the course of my career I have seen the decline in availability of HOVs from 7 available US vehicles down to just one. Each of the lost HOV assets occupied a key niche in US deep-sea science and most have not been replaced with ROVs or any other deep submergence assets. The loss of these vehicles has been an impediment to the deep-sea scientific community and I would like to participate in UNOLS to help advocate for additional assets, HOV or otherwise.

I am also very interested in seeing the development of new technologies for oceanographic research. AUVs have significantly broadened our horizons for study of marine communities, but still have some limitations. For example in our work with AUV Sentry in the NWHI, we were limited in areas we could survey by the angle of the seafloor slope on the seamounts we were studying. This limitation prevented us from going to several of our planned sites. Figuring out a way to make steep terrain and strong current areas accessible to more types of deep-sea

vehicles will improve our ability to characterize the communities of these areas, which are often rich in both diversity and biomass. I also think that recent developments in image recognition software could accelerate the analyses of AUV images and am interested in exploring options for incorporating image recognition software into AUVs both during the dive and for post-dive processing.

With the array of wonderful opportunities I have had in my career to use a variety of ships and deep-submergence assets, I would like to give back to the oceanographic community by participating in the UNOLS council. Thus I am applying for this position and would bring 20+ years of field experience across 4 oceans to benefit the position.

Sincerely,

A handwritten signature in black ink on a light-colored background. The signature is written in a cursive style and reads "Amy R. Baco-Taylor".

Amy R. Baco-Taylor, PhD

AMY R. BACO-TAYLOR

Department of Earth, Ocean, and Atmospheric Science
Florida State University, 117 N. Woodward Avenue
Tallahassee, FL 32306-4320

Professional Preparation

Florida Institute of Technology	Marine Biology	B.Sc., 1995, with high honors
Florida Institute of Technology	Molecular Biology	B.Sc., 1995, with high honors
University of Hawaii at Manoa	Oceanography	Ph.D., 2002
Woods Hole Oceanographic Inst.	Biology	Postdoctoral Scholar 2002-04

Appointments

2014-	Associate Professor , Department of Earth, Ocean, and Atmospheric Sciences, Florida State University
2008-2014	Assistant Professor , Department of Earth, Ocean, and Atmospheric Sciences, Florida State University
2007-2008	Assistant Scientist , Associated Scientists at Woods Hole
2007-2008	Visiting Scientist , Marine Biological Laboratory, Woods Hole
2005-2008	Affiliate Assistant Professor , University of Alaska Fairbanks, Juneau Center, School of Fisheries and Ocean Sciences
2004-2006	Visiting Investigator , Woods Hole Oceanographic Institution
2002-2004	Postdoctoral Scholar , Woods Hole Oceanographic Institution
2001	Lecturer , Oceanography Department, University of Hawaii at Manoa
1995-2002	Graduate Research Assistant , Oceanography Department and Center for Conservation Research and Training, University of Hawaii at Manoa.
1998	Visiting Student , Biochemistry, Microbiology, and Molecular Biology Department, University of Maine.
1995, 1996	Visiting Student , Center for Theoretical and Applied Genetics, Rutgers.
1994	NSF Research Experience for Undergraduates , University of Hawaii

Products (5 Most Relevant) [h-index - 28, i10 index - 42, per Google Scholar, May 2019]

* denotes work in my lab by a student or postdoc author

Baco, A.R., *N.B. Morgan, E.B. Roark, M. Silva, K. Shamberger, K. Miller. 2017. Defying dissolution, discovery of deep-sea scleractinian coral reefs in the North Pacific. *Scientific Reports*. 7: 5436 |DOI:10.1038/s41598-017-05492-w

Baco, A.R., R. Etter, P. Beerli, P. Ribeiro, S. von der Heyden, and B. Kinlan. 2016. A synthesis of genetic connectivity in deep-sea fauna and implications for marine reserve design. *Molecular Ecology* 25: 3276-3298. doi: 10.1111/mec.13689. **Invited Synthesis**.

Levin, L.A., **A.R. Baco**, D. Bowden, A. Colaco, E. Cordes, M.R. Cunha, A. Demopoulos, J. Gobin, B. Grupe, J. Le, A. Metaxas, A. Netburn, G. Rouse, A. Thurber, V. Tunnicliffe, C. Van Dover, A. Vanreusel, and L. Watling. 2016. Hydrothermal Vents and Methane Seeps: Rethinking the Spheres of Influence. *Frontiers in Marine Science* 3:72. doi: 10.3389/fmars.2016.00072

*Long, D. and **A.R. Baco**. 2014. Rapid change with depth in megabenthic structure-forming communities in the Makapu'u deep-sea coral bed. *Deep-Sea Research*, doi:10.1016/j.dsr2.2013.05.032.

*Morgan, N.B., S. Cairns, H. Reiswig, **A.R. Baco**. 2015. Benthic megafaunal community structure of cobalt-rich manganese crusts on Necker Ridge, North Pacific Ocean. *Deep-Sea Research I*. 104: 92-105. doi: 10.1016/j.dsr.2015.07.003.

Products (5 additional)

- Baco, A.R.** 2007. Exploration for deep-sea corals on North Pacific seamounts and islands. **Invited** for special volume of *Oceanography* 20(4): 58-67.
- Baco, A.R.** and S.D. Cairns. 2012. Comparing molecular variation to morphological species designations in the deep-sea coral genus *Narella* reveals new insights into seamount coral ranges. *PLoS ONE* 7(9): e45555. doi:10.1371/journal.pone.0045555
- *Figueroa, D. and **A.R. Baco**. 2014. Octocoral mitochondrial genomes provide insights into the phylogenetic history of gene order rearrangements, order reversals, and also into the use of mitochondrial genomes for cnidarian phylogenetics. *Genome Biology and Evolution* doi:10.1093/gbe/evu286.
- Parrish, F., **A.R. Baco**, C. Kelley, and H. Reiswig. 2015. State of Deep Coral and Sponge Ecosystems of the United States Pacific Islands Region. In: Hourigan TF, Etnoyer PJ, Cairns SD, Tsao C-F (eds) State of Deep-Sea Coral and Sponge Ecosystems of the United States 2015. NOAA Technical Memorandum. NOAA, Silver Spring, MD. p 7-1 to 7-38.
- Yesson, C., M. Taylor, D. Tittensor, A. Davies, J. Guinotte, **A.R. Baco**, J. Black, J. Hall-Spencer, A. Rogers. 2012. Global habitat suitability of cold water octocorals. *Journal of Biogeography* 39(7): 1278-1292.

Synergistic Activities

- [1] Investigation of Deep-Sea Ecosystems (INDEEP) (2010-present)
- [2] Census of Marine Life, Chemosynthetic Ecosystems (ChEss) Steering Committee Member (2003-2010)
- [3] Census of Marine Life, Seamounts (CenSeam) Steering Committee Member (2005-2010)
- [4] Invited speaker – North Pacific Fisheries Commission/ FAO Workshop Protection of Vulnerable Marine Ecosystems in the North Pacific Fisheries Commission Area: applying global experiences to regional assessments - Yokohama, Japan, 2018
- [5] Contributions to numerous web sites and articles in general-readership magazines on deep-sea corals and seamounts and on whale fall macrofauna, e.g.
<http://ocean.si.edu/ocean-news/amy-baco-taylor>
http://oceanexplorer.noaa.gov/edu/oceanage/04baco_taylor/welcome.html
<http://oceanexplorer.noaa.gov/explorations/06newzealand/welcome.html>
<https://www.sciencedaily.com/releases/2017/07/170714140256.htm>

Cruise Participation

My seagoing participation and leadership experience includes:

- Chief Scientist or co-Chief Scientist on cruises utilizing the Pisces IV and V submersibles, the ROV RCV-150, and the AUV Sentry.
- Co-Chief Scientist on an RV Tangaroa cruise
- Led 134 dives on Pisces IV and V submersibles as PI or lead PI, and Alvin dives as Co-PI.
- Additional dives with the Turtle and Johnson-Sealink II submersibles
- Numerous ROV dives with the Jason II, ATV, Scorpio, Tiburon, and RCV-150.
- Not counting telepresence, participation in >40 oceanographic cruises off Florida, Hawaii, Alaska, California, the Bahamas, New Zealand, and Antarctica.
- Experience in telepresence cruise communications through NOAA OER, Ocean Exploration Trust and NSF cruises

John A. Goff, Senior Research Scientist, University of Texas Institute for Geophysics

Statement of interest for election to UNOLS Council, non-operator position

I am a seagoing scientist – I have been from my earliest days as a graduate student (mapping guyots in the Western Pacific), and continuing over three decades through my latest field efforts (investigating the impact of Hurricane Harvey on the Texas coast). My research has taken me to the spreading ridges and basins of all three oceans, to Caribbean and Mediterranean Seas, and to slopes, shelves, and coastal zones on all three US coastlines and Alaska. I have sailed on research ships of all classes (global, intermediate, regional and local), as well as small coastal research boats. This broad experience has given me a deep appreciation for the importance of the academic fleet to marine research: for the ships and boats themselves, the scientific survey equipment they enable and, most significantly, for the ship's crew and technical support personnel who truly make sea-going research possible. For more than 4 decades, UNOLS has formed the backbone of the academic research fleet in the US: in organizing, coordination, advocacy, safety, and in facilitating the connection between scientist and the sea-going assets required to conduct their research. My primary interest in serving on the UNOLS Council is to help maintain those strengths which have made UNOLS an essential component of sea-going research, as well as assist with new directions aimed at enhancing its relevance in the future. I strongly support recent efforts to modernize the academic fleet, to reach out to early career scientists, and to promote a positive work environment at sea; if elected to the Council I will actively work to promote these goals. Being from a Gulf coast state, I also have a long-standing interest in helping to promote greater availability of coastal and regional class assets in the Gulf of Mexico, which are unfortunately quite sparse. However, I have a strong interest in maintaining and enhancing seagoing capabilities for our entire research community, and believe that participation in UNOLS leadership will be an ideal platform for pursuing that goal.

BIOGRAPHICAL SKETCH

JOHN A. GOFF, Senior Research Scientist
Institute for Geophysics, Jackson School of Geosciences, University of Texas at Austin
JJ Pickle Research Campus, 10100 Burnet Rd. (R2200), Bldg. 196 (ROC)
(512) 471-0476; goff@utig.ig.utexas.edu; <http://www.ig.utexas.edu/staff/goff>

Professional Preparation

Senior Research Scientist, UTIG (9/2004-present)
Research Scientist, UTIG (9/1999-8/2004)
Research Associate, University of Texas Institute for Geophysics (1/1993-8/1999)
Guest/Visiting Investigator, Woods Hole Oceanographic Institution (9/1990-12/1992)

Academic Preparation

Brown University: Geology-Physics-Math, Sc.B. 1985
MIT/WHOI Joint Program in Oceanography: Marine Geophysics, Ph.D. 1990
MIT: Post-doctoral Investigator (6/1990-12/1991)

Research

Marine geology and geophysics; seabed mapping and characterization; statistical geomorphology

Selected Publications Related to Seagoing Field Experience on UNOLS Vessels

- Goff, J.A., Tucholke, B.E., Lin, J., Jaroslow, G.E., and M. C. Kleinrock, M.C., 1995. Quantitative analysis of abyssal hills in the Atlantic Ocean: A correlation between inferred crustal thickness and extensional faulting. *J. Geophys. Res.* 100, 22,509-22,522. (*R/V Maurice Ewing*)
- Kleinrock, M.C., Humphris, S.E., Shaw, P., Bowen, A., Crook, T., Davis, C., Elder, R., Gleason, D., Goff, J., Goldstein, L., Handley, W., Howland, J., Hussenoeder, S., Koga, K., Lerner, S., Nakamura, K., Rashid, M., Reiser Wetzels, L., Sellers, W., Sulanowska, M., Van Dover, C., and Whitcomb, L., 1996. Detailed structure and morphology of the TAG active hydrothermal mound and its geotectonic environment. *Proceedings of the Ocean Drilling Program, Part A: Initial Reports, Vol. 158*, pp. 15-2. (*R/V Knorr*)
- Goff, J. A., and Tucholke, B.E., 1997. Multi-scale spectral analysis of bathymetry on the flank of the MidAtlantic Ridge: Modification of the seafloor by mass wasting and sedimentation. *J. Geophys. Res.* 102, 15,447-15,462. (*R/V Knorr*)
- Goff, J.A., Ma, Y., Shah, A., Cochran, J.R., and Sempéré, J.-C., 1997. Stochastic analysis of seafloor morphology on the flank of the Southeast Indian Ridge: The influence of ridge morphology on the formation of abyssal hills. *J. Geophys. Res.* 102, 15,521-15,534. (*R/V Melville*)
- Hill, J.C., Driscoll, N. W., Weissel, J. K., and Goff, J. A., 2004. Large-scale elongated gas blowouts along the U.S. Atlantic margin. *J. Geophys. Res.*, 109, doi:10.1029/2004JB002969. (*R/V Cape Hatteras*)
- Goff, J.A., Mayer, L.A., Traykovski, P., Buynevich, I., Wilkens, R., Raymond, R., Glang, G., Evans, R.L., Olson, H., and Jenkins, C., 2005. Detailed investigation of sorted bedforms, or “rippled scour depressions,” within the Martha’s Vineyard Coastal Observatory, Massachusetts. *Cont. Shelf Res.* 25, 461-484. (*R/V Cape Henlopen*)
- Goff, J.A., Austin, J.A., Jr., Gulick, S.P.S., Nordfjord, S., Christensen, B., Sommerfield, C., Olson, H., and Alexander, C., 2005. Recent and modern marine erosion on the New Jersey outer shelf. *Mar. Geol.* 216, 275-296. (*R/V Endeavor*)
- Goff, J.A., 2014. Seismic and core investigation off Panama City, Florida, reveals sand ridge influence on formation of the shoreface ravinement. *Cont. Shelf Res.* 88, 34-46. (*R/V Sharp*)

Goff, J.A., Reed, A.H., Gawarkiewicz, G., Wilson, P.S., and Knobles, D.P., 2019. Stratigraphic analysis of a sediment pond within the New England Mud Patch: New constraints from high-resolution chirp acoustic reflection data. *Mar. Geol.* In Press, doi: 10.1016/j.margeo.2019.03.010. (*R/V Sharp and R/V Endeavor*)

Summary of Sea-going Field Experience

Participated in 44 sea-going field expeditions, serving as chief or co-chief scientist on 33 of them. These expeditions have utilized large large global-class ships, mid-sized regional-class ships, and coastal research vessels. Field areas have include the Pacific, Atlantic and Indian Oceans, Gulf of Mexico, and Caribbean and Mediterranean Seas. Data collection has included most types of geophysical instruments (seismic, subbottom, bathymetry, backscatter, magnetics and gravity), ROV and AUV work, as well as coring and sampling. In addition to the ships noted in the publications above, I have conducted field work on UNOLS vessels R/V Thomas Washington and R/V Wecoma, and non-UNOLS vessels, R/V Cory Chouest, R/V Pacific Hunter, CHS Creed, R/V Point Lobos, R/V Onrust, R/V Acadiana, R/V Itasca, R/V Manta, R/V Seawolf, R/V Prichard, R/V Justo Sierra (Mexico), R/V Mediterranean Explorer (Israel), R/V Scott Petty (University of Texas coastal research boat), M/V Quest (charter fishing boat, Yakutat, Alaska), M/V Live and Direct (charter dive boat, Turks and Caicos), and R/V Brooks McCall (commercial research ship, Freeport, Texas).

Synergistic Activities

- Editorial Service: Associate Editor, *Journal of Geophysical Research* (1/1995-12/1997); Earth Processes/Tectonophysics & Seismology Editor, *Eos* (1/1999-1/2003); *Eos* Editorial Steering Committee (4/2000-1/2003); *IEEE-JOE* guest editor (1/2005 – 6/2006); *Geophysics* guest editor (2013-14)
- Chair, AGU Tectonophysics Section Nominations Committee (9/1998-6/2002)
- Co-instructor and developer, UT Marine Geology and Geophysics Field Course- An immersive 3 week course for graduate and undergraduate students using two ships in the Gulf of Mexico and teaching acquisition, processing, interpretation, and integration of seismic, bathymetry, sidescan, CHIRP, and sampling. (2008-present)
- Various presentations given to local schools, and to high school teachers as part of the TXESS Revolution program.
- 6 years as member and 3 years as chair of the Jackson School of Geosciences Strategic Planning Council (2005-2010).
- NSF OCE Panel (11/17)
- Member, SEG/AGU Coordination Committee (1/18-present)

Students Advised

A. Macario (LDEO), S. Dreher (IFREMER), J. Riter (UT), C. S. Duncan (UTIG), L. LaFlame (Rice), S. Nordfjord (UTIG), V. Merwadi, (UT Civil Engineering), Andrew Green (University of KwaZulu-Natal), M. Santra (UTDGS PhD), Stanley Stackhouse (UTIG Masters), Lindsey Lugin (UTDGS Undergrad), Katie Bales (UTDGS Undergrad), Andrea Hanna (UTIG PhD), Khushboo Arora (BEG PhD), Shihao Liu (Chinese PhD), John Swartz (UTIG PhD).

Professional Societies

American Geophysical Union, International Association of Sedimentologist, Acoustical Society of America, Society for Exploration Geophysicists