

# Kristine L. DeLong

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## Education

University of South Florida, College of Marine Science, St. Petersburg, FL	2008
Ph.D. in Marine Science with a concentration in Geological Oceanography	
University of South Florida, College of Marine Science, St. Petersburg, FL	2006
M.S. in Marine Science with a concentration in Geological Oceanography	
University of South Florida, Tampa, FL	
B.S. in Mechanical Engineering	1991

## Appointments

Coastal Studies Institute Fellow, Louisiana State University	February 2018–present
Professor	August 2023–present
Associate Professor	August 2015–August 2023
Assistant Professor	August 2009–August 2015
Geologist	May 2008–August 2009
U.S. Geological Survey, Center for Coastal Studies, St. Petersburg FL	

## Professional Recognition and Awards

Outstanding reviewer award from Geophysical Research Letters	2020
Outstanding reviewer award from Paleooceanography and Paleoclimatology	2019
LSU Alumni Association Faculty Excellence Award	2017
Tiger Athletic Foundation Teaching Award	2016
Outstanding contributions in reviewing - Palaeogeography, Palaeoclimatology, Palaeoecology	2015
Louisiana State University Alumni Association Rising Faculty Research Award	2014
Special Thanks for Achieving Results (STAR) award, U.S. Geological Survey	2009
Gulf Oceanographic Trust Fellowship, College of Marine Science, USF	2007
Outstanding Student Presenter, 1 <sup>st</sup> International Sclerochronology Conference	2007
Carl Riggs Endowed Fellowship, College of Marine Science, USF	2006
Exxon Scholarship, Bermuda Biological Station for Research	2004

## Media Relations Highlights

Contributed to the Anthropocene exhibit housed at the Museum Haus der Kulturen der Welt, Berlin Germany for the Anthropocene Curriculum, [www.anthropocene-curriculum.org/anthropogenic-markers](http://www.anthropocene-curriculum.org/anthropogenic-markers).

Speaker at the Science Café LSU April 30, 2019. The Underwater Ancient Forest, [www.lsu.edu/research/news/LSU-science-cafe.php/](http://www.lsu.edu/research/news/LSU-science-cafe.php/).

LSU Committed to the Coast, featured researcher, February 2016.

LSU Research Magazine, Office of Research and Development, November 2015, research highlighted in article titled “From the Sea to Sky: What Corals and Satellites can tell us about Climate Change.”

Nominated as Flagship Faculty Member for LSU Today in May 2013.

**Publications** (*Student authors are underlined>*)

<b>Summary</b>	<b>First author</b>	<b>Co-author</b>	<b>Student</b>	<b>in review</b>	<b>Total</b>
Journal Publications	11	22	8	5	48
Book Chapters	2	2			4
Government Publications	1	2			3
Conference Proceedings		1			1
Original Data Sets	7	6	8	1	20
Technical Reports	25				25
Magazine, Trades	1	2	1		4
Miscellaneous	1	2	1		4
<b>Totals</b>	<b>50</b>	<b>40</b>	<b>18</b>	<b>8</b>	<b>114</b>

*In review*

- Moran, Kelli L., Kehui Xu, Jeffrey Obelcz, Kristine L. DeLong, Kendall Brome, Carl A. Reese, Grant L. Harley, Douglas Jones, and Alicia Caporaso, Storm driven tree exposure and geomorphic change: predicting the distribution of preserved Late Pleistocene tree stumps on the outer Alabama continental shelf, submitted to Marine Geology April 30, 2023.
- Sun, Chijun, Timothy Shanahan, Shaoneng He, Adriana Bailey, Jesse Nusbaumer, Jun Hu, Aubrey Hillman, Erika Ornouski, Jacob Warner, Kristine DeLong, <sup>17</sup>O-excess in tropical cyclones reflects local rain re-evaporation more than moisture source conditions, submitted to Journal of Geophysical Research - Atmospheres, in second review 11/26/23.
- Brome, Kendall, Kristine L. DeLong, Brian A. Schubert, Sophie A. Warny, Davin J. Wallace, Carrie M. Miller, Erin Culver-Miller, Michael J. Polito, Carl A. Reese, Kathryn J. Garretson, Kehui Xu, Grant L. Harley, Jeffrey B. Obelcz, Kelli L. Moran, Julian W. Traphagan, Douglas S. Jones, and Alicia Caporaso, Snapshots of coastal ecology reveal the persistence and preservation of swamp environments since the Late Pleistocene, resubmitted to Chemical Geology November 15, 2023.
- Warner, Jacob P., Kristine L. DeLong, David Chicoine, and George F. Lau, Reconstructing Late Holocene Marine <sup>14</sup>C Reservoir Corrections for North-Central Peru,” submitted to Quaternary International September 29, 2023.
- Harley, Grant L., Kristine L. DeLong, Carl Andy Reese, Samuel J. Bentley Sr., Kehui Xu, Suyapa Gonzalez, Jonathan T. Truong, and Alicia Caporaso, Rapid decline and mortality of a Pleistocene-aged Taxodium distichum forest now submerged in the northern Gulf of Mexico, USA, submitted to Nature Communications December 2023.
- Warner, Jacob P., Kristine L. DeLong, David Chicoine, Kaustubh Thirumalai, C. Fred T. Andrus, Alan D. Wanamaker, Jr., Short-lived bivalve analysis provides new perspective on El Niño-Southern Oscillation (ENSO) variability 400-200 BCE, submitted to Nature Communication Earth & Environment.

*Published Journal Publications*

- Konecky, Bronwen L., Nicholas P. McKay, Georgina M. Falster, Samantha L. Stevenson, Matt J. Fischer, Alyssa R. Atwood, Diane M. Thompson, Matthew D. Jones, **Kristine L. DeLong**, Jonathan J. Tyler, Belen Martrat, Elizabeth K. Thomas, Jessica L. Conroy, Sylvia G. Dee, Lukas Jonkers, Olga V. Churakova (Sidorova), Zoltán Kern, Thomas Opel, Trevor J. Porter, Hussein R. Sayani, Grzegorz Skrzypek, and Iso2k Project Members, (2023), Globally coherent water cycle response to temperature change during the past two millennia, *Nature Geoscience*, 16, 997-1004, doi:10.1038/s41561-023-01291-3/.

- Walter, Rachel M., Hussein R. Sayani, Thomas Felis, Kim M. Cobb, Nerilie J. Abram, Ariella K. Arzey, Alyssa R. Atwood, Logan D. Brenner, Émilie P. Dassié, **Kristine L. DeLong**, Bethany Ellis, Matt J. Fischer, Nathalie F. Goodkin, Jessica A. Hargreaves, K. Halimeda Killbourne, Hedwig Krawczyk, Nicholas P. McKay, Sujata A. Murty, Riovie D. Ramos, Emma V. Reed, Dhruvajyoti Samanta, Sara C. Sanchez, and Jens Zinke (2023) The CoralHydro2k Database: a global, actively curated compilation of coral  $\delta^{18}\text{O}$  and Sr/Ca proxy records of tropical ocean hydrology and temperature for the Common Era, *Earth System Science Data*, 15(5), 2081–2116, doi:10.5194/essd-15-2081-2023.
- DeLong, Kristine L.**, Kylie Palmer, Amy J. Wagner, Mudith M. Weerabaddana, Niall Slowey, Achim D. Herrmann, Nicolas Duprey, Alfredo Martínez-García, Jonathan Jung, Irka Hajdas, Neil L. Rose, Sarah L. Roberts, Lucy R. Roberts, Andrew B. Cundy, Pawel Gaca, J. Andrew Milton, Handong Yang, Simon D. Turner, Chun-Yuan Huang, Chuan-Chou Shen, and Jens Zinke (2023) The Flower Garden Banks *Siderastrea siderea* coral as a candidate Global Boundary Stratotype Section and Point for the Anthropocene Series, *The Anthropocene Review*, 10(1), 225–250, doi:10.1177/20530196221147616.
- Zinke, Jens, Neal E. Cantin, **Kristine L. DeLong**, Kylie Palmer, Arnoud Boom, Irka Hajdas, Nicolas Duprey, Jonathan Jung, Alfredo Martinez-Garcia, Neil L. Rose, Sarah Roberts, Handong Yang, Andy Cundy, Grace Frank, Adam Cox, Sue Sampson, Genevieve Tyrell, Molly Agg, and Simon Turner (2023) North Flinders Reef (Coral Sea, Australia) *Porites* sp. corals as a candidate Global Boundary Stratotype Section and Point for the Anthropocene Series, *Anthropocene Review*, 10(1), 201–224, doi:10.1177/20530196221142963.
- Kettle, Nathan P., Sarah F. Trainor, Renee Edwards, Donald Antrobus, Curt Baranowski, Tina Buxbaum, Kevin Berry, Michael Brubaker, **Kristine L. DeLong**, Steve Fries, Davin Holen, Barry Keim, Danielle Meeker, Harry Penn, Cheryl Rosa, Rick Thoman, John Walsh, Jian Zhang (2023) Building resilience to extreme weather and climate events in the rural water and wastewater sectors, *Journal of the American Water Resources Association*, doi:10.1111/1752-1688.13151.
- Lawman, Allison E., Sylvia G. Dee, **Kristine L. DeLong**, and Adrienne M.S. Correa (2022) Rates of Future Climate Change in the Gulf of Mexico, and the Caribbean Sea: Implications for Coral Reef Ecosystems, *Journal of Geophysical Research-Biogeosciences*, 127(9), e2022JG006999, doi:10.1029/2022JG006999.
- Rohli, Robert V., Gregg A. Snedden, Elinor R. Martin, & **Kristine L. DeLong** (2022) Impacts of Ocean-Atmosphere Teleconnections Patterns on the South-Central United States, *Frontiers in Earth Science section Atmospheric Science*, 10:934654, doi:10.3389/feart.2022.934654.
- Williams, Mark, Reinhold Leinfelder, Anthony D. Barnosky, Martin J. Head, Francine M. G. McCarthy, Alejandro Cearreta, Stephen Himson, Rachael Holmes, Colin N. Waters, Jan Zalasiewicz, Simon Turner, Mary McGann, Elizabeth A. Hadly, M Allison Stegner, Paul M. Pilkington, Jerome Kaiser, Juan Carlos Berrio, Ian P. Wilkinson, Jens Zinke, and **Kristine L. DeLong** (2022) Planetary-scale change to the biosphere signalled by global species translocations can be used to identify the Anthropocene, *Palaeontology*, 65(4) e12618, doi:10.1111/pala.12618.
- Thompson, Diane M., Jessica L. Conroy, Bronwen L. Konecky, Samatha Stevenson, **Kristine L. DeLong**, Nicholas P. McKay, Lucas Jonkers, Matthieu Carré (2022) Salinity information from hydro-sensitive coral  $\delta^{18}\text{O}$  records, *Geophysical Research Letters*, 49(9), e2021GL096153, doi:10.1029/2021GL096153.

- Warner, Jacob P., Kristine L. DeLong, David Chicoine, Kaustubh Thirumalai, Fred Andrus (2022), Investigating the influence of temperature and seawater  $\delta^{18}\text{O}$  on *Donax obesulus* (Reeve, 1854) shell  $\delta^{18}\text{O}$ , *Chemical Geology*, 588, 120638, [doi:10.1016/j.chemgeo.2021.120638](https://doi.org/10.1016/j.chemgeo.2021.120638).
- DeLong, Kristine L.**, Suyapa Gonzalez, Jeffrey B. Obelcz, Jonathan T. Truong, Samuel J. Bentley Sr., Kehui Xu, Carl Andy Reese, Grant L. Harley, Alicia Caporaso, Zhixiong Shen, and Beth A. Middleton (2021), Late Pleistocene baldcypress (*Taxodium distichum*) forest deposit on the continental shelf of the northern Gulf of Mexico, *Boreas*, 50(3), 871–892, doi:10.1111/bor.12524.
- Weerabaddana, Mudith M., Kristine L. DeLong, Amy J. Wagner, Deborah W.Y. Loke, Kelly H. Kilbourne, Niall Slowey, Hsun-Ming Hu, and Chuan-Chou Shen (2021), Insights from barium variability in a *Siderastrea siderea* coral in the northwestern Gulf of Mexico, *Marine Pollution Bulletin*, 173 (A), 112930, [doi:10.1016/j.marpolbul.2021.112930](https://doi.org/10.1016/j.marpolbul.2021.112930).
- Huei-Ting Lin, Hong-Wei Chiang, Tsai-Luen Yu, Marcus Christl, Juan Liu, **Kristine DeLong**, Chuan-Chou Shen (2021),  $^{236}\text{U}/^{238}\text{U}$  analysis of femtogram  $^{236}\text{U}$  by MC-ICPMS, *Analytical Chemistry*, 93 (24) 8442-8449, doi:10.1021/acs.analchem.1c00409.
- Trofimova, Tamara, Stella J. Alexandroff, Madelyn Mette, Elizabeth Tray, Paul G. Butler, Steven Campana, Elizabeth Harper, Andrew L.A. Johnson, John R. Morrongiello, Melita Peharda, Bernd R. Schöne, Carin Andersson, Fred T. Andrus, Bryan A. Black, Meghan Burchell, Michael L. Carroll, **Kristine L. DeLong**, Bronwyn M. Gillanders, Peter Grønkjær, Daniel Killam, Amy L. Prendergast, David J. Reynolds, James D. Scourse, Kotaro Shirait, Julien Thébault, Clive Truemanv, Niels de Winter (2020), Fundamental questions and applications of sclerochronology: Community-defined research priorities. *Estuarine, Coastal and Shelf Science*, 245, 106977, [doi:10.1016/j.ecss.2020.106977](https://doi.org/10.1016/j.ecss.2020.106977).
- Konecky, Bronwen L., Nicholas P. McKay, Olga V. Churakova (Sidorova), Laia Comas-Bru, Emilie P. Dassié, **Kristine L. DeLong**, Georgina M. Falster, Matt J. Fischer, Matthew D. Jones, Lukas Jonkers, Darrell S. Kaufman, Guillaume Leduc, Shreyas R. Managave, Belen Martrat, Thomas Opel, Anais J. Orsi, Judson W. Partin, Hussein R. Sayani, Elizabeth K. Thomas, Diane M. Thompson, Jonathan J. Tyler, Nerilie J. Abram, Alyssa R. Atwood, Jessica L. Conroy, Zoltán Kern, Trevor J. Porter, Samantha L. Stevenson, Lucien von Gunten, Kerstin Braun, Matthieu Carré, Sylvia G. Dee, Alessandro Incarbona, Nikita Kaushal, Robert M. Klæbe, Hannah R. Kulus, P. Graham Mortyn, Andrew D. Moy, Heidi A. Roop, Marie-Alexandrine Sicre (2020), The Iso2k Database: A global compilation of paleo- $\delta^{18}\text{O}$  and  $\delta^2\text{H}$  records to aid understanding of Common Era climate, *Earth System Science Data*, 12 (3), 2261-2288, [doi:10.5194/essd-12-2261-2020](https://doi.org/10.5194/essd-12-2261-2020).
- Dee, Sylvia, Mark Torres, Rowan Martindale, Anna Weiss, **Kristine DeLong**, (2019), The future of reef ecosystems in the Gulf of Mexico: insights from coupled climate model simulations and ancient hot-house reefs. *Frontiers in Marine Science*, 6(691), [doi:10.3389/fmars.2019.00691](https://doi.org/10.3389/fmars.2019.00691), part of a special issue titled, “Gulf of Mexico Reefs: Past, Present and Future.”
- Sayani, Hussein R., Kim M. Cobb, **Kristine L. DeLong**, Nicholas T. Hitt, and Ellen R. M. Druffel, (2019), Intercolony  $\delta^{18}\text{O}$  and Sr/Ca variability among *Porites* spp. corals at Palmyra Atoll: Towards more robust coral-based estimates of climate, *Geochemistry, Geophysics, Geosystems*, 20(11), 5270–5284, doi:10.1029/2019GC008420.
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- Bregy, E. Capron, O. Cartapanis, H.-W. Chiang, K. Cobb, M. Debret, R. Dommoin, J. Du, K. Dyez, S. Emerick, M. Erb, G. Falster, W. Finsinger, D. Fortier, Nicolas Gauthier, S. George, E. Grimm, J. Hertzberg, F. Hibbert, A. Hillman, W. Hobbs, M. Huber, A.L.C. Hughes, S. Jaccard, R. Jiaoyang, M. Kienast, B. Konecky, G. Leroux, V. Lyubchich, V.F. Novello, L. Olaka, J.W. Partin, C. Pearce, S. Phipps, C. Pigno, N. Piotrowska, M.-S. Poli, A. Prokopenko, F. Schwanck, C. Stepanek, G. Swann, R. Telford, E. Thomas, Z. Thomas, S. Truebe, L. von Gunten, A. Waite, N. Weitzel, B. Wilhelm, J. Williams, J.J. Williams, M. Winstrup, N. Zhao, Y. Zhou. (2019), PaCTS 1.0: A Crowdsourced Reporting Standard for Paleoclimate Data. *Paleoceanography and Paleoclimatology*, [doi:10.1029/2019PA003632](https://doi.org/10.1029/2019PA003632).
- Black, Bryan A., Carin Andersson, Paul G. Butler, Michael Carroll, **Kristine L. DeLong**, David J. Reynolds, Bernd R. Schöne, James Scourse, Peter van der Sleen, Alan D. Wanamaker, and Rob Witbaard, (2019), The revolution of crossdating in marine paleoecology and paleoclimatology, *Biology Letters* 15(1), 20180665, [doi:10.1098/rsbl.2018.0665](https://doi.org/10.1098/rsbl.2018.0665).
- Reese, Carl A., Grant L. Harley, **Kristine L. DeLong**, Samuel J. Bentley Sr., Kehui Xu, Suyapa Gonzalez, Jonathan T. Truong, Jeffrey Obelcz, and Alicia Caporaso, (2018), Stratigraphic pollen analysis performed on a Late-Pleistocene cypress forest preserved on the northern Gulf of Mexico continental shelf, *Journal of Quaternary Science*, 33(8), 865–870, [doi:10.1002/jqs.3074](https://doi.org/10.1002/jqs.3074).
- Gonzalez, Suyapa, Samuel J. Bentley Sr., **Kristine L. DeLong**, Kehui Xu, Jeffrey Obelcz, Jonathan Truong, Grant L. Harley, Carl A. Reese, Alicia Caporaso, (2017), Facies Reconstruction of a Late Pleistocene Cypress Forest Discovered on the Northern Gulf of Mexico Continental Shelf, *Gulf Coast Association of Geological Societies Transactions*, 67, 133–146.
- Tucker, Clay S., Jill C. Trepanier, Grant L. Harley, and **Kristine L. DeLong**, (2017), Maritime Slash Pine Trees (*Pinus elliottii* var. *elliottii* Engelm.) Record Tropical Cyclone Activity along the Northern Gulf of Mexico from 1909–2014, *Journal of Coastal Research*, [doi:10.2112/JCOASTRES-D-16-00177.1](https://doi.org/10.2112/JCOASTRES-D-16-00177.1).
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- Jennifer A. Flannery, Julie N. Richey, Kaustubh Thirumalai, Richard Z. Poore, and **Kristine L. DeLong**, (2017), Multi-species Coral Sr/Ca Based Sea-Surface Temperature Reconstruction Using *Orbicella faveolata* and *Siderastrea siderea* from the Florida Straits, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 466, 100–109, [doi:10.1016/j.palaeo.2016.10.022](https://doi.org/10.1016/j.palaeo.2016.10.022).
- Pollack, Anna L., Philipp van Beyan, **Kristine L. DeLong**, Victor Polyak and Yemane Asmerom, (2017), A Speleothem-Based Mid-Holocene Precipitation Record for West-Central Florida, *The Holocene*, 27(7), 987–996, [doi:10.1177/0959683616678463](https://doi.org/10.1177/0959683616678463).
- Williams, Branwen, Jochen Halfar, **Kristine L. DeLong**, Ellie Smith, Robert S. Steneck, P. Lebednik, D.E. Jacob, J. Fietzke, and G.W.K. Morre, (2017), North Pacific Twentieth Century Decadal-Scale Variability is Unique for the Past 342 Years, *Geophysical Research Letters*, 44(8), 3761–3769, [doi:10.1002/2017GL073138](https://doi.org/10.1002/2017GL073138).
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- Liu, Yi, Li Lo, Zhengguo Shi, Kuo-Yen Wei, Chien-Ju Chou, Yi-Chi Chen, Chih-Kai Chuang, Chung-Che Wu, Horng-Sheng Mii, Zicheng Peng, Hiroshi Amakawa, George S. Burr, Shih-Yu Lee, **Kristine L. DeLong**, Henry Elderfield, and Chuan-Chou Shen, (2015), Obliquity Pacing of Western Pacific Intertropical Convergence Zone Over the Past 282,000 Years, *Nature Communications*, [doi:10.1038/ncomms10018](https://doi.org/10.1038/ncomms10018).
- DeLong, Kristine L.**, Jennifer Flannery, Richard Z. Poore, Terrence M. Quinn, Christopher R. Maupin, Ke Lin, and Chuan-Chou Shen, (2014), A Reconstruction of Sea Surface Temperature Variability in the Southeastern Gulf of Mexico from 1734 to 2008 C.E. Using Cross-Dated Sr/Ca Records from the Coral *Siderastrea siderea*, *Paleoceanography*, 29(5), 403–422, [doi:10.1002/2013PA002524](https://doi.org/10.1002/2013PA002524).
- Williams, Branwen, Jochen Halfar, **Kristine L. DeLong**, Steffen Hetzinger, Robert S. Steneck, and Dorrit E. Jacob, (2014), Multi-Specimen and Multi-Site Calibration of Aleutian Coralline Algal Mg/Ca to Sea Surface Temperature, *Geochimica et Cosmochimica Acta*, 139, 190–204, <http://dx.doi.org/10.1016/j.gca.2014.04.006>.
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- Conference Proceedings— Peer Reviewed Papers*
- Ourbak, Timothée, **Kristine L. DeLong**, Thierry Corrège, B. Malaizé, Kelly H. Kilbourne, S. Caquineau, and David J. Hollander, (2009), The Significance of Geochemical Proxies in Corals, Does Size (Age) Matter? *Proceedings of the 11th International Coral Reef Symposium*, Ft. Lauderdale, Florida, July 2008: 82-86.
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- Original Data Sets Made Publicly Available*
- Ornouski, Erika C., Kristine L. DeLong, Amy Wagner, and Sarah Crabtree, A stable isotopic profile of atmospheric river precipitation impacting Northern California, submitted to [https://wateriso.utah.edu/waterisotopes/pages/spatial\\_db/SPATIAL\\_DB.html](https://wateriso.utah.edu/waterisotopes/pages/spatial_db/SPATIAL_DB.html), September 2023.
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- PAGES (Past Global Changes) Ocean2K Data Compilation Project. The Ocean2K group built a database of marine-based reconstructions for the past 2000 years that passed quality control, which I was involved in. Paleoceanographic records were compiled from high-resolution archives, mostly sediment cores and corals. This database has and will be used to analyze the sea surface conditions and marine climate of the last two millennia and to produce a reconstruction for publication and the next IPCC report. Database is available to the general public at <http://www.pages-igbp.org/workinggroups/ocean2k/metadatabase>.
- DeLong, Kristine L.**, Jennifer Flannery, Richard Z. Poore, Terrence M. Quinn, Christopher R. Maupin, Ke Lin, and Chuan-Chou Shen, (2014), Dry Tortugas coral Sr/Ca-SST reconstruction from 1734–2008 CE. IGBP PAGES/World Data Center for Paleoclimatology, Data Contribution Series # noaa-coral-16217, NOAA/NCDC Paleoclimatology Program, Boulder CO, USA. <ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/atlantic/delong2014/>, and [http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1\\_STUDY\\_ID:16217](http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1_STUDY_ID:16217). This data set contains reconstructed monthly sea surface temperatures for Dry Tortugas (24.45°N, 81.877°W) from 1734 to 2008 with error estimates and supporting data.
- DeLong, Kristine L.**, Terrence M. Quinn, Frederick W. Taylor, Ke Lin, and Chuan-Chou Shen (2012), Amédée Island, New Caledonia 350 Year Coral Sr/Ca SST Reconstruction. IGBP PAGES/World Data Center for Paleoclimatology, Data Contribution Series # 2012-085, NOAA/NCDC Paleoclimatology Program, Boulder CO, USA. [ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/west\\_pacific/amedee2012.txt](ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/west_pacific/amedee2012.txt), [ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/west\\_pacific/amedee2012.xls](ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/west_pacific/amedee2012.xls), and [http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1\\_STUDY\\_ID:13035](http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1_STUDY_ID:13035). This data set contains reconstructed monthly sea surface temperatures for New Caledonia (22.48°S, 166.47°E) from 1649 to 1999 for three coral colonies with supporting data.
- DeLong, Kristine L.**, Terrence M. Quinn, and Frederick W. Taylor (2012), New Caledonia Coral Proxy Data Sampling Resolution Comparison on file with the World Data Center for Paleoclimatology, Boulder and NOAA Paleoclimatology Program, IGBP PAGES/WDCA Data Contribution Series # 2012-075, NOAA/NCDC Paleoclimatology Program, Boulder CO, USA [ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/west\\_pacific/amedee2007.txt](ftp://ftp.ncdc.noaa.gov/pub/data/paleo/coral/west_pacific/amedee2007.txt) and [http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1\\_STUDY\\_ID:12973](http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1_STUDY_ID:12973). This data set contains reconstructed monthly sea surface temperatures for New Caledonia (22.48°S, 166.47°E) from 1967 to 1999 for five coral colonies with supporting data.

**DeLong, Kristine L.**, Jennifer Flannery, Christopher R. Maupin, Richard Z. Poore, and Terrence M. Quinn (2011), Dry Tortugas Coral Sr/Ca Data on File with the World Data Center for Paleoclimatology, Boulder and NOAA Paleoclimatology Program, IGBP PAGES/WDCA Contribution Series Number: 2011-121, noaa-coral-11935

[http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1\\_STUDY\\_ID:11935](http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1_STUDY_ID:11935). This data set contains reconstructed monthly sea surface temperatures for Dry Tortugas (24.454°N, 81.877°W) from 1992 to 2008 with supporting data.

**DeLong, Kristine L.**, Terrence M. Quinn, Chuan-Chou Shen, and Ke Lin (2010), Tahiti 9.5ka Fossil Coral Geochemical Data on file with the World Data Center for Paleoclimatology, Boulder and NOAA Paleoclimatology Program, IGBP PAGES/WDCA Contribution Series Number: 2010-054, noaa-coral-10424 <http://www.ncdc.noaa.gov/paleo/coral/tahiti.html>, [http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1\\_STUDY\\_ID:10424](http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:0:::P1_STUDY_ID:10424). This data set contains reconstructed monthly sea surface temperatures for Tahiti (17.7658°S, 149.551°W) from the Early Holocene (9.5 ka) with supporting data.

*Magazine/Trade Publication (Peer-reviewed)*

**DeLong, Kristine L.**, Alyssa Atwood, Andrea Moore, and Sara Sanchez (2022) Clues from the sea paint a picture of Earth's water cycle, *Eos*, 103, [doi:10.1029/2022EO220231](https://doi.org/10.1029/2022EO220231). Reviewed by science advisors. Online version published May 4, 2022 and print version published in February 2023.

**Hargreaves, Jessica, Kristine L. DeLong**, Thomas Felis, Nerilie Abram, Kim Cobb, Hussein Sayani, "Tropical ocean hydroclimate and temperature from coral archives" in *Past Global Changes Magazine*, titled "Past Plant Diversity and Conservation", Editors, Cheddadi R, Báez S, Normand S, Payne D, Taberlet P & Eggleston S, 28(1), 1-32, 2020, [doi:10.22498/pages.28.1](https://doi.org/10.22498/pages.28.1).

Konecky, Bronwen, Laia Comas-Bru, Emilie P. Dassié, **Kristine L. DeLong**, and Judson W. Partin, (2018), Piecing Together the Big Picture on Water and Climate, *Eos*, 99, [doi:10.1029/2018EO095283](https://doi.org/10.1029/2018EO095283).

Dassie, Emilie, **Kristine L. DeLong**, Hali Kilbourne, Branwen Williams, Nerilie Abram, Logan Brenner, Chloé Brahmi, Kim Cobb, Thierry Corrège, Delphine Dissard, Julien Emile-Geay, Heitor Evangelista, Michael Evans, Jesse Farmer, Thomas Felis, Michael Gagan, David Gillikin, Nathalie Goodkin, Myriam Khodri, Ana Carolina Lavagnino, Michèle LaVigne, Claire Lazareth, Braddock Linsley, Janice Lough, Helen McGregor, Intan Nurhati, Gilman Ouellette, Laura Perrin, Maureen Raymo, Brad Rosenheim, Michael Sanstrom, Bernd Schöne, Abdelfettah Sifeddine, Samantha Stevenson, Diane Thompson, Amanda Waite, Alan Wanamaker, and Henry Wu, (2017), Save our Marine Annually-Resolved Proxy Archives (MARPA)!, 24 February 2017 <https://eos.org/project-updates/saving-our-marine-archives>.

*Miscellaneous*

**DeLong, Kristine**, Gilman Ouellette, and Carrie Manfrino (2018) Little Cayman Fossil and Historic Corals as Recorders of Climate Variability, Field Report for Department of Energy, Cayman Islands, August 2018.

Fragua, Roger, **Kristine L. DeLong**, Micha Rahder, **Jacob Warner**, and Kim Merryman (2016), Water & Climate Change, Workshop Report and Executive Summary, October 5-7, 2016, Pueblo of Jemez Community Resource Center, Jemez Pueblo, NM.

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### Grants Awarded

Summary	Funded	Pending
Government Funding Agencies	\$4,579,911	\$2,303,680
Private Foundations	\$69,838	
University Grants	\$61,727	
Travel Grants	\$15,800	
<b>Total</b>	<b>\$4,727,276</b>	<b>\$2,303,680</b>

### Pending Submissions

National Science Foundation, NSF Paleo Perspectives on Present and Projected Climate (P4Climate) Program. Submitted October 13, 2023, a proposal title, “Collaborative Research: Holocene grounding line oscillations at the Ross Sea Siple Coast: a paleo perspective on the present-day WAIS retreat and upwelling of Circumpolar Deep Waters,” PIs Phil Bart, **Kristine DeLong**, and Kanchan Maiti. Requested \$804,438 for 3 years.

Bureau of Ocean Energy Management, submitted August 1, 2023, “Improving methods to locate potential Underwater Archaeological sites in the Gulf of Mexico,” PIs **Kristine DeLong**, Kevin Xu, Stuart Nolan, Emily Wei, Davin Wallace, & Carl Andy Reese. Request for funding of \$1,499,242.

### Current Funded Projects

Louisiana Space and Sea grant Opportunities (LaSSO) for Undergraduate Research, submitted May 31, 2023. “Can freshwater flooding be detected in eastern oyster (*Crassostrea virginica*) shells using shell trace elemental signatures as an environmental proxy? PIs **Kristine DeLong**. Awarded \$4000 for 5 months.

U.S. Geological Survey, South Central Climate Adaptation Science Center, University of Oklahoma, submitted October 20, 2022, “Coastal indigenous fisheries assessment (CIFA) using archaeological and ecologic perspectives.” Stuart Nolan, Jayur Mehta, Tegan Hanson, Steve Midway, Sherry Higgins, Kimberly Walden, Travis Hass, Jill Trepanier, **Kristine DeLong**. Requested \$404,953 of funding for three years, **Funded, noticed received March 24, 2023**.

U.S. Geological Survey, National Climate Adaptation Science Center and Regional Climate Adaptation Science Centers, Climate Adaptation Scientists of Tomorrow Program Undergraduate Research Experience proposal titled, “Developing a Diverse Research Workforce with Expertise in Hydrological Climate Events in the Upland Watersheds of the Northern Gulf of Mexico,” Christopher F. D’Elia, Victor Rivera-Monroy, **Kristine DeLong**, and Cheryl Harrison. Submitted July 26, 2021. Start date 1 January 2022 for 24 months, \$180,000, **Funded and extended for two more years**.

National Science Foundation, NSF 13-576 Paleo Perspectives on Climate Change (P2C2) Program. Submitted October 20, 2020, a proposal title, “Collaborative Research: Coral Proxy and Climate Model Comparison to understand Climate Variability in the Intra-Americas Sea Region,” **Lead PI DeLong**, co-PI Elinor Martin of the University of Oklahoma. Request for funding of \$417,928 for LSU, **fully funded for July 2021–June 2024**, Award Number (FAIN): 2102931

Bureau of Ocean Energy Management, Coastal Marine Institute FY 2019, “Investigation of an Ancient Bald Cypress Forest in the Northern Gulf of Mexico: Phase 2,” **Lead PI Kristine DeLong** and co-PIs Kehui Xu of the Department of Oceanography, Grant Harley of University of Idaho, and Andy Reese of the Department of Geography and Geology at University of Southern Mississippi. Funded \$538,235 for three years September 1, 2020–August 31, 2023.

U.S. Department of the Interior, U.S. Geological Survey, “A Proposal to Host the Department of the Interior’s South Central Climate Adaptation Science Center,” lead PI Renee A. McPherson, University of Oklahoma, LSU co-PIs, Chris D’Elia, **Kristine DeLong**, and Victor Rivera-Monroy. **Fully funding \$642,032 for six years for LSU, September 2019–August 2024.**

*Past Funded Projects*

National Science Foundation, NSF 13-576 Paleo Perspectives on Climate Change (P2C2) Program, Award #1805702, “New Perspectives on Paleo-ENSO Conditions in Coastal Peru as Seen Through Short-Lived Bivalves,” PIs DeLong and David Chicoine. Funded \$411,493 for July 2018 to June 2023.

Traditional and Undergraduate Enhancement, Louisiana State Board of Regents for Fiscal Year 2020–2021. Submitted October 24, 2020, a proposal titled “Investigating cloud and hurricane water isotopic processes for research and student education,” PIs **Kristine L. DeLong**, Jill Trepanier, and Barry Kiem. **Funded for \$110,126 for June 1, 2021–June 30, 2022.**

Haus der Kulturen der Welt Museum, and Anthropocene Working Group, co-PI Kristine DeLong with Jens Zinke and Colin Waters of the University of Leicester, 2019, “Cayman Corals as an Anthropocene Marker for the Tropical Atlantic Project with the Anthropocene Working Group,” subproject of the Anthropocene Working Group project, funded 39,840 Euros or \$44,838 US, for September 1, 2020 – December 31, 2021.

NOAA RISA program, “Building Resilience to Extreme Events and Water Hazard Planning in Remote, Rural Communities,” co-PI with Barry Keim and Jean Renee Edwards and Sarah Trainor at the University of Alaska, funded for \$55,907 for August 2018–2020.

U.S. Department of the Interior, U.S. Geological Survey, Climate Science Centers, and the National Climate Change and Wildlife Science Center, Annual Funding Opportunity Fiscal Year 2017. Proposal titled, “Regional Graduate Student, Post-Doc, and Early Career Researcher Training III,” PI Derek Rosendahl of University of Oklahoma, Co-PIs Kristine DeLong, and Victor H. Rivera-Monroy. Funded for \$61,783, September 2017–2018.

Traditional and Undergraduate Enhancement, Louisiana State Board of Regents, for Fiscal Year 2016–2017. “High-Resolution Raman System for Multidisciplinary Research at LSU.” PI Manas Ranjan Gartia, co-PIs Kristine L. DeLong, Kerry M. Dooley, Martin Feldman, Louis H. Haber, Kevin Michael McPeak, Devireddy, Ramachandra, Earl Ward Plummer, Isiah M Warner, and Phillip Sprunger. Funded for \$232,609, July 2017–2018.

Traditional and Undergraduate Enhancement, Louisiana State Board of Regents, for Fiscal Year 2015–2016. “Inductively Coupled Plasma Mass Spectrometer for Research in Geography and Anthropology,” PI Kristine L. DeLong, Heather McKillop, David Chicoine, Ginesse Listi, and Rebecca Saunders. Funded for \$101,227 starting July 1, 2016–June 30, 2018.

Bureau of Ocean Energy Management (BOEM) FY 2015 Louisiana Coastal Marine Institute, Award #M15AC00016, 9/1/2015–8/31/2019 “Investigation of an Ancient Bald Cypress Forest in the Northern Gulf of Mexico, U.S.A.,” Lead PI Kristine DeLong and co-PIs Sam Bentley, Kehui Xu, Grant Harley and Andy Reese. Funded \$261,077.

- U.S. Department of the Interior, U.S. Geological Survey, Climate Science Centers, and the National Climate Change and Wildlife Science Center, 9/1/2015–8/31/2017, “Training for Native Tribes of Louisiana and New Mexico on Understanding Climate in a Changing World,” Lead PI Kristine L. DeLong and co-PIs Micha Rahder. Funded for \$86,180.
- Department of the Interior, U.S. Geological Survey, South Central Climate Science Center, awarded to University of Oklahoma with a subcontract to Louisiana State University 2013–2019, Co-PIs Chris D’Elia, Kevin Robbins, Victor H Rivera-Monroy, and Kristine L. DeLong, Original grant was \$494,647 with a 2.5 year extension for a total of \$814,664 to LSU.
- Pilot Funding for New Research (Pfund), Louisiana Experimental Program to Stimulate Competitive Research (EPSCoR), The National Science Foundation and the Louisiana Board of Regents. Submitted September 25, 2013, a proposal titled, “Development of Coral Microatolls for Environmental Reconstructions,” Lead PI Kristine DeLong, funded for \$10,000 for February 1, 2014 to June 2015.
- College of Humanities and Social Sciences 2017–2018 Academic Year Instructional Impact Committee, “Magic Planet,” PIs Kory Koesner, Jill Trepanier, and **Kristine DeLong. Funded in the amount of \$34,227 for one year.**
- Faculty Research Grant 2015–2016, “Development of Long-Lived Massive Corals in Haiti for Environmental Reconstructions,” **Kristine DeLong. Funded for \$10,000** for July 1, 2016–June 30, 2016.
- Wallace Research Foundation, December 2012, submitted a proposal “Recovery of Wood Samples from Ancient Cypress Forest in the Gulf of Mexico,” Kristine DeLong is a co-PI with Grant Harley of University of Southern Mississippi. Funded \$25,000 in 2013 through University of Southern Mississippi.
- Research Competitiveness Subprogram (RCS), Louisiana State Board of Regents, for Fiscal Year 2012–2013. June 1, 2013 to June 30, 2016, “Assessment of the Geochemical Signals in Corals from Veracruz Mexico for Reconstructing Environmental Conditions in the Southwest Gulf of Mexico,” Funded for \$136,827.
- Pilot Funding for New Research (Pfund), Louisiana Experimental Program to Stimulate Competitive Research (EPSCoR), The National Science Foundation and the Louisiana Board of Regents. Submitted December 2010 a proposal titled “Reconstructions of Past Climate from Modern and Fossil Corals.” Funded for \$10,000.
- Manship Summer Research Award, College of Humanities and Social Sciences, summer 2012. Proposal titled “Investigations of Climate Variability from the Little Ice Age to Present from Corals in the Gulf of Mexico” **Funded \$7500.**
- Assistant Professor Summer Research Award for the summer of 2011, College of Humanities and Social Sciences. Proposal titled “Southwest Tropical Pacific Temperature Variability Since 1648 Derived from Coral Sr/Ca” **Funded \$5000.**
- Council on Research Summer Stipend Program, Louisiana State University, 2010. Proposal titled “Reconstructing Sea Surface Temperature in the Gulf of Mexico back to AD1750” **Funded \$5000.**

### **Professional Memberships**

American Geophysical Union (AGU), 2003–present  
American Academy of Underwater Sciences (AAUS), 2005–present  
Earth Science Woman’s Network (ESWN), 2005–present  
Association of America Geographers (AAG), 2009–present  
National Association of Geoscience Teachers (NAGT), 2009–present  
Geochemical Society, member from 2014–present  
International Society for Reef Studies (ISRS), member from 2015–present  
Sigma Xi, full member 2021 to present

### **Social Media**

PAST lab <https://faculty.lsu.edu/pastlab/>  
LSU South Central Climate Science Center <http://www.LSU-SCCSC.org>  
MARPA <https://marpaside.wordpress.com/>  
Twitter: @aquablusee <https://twitter.com/aquablusee>  
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Goggle Scholar: Kristine L. DeLong  
Linkedin: <http://www.linkedin.com/pub/kristine-delong/40/690/8a0/en>  
Academia.edu: <https://lsu.academia.edu/kristinedelong>  
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