



# JESSICA R. HENKEL, Ph.D.



## Experience Profile

As Deputy Director to the Chief Scientist at The Water Institute of the Gulf, Dr. Jessica Renee Henkel brings 15 years of research, collaborative science and planning to her role coordinating technical teams at The Water Institute.

Henkel received her bachelor's degree in English from Stony Brook University, her master's degree in conservation biology from the University of New Orleans and then her Ph.D. in ecology and evolutionary biology from Tulane University. Her research focused on the migration ecology of shorebirds along the northern Gulf of Mexico and the impacts of the Deepwater Horizon oil spill. As part of a fellowship through the National Academies of Sciences, Engineering and Medicine she started work as a science policy fellow with the Gulf Coast Ecosystem Restoration Council (RESTORE Council) where she eventually was named the science advisor and coordinator. The RESTORE Council is an independent federal agency established by Congress through the Resources and Ecosystems Sustainability, Tourist Opportunities and Revised Economies of the Gulf Coast States Act (RESTORE Act) and is comprised of the governors of the five Gulf states and six federal agencies.

Henkel specializes in structured decision-making and decision analysis and has been certified through the USFWS National Conservation Training Center (NCTC). During her time with the RESTORE Council she used this training to connect and build consensus across federal and state agency representatives on the RESTORE Council.

Henkel has developed guidance on how restoration activities should be monitored and adaptively managed, designed and developed databases to support the RESTORE Council in tracking and assessing its work, and advised on how that information could be synthesized and used to inform science-based restoration planning at watershed and regional scales.

## Company Role

Deputy Director to the Chief Scientist

## Areas of Expertise

- Science advising and coordination
- Structured Decision Making
- Large-scale restoration planning
- Avian ecology

## Education

- Ph.D. – Ecology and Evolutionary Biology, Tulane – 2015
- M.Sc. – Biological Sciences, Conservation Biology, University of New Orleans – 2009
- B.A. – English, Stony Brook University – 2004

## Professional Membership

- American Association for the Advancement of Science
- Coastal and Estuarine Research Foundation
- DOI – Decision Analysis Certification Program

## Professional Experience

The Water Institute of the Gulf	2022-Present
• <i>Deputy Director to the Chief Scientist at The Water Institute of the Gulf</i>	
Gulf Coast Ecosystem Restoration Council	
• <i>Science Advisor and Coordinator</i>	2017-2022
• <i>Ecosystem Science Specialist</i>	2016-2017
National Academies of Sciences, Engineering and Medicine (NASEM)	
• <i>Science Policy Fellow - New Orleans, LA</i>	2015-2016
• <i>Science and Technology Policy Fellow – Washington, DC</i>	2015
Tulane University, Department of Ecology and Evolutionary Biology	
• <i>EPA Star Research Fellow</i>	2012-2015
• <i>Graduate Teaching Assistant</i>	2010-2012
University of New Orleans, Department of Biological Sciences	
• <i>Graduate Teaching Assistant</i>	2007-2009
Cambridge University Press	
• <i>Production Controller</i>	2005-2006
• <i>Editorial Assistant – Ecology and Engineering</i>	2004-2005

## Selected Projects

**Data Synthesis.** *Science for Nature and People Partnership (SNAPP) and National Center for Ecological Analysis and Synthesis (NCEAS)*

As part of the Coastal Restoration Working Group, is working to better define governmental agency needs for decision making, assessing past restoration projects, and developing tools that will help future decision making through comprehensive data assimilation and analysis. – Current

**Comprehensive Plan Development.** *Gulf Coast Ecosystem Restoration Council*

Lead scientist as part of the plan development for the Council's 2022 Comprehensive Plan Update. -2022

**Funded Priorities List (FPL) Development.** *Gulf Coast Ecosystem Restoration Council*

Lead scientist as part of the development of the Council's 2017 FPL and the 2020-21 FPL 3, resulting in the approval of over \$188 million in funding for restoration activities across the Gulf. – 2017-2021

**Open Science for Synthesis (OSS).** *National Academies of Sciences, Engineering and Medicine, Gulf Research Program and National Center for Ecological Analysis and Synthesis (NCEAS)*

As part of the OSS 2017: Gulf Research Program, applied scientific synthesis to work related to the Gulf of Mexico's human, environmental, and energy systems. This effort resulted in a synthesized analysis of the cumulative benefits of restoration activities on water quality in Tampa Bay, Florida. – 2017-2019

**Observational Data Plan Guidelines.** *Gulf Coast Ecosystem Restoration Council*

Facilitated the development of, and updates to, guidelines for restoration project metrics, monitoring data collection and management for RESTORE Council funded activities. This included leading the coordination of the Council's Monitoring and Assessment Workgroup, a technical workgroup with representation from the Council's 11 member agencies. – 2016-2022

**Council Monitoring and Adaptive Management Guidelines.** *Gulf Coast Ecosystem Restoration Council*

Led the development of the RESTORE Council Monitoring and Adaptive Management Guidelines to support the development of consistent monitoring practices and plans for restoration projects. – 2019

## Selected Publications

1. Grabowski, J.H., Gittman, R.K., DeAngelis, B., Arkema, K.K., Baillie, C.J., Bennett, R.O., Benoit, J., Blitch, S., Buscuccn, J., Chatwin, A., Colden, A., Dausman, A., **Henkel, J.R.**, Houge, R., Howard, R., Hughes, A.R., Scyphers, S.B., Shostik, T., Sutton-Grieg, A.E. 2022. Wealth and population density predict federal investment in U.S. coastal habitat restoration, *under review*.
2. **Henkel, J.R.**, and A. Dausman. 2020. A Short History of Funding and Accomplishments Post-Deepwater Horizon. *Shore and Beach Journal*, <http://doi.org/10.34237/1008811>.
3. Keating, K.S., Gloekler, M., Kinner, N., Mesick, S., Peccini, M., Shorr, B., Showalter, L., **Henkel, J.R.** 2020. Coordination of Long Term Data Management in the Gulf: Lessons Learned and Recommendations from Two-Years of Cross-Agency Collaboration. *Shore and Beach Journal*, <http://doi.org/10.34237/1008812>.
4. DeAngelis, B.M., Sutton-Grier, A.E., Colden, A., Arkema, K.K., Baillie, C.J., Bennett, R.O., Benoit, J., Blitch, S., Chatwin, A., Dausman, A., Gittman, R.K., Greening, H.S., **Henkel, J.R.**, Houge, R., Howard, R., Hughes, A.R., Lowe, J., Scyphers, S.B., Sherwood, E.T., Westby, S., Grabowski, J.H. 2020. Social Factors Key to Landscape-Scale Coastal Restoration: Lessons Learned from Three U.S. Case Studies. *Sustainability*, 12, 869. <https://doi.org/10.3390/su12030869>.
5. Beck, M.W., Sherwood, E.T., **Henkel, J.R.**, Dorans, K., Ireland, K., Varela, P. 2019. Assessment of the cumulative effects of restoration activities on water quality in Tampa Bay, Florida. *Estuaries and Coasts*. [10.1007/s12237-019-00619-w](https://doi.org/10.1007/s12237-019-00619-w).
6. Gittman, R., Baillie, C., Arkema, K., Bennett, R., Benoit, J., Blitch, S., Brun, J., Chatwin, A., Golden, A., Dausman, A., DeAngelis, B., Herold, N., **Henkel, J.R.**, Houge, R., Howard, R., Hughes, A.R., Scypher, S., Shostik, T., Sutton-Grier, A., Grabowski, J. 2019. Voluntary restoration: Mitigation's silent partner in the quest to reverse coastal wetland loss in the USA. *Frontiers in Marine Science*. <https://doi.org/10.3389/fmars.2019.00511>.
7. Kolker, A., Dausman, A., Allison, M., Brown, G., Chu, P., de Mutsert, K., Fitzpatrick, C., **Henkel, J.R.**, Justic, D., Kleis, B., McCoy, E., Meselhe, E., and Parsons Richards, C. 2018. Research Informed Approaches to Managing the River-Dominated Coastal Zone: Insights from the Mississippi River, its Delta and Plume. *Eos*. 99: [10.1029/2018EO101169](https://doi.org/10.1029/2018EO101169).
8. **Henkel, J.R.**, Taylor, C.Z. 2015. Migration strategy predicts stopover behavior in migrating shorebirds on the northern Gulf of Mexico. *Animal Migration*, 2, Issue 1, ISSN (Online) 2084-8838, DOI: [10.1515/ami-2015-0003](https://doi.org/10.1515/ami-2015-0003).
9. **Henkel, J.R.**, Sigel, B.J., Taylor, C.M. 2014. Oiling rates and condition indices of shorebirds in the northern Gulf of Mexico following the Deepwater Horizon oil spill. *Journal of Field Ornithology*. 85: 408-420.
10. **Henkel, J.R.** Sigel, B., Taylor, C.M. 2012. Large-scale impacts of the Deepwater Horizon oil spill: Can local disturbance affect distant ecosystems through migratory shorebirds? *Bioscience*, 62: 676-685.
11. **Henkel, J.R.** Jones, K.L. Howard, J.J. Hereford, S.G., Savoie, M.L., Leibo, S.P. 2011. Integrating microsatellite and pedigree analyses to facilitate the captive management of the endangered Mississippi sandhill crane (*Grus canadensis pulla*). *Zoo Biology*. 30: 1-14.