

Terence A. Palmer

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EDUCATION

2006 MS in Marine Biology,
University of Texas at Austin, Marine Science Institute, USA

2002 BSc(Tech) in Marine Science:
University of Waikato, Hamilton, New Zealand

RESEARCH EXPERIENCE

Sept 2006 – present **Harte Research Institute for Gulf of Mexico Studies,
Texas A&M University - Corpus Christi
Research Associate (2010 - present),
Research Specialist (2006 – 2009)**

- Performed investigations of water quality and benthic macrofauna in Gulf of Mexico and U.S. Atlantic estuaries relating to hypoxia, changes in freshwater inflow and other disturbances.
- Prepared data for and co-authored manuscripts and reports for research investigations using SAS, ArcGIS, Primer, Sigmaplot and other software.
- Presented research at local and international conferences.
- Implemented annual field sampling and subsequent data analysis for a project monitoring McMurdo Station, Antarctica to determine anthropogenic effects on terrestrial and marine sediments.
- Sampled, sorted and identified benthic macrofauna for baseline monitoring.
- Field skills include datasonde and water quality sensor management, SCUBA diving, boat handling and benthic sampling.

Jan – Aug 2001, **University of Texas Marine Science Institute**
Jan 2004 - Aug 2006 **Research Assistant**

- Performed investigations of benthic macrofauna in Texas estuaries, relating to changes in freshwater inflow and other anthropogenic disturbances.
- Sampled, sorted and identified benthic macrofauna for baseline monitoring.
- Prepared data for and co-authored two annual reports for research investigation.
- Field skills include benthic sampling, SCUBA diving, boat handling and datasonde management.
- Implemented terrestrial and marine field sampling in and around McMurdo Station, Antarctica as part as an environmental monitoring program.
- Taught laboratory exercises for oceanography, marine invertebrates and marine environmental science courses. Teaching entailed field work, instructing, processing of data and grading of written reports.

Oct 2002 – Dec 2003 **Auckland Regional Council, Auckland, New Zealand**
Hydrology Technician

- Assisted in designing, constructed and maintaining hydrological flow and rainfall stations including the use of dataloggers, transducers and water quality sensors.

- Implemented water quality sampling, datasonde deployment, land surveying, and beach profiling.
- Responsible for data management and report writing.

**Nov 1999 – Feb 2000 Environment Bay of Plenty, Whakatane, New Zealand
Research Assistant**

- Participated in long-term benthic macrofaunal monitoring program.
- Developed a GIS database concerning the development of the region's waterways.

OTHER QUALIFICATIONS

PADI Rescue Diver
PADI Dry Suit Diver
SSI Enriched Air Nitrox Diver
Texas Boating Safety Certificate
First Aid/CPR/Emergency Oxygen certified

PROFESSIONAL AFFILIATIONS

American Academy of Underwater Sciences
American Society of Limnology and Oceanography
TAMUCC Dive Control Board

TEACHING EXPERIENCE

2013.2014 Guest Lecturer: *Benthic Ecology*. Texas A&M University-Corpus Christi.
2009, 2011, 2013.2014 Guest Lecturer: *Experimental Design*. Texas A&M University-Corpus Christi.
Summer 2005, Graduate Teaching Assistant, *Marine Environmental Science*. Marine Science Institute, University of Texas at Austin, Port Aransas
Summer 2004, Graduate Teaching Assistant, *Marine Invertebrates*. Marine Science Institute, University of Texas at Austin, Port Aransas.
Spring 2004, Graduate Teaching Assistant, *Introduction to Oceanography*. Marine Science Department, University of Texas at Austin, Austin.
2000, High School Biology Tutor, Hamilton Boys High School, Hamilton, New Zealand

PUBLICATIONS

Montagna, P.A., T.A. Palmer, and J.B. Pollack. 2013. Hydrological Changes and Estuarine Dynamics. Springer, New York, 94 pp.
Palmer, T.A., P.A. Montagna, and R.D. Kalke. 2013. The effects of opening an artificial tidal inlet on hydrography and estuarine macrofauna in Corpus Christi, Texas. *Environmental Monitoring and Assessment*. 185: 5917-5935. DOI 10.1007/s10661-012-2995-0.
Pollack, J.B., A. Cleveland, T.A. Palmer, A.S. Reisenger, and P.A. Montagna. 2012. A restoration suitability index model for the eastern oyster (*Crassostrea virginica*) in the Mission-Aransas Estuary, TX, USA. *PLOS ONE* 7: e40839.
Pollack, J.B., T.A. Palmer, and P.A. Montagna. 2011. Long-term trends in the response of benthic macrofauna to climate variability in the Lavaca-Colorado Estuary, Texas. *Marine Ecology Progress Series* 436: 67–80.
Palmer, T.A., P.A. Montagna, J.B. Pollack, R.D. Kalke and H. DeYoe. 2011. The role of freshwater inflow in lagoons, rivers, and bays. *Hydrobiologia*. 667: 49-67.
Kennicutt M.C. II, A. Klein, P. Montagna, S. Sweet, T. Wade, T. Palmer, J. Sericano, and G. Denoux. 2010. Temporal and spatial patterns of anthropogenic disturbance at McMurdo Station, Antarctica. *Environmental Research Letters*. 5: 034010.
Montagna, P.A., T.A. Palmer, R.D. Kalke and A. Gossmann. 2008. Suitability of using a

- limited number of sampling stations to represent benthic habitats in Lavaca-Colorado Estuary, Texas. *Environmental Bioindicators*. 3: 156–171.
- Palmer, T.A., P.A. Montagna, R.D. Kalke. 2008. Benthic indicators of the initial effect of opening a channel. *Environmental Bioindicators*. 3: 205-206.
- Montagna, P.A., E.D. Estevez, T.A. Palmer, and M.S. Flannery. 2008. Meta-analysis of the relationship between salinity and molluscs in tidal river estuaries of southwest Florida, U.S.A. *American Malacological Bulletin*. 24: 101-115.
- Palmer, T.A., P.A. Montagna, and R.B. Nairn. 2008. The effects of a dredge excavation pit on benthic macrofauna in offshore Louisiana. *Environmental Management*. 41: 573-83.
- Palmer, T.A., P.A. Montagna, and R.D. Kalke. 2002. Downstream effects of restored freshwater inflow to Rincon Bayou, Nueces Delta, Texas, USA. *Estuaries*. 25: 1448-1456.

BOOK CHAPTERS (REFEREED)

- Klein, A.G., S.T. Sweet, M.C. Kennicutt II, T.L. Wade, T.A. Palmer, and P. Montagna. 2014. Long-Term Monitoring of Human Impacts to the Terrestrial Environment at McMurdo Station, Chapter 9. In: Tin, T., D. Liggett, P.T. Maher, and M. Lamers (Eds.) “Antarctic Futures: Human Engagement with the Antarctic Environment” pp 213-227. doi: 10.1007/978-94-007-6582-5_9
- Mattson, R.A., K.W. Cummins, R.W. Merritt, P.A. Montagna, T. Palmer, J. Mace, J. Slater, and C. Jacoby. 2012. Benthic Macroinvertebrates, Chapter 11. In: Lowe, E.F., L.E. Battoe, H. Wilkening, M. Cullum, and T. Bartol, “The St. Johns River Water Supply Impact Study Final report.” St. Johns River Water Management District, Palatka, Florida.
<http://www.sjrwmd.com/watersupplyimpactstudy/>

TECHNICAL REPORTS

- Montagna, P.A., K. Nelson, T. Palmer, and L. Schroer. 2014. Dissolved Oxygen Monitoring and Modeling of Oso Bay. Final report submitted to: RPS Espey, Austin, TX. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 18 pp.
- Klein, A., S. Sweet, T. Wade, J. Sericano, T. Palmer, and P. Montagna. 2013. The Footprint of Human Impacts in Cold Climates: Lessons Learned at McMurdo Station, Antarctica, Final Report: Phase 8. Report submitted to US Army Corp of Engineers.
- Montagna, P.A., A. L. Sandovski, S. King, K.C. Nelson and T. Palmer. 2013. Nueces Delta Ecological Modeling for Nueces River and Tributaries Texas. Final Report to U.S. Army Corps of Engineers for Contract Number: W9126G-09-T0076. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas. 22 pp.
- Kennicutt, M.C. II, A. Klein, S. Sweet, T. Wade, J. Sericano, T. Palmer, and P. Montagna. 2012. The Footprint of Human Impacts in Cold Climates: Lessons Learned at McMurdo Station, Antarctica, Final Report: Phase 7. Report submitted to US Army Corp of Engineers.
- Montagna, P.A and T.A. Palmer. 2012. Impacts of Droughts and Low Flows on Estuarine Health and Productivity. Report Submitted to the Texas Water Development Board, Austin, Texas. Texas A&M University - Corpus Christi, Harte Research Institute for Gulf of Mexico Studies, 154 pp.
- Montagna, P.A and T.A. Palmer. 2012. Water and Sediment Quality Status and Trends in the Coastal Bend Area – Phase 2: Data Analysis. Report submitted to the Coastal Bend Bays & Estuaries Program for project 1206. Texas A&M University - Corpus Christi, Harte Research Institute for Gulf of Mexico Studies, 520 pp.
- Kennicutt, M.C. II., L. Hyde, A.G. Klein, P.A. Montagna, T. Palmer, J.L. Sericano, S.T. Sweet, and T.L. Wade. 2011. Long-Term Monitoring at McMurdo Station, Antarctica Phase 6 Final Report. Texas A&M University and Texas A&M - Corpus Christi. 23 pp.
- Nueces River and Corpus Christi and Baffin Bays Basin and Bay Expert Science Team. 2011. Environmental Flows Recommendations Report. Final Submission to the Environmental

- Flows Advisory Group, Nueces River and Corpus Christi and Baffin Bays Basin and Bay Area Stakeholders Committee, and Texas Commission on Environmental Quality.
- Venable, C., T.A. Palmer, P.A. Montagna, and G. Sutton. 2011. Historical Review of the Nueces Estuary in the 20th Century. Final Report for TWDB Project # 1148311288. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 51 pp.
- Montagna, P.A., T.A. Palmer, and J.B. Pollack. 2011. St. Johns Estuary: Estuarine Benthic Macroinvertebrates Phase 2. A final report submitted to the St. Johns River Water Management District, Harte Research Institute for Gulf of Mexico Studies, Texas A&M University – Corpus Christi, Corpus Christi, Texas, 49 pp.
- Montagna, P.A., and T.A. Palmer. 2011. Effect of Freshwater Inflow on Macrobenthos Productivity in the Guadalupe Estuary 2009-2010. Final Report to the Texas Water Development Board, Contract # 1004831015. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 15 pp.
- Montagna, P.A., Hutchison, L.M., D. Scholz, T. Palmer, S. Arismendez, and D. Yoskowitz. 2011. Nueces Estuary Ecosystem Management Initiative: An Ecosystem Services-based Plan. Final Report submitted to the Coastal Bend Bays & Estuaries Program for project number 1018. Texas A&M University - Corpus Christi, Harte Research Institute for Gulf of Mexico Studies, 170 pp. <http://cbbep.org/publications/virtuallibrary/1018.pdf>
- Montagna, P.A., and T.A. Palmer. 2011. Effect of Freshwater Inflow on Macrobenthos Productivity in the Guadalupe Estuary 2009-2010. Final Report to the Texas Water Development Board, Contract # 1004831015. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 15 pp.
- Kennicutt, M.C. II., L. Hyde, A.G. Klein, P.A. Montagna, T. Palmer, J.L. Sericano, S.T. Sweet, and T.L. Wade. 2010. Long-Term Monitoring at McMurdo Station, Antarctica Phase 5 Final Report. Texas A&M University and Texas A&M - Corpus Christi. 21 pp.
- Montagna, P.A., B.N. Blomberg, S.A. Arismendez, S.A., S. Nanez-James, T.A. Palmer, and D. Sholz. 2010. Evaluation of Marine Productivity Study For the OCS Planning Areas: Secondary and Tertiary Production. Final report to CSA International, Inc.. 103 pp.
- Montagna, P.A., H.-C. Kim, T. Palmer, and J. B. Pollack. 2010. Ecological and Socio-economic Impacts on Coastal and Marine Areas From Watershed Development. Final report to the Korea Maritime Institute. 116 pp. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 122 p
- Kennicutt, M.C. II., L. Hyde, A.G. Klein, P.A. Montagna, T. Palmer, J.L. Sericano, S.T. Sweet, and T.L. Wade. 2009. Long-Term Monitoring at McMurdo Station, Antarctica Phase 4 Final Report. Texas A&M University and Texas A&M - Corpus Christi. 18 pp.
- Montagna, P.A., T. Palmer, M. Gil, K. Dunton, E. Hill and B. Nicolau. 2009. Response of the Nueces Estuarine Marsh System to Freshwater Inflow: An Integrative Data Synthesis of Baseline Conditions for Faunal Communities. Report submitted to the Coastal Bend Bays & Estuaries Program for project # 08-21. Publication CBBEP-62. 33pp.
- Montagna, P.A. and T.A. Palmer. 2009. Effect of Freshwater Inflow on Macrobenthos Productivity in the Guadalupe Estuary 2008-2009. Final Report to the Texas Water Development Board, Contract # 0904830893. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 10 pp.
- Montagna, P.A. and T.A. Palmer. 2009. Benthic monitoring of the Mollie Beattie Coastal Habitat community in relation to opening Packery Channel. Final Report to HDR Shiner Moseley and Associates, Inc. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas. 38 pp.
- Palmer, T., J. Brenner, T. Nance and P. A. Montagna. 2009a. Workshop Summary: Habitat Management Plan for the Corpus Christi Bay Area. Report for Coastal Bend Bays and Estuaries Program Project 0708. Harte Research Institute for Gulf of Mexico Studies, Texas A&M University - Corpus Christi, Corpus Christi, Texas, 118 pp.

- Brenner, J., P. A. Montagna, T. Nance and T. Palmer. 2009b. Boundary Map Report - Habitat Management Plan of Corpus Christi Bay. Report submitted to the Coastal Bend Bays & Estuaries Program for project # 07-08. Texas A&M University - Corpus Christi, Harte Research Institute for Gulf of Mexico Studies, 33 p.
- Montagna, P.A. and T. Palmer. 2009. Benthic monitoring of the Mollie Beattie Coastal Habitat community in relation to opening Packery Channel. Final Report to HDR Shiner Moseley and Associates, Inc. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas. 38 pp.
- Montagna, P.A. and T.A. Palmer. 2009. Effect of Freshwater Inflow on Macrobenthos Productivity in the Guadalupe Estuary 2008-2009. Final Report to the Texas Water Development Board, Contract # 0904830893. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas, 10 pp.
- Montagna, P.A. and T. Palmer. 2009. Benthic monitoring of the Mollie Beattie Coastal Habitat community in relation to opening Packery Channel. Final Report to HDR Shiner Moseley and Associates, Inc. Harte Research Institute, Texas A&M University-Corpus Christi, Corpus Christi, Texas. 38 pp.
- Montagna, P.A., T.A. Palmer, and L. Hyde. 2009. Marine Impacts and Biological Responses, Chapter3. In: Kennicut, M.C. III. (ed.), McMurdo Station Long Term Monitoring, Antarctica, Phase 3. Annual Report to U.S. Army Corps of Engineers. Texas A&M University, College Station, TX. pp 11-17.
- Montagna, P.A., T.A. Palmer and J. Beseres Pollack. 2008. St. Johns estuary: estuarine benthic macroinvertebrate report. Final report submitted to the St. Johns River Water Management District. 51 pp.
- Montagna, P. A. and T. A. Palmer. 2008. Benthic Monitoring Project for the Mollie Beattie Coastal Habitat Community. Annual Progress Report to HDR Shiner Mosely, Inc., 32p.
- Montagna, P.A., T.A. Palmer, and L. Hyde. 2008. Marine Impacts and Biological Responses, Chapter3. In: Kennicut, M.C. III. (ed.), McMurdo Station Long Term Monitoring, Antarctica, Phase 2. Annual Report to U.S. Army Corps of Engineers. Texas A&M University, College Station, TX. pp 34-51.
- Montagna, P.A., T.A. Palmer, and J. Beseres Pollack. 2007. Effect of Freshwater Inflow on Macrobenthos Productivity in Minor Bay and River-Dominated Estuaries–Synthesis. Final Report to the Texas Water Development Board, Contract No.2006-483-026. 56p.
- Montagna, P.A. and T.A. Palmer. 2007. Benthic Monitoring Project for The Mollie Beattie Coastal Habitat Community. Annual Progress Report to HDR Shiner Mosely, Inc. 32p.
- Montagna, P.A. and T.A. Palmer. 2007. The Effects of a Dredge Excavation Pit on Benthic Macrofauna in offshore Louisiana. Final report to W.F. Baird & Associates.
- Kennicutt, M.C. et al. 2006. Variability in Natural and Anthropogenic Disturbances at McMurdo Station, Antarctica – Phase 1. Texas A&M University and the University of Texas Marine Science Institute. 111 pp.
- Montagna, P.A. R. Kalke, T. Palmer and A. Gossmann. 2006. Characterization of Benthic Habitats in Proximity to the Lower Colorado River, Texas. Final report to the Lower Colorado River Authority.
- Montagna, P.A., and T.A. Palmer. 2006. A Multivariate Statistical Analysis Of Relationships Between Freshwater Inflows And Mollusk Distributions In Tidal Rivers In Southwest Florida. Final report submitted to Southwest Florida Water Management District.
- Montagna, P.A. and T.A. Palmer. 2005. Benthic Monitoring Project for The Mollie Beattie Coastal Habitat Community. Annual Progress Report to HDR Shiner Mosely, Inc. 12p.

PUBLISHED ABSTRACTS AND/OR ORAL PRESENTATIONS

- Palmer, T.A. “Marine Environmental Monitoring at McMurdo Station, Antarctica” Corpus Christi Shell Club, Corpus Christi, TX, 24 September 2013.

- Palmer, T.A. "Marine Environmental Monitoring at McMurdo Station, Antarctica" Rockport Aquarium, Rockport, TX, May 2013.
- Palmer, T.A. "Marine Environmental Monitoring at McMurdo Station, Antarctica" Brown Bag Lunch, TAMUCC, Corpus Christi, TX, January 2013.
- Palmer, T.A. and P.A. Montagna. Impacts of Droughts and Low Flows on Estuarine Health and Productivity. Association for the Sciences of Limnology and Oceanography. New Orleans, LA, February 2013.
- Palmer, T.A. L.J. Hyde, S.T. Sweet, A.G. Klein, P.A. Montagna, J.L. Sericano, T.L. Wade and M.C. Kennicutt II "Long-term Environmental Monitoring of the Marine Communities at McMurdo Station" XXXII Scientific Committee on Antarctic Research Open Science Conference, Portland, OR, July 2012.
- Palmer, T.A. "Underwater Environmental Research at McMurdo Station, Antarctica" TAMUCC SCUBA Club, Corpus Christi, TX, February 2012.
- Palmer, T.A. "Underwater Environmental Research at McMurdo Station, Antarctica" Mission-Aransas NERR Bay Education Center, Rockport, TX, February 2012.
- Palmer, T.A. "Island to Ice Education and Outreach Project" Papamoa School, Bay of Plenty, New Zealand, December 2004 to 2011 (annually).
- Palmer, T.A. "Science in Antarctica" filmed 4 Nov 2011, KORO Television, Corpus Christi, TX.
- Klein, A., S. Sweet, and T. Palmer. "Environmental Monitoring at McMurdo Station, Antarctica" O. Henry Middle School, Austin, TX, 19 October 2011.
- Palmer T.A. "Island to Ice Education and Outreach Project" Martin Middle School, Corpus Christi, TX, 22 October 2010.
- Pollack, J.B., Palmer, T.A. and P.A. Montagna. Benthic response to climate variability in the Lavaca-Colorado Estuary, Texas, USA. Benthic Ecology Meeting, Mobile, AL, March 2011.
- *Palmer, T.A., P.A. Montagna, L.J. Hyde, S.T. Sweet, J. Sericano, T.L. Wade, A.G. Klein and M.C. Kennicutt. "Long-term Environmental Monitoring of Marine Communities Adjacent to McMurdo Station, Antarctica" XXXI Scientific Committee on Antarctic Research Open Science Conference, Buenos Aires, Argentina, August 2010. **Awarded best presentation in session*
- Palmer, T.A., P.A. Montagna, M.C. Kennicutt, L.J. Hyde, S.T. Sweet, T.L. Wade and A.G. Klein. "Long-term Environmental Monitoring of the Macrobenthic Communities at McMurdo Station, Antarctica" Benthic Ecology Meeting, Wilmington, North Carolina, USA, 10-13 March 2010.
- Palmer, T.A., J.B. Pollack and P.A. Montagna. "Determining Relationships Between Macrofauna Communities and Freshwater Inflow in St. Johns Estuary, Florida, for Freshwater Management. 38th Annual Benthic Ecology Meeting, Corpus Christi, TX, 4-7 March 2009.
- Palmer, T.A., Pollack, J.B., and P.A. Montagna. "Effect of Freshwater Inflow on Macrobenthos Productivity in Minor Bay and River-Dominated Estuaries" Benthic Ecology Meeting 2008, Providence, RI, 10-12 April, 2008.
- Palmer, T.A., P.A. Montagna, S.T. Sweet, T.L. Wade, G.J. Denoux, J.L. Sericano, A.G. Klein, S. Morehead, L.J. Hyde, A.M. Gossman, M.C. Kennicutt. "Long-term Observations of Marine Communities Adjacent to McMurdo station, Antarctica" Scientific Committee on Antarctic Research Open Science Conference, St. Petersburg, Russia, 8-11 July 2008.
- Palmer, T.A., P.A. Montagna, R.D. Kalke and A. Gossman. "Characterization of Benthic Habitats in Proximity to the Lower Colorado River, Texas" Benthic Ecology Meeting Atlanta, GA, 21-24 March 2007.
- Montagna, P.A. and T.A. Palmer. "Benthic Community Monitoring in the Mollie Beattie Coastal Habitat Community" City of Corpus Christi, Texas, 17 Oct 2006.
- Palmer, T.A., P.A. Montagna and R.D. Kalke. "Initial Impact of Reopening an Historic Tidal Pass on Estuarine Macrofauna in Corpus Christi Bay, Texas" Quebec City, Canada, 8-12 March 2006.

- Palmer, T.A., P.A. Montagna and R.D. Kalke. "Impact of a New Tidal Pass on Estuarine Benthic Macrofauna in Corpus Christi Bay, Texas" Texas Bays and Estuaries Meeting, Port Aransas, TX, April 2005.
- Palmer, T.A., P.A. Montagna and R.D. Kalke. "Impact of a New Tidal Pass on Estuarine Benthic Macrofauna in Corpus Christi Bay, Texas" Annual Benthic Ecology Meeting, Williamsburg, VA, April 2005.
- Morehead, S. and T.A. Palmer "Island to Ice Education and Outreach Project" Port Aransas Schools (High School and Elementary School), Port Aransas, TX, October 2004.