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EDUCATION

- 2012 **Doctor of Philosophy** in Marine Science/ Biological Oceanography, University of South Florida
Dissertation Title: A CTD Biotag for Mid-sized Marine Predators
- 2005 **Master of Science** in Marine Science, University of South Florida
Thesis Title: Development of a CTD System for Environmental Measurements Using Novel PCB MEMS Fabrication Techniques

PUBLICATIONS

Daly, K, Remsen, A, Outram, D, **Broadbent, H**, Kramer, K, 2020. Resilience of the Zooplankton Community During and After the Deepwater Horizon Oil Spill. Accepted to Marine Pollution Bulletin.

Broadbent, H.A., Grasty, Hardy, Lamont, Hart, Lembke, Brizzolarla, Murawski, 2020. West Florida Shelf pipeline serves as sea turtle benthic habitat based on *in situ* towed camera observations. *Aquatic Biology*, Vol. 29: 17-31, 2020.

Lembke, C., Grasty, S., Silverman, A., **Broadbent, H.**, Butcher, S. and Murawski, S., 2017. The Camera-Based Assessment Survey System (C-BASS): A towed camera platform for reef fish abundance surveys and benthic habitat characterization in the Gulf of Mexico. *Continental Shelf Research*, 151, pp.62-71.

Broadbent, H.A., Ketterl, T.P., Silverman, A.M. and Torres, J.J., 2013. Development of a CTD biotag: Challenges and pitfalls. *Deep Sea Research Part II: Topical Studies in Oceanography*, 88, pp.131-136.

Broadbent, H.A., 2012. A CTD biotag for mid-sized marine predators. Doctoral Dissertation, University of South Florida, Scholar Commons.

Broadbent, H.A., Ketterl, T.P. and Reid, C.S., 2010. A miniature rigid/flex salinity measurement device fabricated using printed circuit processing techniques. *Journal of Micromechanics and Microengineering*, 20(8), p.085008.

Broadbent, H.A., Ketterl, T.P., Reid, C.S. and Dlutowski, J., 2010, September. A low-cost, miniature CTD for animal-borne ocean measurements. In *OCEANS 2010* (pp. 1-7). IEEE.

Fries, D.P., Ivanov, S.Z., **Broadbent, H.**, Smith, M., Steimle, G. and Willoughby, R., 2010. PCBMEMS as a Flexible Path to Devices and Systems across Spatial Scales. *Additional Papers and Presentations, 2010(DPC)*, pp.000599-000642.

Broadbent, H.A., Ivanov, S.Z. and Fries, D.P., 2007. Fabrication of a LCP-based conductivity cell and resistive temperature device via PCB MEMS technology. *Journal of Micromechanics and Microengineering*, 17(4), p.722-729.

Broadbent, H.A., Ivanov, S.Z. and Fries, D.P., 2007, June. PCB-MEMS environmental sensors in the field. In *Industrial Electronics, 2007. ISIE 2007. IEEE International Symposium on* (pp. 3282-3286). IEEE.

Broadbent, H.A., Ivanov, S.Z. and Fries, D.P., 2007. A miniature, low cost CTD system for coastal salinity measurements. *Measurement Science and Technology*, 18(11), p.3295.

Fries, D.P., Ivanov, S.Z., Bhanushali, P.H., Wilson, J.A., **Broadbent, H.A.** and Sanderson, A.C., 2007. Broadband, low-cost, coastal sensor nets. *Oceanography*, 20(4), pp.150-155.

H. A. Broadbent, S. Ivanov, D. Fries. "Miniature low-cost CTD biogger for environmental measurements." Poster presentation at 3rd International Biologging Science Symposium, Pacific Grove, CA, September 1-5th, 2008.

H. A. Broadbent, S. Ivanov, D. Fries. "PCBMEMS Environmental Sensors in the Field." Oral presentation at 2007 IEEE International Symposium on Industrial Electronics (ISIE2007), Vigo Spain, June 4-7, 2007.

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