

Curriculum Vitae

Brian B Barnes

Address

College of Marine Science, University of South Florida
140 Seventh Avenue South, St. Petersburg, FL 33701
Phone: (727) 553-1111; bbarnes4@usf.edu; <https://optics.marine.usf.edu>

Professional Preparation

Ph.D., Marine Science, 2013, College of Marine Science (CMS), University of South Florida (USF), St. Petersburg, FL
M.S., Marine Science, 2009, Virginia Institute of Marine Science (VIMS), College of William and Mary, Gloucester Point, VA
B.S., Zoology & Psychology, 2004, University of Florida, Gainesville, FL

Professional Appointments

8/2022-present Assistant Research Professor, University of South Florida

[2]

- [16] *ET Smith, CC Lee, **BB Barnes**, RE Adams, DE Pirhalla, V Ransibrahmanakul, C Hu, SC Sheridan (2020) A synoptic climatological analysis of the atmospheric drivers of water clarity variability in the Great Lakes. *J Appl. Meteorol. Climatol.* **59**:915-935*
- [17] **BB Barnes**, C Hu, SW Bailey, BA Franz (2020) Sensitivity of Satellite Ocean Color Data to System Vicarious Calibration. *J Appl. Meteorol. Climatol.* **59**:915-935. doi:10.1175/JAPC-D-19-0111.1

- [43] C Hu, **BB Barnes**, L Qi, AA Corcoran (2015) A harmful algal bloom of *Karenia brevis* in the Northeastern Gulf of Mexico as revealed by MODIS and VIIRS: A comparison. *Sensors*. **15**:2873-2887
- [44] **BB Barnes** and C Hu (2015) Cross-sensor continuity of satellite derived water clarity in the Gulf of Mexico: insights into temporal aliasing and implications for long-term water clarity assessment. *IEEE Trans. Geosci. Remote Sens.* **53**:1761-1772
- [45] D Sun, C Hu, Z Qiu, JP Cannizzaro, **BB Barnes** (2014) Influence of a red band-based water classification approach on chlorophyll algorithms for optically complex estuaries. *Remote Sens. Environ.* **155**:289-302
- [46] L Qi, C Hu, H Duan, **BB Barnes**, R Ma (2014) An EOF-based algorithm to estimate chlorophyll a concentrations in Taihu Lake from MODIS land-band measurements: Implications for near real-time applications and forecasting models. *Remote Sens.* **6**:10694-10715
- [47] CC Wall, P Simard, M Lindemuth, C Lembke, DF Naar, C Hu, **BB Barnes**, FE Muller-Karger, DA Mann (2014) Temporal and spatial mapping of red grouper *Epinephelus morio* sound production. *J. Fish Biol.* **85**:1469-1487
- [48] **BB Barnes**, C Hu, J Cannizzaro, S Craig, P Hallock, D Jones, N Melo, R Zepp (2014) Estimation of diffuse attenuation of ultraviolet light in optically shallow Florida Keys waters from MODIS measurements. *Remote Sens. Environ.* **140**:519-532.
- [49] **BB Barnes**, C Hu, K Holecamp, S Blonski, BA Speiring, DA Palandro, BE Lapointe (2014) Use of Landsat data to track histor
ZParo

[56] **BB Barnes**, MW Luckenbach, PR Kingsley-Smith (2010) Oyster Reef

- [16] PI (EPA) Assessment of baseline turbidity condition in the Port Everglades region from satellite data (\$23,657) 10/1/2016 – 9/30/2019
- [17] Institutional PI/Co-I (NASA) The development of a water clarity index for the Great Lakes as a climate indicator (\$565,023; BB Barnes's portion: \$179,443) 5/1/2016 – 4/30/2019
- [18] Participant (USGS) Local-scale ecosystem resilience amid global-scale ocean change: the coral reef example. USGS Powell Center Working Group

Teaching experience

Spring 2016: Adjunct Professor – BSC2011 Biology 2: Biological Diversity Lecture (undergraduate level). 48 Students, 4.74/5.00 overall instructor rating

Spring 2012: Teaching Assistant – Marine Resource Remote Sensing (graduate level, 4.743 (e 1)0.7 d-7 (

- BB Barnes** (Invited Lecture) “Satellite remote sensing and optical oceanography” NASA Webinar Series. Presented virtually. 30 June 2020.
- BB Barnes, C Hu, R Garcia** (Oral Presentation) Spectral matching inversion algorithms for PACE application in optically shallow waters: an assessment using HICO and PRISM data NASA PACE Science Team Meeting. Presented virtually. 2 June 2020
- BB Barnes, C Hu, SW Bailey, N Pahlevan, BA Franz** (Oral Presentation) “Cross-calibration of MODIS and VIIRS long near infrared bands” 2020 Ocean Sciences Meeting, San Diego, CA. 17 February 2020.
- BB Barnes** (Invited Lecture) “Turbidity plume monitoring using satellite data” Nanjing University, Nanjing, China. 14 April 2019.
- BB Barnes, C Hu, SW Bailey, BA Franz** (Poster presentation) “Vicarious calibration of the near infrared band for satellite ocean color sensors” International Ocean Colour Science Meeting 2019, Busan, South Korea. 10 April 2019.
- BB Barnes, RA Garcia, C Hu, Z Lee** (Oral presentation) “A novel multi-band spectral matching inversion algorithm to derive water column properties in optically shallow waters” 2018 Ocean Sciences Meeting, Portland, OR. 15 February 2018.
- BB Barnes** (Oral Presentation) “Sediment plume monitoring using satellite data,” US Coral Reef Task Force Meeting, Fort Lauderdale, FL. 8 August 2017
- BB Barnes** (Oral Presentation) “Sediment plumes resulting from the Port of Miami dredging: Analysis and interpretation using satellite data and long term monitoring programs,” National Marine Fisheries Service, Southeast Region, Habitat Conservation Division annual meeting. 14 July 2016.
- BB Barnes** (Oral Presentation) “Observing sediment plumes from satellite data” Southeast Florida Coral Reef Initiative, Technical Advisory Council meeting, Dania Beach, FL. 27 April 2016.
- BB Barnes, C Hu, C Kovach, R Silverstein** (Oral Presentation) “

- Data,” Florida Keys National Marine Sanctuary Water Quality Protection Program meeting. Key Colony Beach, FL. 26 September 2012.
- BB Barnes** (Oral Presentation) “Marine Science Research,” Great American Teach-in, Bloomingdale Senior High School, Brandon, FL. 17 November 2011.
- BB Barnes**, C Hu, D Palandro, J Lehrter, N Melo, B Schaeffer, J Cannizzaro, D English (Oral Presentation) “Light attenuation and optics in the Florida Keys,” NASA grant Principal Investigators Meeting. Pensacola, FL. 3 November 2011.
- BB Barnes** (Oral Presentation) “Remote sensing applications in the Florida Keys region,” NASA grant Principal Investigators Meeting. Pensacola, FL. 3 November 2011.
- BB Barnes**. (Oral Presentation) “Synoptic Assessment of Water Quality in the Florida Keys: Improving SST Products During Cold Events,” USF Graduate Student Symposium. January 2011.
- BB Barnes**, C Hu, and F Muller-Karger. (Poster Presentation) “An improved high-resolution sea surface temperature climatology to assess cold events in the Florida Keys,” *Linking Science to Management: A Conference and Workshop on the Florida Keys Marine Ecosystem*. Duck Key, Florida, USA. October 2010.
- BB Barnes**, MW Luckenbach, and PR Kingsley-Smith. (Oral Presentation) “Ecological considerations for oyster restoration: interactions between oyster larvae and reef-associated fauna,” *11th International Conference on Shellfish Restoration*. Charleston, South Carolina, USA. November 2008.
- BB Barnes**, MW Luckenbach, and PR Kingsley-Smith. (Oral Presentation) “Interspecific interactions in oyster reef communities: the effect of established epifauna on oyster larval recruitment,” *100th Annual National Shellfisheries Association Meeting*. Providence, Rhode Island, USA. April 2008.
- BB Barnes**. (Oral Presentation) “The effect of established epifauna on oyster larval recruitment,” VIMS Departmental Seminar. March 2008.
- BB Barnes**. (Oral Presentation) “Fouling organisms and oyster larval settlement,” VIMS Departmental Seminar. April 2007.