

Daniel Robert Dye
4015 Cypress Willow Ct. Tampa, FL 33614
813.205.6050
ddye@mail.usf.edu

Profile

Solid background in remote sensing, scientific programming, geographic information systems, spatial data visualization and analysis. Led or Assisted several successful programming and research projects. Experienced in collection, processing, storage, and distribution of large datasets. Skilled in multiple programming languages and computational environments.

Education

M.Sc. Geography University of South Florida	<i>(Expected)</i> <i>Spring 2006</i>
Graduate Certificate in Geographic Information Systems University of South Florida	<i>Spring 2005</i>
B.Sc. Management of Information Systems University of South Florida	<i>May 2003</i>

Career History

University of South Florida, Tampa, Florida <i>Graduate Teaching Assistant</i> <ul style="list-style-type: none">• Teaching assistant for Introduction to Remote Sensing• Instructor for Laboratory using RSI's ENVI• Laboratory Assistant for multiple sections of GIS	<i>August 2005 – Present</i>
Florida Environmental Research Institute, Tampa, Florida <i>Research Assistant</i> <ul style="list-style-type: none">• Designed analysis programs for the characterization and calibration of a hyperspectral ocean remote sensing instrument, the PHILLS2.• Co-designed and programmed a Genetic Algorithm to solve for stray-light within the Instrument.• Deployed the instrument onboard NOAA's Cessna Citation.• Prototyped direct parametric orthorectification of pushbroom scanner imagery using Trimble's POSpac software and ReSe's PARGE• Designed and programmed validation for EcoSim2 using satellite data (SeaWiFS) as ground truth.• Processed raw satellite data into georectified products using Naval Research Laboratory's Automated Processing System (APS) and the SeaWiFS Data Analysis System (SeaDAS).• Designed and programmed a web-based data selection, processing, and distribution application for hyperspectral data (HyDRO).• Performed Scientific Visualization and statistical analysis for an ecological model (EcoSim2).	<i>April 2001- June 2005</i>

Career History (continued)

June 2000-
April 2001

University of South Florida, Tampa, Florida

Digital Technician, Visual Resource Library

- Aided in transition from slide-based to digital imagery in library's fine arts database
- Designed web-based front-end for relational database
- Designed web-pages for faculty and library
- Scanned and digitally touched-up high resolution imagery for digital archive
- Assisted students and faculty in library

Publications

Refereed

- Bissett, W. P., Arnone R., DeBra S., Deterlie D., **Dye D. R.**, Kirkpatrick G. J., Schofield, O. M., G. A. Vargo, 2005. Predicting the optical properties of the West Florida Shelf: resolving the potential impacts of a terrestrial boundary condition on the distribution of colored dissolved and particulate matter. *Marine Chemistry*, 95: 199-233.
- Bissett, W.P., Arnone, R., Davis, C.O., Dickey, T., **Dye, D.**, Kohler, D.D.R. and Gould, R., 2004. From meters to kilometers- a look at ocean color scales of variability, spatial coherence, and the need for fine scale remote sensing in coastal ocean optics. *Oceanography*, 17(2): 32-43.

Book Chapters

- Bissett, W.P., Arnone, R., DeBra, S., Dye, D., Kirkpatrick, G., Mobley, C., and Schofield, O.M. (2003). The Integration Of Ocean Color Remote Sensing With Coastal Nowcast/Forecast Simulations Of Harmful Algal Blooms (HABs). UNESCO Monographs on Oceanographic Methodology- Manual on Harmful Marine Microalgae, UNESCO (submitted).

Un-refereed Publications and Presentations

- Bissett, W.P., **Dye, D.**, DeBra, S. and Kohler, D.D.R., 2004. On The Spatial And Spectral Requirements To Effectively Resolve The Coastal Ocean Environment, Third GOES-R User Conference, Boulder, Colorado.
- Bissett, W.P., Kohler, D.D.R., Kirkpatrick, G., Moline, M.A., Schofield, O.M., **Dye, D.R.**, Steward, R.G., Kadiwala, M. and Frick, A., 2004. The Integration of Airborne, Satellite, and AUV Technologies for the Near Real Time Analysis of the Coastal Environment., ORION: Ocean Research Interactive Observatory Networks, San Juan, Puerto Rico.
- Bissett, W.P., Bowles, J.H., Davis, C.O., **Dye, D.R.**, Kohler, D.D.R., Montes, M.J.J. and Steward, R. 2002. Windmills and Stray Light: A Quixotic Quest for Radiometric Calibration of an Airbourne Imaging Spectrometer, Ocean Optics XVI, Santa Fe, New Mexico.
- Kohler, D., Bissett, W. P., Davis, C. O., Bowles, J., **Dye, D.R.**, Steward, R., Britt, J., Montes, M., Schofield, O., and Moline, M. 2002. High Resolution Hyperspectral Remote Sensing Over Oceanographic Scales at the LEO 15 Field Site, Ocean Optics XVI, Santa Fe, New Mexico.
- Kohler, D. D., Bissett, W., Davis, C. O., Bowles, J., **Dye, D.**, Britt, J., Bailey, J., Steward, R., Schofield, O. M., Moline, M., Glenn, S., and Orrico, C. 2002. Characterization and Calibration of a Hyperspectral Coastal Ocean Remote Sensing Instrument, AGU/ASLO Ocean Sciences Meeting. Honolulu, Hawaii.

Professional Affiliations and Fellowships

- Recommended for Fulbright Grant to study at Helsinki University of Technology's school of Cartography and Geoinformatics (2005)
- Member American Society of Photogrammetry and Remote Sensing (2005)
- Member Alliance for Marine Remote Sensing (2004)
- Member American Geophysical Union (2005)
- Member Management of Information Systems Society at University of South Florida (2000)
- Member International Society for Optical Engineering (2005)
- Member Optical Society of America (2005)
- Member Association of American Geographers (2005)