

Christine M. Hladik
CURRICULUM VITAE

CONTACT INFORMATION

Geology and Geography
Georgia Southern University
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EDUCATIONAL BACKGROUND

- 2012 **Doctor of Philosophy**
University of Georgia, Department of Marine Sciences
Thesis Title: Use of Remote Sensing Data for Evaluating Elevation and Plant Distribution in a Southeastern Salt Marsh
Research Areas: Remote sensing, salt marsh ecology
Adviser: Dr. Merryl Alber
- 2004 **Master of Science**
Creighton University, Department of Atmospheric Science
Thesis Title: Close Range Hyperspectral Remote Sensing of Southeastern Estuaries and an Evaluation of Phytoplankton Chlorophyll a Predictive Algorithms
Research Areas: Remote sensing, estuarine ecology, water quality
Adviser: Dr. John Schalles
- 2002 **Bachelor of Science, *magna cum laude***
Creighton University, Department of Environmental Science

PROFESSIONAL EXPERIENCE

- 08/2013 – Present **Assistant Professor of Geography**
Georgia Southern University, Department of Geology and Geography
- 08/2012 – 07/2013 **Postdoctoral Research Associate**
University of Georgia, Department of Marine Sciences
- 06/2007 – 08/2012 **Graduate Research Assistant**
University of Georgia, Department of Marine Sciences
- 08/2006-05/2007 **Graduate Teaching Assistant**
University of Georgia, Biological Sciences, Athens, GA

11/2004-07/2006 **Geospatial Analyst**
Florida A&M University, Environmental Cooperative Science
Center, Tallahassee, FL

08/2002 – 08/2004 **Graduate Teaching Assistant**
Creighton University, Department of Environmental and
Atmospheric Sciences, Omaha, NE

RESEARCH GOALS

- Examine the spatial and temporal patterns of coastal habitats using remote sensing data (hyperspectral, satellite, LIDAR) and relate observed patterns to edaphic, hydrologic, geomorphic and climatic conditions.
- Develop robust techniques to assess and monitor wetlands and adjacent upland habitats.
- Integrate remote sensing data into mechanistic biogeochemical and geomorphic models.
- Understand, model and predict the effects that climate change will have on coastal habitats.
- Improve communication between scientists and other stakeholders with regards to environmental management of coastal resources.

GRANTS

2013 Georgia Coastal Management Program Coastal Incentive Grant. High-resolution mapping of vegetation, elevation, salinity and bathymetry to advance coastal habitat management in Georgia, 2 years.

TEACHING EXPERIENCE

2013	Instructor	Georgia Southern University Remote Sensing Lecture Remote Sensing Laboratory
2007	Teaching Assistant	University of Georgia Honors Organismal Biology Laboratory
2006	Teaching Assistant	University of Georgia Organismal Biology Laboratory
2002-2004	Teaching Assistant	Creighton University Marine Ecology Laboratory
2002-2004	Teaching Assistant	Creighton University Environmental Geology Laboratory

STUDENT SUPERVISION

- 2013 Advisor for M.S. student, Zane Cress.
2006-2010 Supervised and trained undergraduates in field and lab techniques at the University of Georgia Marine Institute while conducting field work on Sapelo Island, GA during summer semesters.

PUBLICATIONS (PEER REVIEWED)

- 2013 **Hladik, C.M.** and M. Alber. Classification of salt marsh vegetation using edaphic and remote sensing-derived variables. *Estuarine, Coastal, and Shelf Science*. In Review.
- Hladik, C.M.**, M. Alber and J.F. Schalles. Salt marsh elevation and habitat mapping using hyperspectral and LIDAR data. *Remote Sensing of Environment*, 139, 318-330, doi: 10.1016/j.rse.2013.08.003.
- Schalles, J.F., **C.M. Hladik**, A.A. Lynes, S.C. Pennings. Landscape estimates of habitat types, plant biomass, and invertebrate densities in a Georgia salt marsh. *Oceanography*, 26, 85–87, doi: 10.5670/oceanog.2013.49
- 2012 **Hladik, C.** and M. Alber. Accuracy assessment and correction of a LIDAR-derived salt marsh digital elevation model. *Remote Sensing of Environment*, 121, 224-235, doi: 10.1016/j.rse.2012.01.018.
- Schalles, J.F. and **C.M. Hladik**. Mapping phytoplankton chlorophyll in turbid, Case 2 estuarine and coastal waters. Special Issue: VIS-NIR Spectroscopy in Plant Sciences. *Israel Journal of Plant Sciences*, 60:1-2, 169-191, doi: 10.1560/IJPS.60.1-2.169.
- 2010 Wang, H., **C.M. Hladik**, H. Wuang, K. Milla, L. Edmiston, M. Harwell and J. Schalles. Detecting the spatial and temporal variability of chlorophyll-a concentration and total suspended solids in Apalachicola Bay, Florida using MODIS imagery. *International Journal of Remote Sensing*, 31, 439-453, doi: 10.1080/01431160902893485.
- 2007 Gitelson, A.A., J.F. Schalles and **C.M. Hladik**. Remote chlorophyll-a retrieval in turbid, productive estuarine waters: Chesapeake Bay Case Study. *Remote Sensing of the Environment*, 109, 464-472, doi:10.1016/j.rse.2007.01.016.

CONFERENCE PRESENTATIONS

- 2012 **Hladik, C.M.** and M. Alber. Classification of salt marsh vegetation using edaphic and remote sensing-derived variables. *LTER All Scientists Meeting*. Estes Park, Colorado, poster presentation.
- Schalles, J.F., J. Olley, J. O'Donnell and **C. Hladik**. Assessing chlorophyll patterns in tidal tributary streams and rivers in estuary to near shore transition zones. *IEEE International Geoscience and Remote Sensing Symposium*. Munich, Germany, oral presentation and extended abstract.
- 2011 **Hladik, C.M.**, M. Alber and J.F. Schalles. Fusing hyperspectral airborne imagery and LIDAR-derived digital elevation models for the correction of salt marsh elevations. *Coastal and Estuarine Research Federation Meeting*. Daytona Beach, Florida, poster presentation.
- Hladik, C.M.** and M. Alber. Assessment of salt marsh LIDAR errors and digital elevation model correction. *Southeastern Estuarine Research Federation Meeting*. Athens, Georgia, oral presentation.
- 2009 **Hladik, C.M.** and M. Alber. Salt marsh habitat mapping on Sapelo Island, GA using LIDAR and hyperspectral imagery. *Coastal and Estuarine Research Federation Meeting*. Portland, Oregon, poster presentation.
- Hladik, C.M.** and M. Alber. Understanding plant distributions surrounding marsh hammocks within the Georgia Coastal Ecosystems LTER. *LTER All Scientists Meeting*. Estes Park, Colorado, poster presentation.
- 2007 Schalles, J.F., **C.M. Hladik**, M. Volkmer and F. Saucedo. Geospatial mapping of species and biomass in Georgia salt marshes using AISA airborne hyperspectral imagery. *Coastal and Estuarine Research Federation Meeting*. Providence, Rhode Island, poster presentation.
- 2006 **Hladik, C.M.** and K. Milla. Use of remotely sensed imagery for coastal management: A guide for coastal decision makers. *The Coastal Society Meeting*. St. Pete Beach, Florida, oral presentation.
- Hladik, C.M.** and J.F. Schalles. Chlorophyll algorithms for hyperspectral remote sensing and mapping of coastal waters. *Fourth Annual NOAA-CREST Symposium*. Mayaguez, Puerto Rico, oral presentation.
- Hladik, C.M.** and J.F. Schalles. Developing and applying chlorophyll algorithms for hyperspectral remote sensing of coastal waters. *American Society of Limnology and Oceanography Summer Meeting*. Victoria, BC, oral presentation.

- Schalles, J.F., **C.M. Hladik**, L. Whitehurst and P. Merani. Hyperspectral imaging of wetlands and estuarine waters of National Estuarine Research Reserves in the Southeastern and Mid-Atlantic Regions of the United States. *Ocean Optics XVIII Conference*. Montreal, Canada, extended abstract and oral presentation.
- 2005 **Hladik, C.M.** and J.F. Schalles. Remote assessment of chlorophyll patterns in estuarine and coastal waters. *Ecological Society of America Annual Meeting*. Montreal, Canada, oral presentation.
- 2004 **Hladik, C.M.** and J.F. Schalles. Airborne hyperspectral imagery to assess marsh and seagrass vegetation, water quality, and invasive plant species in coastal ecosystems. *International Marine Environmental Modeling Seminar*. Washington, D.C., oral presentation.
- Hladik, C.M.** and Schalles, J.F., 2004. Remote chlorophyll estimation in coastal waters with tripton and CDOM interferences. *CREST-Educational Partnership Program Meeting*. New York, New York, oral presentation.
- Hladik, C.M.** and J.F. Schalles. Remote chlorophyll estimation in coastal waters with tripton and CDOM interferences. *Ocean Optics XVII Conference*. Fremantle, Australia, oral and poster presentation.
- Hladik, C.M.** and J.F. Schalles. An improved algorithm for the remote estimation of chlorophyll in optically complex coastal waters. *American Society of Limnology and Oceanography Summer Meeting*. Savannah, Georgia, poster presentation.
- Hladik, C.M.** and J.F. Schalles. An improved algorithm for the remote estimation of chlorophyll in optically complex coastal waters. *Nebraska Academy of Science Annual Meeting*. Lincoln, Nebraska, oral presentation.
- 2003 **Hladik, C.M.** and J.F. Schalles. Phytoplankton signals in the Southeastern estuaries: Calibration of airborne imagery with close range measures. *Ecological Society of America Annual Meeting*. Savanna, Georgia, poster presentation.
- Hladik, C.M.** and J.F. Schalles, 2003. Winter bio-optical conditions in the estuarine mixing zones of three coastal Georgia rivers. *Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, oral presentation.

OTHER PRESENTATIONS

- 2012 **Hladik, C.M.** Mapping marsh vegetation and elevation. *Invited Talk*, Georgia Coastal Advisory Council, *St. Simons Island, GA*, oral presentation.
- Hladik, C.M.** and M. Alber. Classification of salt marsh vegetation using edaphic and remote sensing-derived variables. *Invited Lecture*, ECOL 8330 *Landscape Ecology*, *University of Georgia*, oral presentation.
- 2009 **Hladik, C.M.** and M. Alber. Understanding plant distributions surrounding marsh hammocks. *Departmental Seminar*, *Department of Marine Sciences*, *University of Georgia*, oral presentation.

OTHER ACTIVITIES

Professional Development

- 2013 Summer Workshop for Faculty in the College of Science & Mathematics. *Designing Courses for Significant Learning: How to Excel at Teaching and Learning*, July 8 – August 1, 2013, Georgia Southern University, Statesboro, GA.
- COSEE Southeast Research Educator Exchange Forum Workshop, March 14-15, University of Georgia, Athens, GA.

Scientific Service

- 2012-present Reviewer, *Remote Sensing*
 Reviewer, *Remote Sensing of Environment*
 Reviewer, *Estuarine, Coastal and Shelf Science*
 Reviewer, *Earth Science Informatics*
- 2011 Reviewer, *Wetlands*

AFFILIATIONS

Coastal and Estuarine Research Federation
Southeastern Estuarine Research Society