

Peter Whitman
peterjosephwhitman@gmail.com
(919) 593-8917

EDUCATION

University of British Columbia	Vancouver, BC
M.Sc. Geography	08/2019
Supervisor: Dr. Brian Klinkenberg	
Thesis: An exploration of computational methods for classifying sediment patches within archived aerial photographs of gravel-bed rivers	

Carthage College	Kenosha, WI
B.A. Geoscience, Geographic Information Science, Environmental Science	05/2017

RESEARCH EXPERIENCE

U.S. Environmental Protection Agency	Raleigh, NC
ORISE Post-Master's Research Fellow	09/2019 – 09/2022

University of British Columbia	Vancouver, BC
Graduate Research Assistant	05/2018 – 08/2019

Carthage College	Kenosha, WI
Undergraduate Research Assistant	01/2017 – 05/2017

Round River Conservation	Salt Lake City, UT
Student Researcher	09/2015 – 12/2015

PROFESSIONAL EXPERIENCE

Carthage College	Kenosha, WI
Student Manager	09/2016 – 05/2017

City of Edina	Edina, MN
Geographic Information Systems Intern	06/2016 – 08/2016

Minnesota Department of Natural Resources	Saint Paul, MN
Invasive Species Program Intern	06/2015 – 09/2015

City of Saint Paul	Saint Paul, MN
Urban Forestry Intern	06/2014 – 08/2014

TEACHING EXPERIENCE

University of British Columbia

Graduate Teaching Assistant

Introduction to Remote Sensing (GEOB 373)

Advanced Geographic Information Science (GEOB 370)

Introduction to Geographic Information Science (GEOB 270)

Vancouver, BC

09/2017 – 08/2019

Carthage College

Undergraduate Teaching Assistant

Introduction to Geographic Information Science (GEO 1610)

Kenosha, WI

09/2016 – 05/2017

HONORS & AWARDS

U.S. Environmental Protection Agency

Rising Star Award

Raleigh, NC

2022

University of British Columbia

Outstanding Teaching Assistant Award

Faculty of Arts Graduate Student Award

International Tuition Award

Vancouver, BC

2019

2017 – 2019

2017 – 2019

Government of Canada, Social Sciences and Humanities Research Council

Explore Grant

Ottawa, ON

2018

Carthage College

Carthage College Distinguished Senior, Nominee

Environmental Science Department Distinguished Senior

Geospatial Science Department Distinguished Senior

Dean's List

Robert Todd Scholarship

Kenosha, WI

2017

2017

2017

2013 – 2017

2013 – 2017

SERVICE

University of British Columbia

Curriculum Development

GIS & Geographical Computation Minor

Peer Mentor

Vancouver, BC

09/2018 – 05/2019

09/2018 – 05/2019

Carthage College

Environmental Science Department Student Ambassador

Kenosha, WI

09/2016 – 05/2017

PUBLICATIONS

- Coffer, M., Schaeffer, B., Zimmerman, R., Hill, V., Li, J., Islam, K., & **Whitman, P.** (2020). Performance across WorldView-2 and RapidEye for reproducible seagrass mapping. *Remote Sensing of Environment*. DOI: 10.1016/j.rse.2020.112036.
- Coffer, M., **Whitman, P.**, Schaeffer, B., Hill, V., Zimmerman, R., Salls, W., Lebrasse, M., & Graybill, D. (2022). Vertical artifacts in high-resolution WorldView-2 and WorldView-3 satellite imagery of aquatic systems. *International Journal of Remote Sensing*. DOI: 10.1080/01431161.2022.2030069.
- Coffer, M., Graybill, D., **Whitman, P.**, Schaeffer, B., Salls, W., Zimmerman, R., Hill, V., Lebrasse, M., Li, J., Islam, K., & Keith, D. (2023). Providing a management framework for seagrass mapping in United States coastal ecosystems using high spatial resolution satellite imagery. *Journal of Environmental Management*. DOI: 10.1016/j.jenvman.2023.117669.
- Lebrasse, M., Schaeffer, B., Coffer, M., **Whitman, P.**, Zimmerman, R., Hill, V., Islam, K., Li, J., & Osburn, C. (2022). Temporal Stability of Seagrass Extent, Leaf Area, and Carbon Storage in St. Joseph Bay, Florida: a Semi-automated Remote Sensing Analysis. *Estuaries and Coasts*. DOI: 10.1007/s12237-022-01050-4.
- Lebrasse, M., Schaeffer, B., Zimmerman, R., Hill, V., Coffer, M., **Whitman, P.**, Salls, W., Graybill, D., & Osburn, C. (2022). Simulated response of St. Joseph Bay, FL seagrass meadows and blue carbon to anthropogenic and climate impacts. *Marine Environmental Research*. DOI: 10.1016/j.marenvres.2022.105694
- Lebrasse, M., Schaeffer, B., Bohnenstiehl, D., Osburn, C., He, R., Coffer, M., **Whitman, P.**, Salls, W., & Graybill, D. (*In review*). Assessment of dissolved organic carbon flux in a North Carolina tidal marsh. *Earth Science Reviews*.
- Schaeffer, B., **Whitman, P.**, Conmy, R., Salls, W., Coffer, M., Graybill, D. & Lebrasse, M., (2022). Potential for commercial PlanetScope satellites in oil response monitoring. *Marine Pollution Bulletin*. DOI: 10.1016/j.marpolbul.2022.114077
- Schaeffer, B., **Whitman, P.**, Conmy, R., Vandermeulen, R., Chuanmin, H., Mannino, A., & Salisbury, J. (2023). Assessing potential of the Geostationary Littoral Imaging and Monitoring Radiometer (GLIMR) for water quality monitoring across the coastal United States. *Marine Pollution Bulletin*.
- Whitman, P.**, Schaeffer, B., Salls, W., Coffer, M., Mishra, S., Seegers, B., Loftin, K., Stumpf, R., & Werdell, J. (2022). A validation of satellite derived cyanobacteria detections with state reported events and recreation advisories across U.S. lakes. *Harmful Algae*. DOI: 10.1016/j.hal.2022.102191.

TECHNICAL REPORTS

- Landry, B., Tango, P., Bisland, C., Coffer, M., Dennison, B., Hill, V., Lebrasse, C., Li, J., Orth, R., Patrick, C., Schaeffer, B., **Whitman, P.**, Wilcox, D., & Zimmerman, R. (2021). Exploring Satellite Image Integration for the Chesapeake Bay SAV Monitoring Program – A STAC Workshop. STAC Publication Number 21-001. Edgewater, MD.

SELECTED PRESENTATIONS

Cyanobacteria assessment network (July 2021). *U.S. Environmental Protection Agency – Region 8*. Remote. **Invited Speaker.**

Oil spill detection with commercial satellite imagery (February 2021). *U.S. Environmental Protection Agency – Board of Scientific Advisors*. Remote.

Expanding nutrient indicator monitoring with satellites (November 2020). *U.S. Environmental Protection Agency – Nutrient Scientific Technical Exchange Partnership & Support Program*. Remote.

Green stuff from space (May 2020). *NASA HQ Applied Sciences Program*. Remote.

Building a bridge between aerial photographs and digital aerial imagery to retrospectively analyze sediment in the Fraser River (May 2019). *University of British Columbia Graduate Symposium*. Vancouver, BC.

Understanding the spread of Buckthorn in Minnesota using a habitat suitability model (April 2017). *National Council on Undergraduate Research Conference*. Memphis, TN.

SKILLS

Methods: frequentist and Bayesian statistics, machine learning, spatiotemporal statistics, image processing, object-based image analysis, image classification, photogrammetry, atmospheric correction, satellite validation, data visualization, signal processing

Software: Visual Studio Code, R Studio, MATLAB IDE, GitHub, ENVI/IDL, ESRI ArcGIS products, Agisoft Photoscan, QGIS, GeoDa, Adobe Photoshop, Adobe Illustrator, Microsoft Office Suite, Google Workspace

Programming & Computing: Python, R, MATLAB, JavaScript, Google Earth Engine, SQL, Unix, high performance computing, parallel processing, version control

Packages: *Python* – GDAL/OGR, TensorFlow, OpenCV, NumPy, ArcPy, Matplotlib, netCDF4, Pandas, GeoPandas; *R* – ggplot2, raster, ncdf4, stats, caret, sp, sf, rgdal, spatstat, maxent, boot, glcm

Scientific Instrumentation & Field Work: field & lab spectroscopy, imaging systems, GPS, forest inventory, water sampling, land surveying, plant and wildlife surveys

Communication: peer-reviewed publications, technical reports, research proposals, teaching, public speaking, technical demonstrations, stakeholder engagement, mentorship, team collaboration