

Christopher Stephen Cooper

Curriculum Vitae

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National Park Service
Southeast Coast Network
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University of Georgia
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Education

- 2016 – 2019 M.S. Geography
Department of Geography, University of Georgia, Athens, GA
* Expected Graduation: 2019, GPA: 3.6/4.0
- 2013 - 2015 B.S. Geography - Earth System Science
Geographic Information Science (*GIScience*) Certificate
Department of Geography, University of Georgia, Athens, GA
* GPA: 3.5/4.0
- 2011 - 2012 Associate of Arts in Political Science
University of North Georgia, Watkinsville, GA

Awards and Honors:

- 2017 Geological Society of America Graduate Student Research Grant (\$1,550)
- Spring 2015 Gamma Theta Upsilon- The International Geographic Honor Society
- Fall 2013 Dean's List- Franklin College
- Fall 2013 Member of National Society of Leadership

Employment and Appointments

- 2016 – 2019 National Park Service, Inventory & Monitoring Division, Southeast Coast Network

Research Assistant- served as GIS analyst, cartographer, and field technician for Wadeable Stream Habitat Monitoring Protocol.

Summer 2016 National Aeronautics and Space Administration (NASA)

DEVELOP Project Researcher- contributed to the development of a predictive model which is used to derive the geographic distribution of *hydrilla verticillata* from remotely-sensed Landsat 8 spectra.

2014 - 2015 Environmental Change Lab, Department of Geography, University of Georgia

Research Assistant- collect and process lake sediments for various paleoclimate proxies.

Peer-Reviewed Publications

Journal Articles

2019--- Kumar, A., **Cooper, C.**, Remillard, C.M., Ghosh, S., Haney, A., Braun, F., Conner, Z., Page, B., Boyd, K., Wilde, S., and D.S. Mishra. 2019. Spatiotemporal monitoring of hydrilla [*Hydrilla verticillata* (L.f.) Royle] to aid management actions: Weed Technology. doi: 10.1017/wet.2019.13

Technical Reports

In review - **Cooper, C.S.**, McDonald, J. M., and Starkey, E.N., Congaree National Park – Wadeable Stream Monitoring Baseline Report. Natural Resource Report NPS/SECN/NRR—xxxx/xxxx. National Park Service, Fort Collins, Colorado. Submitted Mar. 2019.

- **Cooper, C.S.**, McDonald, J. M., and Starkey, E.N., Ocmulgee National Monument – Wadeable Stream Monitoring Baseline Report. Natural Resource Report NPS/SECN/NRR—xxxx/xxxx. National Park Service, Fort Collins, Colorado. Submitted Feb. 2019.

- McDonald, J.M. Starkey, E.N., and **Cooper, C.S.**, Chattahoochee National Recreation Area – Wadeable Stream Monitoring Baseline Report. Natural Resource Report NPS/SECN/NRR—xxxx/xxxx. National Park Service, Fort Collins, Colorado. Submitted Dec. 2018.

In press - D. L. Cotten, B. P. Adams, N. K. O’Hare, **C.S. Cooper**, S. Bernardes, T. R. Jordan, and M. Madden. 2019. Vegetation mapping at Chattahoochee River National Recreation Area: photointerpretation key and final vegetation map – Final Report. Natural Resource Report NPS/SECN/NRR—2019/XXX. National Park Service, Fort Collins, Colorado. Submitted Jul. 2019

- D. L. Cotten, B. P. Adams, N.K. O’Hare, **C.S. Cooper**, S. Bernardes, T.R. Jordan, and M. Madden 2019. Vegetation Mapping at Ocmulgee Mounds National Historical Park: Photointerpretation key and final vegetation map. Natural Resource Report NPS/SECN/NRR—2019/XXX. National Park Service, Fort Collins, Colorado. Submitted Jul. 2019

Standard Operating Procedures

2019 -- McDonald, J.M. and **Cooper, C.S.**, Obtaining and interpreting GPS solutions using OPUS and OPUS Projects—Version 1.0. Southeast Coast Network Standard Operating Procedure NPS/SECN/SOP—2.3.12. Southeast Coast Network, Athens, Georgia

Internally-Reviewed Publications

2019 -- Wright, W., E. N. Starkey, and **S. Cooper**. 2019. Assessment of Estuarine Water and Sediment Quality at Fort Matanzas National Monuments: 2017 Data Summary. Natural Resource Data Series NPS/SECN/NRDS—2019/1202. National Park Service, Fort Collins, Colorado

Conference Presentations

Paper Presentations

2019 — **Cooper C.S.**, Porinchu, D.F., Reinemann, S.A., Mark, B.G., and DeGrand, J.Q. Evidence for an infrequent and severe fire event in Great Basin National Park, NV during the late 15th century: 9th International Radiocarbon & Archaeology Symposium, Athens, GA, May 20.

--- **Cooper S.**, Reinemann, S.A., Mark, B.G., DeGrand, J.Q, and Porinchu, D.F. A lake sediment-based reconstruction of fire history spanning the last two millennia from Great Basin National Park, NV: American Association of Geographers, Annual Meeting, Washington D.C., April 4

2018 — **Cooper C.S.** and Porinchu, D.F., A lake sediment based reconstruction of late Holocene fire history from Great Basin National Park: American Association of Geographers, Annual Meeting, New Orleans, LA, April 10 .

Poster Presentations

2019 — **Cooper, C.S.**, McDonald, J.M., and Starkey, E.N. Wadeable Stream Habitat Monitoring at Ocmulgee National Monument: American Association of Geographers, Annual Meeting, Washington, D.C., April 4.

--- Porinchu, D.F., **Cooper S.**, Reinemann, S., DeGrand, J., and Mark, B. Evidence for a severe fire event in Great Basin National Park, NV during the late 15th century: 29th Pacific Climate Workshop (PACLIM 2019), Pacific Grove, CA, February 7-10.

2018 – Warren, M., Shepherd, J.M., Williams, M, and **Cooper, C.S.** Atmospheric Impacts on the Growing Frequency of Forest Fires in Southern Appalachia. American Association of Geographers, Annual Meeting, New Orleans, LA, April 10.

Certificates

- National Safety Council Adult CPR-AED Certified (February 2019)
- Department of the Interior Motorboat Operator Certification (May 2018)
- University of Georgia, Department of Geography, Geographic Information Science (*GIScience*) Certificate Program (December 2015)

Technical Skills

- **Software:** Trimble Business Center, ESRI ArcGIS, ArcGIS Pro, ArcGIS AGOL, QGIS, ENVI 5.0, ENVI IDL, ERDAS Imagine 2018, SeaDAS (NASA), R, R-Studio, OPUS Projects (National Geodetic Survey), YSI KorEXO, HOBOWare PRO, Adobe Illustrator, Microsoft Office Suite (Word, Access, PowerPoint, Excel)
- **Instruments & Equipment:** Trimble S6 robotic total station and TSC3 controller, Garmin GPSMap handheld GPS, HOBOWare data-loggers, Spectra Vista XHR1024i and GER1500 spectroradiometers, Bartington MS2K magnetic susceptibility meter, Russian peat-corer, modified Livingstone piston-corer, gravity-corer, modified gas-powered Vibracorer, standard laboratory equipment (centrifuge, fume hood, muffle furnace, microbalance, binocular microscope), standard limnology instruments (secchi disk, YSI multiparameter instruments)

Field Experience

National Park Service: Southeast Coast Network

- 2019 Implemented the Wadeable Stream Monitoring protocol at Horseshoe Bend National Military Park, Daviston, AL
- 2019 Implemented the Wadeable Stream Monitoring protocol at Ocmulgee National Monument, Macon, GA
- 2019 Implemented the Wadeable Stream Monitoring protocol at Kennesaw Mountain National Battlefield Park, Marietta, GA
- 2018 Collected groundwater monitoring data from freshwater wells at Cumberland Island National Seashore, St. Marys, GA.
- 2018 Conducted longitudinal profile surveys of streams within Chattahoochee National Recreation Area, Sandy Springs, GA.
- 2018 Implemented the Wadeable Stream Monitoring protocol at Congaree National Park, Hopkins, SC.
- 2017 Implemented the Wadeable Stream Monitoring protocol at Kennesaw Mountain National Battlefield Park, Marietta, GA.
- 2017 Implemented the Wadeable Stream Monitoring protocol at Chattahoochee National Recreation Area, Sandy Springs, GA.
- 2017 Implemented the Wadeable Stream Monitoring protocol at Ocmulgee National Monument, Macon, GA.
- 2017 Conducted total station surveys to monitor erosion of earthworks at Moores Creek National Battlefield, Currie, NC.

Environmental Change Laboratory, Department of Geography, University of Georgia

- 2017 Collected data from temperature loggers at remote, high-elevation locations within Great Basin National Park, NV in assistance of NPS personnel participating in the Global Observation Research Initiative in Alpine Environments (GLORIA).
- 2017 Collected sediment cores from high-elevation meadow locations over 8 days at Great Basin National Park, NV.

- 2017 Collected sediment cores (including long-coring from a platform), limnology data, and water samples from alpine and sub-alpine lakes at Rocky Mountain National Park, CO.
- 2016 Collected sediment and limnology data from sub-alpine lakes while assisting researchers from The Ohio State University and University of Georgia at Great Basin National Park, NV.
- 2015 Collected sediment cores and limnology data from alpine and sub-alpine lakes at Rocky Mountain National Park, CO.
- 2015 Operated a GER1500 spectroradiometer to collect data about chlorophyll-a in Lake Herrick, Athens, GA.

NASA Develop

- 2016 Operated an XHR1024i spectroradiometer and collected data about submerged vegetation in Lake J. Strom Thurmond and Long Branch reservoir, GA for NASA DEVELOP Southeast Ecological Forecasting III project.

Professional Memberships

- 2015 – Present American Association of Geographers