Noah Weidig

GIS Analyst & Data Scientist

noah@noahweidig.com · Orlando, FL · noahweidig.com

GIS & Remote Sensing Research Associate leveraging remote sensing, GIS, and data science to translate complex geospatial data into clear insight about how our world changes. Focused on wildland-urban interface wildfire risk, land-use change, and spatial decision-making.

Education

Master of Science, Forest Resources & Conservation

Aug 2023 – Aug 2025

University of Florida · Gainesville, FL

Thesis: Large Wildfire Patterns in the WUI · 4.0 GPA

Bachelor of Science, Biological Sciences

Aug 2018 – May 2022

Northern Kentucky University · Highland Heights, KY

Ecology, Evolution, & Organismal Track · 4.0 GPA

Experience

GIS & Remote Sensing Research Associate

Aug 2025 – Present

University of Florida · Milton, FL

Led GIS-based analysis assessing spatial patterns and land-use impacts on community and regional risk management.

Graduate Research Assistant

Aug 2023 – Aug 2025

University of Florida · Milton, FL

Conducted geospatial analysis to support wildland-urban interface and emergency management decision-making.

Research Assistant Intern

May 2023 – Aug 2023

USDA Agricultural Research Service · Miles City, MT

Collected, cleaned, and validated spatial datasets to support GIS-based risk assessment and land-use planning.

Fire & Recreation Intern

Jan 2023 – May 2023

Student Conservation Association / US Forest Service · Wise, VA

Applied GIS to support spatial planning and risk assessment for land management projects.

Research Assistant

May 2022 – Jan 2023

University of Cincinnati · Cincinnati, OH

Conducted quantitative data analysis for biomedical research using advanced statistical modeling and visualization.

CAD Design Specialist

Sep 2021 – Jun 2022

Garage Living · Cincinnati, OH

Developed CAD drawings and project plans for residential remodeling projects.

Research Assistant

Feb 2020 – May 2022

Northern Kentucky University · Highland Heights, KY

Collected, organized, and analyzed complex ecological datasets using spatial and statistical methods.

Elections Data Specialist

Aug 2017 – Feb 2020

Boone County Clerk's Office · Burlington, KY

Managed and analyzed precinct-level GIS data for voter registration and electoral planning.

Publications

Journal articles

Fueling the fire: predicting cogongrass (imperata cylindrica) impacts on fire behavior across environmental and seasonal gradients

Ivory II, A. A., Wonkka, C. L., McGranahan, D. A., Akpejeluh, P., Kincy, S., **Weidig, N. C.**, Roberts, C. P., Brock, K. M., Silva, C. A. & Donovan, V. M. · *Fire Ecology*, vol. 22, no. 1, pp. 119 (2026)

Regional differences in infilling and land-use conversion characterize woody cover increases across the eastern United States

Ivey, M. A., **Weidig, N. C.**, Ivory II, A. A. & Donovan, V. M. · *Forest Ecology and Management*, vol. 603, pp. 123446 (2026)

Woody cover fuels large wildfire risk in the eastern US

Ivey, M. A., Wonkka, C. L., **Weidig, N. C.** & Donovan, V. M. · *Geophysical Research Letters*, vol. 51, no. 24, pp. e2024GL110586 (2024)

Changing large wildfire dynamics in the wildland–urban interface of the eastern United States

Weidig, N. C., Wonkka, C. L., Ivey, M. A. & Donovan, V. M. · *International Journal of Wildland Fire*, vol. 33, no. 12 (2024)

The goldilocks principle: finding the balance between water volume and nutrients for ovipositing culex mosquitoes (diptera: culicidae)

Weidig, N. C., Miller, A. L. & Parker, A. T. · *PLOS One*, vol. 17, no. 11, pp. e0277237 (2022)

Thesis

Patterns and drivers of large wildfires within and surrounding the wildland-urban interface of the eastern United States

Weidig, N. C. · *University of Florida* (2025)

Presentations

Fire at the fringe: drivers of large wildfires in and near the wildland-urban interface of the eastern United States

Weidig, N. C., Wonkka, C. L., Ivey, M. A., Johnson, D. J. & Donovan, V. M. · *Ecological Society of America* (2025)

Shifting forest structure and composition following decades of fire exclusion in the eastern U.S.: implications for prescribed fire restoration and wildfires

Alexander, H. D., Donovan, V. M., Lamounier Moura, A., Lazzaro, L. G., **Weidig, N. C.** & Ivey, M. A. · *Proceedings of the 4th fire ecology and management symposium (FES-412)*, vol. 4 (2025)

Unravelling changing wildfire regime dynamics in the eastern United States

Donovan, V. M., **Weidig, N. C.**, Ivey, M. A., Crandall, R. M., Fill, J. M. & Wonkka, C. L. · *International Association for Landscape Ecology - North America Annual Conference* (2025)

Woody cover increases linked to forest infilling and land conversion in the eastern United States

Ivey, M. A., **Weidig, N. C.**, Ivory II, A. A. & Donovan, V. M. · *International Association for Landscape Ecology - North America Annual Conference* (2025)

Southeastern myotis (myotis austroriparius) use of stormwater sewer systems

Ivory II, A. A., Brock, K. M., Johnson, S. A., **Weidig, N. C.**, Hallett, M. T., Acevedo, M. A. & Scheffers, B. R. · *Florida Bat Working Group Annual Meeting; Southeastern Bat Diversity Network* (2025)

Key drivers of large wildfires in and near the eastern United States wildland-urban interface

Weidig, N. C., Wonkka, C. L., Ivey, M. A., Johnson, D. J. & Donovan, V. M. · *University of Florida Office of Graduate Professional Development Graduate Student Research Day* (2025)

Changing large wildfire patterns in the eastern United States wildland-urban interface

Weidig, N. C., Wonkka, C. L., Ivey, M. A. & Donovan, V. M. · *Northwest Florida Association of Environmental Practitioners Symposium* (2024)

R markdown: a reproducible workflow

Weidig, N. C. · *University of Florida West Florida Research and Education Center Invited Seminar* (2024)

Large wildfire patterns in the wildland-urban interface of the eastern U.S

Weidig, N. C., Wonkka, C. L., Ivey, M. A. & Donovan, V. M. · *International Association for Landscape Ecology - North America Annual Conference* (2024)

Changing large wildfire risk in the southeastern U.S

Donovan, V. M., Crandall, R. M., Fill, J. M., Ivey, M. A., **Weidig, N. C.** & Wonkka, C. L. · *Gulf of Mexico Conference* (2024)

Rumble in the cogongrass jungle: shrub resiliency from round 1

Carl, N., Shows, C., McKeithen, J., **Weidig, N. C.** & Donovan, V. M. · *Gulf of Mexico Conference* (2024)

Inflammation mediated reprogramming of platelets following transcatheter aortic valve replacement

Weidig, N. C., Niang, D., Williams, M., Porema, K., Palumbo, J., Weyrich, A., Smyth, S. & Lynch, D. R. · *International Society for Applied Cardiovascular Biology Biennial Meeting* (2022)

The goldilocks principle: finding the balance between water volume and nutrients for ovipositing culex mosquitoes (diptera: culicidae)

Weidig, N. C., Miller, A. L. & Parker, A. T. · *Entomological Society of America Annual Conference* (2021)

Webinars

Burning boundaries: large wildfire patterns in the eastern United States wildland-urban interface

Weidig, N. C., Wonkka, C. L., Ivey, M. A., Johnson, D. J. & Donovan, V. M. · *Central Florida Prescribed Fire Council Annual Meeting* (2026)

Burning boundaries: large wildfire patterns and drivers in the eastern United States wildland-urban interface

Weidig, N. C., Wonkka, C. L., Ivey, M. A., Johnson, D. J. & Donovan, V. M. · *Southern Fire Exchange* (2025)

Changing large wildfire regime dynamics in the eastern United States

Donovan, V. M., Crandall, R. M., Fill, J. M., Ivey, M. A., **Weidig, N. C.** & Wonkka, C. L. · *Oak Woodlands & Forests Fire Consortium* (2025)

Increasing large wildfires in the eastern United States

Donovan, V. M., Crandall, R. M., Fill, J. M., Ivey, M. A., **Weidig, N. C.** & Wonkka, C. L. · *Southern Fire Exchange* (2024)

Media coverage

Georgia blaze shows how climate change has led to more wildfires in the east

Borenstein, S. · *Associated Press* (2026)

Changing large wildfire dynamics in the wildland–urban interface of the eastern United States: research brief

Fernandez, C. & **Weidig, N. C.** · *Fire Lines*, vol. 15, no. 7 (2025)

Woody cover fuels large wildfire risk in the eastern U.S

Ivey, M. A., Wonkka, C. L., **Weidig, N. C.** & Donovan, V. M. · *Oak Woodlands & Forests Fire Consortium* (2025)

Wildfire surges in east, southeast US fueled by new trees and shrubs

Lester, L. · *AGU News* (2024)

Service

Peer review

Referee report. For: integrated fire management and closer to nature forest management at the landscape scale as a holistic approach to foster forest resilience to wildfires [version 3; peer review: 4 approved with reservations, 2 not approved]

Donovan, V. M. & **Weidig, N. C.** (2025)

Awards & honors

Outstanding Thesis in Natural Resources 2026

University of Florida, College of Agricultural & Life Sciences · 2025 Academic Year

Outstanding Thesis in Forest Resources & Conservation 2026
University of Florida, School of Forest, Fisheries, & Geomatic Sciences · 2025 Academic Year

Best Student Presentation 2025
International Association of Landscape Ecology - North America · $300

BioLEAPS Travel Grant 2025
International Association of Landscape Ecology - North America · $1,650

Student Travel Grant 2025
International Association of Landscape Ecology - North America · $850

Outstanding Teaching Assistant of the Year 2025
University of Florida, School of Forest, Fisheries, & Geomatic Sciences · 2024 Academic Year

IFAS Travel Grant 2024
University of Florida, Institute of Food & Agricultural Sciences · $250

Doris and Earl Lowe and Verna Lowe Scholarship 2024
University of Florida, College of Agricultural & Life Sciences · $2,000

Graduate Research Assistantship 2023
University of Florida, College of Agricultural & Life Sciences · $27,500 annually for two years

Outstanding Graduate in Biology 2022
Northern Kentucky University, Department of Biological Sciences

1st Place, Undergraduate Student Poster Competition 2021
Entomological Society of America · $75

Dr. Carol Swarts Milburn Research Fellowship 2020
Northern Kentucky University · $3,500

President's List Awardee 2018
Northern Kentucky University · 4.00 GPA · 2018–2022

Skills

Languages	R, Python, JavaScript, SQL
Markup	Markdown, LaTeX, HTML, CSS
Libraries	tidyverse, pandas, NumPy, Plotly
GIS & Remote Sensing	ArcGIS Pro, Google Earth Engine, QGIS, GDAL, sf, terra, GeoPandas, OpenStreetMap
Workflows	Git, GitHub, GitHub Actions, Conda, renv