

Andrew "Drew" B. Trgovac, Ph.D.

Teaching Assistant Professor

School of Geographical Sciences and Urban Planning (SGSUP) | Arizona State University (ASU)

ACADEMIC/EDUCATIONAL EMPLOYMENT

2021-Present	Teaching Assistant Professor , SGSUP, ASU, Tempe, AZ
2019-2021	Instructor , SGSUP, Arizona State University, Tempe, AZ
2015	Instructor , Singapore Institute of Management (in association with University at Buffalo-SUNY), Singapore
2015	Instructor , Dept. of Geography, University at Buffalo-SUNY, Buffalo, NY
Fall 2012	Instructor , Dept. of Geography, Genesee Community College, Buffalo, NY
Fall 2011	Instructor , Dept. of Geography, Daemen College, Buffalo, NY
Fall 2011	Instructor , Dept. of Geography, University at Buffalo-SUNY, Buffalo, NY
2010-2011	Research Assistant , Dept. of Geography, University at Buffalo-SUNY, Buffalo, NY
Spring 2010	Lab Instructor , Dept. of Geography, University at Buffalo-SUNY, Buffalo, NY
Fall 2009	Instructor , Dept. of Geography, University at Buffalo-SUNY, Buffalo, NY
2007-2008	Lab Instructor , Dept. of Geography, University at Buffalo-SUNY
2002-2004	Online Course Developer and Course Editor , Tuscarora Intermediate Unit 11, McVeytown, PA
1999-2006	High School Science Teacher/Gifted & Talented Education Coordinator , Juniata County School District, Mifflintown, PA

EDUCATION

Ph.D. in Geography, University at Buffalo-SUNY, Buffalo, NY	2015
<ul style="list-style-type: none">NSF Integrative Graduate Education and Research Traineeship (IGERT) Fellow in GIScienceDissertation: <i>Spatial and Temporal Patterns of Species Abundance Distributions in the Forests of the Eastern United States</i>	
Master of Arts in Geography, University at Buffalo-SUNY, Buffalo, NY	2015
<ul style="list-style-type: none">Thesis: <i>Geographic Variation in Male Suicide Rates</i>	
Certificate in Curriculum and Instruction, Pennsylvania State University, University Park, PA	1997
<ul style="list-style-type: none">Pennsylvania teaching certificate in Biology, Environmental Education, and General Science	
Bachelor of Science in Ecology, Juniata College, Huntingdon, PA	1994
<ul style="list-style-type: none">Program of Emphasis Core Courses: Biogeography, Field Ecology, Plant Systematics & Ecology	

TEACHING EXPERIENCE (2x = frequency as of Fall 2023)

† designed and produced all course materials; ‡ modified existing course materials; * indicates course was co-taught.

Arizona State University, Tempe, AZ, USA

GIS 205 - Geographic Information Science I† (in-person, 35-65 students, TA supported, 5x)

GIS 211 - Geographic Information Science II‡ (online, 40-50 students, 4x)

GIS 311 - Geographic Information Science III‡ (in-person, 20-35 students, TA supported, 4x)

GIS 311 - Geographic Information Science III* (online, 40-50 students, TA supported, 2x)

GIS 471 - Spatial Statistics for Geography and Urban Planning‡ (online, 9-15 students, 8x)

GIS 494/598 - GIS & Public Health† (online, 12-30 students, TA supported, 7x)

GIS 494/598 - GIS Methods for Non-Majors† (online, 35-65, TA supported, 12x)

GIS 498 - Pro-Seminar† (online, 12-15 students, 9x)

GIS 499 - Individualized Instruction† (in-person, 1 student, 4x)

GIS 591 - GIS Capstone Seminar† (in-person, 1 student, 1x)

GIS 592 - Research† (in-person, 1 student, 1x)

Singapore Institute of Management (University at Buffalo - Geography Program), Singapore

GEO 101 - World Regional Geography†* (in-person, ~45 students, 1x)

GEO 201 - Maps: Earth from Above† (in-person, ~35 students, 1x)

GEO 210 - Univariate Statistics in Geography† (in-person, ~30 students, 1x)

GEO 240 - Disasters: A Study of Hazards† (in-person, ~35 students, 1x)

GEO 408 - Geographies of Development‡ (in-person, ~25 students, 1x)

GEO 480 - Entrepreneurship & Innovation†* (in-person, ~15 students, 1x)

Genesee Community College, Buffalo, NY, USA

GEO 101 - World Regional Geography† (~30 students, 1x)

Daemen College, Buffalo, NY, USA

GEO 117 - World Regional Geography† (~30 students, 1x)

University at Buffalo-SUNY, Buffalo, NY, USA

GEO 101 - Earth Systems Science I‡ (in-person, ~220 students, TA supported, 2x)

GEO 240 - Disasters: A Study of Hazards† (in-person, ~50 students, 1x)

GEO 389/504 - Business Geographies Laboratory‡ (in-person, ~25 students, 1x)

GEO 481/506 - Geographical Information Systems Laboratory‡ (in-person, ~25 students, 2x)

ONLINE COURSE DEVELOPMENT

Arizona State University

Note: At ASU, online courses typically are 7.5 weeks during the academic year and into 6 weeks during the Summer semester. My courses are designed to be mostly asynchronous with assessments due at one-week increments. Courses were designed in Canvas LMS.

GIS 205 - Geographic Information Science I

I co-developed this 3-credit course. The original instructor and I collaborated on the course outline and the questions for the exams. I designed the six assignments, discussion boards, quizzes and the online form for students to submit questions. The course is taught during the fall, spring, and summer semesters to an enrollment of approximately 225 students per session. I currently do not teach this course.

GIS 211 - Geographic Information Science II

I modified an existing Canvas shell for this 4-credit course. I updated the assignments, labs and included a more detailed semester end project. I only teach this course during the summer semester, however all of the other instructors who teach this course online during the academic year use my updated course materials.

GIS 471 - Spatial Statistics for Geography and Urban Planning

I modified an existing Canvas online shell for this 3-credit course. The course was originally designed for a much higher level of comprehension and wasn't tested prior to being released. I clarified a number of content pages, updated assignments, added several assignments that progressed students through the content in a more stepwise manner. I teach this course during the Fall and Spring semesters. It is included on the Spatial Data Science track (School of Math and Statistical Sciences) and the Computational Life Science certificate (School of Life Sciences).

GIS 494/598 - GIS & Public Health

I fully designed and developed this 3-credit course. The course consists of 6 GIS lab, assignments using Census data and an opportunity to ask questions to an NIH public health researcher. Graduate students complete either a GIS dashboard or story map on a public health related topic. This course is included on the Spatial Data Science track and the Urban & Environmental Health track of the Population Health Ph.D. program (College of Health Solutions).

GIS 494/598 - GIS Methods for Non-Majors

I fully designed and developed this 4-credit course. The course content spans vector and raster analysis in ArcGIS Pro as well as an introduction to QGIS. The course contains 6 GIS lab, a Mid-Term and Final lab, and the creation of a digital portfolio where students reflect on two of the courses assignments and describe how spatial data and GIS could improve a project from another course. Graduate students are required to create a map using their own data, preferably related to their thesis or dissertation. I teach this course during the Fall, Spring and Summer semesters. It is included Computational Life Science certificate and the Urban & Environmental Health track of the Population Health Ph.D. program.

GIS 494/598: Landscape Analysis Using GIS

This is 3-credit course is partially developed. It will consist of 6 GIS labs, and several individual assignments using FragStats. Graduate students in this course will complete a story map on a landscape ecology topic of their choice and create maps for it. This class is scheduled to be taught in Spring 2025. It is already listed on the Spatial Data Science track and Computational Life Science certificate.

GIS 498 - Pro-Seminar

I fully designed and developed this 3-credit course. This course serves as a GIS capstone class for the online GIS degree as well as in-person students, particularly for those students who are unable to obtain a GIS internship. Students complete a GIS project with at least one type of spatial and statistical analysis. I meet with students once a week via Zoom to discuss the progress of the project. The final deliverable is a research poster. Students also record a 5-8-minute video presentation of their poster. Finally, students complete a digital portfolio where they reflect on their project and their GIS academic program as a whole. I teach this course during the Fall and Spring semesters. Another instructor teaches it during the summer using the materials I developed.

Tuscarora Intermediate Unit 11

Note: These courses were designed as part of the virtual charter school initiated by Tuscarora Intermediate Unit 11. Courses were designed in Blackboard LMS. *An intermediate unit is a regional educational service agency in Pennsylvania that sits between the Pennsylvania Department of Education and individual school districts.*

8th Grade Physical Science

I reviewed and revised a yearlong physical science course.

7th Grade Life Science

I created all of the content pages, assignments and lab activities for a yearlong life science course.

4th Grade Science

I created all of the content pages, assignments and lab activities for a yearlong science course intended for 4th graders.

INVITED CLASSROOM LECTURES

Fall 2021	“My Research Journey” & “Understanding the Determinants of Suicide in a Spatial Context,” in SOS 294 - Exploring Sustainability Research, SGSUP, ASU
Fall 2013	“Geographic Variation of Suicide Rates,” in GEOG 4203 - Fundamentals of GIS, Dept. of Geography, Oklahoma State University

TEACHING RECOGNITION

- Spring 2023 **Professor of Impact Award** (ASU – College of Liberal Arts & Sciences)
- Spring 2023 Nominated for **Outstanding Lecturer [Teaching Professor] Award** (ASU – College of Liberal Arts & Sciences)
- Spring 2022 Mention in ASU News article: [Starbucks program graduate recognized as spring 2022 Dean's Medalist](#) - “But perhaps the most important lesson was taught to me by **Andrew Trgovac** in my GIS Pro-Seminar class...”
- Fall 2021 Mention in ASU News article: [ASU grad found unexpected passion in geography](#) - “I did a project a few years ago focused on land-use change in a national park that affected the habitability of the California condor, and I am sure that is where the love for conservation comes from. Shoutout to **Professor (Andrew) Trgovac** and GIS 311.”
- Spring 2021 Nominated for **Outstanding Instructor Award** (ASU – College of Liberal Arts & Sciences)
- Spring 2020 Mention in ASU News article: [After a 20-year journey, U.S. Air Force airman finishes quest to become a college graduate](#) - “[**Professor Trgovac’s**] guidance and mentorship throughout the whole process really were invaluable for me.”

STUDENT SUPERVISION

Graduate Students Currently Advising

- Tyler Hoffman (Statistics and Data Science Certificate, SGSUP, ASU)

RESEARCH INTERESTS

- **Applications of GIS/GIScience:** Erosion patterns in Arizona; Reproduction/replication as teaching methods
- **Health Geographies:** Spatial patterning of suicide; Methodologies of analyzing suicide
- **Forest Biogeography:** Comparisons between historic (circa. 1800) and present-day forests

RESEARCH ACTIVITIES

- 2020-2021 **Faculty Participant: NSF RAPID** - Human Environment and Geographic Sciences
RAPID: *Evaluating the Effectiveness of Location Tracking Technologies used in COVID-19 Contact Tracing Systems* (BCS-2032203)
Role: I helped create, edit and revise surveys in Qualtrics about the use of digital contact tracing technologies at the state level during the Covid-19 pandemic. I supervised five student interns who contacted the public health departments for each state and collected information about the development and use of digital contact tracing apps. I supervised an additional student who built the grant’s GitHub page. I contributed to the conceptualization, writing, editing and revision of a peer-reviewed book chapter.

PUBLICATIONS

Google Scholar: <https://scholar.google.com/citations?user=pDJrhCYAAAAJ&hl=en&oi=ao>

Note: undergraduate student (advisee)*, graduate student (non-advisee) †

Peer-Reviewed Journal Articles

7. (in preparation) **Trgovac, A.B.**, Bardin, S,† Lowery, L.† A scoping review of spatial methods in suicide research
6. (In preparation) Roberts, K.,* **Trgovac, A.B.**, A GIS assessment of erosion risk on the Arizona Trail System, *Applied Geography*

5. Frazier, A.E., Honzák, M., Hudson, C.†, Perlin, R.†, Tohtsonic, A.†, Gaddis, K.D., de Sousa, C., Larsen, T.H., Junker, J., Nyandwi, S.† and **Trgovac, A.B.** (2021). Connectivity and conservation of Western Chimpanzee (*Pan troglodytes verus*) habitat in Liberia. *Diversity and Distributions*, 27(7), 1235-1250., <https://doi.org/10.1111/ddi.13270>
(5-yr IF: 5.717; **Cover article**; Role: Contributed to data analysis, writing of the initial manuscript, review, and revision of manuscript)
4. Kedron, P.J., Frazier, A.E., **Trgovac, A.B.**, Nelson, T. and Fotheringham, A.S. (2021). Reproducibility and replication in geographic analysis. *Geographic Analysis*. 53(1), pp.135-147. <https://doi.org/10.1111/gean.12221>.
(5-yr IF: 4.268; Context: Piece contributed as part of special issue on the next 50 years of Geographical Analysis; Role: Contributed to conceptualization, writing, and editing of the manuscript)
3. **Trgovac, A.B.**, Kedron, P.J., and Bagchi-Sen, S. (2015). Geographic variation in male suicide rates in the United States. *Applied Geography*. 62, 201-209. <https://doi.org/10.1016/j.apgeog.2015.04.005>
(2-yr IF: 4.9; Role: Conceptualized the study, designed the methodology, analyzed the data, wrote/edited the manuscript.)
2. Larson, C.P.S., Tulowiecki, S.J., Wang, Y.C., and **Trgovac, A.B.** (2015) Predicting historic forest composition using species lists in presettlement land survey records, western New York. *Applied Vegetation Science*. 18(3), 481-492. <https://doi.org/10.1111/avsc.12165>
(2-yr IF: 2.8; Role: Contributed the models used in analyzing the data.)
1. Yoo, E-H., and **Trgovac A.B.** (2011). Scale effects in uncertainty modeling of presettlement vegetation distribution. *International Journal of Geographical Information Science*. 25(3), 405-421. <https://doi.org/10.1016/j.apgeog.2015.04.005>
(5-yr IF: 5.6; Role: Contributed to the conceptualization of the study, completed the GIS analysis, wrote the ecological context for the study, contributed to revisions)

Peer-Reviewed Book Chapters

1. Kedron, P., **Trgovac, A.** (2021) *Assessing connections and tradeoffs between geospatial data ethics, privacy, and the effectiveness of digital contact tracing technologies*. Mapping COVID-19 in Space and Time. Springer. Eds. Sui, D., Shaw, S-L. https://doi.org/10.1007/978-3-030-72808-3_7
(Role: Contributed to the conceptualization, writing, editing and revision of the manuscript)

Peer-Reviewed Conference Proceedings

1. Yoo, E-H., Wang, Y.C., and **Trgovac, A.B.** (2008). Spatial uncertainty assessment in the reconstruction of presettlement forest patterns in Western NY, USA. *Proceeding of the 8th International Symposium on Spatial Accuracy Assessment in National Resources and Environmental Sciences*. [\(pdf\)](#)

Book Reviews

1. **Trgovac, A.B.** (2008). The role of the state and individual in sustainable land management. *Regional Studies*. 42(2), 297-298.

CONFERENCE PRESENTATIONS (lead author presented)

- 2013 **Trgovac, A.B.** and Bagchi-Sen, S. "The spatial heterogeneity of demographic variables associated with male suicide in the United States." *Applied Geography Conference* – Paper Presentation. October 30, Annapolis, MD, USA.
Trgovac, A.B. and Bagchi-Sen, S. "Geographic variation in male suicide rates and their determinants in the United States." *Joint Meeting of the East Lakes AAG and Canadian Association of Geographers-Ontario Division* – Paper Presentation. October 26, Toledo, OH, USA.
- 2012 **Trgovac, A.B.** "The effect of taxonomic aggregation on the comparison of presettlement regions." *Association of American Geographers Annual Meeting* – Paper Presentation. February 24-28, New York City, NY, USA.
- 2011 **Trgovac, A.B.** "Unveiling the spatial pattern of forest rank abundance distributions through comparisons of stand age, biodiversity and productivity." *Association of American Geographers Annual Meeting* – Paper Presentation. April 12-16, Seattle, WA, USA.
- 2010 **Trgovac, A.B.** "Determining an appropriate sample size for use in species abundance distribution studies." *Middle States Division of the Association of American Geographers Annual Meeting* – Paper Presentation. October 22-23, West Point, NY.

Trgovac, A.B. "The spatial pattern of forest community abundance distributions in the eastern United States." *FOSS4G (Free and Open Source Software for Geospatial) Conference* – Research Poster Presentation. September 6-9. Barcelona, Spain.

Trgovac, A.B. and Larsen, C.P.S. "Do the slopes of forest community rank abundance distributions differ in relation to climate and in response to the number of individuals employed?" *Association of American Geographers Annual Meeting* – Paper Presentation. April 14-18. Washington, DC.

Yoo, E.H. and **Trgovac, A.B.** "Uncertainty modeling of reconstructed presettlement vegetation surfaces." *Association of American Geographers Annual Meeting* – Paper Presentation. April 14-18. Washington, DC.

2009 **Trgovac, A.B.** and Larsen, C.P.S. "Forest community rank abundance distributions: Their relation to climate and to number of individuals." *Department of Geography Graduate Student Symposium* – Paper Presentation. November 20. Buffalo, NY.

Trgovac, A.B. and Larsen, C.P.S. "The standardization of rank abundance distributions in forest inventories of the eastern United States." *National Science Foundation-IGERT P.I. 2009 Project Meeting* – Poster Presentation. May 17-19. Washington, DC.

Trgovac, A.B. and Larsen, C.P.S. "Does the slope of species rank abundance distributions vary between biomes?" *Association of American Geographers Annual Meeting* – Paper Presentation. March 23-28. Las Vegas, NV.

Yoo, E.H. and **Trgovac, A.B.** "Spatial uncertainty assessment in the reconstruction of presettlement forest patterns in western NY, USA." *The 8th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences* – Paper Presentation. June 25-27. Shanghai, P.R. China.

INVITED PRESENTATIONS

2013 **Trgovac, A.B.**, "The role of taxonomic aggregation in the comparison between presettlement and present-day forests." *Scholarly Research and Creative Activity Series*, October 26, Ryerson University, Toronto, Canada

2010 **Trgovac, A.B.** and Larsen, C.P.S., "The spatial pattern of forest rank abundance distributions in the eastern United States." *Department of Geography Seminar Series*, August 21, National University of Singapore, Singapore.

SERVICE

2023-Present **Peer Reviewer:** Landscape Ecology

2023 **Member:** Hiring Committee for Assistant Teaching Professor in Urban Planning, SGSUP, ASU

2023 **Faculty Participant:** Graduate Student Research Discussion Group, SGSUP, ASU

Summer 2022 **Member:** Hiring Committee for Instructor in GIS, SGSUP, ASU

2022-Present **Coordinator:** ArcGIS Map to ArcGIS Pro conversion for GIS online & in-person courses

2022-2023 **Member:** Career Track Faculty Brown Bag Planning Committee, SGSUP, ASU

2022-2023 **Chair:** Fixed Term/Career Track Committee Chair, SGSUP, ASU

2021-Present **Member:** Fixed Term/Career Track Committee, SGSUP, ASU

2021-Present **SGSUP representative:** [OURS \(Online Undergraduate Research Scholars\)](#) Program, ASU

2021-Present **Member:** Online GIS Faculty Curriculum Committee, SGSUP, ASU

2020-2021 **Faculty Panelist:** "Meet a Professor" Table, Career Navigator, SGSUP ASU

2020-Present **Faculty Presenter:** Undergraduate Student Welcome, SGSUP, ASU

2019-Present **Appointed Member:** Spatial Analysis Research Center (SPARC), SGSUP, ASU, Tempe, AZ

2019-Present **Advisor:** Barrett Honors Enrichment Contracts, SGSUP, ASU

Fall 2019 **Faculty Panelist:** oStem (student organization) Discussion Panel, ASU

2009-2010 **Member:** IGERT Research Conference Committee, Dept. of Geography, University at Buffalo-SUNY

Summer 2009 **Panelist:** Mark Diamond Research Foundation Grant, University at Buffalo-SUNY

Spring 2009 **Coordinator:** GIScience IGERT Colloquium, Dept. of Geography, University at Buffalo-SUNY
2007-2008 **Graduate Student Senator,** Dept. of Geography, University at Buffalo-SUNY
2006-2011 **Member:** Geography Awareness Week Planning Committee, Dept. of Geography, University at Buffalo-SUNY
2006-2007 **Graduate Representative:** Geography Department Faculty Meetings, University at Buffalo-SUNY

FELLOWSHIPS & AWARDS

2006 NSF IGERT in GIScience Fellowship (\$60,000 + tuition and travel & supply allowance)
1994 First Place in Regional Beta Beta Beta Biological Honor Society Student Research Competition

PROFESSIONAL MEMBERSHIPS

2008-Present American Association of Geographers (AAG)