



# Todd M. Ellis

DATA ANALYST & STATISTICAL PROGRAMMER

Greater Hobart Region, Tasmania, Australia  
June 2025

+61 466 683 552 | [toddellis.wa@gmail.com](mailto:toddellis.wa@gmail.com) | 0000-0002-4410-8676 | [q6vTAroAAAAJ](#) | [Todd-Ellis-4](#) |  
[toddellis](#) | [tmichaelellis](#)

## PROFESSIONAL SUMMARY

I'm a data analyst and early career researcher with a varied background in forest ecology, pyrogeography, climate change, geospatial science, and higher education. I've worked as an analyst and researcher in a variety of laboratory, field, and office settings throughout the United States and Australia. Over the course of my career, I've developed novel mathematical tools and statistical models; maintained relational databases and statistical packages used for conducting data analysis and producing standardized reports; trained countless staff, students, and volunteers in institutional policies and procedures, as well as methodological approaches to statistical analysis; and managed both complex and transformative projects for higher education, government agencies, and private industry. My research has been published in high-impact, peer-reviewed journals, and I'm also skilled at conveying complex data and information to both casual and experienced stakeholders.

As at 2025-06-17, I have 4 peer-reviewed publications including 3 first-author publications. I have received a total of 188 or 254 citations and an h-index of 4 or 3 based on Scopus and Google Scholar, respectively.

## EDUCATION

### Doctor of Philosophy, Biological Sciences

UNIVERSITY OF TASMANIA

Sandy Bay, TAS, Australia

2019 - 2025

- Dissertation: The pyrogeography of fuel moisture trends, thresholds, and fire seasonality
- Supervisors: Drs. Grant J. Williamson and David M.J.S. Bowman

### Master of Science, Geography

WESTERN WASHINGTON UNIVERSITY

Bellingham, WA, USA

2013 - 2016

- Thesis: Climatic drivers of western spruce budworm outbreaks in the Okanogan Highlands
- Supervisor: Dr. Aquila Flower

### Bachelor of Science, Physical Geography and Geology

TEXAS STATE UNIVERSITY

San Marcos, TX, USA

2007 - 2012

## PROFESSIONAL EXPERIENCE

### Research Associate

UNIVERSITY OF TASMANIA: SCHOOL OF NATURAL SCIENCES (FULL-TIME)

Sandy Bay, TAS, Australia

2024-04 - present

- Developing complex data-processing and analysis pipelines using high-performance computing and big data
- Designing and managing organisational research databases for spatial and big data applications
- Overseeing collaborative research projects investigating issues of climate change risk
- Working closely with stakeholders to provide applied solutions to complex research questions

### Data Insights Analyst

UNIVERSITY OF TASMANIA: STUDENT SERVICES AND OPERATIONS (FULL-TIME)

Sandy Bay, TAS, Australia

2023-01 - 2024-04

- Managed the development and implementation of a transformative statewide program to improve equity of access to higher education
- Lead the development of statistical models and reporting tools for managing offers and course quotas
- Streamlined and automated the higher education admissions system for school leavers
- Provided insights and consultations to institutional and external stakeholders

### Data Analyst

UNIVERSITY OF TASMANIA: DIVISION OF FUTURE STUDENTS (PART-TIME / FULL-TIME)

Sandy Bay, TAS, Australia

2021-02 - 2023-01

- Developed statistical models and tools for meeting target university milestones
- Managed design and implementation of broad-scale university ML models for directing future university marketing, funding, and course creation
- Designed and implemented programming and data analytics training seminars for institution staff
- Oversaw development of internal reporting and statistical packages

## PUBLICATIONS

1

**Ellis, T.M.**, Bowman, D.M.J.S., and Williamson, G.J. (2024). Global variation in ecoregion flammability thresholds. *Ecography*, 2024(7), e07127. [doi:10.1111/ecog.07127](#)

2 citations

2

Williamson, G.J., **Ellis, T.M.**, and Bowman, D.M.J.S. (2022). Double-Differenced dNBR: Combining MODIS and Landsat Imagery to Map Fine-Grained Fire Mosaics in Lowland Eucalyptus Savanna in Kakadu National Park, Northern Australia. *Fire*, 5(5), 160. [doi:10.3390/fire5050160](#)

7 citations

3

**Ellis, T.M.**, Bowman, D.M.J.S., Jain, P., Flannigan, M.D., and Williamson, G.J. (2022). Global increase in wildfire risk due to climate-driven declines in fuel moisture. *Global Change Biology*, 28(4), 1544-1559. [doi:10.1111/gcb.16006](#)

172 citations

## HONOURS

### GRANTS, SCHOLARSHIPS AND AWARDS

|         |   |              |
|---------|---|--------------|
| 2024-11 | <b>Resilient Australia National Collaboration and Partnership Award</b><br>Australian Institute for Disaster Resilience |              |
| 2023-10 | <b>FRM12: Effectiveness of fuel reduced areas on fire spread</b><br>Natural Hazards Research Australia                  | AUD\$136,364 |
| 2023-09 | <b>Student Services and Operations (SSO) Division Student Focus Award</b><br>University of Tasmania                     | AUD\$50      |
| 2022-11 | <b>Future Students Staff Excellence 2022 Sustainability Award</b><br>University of Tasmania                             | AUD\$50      |

## CONSULTING

### RESEARCH

|         |   |            |
|---------|---|------------|
| 2020-08 | <b>Predicting fire behaviour using historical satellite imagery</b><br>Frontier Development Lab             | AUD\$1,000 |
| 2019-06 | <b>Post-fire logging effects on reburn severity</b><br>USDA Forest Service                                  | USD\$2,500 |
| 2018-08 | <b>Restoration treatment effects on ponderosa pine growth sensitivity to climate</b><br>USDA Forest Service | USD\$2,500 |

### MANUSCRIPT REVIEWER

Canadian Journal of Forest Research, Climatic Change, Earth's Future, Fire, Fire Ecology, Global Change Biology, Nature Climate Change, New Phytologist

## OUTREACH

### CONFERENCES AND PRESENTATIONS

|         |  |                     |
|---------|--|---------------------|
| 2025-05 | <b>FireTools severity, seasonality, and landscape metrics integration and FESM validation</b><br>Bushfire and Natural Hazards Research Centre Symposium 2025                             | Sydney, NSW         |
| 2024-09 | <b>Effectiveness of fuel reduced areas on fire spread</b><br>Safer Together Interim Results Workshop   | Melbourne, VIC      |
| 2022-12 | <b>Removing Barriers and transforming access to tertiary education: The Schools Recommendation Program in Tasmania</b><br>Australasian Association for Institutional Research Forum 2022 | Macquarie Park, NSW |
| 2022-09 | <b>Schools Recommendation Program Overview</b><br>University of Tasmania Lunch & Learn   | Sandy Bay, TAS      |
| 2022-06 | <b>Dynamic mapping and analysis of fire regimes, past, present, and future</b><br>Bushfire Risk Management Research Hub Showcase 2022 ( <a href="#">poster</a> )                         | Wollongong, NSW     |
| 2022-02 | <b>Intro to sentiment analysis in R</b><br>University of Tasmania Lunch & Learn  | Sandy Bay, TAS      |