

Tanya Strydom

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Research Interests

ecoinformatics; functional traits; microclimates; species interactions; FAIR and open science

Education

Master of Science: Ecology and Biodiversity

Stockholm, Sweden

2018-20

- STOCKHOLM UNIVERSITY

 Advisor: K. Hylander, PhD
- Thesis: Thesis: Declines and increases in northern and southern plant populations after changes in the microclimate

Bachelor of Science (Honours): Plant Sciences

Pretoria, South Africa

2017

University of Pretoria

· Advisor: P.C. le Roux, PhD

• Thesis: Thesis: Bush encroachment in South Africa's montane grasslands: the impact of Leucosidea sericea on microclimate and vegetation

Bachelor of Science: Ecology

Pretoria, South Africa

University of Pretoria 2014-16

Research Experience _____

Plant functional trait responses to elevation and fire

V. VANDVIK, PHD AND B.J. ENQUIST, PHD

2020

- · Attended the 5th Plants Functional Traits Course in Peru co-hosted by the University of Bergen and Arizona University.
- Theory on plant functional traits and their relationships with broader ecological processes.
- Practical elements include: experimental design, data collection and curation, and report writing.

Plant vital rates along microclimate gradients.

K. Hylander, PhD 2019-20

- Masters degree research project.
- · Focused on the variation of plant population vital rates along microclimate gradients and the role of historic climatic conditions.

Plant-pollinator interactions in different microsites

J. EHRLÉN, PHD AND A. TACK, PHD

2019

- A Masters level course research project.
- Independently worked on hypothesis formulation and experimental design.

Changes in plant functional traits at fine-scales

P.C. LE ROUX, PHD

2018

- Collecting and processing plant functional traits on sub-Antarctic Marion Island.
- · Research focused on looking at changes in plant functional traits along microclimate gradients.

The impact of an encroaching species on vegetation and microclimate

P.C. LE ROUX, PHD

Honours degree research project.

2017

· Research focused on the concepts of biotic interactions, ecosystem engineering and habitat modification.

Skillset

Statistical Analysis generalized and linear mixed-effect models; mulitvariate analysis; Bayesian analysis; primarily using R

Spatial Analysis spatial analysis in ecology; ArcGIS; Maxent; GBIF

Image Analysis ImageJ; Adobe Photoshop

Phylogenetic Analysis Extracting and cleaning samples from GenBank; MEGA

Academic Writing assessed at various levels; peer-reviewed articles; literature reviews; research proposals; reports; popular articles

Oral Communication masters level course; presented in various settings

Peer Review as an assistant (PLoS ONE, 2018); second-round reviewer (Plant Ecology, 2019) **Website Development** content creation; front-end development (Adobe Illustrator/HTML/CSS/R Markdown)

Language Skills English and Afrikaans as a native speaker; conversational in German; basic Swedish and Spanish

Written Work

PEER-REVIEWED

1. Kattge, J, G Boenisch, S Diaz, S Lavorel, C Prentice, P Leadley, C Wirth, and the TRY Consortium (Mar. 2020). The TRY Plant Trait Database - enhanced coverage and open access. *Global Change Biology*.

MANUSCRIPTS

- 1. Chacón-Labella, J, SR Geange, SL Middleton, M Boakye, AH Halbritter, R Gya, **T Strydom**, J von Oppen, and W Farfan-Rios (*in prep*). Challenges and opportunities for science in the COVID-19 era.
- 2. Geange, SR, J von Oppen, **T Strydom**, M Boakye, TLJ Gauthier, R Gya, AH Halbritter, LH Jessup, SL Middleton, J Navarro, ME Pierfederici, S Cotner, and V Vandvik (*in prep*). Next-generation field courses: integrating Open Science and online learning.
- 3. **Strydom T** and PC le Roux (*in prep*). Bush encroachment in South Africa's montane grasslands: the impact of *Leucosidea* sericea on microclimate and vegetation.

POPULAR ARTICLES

1. Cotner, S, BJ Enquist, J Chacon, BS Maitner, W Farfan-Rios, S Michaletz, J Garen, TLJ Gauthier, V Vandvik, R Gya, AH Halbritter, K Hošková, ME Pierfederici, NL Quinteros-Casaverde, ES Diaz, LH Jessup, **T Strydom**, and J von Oppen (2020). International scientists need better support during global emergencies. https://www.timeshighereducation.com/blog/international-scientists-need-better-support-during-global-emergencies.

Internships

UiB Internship

University of Bergen 2020

· Website development for the Plants Functional Courses website. This included content creation as well as some front end development

3rd year Undergraduate Mentorship Program

University of Pretoria 2016

• Worked as an assistant within the M. Robertson lab. This included the sorting and identification of pitfall trap samples as well as extracting information from databases

Funding and Awards

Qualified for the UP Postgraduate Masters Research Bursary.

AWARDED BY: UNIVERSITY OF PRETORIA 2018

Awarded the 3rd year Undergraduate Mentorship Bursary.

Awarded by: University of Pretoria 2016

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