



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

STOCKHOLM UNIVERSITY

2018-20

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

Bachelor of Science (Honours): Plant Sciences

Pretoria, South Africa

UNIVERSITY OF PRETORIA

2017

- Advisor: P.C. le Roux, PhD
- 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

2017

- Honours degree research project.
- Research focused on the concepts of biotic interactions, ecosystem engineering and habitat modification.

Skillset

Statistical Analysis	generalized and linear mixed-effect models; multivariate 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-Labela, 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

References

Peter C. le Roux, Ph.D.

ASSISTANT PROFESSOR OF ECOLOGY AND BIODIVERSITY, UNIVERSITY OF PRETORIA

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Kristoffer Hylander, Ph.D.

PROFESSOR OF ECOLOGY, DEPARTMENT OF ECOLOGY, ENVIRONMENT AND PLANT SCIENCES, STOCKHOLM UNIVERSITY

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Sehoya Cotner, Ph.D.

PROFESSOR OF BIOLOGY TEACHING AND LEARNING, UNIVERSITY OF MINNESOTA

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