



Tanya Strydom

PHD STUDENT

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Research Interests

computational ecology; functional traits; ecological networks; species interactions; FAIR and open science

Education

Doctor of Philosophy: Biological Sciences

Montréal, Canada

UNIVERSITÉ DE MONTRÉAL

2020 - Present

- Advisor: T. Poisot, PhD
- Thesis: Common properties of species interaction networks across space

Master of Science: Ecology and Biodiversity

Stockholm, Sweden

STOCKHOLMS UNIVERSITET

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

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

International Collaboration and Working Groups

Network prediction synthesis working group

PIs: T. POISOT (UNIVERSITÉ DE MONTRÉAL) AND L.J. POLLOCK, (MCGILL UNIVERSITY)

2020

- Co-lead author of resulting publication

Plant Functional Trait Course 5 in Peru

PIs: V. VANDVIK (UNIVERSITY OF BERGEN) AND B.J. ENQUIST, (UNIVERSITY OF ARIZONA)

2020

- Plant functional responses to fire

PUBLICATIONS

- Strydom, T.**, Dalla Riva, G. V., & Poisot, T. (2021). SVD entropy reveals the high complexity of ecological networks. *Frontiers in Ecology and Evolution*, 9. <https://doi.org/10.3389/fevo.2021.623141>
- Chacón-Labela, J., Boakye, M., Enquist, B. J., Farfan-Rios, W., Gya, R., Halbritter, A. H., Middleton, S. L., von Oppen, J., Pastor-Ploskonka, S., **Strydom, T.**, Vandvik, V., & Geange, S. R. (2021). From a crisis to an opportunity: Eight insights for doing science in the COVID-19 era and beyond. *Ecology and Evolution*, 11(8), 3588–3596. <https://doi.org/10.1002/ece3.7026>
- Geange, S. R., von Oppen, J., **Strydom, T.**, Boakye, M., Gauthier, T.-L. J., Gya, R., Halbritter, A. H., Jessup, L. H., Middleton, S. L., Navarro, J., Pierfederici, M. E., Chacón-Labela, J., Cotner, S., Farfan-Rios, W., Maitner, B. S., Michaletz, S. T., Telford, R. J., Enquist, B. J., & Vandvik, V. (2021). Next-generation field courses: Integrating Open Science and online learning. *Ecology and Evolution*, 11(8), 3577–3587. <https://doi.org/10.1002/ece3.7009>
- Kattge, J., Boenisch, G., Diaz, S., Lavorel, S., Prentice, C., Leadley, P., Wirth, C., & the TRY Consortium. (2020). *Global Change Biology*, 26(1), 119–188. <https://doi.org/10.1111/gcb.14904>

PREPRINTS

- Maitner, B. S., Halbritter, A. H., Telford, R. J., **Strydom, T.**, Chacón-Labela, J., Henderson, A. N., Lamanna, C., Sloat, L. L., Kerkhoff, A. J., Messier, J., Rasmussen, N. L., Pomati, F., Merz, E., Vandvik, V., & Enquist, B. J. (2021). On estimating the shape and dynamics of phenotypic distributions in ecology and evolution. *Submitted*. <https://doi.org/10.22541/au.162196147.76797968/v1>
- Strydom, T.**, Catchen, M. D., Banville, F., Caron, D., Dansereau, G., Desjardins-Proulx, P., Forero-Muñoz, N. R., Higinio, G., Mercier, B., Gonzalez, A., Gravel, D., Pollock, L. S., & Poisot, T. (2021). A roadmap toward predicting species interaction networks (across space and time). *Under Revision*. <https://doi.org/10.32942/osf.io/eu7k3>

Presentations

INVITED TALKS

Taking FAIR and open science to the field: The evolution of the PFTC field course

Trondheim, Norway

LIVING NORWAY COLLOQUIUM 2020: TOWARDS OPENESS AND TRANSPARENCY IN APPLIED ECOLOGY

Oct., 2020

- Presented as part of the education and open science workshop
- **Tanya Strydom** alongside Aud H. Halbritter, 109 PFTC Participants
- [Link to slides](#)

TALKS

Exploring the complexity of ecological networks using SVD entropy

Québec, Canada

11TH ANNUAL QCBS SYMPOSIUM

Dec., 2020

- **Tanya Strydom**, Giulio V. Dalla Riva and Timothée Poisot
- [Link to slides](#)

Teaching

WORKSHOPS

(un)Reproducibility Detox - Package and Dependency Management

Virtual

BIOS²

Jul., 2021

- Gracielle Higino, Andrew MacDonald, **Tanya Strydom**

Science Communication & Engagement

COMMUNICATION

Cartoonist

FORTNIGHTLY CARTOONIST FOR ECOLOGY FOR THE MASSES BLOG

2020 - present

POPULAR ARTICLES

von Oppen, J., Gya, R., Geange, S., **Strydom, T.**, Middleton, S., & Maitner, B. S. (2021). Next generation field courses: Enhancing ECR development through open science and online learning. In *Ecology for the Masses*.

Cotner, S., Enquist, B. J., Chacon, J., Maitner, B. S., Farfan-Rios, W., Michaletz, S., Garen, J., Gauthier, T.-L. J., Vandvik, V., Gya, R., Halbritter, A. H., Hořková, K., Pierfederici, M. E., Quinteros-Casaverde, N. L., Diaz, E. S., Jessup, L. H., **Strydom, T.**, & von Oppen, J. (2020). International scientists need better support during global emergencies. In *Times Higher Education*.

Academic Service ---

Québec Centre for Biodiversity Sciences

STUDENT MEMBER

2020 - Present

Reviewed Journals

PLANT ECOLOGY, PLoS ONE

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