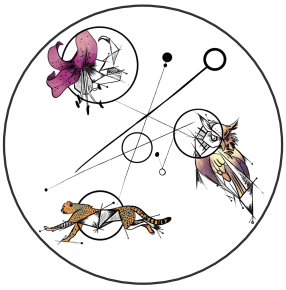

Tanya **Strydom**

PhD Candidate

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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: Decoding Ecological Networks (in terms of the information from within)

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*

Fellowships and Internships

BIOS^2 Fellow

Computational Biodiversity Science and Services (BIOS^2) training program — *2021 - present*

Living Data Internship

Canadian Institute of Ecology and Evolution, Birds Canada — *2022*

- Data archiving for the Piping Plovers conservation pjoject

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

Robert May Prize

Awarded by: British Ecological Society — *2022*

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*

Working Groups and International Collaboration

Black Holes and Revelations: Identifying Priority Sampling Locations for Local Food Webs in Canada

PIs: G. Dansereau, F. Banville, M. Catchen, and T. Strydom *2022*

Merging Statistical Theory and Analyses at the Interface of Microbial and 'Macrobial' Ecology

PIs: M. Liebold, P. Peres-Neto, and E. Thebault *2022*

Canadian metaweb construction working group

PIs: T. Poisot and L.J. Pollock *2021*

Network prediction synthesis working group

PIs: T. Poisot and L.J. Pollock *2020*

Plant Functional Trait Course 5 in Peru

PIs: V. Vandvik and B.J. Enquist *2020*

Publications

* Indicates co-lead author

♣ Winner of the 2022 Robert May Prize

Publications

Christiansen, D. M., **Strydom, T.**, Greiser, C., McClory, R., Ehrlén, J., & Hylander, K. (2023). Effects of past and present microclimates on northern and southern plant species in a managed forest landscape. *Accepted at Journal of Vegetation Science*.

Maitner, B. S., Halbritter, A. H., Telford, R. J., **Strydom, T.**, Chacón-Labella, 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. (2023). Bootstrapping outperforms community-weighted approaches for estimating the shapes of phenotypic distributions. *Accepted at Methods in Ecology and Evolution*. `https://doi.org/10.22541/au.162196147.76797968/v1`

Strydom, T., & Poisot, T. (2023). SpatialBoundaries.jl: Edge detection using spatial wombling. *Ecography*. `https://doi.org/10.1111/ecog.06609`

Raath-Krüger, M. J., Schöb, C., McGeoch, M. A., Burger, D. A., **Strydom, T.**, & le Roux, P. C. (2022). Long-term spatially-replicated data show no cost to a benefactor species in a facilitative plant-plant interaction. *Oikos*. `https://doi.org/10.1111/oik.09617`

Strydom*, T., Bouskila*, S., Banville, F., Barros, C., Caron, D., Farrell, M. J., Fortin, M.-J., Hemming, V., Mercier, B., Pollock, L. J., Runghen, R., Dalla Riva, G. V., & Poisot, T. (2022). **Food web reconstruction through phylogenetic transfer of low-rank network representation.**♣ *Methods in Ecology and Evolution*. `https://doi.org/10.1111/2041-210X.13835`

Chacón-Labella, 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: Academic Practice in 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-Labella, 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: Academic Practice in Ecology and Evolution*, *11*(8), 3577–3587. `https://doi.org/10.1002/ece3.7009`

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`

Strydom*, T., Catchen*, M. D., Banville, F., Caron, D., Dansereau, G., Desjardins-Proulx, P., Forero-Muñoz, N. R., Higino, G., Mercier, B., Gonzalez, A., Gravel, D., Pollock, L. J., & Poisot, T. (2021). A roadmap toward predict-

ing species interaction networks (across space and time). *Philosophical Transactions of the Royal Society B*, *376*(20210063). https://doi.org/10.1098/rstb.2021.0063

Kattge, J., Boenisch, G., Diaz, S., Lavorel, S., Prentice, C., Leadley, P., Wirth, C., & the TRY Consortium. (2020). TRY plant trait database–enhanced coverage and open access. *Global Change Biology*, *26*(1), 119–188. https://doi.org/10.1111/gcb.14904

Preprints

Higino, G. T., Anujan, K., Boakye, M., Degano, M. E., Forero-Muñoz, N.-R., & **Strydom, T.** (2023). Designing a collective prototype of future (sub)tropical science. *Preprint*. https://doi.org/10.32942/X2VC86

Strydom*, T., Bouskila*, S., Banville, F., Barros, C., Caron, D., Farrell, M. J., Fortin, M.-J., Hemming, V., Mercier, B., Pollock, L. J., Runghen, R., Dalla Riva, G. V., & Poisot, T. (2022). Graph embedding and transfer learning can help predict potential species interaction networks despite data limitations. *Preprint*. https://doi.org/10.32942/osf.io/vyzgr

Presentations

Invited talks

What's [complexity] got to do with it? *NetSci 2023*
Tanya Strydom *Jul., 2023*

Making something out of nothing at all: Transfer learning for network prediction *ML4MS mini-conference*
Tanya Strydom *Apr., 2022*

Taking FAIR and open science to the field: The evolution of the PFTC field course *Living Norway Colloquium*
Tanya Strydom alongside Aud H. Halbritter, 109 PFTC Participants *Oct., 2020*

Talks

Exploring the complexity of ecological networks using SVD entropy *11th Annual QCBS Symposium*
Tanya Strydom, Giulio V. Dalla Riva and Timothée Poisot *Dec., 2020*

Short Presentations and Posters

Reconstructing food webs using transfer learning *CSEE-SCEE Annual Meeting*
Tanya Strydom, Salomé Bouskila and Timothée Poisot *Aug., 2021*

Food web reconstruction using transfer learning *12th Annual QCBS Symposium*
Tanya Strydom, Salomé Bouskila and Timothée Poisot *Dec., 2021*

Workshops and Organised Sessions

Space Oddity: Thinking About Ecological Networks Across Space *ESA/CSEE Meeting*
Francis Banville, Gabriel Dansereau, **Tanya Strydom** *Aug., 2022*

Designing a collective prototype of future tropical and subtropical science *ATBC Annual Meeting*
Gracielle Higino, Mickey Boakye, Norma Forero, **Tanya Strydom** *Jul., 2021*

Community Engagement

Science Communication

Cartoonist

Fortnightly cartoonist for Ecology for the Masses blog *2020 - 2022*

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., Hošková, 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*.