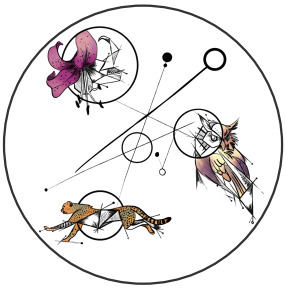

Tanya **Strydom**

Postdoctoral Researcher

Ecology and Evolutionary Biology, School of Biosciences, University of Sheffield

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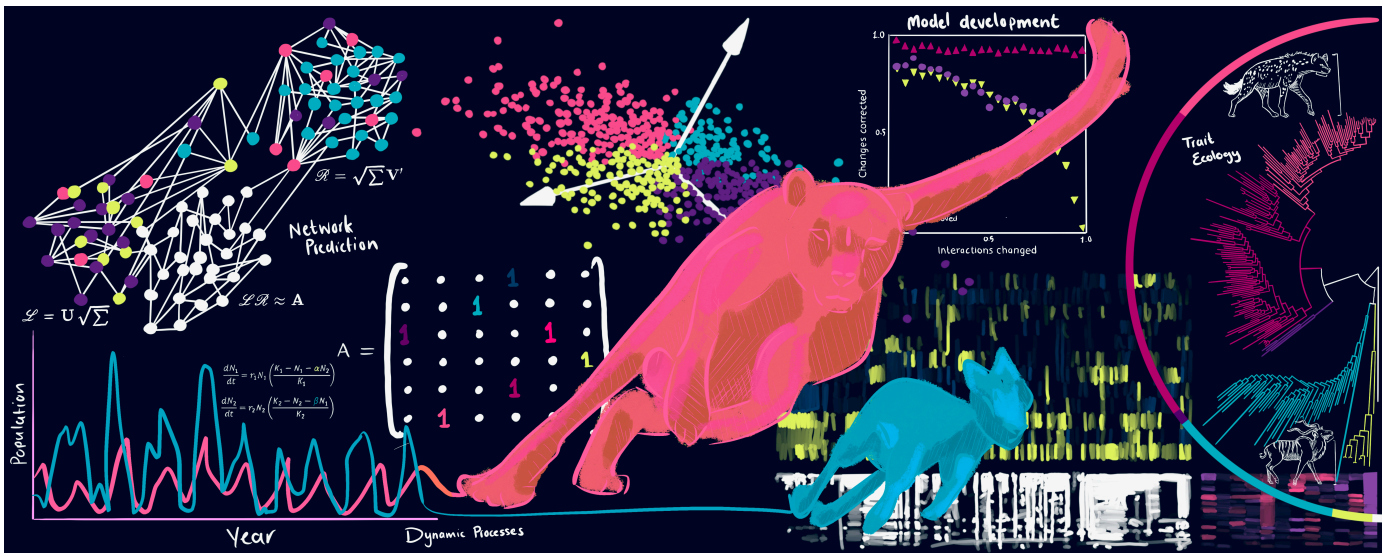
Research Profile



Professional Experience

Postdoctoral Researcher — *Sheffield, UK*

University of Sheffield — *2024 - Present*

Education

Doctor of Philosophy in Biological Sciences — *Montréal, Canada*

Université de Montréal — *2020-24*

Master of Science in Ecology and Biodiversity — *Stockholm, Sweden*

Stockholms Universitet — *2018-20*

Bachelor of Science (Honours) in Plant Sciences — *Pretoria, South Africa*

University of Pretoria — *2017*

Bachelor of Science in Ecology — *Pretoria, South Africa*

University of Pretoria — *2014-16*

Funding and Awards

Robert May Prize

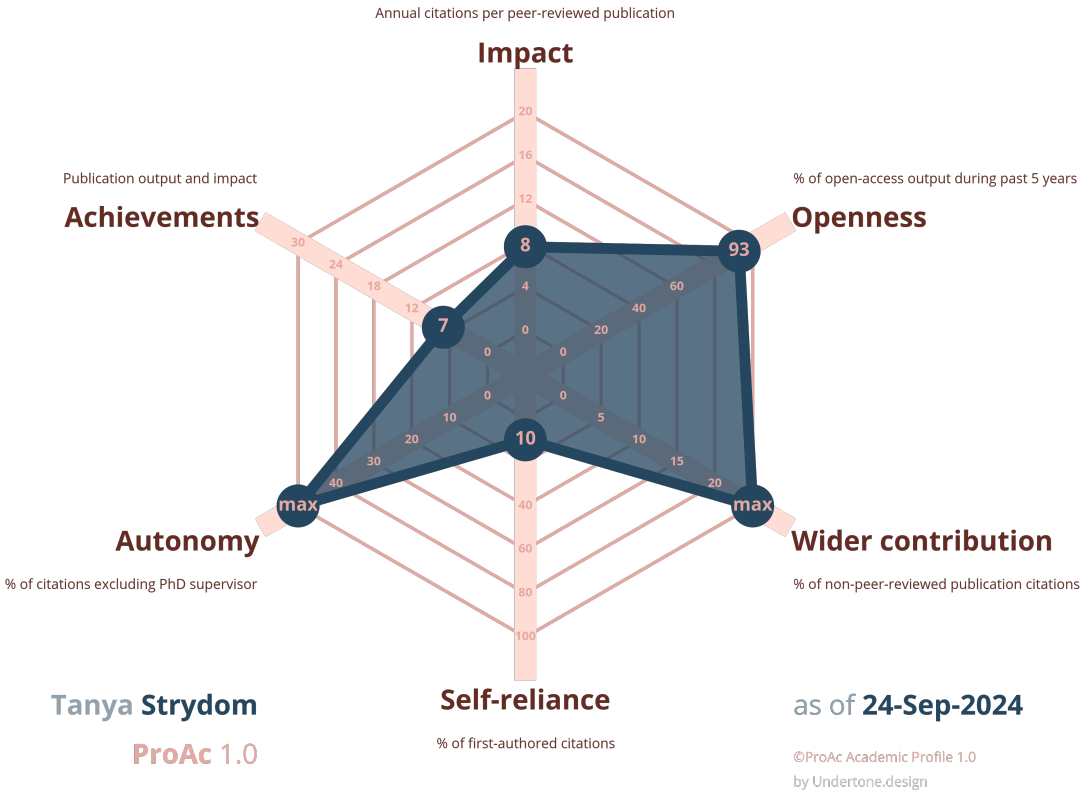
Awarded by: British Ecological Society — *2022*

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*



Publications

* Indicates co-lead author

1. Halbritter, A. H., Vandvik, V., Cotner, S., Farfan-Rios, W., Maitner, B. S., Michaletz, S. T., Menor, I. O., Telford, R. J., Ccahuana, A., Cruz, R., Bravo, J. S., Andrade, P. E. S., Bustamante, L. L. V., Castorena, M., Chacon-Labella, J., Christiansen, C. T., Duran, S. M., Egelkraut, D. D., Gya, R., … Enquist, B. J. (2024). Plant trait and vegetation data along a 1314 m elevation gradient with fire history in Puna grasslands, Perú. *Scientific Data*, *11*(225). https://doi.org/10.1038/s41597-024-02980-3
2. 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. *Journal of Vegetation Science*. https://doi.org/10.1111/jvs.13197
3. 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. *Methods in Ecology and Evolution*. https://doi.org/10.1111/2041-210X.14160
4. **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. (2023). Graph embedding and transfer learning can help predict potential species interaction networks despite data limitations. *Methods in Ecology and Evolution*. https://doi.org/10.1111/2041-210X.14228
5. **Strydom, T.**, & Poisot, T. (2023). SpatialBoundaries.jl: Edge detection using spatial wombling. *Ecography*. https://doi.org/10.1111/ecog.06609
6. 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
7. **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
8. 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
9. 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
10. **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
11. **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 predicting species interaction networks (across space and time). *Philosophical Transactions of the Royal Society B*, *376*(20210063). https://doi.org/10.1098/rstb.2021.0063
12. 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

1. Banville, F., **Strydom, T.**, Blyth, P. S. A., Brimacombe, C., Catchen, M., Dansereau, G., Gravel, D., Higino, G., Malpas, T., Mayall, H., Norman, K., & Poisot, T. (2024). Deciphering probabilistic species interaction networks. *Preprint*. https://doi.org/10.32942/X28G8Z
2. 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

Working Groups

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

PIs: F. Banville, M. Catchen, G. Dansereau, 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*

Presentations

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*

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*

Community Engagement

Science Communication

Cartoonist

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

Popular Articles

1. 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*.
2. 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*.