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Main University Supervisor: John Wilson
Location: Stellenbosch University
Level of project: Post-doc
Working title: Modelling the performance of biological invasions indicators

Background

Research, policy formulation, implementation, and monitoring and evaluation should ideally be a single cohesive process. But while the co-production of knowledge and trans-disciplinary research is increasing in importance and emphasis, functions are still often compartmentalised. The use of indicators linked to monitoring and reporting provides a method of improving such interactions.

There have been several initiatives to develop indicators to track biological invasions at a global scale, including work on Essential Variables for Invasion Monitoring & Reporting, <http://invasionevs.com/>, which comprise a set of three core variables on alien species (Latombe et al. 2017). This provides an important link, but does not explicitly cover pathways, nor the efficacy of interventions and the ultimately what the broader impact of the invasions are on society.

As part of drafting the first National Status Report on Biological Invasions in South Africa (van Wilgen & Wilson 2018), we settled on a group of 20 indicators which together provide an indication of the size of the different elements of the invasion problem and the degree to which they were been addressed. Using the guidelines of the Biodiversity Information Partnership (<https://www.bipindicators.net/>) we developed a factsheet for each indicator (Wilson et al. 2018). These indicators were used to provide the structure for the first report, and are the basis of the work-plan for the next report, but are these indicators fit for purpose?

The post-doc position will focus on working at a national level and by contributing to various international initiatives (e.g. https://www.idiv.de/sdiv/working_groups/wg_pool/stwist.html) to assist with the development and testing of indicators for work on biological invasions.

Key contacts

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Further Reading

Biodiversity Indicators Partnership (2011) Guidance for national biodiversity indicator development and use. pp. 40. UNEP World Conservation Monitoring Centre, Cambridge, U.K.

https://www.bipindicators.net/system/resources/files/000/002/191/original/Framework_Brochure_UK_0311_LOWRES_%281%29.pdf?1481634262

Latombe G et al. (2017) A vision for global monitoring of biological invasions *Biol Conserv* 213:295–308
<http://dx.doi.org/10.1016/j.biocon.2016.06.013>

Wilson JR et al. (2018) Indicators for monitoring biological invasions at a national level *J Appl Ecol* 55:2612–2620
<http://dx.doi.org/10.1111/1365-2664.13251>

van Wilgen BW, Wilson JR (eds) (2018) The status of biological invasions and their management in South Africa in 2017. South African National Biodiversity Institute, Kirstenbosch and DST-NRF Centre of Excellence for Invasion Biology, Stellenbosch, <https://www.sanbi.org/wp-content/uploads/2018/11/National-Status-Report-web-6MB.pdf>