



WORKING PROJECT TITLE	Optimising management of invasions in South African protected areas
CORE TEAM MEMBER	Prof Tammy Robinson-Smythe
COLLABORATORS	Dr Sabrina Kumschick (CIB) Dr Nicola van Wilgen (SANParks) Dr Katelyn Faulkner (SANBI)
ACADEMIC LEVEL OF THE PROJECT	Post-doc
PROJECT BACKGROUND	<p>South African protected areas are tasked with protecting native biodiversity. As such there is an imperative for conservation agencies to manage invasive species and minimise the threat posed to native taxa. However, this need must be met within a resource constrained environment. As such there is a clear need to make evidence-based decisions and optimise the efficacy and cost-efficiency of invasive species management in protected areas. Additionally, this needs to be done within the context of climate change.</p> <p>In this project, the successful applicant will (1) assess the implication of climate change induced changes in the coverage and impact of alien species for management programs in Table Mountain National Park (TMNP) and Addo Elephant National Park (AENP); (2) identify impediments to the successful management of alien species in these and other protected areas; and (3) develop best practice guidelines for the management of alien species in protected areas. This exciting project requires a dynamic person willing to employ a variety of research skills (e.g. critical thinking, SDMs, assessment of impacts, prediction of costs and benefits) to address applied and interesting questions. Additionally, this position requires interaction with a diversity of people (e.g. park rangers, scientists, managers, alien clearing participants and government officials), making good inter-personal skills a prerequisite.</p>



<p>LENGTH OF PROJECT/FUNDING (IF FUNDED)</p>	<p>The running costs for the project are fully funded, additionally the successful applicant will receive an NRF bursary of R320 000 per annum.</p>
<p>REQUIREMENTS</p>	<p>PhD in ecology or relevant field (graduated within the last 5 years)</p> <p>Strong publication record</p> <p>Good foundational knowledge of invasion biology</p> <p>Well-developed data management and analytical skills</p> <p>Experience with species distribution modelling</p> <p>Good verbal communication and people skills</p> <p>Keen interest in protected area management and conservation</p>
<p>FURTHER READING</p>	<p>Gaertner M, Larson BMH, Irlich UM, Holmes PM, Stafford L, Wilgen BW van, Richardson DM (2016) Managing invasive species in cities: A framework from Cape Town, South Africa. <i>Landscape and Urban Planning</i> 151: 1-9, doi: 10.1016/j.landurbplan.2016.03.010</p> <p>Holmes PM, Esler KJ, Richardson DM, Witkowski ETF (2008) Guidelines for improved management of riparian zones invaded by alien plants in South Africa. <i>South African Journal of Botany</i> 74(3): 538-552, doi: 10.1016/j.sajb.2008.01.182</p> <p>Moodley D, Angulo E, Cuthbert RN, Leung B, Turbelin A, Novoa A, Kourantidou M, Heringer G, Haubrock PJ, Renault D, Robuchon M, Fantle-Lepczyk J, Courchamp F, Diagne C (2022) Surprisingly high economic costs of biological invasions in protected areas. <i>Biological Invasions</i> 24(7): 1995-2016, doi: 10.1007/s10530-022-02732-7</p> <p>Van Rees CB, Waylen KA, Schmidt - Kloiber A, Thackeray SJ, Kalinkat G, Martens K, Domisch S, Lillebø AI, Hermoso</p>



	<p>V, Grossart H, Schinegger R, Declerck K, Adriaens T, Denys L, Jarić I, Janse JH, Monaghan MT, De Wever A, Geijzendorffer I, Adamescu MC, Jähnig SC (2021) Safeguarding freshwater life beyond 2020: Recommendations for the new global biodiversity framework from the European experience. Conservation Letters 14(1): e12771, doi: 10.1111/conl.12771</p> <p>Van Wilgen BW, Fill JM, Baard J, Cheney C, Forsyth AT, Kraaij T (2016) Historical costs and projected future scenarios for the management of invasive alien plants in protected areas in the Cape Floristic Region. Biological Conservation 200: 168-177, doi: 10.1016/j.biocon.2016.06.008</p>
<p>CONTACT DETAILS OF CORE TEAM MEMBER</p>	<p>Visit the Centre for Invasion Biology's website (<a href="https://blogs.sun.ac.za/cib/">https://blogs.sun.ac.za/cib/</a>) to find out more about the Centre and contact Prof Tammy Robinson-Smythe at <a href="mailto:trobins@sun.ac.za">trobins@sun.ac.za</a></p> <p>When applying please include your CV and a motivation for why you are suited to this position.</p> <p>Please be prepared to provide the details of a past supervisor as one of your references.</p>