

looking for terrestrials of the alien kind

Recognised as a biodiversity hotspot, the Western Cape's fynbos biome is now on the international scientific radar thanks to the ambitious BioSCape project, an extensive survey of the biome's species that has been orchestrated by NASA in collaboration with research partners from around the world. Although the project's primary goal is far from seeking extraterrestrial life, its intriguing NASA connection has sparked imaginations – and a few interesting conspiracy theories.

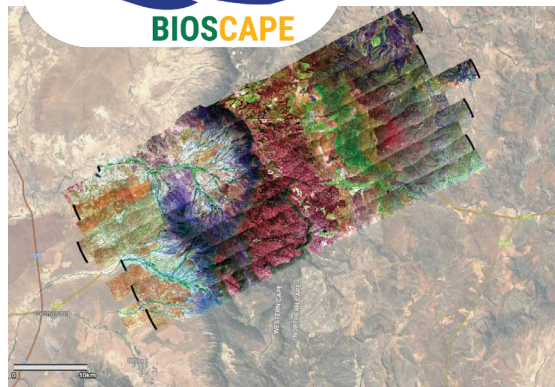
At the heart of BioSCape is the quest to understand and preserve the unique terrestrial life forms of this region – extra-interesting and extra-ordinary certainly, but not extra-terrestrial. It encompasses 18 research initiatives, one of which is BioSoundSCapes, led by Matt Clark at Sonoma State University in partnership with BirdLife South Africa. This project aims to connect soundscapes (what we can hear) to landscapes (what we can see from space). From June to December 2023, more than 1000 point counts and approximately a million sound records were amassed, a monumental feat that catalogues the rich avian diversity

and intricate soundscapes of the Western Cape.

One of the most innovative aspects of BioSCape is its use of hyper-spectral imagery from aerial surveys. This latest technology is not just about capturing stunning visuals from the skies; it helps to monitor the spread of invasive alien vegetation – an issue of critical importance in maintaining the ecological balance of fynbos. However, these aerial methods are not quite ready to detect alien bird species, let alone other forms of extraterrestrial life, despite the playful rumours to the contrary.

The project's integration of ground-based field work and advanced aerial survey techniques demonstrates a model of conservation science that is both comprehensive and forward-thinking in allowing us to track changes due to human activities and the impacts of climate change. BirdLife South Africa's coordination of the on-the-ground efforts ensures that the data collected from above are grounded in the realities observed at the ecosystem's grassroots level.

More than just a scientific endeavour, this blend of high-tech aerial surveys and



The normally brown plains between Vanrhynsdorp and Nieuwoudtville as seen through remote sensing 'eyes' reveal a world of colour.

meticulous field work has captured the public's imagination. The regular flight paths of the survey aircraft have been mischievously misinterpreted by some as 'cloud seeding' exercises, fuelling conspiracy theories about hidden agendas. These stories, while unfounded, highlight the project's visibility and the public's interest in these significant scientific efforts. Read more about the conceptualisation of this project and its benefits for South Africa at bioscape.io/news

BioSCape stands as a testament to the power of collaboration, technology and human curiosity. As we continue to uncover the secrets of fynbos, we may not find aliens, but we are sure to reveal untold stories of one of the earth's most diverse and extraordinary ecosystems.

DR ALAN LEE, SCIENCE AND INNOVATION PROGRAMME MANAGER

GIVING CONSERVATION WHEELS

Halfway Toyota Ottery is generously giving conservation wheels by loaning a Toyota Hilux Legend to BirdLife South Africa's Western Cape Estuaries Conservation Project. Our estuarine work engages directly with communities throughout the province and requires extensive travel. We are grateful that we can now navigate both highways and farm roads securely, and would like to thank Halfway Toyota for its considerable contribution to the conservation of birds and their habitats in South Africa.

DR GISELLE MURISON, WESTERN CAPE ESTUARIES CONSERVATION PROJECT MANAGER

