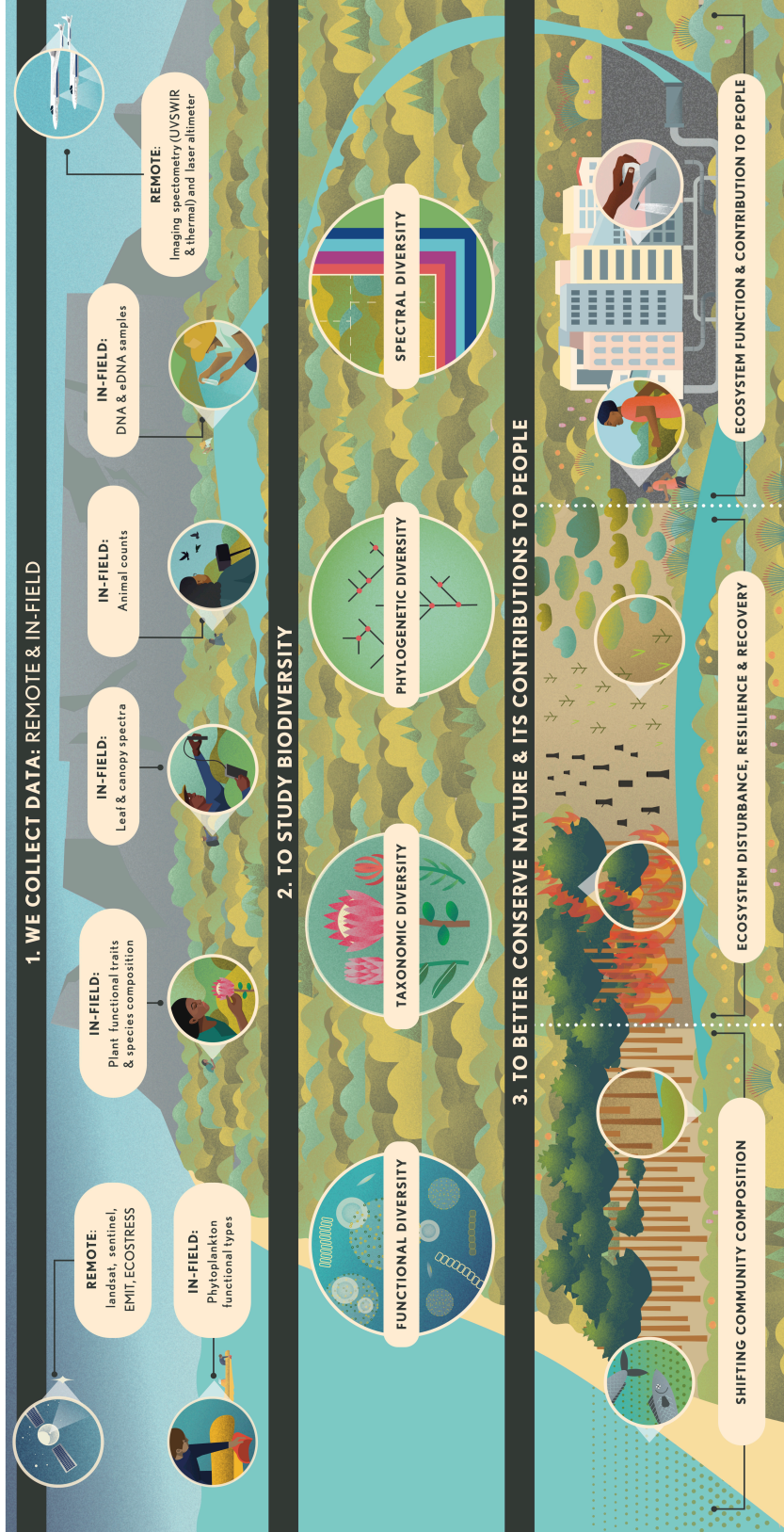




BIOSCAPE

Biodiversity Survey of the Cape

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BioScape (www.bioscape.io) is a biodiversity-focused airborne field campaign in the Greater Cape Floristic Region (GCFR) in the Western Cape of South Africa in October - December 2023. It is an international collaboration between NASA (United States National Aeronautics and Space Administration), SAEON (South African Environmental Observation Network), and SANSA (South African National Space Agency).

The GCFR contains two global biodiversity hotspots with the richest temperate flora and the third highest marine endemism in the world. BioScape will collect UV visible to short wavelength infrared (UVSWIR) and thermal imaging spectroscopy and laser altimetry lidar data over terrestrial and aquatic targets using four airborne instruments: AVIRIS-NG, PRISM, LVIS, and HYPES. These airborne data will be accompanied by a range of biodiversity-related field observations on land and in the water. BioScape's primary objective is to study the structure, function, and composition of the region's ecosystems, and to learn about how and why they are changing in time and space. The campaign is organized around three major research themes aimed at understanding:

- 1) the distribution and abundance of biodiversity,
- 2) the role of biodiversity in ecosystem function, and
- 3) the impacts of biodiversity change on ecosystem services.

Specifically, BioScape will help us understand where biodiversity is, what it is doing, and why it matters.

BioScape strives for equitable and accessible research; the team is half US-based and half SA-based, all data will be open access, and we have developed several capacity-building and outreach activities.

