

## **Diversity and DNA barcodes of Succulent Karoo spiders**

Spiders (Araneae) are important arthropods in all terrestrial ecosystems, where they contribute significantly to the regulation of prey populations. South Africa has a rich fauna of spiders, with 2253 spp. recorded (4.6% of global diversity), with approximately 60% of the species endemic to the country. Although the South African National Survey of Arachnida (SANSa) was very successful in identifying gaps in the distribution of South African spiders, large parts of the Succulent Karoo (SKB) and Desert biomes (DB) remain poorly sampled. This study aims to sample in five degree-squares in western South Africa. We will use a standardized protocol to collect in four biotopes per degree-square (e.g. open plain, riparian vegetation, eastern and western slopes of a hill), in both summer and winter, to generate comparable datasets to determine local species richness, as well as species turnover between sites. Further, we will provide DNA barcodes of 95 specimens per degree square to aid in identification of species and matching sexes, particularly for rare or understudied taxa. Through this work, we hope to make a considerable contribution towards understanding the biodiversity and conservation importance of non-acarine arachnids in the western parts of the SKB and the DB.