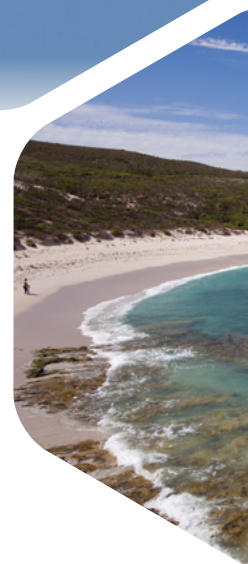


WESTERN CAPE

2024

STATE OF CONSERVATION
REPORT



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Data & Information:

- CapeNature Field Rangers
- Conservation Managers & Officers
- Landscape Conservation Intelligence Teams
- Biodiversity Capabilities

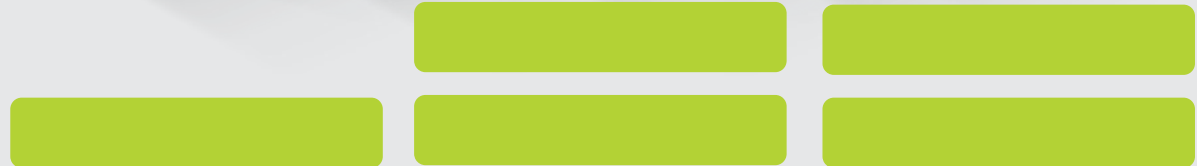
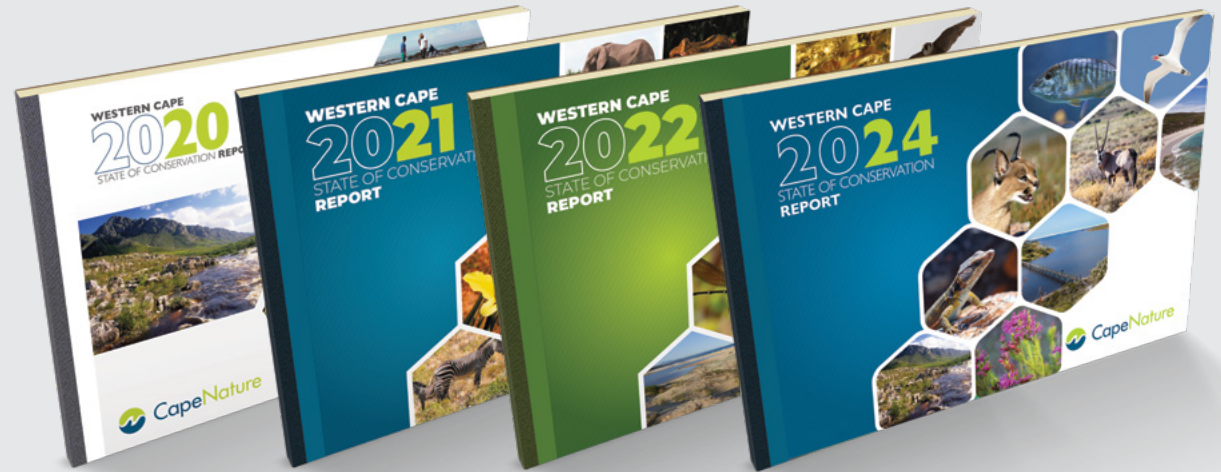
Suggested Citation:

- CapeNature. 2024. 2024 Western Cape State of Conservation Report. CapeNature.



Online WC SoCR 2024 Report

To access the link buttons in the printed book, please scan the QR code provided on the left or visit the website link: <https://bit.ly/3JvJFQ0> to view the online version of the book.





FOREWORD

This is the fourth State of Conservation Report to inform the periodic Western Cape State of Biodiversity Report, as required Western Cape Biodiversity Act. These reports provide annual updates to the conservation status of species and ecosystems, highlighting outcomes in various aspects of the conservation work undertaken by CapeNature.

Our commitment to safeguarding biodiversity aims firstly to respond to provincial conservation imperatives. These in large measure mirror that of the global community, as underscored by the Kunming-Montreal Global Biodiversity Framework (GBF). This framework, agreed upon during the 15th Conference of Parties to the United Nations Convention on Biological Diversity 2022, outlines a way toward a more resilient and sustainable planet.

CapeNature, contributes to providing immediate and local conservation outcomes as well as the realization of key Global Biodiversity Framework targets.

The Western Cape Biodiversity Spatial Plan integrates the changes in the status of ecosystems and species with changes in land use and informs land use, development planning, environmental assessments, protected area expansion and mitigation of the impact of climate change on biodiversity through the integration of biodiversity corridors.

The development and implementation of a Western Cape Protected Areas Expansion Strategy and Protected Area and Estuarine Management Plans, enable

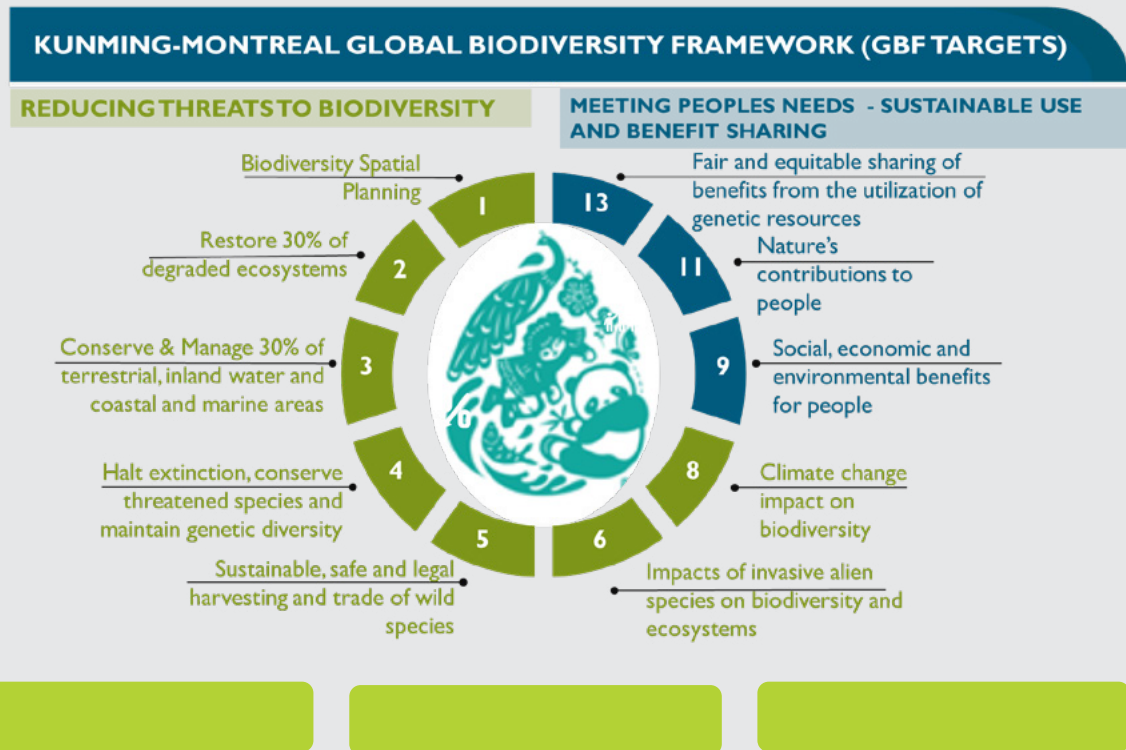
progress towards effective representative protection of terrestrial, inland water and coastal and marine areas. Clearing of invasive alien plants on CapeNature protected areas is prioritized for ensuring ecological services and conservation of strategic water source areas.

CapeNature pursues the conservation of threatened species and maintenance of genetic diversity through the implementation of Biodiversity Management Plans, regulated through permits and authorizations, and supported by compliance and enforcement.

CapeNature implements regulatory compliance and enforcement, publishes hunting notices, and issues permits and licenses to ensure the sustainable use of wild species.

CapeNature is proud to contribute to the South African perspective where the status of biodiversity in the Western Cape impacts the outcomes of the national indicator framework.

Dr Ashley Naidoo
CEO





CAPENATURE LANDSCAPES & LANDSCAPE UNITS



Legend

CapeNature

- ☆ Head office
- ☆ Regional office
- ◆ Reserve office
- ▲ Satellite office

- CapeNature Protected Areas
- CapeNature Marine Protected Areas
- CapeNature RAMSAR Sites
- CapeNature Estuaries

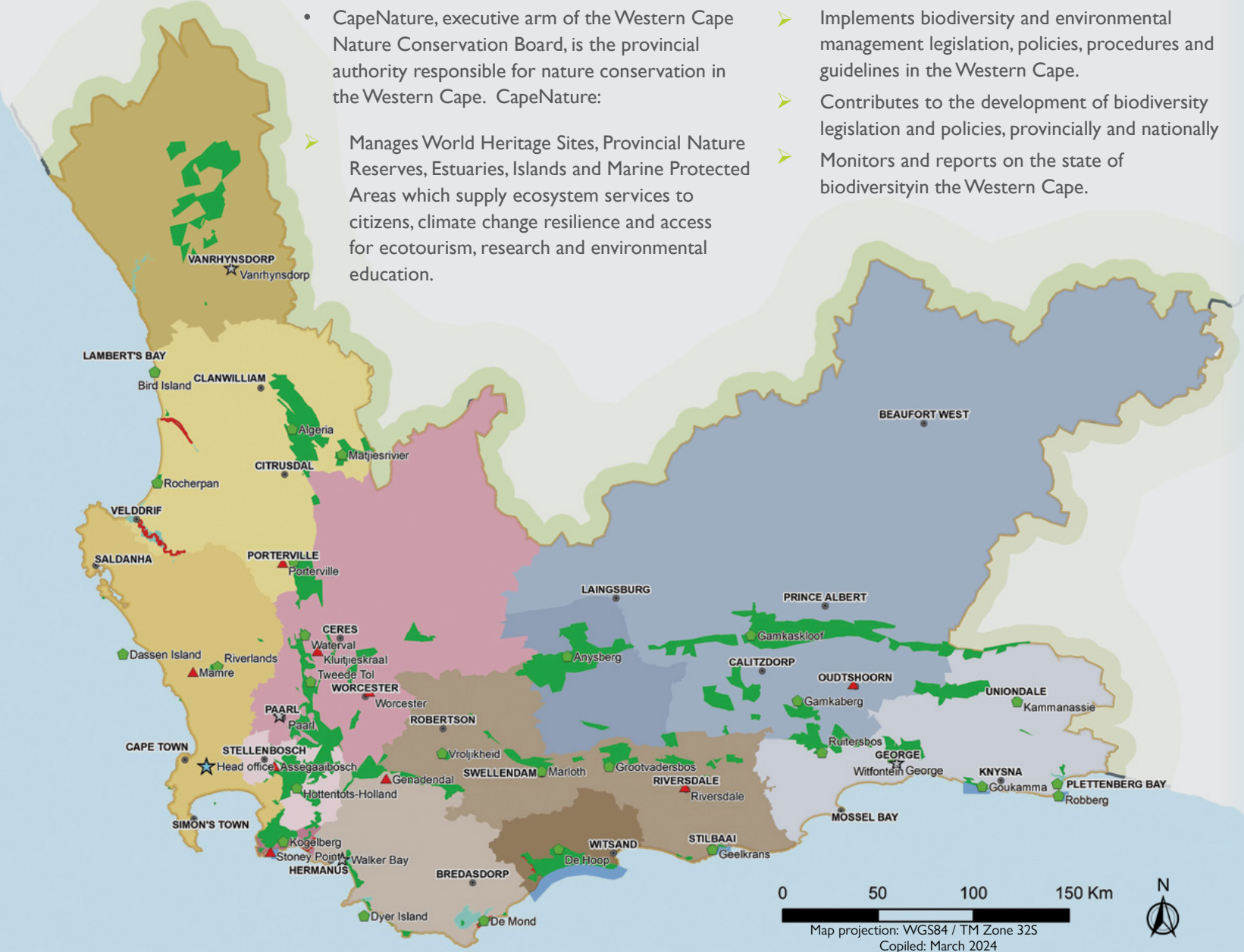
CapeNature Landscapes

- WEST
 - Matzikama
 - Peninsula
 - Ceder-Berg
- CENTRAL
 - Kogelberg
 - Witzenberg
 - Boland
- SOUTH
 - De Hoop
 - Langeberg
 - Overberg
- EAST
 - Anysberg
 - Garden Route
 - Karoo

- CapeNature, executive arm of the Western Cape Nature Conservation Board, is the provincial authority responsible for nature conservation in the Western Cape. CapeNature:

- Manages World Heritage Sites, Provincial Nature Reserves, Estuaries, Islands and Marine Protected Areas which supply ecosystem services to citizens, climate change resilience and access for ecotourism, research and environmental education.

- Implements biodiversity and environmental management legislation, policies, procedures and guidelines in the Western Cape.
- Contributes to the development of biodiversity legislation and policies, provincially and nationally
- Monitors and reports on the state of biodiversity in the Western Cape.

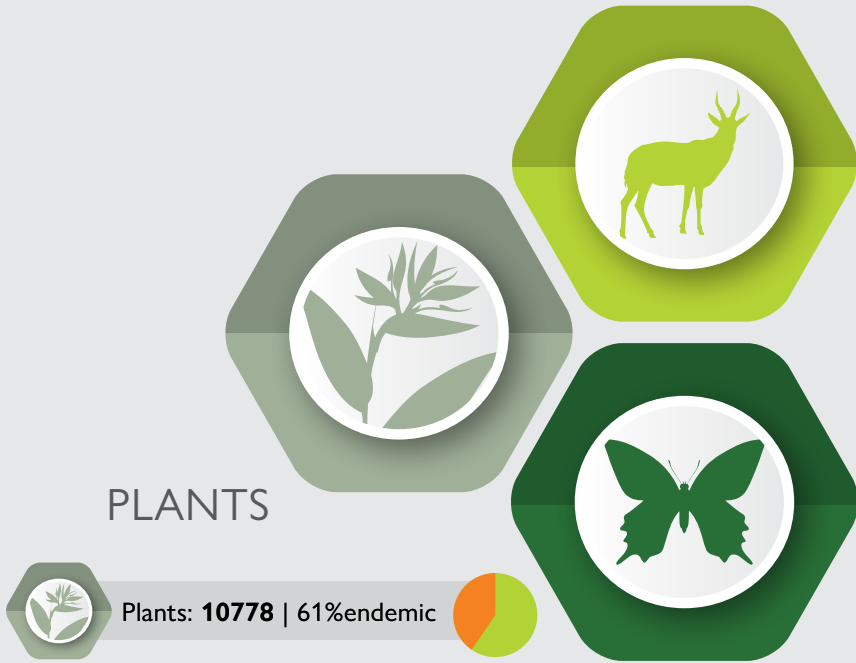


Map projection: WGS84 / TM Zone 32S
Copiled: March 2024

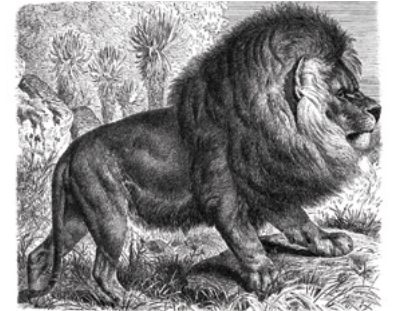
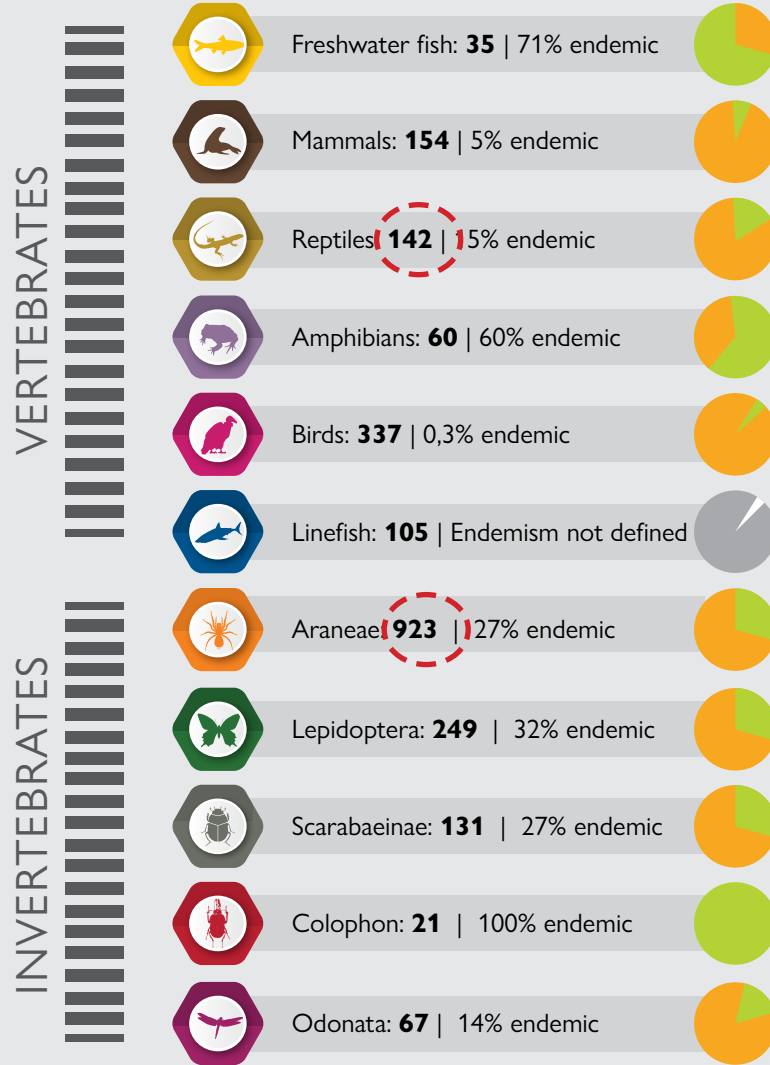




THE BIODIVERSITY OF THE WESTERN CAPE



LEGEND



Cape Lion (*Felis leo capensis*), illustration from Meyers Konversations-Lexikon encyclopedia, 1897

The number of extinct mammals in the Western Cape has decreased from 6 to 5 – not through gene editing technology, being explored to resurrect lost species like woolly mammoth, but through an analysis of museum specimens. The results show that lions which used to roam the grasslands of the Cape Flats were only isolated from their counterparts for a short time before eradicated by European colonizers. And were not genetically distinct as originally understood (*de Flamingh et al.* 2024). In the Western Cape, free-roaming lions can be found on Karoo National Park and private properties.

Recognised number of indigenous taxa in the Western Cape (as of March 2023) in selected taxonomic groups, and percentage of taxa that are endemic to the province. The Araneae total reflects the latest assessment (Dippenaar-Schoeman et al 2024).

Note: This biodiversity inventory is not exhaustive
* Taxa: Includes species, subspecies and varieties.



THE STATUS OF WESTERN CAPE ECOSYSTEMS

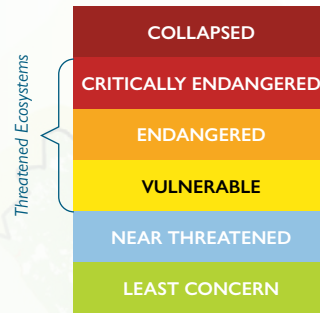


IUCN RED LIST CRITERIA FOR ECOSYSTEMS

Assess risk of collapse of ecosystem

A	DISTRIBUTION REDUCTION
B	RESTRICTED DISTRIBUTION & DECLINE
C	DEGRADATION OF ABIOTIC ENVIRONMENT
D	DISRUPTION TO BIOTIC PROCESSES
E	QUANTITATIVE ESTIMATE OF RISK OF COLLAPSE

QUANTITATIVE THRESHOLDS



WESTERN CAPE ECOSYSTEMS:

- ▶ 348 different ecosystem types (Coastal Marine, Freshwater, Terrestrial and Estuarine)
- ▶ 191 of 348 ecosystems in the Western Cape are threatened

109
CRITICALLY
ENDANGERED

54
ENDANGERED

28
VULNERABLE

5
NEAR
THREATENED

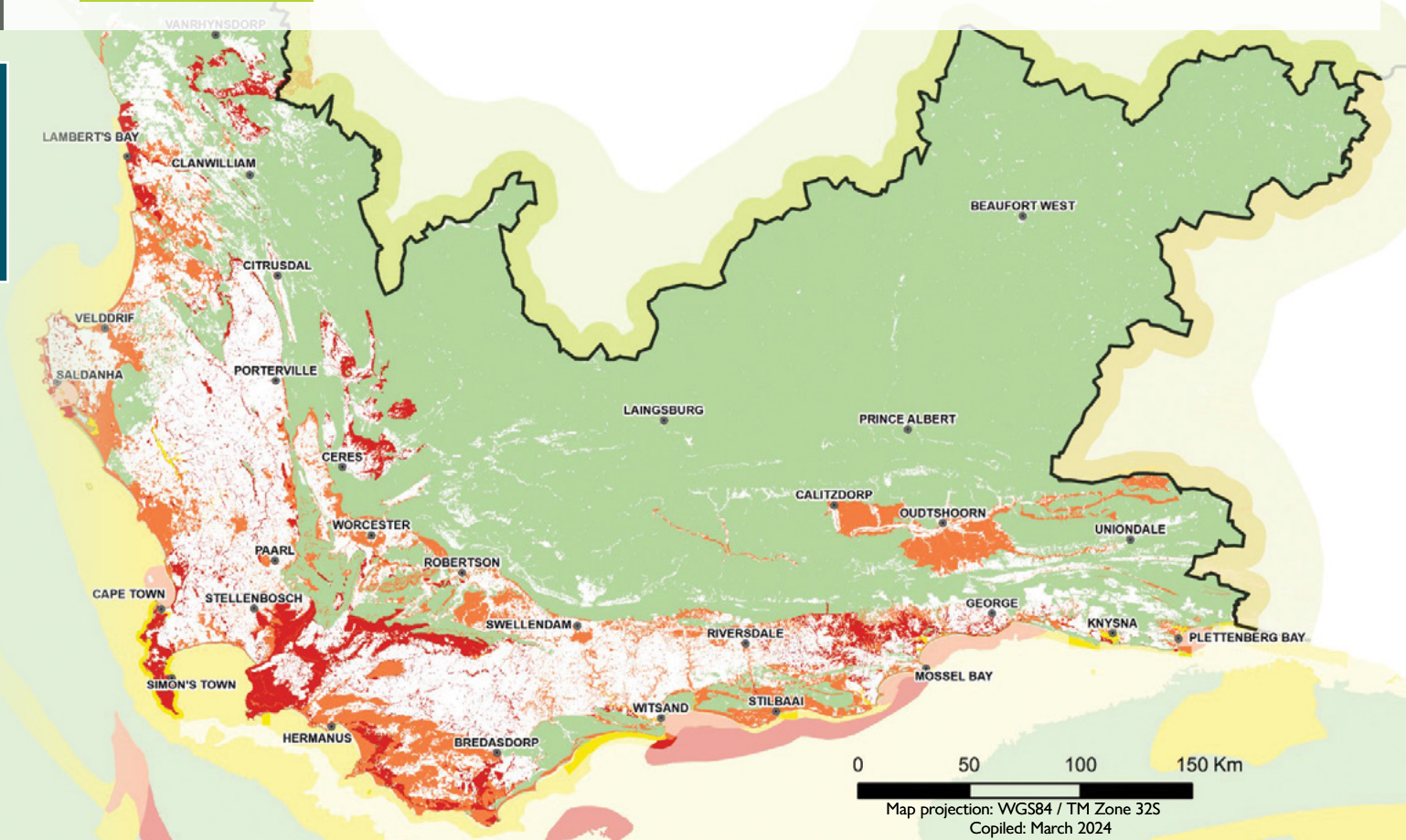
151
LEAST
CONCERN

1
NOT YET
ASSESSED

Ecosystems are classified according to threat status as reported in the 2018 National Biodiversity Assessment except for terrestrial ecosystems which are updated to reflect the 2022 Red List of Terrestrial Ecosystems.

Legend

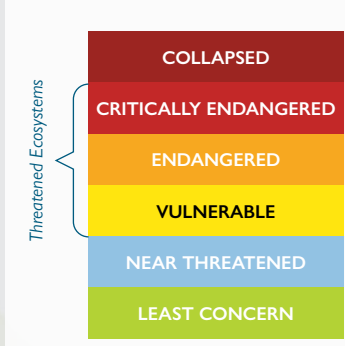
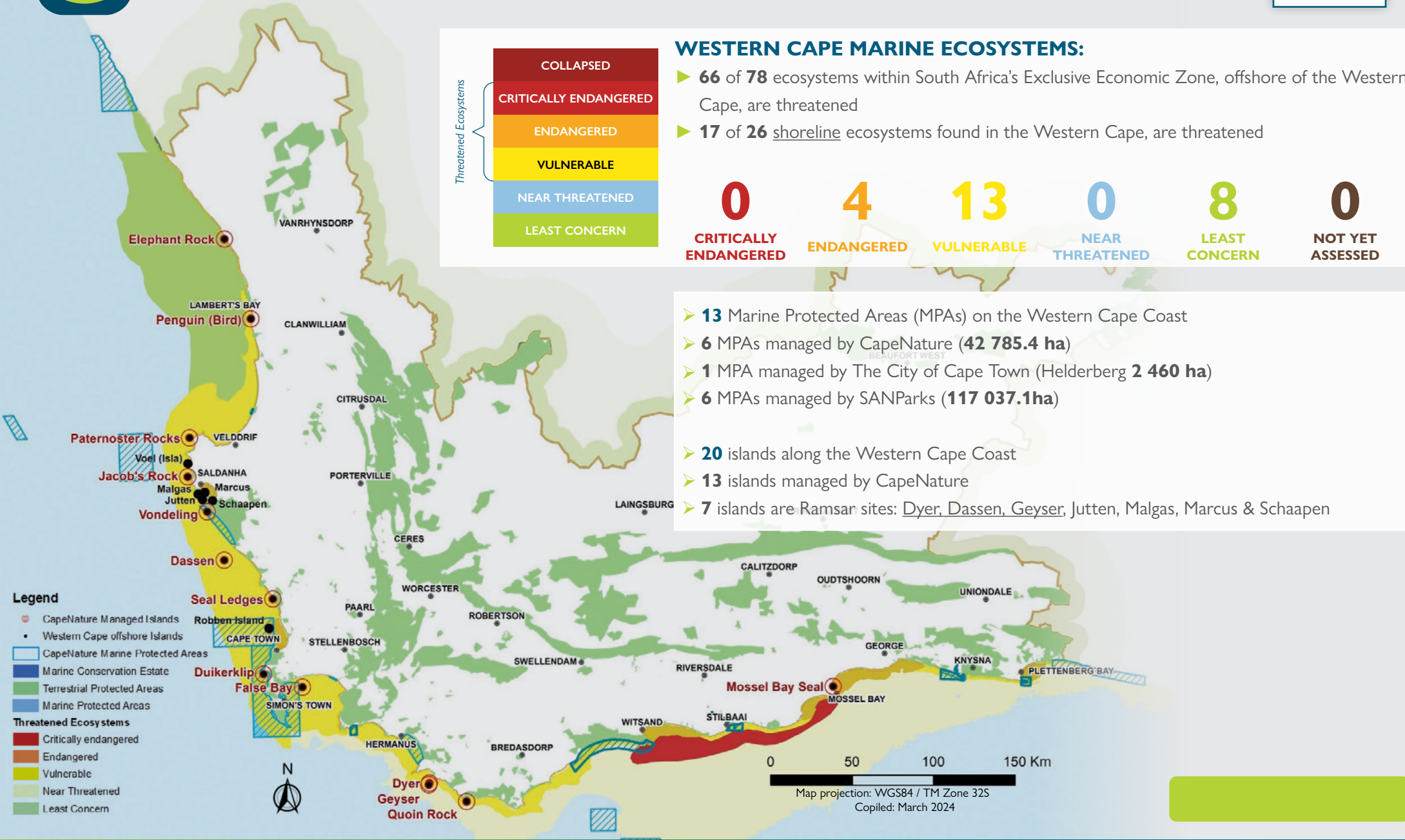
- Critically Endangered
- Endangered
- Vulnerable
- Least Concern
- 100% Modified



Map projection: WGS84 / TM Zone 32S
Copiled: March 2024



THE STATUS OF WESTERN CAPE MARINE ECOSYSTEMS



WESTERN CAPE MARINE ECOSYSTEMS:

- ▶ 66 of 78 ecosystems within South Africa's Exclusive Economic Zone, offshore of the Western Cape, are threatened
- ▶ 17 of 26 shoreline ecosystems found in the Western Cape, are threatened



- ▶ 13 Marine Protected Areas (MPAs) on the Western Cape Coast
- ▶ 6 MPAs managed by CapeNature (42 785.4 ha)
- ▶ 1 MPA managed by The City of Cape Town (Helderberg 2 460 ha)
- ▶ 6 MPAs managed by SANParks (117 037.1ha)
- ▶ 20 islands along the Western Cape Coast
- ▶ 13 islands managed by CapeNature
- ▶ 7 islands are Ramsar sites: Dyer, Dassen, Geyser, Jutten, Malgas, Marcus & Schaapen



STATUS OF WESTERN CAPE ESTUARINE ECOSYSTEMS



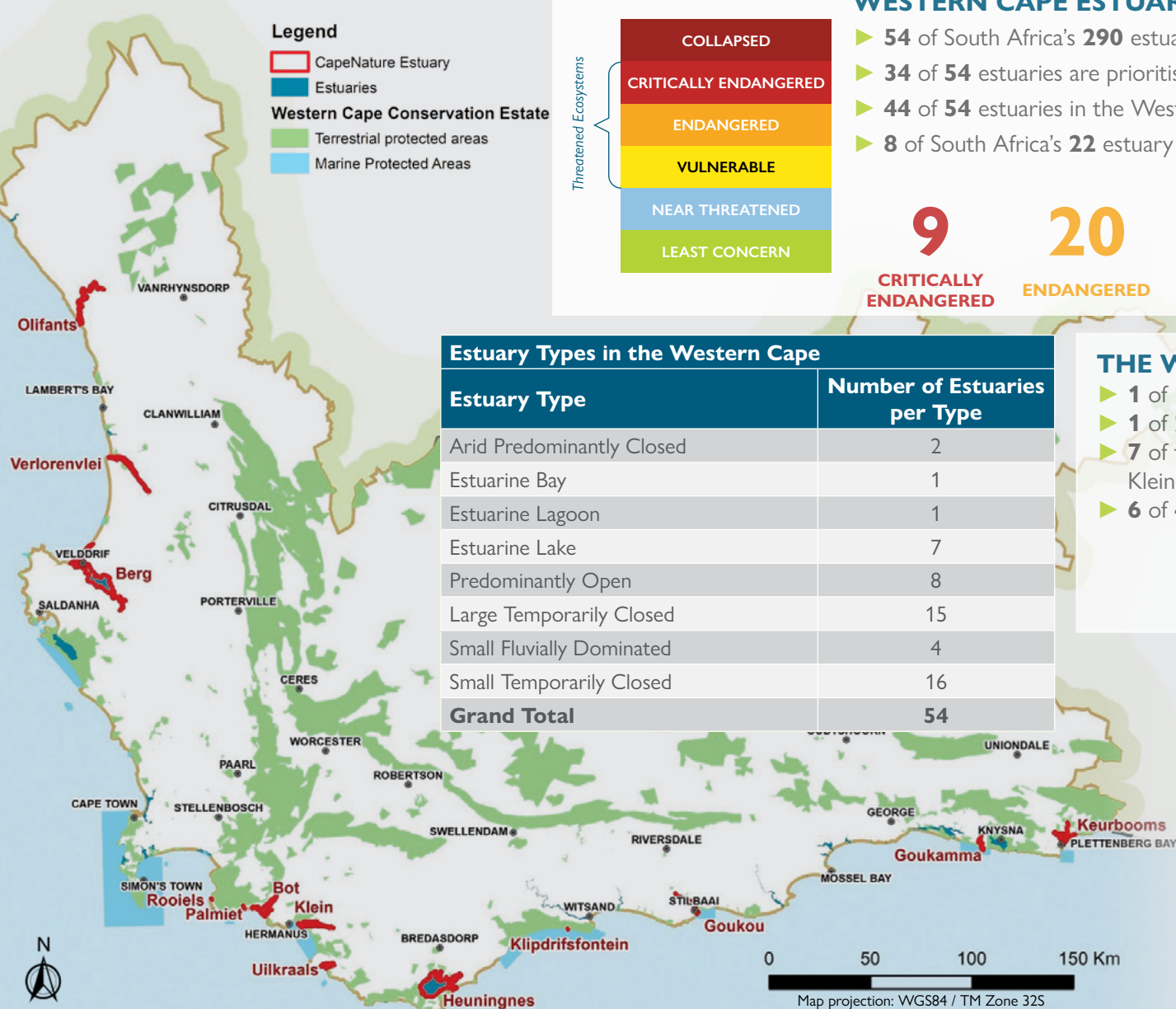
- Legend**
- CapeNature Estuary
 - Estuaries
 - Western Cape Conservation Estate**
 - Terrestrial protected areas
 - Marine Protected Areas

Threatened Ecosystems



WESTERN CAPE ESTUARINE ECOSYSTEMS:

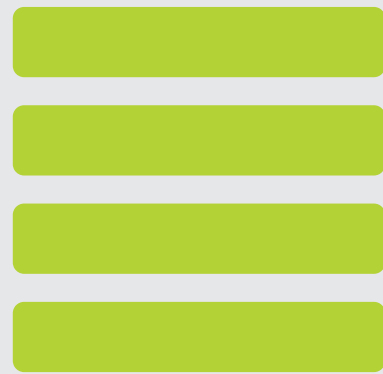
- ▶ 54 of South Africa's 290 estuaries are in the Western Cape
- ▶ 34 of 54 estuaries are prioritised with approved Estuary Management Plans
- ▶ 44 of 54 estuaries in the Western Cape are threatened
- ▶ 8 of South Africa's 22 estuary types are represented in the Western Cape



Estuary Types in the Western Cape	
Estuary Type	Number of Estuaries per Type
Arid Predominantly Closed	2
Estuarine Bay	1
Estuarine Lagoon	1
Estuarine Lake	7
Predominantly Open	8
Large Temporarily Closed	15
Small Fluvially Dominated	4
Small Temporarily Closed	16
Grand Total	54

THE WESTERN CAPE ESTUARINE TYPES FEATURE:

- ▶ 1 of 1 Estuarine Lagoon in SA: Langebaan
- ▶ 1 of 2 Estuarine Bays in SA: Knysna
- ▶ 7 of the 12 Estuarine Lakes in SA: Verlorenvlei, Bot/Kleinmond, Klein, Heuningnes, Touw/Wilderness, Swartvlei and Seekoeivlei
- ▶ 6 of 42 micro-estuaries in SA



Map projection: WGS84 / TM Zone 32S
Copiled: March 2024

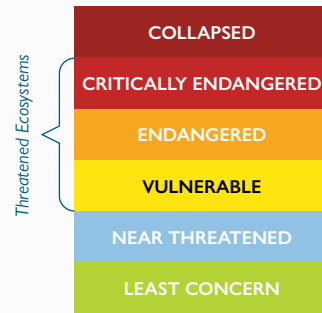


STATUS OF WESTERN CAPE FRESHWATER ECOSYSTEMS



WESTERN CAPE FRESHWATER ECOSYSTEMS:

- ▶ **101** of **138** freshwater ecosystems in the Western Cape are threatened: **64** river types, **74** wetland types
- ▶ **6** of South Africa's **22** surface water Strategic Water Source Areas are entirely in the Western Cape
- ▶ **2** Strategic Water Source Areas are partly in the Western Cape

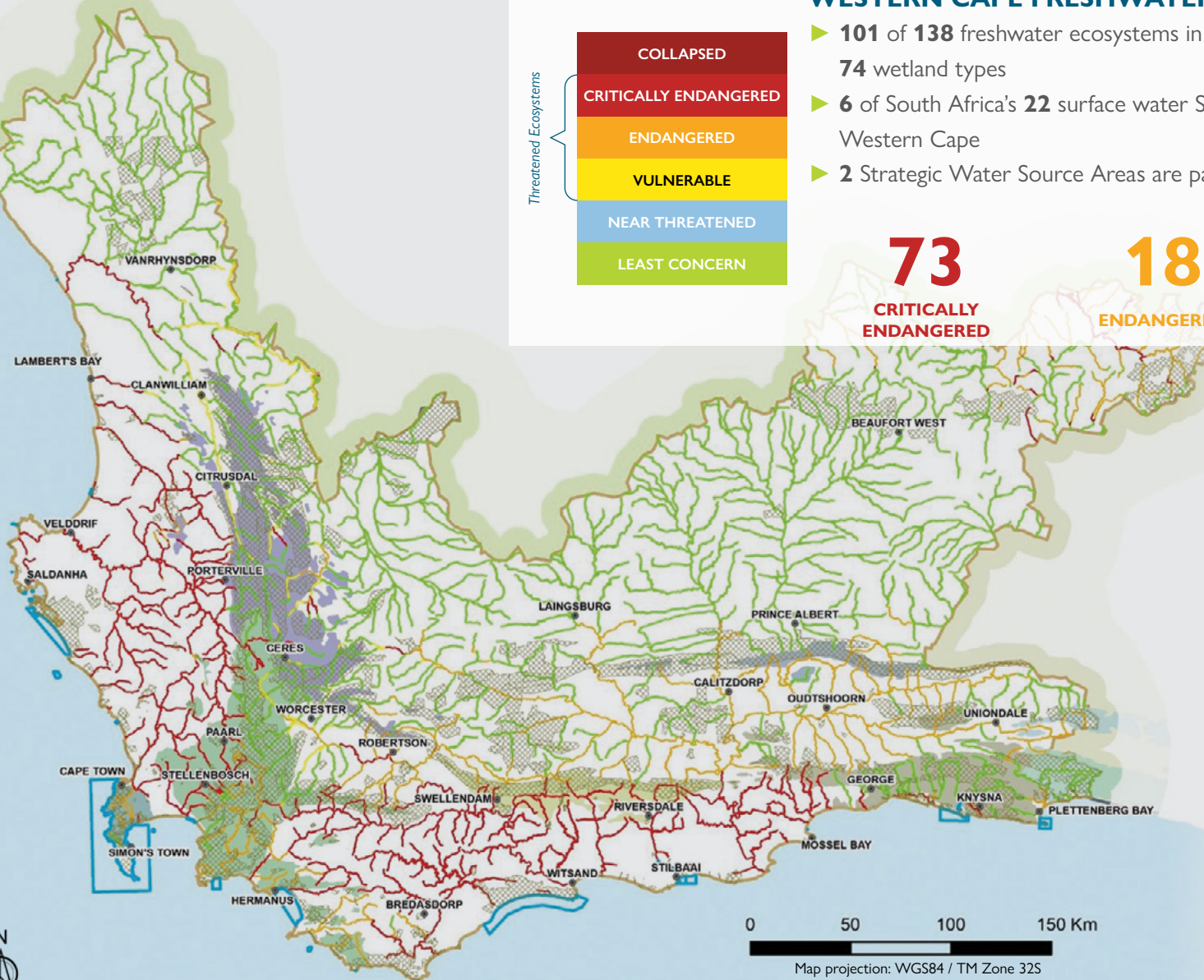


73
CRITICALLY
ENDANGERED

18
ENDANGERED

10
VULNERABLE

37
LEAST CONCERN



Legend

Western Cape Conservation Estate

- Terrestrial protected areas
- Marine Protected Areas

Strategic Water Source Areas

- Boland
- Groot Winterhoek
- Kouga
- Langeberg
- Outeniqua
- Swartberg
- Table Mountain
- Tsitsikamma

Rivers

Status (NBA 2018)

- Critically Endangered
- Endangered
- Vulnerable
- Least Concern

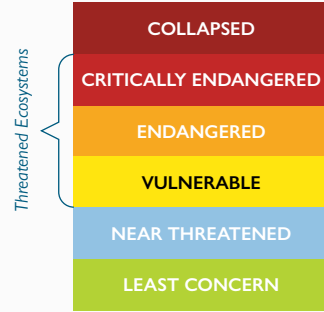


0 50 100 150 Km

Map projection: WGS84 / TM Zone 32S
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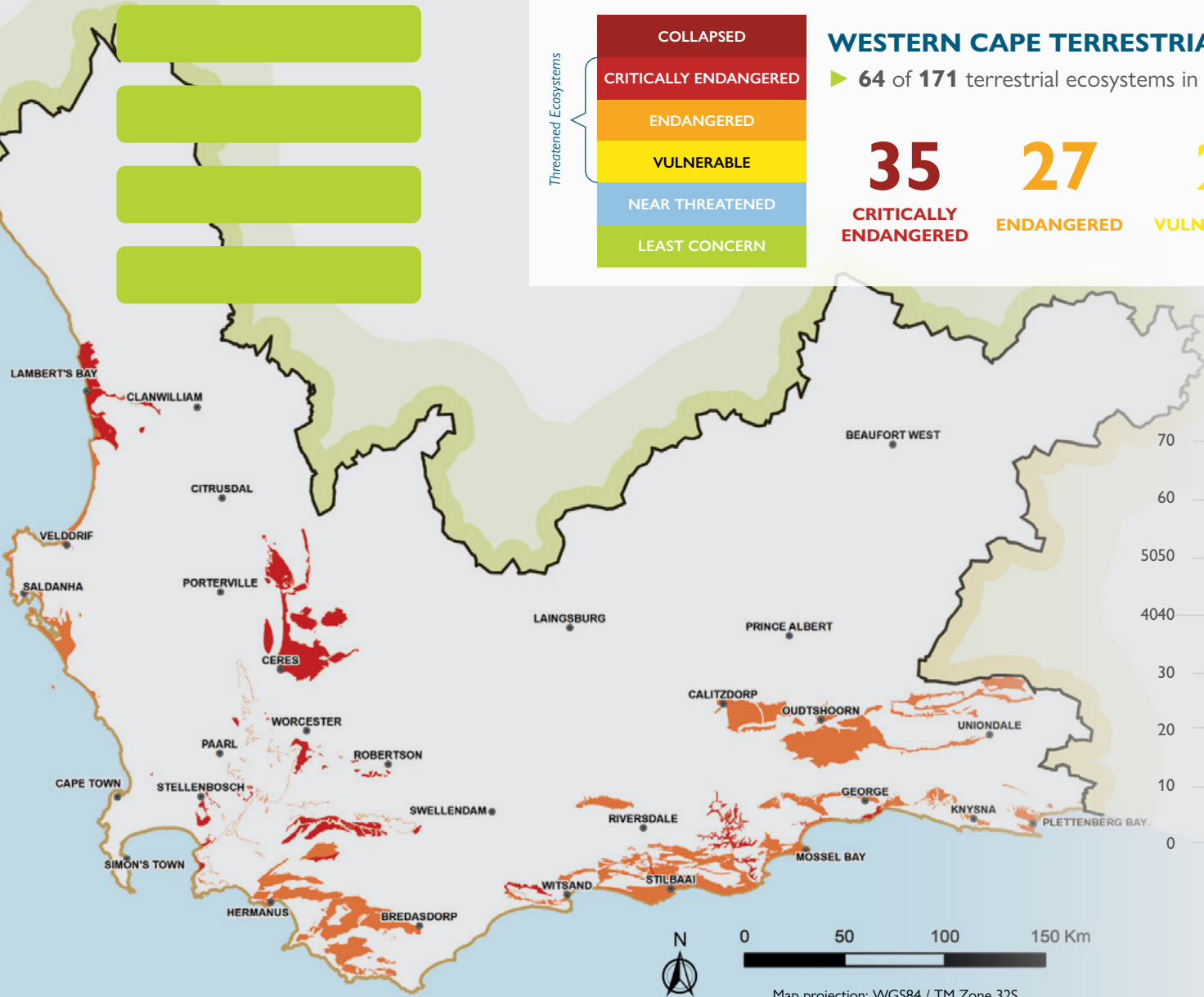


STATUS OF WESTERN CAPE TERRESTRIAL ECOSYSTEMS

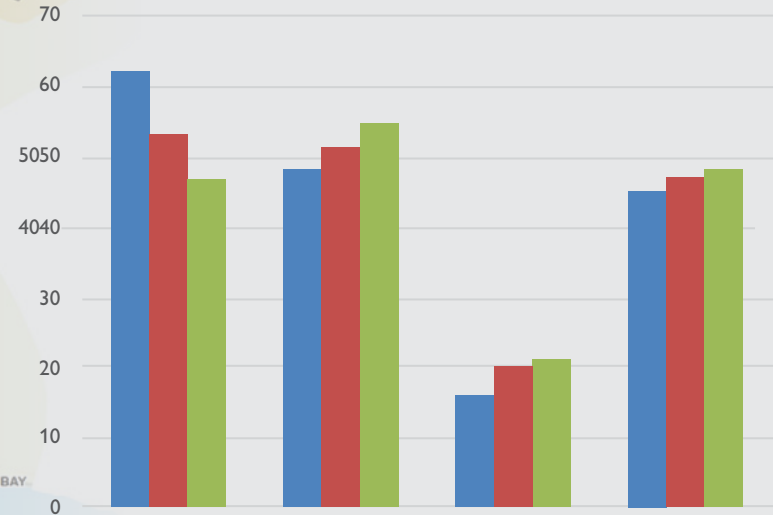


WESTERN CAPE TERRESTRIAL ECOSYSTEMS:

► 64 of 171 terrestrial ecosystems in the Western Cape are threatened



RLE (2011) # RLE (2017) # RLE (2023)



The protection levels of the 2022 Red Listed Ecosystems (RLE) have been steadily improving overtime,












Map projection: WGS84 / TM Zone 32S
Copiled: March 2024



STATUS OF WESTERN CAPE INDIGENOUS SPECIES

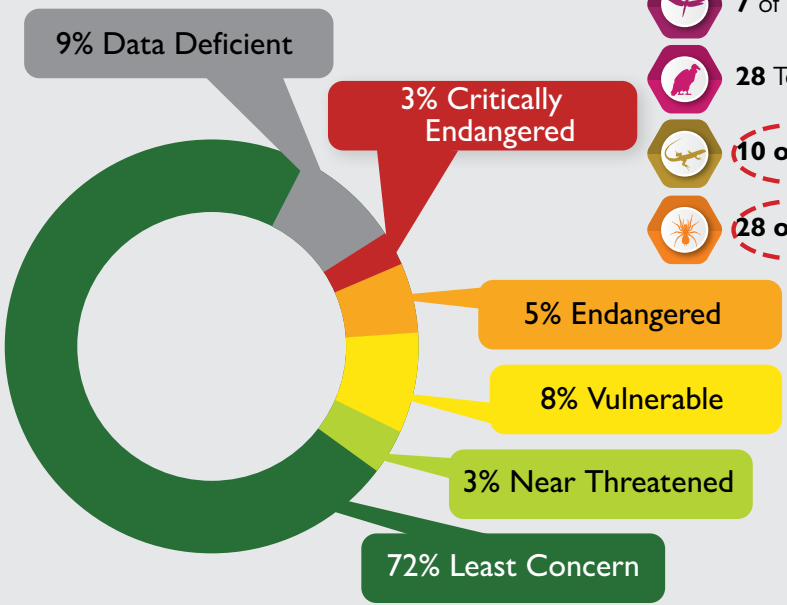
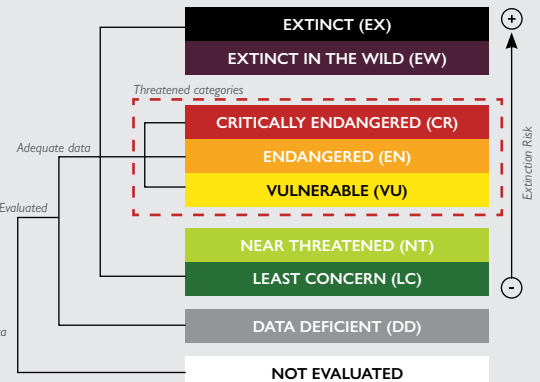
16% of extant taxa in the Western Cape are threatened

IUCN Red List Assessment

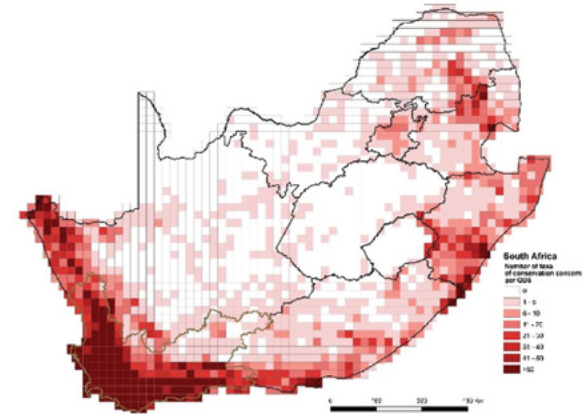
-  **24** of 44 Freshwater fish species are threatened
-  **7** of 27 Marine mammal species are threatened
-  **1 939** of 10 778 Plants species are threatened
-  **8** of 60 Amphibian species are threatened
-  **16** of 126 Terrestrial mammal species are threatened
-  **32** of 300 Butterfly species are threatened
-  **73** of 758 Marine fish species are threatened
-  **7** of 78 Dragonfly & Damselfly species are threatened
-  **28** Terrestrial bird species are threatened
-  **10 of 142** Reptile species are threatened
-  **28 of 923** Spider species are threatened



 indicates change

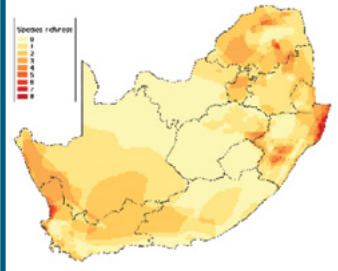


In South Africa, the highest concentration of plant taxa of conservation concern is in the Western Cape.



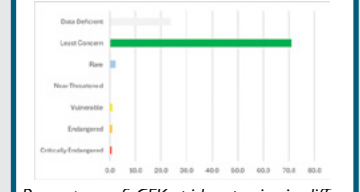
Concentration of plant taxa of conservation concern in South Africa. Map data supplied by SANBI, 2024.

In South Africa, Eswatini and Lesotho, most reptiles of conservation concern are found in the southwest and northeast.



Species richness, reptiles of conservation concern. Figure from Tolley et al. 2024

From 1997-2022, spider surveys were conducted at sites in the Cape Floristic Kingdom.



Percentage of CFK spider species in different conservation status categories. Data from Dippenaar-Schoeman et al. 2024

The CFK supports 42% of South Africa's spiders. Most are widespread and not threatened but seven (five in the Western Cape) are Critically Endangered.



STATUS OF WESTERN CAPE CONSERVATION ESTATE



CapeNature manages 16 Nature Reserve complexes, comprising a total of **828 441 ha**

The CapeNature protected area estate totals **1 082 118 ha** which includes CapeNature managed Protected Areas and formal Stewardship sites supported by CapeNature.

Western Cape Conservation Estate Area (hectares)

CapeNature Vested State Protected Areas

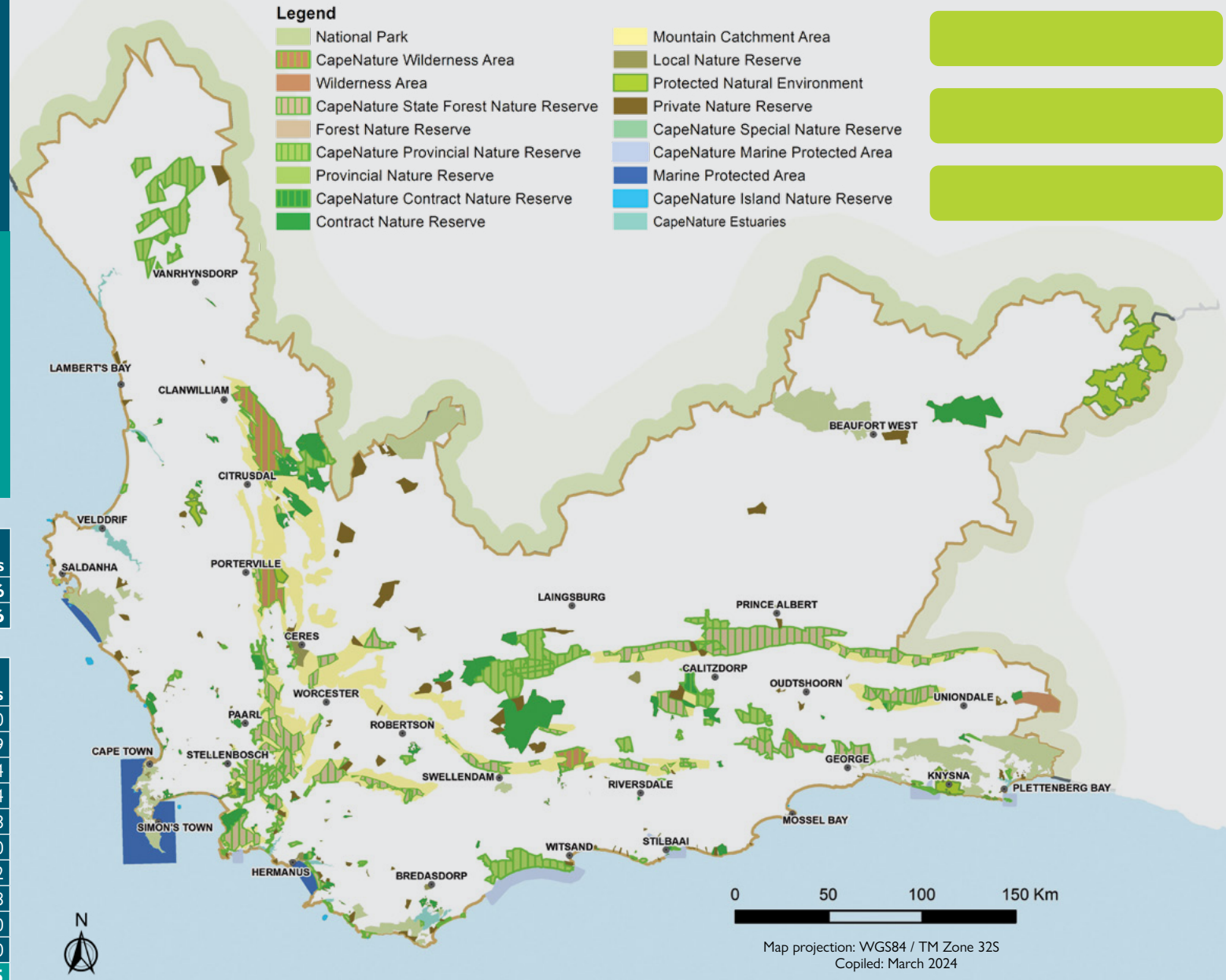
CapeNature Managed Protected Area Estate

CapeNature Protected Areas Estate

Western Cape Protected Areas Estate

NATURE RESERVES DECLARED IN 2023-2024	hectares
Table Bay Nature Reserve	800.56
Total hectares declared:	800.56

STEWARDSHIP NATURE RESERVE AGREEMENTS SIGNED (2023-2024)	hectares
Doringkloof Karoo Plaas Nature Reserve	209.20
Kruisrivier Nature Reserve	1 997.09
Machaseh Nature Reserve	844.84
Manna Karoo Nature Reserve	42 388.84
Wilde Honde Ness Nature Reserve	273.58
Smits Valley Nature Reserve	38.00
Blombos Private Nature Reserve	64.22
Sugarbird Private Nature Reserve	510.28
Otter's Creek Private Nature Reserve	4.30
Lower Potteberg agreement withdrawn	-1 314.40
Total hectares signed:	45 015.95



Map projection: WGS84 / TM Zone 32S
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STATUS OF CAPE NATURE PROTECTED AREA MANAGEMENT EFFECTIVENESS 2022-2024



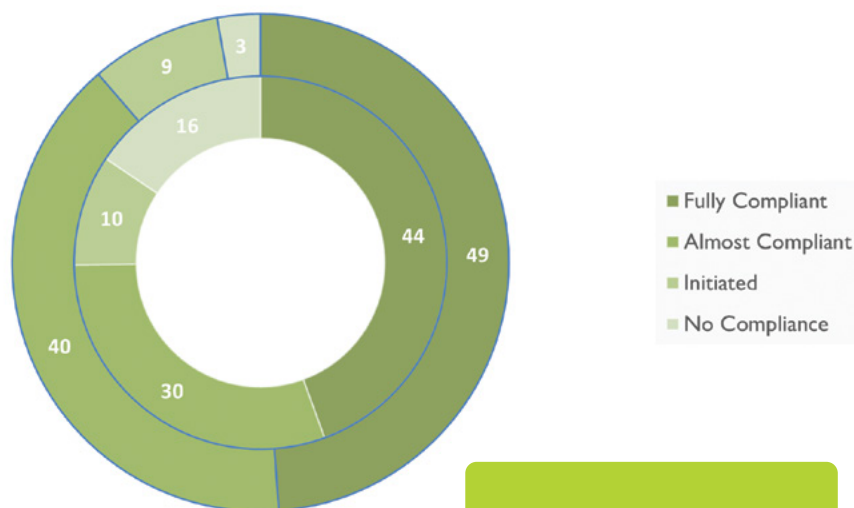
	All	Terrestrial	MPA
Number of CapeNature Protected Area Complexes assessed (METT-SA assessments submitted)	37*	31	6
Number of CapeNature protected areas included in METT-SA assessments	111	105	6
Average CapeNature Protected Area Complex Management Effectiveness (METT-SA score) (%)	73	73	73
Percentage (%) CapeNature protected areas in the Sound Management Category	93	92	100

*2022-2024 METT-SA Assessment excludes Driftsands Nature Reserve.

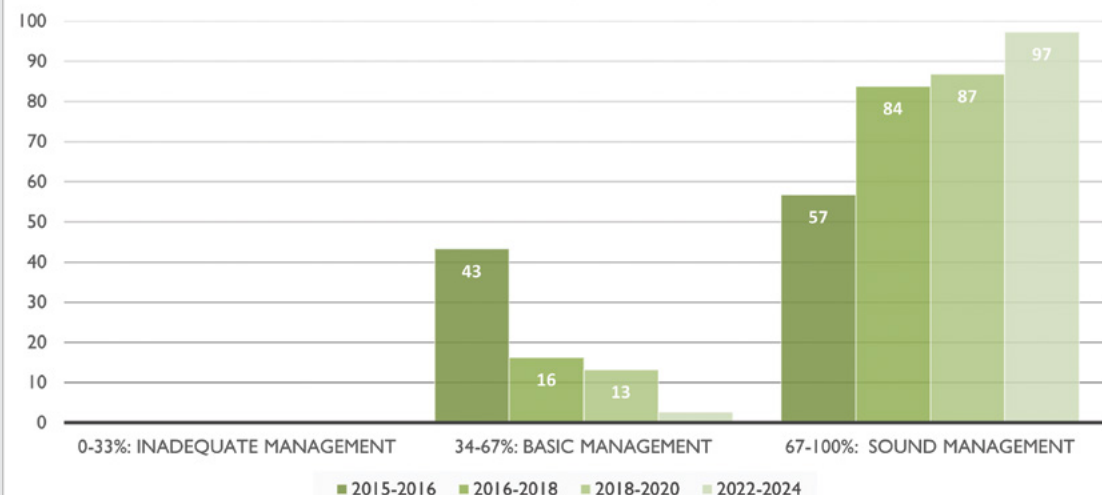
Factors That Influence Management Effectiveness

- Ongoing drafting of integrated Protected Area Management Plans and associated decision support tools improved management effectiveness.
- The implementation of education, awareness and interpretation programmes, compliance training and the resurrection of Protected Area Advisory Committees improved management effectiveness.
- The implementation of targeted CapeNature METT-SA action plans improved management effectiveness.
- Budget reductions and associated limitations on human resources constrain compliance monitoring and law enforcement and infrastructure maintenance.
- Invasive species management and restoration across protected areas continue to rely on strategic partnerships and external funding.

Changes in METT-SA indicator compliance
(Inner ring: 2020-2022; Outer ring 2022-2024)



Percentage PA Complexes per management category



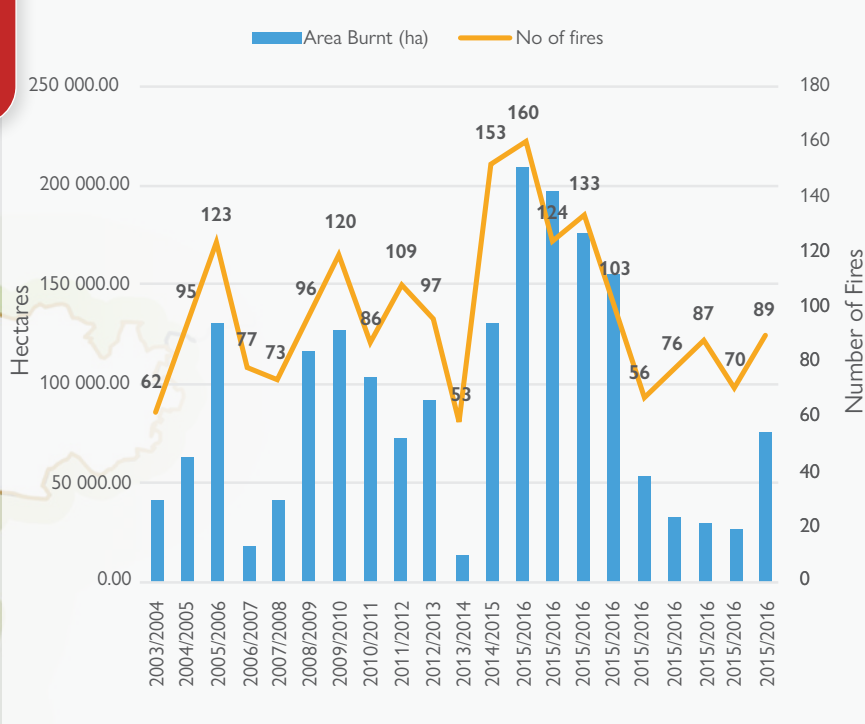
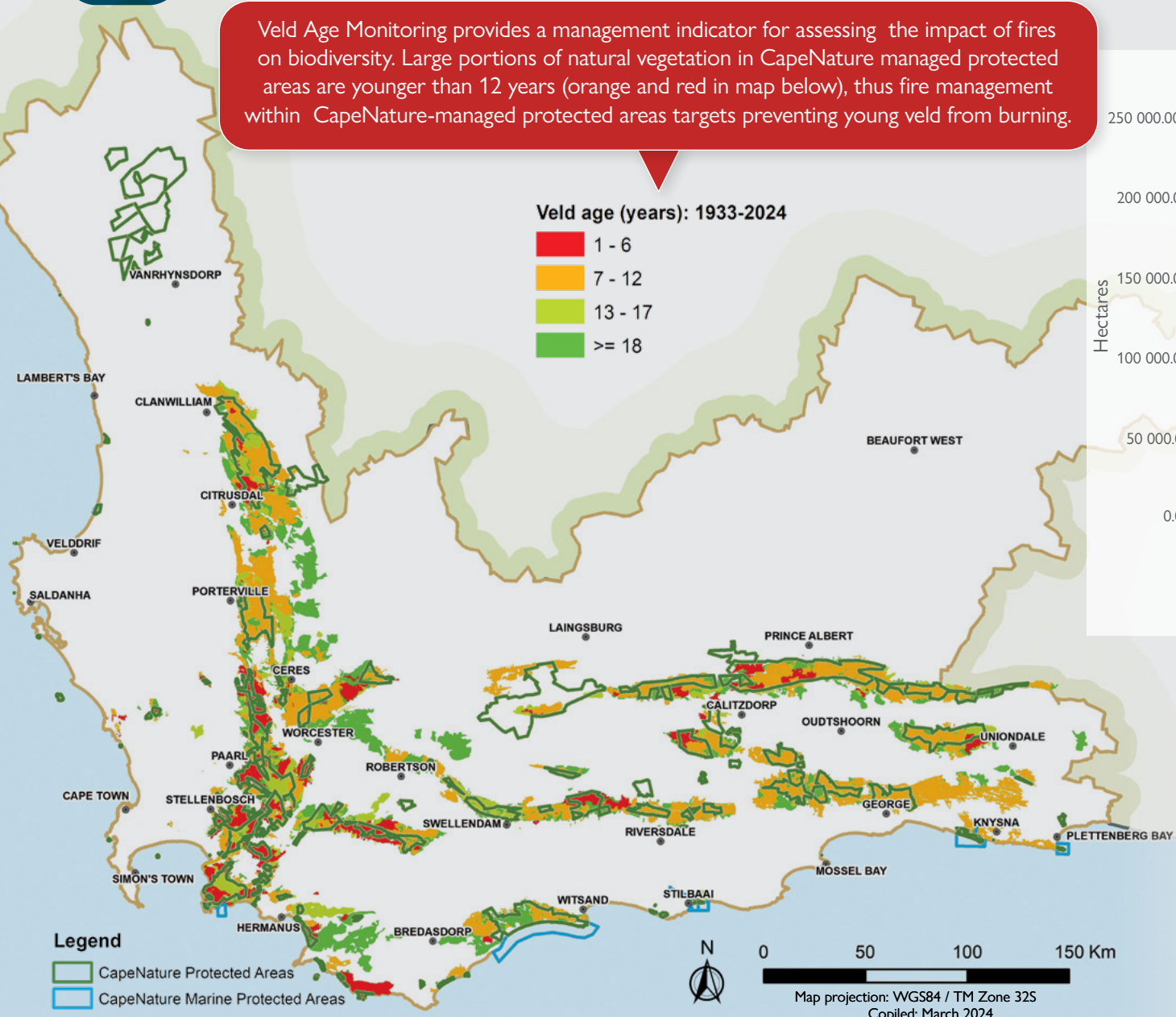
At protected area level, **93% of protected areas (97% of Protected Area Complexes)**, lie within the 'Sound Management' category and **7% of protected areas (3% of Protected Area Complexes)**, lie within the 'Basic Management' category. There are no protected areas in the 'Inadequate Management' category. The average METT-SA score is 73%.



THE STATUS OF FIRE



Veld Age Monitoring provides a management indicator for assessing the impact of fires on biodiversity. Large portions of natural vegetation in CapeNature managed protected areas are younger than 12 years (orange and red in map below), thus fire management within CapeNature-managed protected areas targets preventing young veld from burning.



89 fires were responded to in the 2023-2024 financial year, representing **73 671.6** hectares compared to **70** fires and **27 180.8** hectares burned in 2022-2023. Most fires are caused by people and the greater number of fires and larger fires in 2023-2024 resulted in increased costs. Nonetheless CapeNature and our partners managed to restrict many fires to under **10** ha in size.



THE STATUS OF BIOLOGICAL INVASIONS: PLANTS



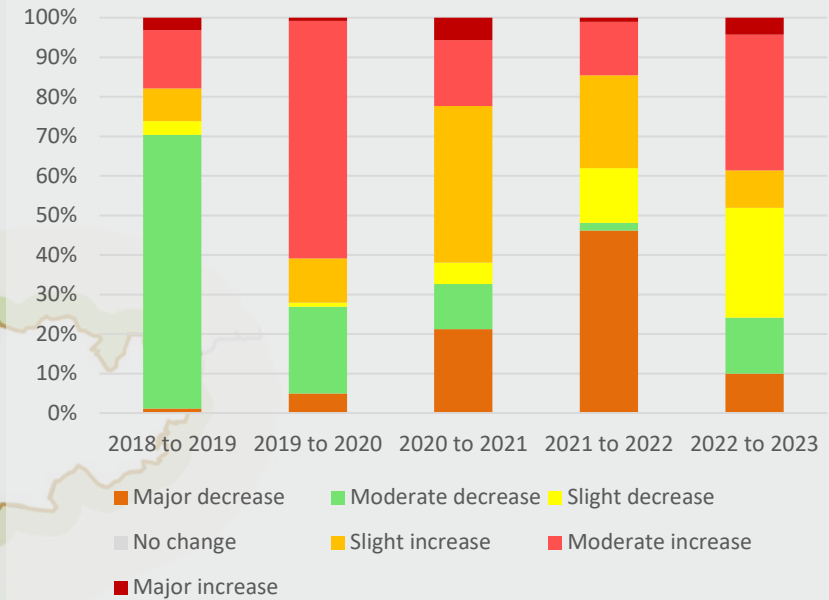
CapeNature prioritizes clearing alien invasive plants according to species, densities, topography and Strategic Water Source Areas, working closely with Greater Cape Town Water Fund to target key City of Cape Town Water catchments to improve water supply.

Invasive Alien Plant densities per management compartment in CapeNature Protected Areas.

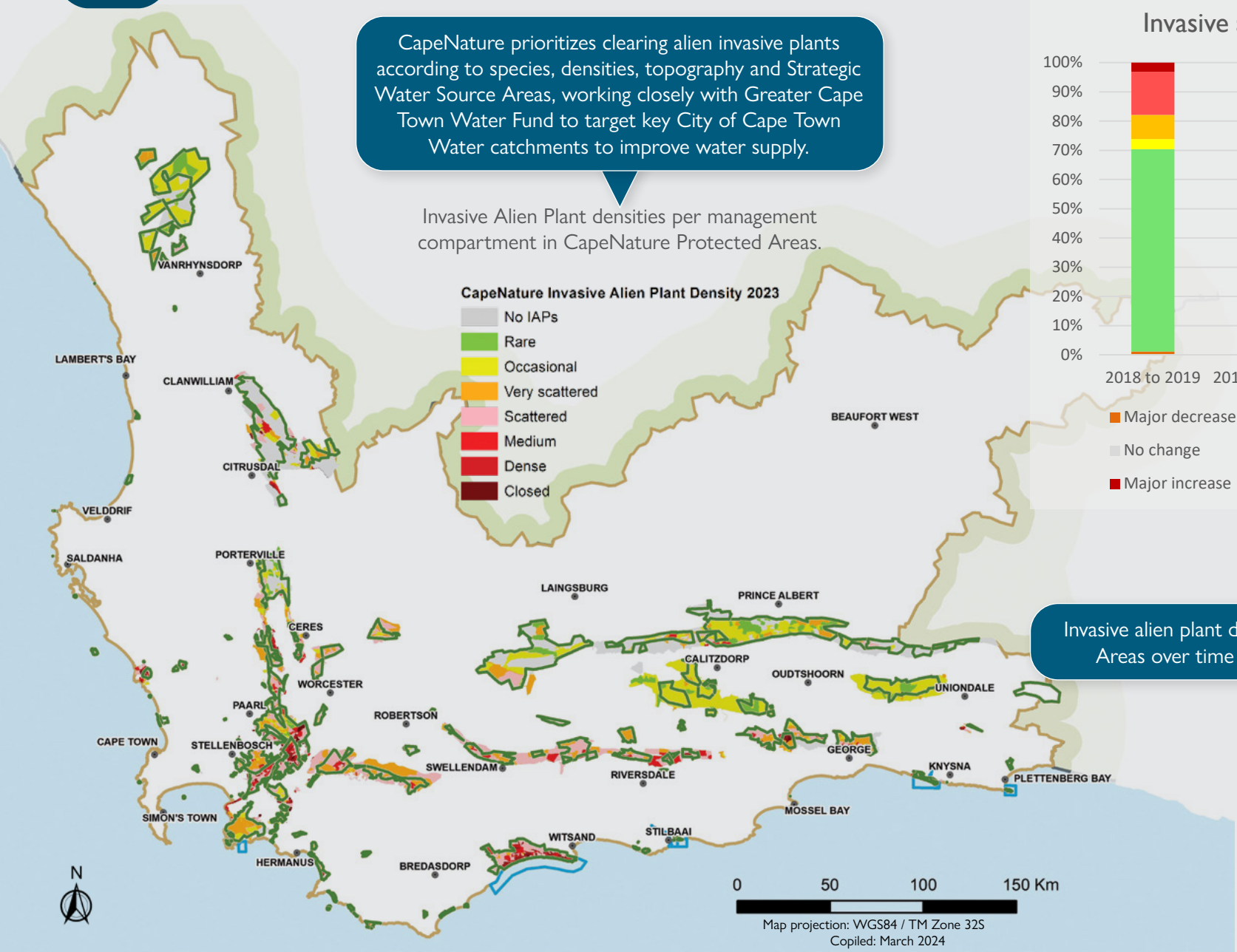
CapeNature Invasive Alien Plant Density 2023

- No IAPs
- Rare
- Occasional
- Very scattered
- Scattered
- Medium
- Dense
- Closed

Invasive alien species density change



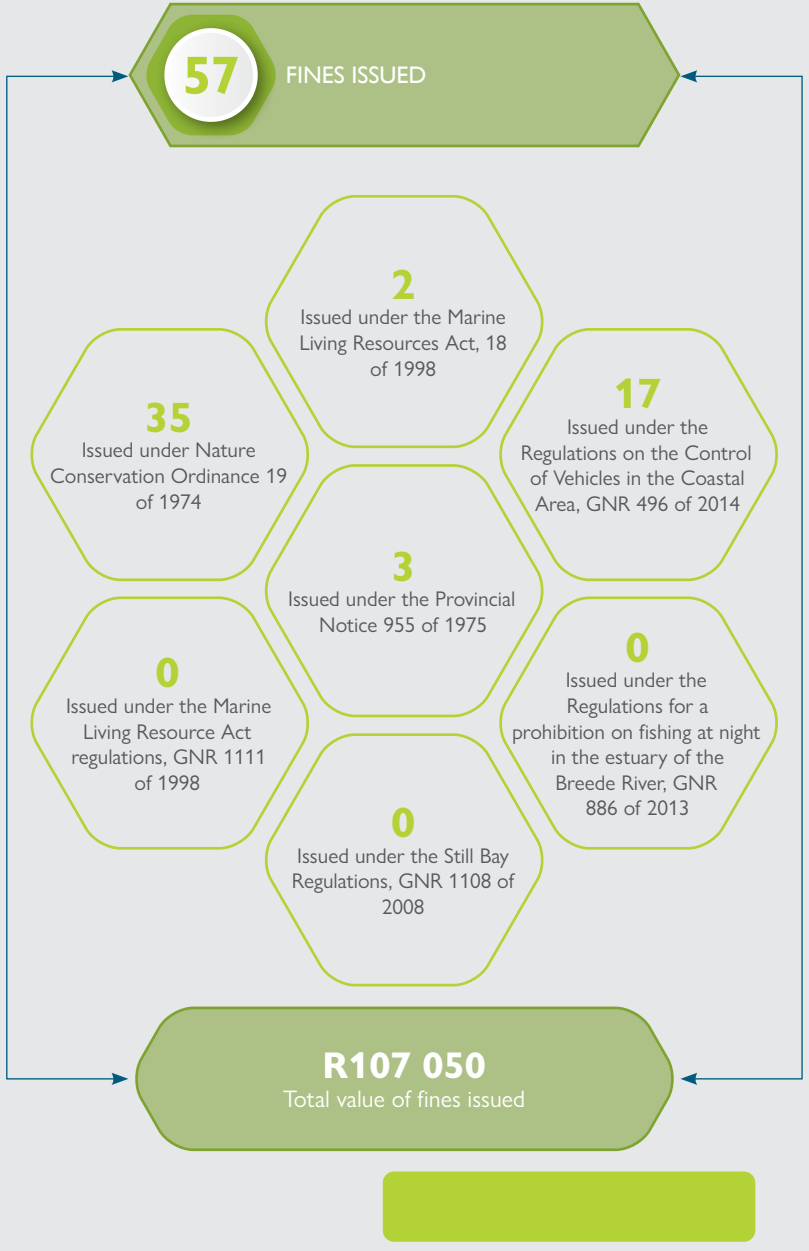
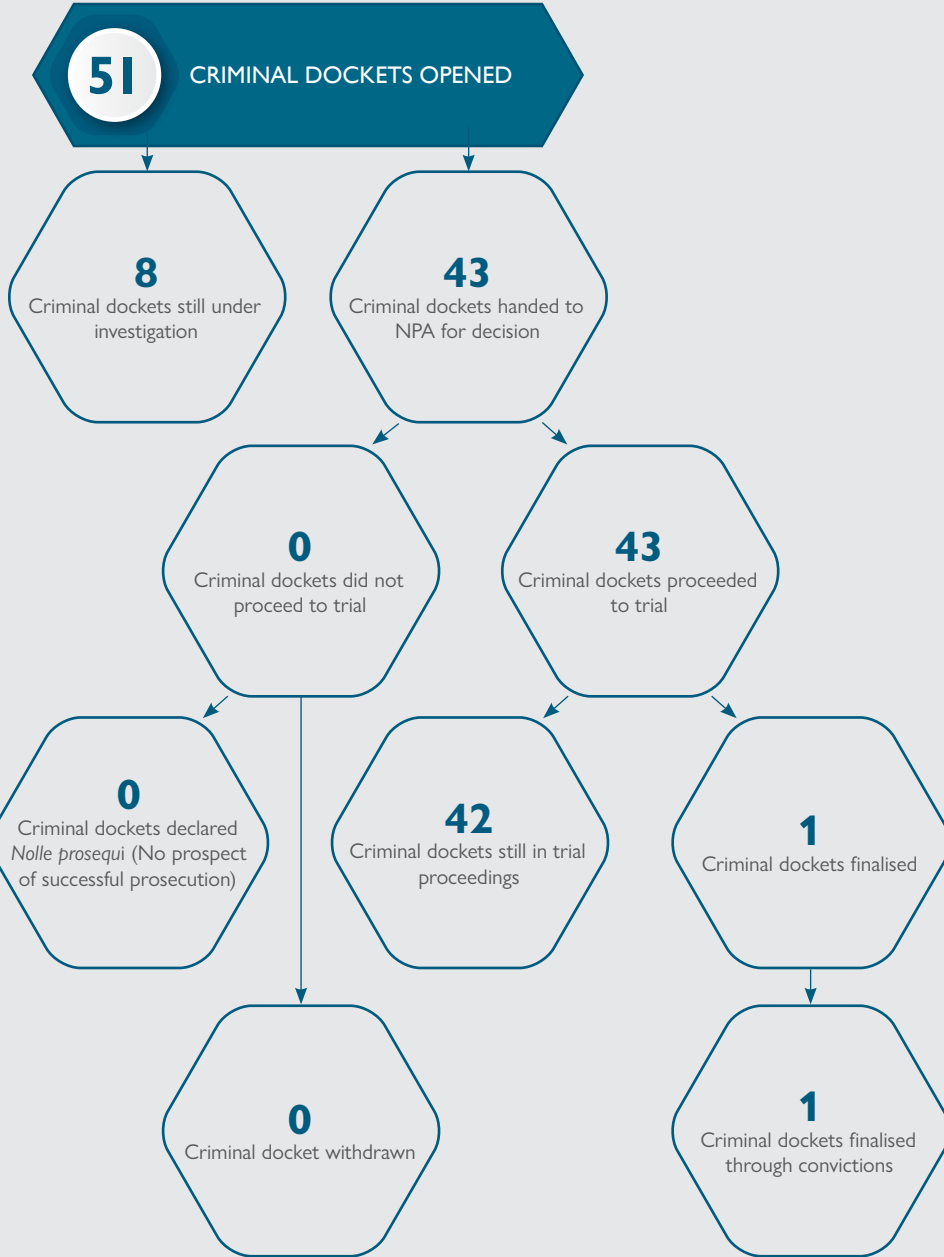
Invasive alien plant density changes in CapeNature Protected Areas over time (2022 to 2023) per change category.



Map projection: WGS84 / TM Zone 32S
Copiled: March 2024



BIODIVERSITY CRIME RESPONSE





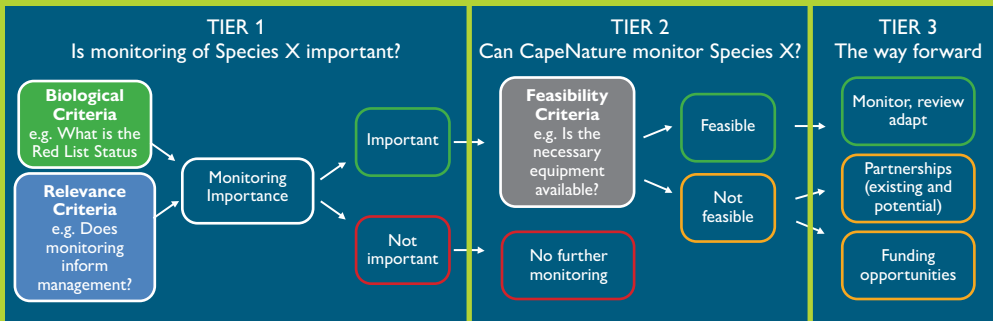
SURVEILLANCE AND MONITORING PRIORITY SPECIES



Prioritization Tool for Species Surveillance & Monitoring

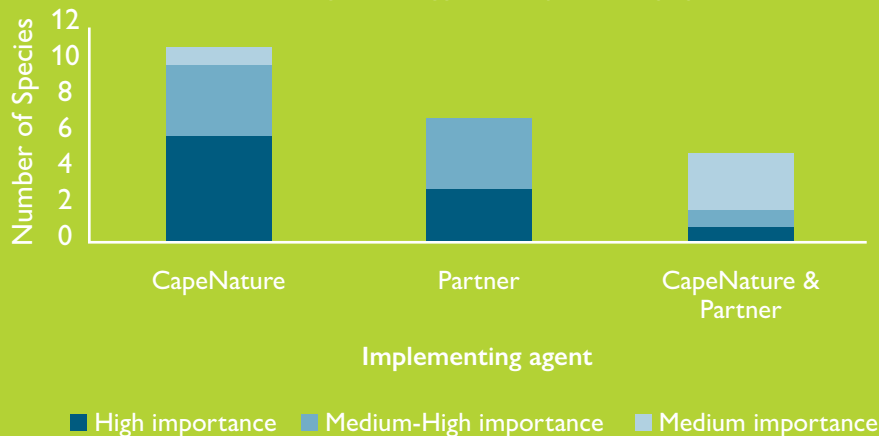
Purpose: To optimize CapeNature's surveillance and monitoring activities and highlight opportunities for partnerships.

Approach: A 3-tier decision-tree using biological, relevance and feasibility criteria to determine monitoring needs and actions.



Three-tier decision-tree for prioritizing species for Monitoring and Surveillance

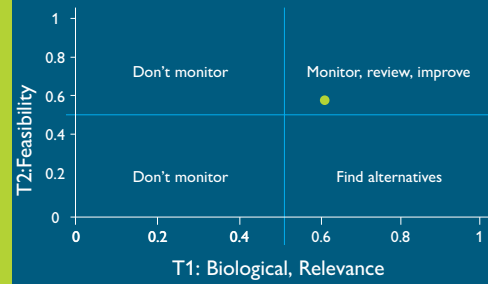
Relative importance of 23 species for surveillance and monitoring, with suggested implementing agents



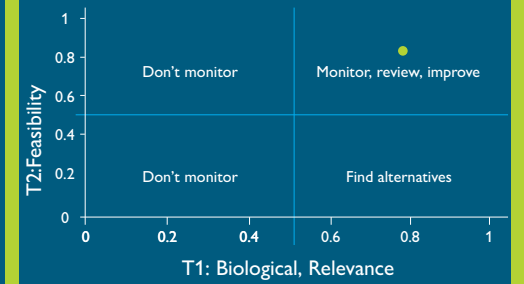
Prioritization Tool for Species Surveillance & Monitoring: Examples



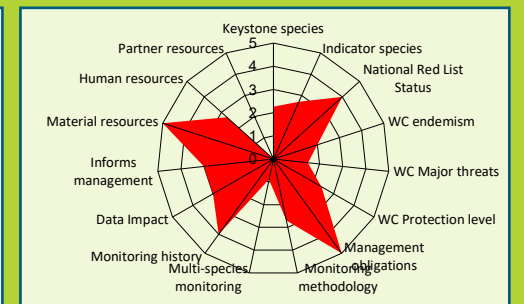
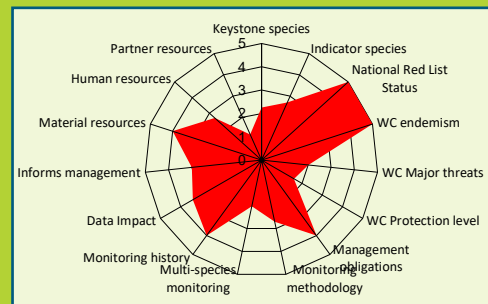
Blushing bride, *Serruria florida*



Cape Vulture, *Gyps coprotheres*



Combined scores for Biological, Feasibility and Relevance criteria for *S. florida* (left) and *G. coprotheres* (right).



Radar charts showing all criterion scores for *S. florida* (left) and *G. coprotheres* (right).

Prioritized species are derived from Protected Area Management Plans, the Western Cape Biodiversity Spatial Plan and the Protected Area Expansion Strategy and described in the State of Biodiversity Report.



SURVEILLANCE AND MONITORING PRIORITY SPECIES: FAUNA

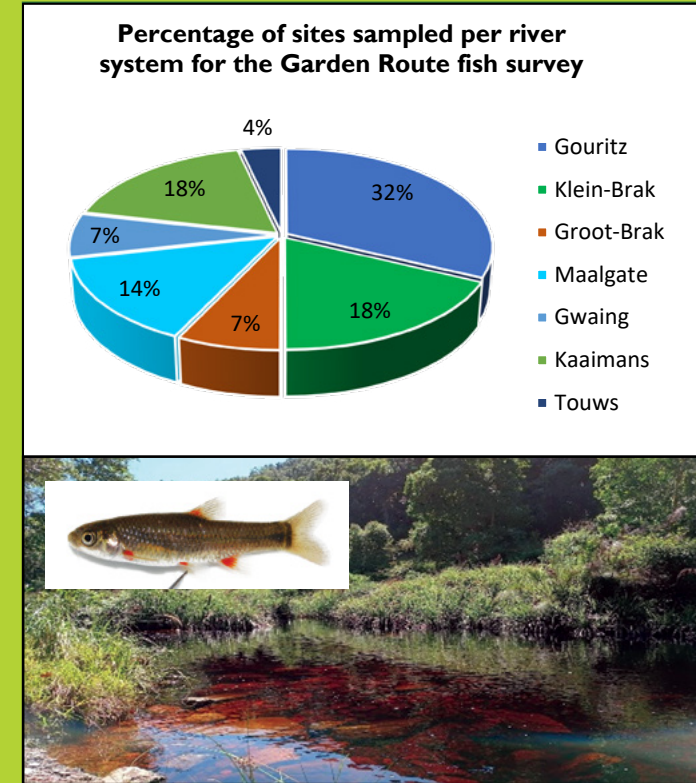
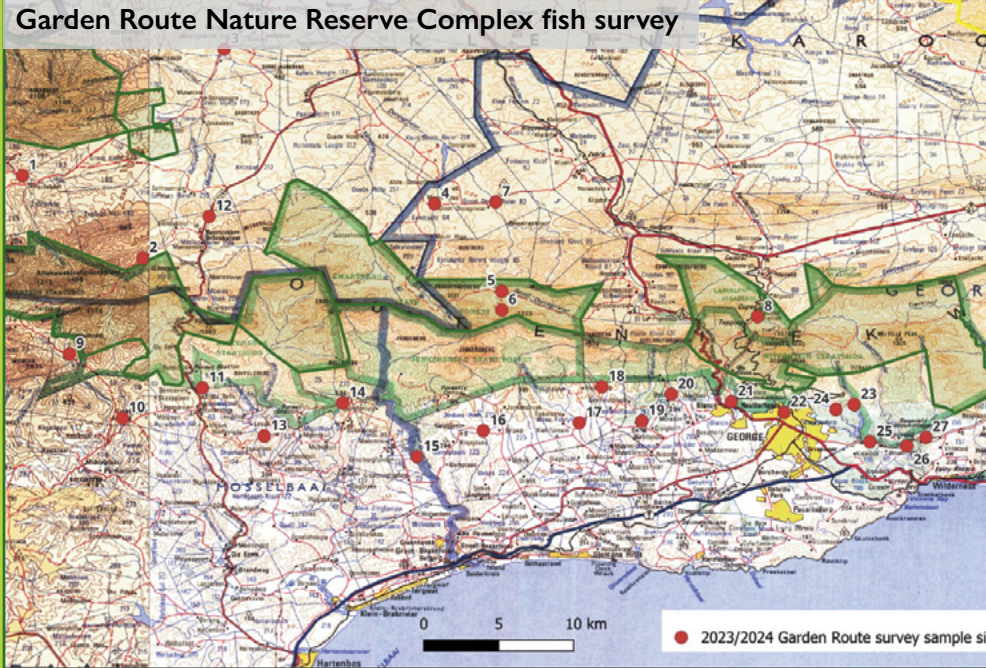


Surveillance

Data collected through either ad hoc observations or focal biodiversity surveys providing occurrence information which is useful for determining species persistence or changes in species distribution. An example on one surveillance project is the Garden Route Fish Survey.

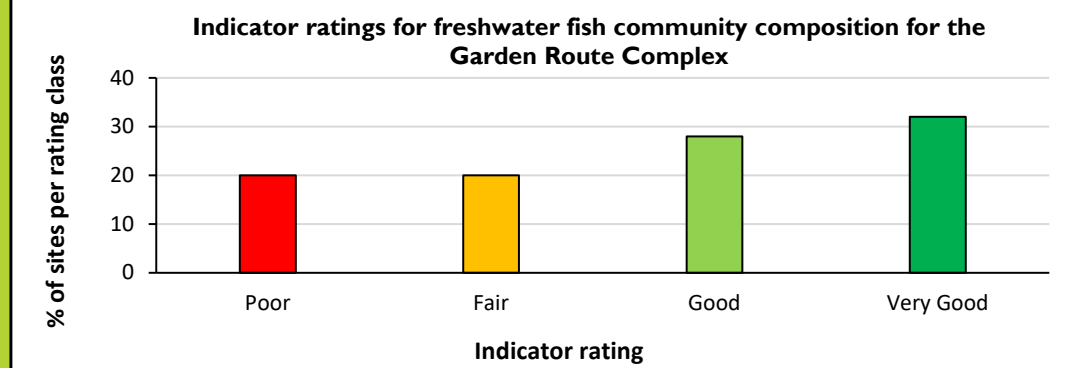
Garden Route fish survey

- 28 sites sampled in 7 catchments.
- Late rainfall and high river flows affected catch data.
- Fish detected at 20 sites.
- Data analysed in terms of indicator ratings defined in management plan.
- Baseline survey will inform future surveillance and monitoring requirements.



INDICATOR RATINGS TO DEFINE THE CONDITION OF THE FRESHWATER FISH COMMUNITY

Key attribute	Indigenous freshwater fish species composition			
Indicator	% Indigenous fish species composition and age class			
Indicator Ratings				
Poor	Fair	Good	Very Good	
Indigenous fish species absent	50% or less of expected indigenous fish species present, only 1 age class present. Some invasive alien fish species present	>50% of expected indigenous fish species present, 1-2 age classes present. Some invasive alien fish species present	100% of expected indigenous fish species present and all 3 age classes present. No invasive alien fish species present	





SURVEILLANCE AND MONITORING PRIORITY SPECIES: FAUNA

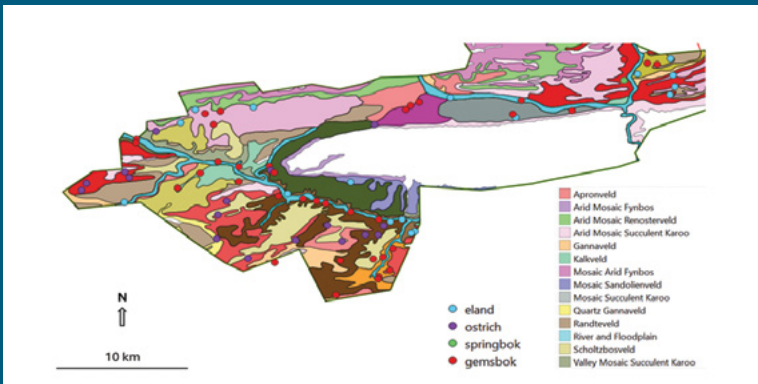
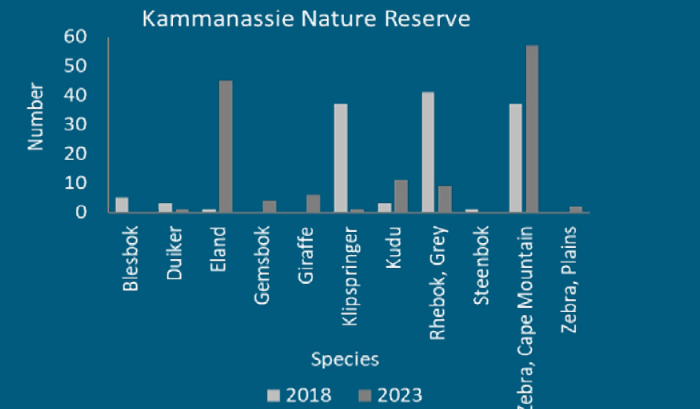
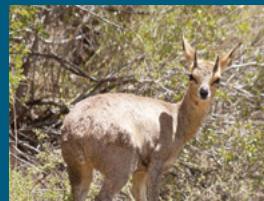
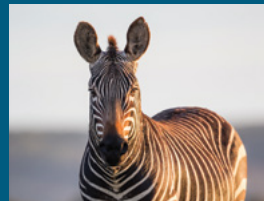
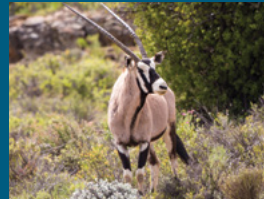
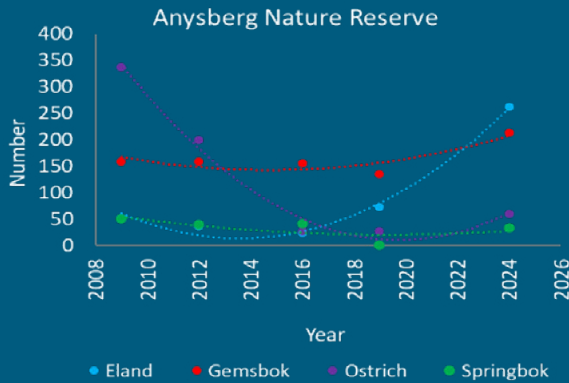
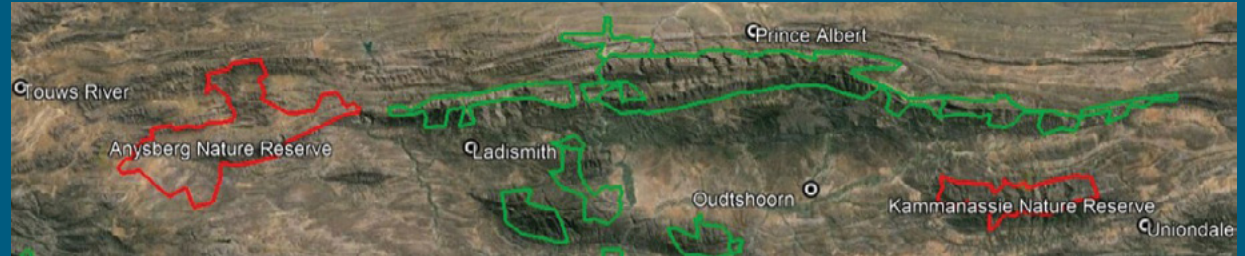


Little Karoo aerial game surveys, 2023-2024



Monitoring: Fixed methods used to obtain data to detect changes over time.

In the reporting period, there were 169 dedicated faunal monitoring and surveillance projects, several of which are multi-species projects. Examples from two Protected Areas have been provided as examples to illustrate the nature and diversity of the monitoring conducted.



Distribution of herd-forming game species, including ostrich, relative to habitat type in the survey area on Anysberg Nature Reserve.



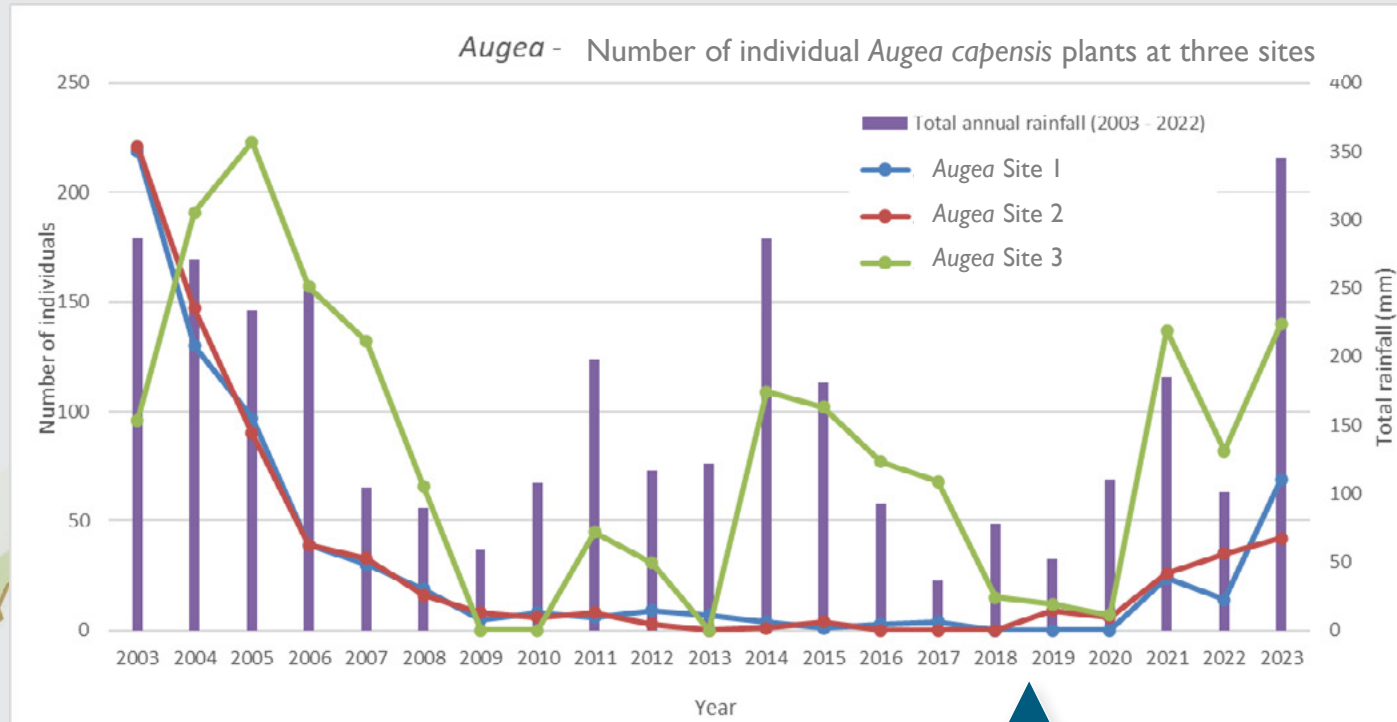
Kammanassie Cape mountain zebra distribution (2018: white circles, 2019: black circles) relative to waterpoints (red squares) and altitude (blue lines) ≤1100masl, red lines >1100 masl.



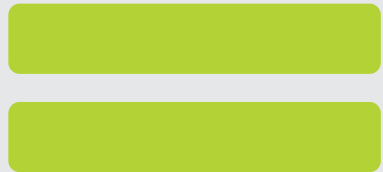
SURVEILLANCE AND MONITORING PRIORITY SPECIES: FLORA



CapeNature Protected
Areas Plant Monitoring Sites

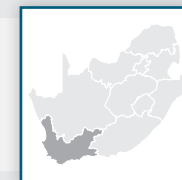


Example of long-term plant monitoring
Augea capensis, indigenous to South African but not to the Klein Karoo, has been found to invade overgrazed areas. Monitoring has been conducted at three sites for 21 years to determine if the species needs to be actively managed using an eradication programme. Tentative results indicate the veld will recover naturally over time.





PARTNERSHIPS FOR CONSERVATION SUCCESS



CapeNature acknowledges the of collaboration in sustaining biodiversity conservation and the Biodiversity Economy. CapeNature values and pursues working with communities, private landowners, civil society, conservation organisations, researchers, tertiary institutions and other spheres of government to deliver on conservation targets.

CapeNature engages in numerous, valued, formal and informal working collaborations.

The partners with whom the entity has formal agreements for biodiversity conservation, are listed below.

1	Afritrails	27	Garden Route District Municipality	53	On The Ball College (OTBC)
2	Agulhas Biodiversity Initiative	28	Gift of the Givers	54	Overberg District Municipality (ODM)
3	Berg River Municipality	29	Gouritz Cluster Biosphere Reserve (GCBR)	55	Overberg Renosterveld Conservation Trust
4	BirdLife South Africa	30	Greater Cederberg Fire Protection Association (GCFPA)	56	Overstrand Municipality
5	Buffalo Valley Trust	31	Greater Overberg Fire Protection Association (GOFPA)	57	Rocklands Landowners Agreement
6	Cape Agency for Sustainable Integrated Development in Rural Areas (CASIDRA)	32	Grootbos	58	Sanbona Wildlife Reserve
7	Cape Leopard Trust	33	Heuningvlei Community	59	South African Environmental Observation Network (SAEON)
8	Cape Peninsula Fire Protection Association (CPFPA)	34	Hospitality Property Fund	60	South African Hikers Network
9	Cape Peninsula University of Technology (CPUT)	35	Invasive Fish Species Management (IFSM)	61	South African Institute for Aquatic Biodiversity (SAIAB)
10	Cape Winelands District Municipality	36	Kishugu Training	62	South African National Biodiversity Institute (SANBI)
11	Centre for Estuarine Research and Conservation (CERC)	37	Knysna Municipality	63	South African National Parks (SANParks)
12	Centre for Invasion Biology (CIB)	38	Landmark Foundation	64	South African Shark Conservancy (SASC)
13	City of Cape Town	39	Leisure Charitable Trust: Berg Estuary	65	Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)
14	Conservation at Work	40	Leisure Charitable Trust: Walker Bay	66	Southern African Tortoise Conservation Fund/Trust (SATCT)
15	Conservation Outcomes	41	Leisure Conservation Trust	67	Southern Cape Fire Protection Association (SCFPA)
16	Denel	42	Logos, Ethos &Pathos Consulting (Pty) Ltd t/a Nightsbridge	68	Swartland Municipality
17	Department of Agriculture	43	Mapula Trust	69	Table Mountain Fund (TMF)
18	Department of Forestry Fisheries and the Environment (DFFE)	44	Matzikama Municipality	70	The Nature Conservancy (TNC)
19	Dyer Island Conservation Trust (DICT)	45	McGregor Tourism	71	University of the Free State (UFS)
20	Endangered Wildlife Trust (EWT)	46	Mountain Runner Events (Pty) Ltd	72	University of the Western Cape (UWC)
21	False Bay TVET College (FBC)	47	Mountains to Oceans (MTO) Forestry	73	Volunteer Wildfire Services (VWS)
22	Flower Valley Conservation Trust	48	National Research Foundation (NRF)	74	Warrior on Wheels
23	Forge	49	Nature Connect: Sustainable Schools	75	West Coast District Municipality (WCDM)
24	Friends of the Tollhouse	50	Nelson Mandela University (NMU)	76	Western Cape Government (PDMC)
25	Fynbos Trust	51	Northern Cape Department of Agriculture, Environmental Affairs, Rural Development & Land Reform	77	Winelands Fire Protection Association (WFPA)
26	Garden Route Biosphere Reserve	52	Ocean Finance Company	78	Working on Fire (WoF)
				79	World Wildlife Fund (WWF)



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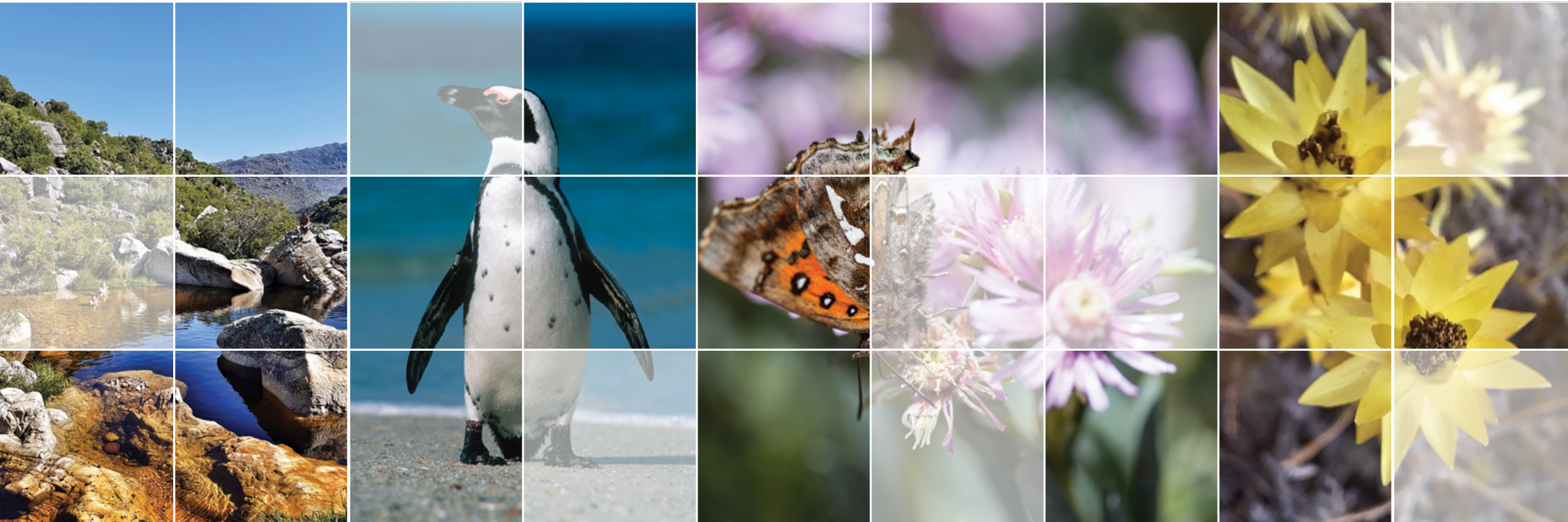
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