

WESTERN CAPE

2025

STATE OF CONSERVATION
REPORT



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This is the second State of Conservation Report to inform the next iteration of the Western Cape State of Biodiversity Report to be released in 2028. Mandated by the Western Cape Biodiversity Act (Act 6 of 2022), this report represents the 2024-2025 annual (period 1 April 2024 – 31 March 2025) update to the conservation status of species and ecosystems within the province of the Western Cape, highlighting outcomes in response to the global biodiversity concerns in the context of its mandate.

Data & Information:

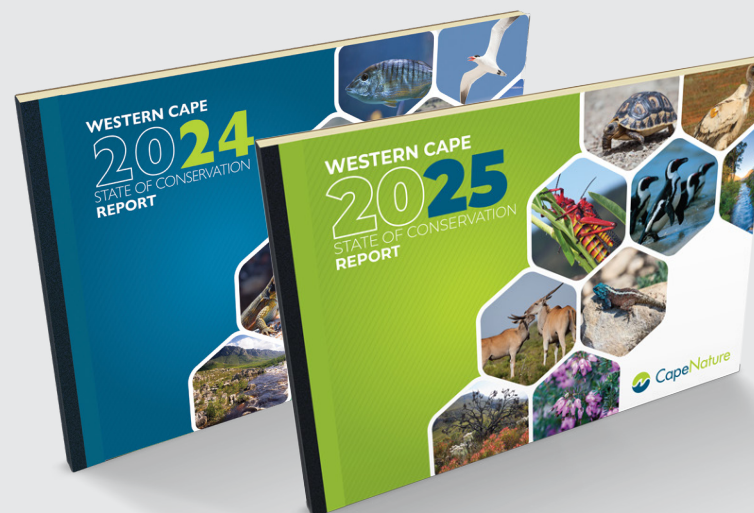
- CapeNature Field Rangers
- Conservation Managers & Officers
- Landscape Conservation Intelligence Teams
- Biodiversity Capabilities

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CapeNature.

Online WC SoCR 2025 Report

To access the links indicated in the printed book, please scan the QR code provided on the left or visit the website link: <https://www.capenature.co.za/state-of-biodiversity> to view the online version of the book.



- ▶ WESTERN CAPE STATE OF BIODIVERSITY 2002
- ▶ WESTERN CAPE STATE OF BIODIVERSITY 2007
- ▶ WESTERN CAPE STATE OF BIODIVERSITY 2012
- ▶ WESTERN CAPE STATE OF BIODIVERSITY 2017
- ▶ WESTERN CAPE STATE OF BIODIVERSITY 2023
- ▶ WESTERN CAPE STATE OF CONSERVATION 2024



FOREWORD

This State of Conservation Report provides an overview of the state of biodiversity and conservation, focusing on key outcomes at the end of the 2024/25 reporting period and contributes toward the 5-yearly State of Biodiversity Report to be released after the conclusion of the 2027/28 financial year. Serving as a critical reference point for assessing conservation progress, the Western Cape State of Conservation Report highlights CapeNature's achievements across priority focal areas from species management and habitat protection to responsive policy and planning. These reports demonstrate CapeNature's commitment to aligning its reporting with the South African State of Environment Outlook Report (SoEOR) and towards the Kunming-Montreal Global Biodiversity Framework targets (adopted at COP15 in 2022), an obligation that CapeNature actively embraces through practical, on-the-ground initiatives.

The development and adoption of the 2023 Western Cape Biodiversity Spatial Plan and subsequent tabling of the 2025 Western Cape Protected Areas Expansion Strategy for adoption, marks significant milestones for CapeNature in giving effect the Western Cape Biodiversity Act and the implementation of mechanisms to respond to impacts of the major threats to biodiversity on a local and global scale. These implementation mechanisms strengthen the province's capacity to identify and prioritise areas of biodiversity importance for conservation to meet international targets and build environmental resilience.

As you review the latest findings and achievements within these pages, we invite you to consider how each local success story contributes to the global momentum for biodiversity conservation. We remain confident that through strong partnerships, evidence-based decision-making, and bold financial innovations, we can continue to safeguard our natural heritage and inspire greater stewardship across all sectors of society.

Dr Ashley Naidoo,
Chief Executive Officer



WESTERN CAPE
BIODIVERSITY ACT



WESTERN CAPE
BIODIVERSITY SPATIAL
PLAN



KUNMING-MONTREAL
GLOBAL BIODIVERSITY
FRAMEWORK



WESTERN CAPE STATE OF
ENVIRONMENT OUTLOOK
REPORT



CAPE NATURE LANDSCAPES & LANDSCAPE UNITS



Legend

CapeNature

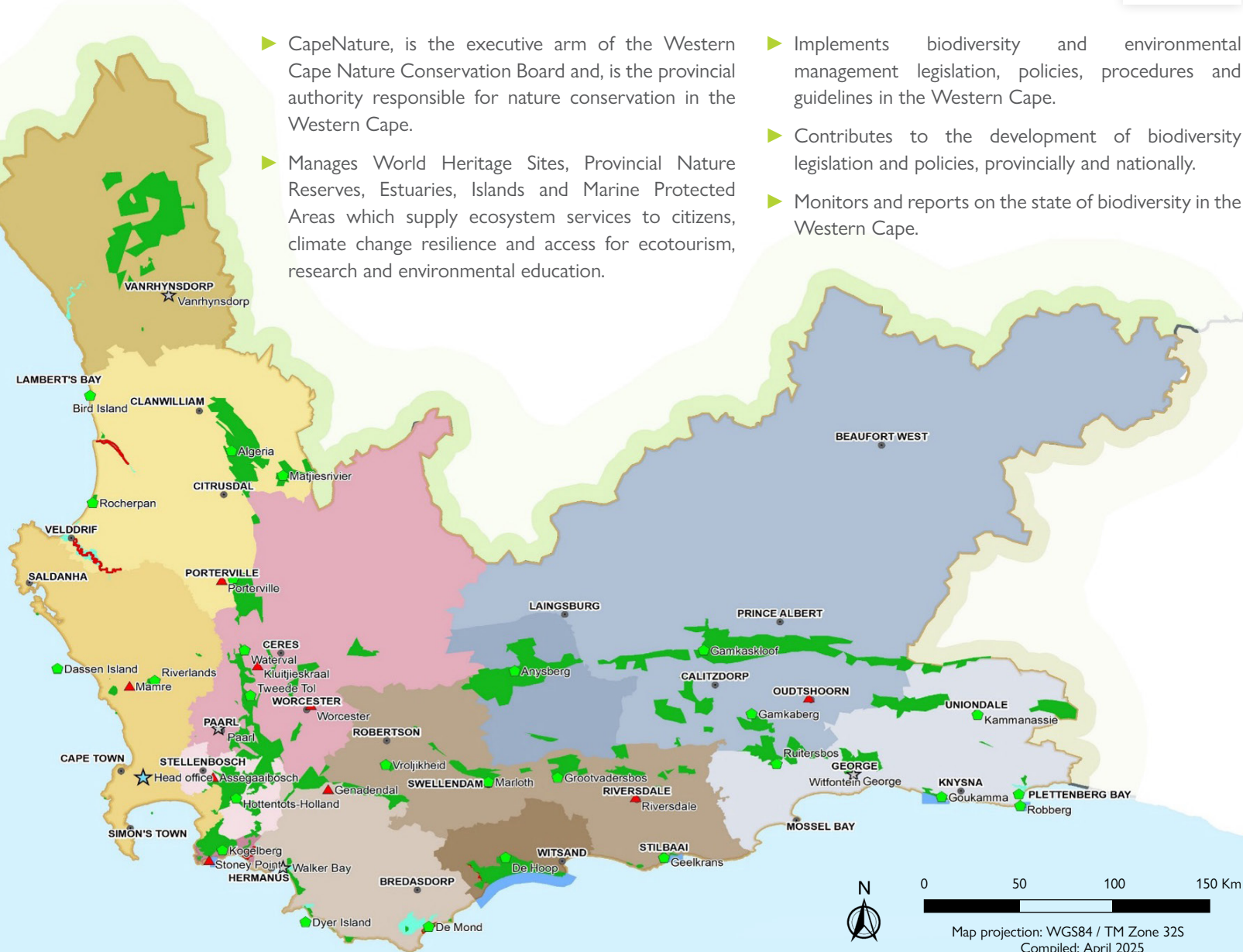
- ☆ Head office
- ☆ Regional office
- Reserve office
- ▲ Satellite office

- CapeNature Protected Areas
- CapeNature Marine Protected Areas
- CapeNature Ramsar Sites
- CapeNature Estuaries

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

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



0 50 100 150 Km

Map projection: WGS84 / TM Zone 32S
Compiled: April 2025



THE BIODIVERSITY OF THE WESTERN CAPE



© Ismail Ebrahim

Ixia ebrahimii

A rare species of *Ixia* (also known as “kalossies”) has been discovered in the Wolseley area. During a field trip by volunteers of the Custodians for Rare and Endangered Wildflowers, SANBI botanist Ismail Ebrahim recognised the plant as something special. It was later confirmed to be a new, undescribed species and has been named *Ixia ebrahimii*.

PLANTS



Plants: **10 778** | **61%** endemic



endemic



not endemic



not defined



Indicates change

Recognised number of indigenous taxa in the Western Cape in selected taxonomic groups, and percentage of taxa that are endemic to the province.



VERTEBRATES



Freshwater fish: **37** | **73%** endemic



Mammals: **154** | **5%** endemic



Reptiles: **142** | **15%** endemic



Amphibians: **61** | **60%** endemic



Birds: **337** | **0,3%** endemic



Linefish: **105** | Endemism not defined



Araneae: **923** | **27%** endemic



Lepidoptera: **249** | **32%** endemic



Scarabaeinae: **131** | **27%** endemic



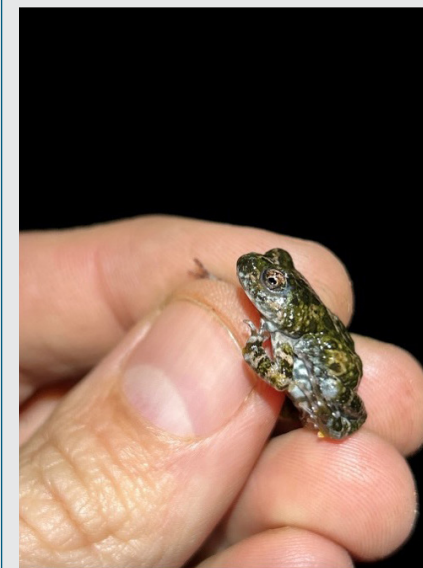
Colophon: **21** | **100%** endemic



Odonata: **67** | **14%** endemic



VERTEBRATES



The newly described *Cacosternum cederbergense* (sp. nov.)

After three years of challenging field work, it has been confirmed: the Western Cape has a new, endemic frog species (Angus et al. 2024). Genetic, morphological and acoustic analyses have shown unequivocally that these frogs, found only in the northern Cederberg, are unique. Remarkably, these tiny (10-23mm) creatures are adapted to survive in this tough, rocky environment, where they use chilly rock pools to breed during winter.



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

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 (RLE).

Legend

Ecosystems Threat Status (NVM 2024)

RLE 2022

- Critically Endangered
- Endangered
- Vulnerable
- Near Threatened
- Near Threatened (Marine)
- Least Concern
- Not assessed
- 100% Modified

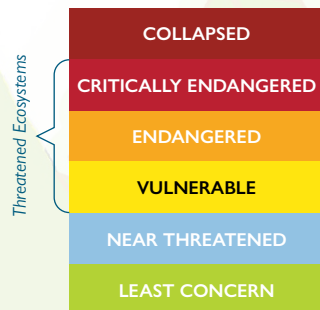
NATIONAL BIODIVERSITY ASSESSMENT 2018

2022 ECOSYSTEM STATUS

WESTERN CAPE ECOSYSTEMS:

▶ 350 different ecosystem types (Coastal Marine, Freshwater, Terrestrial and Estuarine).

▶ 191 of 350 ecosystems in the Western Cape are threatened.



109

CRITICALLY ENDANGERED

54

ENDANGERED

28

VULNERABLE

5

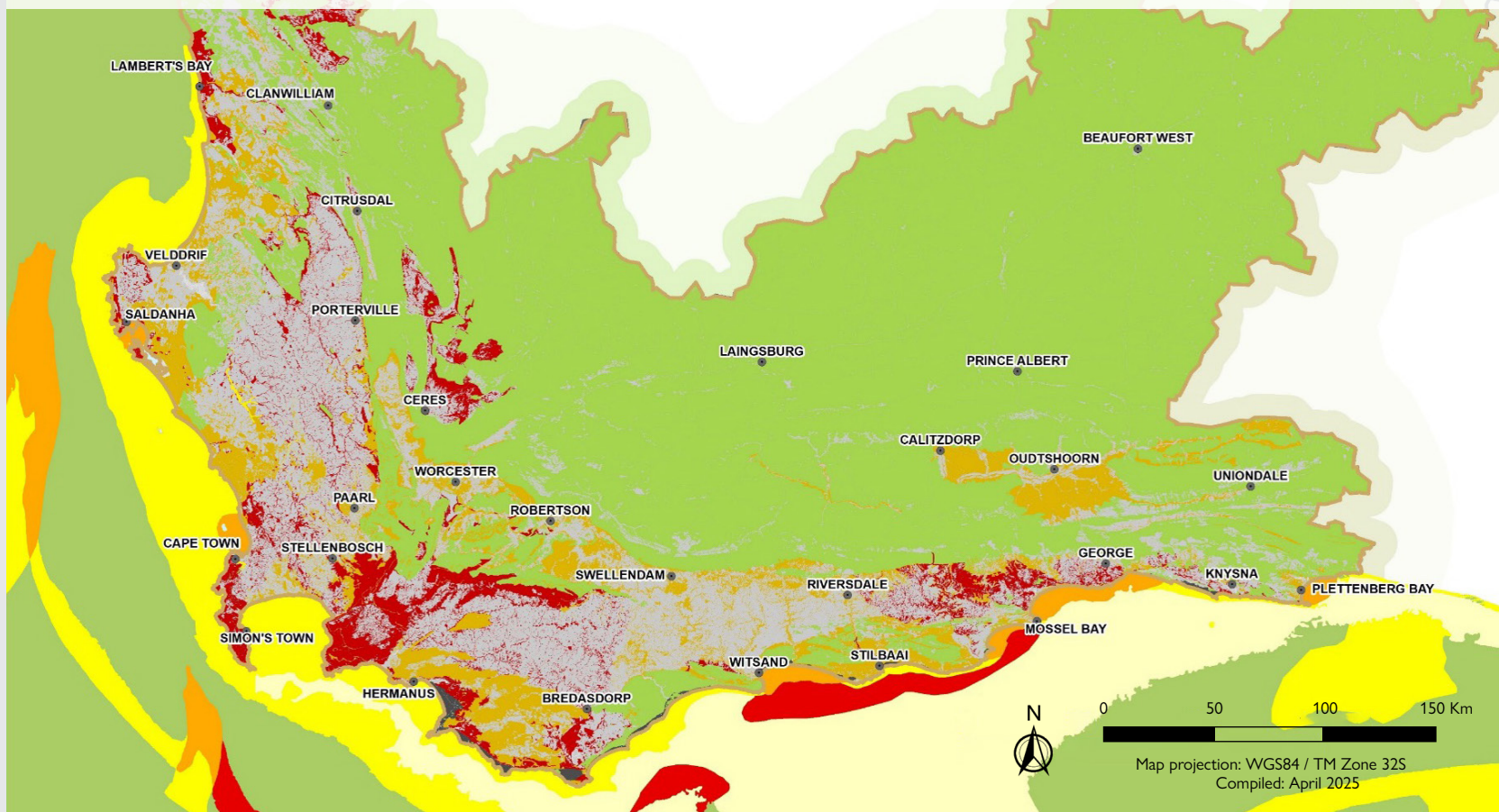
NEAR THREATENED

150

LEAST CONCERN

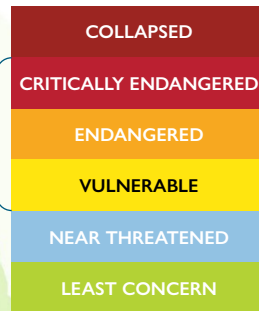
4

NOT YET ASSESSED





THE STATUS OF WESTERN CAPE MARINE ECOSYSTEMS



WESTERN CAPE MARINE ECOSYSTEMS:

- ▶ 16 of 25 shoreline ecosystems found in the Western Cape, are threatened.
- ▶ 6 Marine Protected Areas (MPAs) on the Western Cape Coast are managed by CapeNature.

0
CRITICALLY
ENDANGERED

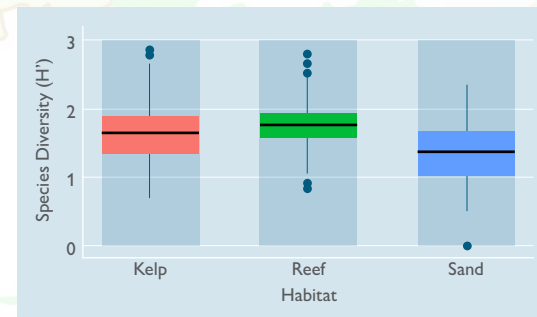
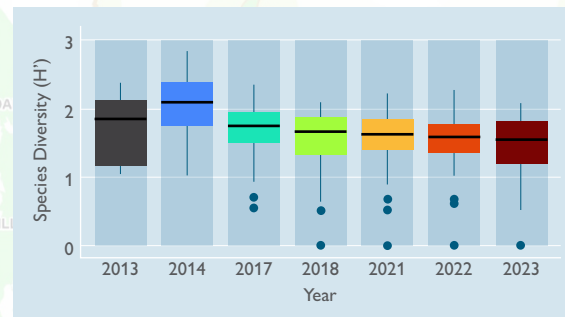
4
ENDANGERED

12
VULNERABLE

5
NEAR
THREATENED

4
LEAST CONCERN

MPA	Years Surveyed	BRUV Deployments	Species Recorded	Threatened spp (IUCN)
Betty's Bay	2013–2023	437	67	5+ (prelim)



CapeNature monitors MPAs in close collaboration with partners e.g., the South African Shark Conservancy carried out Baited Remote Underwater Video Systems (BRUV) surveys in the Betty's Bay MPA in partnership with Worldwide Fund for Nature South Africa.

Species assemblages within the Betty's Bay MPA show a gradual decline over the years but with species diversity appearing to stabilize from 2018/19. The highest diversity was recorded in reef habitats.

Legend

- Island Nature Reserves (CapeNature)
- Islands

- Marine Protected Areas (CapeNature)
- Marine Conservation Estate

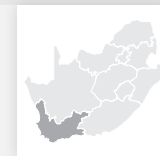
Ecosystems Threat Status RLE 2022

- Critically Endangered
- Endangered
- Vulnerable
- Near Threatened
- Near Threatened (Marine)
- Least Concern

- Terrestrial protected areas
- Marine Protected Areas



THE STATUS OF WESTERN CAPE ESTUARINE ECOSYSTEMS

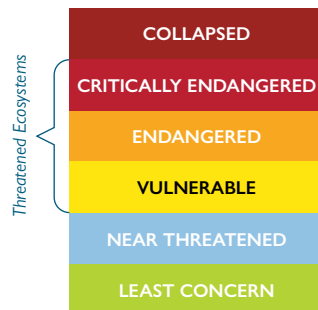


Legend

- CapeNature Estuary
- Estuaries

Western Cape Conservation Estate

- Terrestrial protected areas
- Marine Protected Areas



WESTERN CAPE ESTUARINE ECOSYSTEMS:

- 54 of South Africa's 290 estuaries are in the Western Cape.
- 44 of 54 estuaries in the Western Cape are threatened.
- 8 of South Africa's 22 estuary types are represented in the Western Cape.

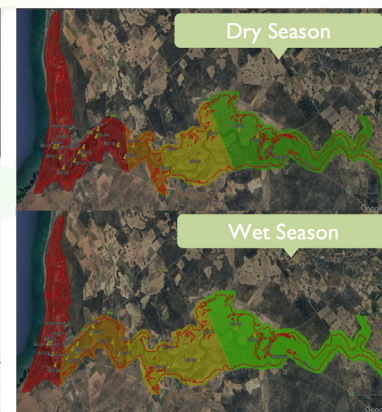
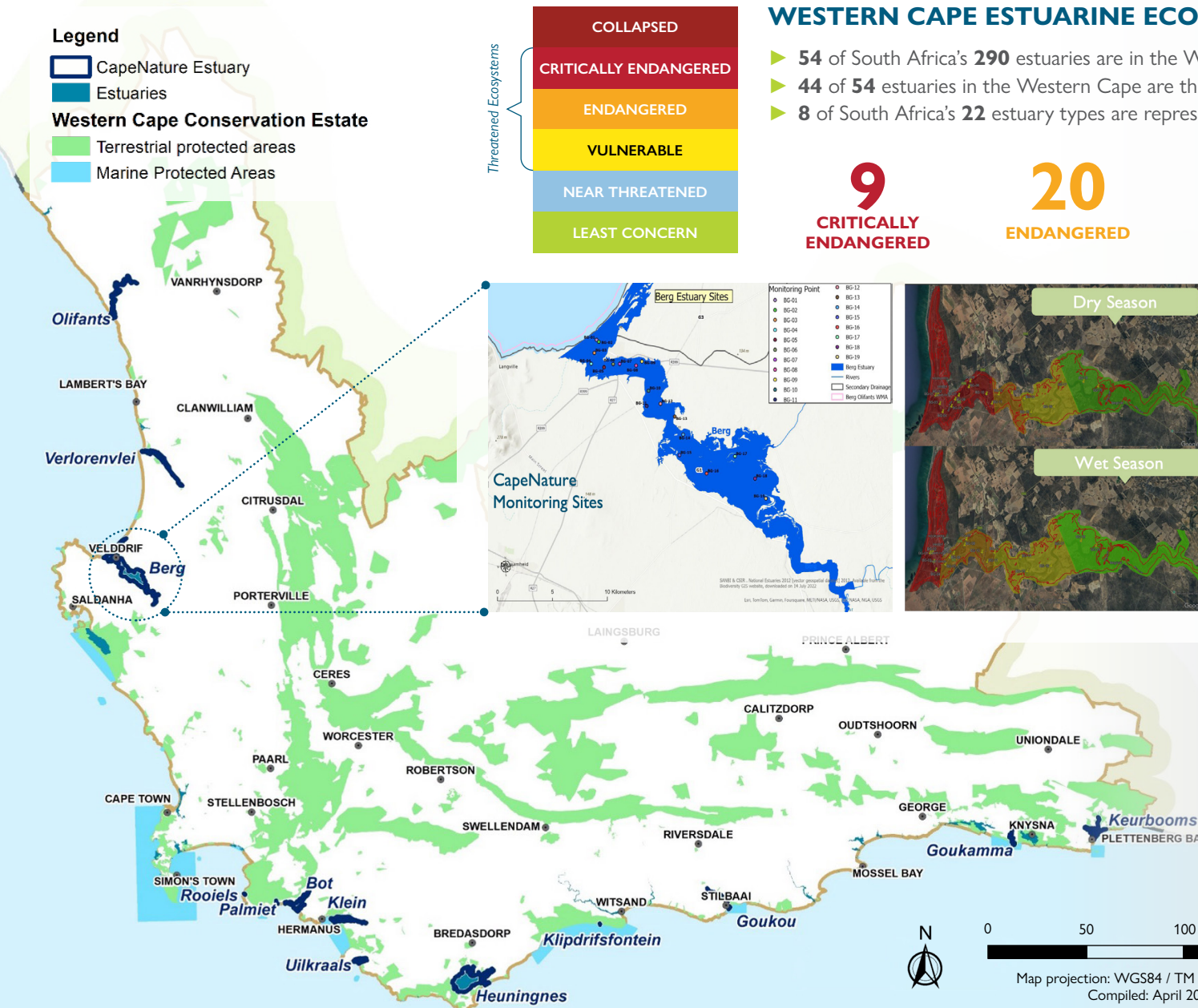
9
CRITICALLY
ENDANGERED

20
ENDANGERED

15
VULNERABLE

0
NEAR THREATENED

10
LEAST CONCERN



	Temperature (°C)		Salinity (PPT)	
	Dry Season	Wet Season	Dry Season	Wet Season
Zone A (Red)	≥ 16 < 21	≥ 16 < 21	≥ 30	≥ 30
Zone B (Orange)	≥ 21 < 23	≥ 21 < 23	< 30 ≥ 20	< 30 ≥ 12
Zone C (Yellow)	= 23	≥ 23 < 24	< 20 ≥ 3	< 12 ≥ 3
Zone D (Green)	= 24	≥ 24	< 3	< 3

Source: CapeNature and Western Cape District Municipality (data)
Department of Water & Sanitation (analysis)

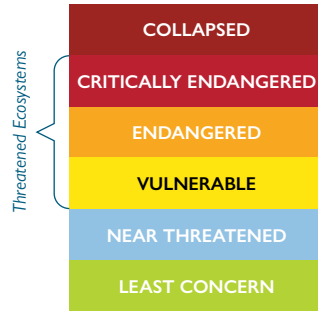
- MARINE PROTECTED AREAS SOUTH AFRICA, SANBI
- CSIR ESTUARINE REPORT
- ESTUARINE TECHNICAL REPORT NBA 2018
- DEA&DP BIODIVERSITY & COASTAL MANAGEMENT



THE STATUS OF WESTERN CAPE FRESHWATER ECOSYSTEMS



CSIR STRATEGIC WATER SOURCE AREAS



WESTERN CAPE FRESHWATER ECOSYSTEMS:

- ▶ 101 of 138 freshwater ecosystems in the Western Cape are threatened: 64 river types (>35% not protected), 73 wetland types (>40% not protected).
- ▶ 6 of South Africa's 22 Strategic Water Source Areas are entirely in the Western Cape.

73
CRITICALLY
ENDANGERED

18
ENDANGERED

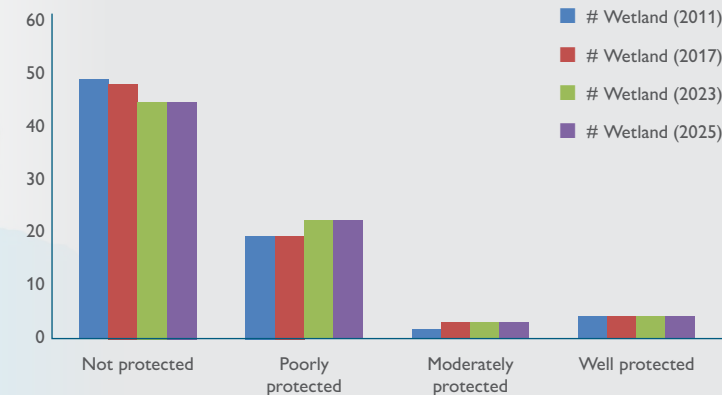
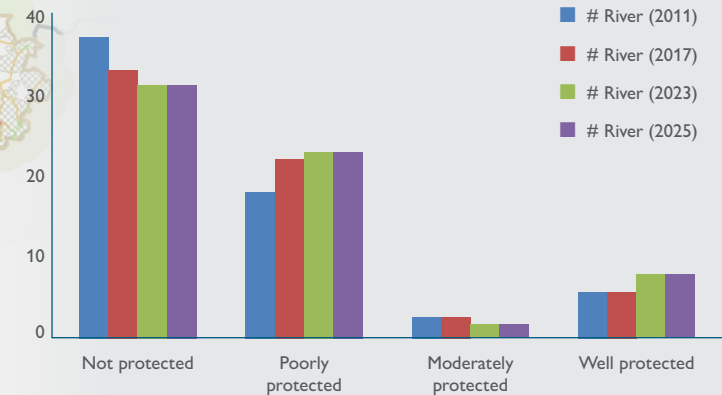
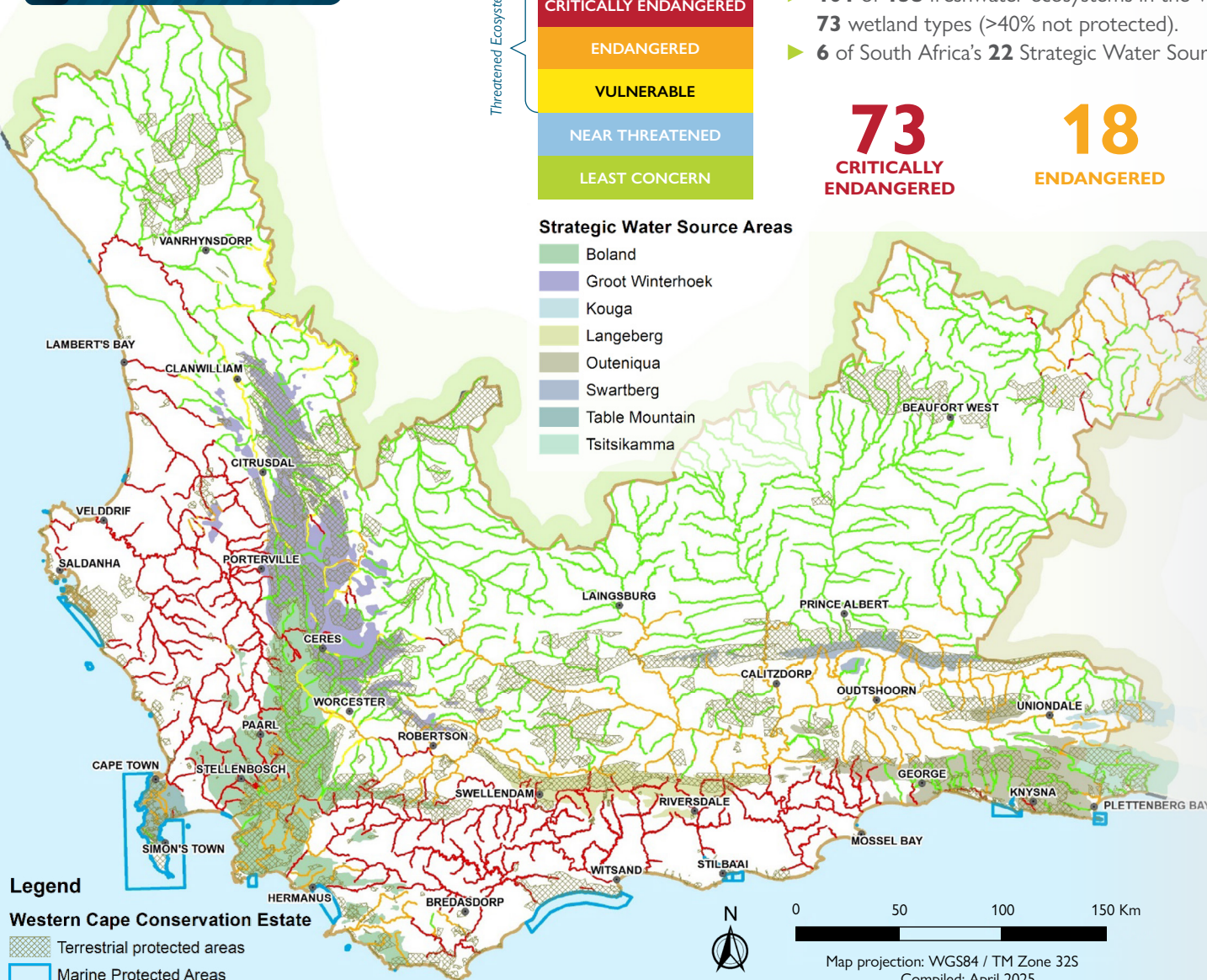
10
VULNERABLE

0
NEAR THREATENED

37
LEAST CONCERN

Strategic Water Source Areas

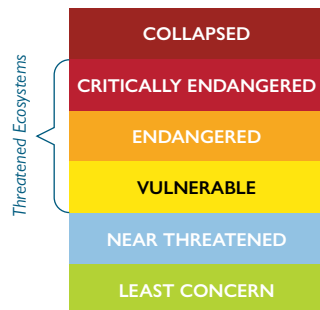
- Boland
- Groot Winterhoek
- Kouga
- Langeberg
- Outeniqua
- Swartberg
- Table Mountain
- Tsitsikamma



Graphs show protection levels of rivers and wetlands between 2011 – 2025.

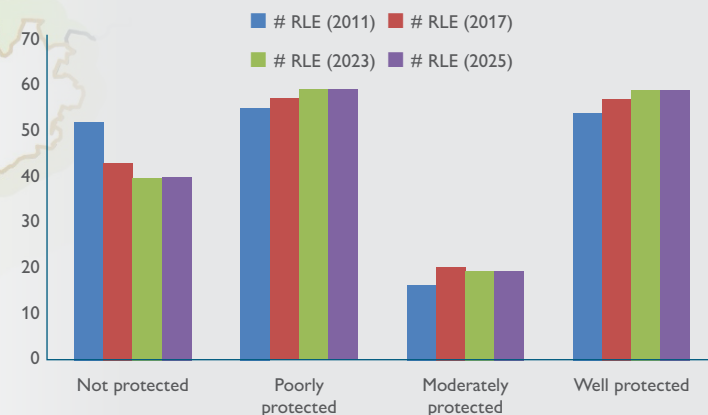
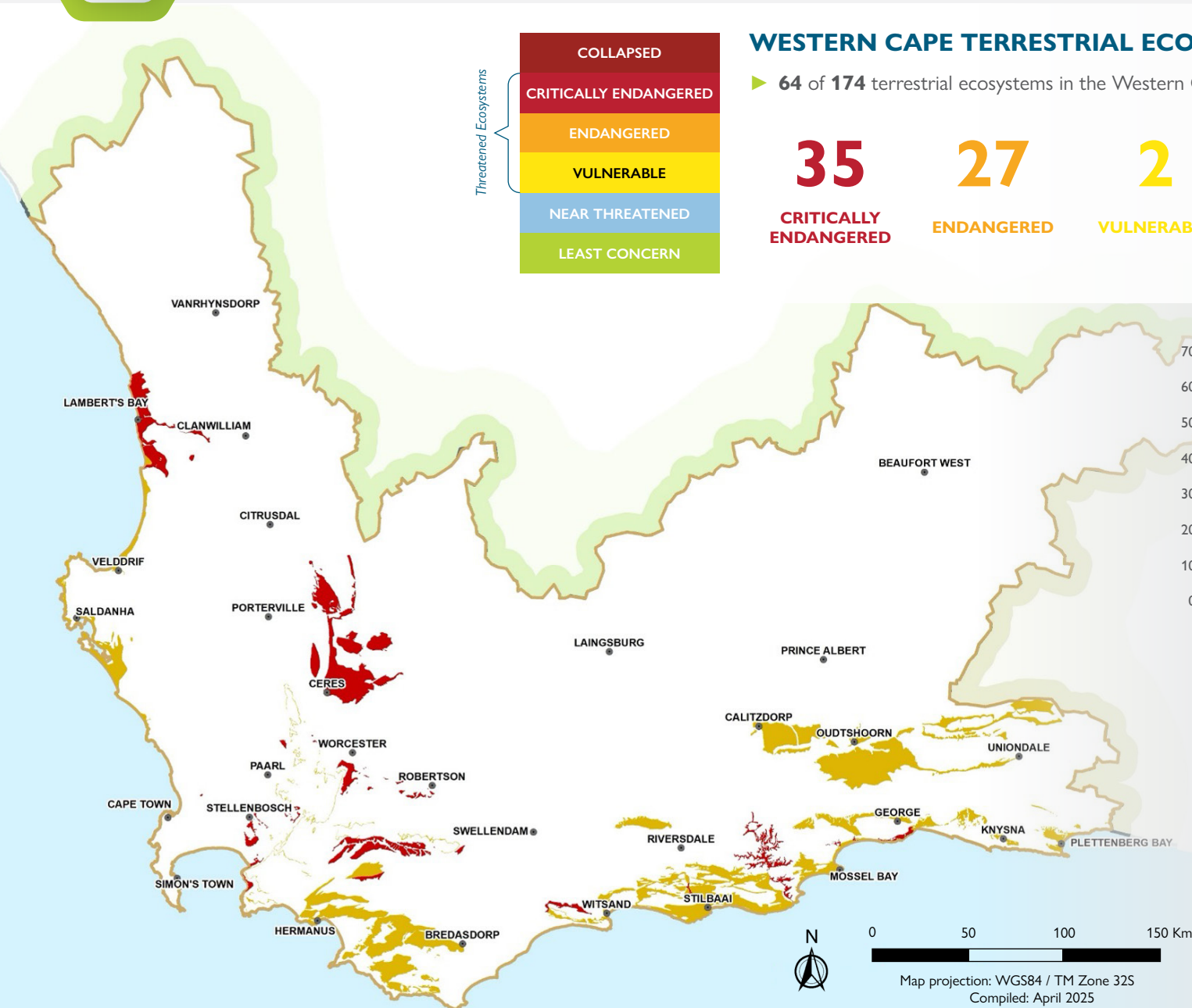


THE STATUS OF WESTERN CAPE TERRESTRIAL ECOSYSTEMS



WESTERN CAPE TERRESTRIAL ECOSYSTEMS:

► 64 of 174 terrestrial ecosystems in the Western Cape are threatened

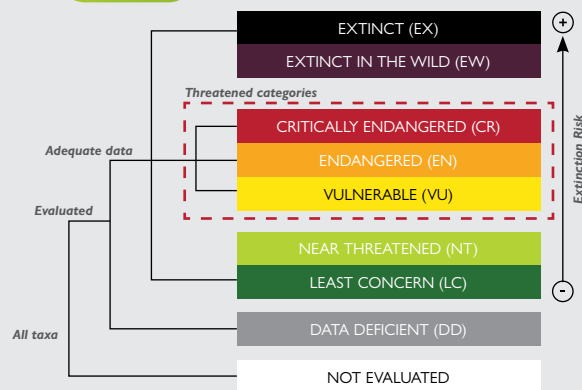
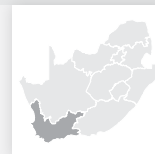


The protection levels of the Red Listed Ecosystems (RLE) as per the 2024 National Vegetation Map (NVM) have been steadily improving overtime.

- IMPLEMENTATION NOTE
REVISED LIST THREATENED
ECOSYSTEMS
- IUCN RED LIST CRITERIA
- NATIONAL BIODIVERSITY
ASSESSMENT 2018
- SANBI NATIONAL
VEGETATION MAP

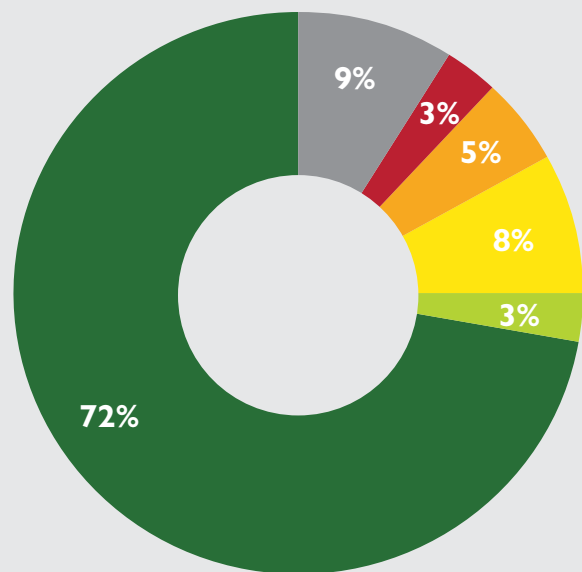


THE STATUS OF WESTERN CAPE INDIGENOUS SPECIES



16% of species in the Western Cape are threatened

IUCN Red List Assessment



No changes recorded since 2024 State of Conservation Report



A species on the edge of extinction – the African Penguin is now considered Critically Endangered.

The African Penguin (*Spheniscus demersus*), a flagship species for seabird conservation, is on the verge of extinction. In 2024, a red flag was formally raised: a thorough analysis of long-term data showed a 78% decline in the breeding population

over the last 30 years, with the global population falling below 10,000 pairs for the first time (Sherley et al. 2024). The proposed global red list status of Critically Endangered species has now been adopted by the IUCN, which lists competition with commercial fisheries and climate-mediated shifts in prey populations as major threats (Birdlife International 2024).



Rescued from extinction – *Psoralea cataracta*

Specimens of the Waterfall Fountainbush (*Psoralea cataracta*) were collected in the late 1700's, and the species was considered extinct after extensive unsuccessful searches over the years. Finally, in 2019, the species was rediscovered at a single location on the slopes of the Winterhoek Mountains near Tulbagh. It is listed as Critically Endangered, being threatened by habitat loss and degradation due to alien invasive species and expanding orchards.



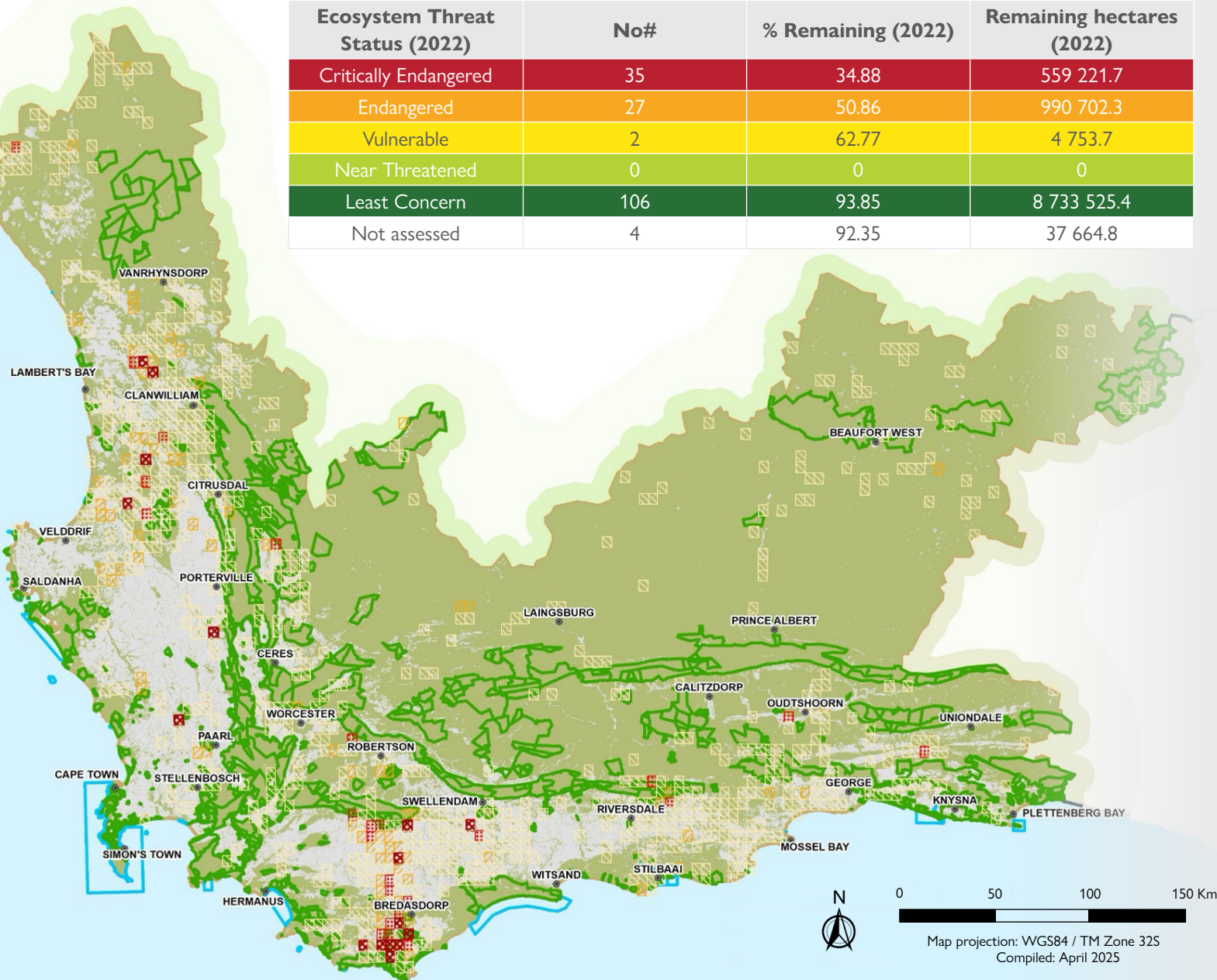


THE STATUS OF WESTERN CAPE HABITAT LOSS



Ecosystem Threat Status (2022)	No#	% Remaining (2022)	Remaining hectares (2022)
Critically Endangered	35	34.88	559 221.7
Endangered	27	50.86	990 702.3
Vulnerable	2	62.77	4 753.7
Near Threatened	0	0	0
Least Concern	106	93.85	8 733 525.4
Not assessed	4	92.35	37 664.8

Habitat loss is expressed as the difference between the National Vegetation Map 2024, less the modified land-use categories extracted from the 2022 Amended Western Cape Land Cover. The classification reflects the revised 2022 Red Listed Ecosystems.



Legend

Rate of Habitat Loss Period 2020-2022

- < 1%
- 1 - 2%
- 2 - 4%
- 4 - 8%

Western Cape Conservation Estate

- Terrestrial protected areas
- Marine Protected Areas
- Natural remnants (RLE Terrestrial 2022)
- 100% Modified Habitat

NATIONAL BIODIVERSITY
ASSESSMENT 2018

SANBI NATIONAL
VEGETATION MAP



THE STATUS OF WESTERN CAPE CONSERVATION ESTATE



CapeNature manages 16 Nature Reserve complexes, comprising a total of

828 442 ha

The CapeNature protected area estate totals **1 095 428 ha** which includes CapeNature managed Protected Areas and formal Stewardship sites supported by CapeNature.

Western Cape Conservation Estate Area (hectares)

CapeNature – State Vested Protected Areas Estate 659 233

CapeNature-managed Protected Areas Estate 828 442

CapeNature Protected Areas Estate 1 095 428

Western Cape Protected Areas Estate 2 331 018

PRIVATE NATURE RESERVES VERIFIED IN 2024-2025

Hectares

Taayskloof Private Nature Reserve 4201.25

Grotto Bay Private Nature Reserve 356.17

Brackenburn Private Nature Reserve 168.02

Total hectares declared: 4725.43

STEWARDSHIP NATURE RESERVE AGREEMENTS SIGNED IN 2024-2025

Hectares

Wilderness Nature Reserve 643.64

Tweerivieren Nature Reserve Extension 5164.24

Oranjevllei Nature Reserve 189.95

Sewejaarskop Nature Reserve 2394.14

Total hectares signed: 8391.98

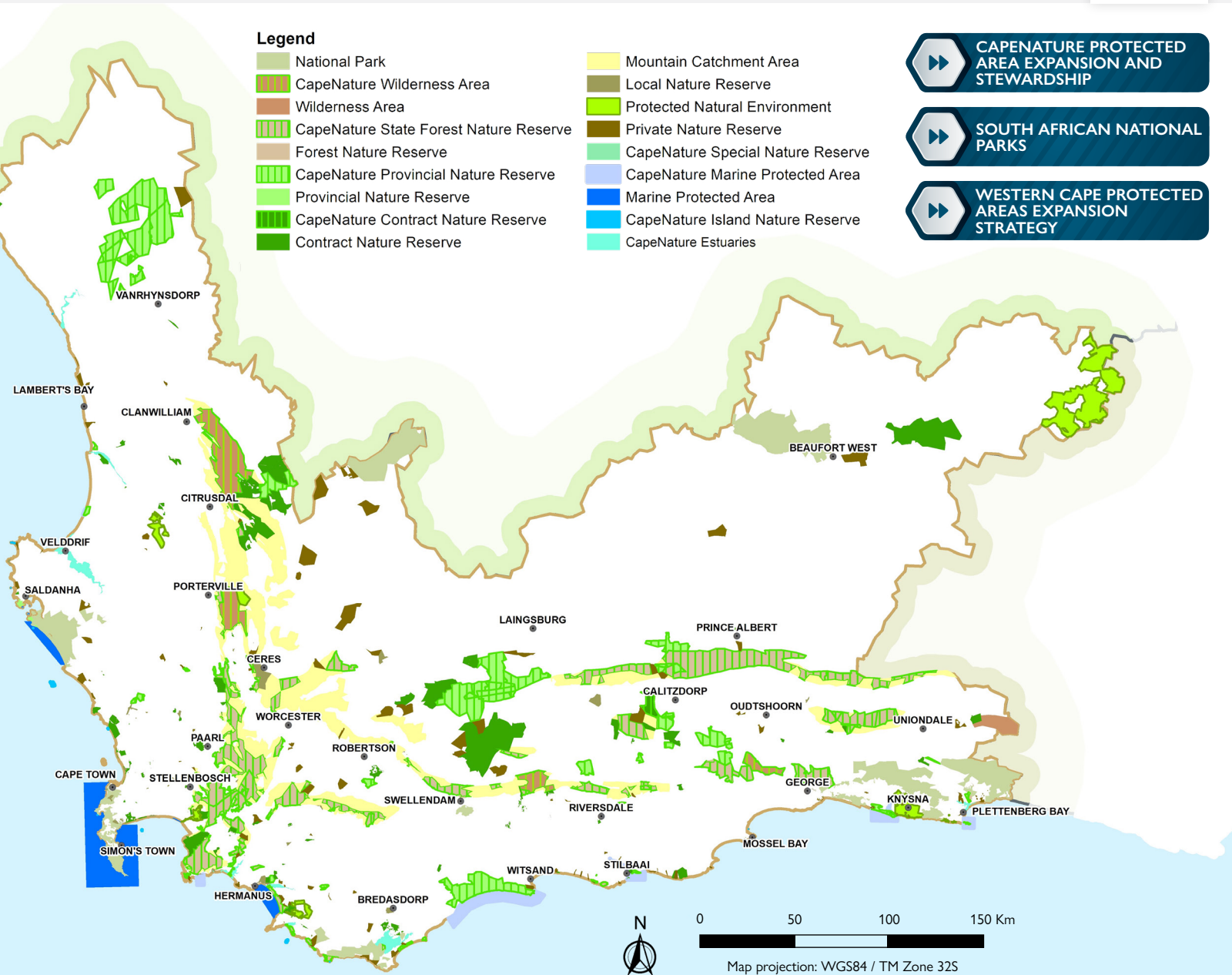
Legend

- National Park
- CapeNature Wilderness Area
- Wilderness Area
- CapeNature State Forest Nature Reserve
- Forest Nature Reserve
- CapeNature Provincial Nature Reserve
- Provincial Nature Reserve
- CapeNature Contract Nature Reserve
- Contract Nature Reserve
- Mountain Catchment Area
- Local Nature Reserve
- Protected Natural Environment
- Private Nature Reserve
- CapeNature Special Nature Reserve
- CapeNature Marine Protected Area
- Marine Protected Area
- CapeNature Island Nature Reserve
- CapeNature Estuaries

▶▶ CAPENATURE PROTECTED AREA EXPANSION AND STEWARDSHIP

▶▶ SOUTH AFRICAN NATIONAL PARKS

▶▶ WESTERN CAPE PROTECTED AREAS EXPANSION STRATEGY



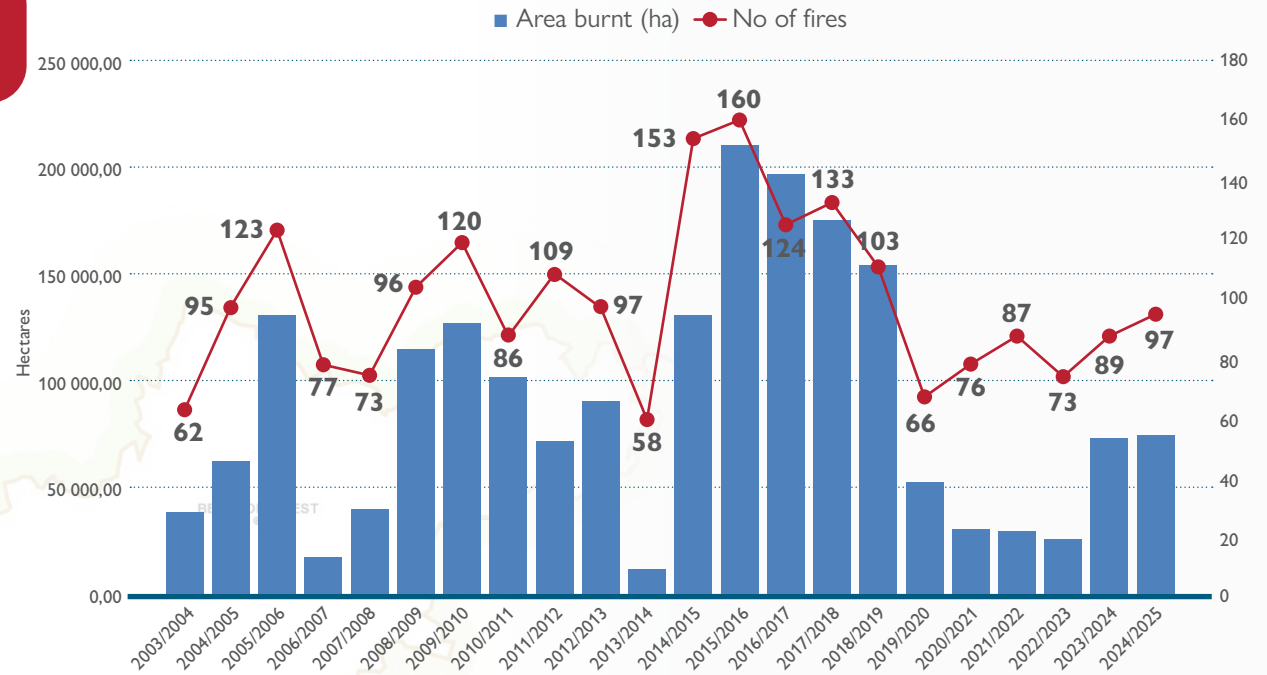
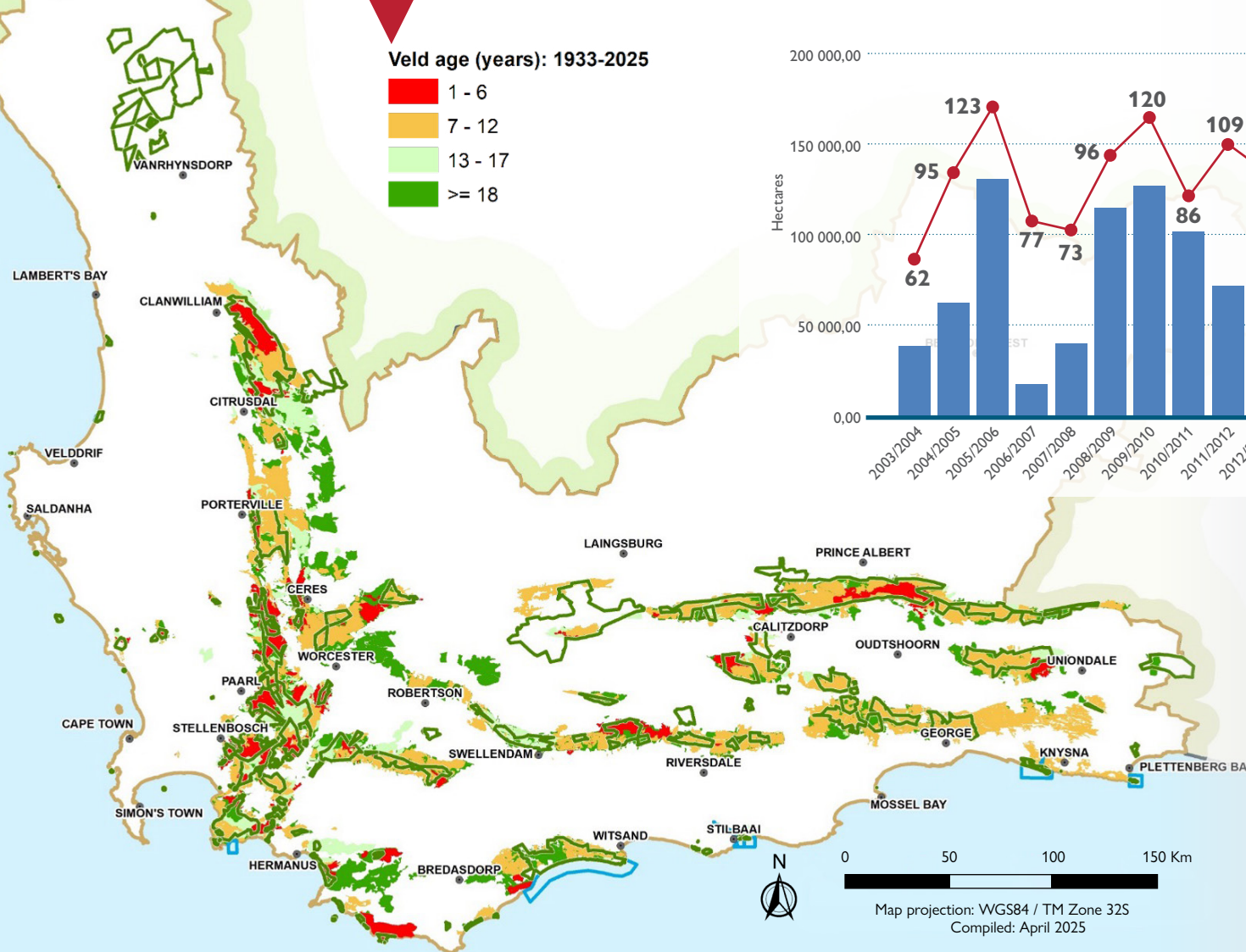
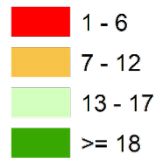


THE STATUS OF FIRE



Veld Age monitoring provides a management indicator for assessing the impact of fires on biodiversity. Ideal ranges of veld ages vary across the province but, as a generalisation, areas with young veld are targeted for protection from fire.

Veld age (years): 1933-2025



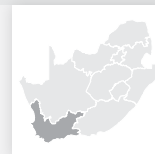
CapeNature responded to **97** fires in the 2024/25 financial year, representing **75 173.9** hectares compared to **89** fires and **73 671.6** hectares burned in 2023/24. Most ignitions are anthropogenic and the greater number of fires and larger fires in both 2023/24 and 2024/25 resulted in increased costs. CapeNature and its partners managed to restrict many fires (**47%**) to under **10** hectares in size.

Legend

- CapeNature Protected Areas
- CapeNature Marine Protected Areas



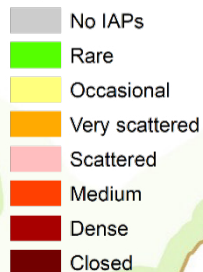
THE STATUS OF WESTERN CAPE BIOLOGICAL INVASIONS: PLANTS



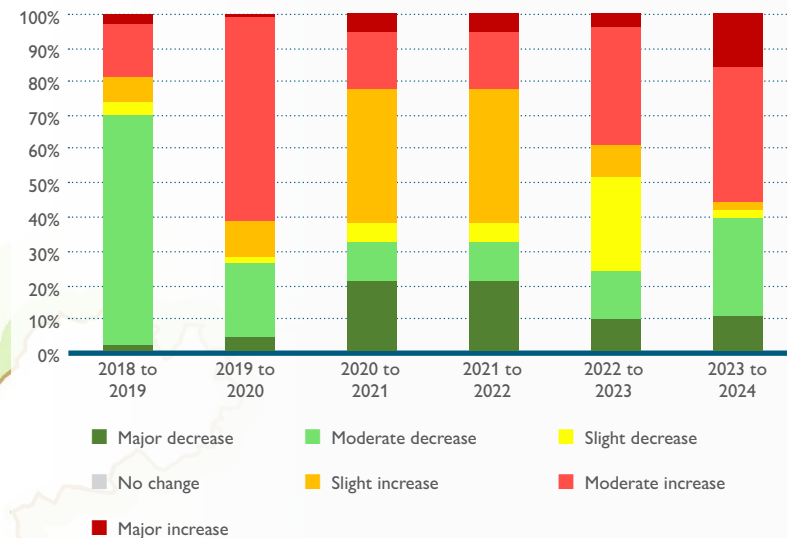
CapeNature prioritises clearing alien invasive plants according to species, densities, topography and Strategic Water Source Areas, working closely with Greater Cape Town Water Fund to target key City of Cape Town water catchments to improve water supply.

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

CapeNature Invasive Alien Plant Density 2024



INVASIVE ALIEN SPECIES DENSITY CHANGE



Invasive Alien Plant density changes in CapeNature managed Protected Areas over time (2023 to 2024) per change category.

Legend

- CapeNature Protected Areas
- CapeNature Marine Protected Areas



0 50 100 150 Km

Map projection: WGS84 / TM Zone 32S
Compiled: April 2025

- CAPE TOWN WATER FUND
- ECOLOGICAL INFRASTRUCTURE AND INVESTMENT FRAMEWORK
- PROVINCIAL BIODIVERSITY STRATEGY AND ACTION PLAN



CLIMATE CHANGE RESPONSE



Legend

Climate Adaptation Corridors

Protected areas - new in 2025

CapeNature managed reserves

Stewardship Sites

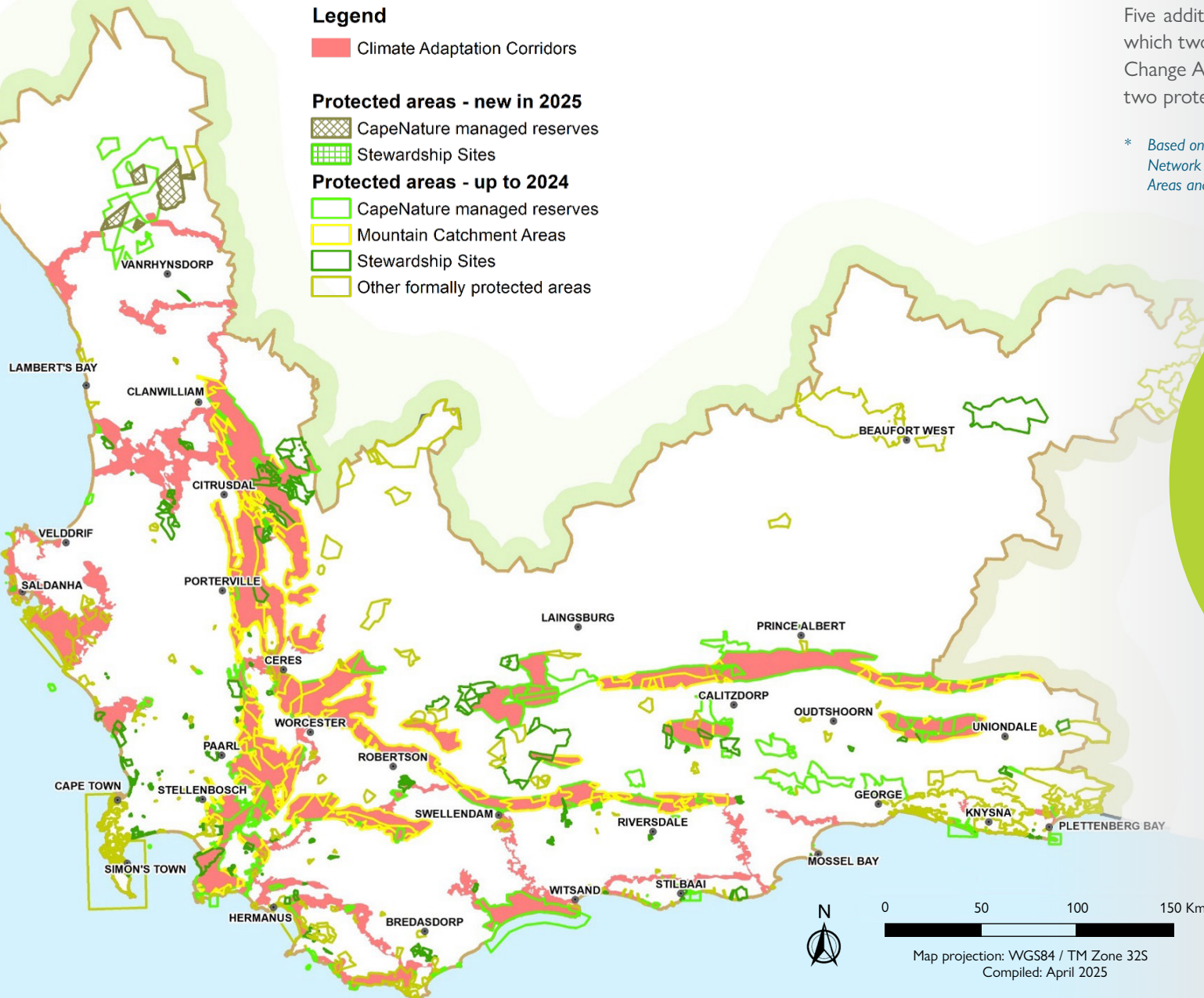
Protected areas - up to 2024

CapeNature managed reserves

Mountain Catchment Areas

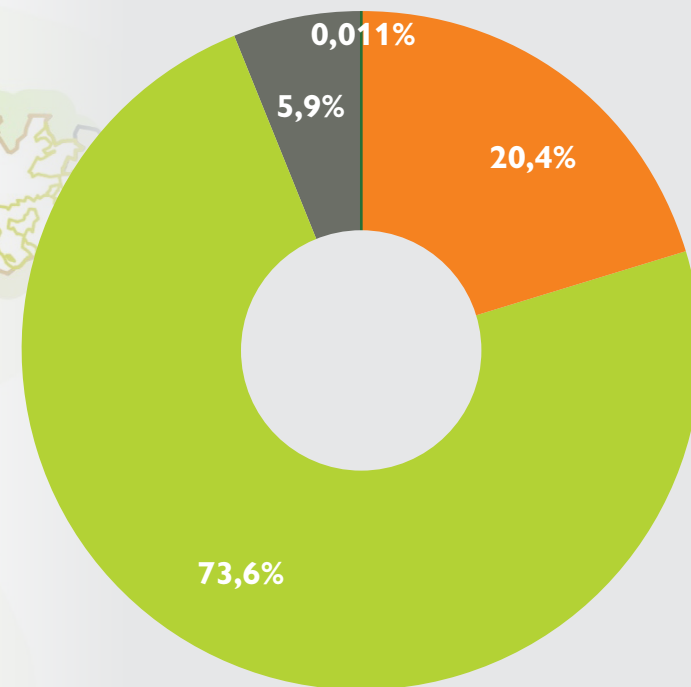
Stewardship Sites

Other formally protected areas



Five additional protected areas were added in the year in review of which two areas contributed to the protection of the original Climate Change Adaptation Corridor Network* extent (1 733 274 ha). These two protected areas contributed 191.1ha.

* Based on the Table Mountain Fund's delineated Climate Change Adaptation Corridor, this Network encompasses corridors outside protected areas, as well as including Protected Areas and Mountain Catchment Areas.



Protected Areas change (2025)

Climate Corridors outside PA

Protected area (2025)

Area of loss (2008 - 2022)

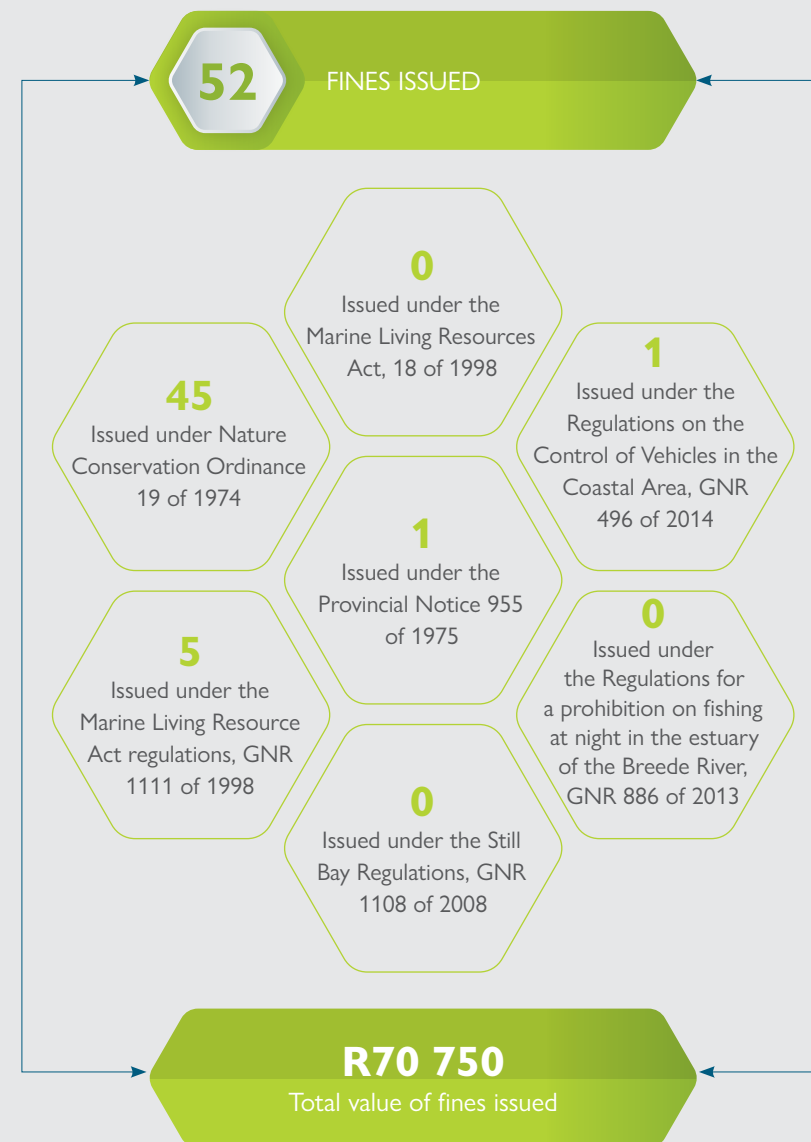
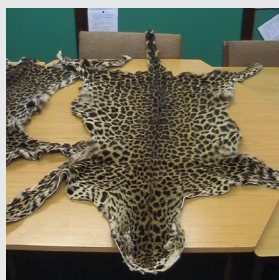
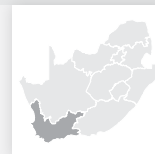


0 50 100 150 Km

Map projection: WGS84 / TM Zone 32S
Compiled: April 2025



BIODIVERSITY CRIME RESPONSE





BIODIVERSITY SPATIAL PLAN GAZETTED FOR ADOPTION

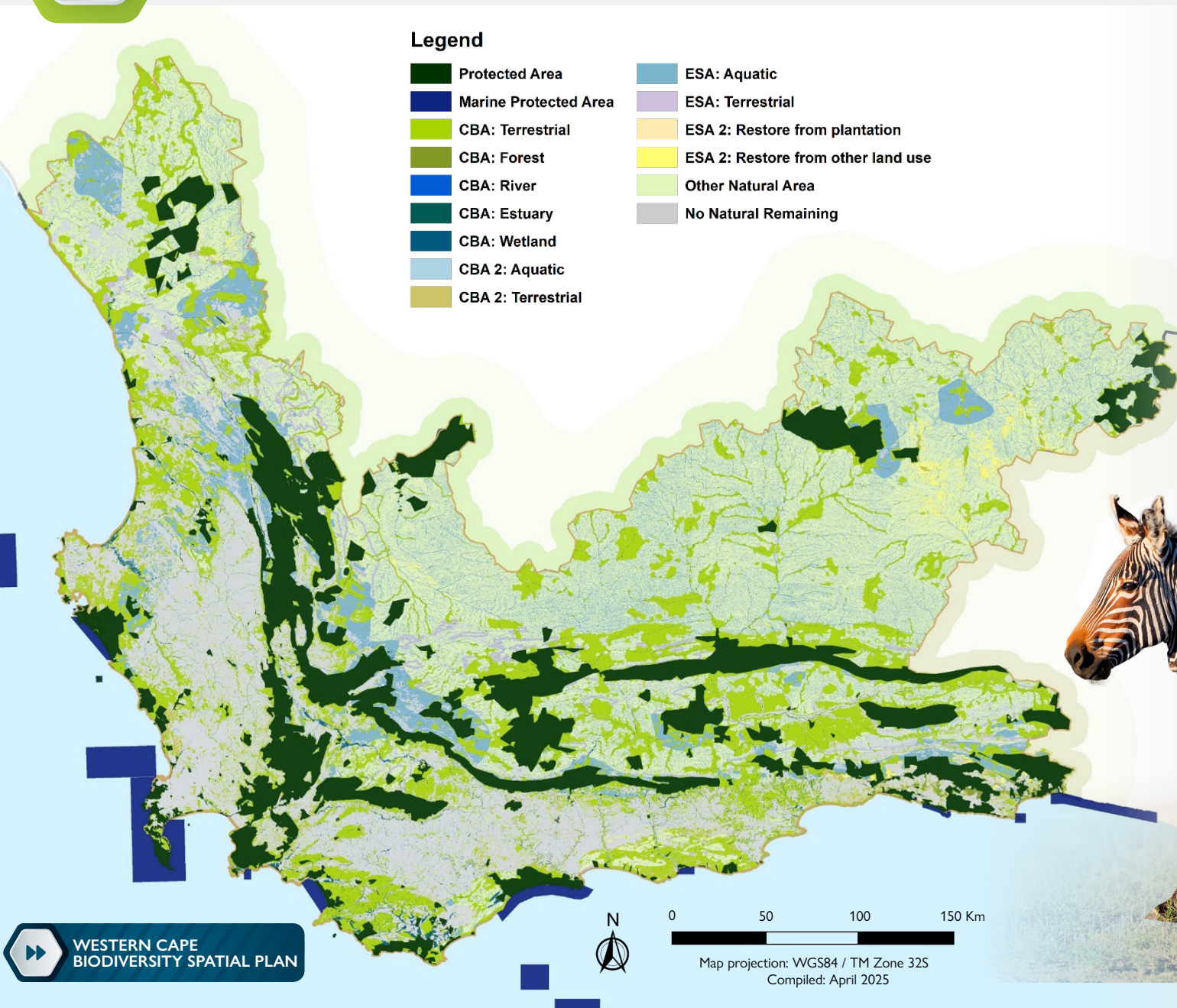


Legend

- Protected Area
- Marine Protected Area
- CBA: Terrestrial
- CBA: Forest
- CBA: River
- CBA: Estuary
- CBA: Wetland
- CBA 2: Aquatic
- CBA 2: Terrestrial
- ESA: Aquatic
- ESA: Terrestrial
- ESA 2: Restore from plantation
- ESA 2: Restore from other land use
- Other Natural Area
- No Natural Remaining

The 2023 Western Cape Biodiversity Spatial Plan was adopted on 13 December 2024 (Gazette Extraordinary 9017).

WCBSP Category	% of Western Cape
Protected Areas	16.4%
Critical Biodiversity Area (CBA)	22.0%
Ecological Support Area (ESA)	13.4%
Other Natural Areas	29.0%
No Natural Remaining	19.1%



WESTERN CAPE
BIODIVERSITY SPATIAL PLAN



0 50 100 150 Km

Map projection: WGS84 / TM Zone 32S
Compiled: April 2025



PROTECTED AREAS EXPANSION STRATEGY & PRIORITISATION



The Western Cape Protected Areas Expansion Strategy sets out the strategic approach for expanding the protected area estate in the Province of the Western Cape. Illustrated below is the technical prioritisation process that underpins the Western Cape Protected Areas Expansion Strategy. The maps presented do not depict the strategy itself but rather the data-driven assessment used to guide where future conservation efforts should be focused.

FEATURES USED TO CALCULATE THE BIODIVERSITY PRIORITY INDEX

WCBSP 2023 – Terrestrial and aquatic CBAs and ESAs

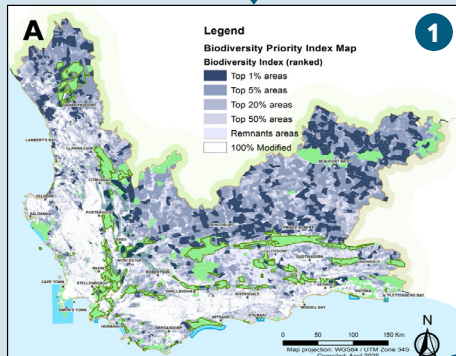
Threatened ecosystems – critically endangered, endangered, and vulnerable

Priority species per protection level

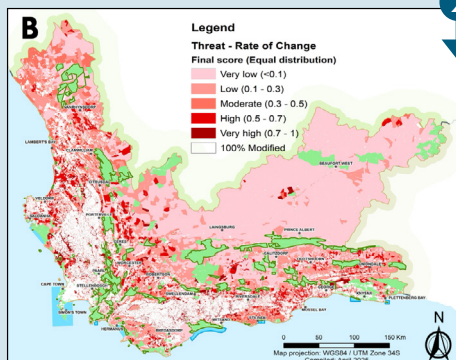
Protection levels – moderately protected, poorly protected, and not protected

Functional remnants based on optimal patch sizes

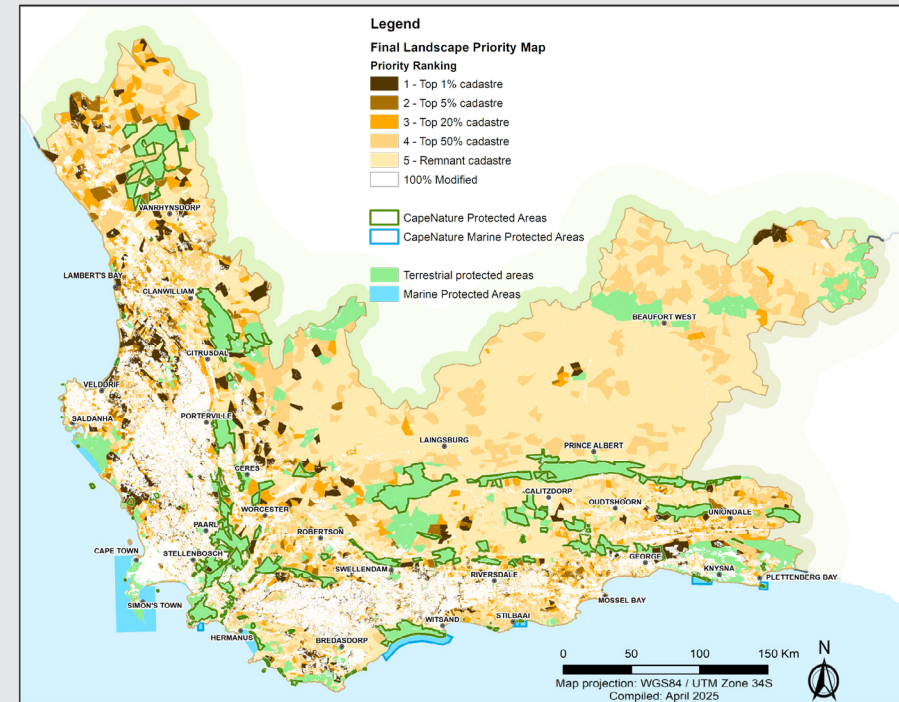
Ecosystem services – coastal corridor, rivers (buffered), wetlands, amongst others.



A: The Biodiversity Priority Index Map highlights areas with the highest biodiversity importance based on multiple ecological criteria (see features listed above). Darker areas indicate higher overall biodiversity importance.



B: The land-use Change Map identifies areas where natural habitats are being rapidly lost due to land-use change (2014–2022), such as agriculture and urban expansion. Higher scores reflect greater pressure on biodiversity.



Landscape Priority Map

The Landscape Priority Map integrates the biodiversity importance and land-use pressure to produce a prioritised view of the landscape (Western Cape). Areas ranked “1” represent the highest conservation urgency - those with high biodiversity value under immediate threat. This map helps target expansion efforts where they can have the greatest impact.



WESTERN CAPE PROTECTED AREAS EXPANSION STRATEGY



WESTERN CAPE BIODIVERSITY SPATIAL PLAN



CAPENATURE'S BIODIVERSITY PROTOCOLS



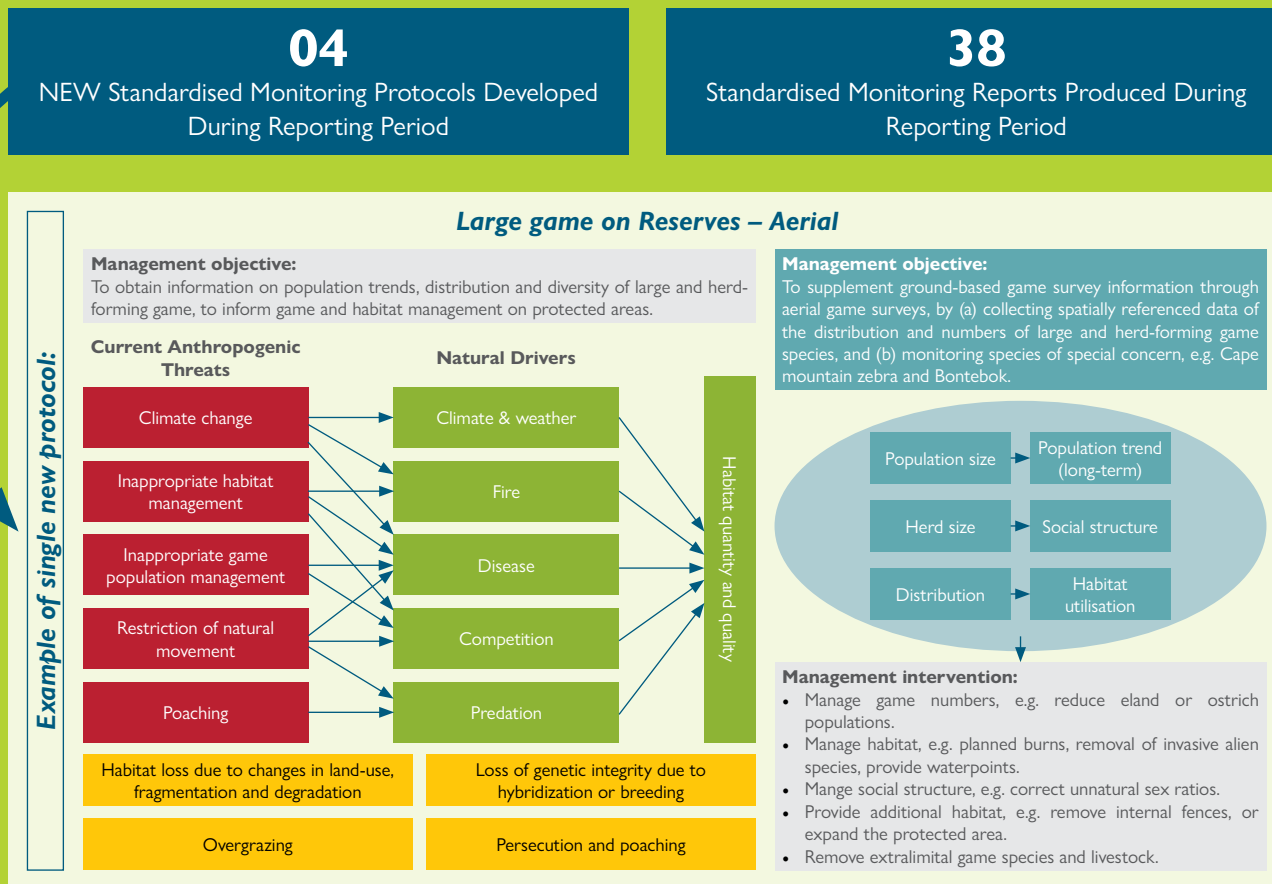
To ensure the reliability, accuracy and reproducibility of data and monitoring efforts, CapeNature ensures organisation-wide adoption of standardised surveillance and monitoring protocols, developed by both internal and external experts. CapeNature also ensures the alignment of protocols to international standards.

ECOLOGICAL MONITORING PROTOCOLS



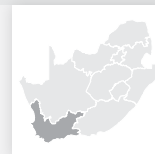
Disclaimer: Protocols are under constant redevelopment/revision. The latest versions can be obtained from the Biodiversity Capabilities/Landscape Conservation Intelligence teams.

ANNUAL SURVEILLANCE AND MONITORING





CAPENATURE'S STANDARDS & STRATEGIES



INTERNAL STANDARDS

- ▶ Species Prioritisation Framework
- ▶ Field & Monitoring Protocols
- ▶ Standard Operational Procedures/Guidelines (SOPs/SOGs)
- ▶ Habitat Restoration & Fire Management Guidelines
- ▶ Data Management Policies
- ▶ Occupational Health and Safety Standards
- ▶ Audit Standards
- ▶ Marine and Boating Standards

NATIONAL & GLOBAL ALIGNMENT

- ▶ SANBI & DFFE Frameworks
- ▶ National Biodiversity Assessment (NBA)
- ▶ IUCN Red List & Ecosystem Guidelines
- ▶ Global Biodiversity Framework
- ▶ CITES



01 Theory of Change Developed

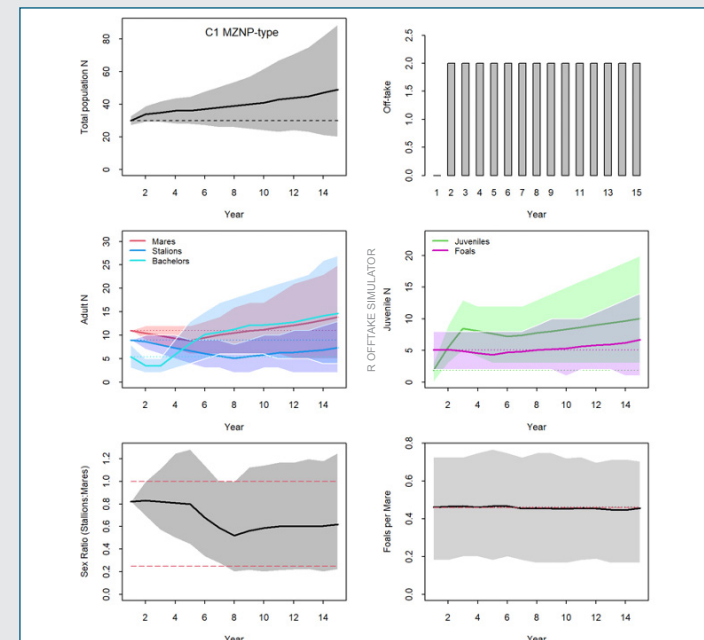
01 Biodiversity Spatial Plan Developed

5+ Species Assessed Annually

200+ Legislative Reviews Annually

NEW POLICIES/STRATEGIES DEVELOPED BY CAPENATURE DURING 2024/25

- ▶ 2023 Western Cape Biodiversity Spatial Plan (gazetted for adoption on December 2024).
- ▶ Policy: The Keeping of Pets, Livestock, Poultry and Equids on CapeNature Protected Areas.
- ▶ Policy: Translocation and Utilisation of Raptors in Sport Hunting, Abatement, Exhibition or Rehabilitation Activities.

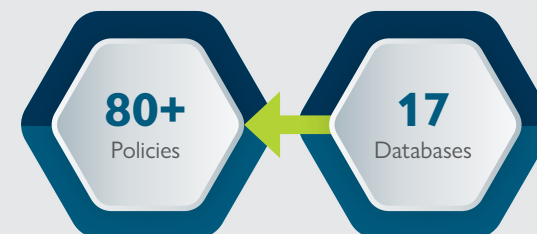


The CapeNature R offtake simulator tool assists in modelling population viability under differing offtake conditions. *R scripts available via the Biodiversity Capabilities Team



▶ IUCN REDLIST

▶ CITES

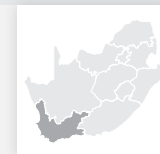


▶ THE KUNMENG-MONTREAL GLOBAL BIODIVERSITY FRAMERWORK

▶ CONSERVATION STANDARDS



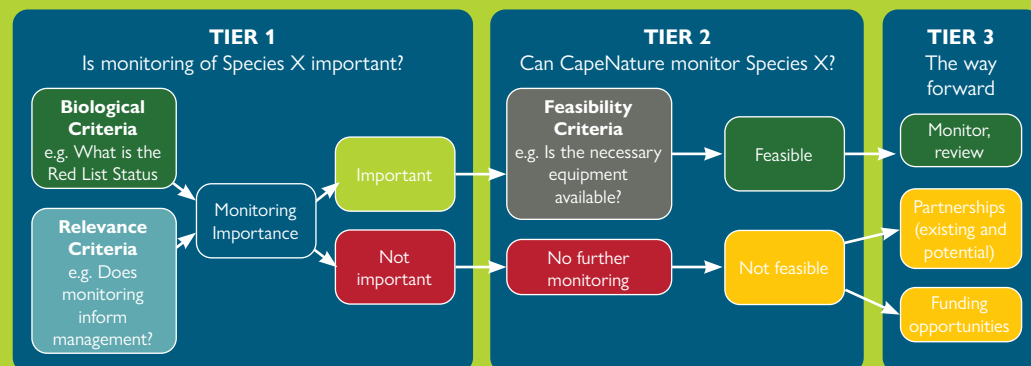
SURVEILLANCE AND MONITORING PRIORITY SPECIES



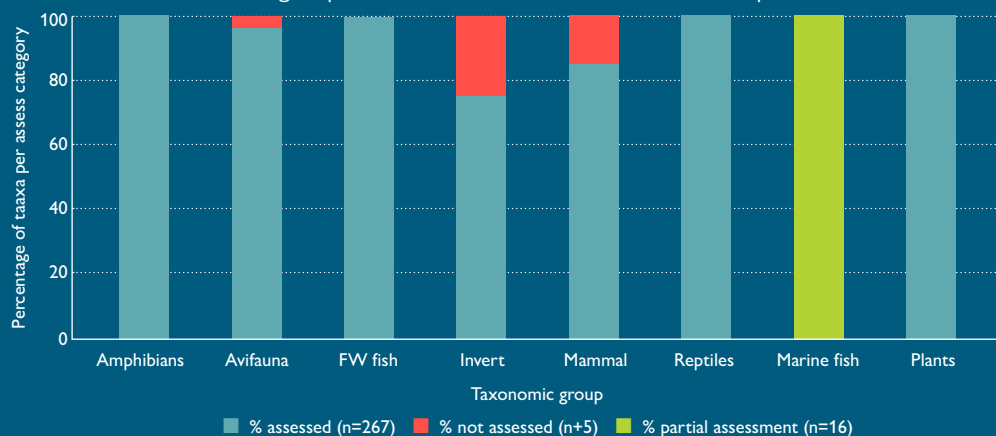
Species Prioritisation Tool (SPT) for Surveillance & Monitoring

Purpose: To optimize CapeNature's surveillance and monitoring (S&M) activities and highlight opportunities for partnerships.

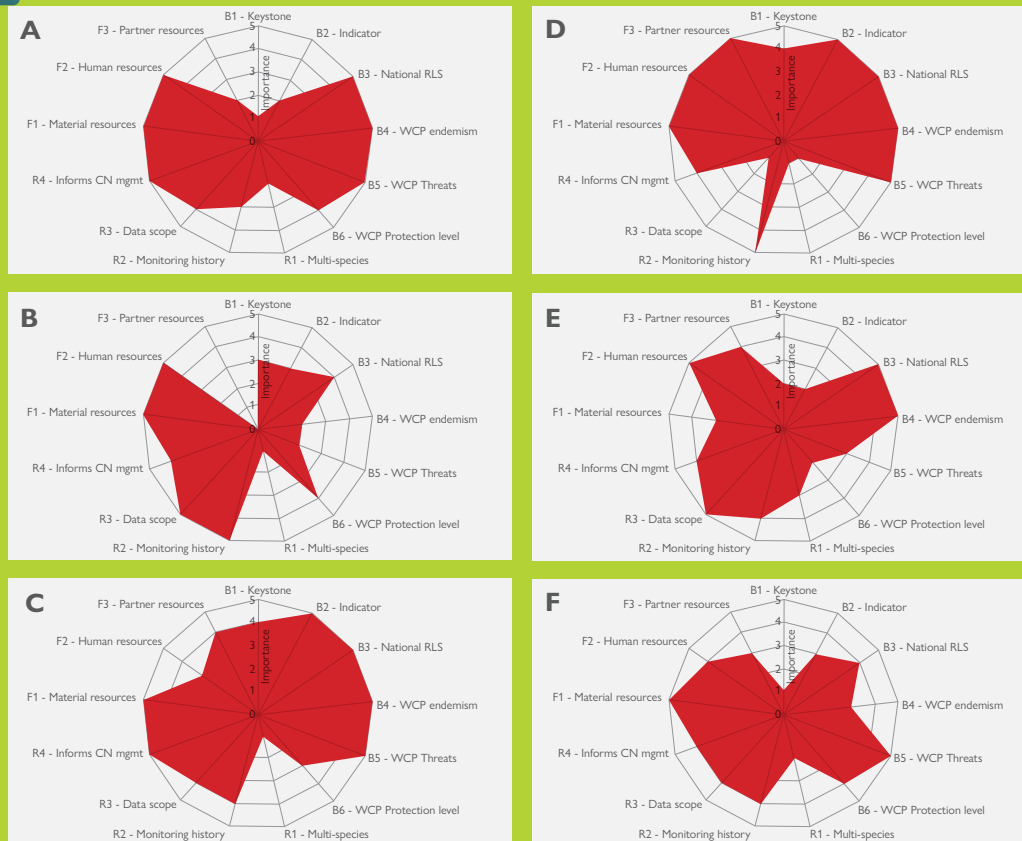
Approach: A 3-tier decision-tree (see below) using biological, relevance and feasibility criteria to determine monitoring needs and actions. To date, 267 species have been assessed or partially assessed and are awaiting peer review. Results are thus preliminary and might change.



Percentage of CapeNature priority species evaluated using the prioritisation tool, per taxonomic group. Results will be used to re-assess S&M priorities.



Prioritisation Tool for Surveillance & Monitoring: Preliminary Results



Radar charts showing Tier 1 results for top three fauna and flora species out of the 267 species assessed using the Prioritisation Tool.

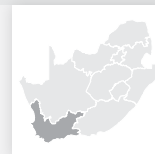
Fauna: A= Brenton Blue Butterfly, B= Cape Vulture, C= African penguin.

Flora: D= Clanwilliam Cedar, E= Hilmar's Tanquana, F= Blue-tongue orchid.

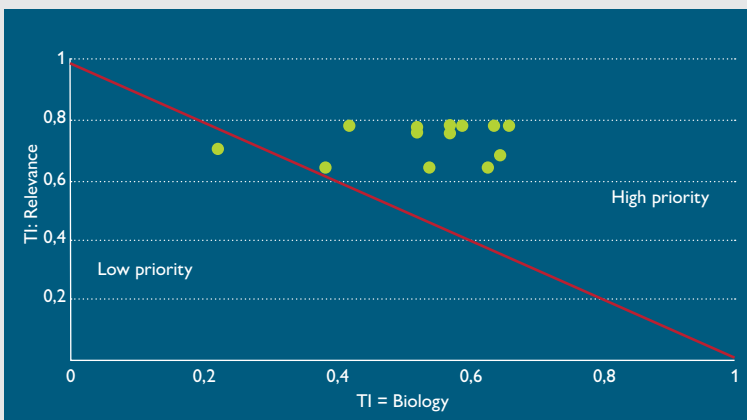
Prioritised species are derived from Protected Area Management Plans, the Western Cape Biodiversity Spatial Plan, and described in the State of Biodiversity Report.



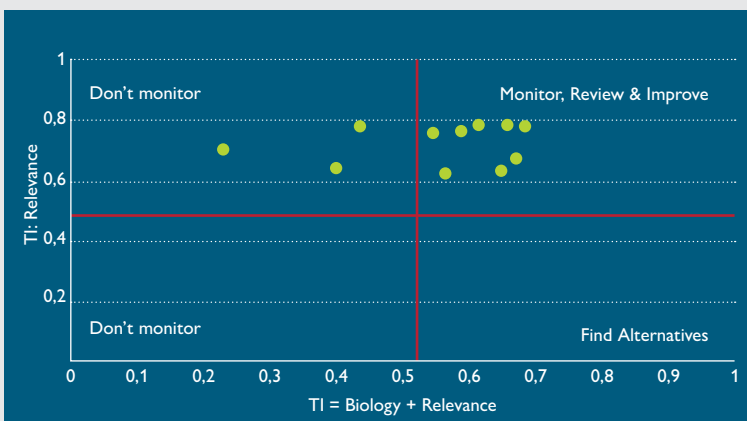
SURVEILLANCE AND MONITORING PRIORITY SPECIES



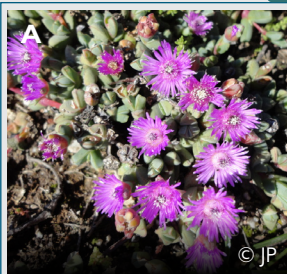
Prioritisation Tool for Surveillance & Monitoring (S&M): Example: Aizoaceae



The results of 15 Aizoaceae taxa evaluated using the Prioritisation Tool. Out of the 15 species assessed, 12 are rated as a high priority for S&M while 1 is rated as low a priority.



When considering feasibility of S&M of the same 15 taxa, the Prioritisation indicates which species are important to monitor internally and where to seek alternatives.



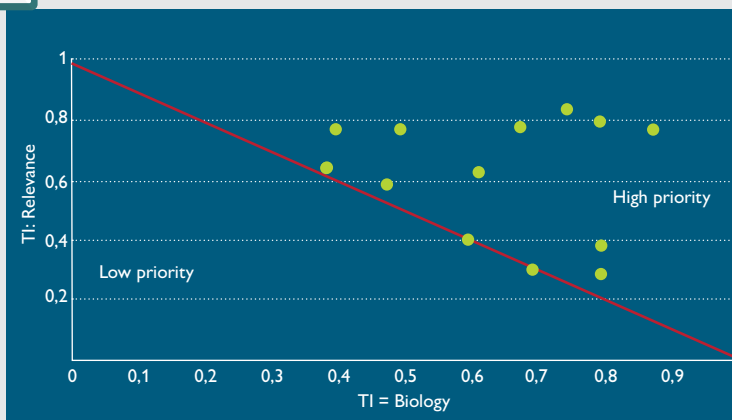
A: *Antimima granitica* is listed as Least Concern and the tool confirms that it is a lower priority for surveillance & monitoring for CapeNature. Image from iNaturalist, <https://www.inaturalist.org/observations/145243846>.



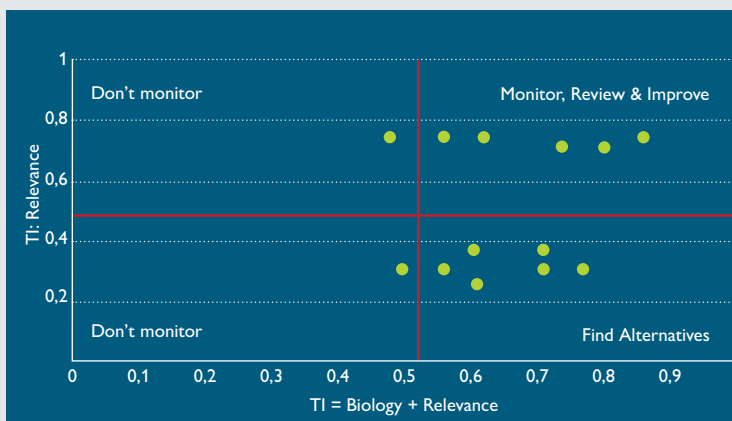
B: The Critically Endangered *Tanquana hilmarii* succulent scores highest within the Aizoaceae Family for surveillance and monitoring. This is due its endemism, highly restricted range, and susceptibility to poaching. Currently only one subpopulation remains thus a high priority for S&M. Image from iNaturalist, <https://www.inaturalist.org/observations/10847964>.



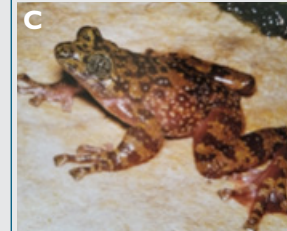
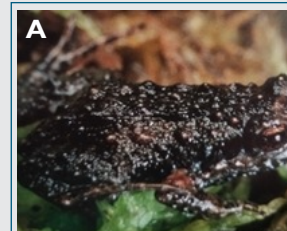
Prioritisation Tool for Surveillance & Monitoring (S&M): Example: Amphibians and Reptiles



The results of 12 amphibian and reptile taxa evaluated using the Prioritisation Tool. All 12 species are rated as a high priority for S&M based on biological and relevance criteria



When considering feasibility of S&M of the same 12 taxa, the Prioritisation indicates which species are important to monitor internally and where to seek alternatives.



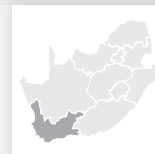
A: The Critically Endangered Rough Moss Frog, the highest S&M priority for amphibians for CapeNature.

B: The Critically Endangered Geometric Tortoise, the highest S&M priority for reptiles for CapeNature.

C: The Critically Endangered Table Mountain Ghost Frog, a very high S&M priority, but a lower priority for CapeNature as this frog occurs almost exclusively on SANParks managed land.

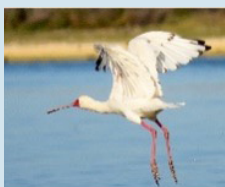


SURVEILLANCE AND MONITORING PRIORITY SPECIES: FAUNA

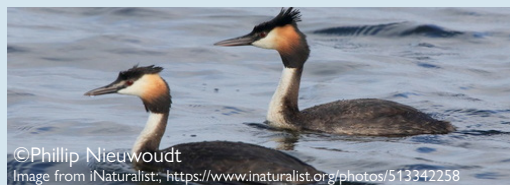


WATERBIRDS – INDICATORS OF THE STATE OF OUR WETLANDS

- ▶ Globally, waterbirds are in trouble
- ▶ Loss of habitat at resting and feeding stops along migration flyways is the main threat.
- ▶ In South Africa, important data on waterbirds is collected through the CWAC (Coordinated Waterbird Counts) project.
- ▶ There are 241 CWAC sites in the Western Cape.
- ▶ In 2024, CapeNature counted a total of 77,479 waterbirds at 40 sites.
- ▶ 6 of the 39 sites are Ramsar Wetlands of International Importance and 7 are in Marine Protected Areas.

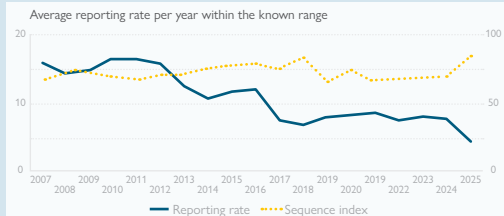


Birdie v1.0.0 is an innovative data pipeline which pulls information from the CWAC and African Bird Atlas projects, with background statistical analyses and modelling.

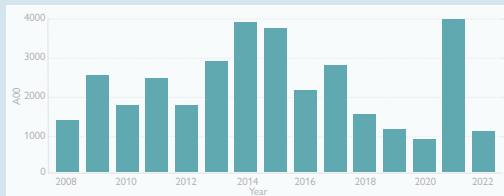


RED FLAG: GREAT CRESTED GREBE

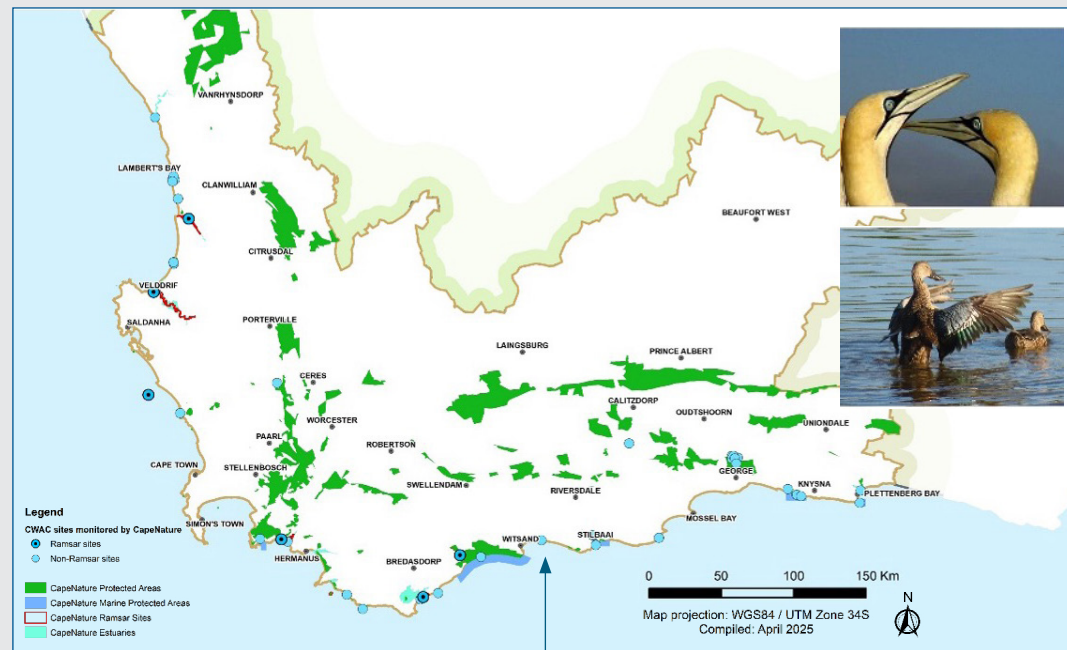
- ▶ Western Cape supports most of the national population.
- ▶ Classified as Least Concern but status likely to worsen due to a severe overall population decline and a decrease in Area of Occupancy.
- ▶ De Hoop Vlei is the CWAC site with the highest average and maximum counts (189 and 558 respectively) for this species, although numbers are influenced by rainfall and vlei level.



The average reporting rate per year for Great Crested Grebe shows a declining population (extracted from SABAP2).

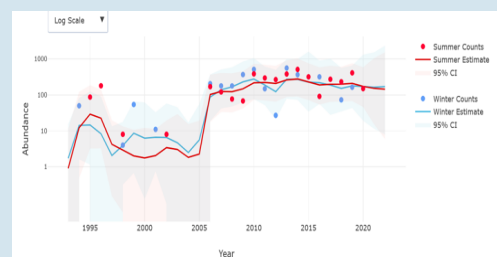


Change in Area of Occupancy of Great Crested Grebe indicates a shrinking distribution (extracted from Birdie)

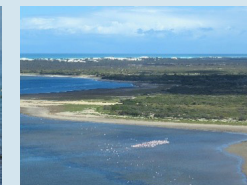


DE HOOP VLEI

- ▶ A globally important wetland.
- ▶ An important tourist attraction.
- ▶ The oldest Ramsar site in South Africa.
- ▶ 63 CWAC counts since 1992.
- ▶ Supports on average more than 8000 birds of 97 species.
- ▶ 12,224 birds of 40 species counted in summer 2024.
- ▶ Threatened species include Greater Flamingo (NT) and Great White Pelican (VU).
- ▶ Over a 10-year period, numbers of 17 species have increased and 24 have decreased



De Hoop Vlei population trend, Great Crested Grebes (extracted from Birdie)





SURVEILLANCE AND MONITORING PRIORITY SPECIES: FAUNA

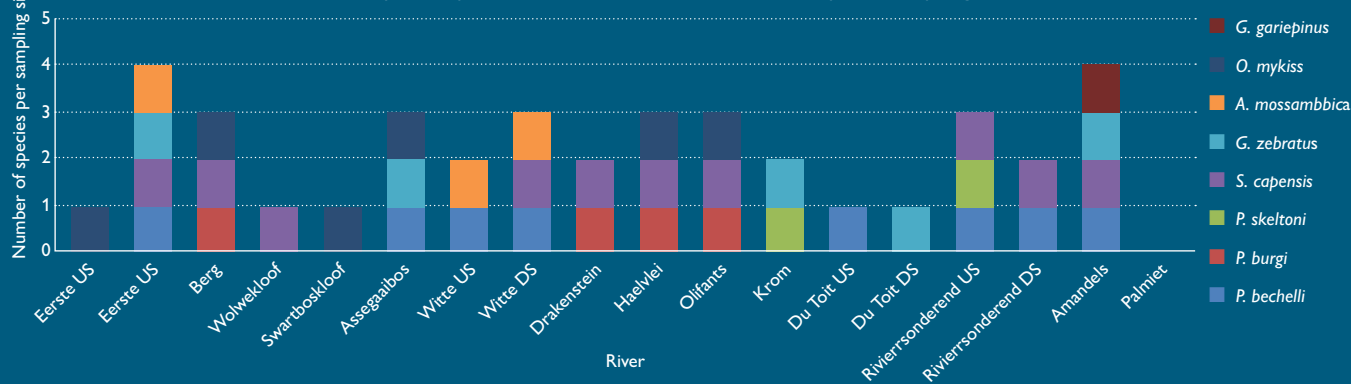


Surveillance: Data collected through either ad hoc observations or focal biodiversity surveys providing occurrence information which is useful for determining species persistence or changes in species distribution. An example on one surveillance project is the Boland Mountain Complex Fish Survey.

BOLAND MOUNTAIN COMPLEX FISH SURVEY

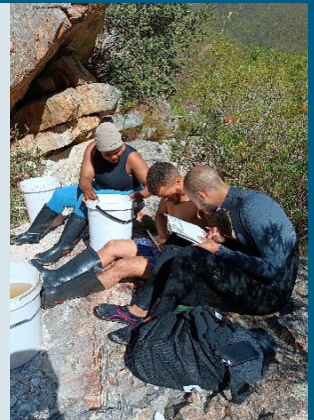
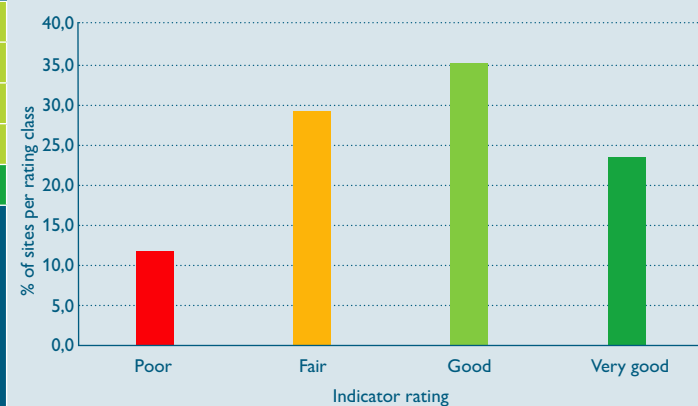
- Four reserves were surveyed namely Hawequas, Hottentots-Holland, Theewaters and Jonkershoek. Eighteen sites were surveyed in 14 rivers located in both the Berg and the Breede River systems.
- More than 50% of sites sampled could be categorised into the “Good” and “Very good” categories in terms of the indicator rating for the Complex.
- The persistence of the Endangered Giant redbfin was confirmed for two of the three known populations but remain highly threatened in the Krom River due to the presence of invasive fish.

Fish Community Composition for Boland Mountain Complex Sampling Sites



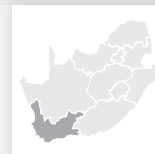
Indicator Ratings To Define The Condition Of The Freshwater Fish Community

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

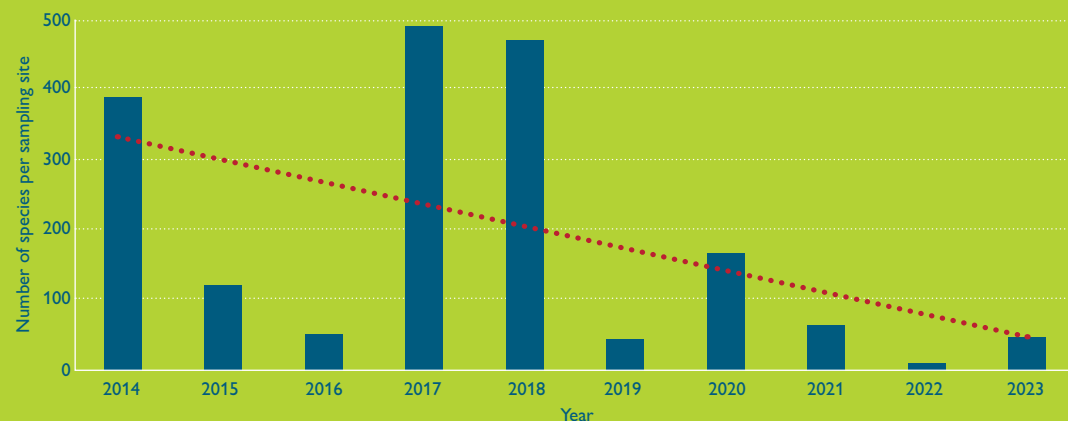


Surveillance: Data collected through either *ad hoc* observations or focal biodiversity surveys providing occurrence information which is useful for determining species persistence or changes in species distribution. An example of long-term plant monitoring of *Sorocephalus imbricatus* has been shown here.

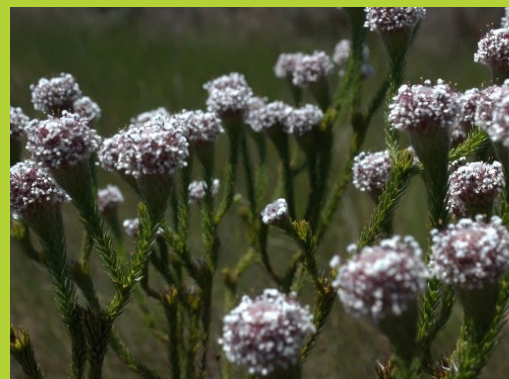
- ▶ Critically Endangered *S. imbricatus* occurs at three sites in the Waterval Nature Reserve.
- ▶ Long-term monitoring revealed threats beyond fire and invasive plants.
- ▶ *Phytophthora cinnamomi* was discovered, causing severe population decline.
- ▶ Early detection enabled conservation actions to mitigate population decline.

- ▶ <160 mature individuals; population declining.
- ▶ Most subpopulations have <10 mature individuals, with high mortality in both immature and mature individuals.
- ▶ The species has been rescued by CapeNature, SANBI, Millennium Seed Bank, and CREW to support *ex-situ* conservation efforts.

CapeNature Protected Area Long Term Plant Monitoring Sites

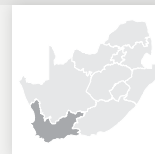


This graph was generated using average population counts per year of *S. imbricatus*.



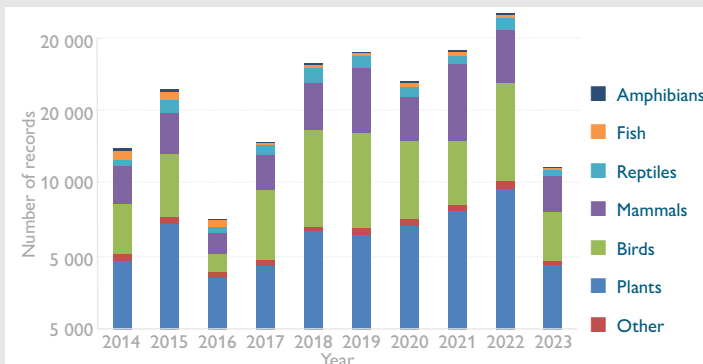


CAPENATURE'S DATA RESOURCES (ASSETS)



DATA MANAGEMENT AND TECHNOLOGY

Conservation data management is critical for making informed conservation decisions at CapeNature. This requires regular investment into and review of the latest technology and ways to improve efficiencies and integration with internal and partner data systems. The **FireWeb** and **CMSi** systems are examples of CapeNature's recent investment to improve data management and reporting efficiencies.



Biodiversity data records collected from 2014 to 2023

CAPENATURE DATASETS

CapeNature collects various datasets that fall into broad conservation management and legally-mandated categories:

- ▶ Indigenous species distribution, population and status
- ▶ Conservation Estate
- ▶ Invasive Alien Plants
- ▶ Fire history and veld age
- ▶ Environmental Law enforcement
- ▶ Ecological, Management and Tourism infrastructure
- ▶ Land-use advice
- ▶ Freshwater monitoring
- ▶ Biodiversity Spatial Planning

EXTERNAL DATASETS

CapeNature relies on several partners who share data to inform its operations:

- ▶ iNaturalist
- ▶ Custodians of Rare and Endangered Wildflowers (CREW, TSP)
- ▶ Research permit data
- ▶ SANBI biodiversity data
- ▶ National Biodiversity Assessment
- ▶ SAEON

CAPENATURE'S CONTRIBUTION TO THE IUCN RED LIST



The IUCN Red List for Threatened Species is a global indicator of the health of the world's biodiversity. The list is used to inform conservation policy, decisions and actions and contains information on species range, population, habitat, ecology, utilisation and threats. CapeNature contributes biodiversity data to the IUCN Red List via SANBI's Threatened Species Programme who collect data from various sources, including provinces, like the Western Cape.

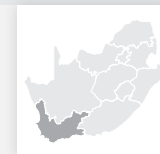
DATA STANDARDS

CapeNature adheres to international data standards for consistency, comparison and interoperability:

- ▶ IUCN
- ▶ Darwin Core
- ▶ Conservation Standards



PARTNERSHIPS FOR CONSERVATION SUCCESS



CapeNature acknowledges the need for 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.

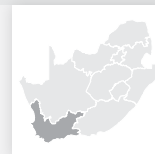
1	Afritrails
2	Berg River Municipality
3	BirdLife South Africa
4	Boland-Grootwinterhoek SWSA Collective
5	Buffalo Valley Trust
6	Cape Agency for Sustainable Integrated Development in Rural Areas (CASIDRA)
7	Cape Floristic Region Partnership
8	Cape Floristic Region Protected Areas World Heritage Site: DFFE, CapeNature, SANParks, ECPTA
9	Cape Peninsula Fire Protection Association (CPFPA)
10	Cape Peninsula University of Technology (CPUT)
11	Cape Winelands District Municipality
12	Centre for Estuarine Research and Conservation (CERC)
13	Centre for Invasion Biology (CIB)
14	Chrysalis Academy
15	City of Cape Town
16	Conservation at Work
17	Conservation Outcomes
18	Department of Agriculture
19	Department of Forestry Fisheries and the Environment (DFFE)
20	Department of Infrastructure
21	Dyer Island Conservation Trust (DICT)
22	Die Galg Farm
23	Educo South Africa

24	Endangered Wildlife Trust (EWT)
25	False Bay TVET College (FBC)
26	Flower Valley Conservation Trust
27	Forge
28	Friends of the Tollhouse
29	Garden Route District Municipality
30	Gift of the Givers/Waqful Wagfin Foundation
31	Greater Cederberg Fire Protection Association (GCFPA)
32	Greater Overberg Fire Protection Association (GOFPA)
33	Grootbos
34	Heuningvlei Community
35	Hospitality Property Fund
36	Invasive Fish Species Management (IFSM)
37	Kaapjag
38	Kishugu Training
39	Leisure Charitable Trust: Berg Estuary
40	Leisure Charitable Trust: Walker Bay
41	Leisure Conservation Trust
42	Logos, Ethos & Pathos Consulting (Pty) Ltd t/a Nightsbridge
43	Mapula Trust
44	Mountain Runner Events (Pty) Ltd
45	Mountains to Oceans (MTO) Forestry
46	National Department of Tourism
47	National Research Foundation (NRF)
48	Nature Connect: Sustainable Schools

49	Ocean Finance Company
50	On The Ball College (OTBC)
51	Outward Bound South Africa
52	Overberg Renosterveld Conservation Trust
53	Overstrand Municipality
54	Rocklands Landowners Agreement
55	Sanbona Wildlife Reserve
56	SCOUTS
57	South African Hikers Network
58	South African Institute for Aquatic Biodiversity (SAIAB)
59	South African National Biodiversity Institute (SANBI)
60	South African National Parks (SANParks)
61	South African Shark Conservancy (SASC)
62	Southern African Foundation for the Conservation of Coastal Birds (SANCCOB)
63	Southern Cape Fire Protection Association (SCFPA)
64	Swartland Municipality
65	The Nature Conservancy (TNC)
66	University of the Western Cape (UWC)
67	Volunteer Wildfire Services (VWS)
68	Warrior on Wheels
69	West Coast District Municipality (WCDM)
70	Western Cape Government (PDMC)
71	Winelands Fire Protection Association (WFPA)
72	Working on Fire (WoF)
73	World Wildlife Fund (WWF)



FURTHER READING BIBLIOGRAPHY

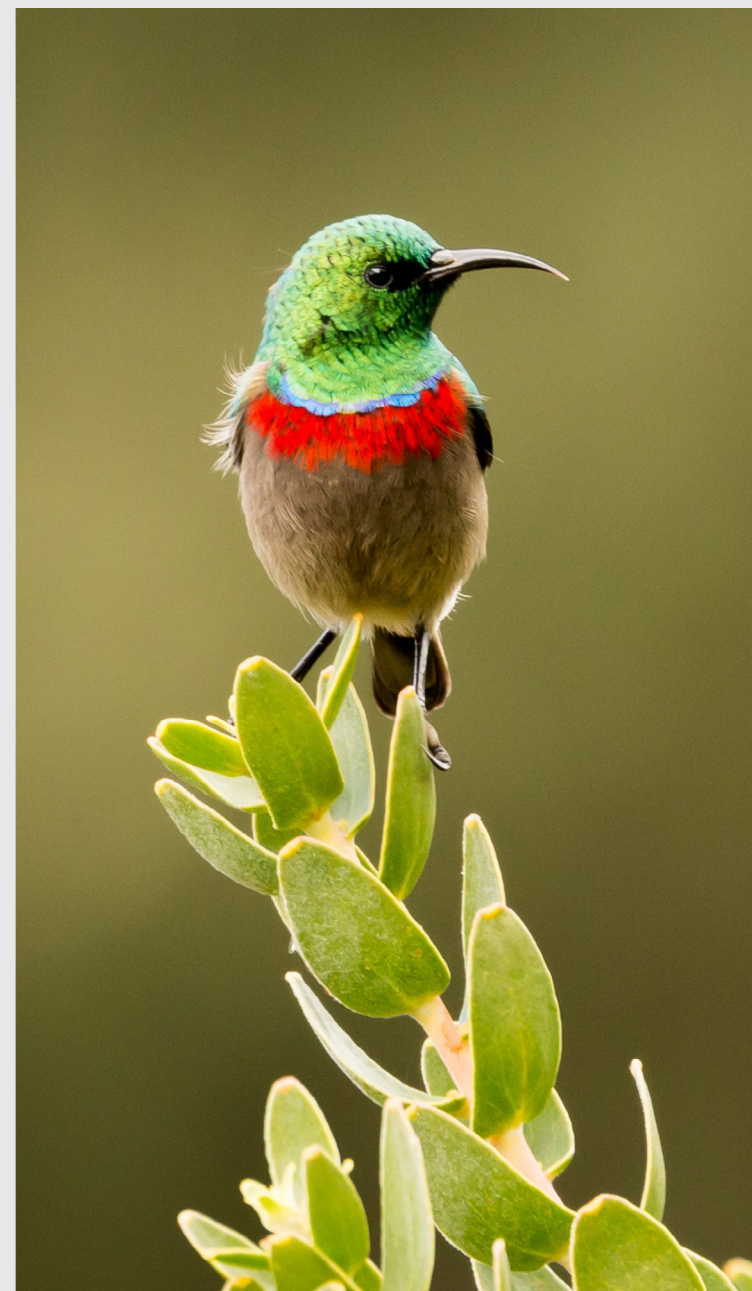


- ▶ Angus O, Telford N, Ping T and Conradie W. 2024. A new species of Dainty Frog (Anura: *Pyxicephalidae*: *Cacosternum*) and the first endemic anuran to the Cederberg region of South Africa. *Zootaxa*, 5512(1): 001–002.
- ▶ BirdLife International. 2024. *Spheniscus demersus*. The IUCN Red List of Threatened Species 2024: e.T22697810A256021744.
- ▶ CapeNature. 2024. *Assessment of management effectiveness for CapeNature-managed protected areas 2022–2024*. Unpublished internal report. Cape Town, South Africa.
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