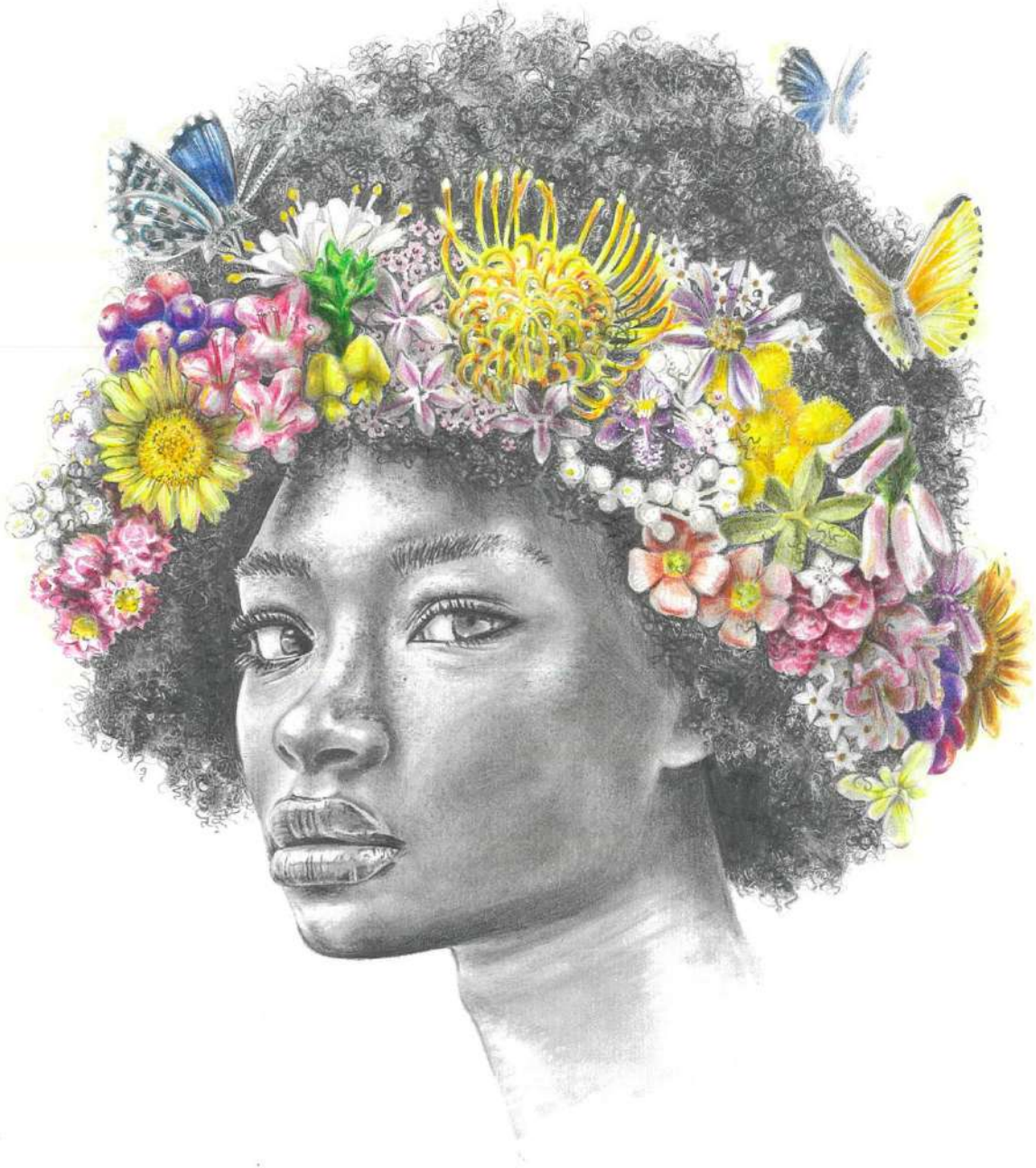
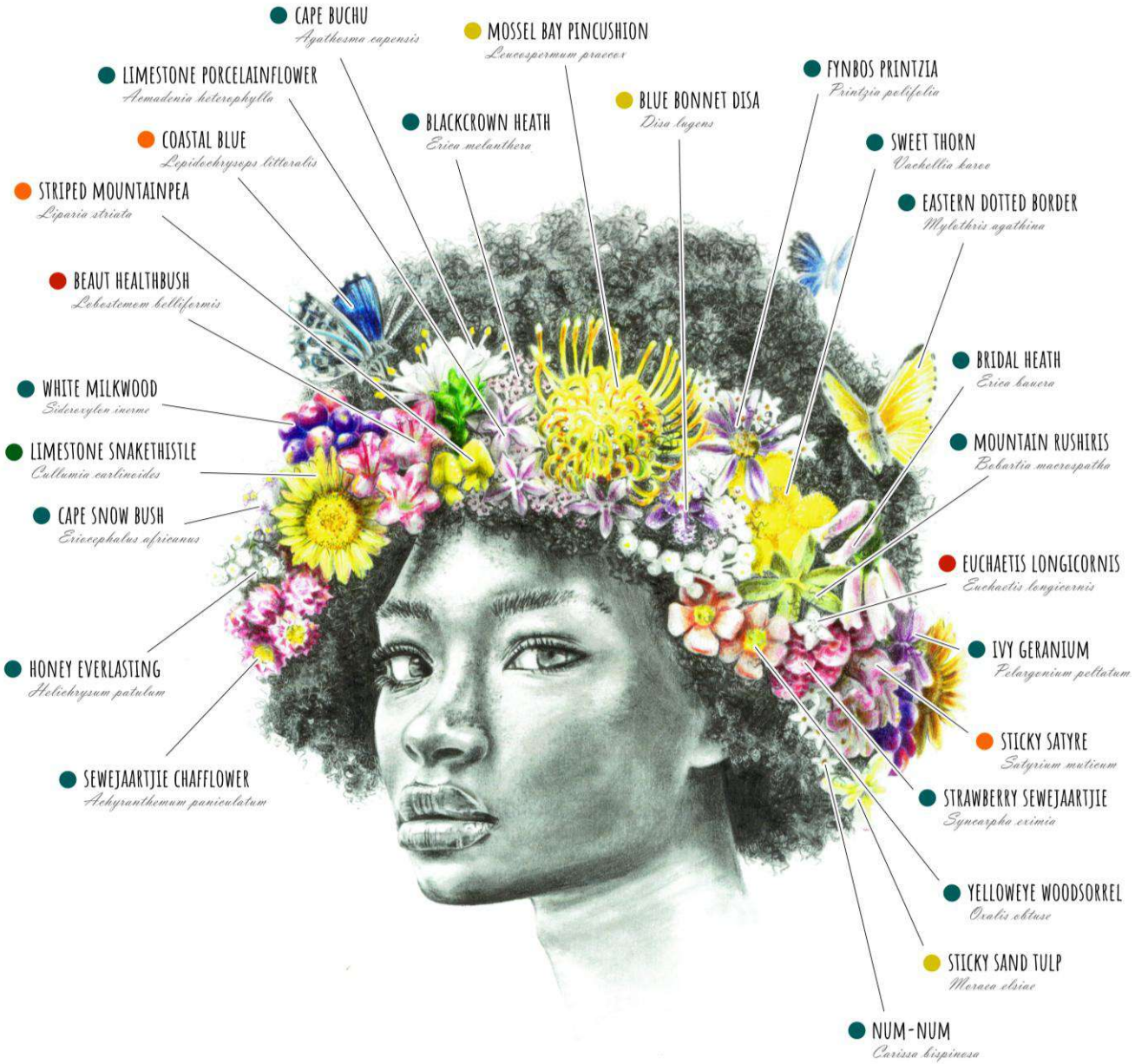
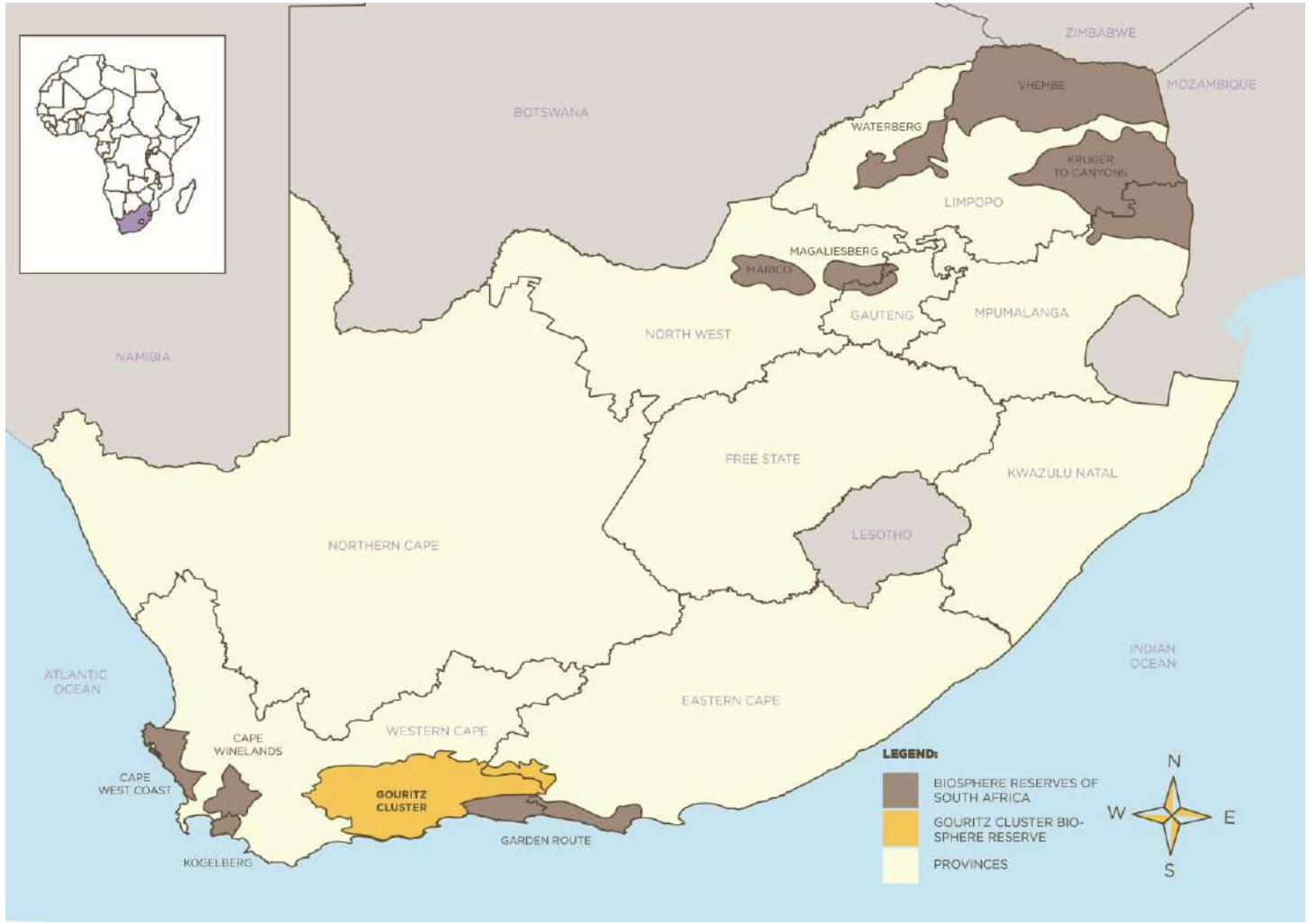
GOURITZ®
Cluster Biosphere Reserve

Stilbaai Business Forum Meeting
Nature & Business in Synergy
May 2026




CAPE BUCHU
Agathosma capensis
MOSSEL BAY PINCUSHION
Leucospermum praecox
LIMESTONE PORCELAINFLOWER
Nemadenia heterophylla
FYNBOS PRINTZIA
Printzia polifolia
BLUE BONNET DISA
Disa bugens
BLACKCROWN HEATH
Erica melanthera
COASTAL BLUE
Lepidochrysops litteralis
SWEET THORN
Vachellia karoo
STRIPED MOUNTAINPEA
Liparia striata
EASTERN DOTTED BORDER
Mylothris agathina
BEAUT HEALTHBUSH
Lebestemom bellifermis
BRIDAL HEATH
Erica bauera
WHITE MILKWOOD
Sideroxylon inerme
MOUNTAIN RUSHIRIS
Babartia macrospatha
LIMESTONE SNAKETHISTLE
Cullumia carlinoides
CAPE SNOW BUSH
Eriocephalus africanus
EUCHAETIS LONGICORNIS
Euchaetis longicornis
IVY GERANIUM
Pelargonium peltatum
HONEY EVERLASTING
Helichrysum patulum
STICKY SATYRE
Satyrium muticum
SEWEJAARTJIE CHAFFLOWER
Aehyranthemum paniculatum
STRAWBERRY SEWEJAARTJIE
Syncarpha eximia
YELLOWEYE WOODSORREL
Oxalis obtusa
STICKY SAND TULP
Moraea elsiae
NUM-NUM
Carissa bispinosa
THE RED LIST CATEGORIES
CRITICALLY RARE
ENDANGERED
VULNERABLE
NEAR THREATENED
LEAST CONCERN

UNESCO Biosphere Reserves



- Learning places for sustainable development and models for harmony between people and nature
- Nomination by government
- Designated under UNESCO's Man and the Biosphere (MAB) Programme
- Biosphere reserve functions:
  - Conservation
  - Sustainable development
  - Logistic support

Gouritz Cluster Biosphere Reserve

3.2 Million Hectares

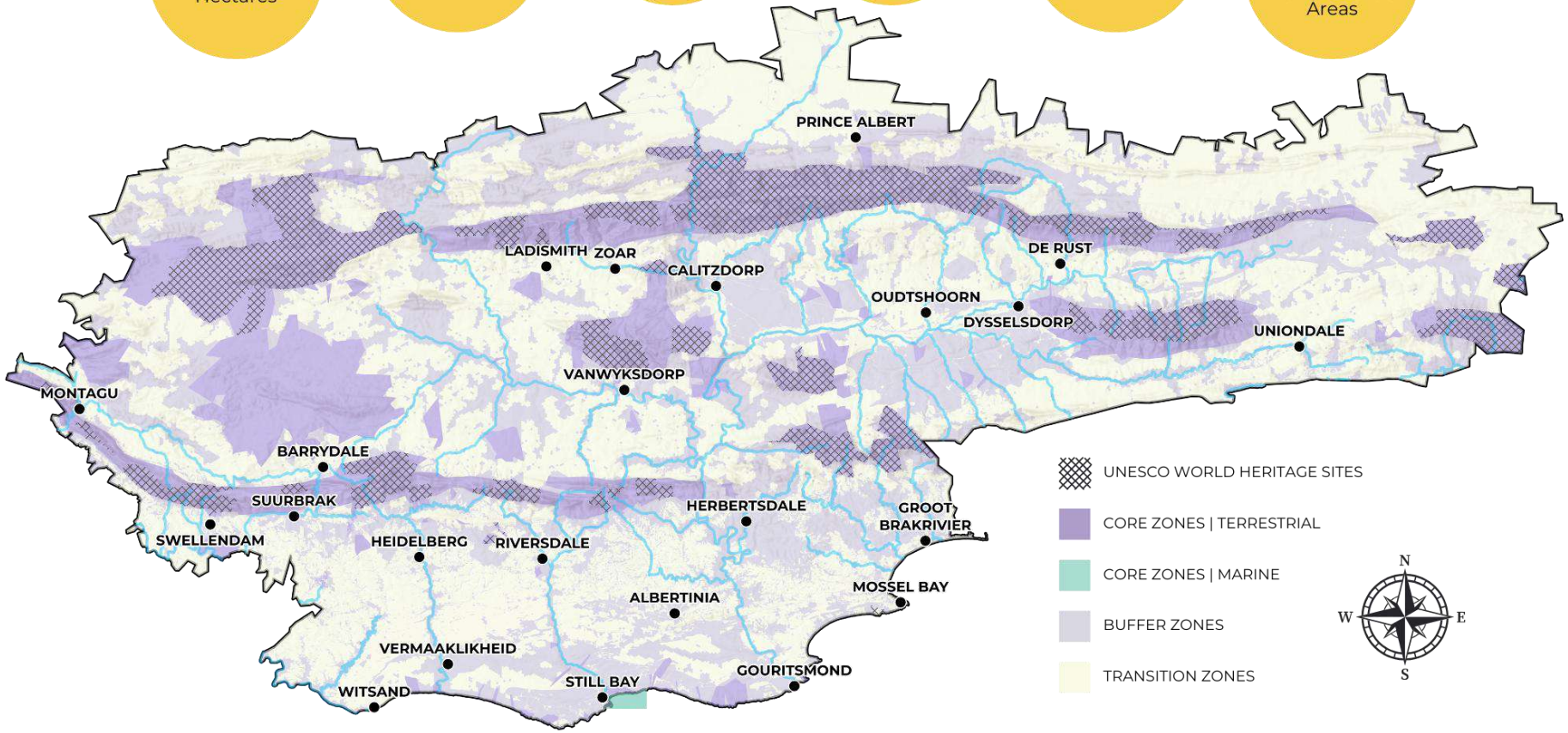
UNESCO Biosphere Reserve

3 Global Biodiversity Hotspots*

5 000+ Indigenous Plant Species

670+ Endemic Plant Species

8 Strategic Water Source Areas

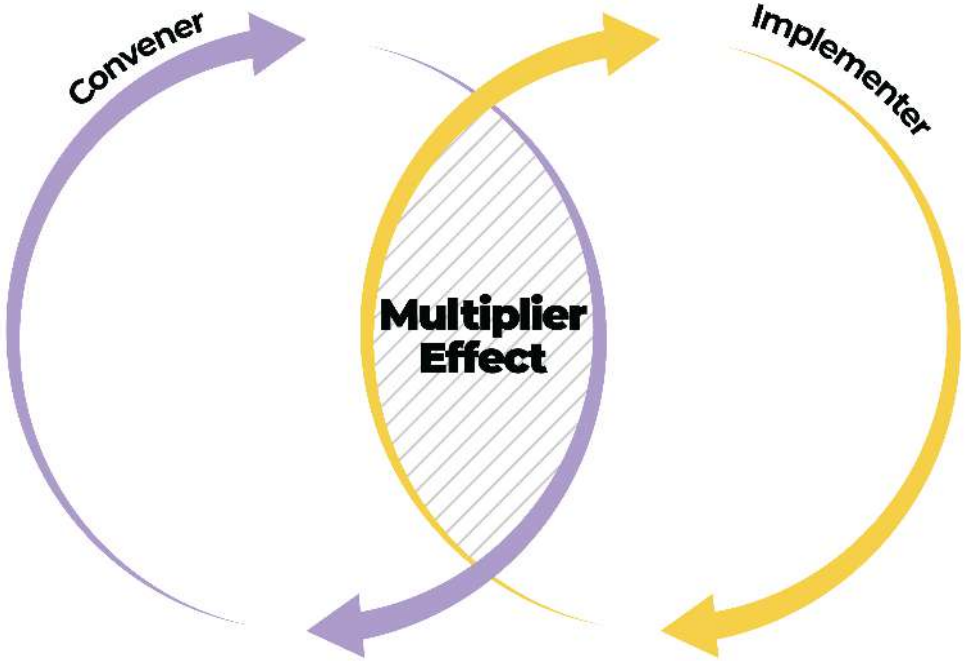


Threats

- Climate change impacts
- Unsustainable natural resource management
- Invasive alien plants
- Socio-economic challenges
- Lack of capacity
- Lack funding

GCBR

- GCBR is the management body for the Biosphere Reserve



- Catalyse, coordinate, enable and drive initiatives

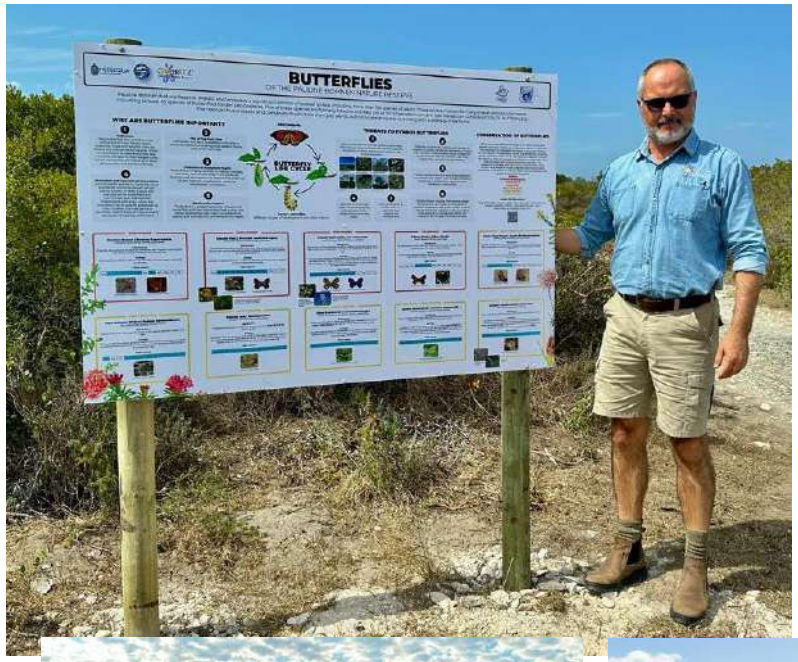
What does GCBR do

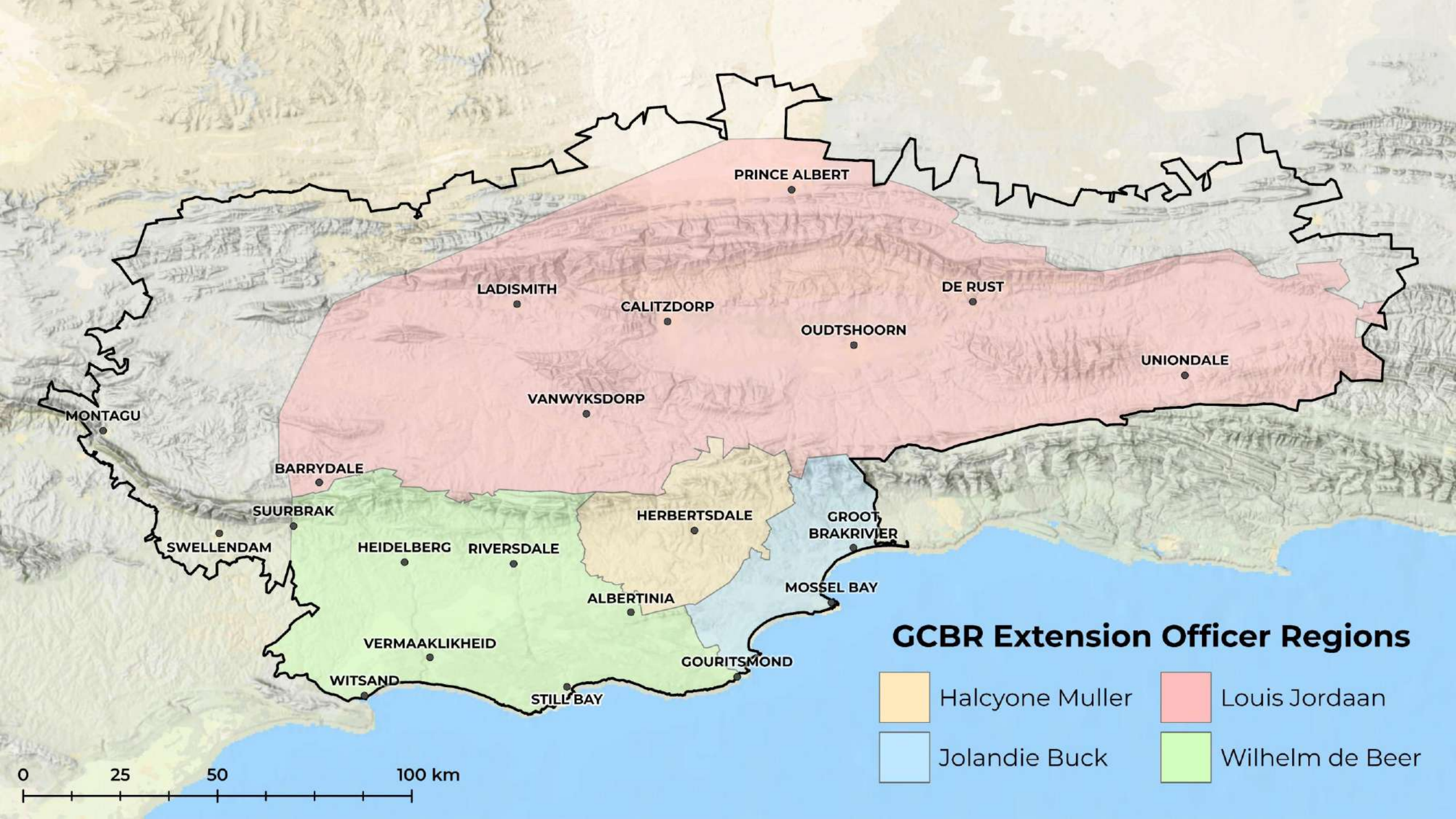
- Ecological Corridors
- Ecosystem Rehabilitation
- Environmental Education
- Youth Empowerment
- Smallholder Farmer Support
- Nature Based Enterprises
- Research
- Monitoring
- Ecotourism
- Inheems
- Community outreach
  - Vegetable gardens
  - Beach clean-ups
  - Tree planting

Nature is the driving force for business

- Stilbaai beauty – natural assets
- Ecotourism
- Natural resources
- Ecological infrastructure
- Resilience
- Sustainable – Regenerative
- Circular economies
- Consumer affinity

Dr Wilhelm de Beer - Landscape Coordinator

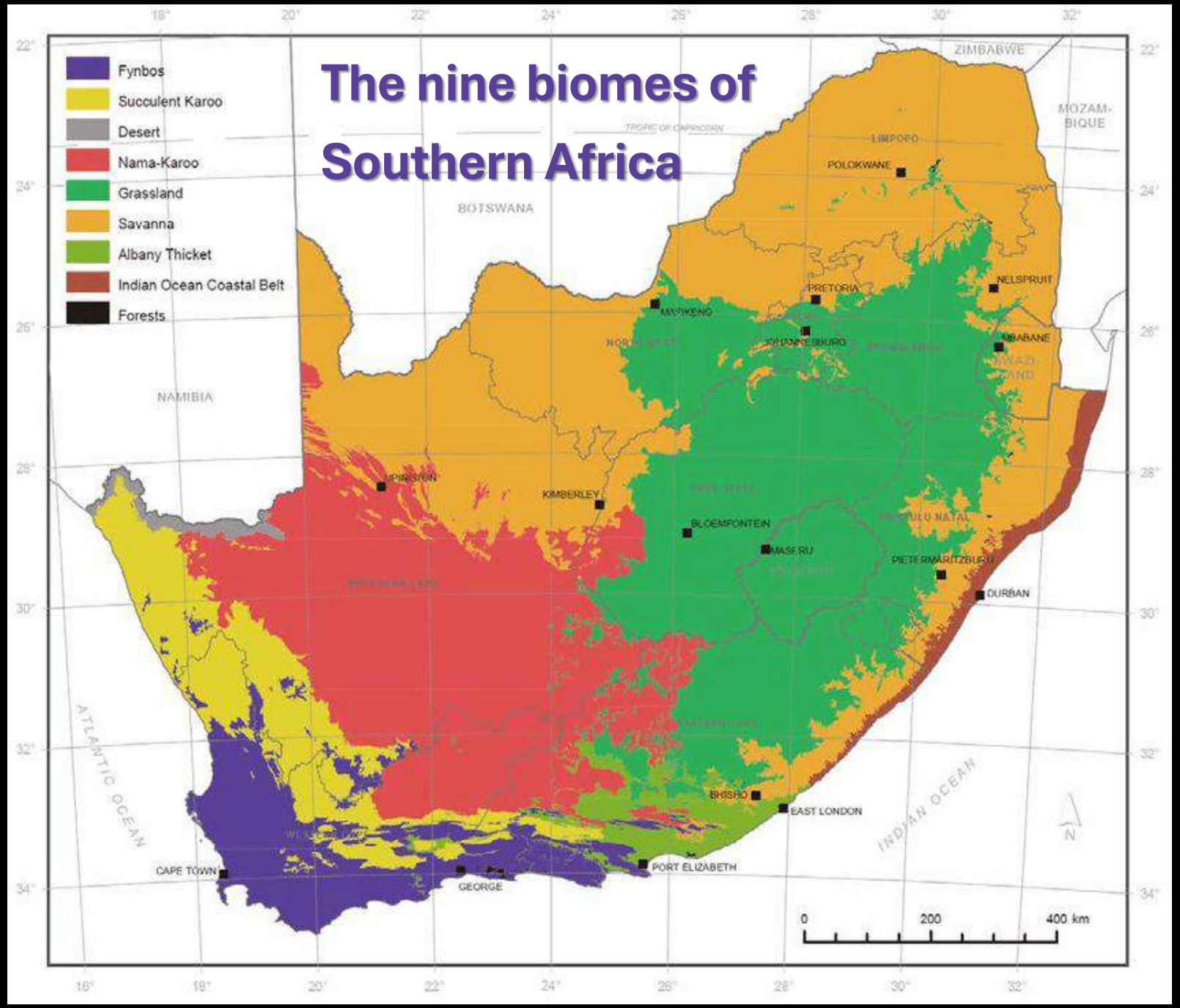



GCBR Extension Officer Regions
Halcyone Muller
Louis Jordaan
Jolandie Buck
Wilhelm de Beer
PRINCE ALBERT
LADISMITH
CALITZDORP
DE RUST
OUDTSHOORN
UNIONDALE
VANWYKSDORP
MONTAGU
BARRYDALE
SUURBRAK
SWELLENDAM
HEIDELBERG
RIVERSDALE
HERBERTSDALE
GROOT BRAKRIVIER
MOSSEL BAY
ALBERTINIA
VERMAAKLIKHEID
GOURITSMOND
WITSAND
STILL BAY
0
25
50
100 km

GOURITZ®
Cluster Biosphere Reserve
Gamka
Prince Albert
Ladismith
Calitzdorp
Oudtshoorn
De Rust
Olifants
Uniondale
Groot
Vanwyksdorp
Montagu
Barrydale
Groot-Brak
Klein-Brak
Swellendam
Riversdale
Hartenbos
Duiven-
hoks
Gourits
Mossel Bay
Breede
Witsand
Still Bay
Goukou
Earthstar Geographics

Nature Conservation in our area

What is Fynbos?



Fynbos biome

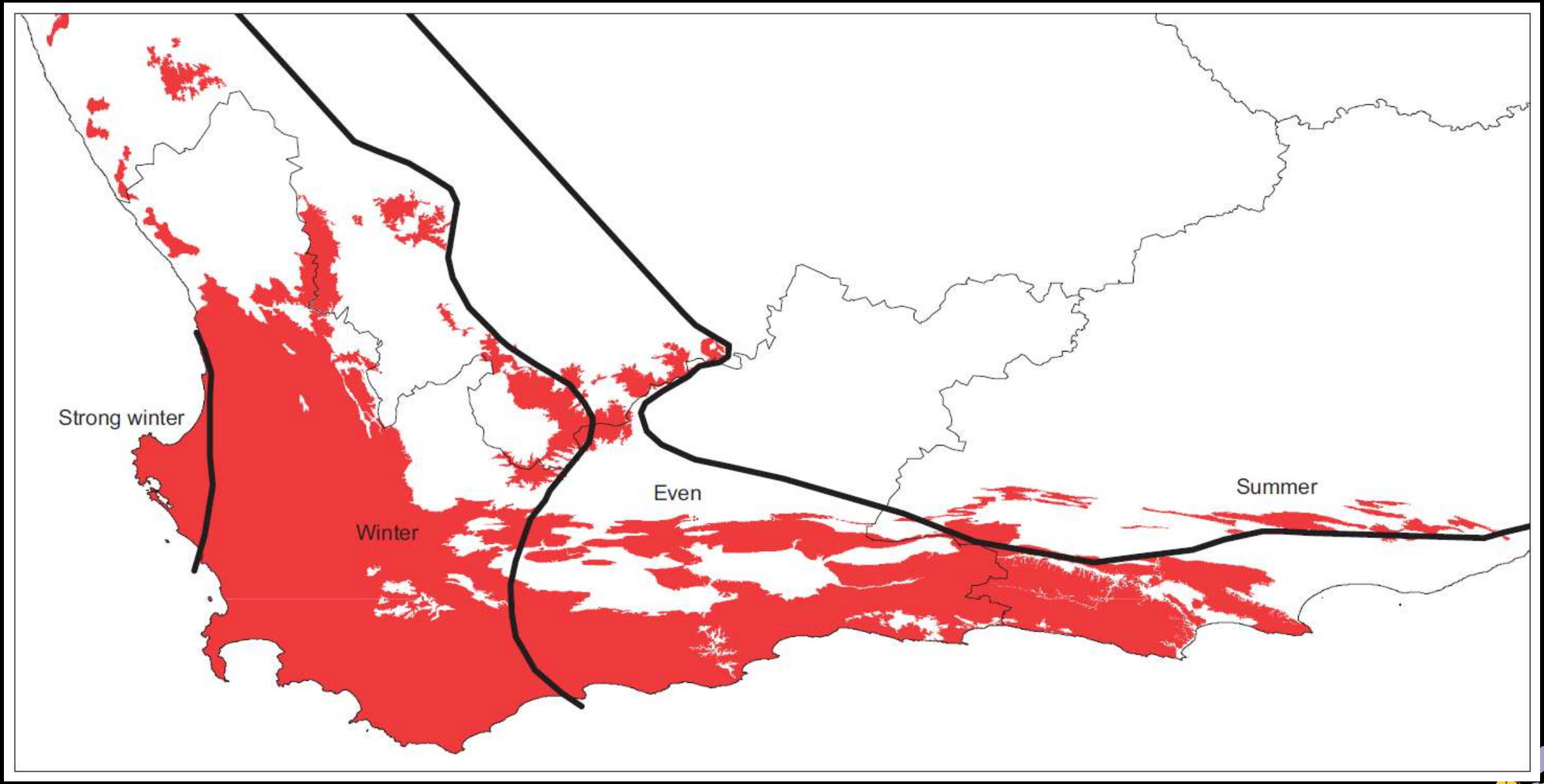
includes three <u>vegetation complexes:</u>

- Fynbos
- Renosterveld
- Strandveld

Fynbos

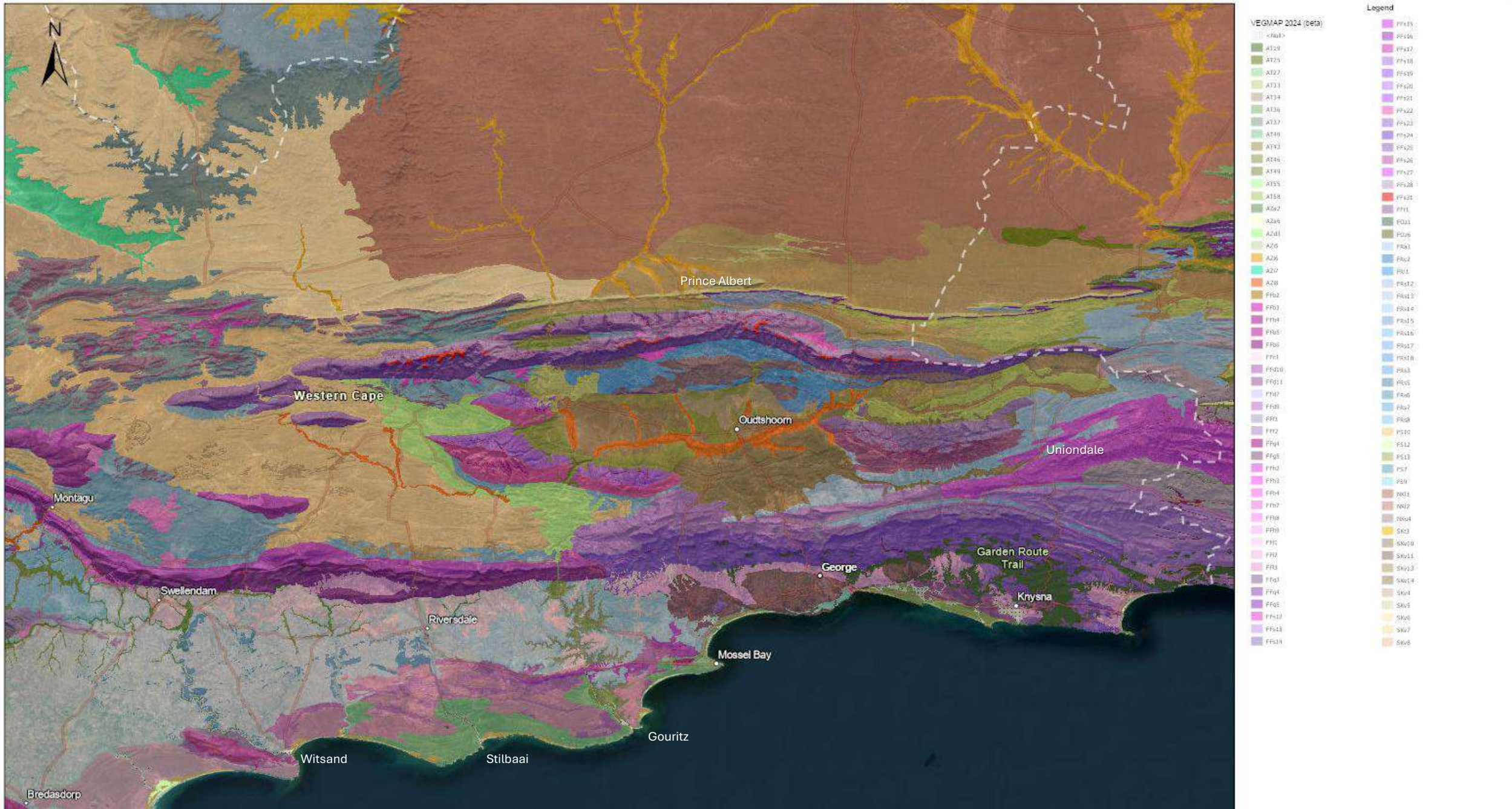
is an evergreen, fire-prone shrubland with:

- 9000 species, 6000 endemic
- restios (>400)
- ericoid shrubs (e.g. Ericaceae (>660), Asteraceae ...)
- Proteaceae (>320)
- low grass cover

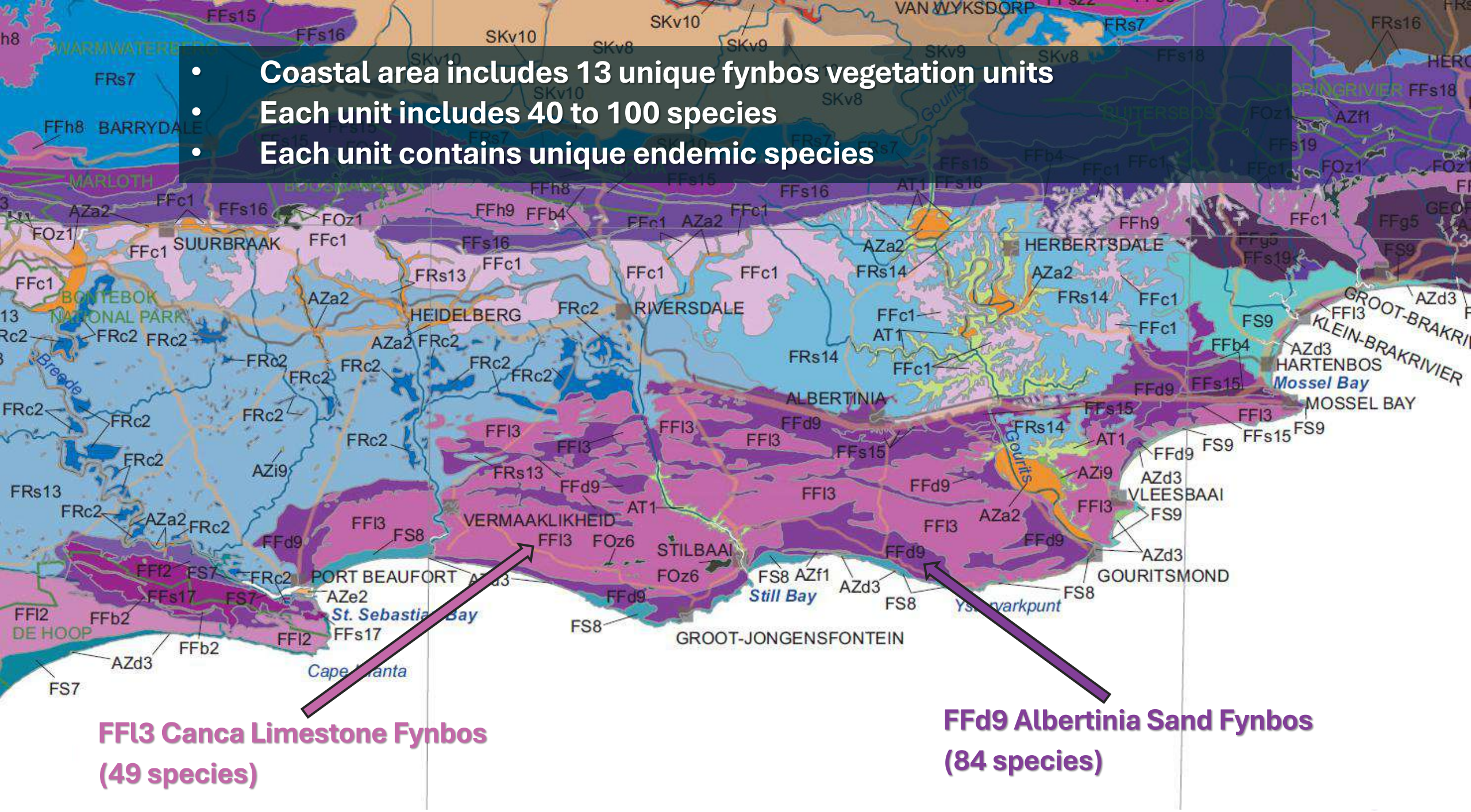


Rainfall seasonality for the Fynbos Biome

The 101 GCBR vegetation types

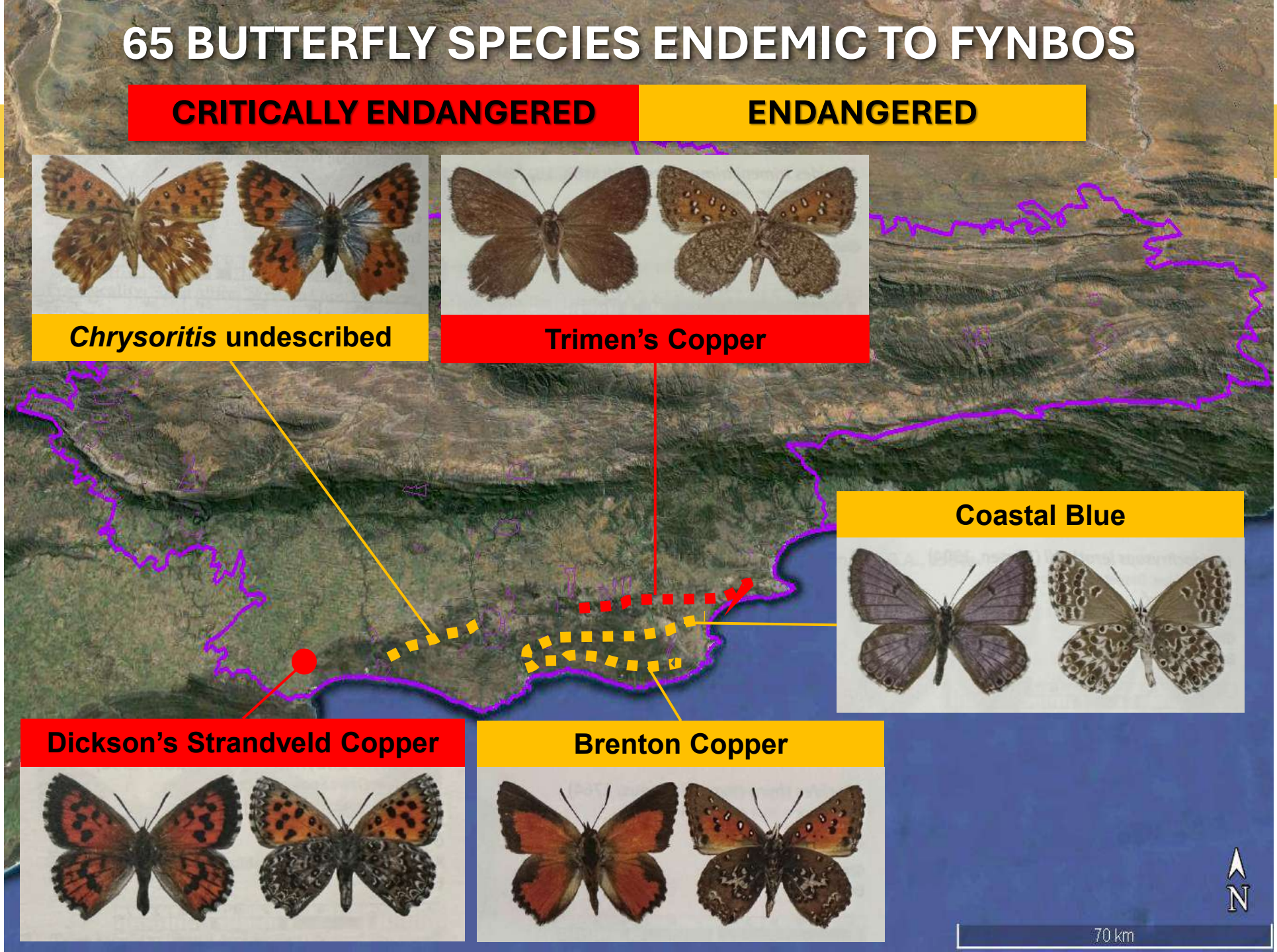


- Coastal area includes 13 unique fynbos vegetation units
- Each unit includes 40 to 100 species
- Each unit contains unique endemic species



Protecting Fynbos
& Renosterveld

65 BUTTERFLY SPECIES ENDEMIC TO FYNBOS



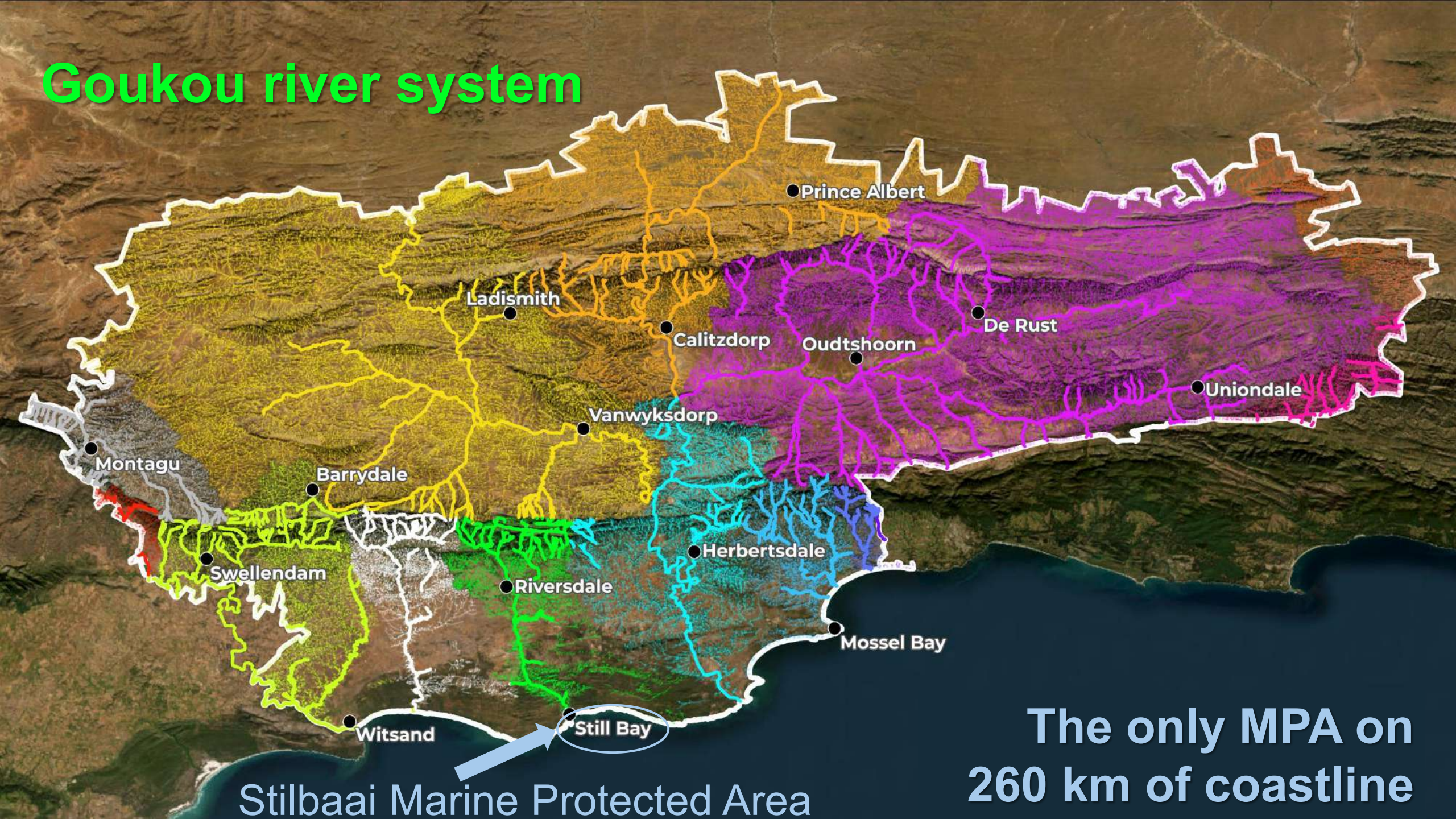
MONITORING CRITICALLY ENDANGERED BUTTERFLIES IN THE COASTAL FYNBOS

BRENTON BLUE TRUST

- 40 years of research
- 35 butterfly species in Pauline Bohnen Nature Reserve
- Butterfly information board showing 10 of the species, with link to website with other 25

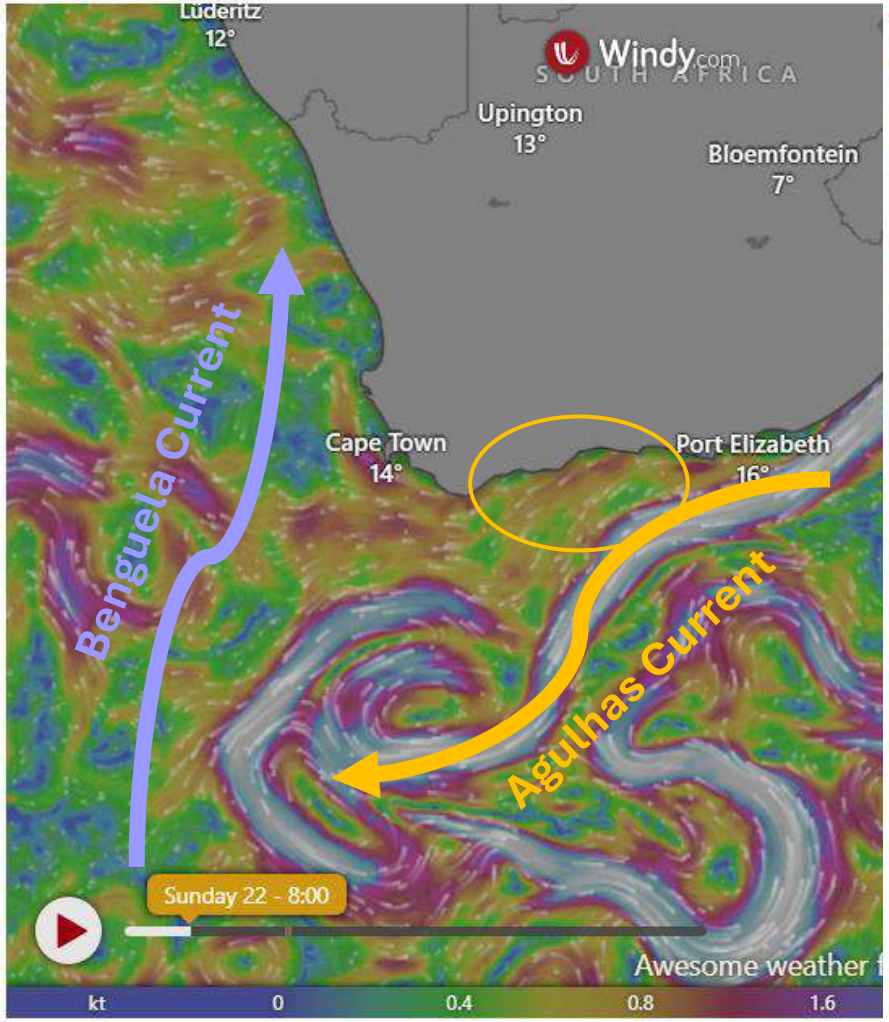
We do not only protect plants,
but complete ecosystems
35 butterfly
species in PBNR

Goukou river system

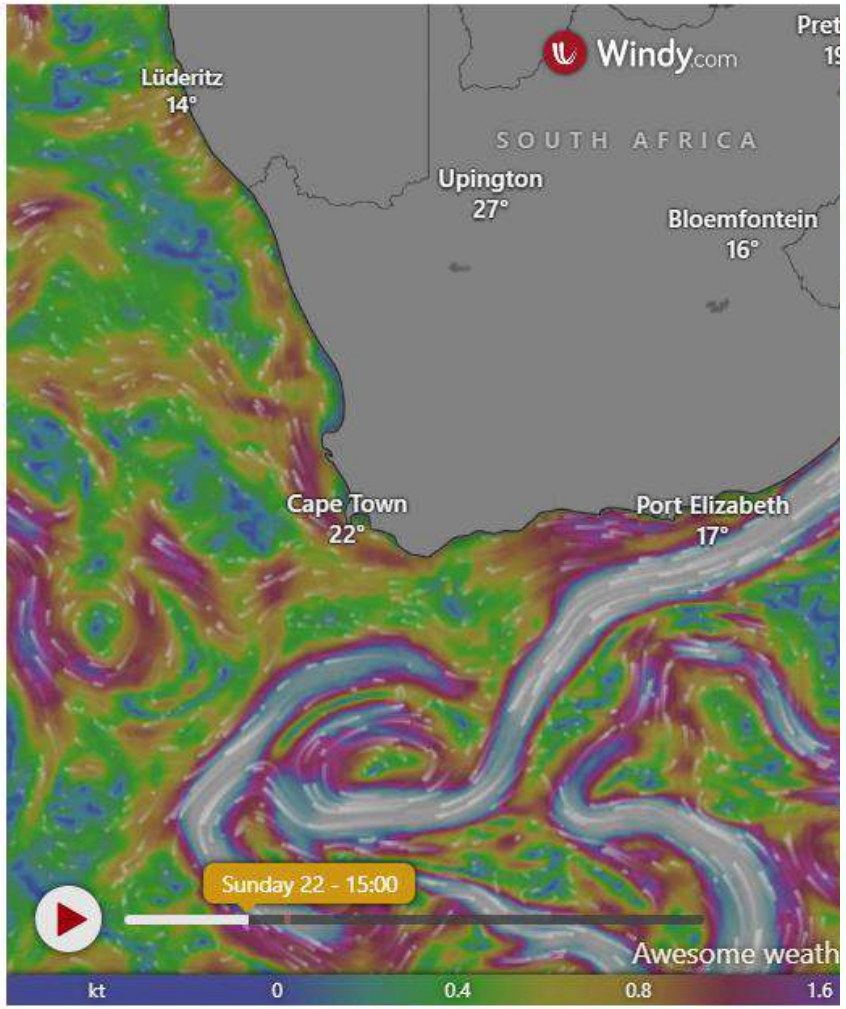


The only MPA on 260 km of coastline

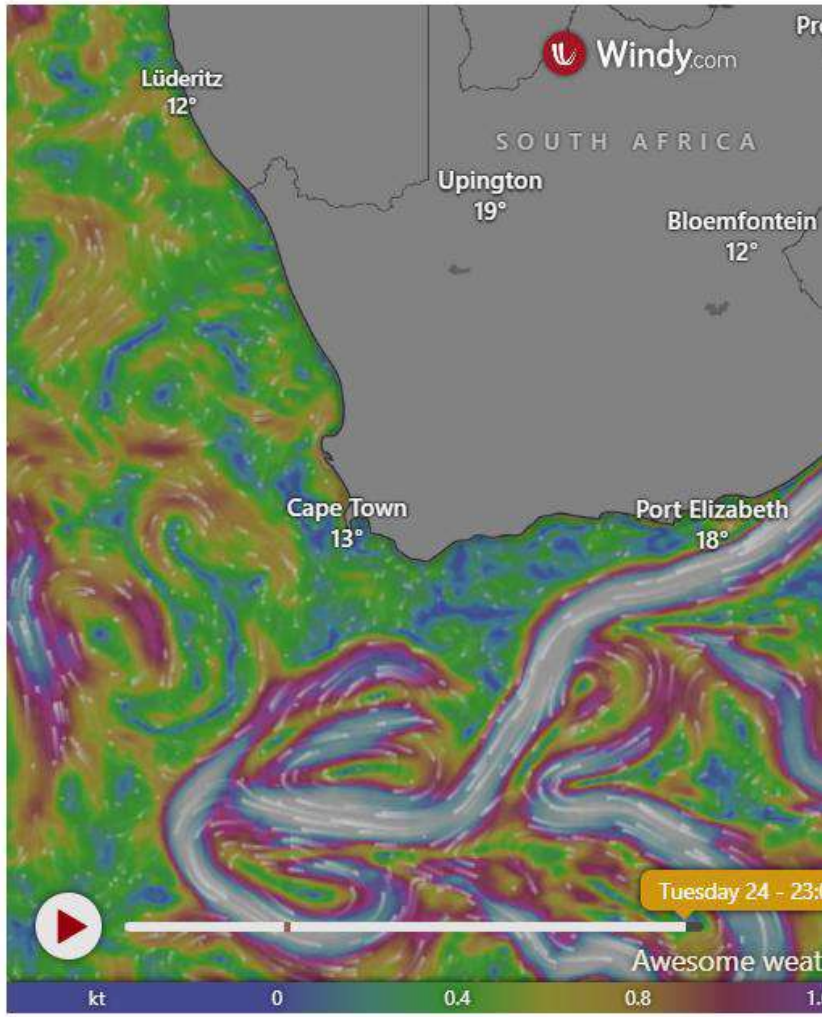
Currents (Live)

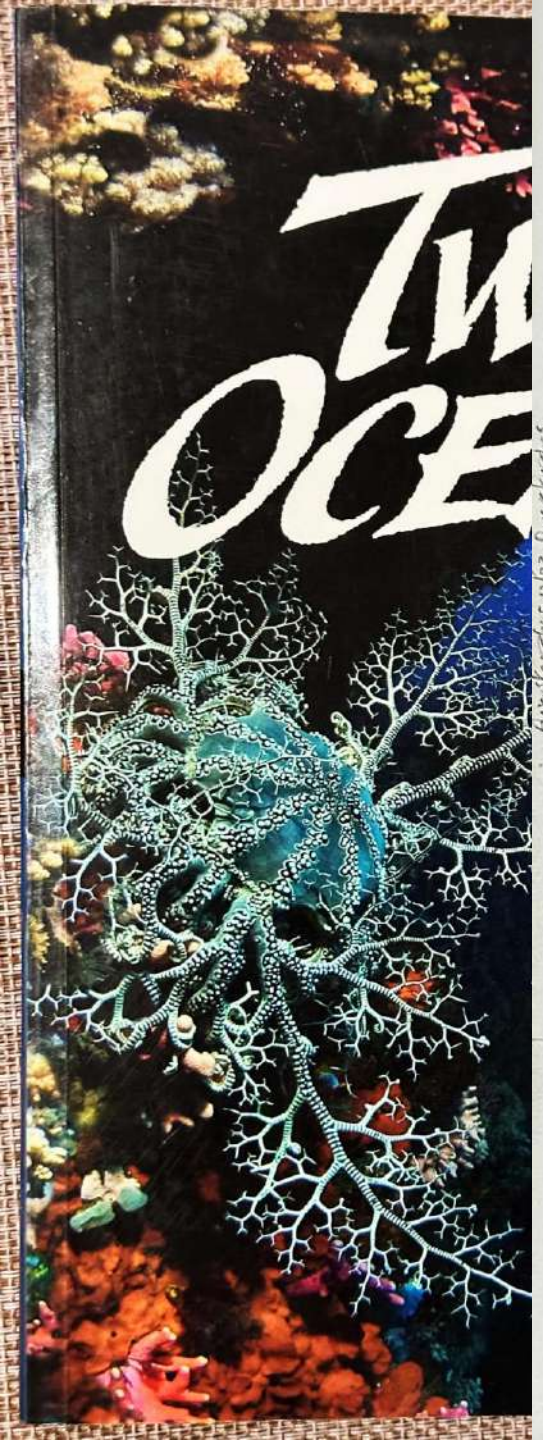


Currents (Live)



Currents (Live)





Plough shells

Plough shells of the genus Bullia *are a feature of wave-exposed southern African sandy beaches, and are recognised by the extremely broad, flat foot and reduced, often serrated, operculum. All are blind and rely on a keen sense of smell to detect carrion, around which they rapidly congregate. Many use the waves to 'surf' up the beach, and crawl on the wet sand with a characteristic 'rowing' movement in search of jellyfish, bluebottles and other cast-up animals.*

88.1 Annulated plough shell — *Bullia annulata*

Pale brown, with faint spiral ridges and a distinctive 'step' separating the whorls. Operculum oval and not serrated. **Size:** Up to 60 mm. **Biology:** Shells often washed ashore, but live animals are subtidal, extending down to depths of about 100 m.

88.2 Calloused plough shell — *Bullia callosa*

Similarly 'stepped' between the whorls, but the steps, aperture and heavy callus area around it are usually dark brown, and the spiral ridges on the shell vary from weak to absent. **Size:** 50 mm. **Biology:** Scavenges at depths of 7–36 m.

88.3 Fat plough shell — *Bullia laevissima*

A heavy, squat species with a short spire and very large aperture. The large, shiny callus area covers most of the underside of the last whorl. Operculum tiny and oval, without serrated margins. **Size:** Up to 55 mm. **Biology:** Extremely common in deeper water below the surf zone, and is harvested by a small-scale commercial fishery. Extends into the intertidal zone in very sheltered bays and lagoons.

88.4 Finger plough shell — *Bullia digitalis*

Narrow, with a long pointed spire and smooth cream shell, often tinged with violet. Operculum with serrated margins. **Size:** Up to 60 mm. **Biology:** The dominant plough shell on Atlantic shores. Lives buried low on the shore, emerging to 'surf' upshore (88.4a) in response to the smell of carrion. Congregates in large numbers to feed, particularly on stranded jellyfish and bluebottles (88.4b). Algae coating the shell supplement the diet.

88.5 Smooth plough shell — *Bullia rhodostoma*

Similar to the previous species, but shell somewhat broader, aperture orange; opercular margins smooth. **Size:** Up to 55 mm. **Biology:** The dominant plough shell on the south and east coasts, congregating in enormous numbers around carrion cast up on exposed sandy beaches. Lighter than *B. digitalis*, and surfs higher up the shore. Slow-growing, reaching 10 mm after one year and 40 mm after 10 years.

88.6 Pure plough shell — *Bullia pura*

Shell pale pinkish brown, sometimes with brown markings on lower whorls; sculptured with fine, spiral ridges. Operculum has smooth margins. **Size:** Up to 34 mm. **Biology:** Usually occurs subtidally, occasionally also around the low-tide level. Broods its young under its foot, releasing them as fully formed juveniles (88.6a).

SIMILAR SPECIES: *B. tenuis* (False Bay–Durban) differs in that the shell is smooth except for shallow spiral grooves below the sutures and on the basal whorl.

88.7 Pleated plough shell — *Bullia natalensis*

Shell smoothly tapering, with flattened whorls; each whorl distinctly pleated just below the suture or join line. Light brown in colour, darker between the pleats. Operculum not serrated. **Size:** Up to 66 mm. **Biology:** The most abundant plough shell in the surf zone of sandy beaches in KwaZulu-Natal (88.7a), scavenging on dead animals.

88.8 Mozambique plough shell — *Bullia mozambicensis*

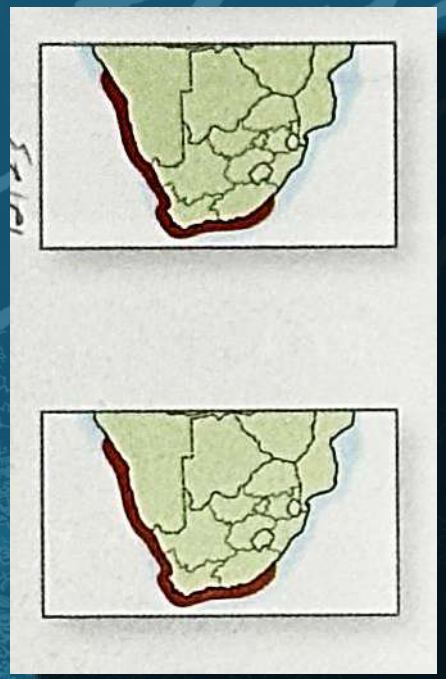
Very similar to the previous species, but ornamented by shallow spiral grooves in addition to longitudinal pleats, and the pleats also differ in extending further across each whorl than in *B. natalensis*. **Size:** 60 mm. **Biology:** Behaves like *B. natalensis*, but extends further north to northern Mozambique.

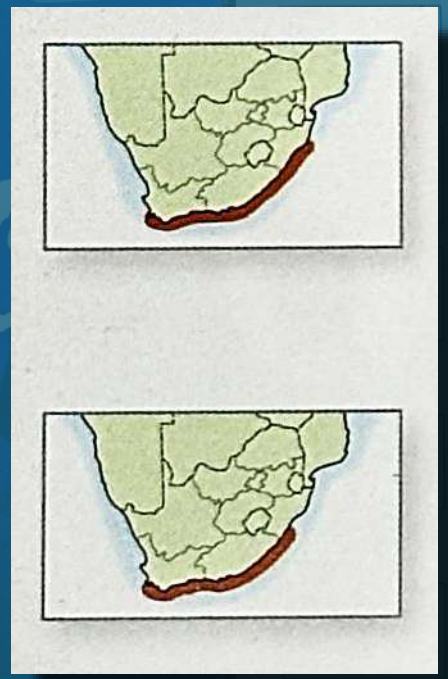
88.4a

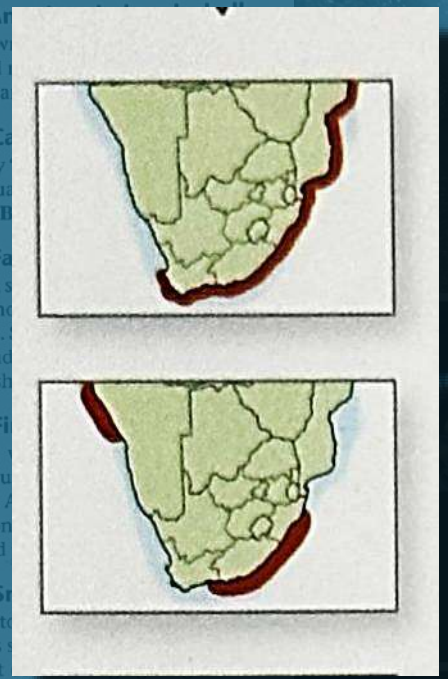
88.4b

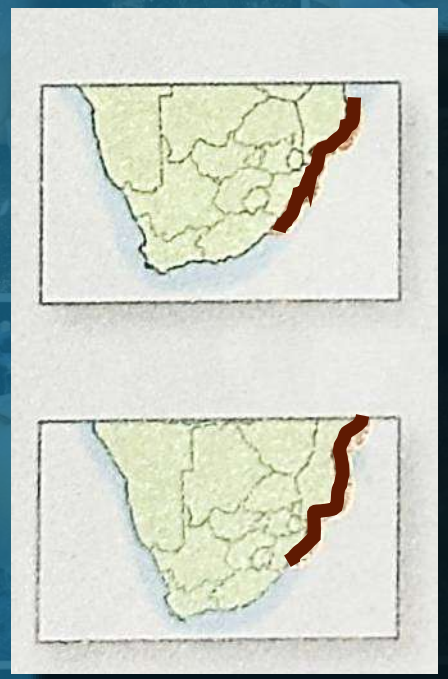
88.6a

88.7a







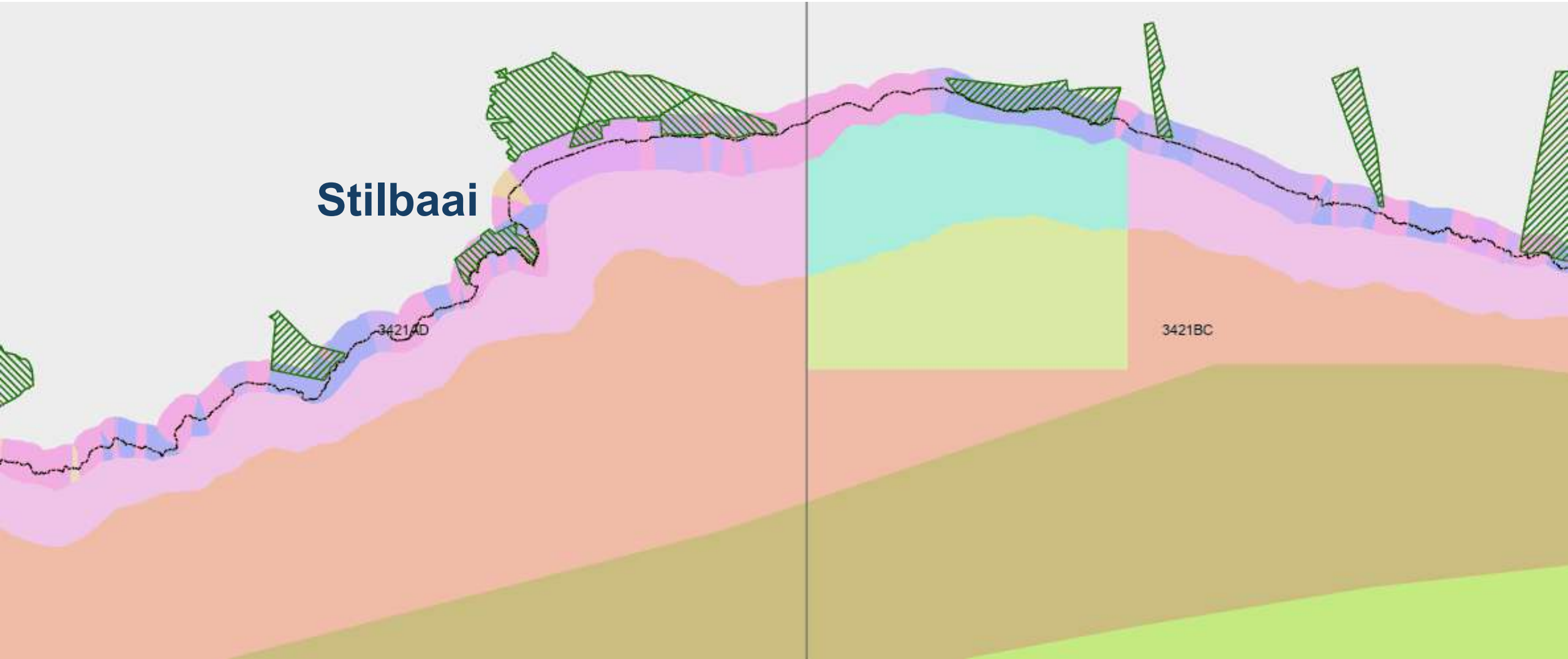


WEST COAST
4 species

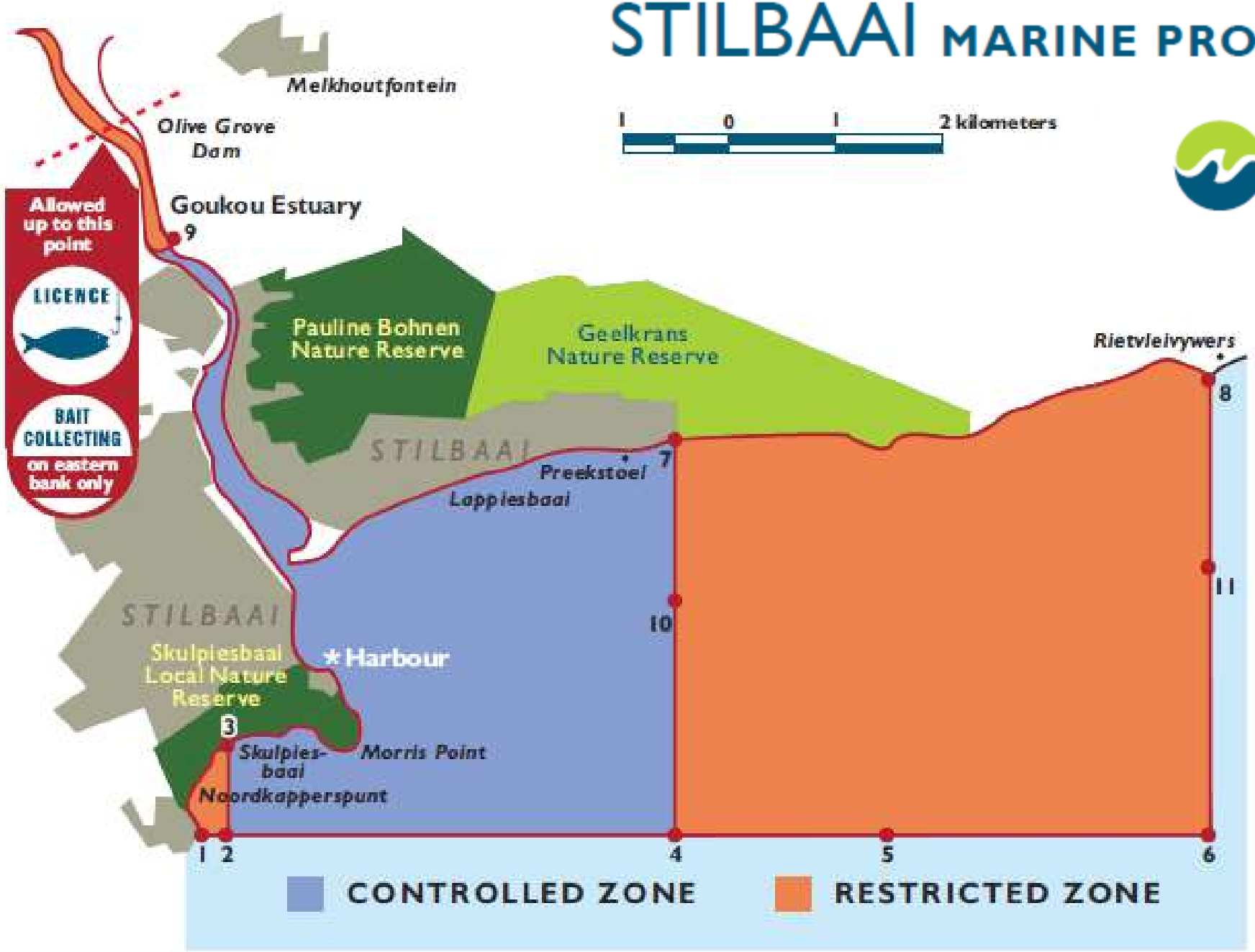
SOUTHERN CAPE COAST
6 species

EAST COAST
4 species

Different marine ecosystems in our area



STILBAAI MARINE PROTECTED AREA (MPA)



CapeNature

BENEFITS

- Protects the Goukou estuary and its role as a fish nursery
- Preserves historical marine artefacts and cultural assets
- Allows for the recovery of overexploited fish species

1.5 km off-shore from Stilbaai
harbour, 18 m deep

Mollusca: Bivalvia

Lappiesbaai, 1 km, 1 hour, 22 species

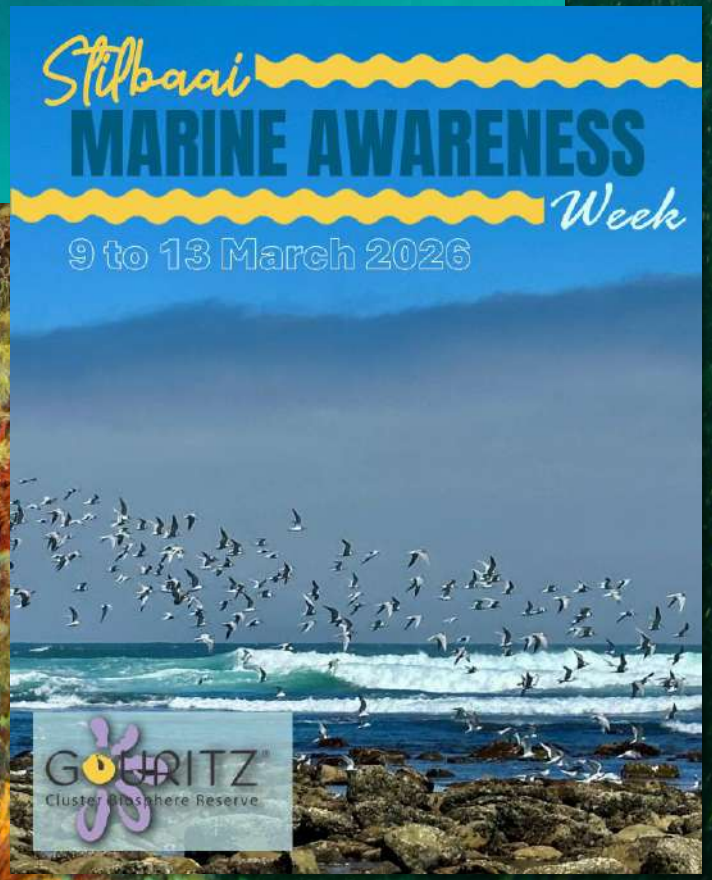
Sharks (Condrichtyes)
13 species in MPA

Stilbaai Harbour

Stilbaai
MARINE AWARENESS
Week
9 to 13 March 2026

Week
9 to 13 March 2026

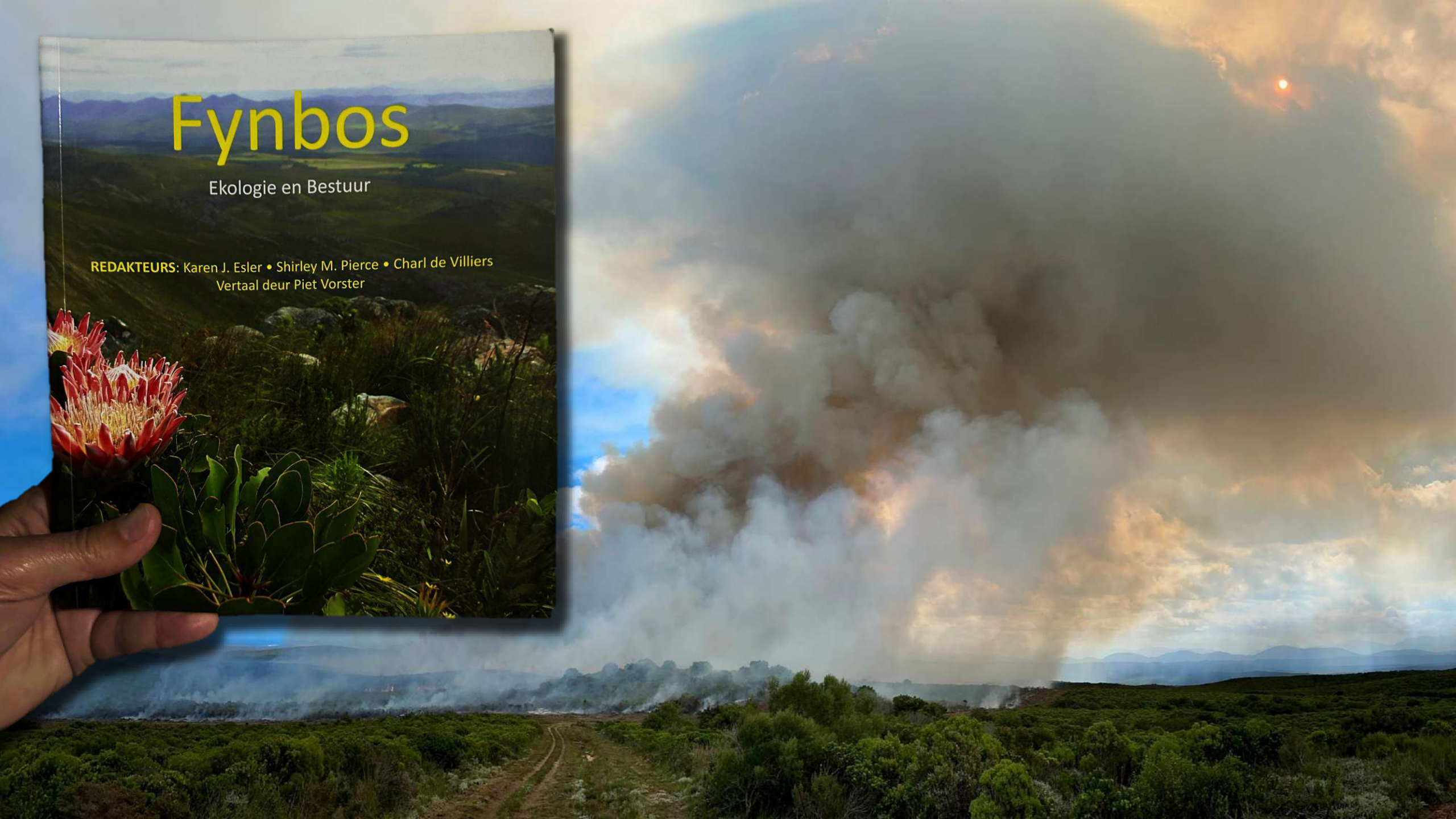
Week
9 to 13 March 2026


Stilbaai
MARINE AWARENESS
Week
9 to 13 March 2026
GOURITZ
Cluster Biosphere Reserve

ruwer

Major threats to biodiversity

- Fire
- Alien invasive plants
- Pollution
- Fishing
  & bait collection


Fynbos
Ekologie en Bestuur
REDAKTEURS: Karen J. Esler • Shirley M. Pierce • Charl de Villiers
Vertaal deur Piet Vorster

Fynbos:
Two weeks after fire

Two months later
Fynbos with Rooikrans:
Two weeks after fire

Alien invasive plants
GREEN DESERT

Pines

The invasion has begun...

Black Wattle
NOT ALL TREES ARE GREEN!

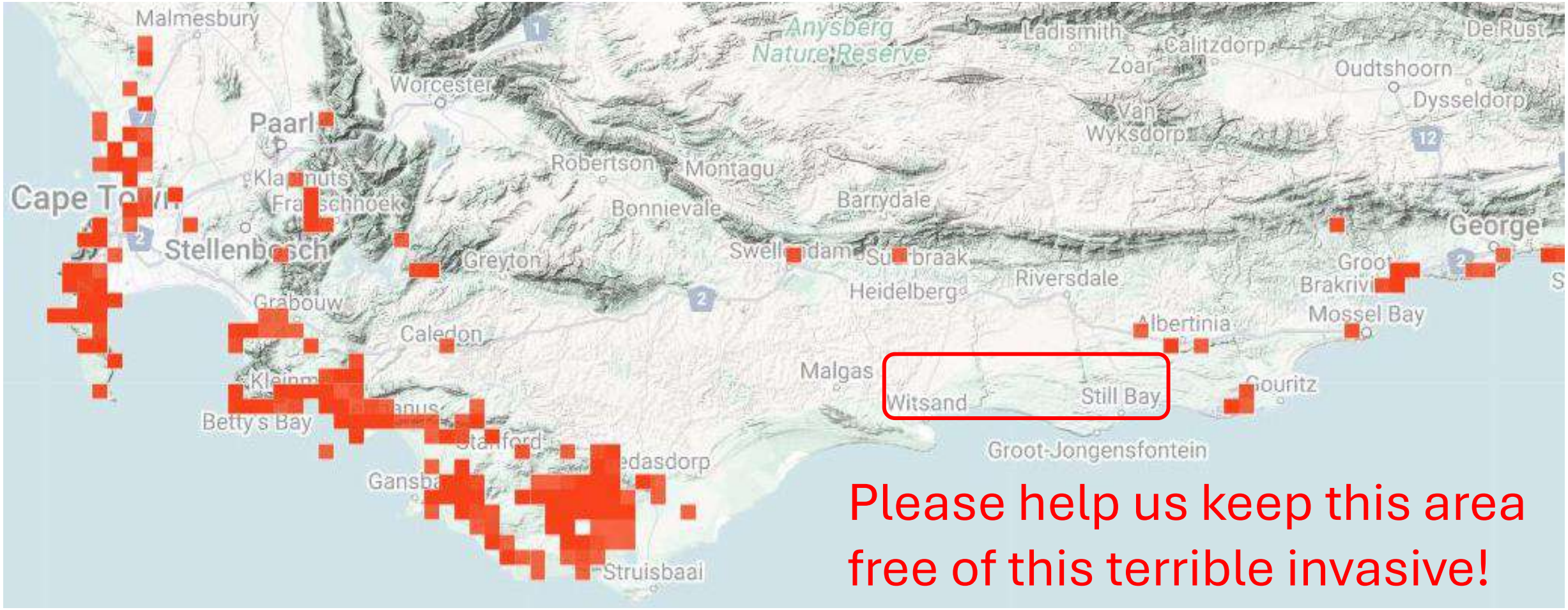
Water
Hyacinth

Rooikrans
Manatok

BIOCONTROL OF ROOIKRANS

ALERT: AUSTRALIAN MYRTLE

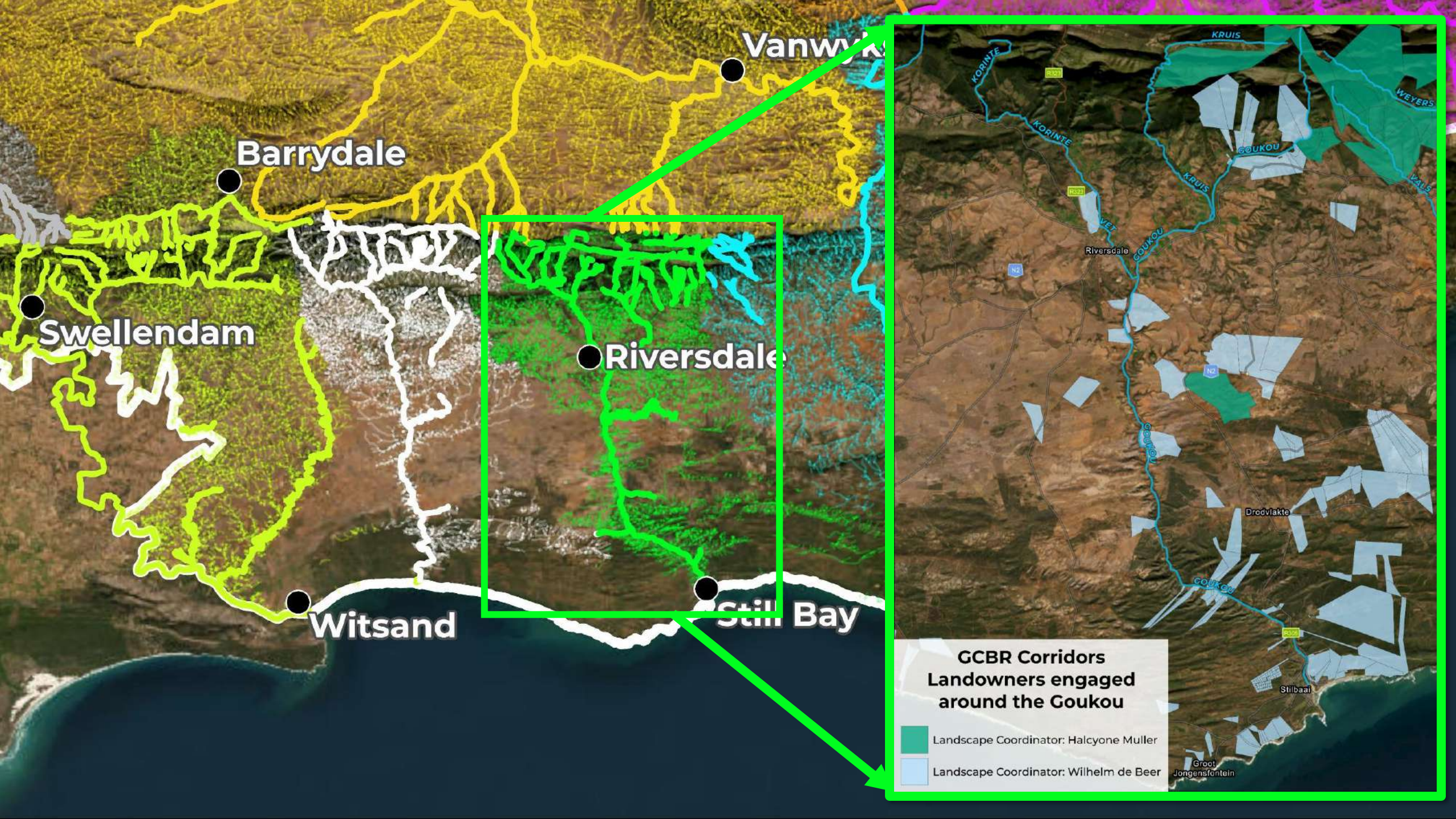
ALERT: AUSTRALIAN MYRTLE



ALERT: AUSTRALIAN MYRTLE

1 seedpod = 120 seeds

Prickly pear


Vanwyksdal
Barrydale
Swellendam
Riversdale
Witsand
Still Bay
KRUIS
KORINTE
WEYERS
GOUKOU
VALLS
VIET
Riversdale
Drodvlakte
Stilbaai
Groot Jongensfontein
GCBR Corridors Landowners engaged around the Goukou
Landscape Coordinator: Halcyone Muller
Landscape Coordinator: Wilhelm de Beer

Role of the GCBR

- Awareness & education
- Landowners (individuals, associations, conservancies)
  - assist with proclamation of Private Nature Reserves
- Conservation advice & actions
  - Veld management
  - Alien invasive clearing & biocontrol releases
  - Restoration & seed dispersal
- Facilitation & networking with other NGO's, specialists, Cape Nature, government departments
- Research collaborations

Stilbaai Conservation efforts

- Marine Awareness Week
- Beach cleanup group
- Stilbaai conservation trust hacking group
- Fisantekraal conservancy
- Tuin-op-die-Brak (Fynbosfees)
- Tree planting week
- Indigenous gardens

FRIENDS OF THE BIOSPHERE

The dream

- Coordinated conservation effort
- Alien plant removal/control
- Veld management (fire)
- Restoration
- Stewardship/ formal protection

Friends of the Biosphere

FRIENDS OF THE BIOSPHERE

HEROES OF THE BIOSPHERE

Stilbaai Heroes & Friends

the Clean shop
"it doesn't cost the earth"

TABEEL

SilverLink

ARRIE NEL
PHARMACY GROUP
FYNBOS PHARMACY

Milkwood
TOURS & MARKETING

Jongensfontein Alien Clearing

Wild Rescue Trail Rehabilitation

Still Baai Coastal Clean Up

Australian Myrtle Removal

Sunset Ponds Bird Hide

GOURITZ®
Cluster Biosphere Reserve

Healthy Ecosystems = Healthy Economy

Thank you!