



Saving Critically Endangered Cape Flats Sand Fynbos:

Managing fire and aliens at Tokai Park



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Threatened Species Unit, SANBI

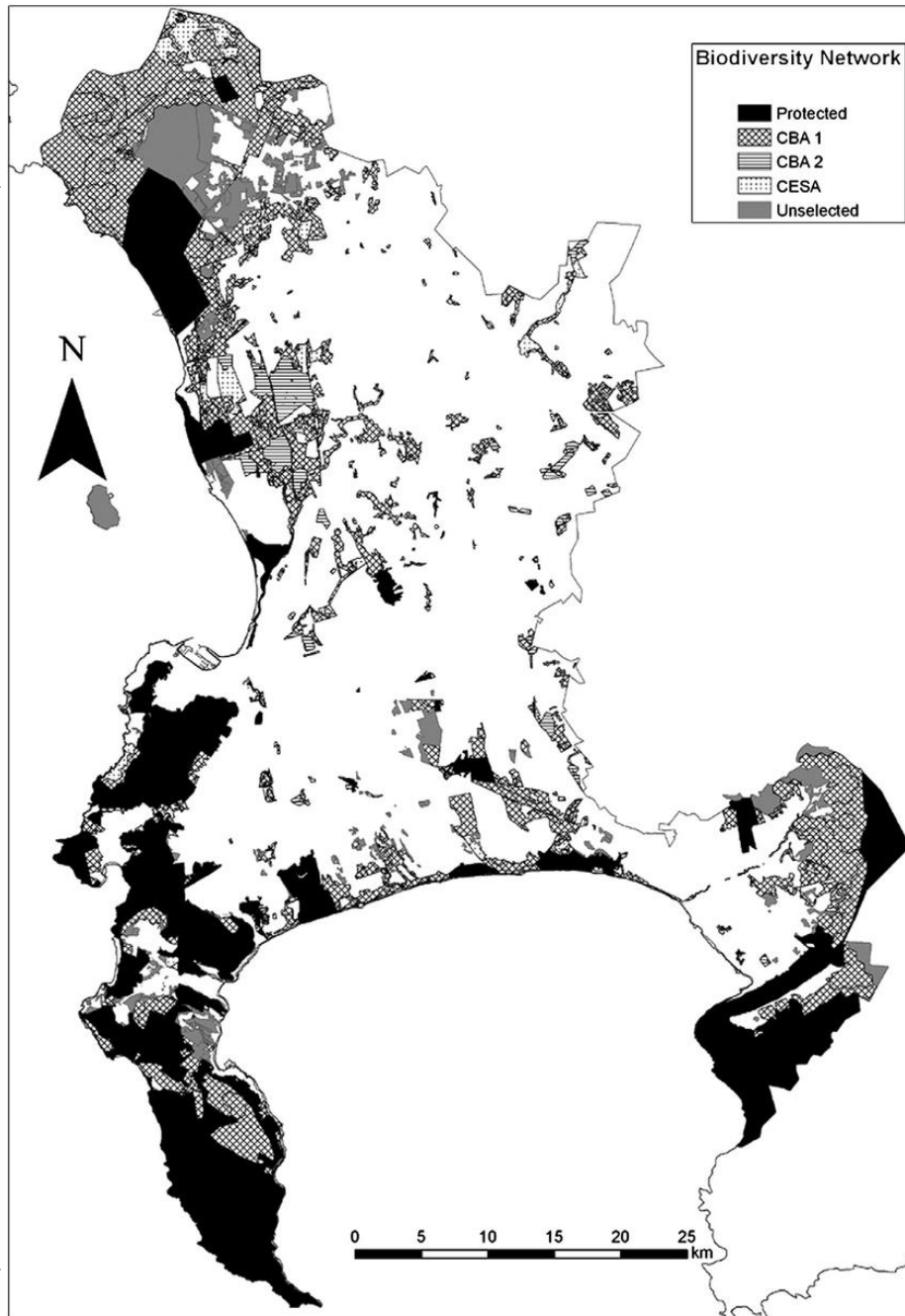


SANBI



Biodiversity for Life

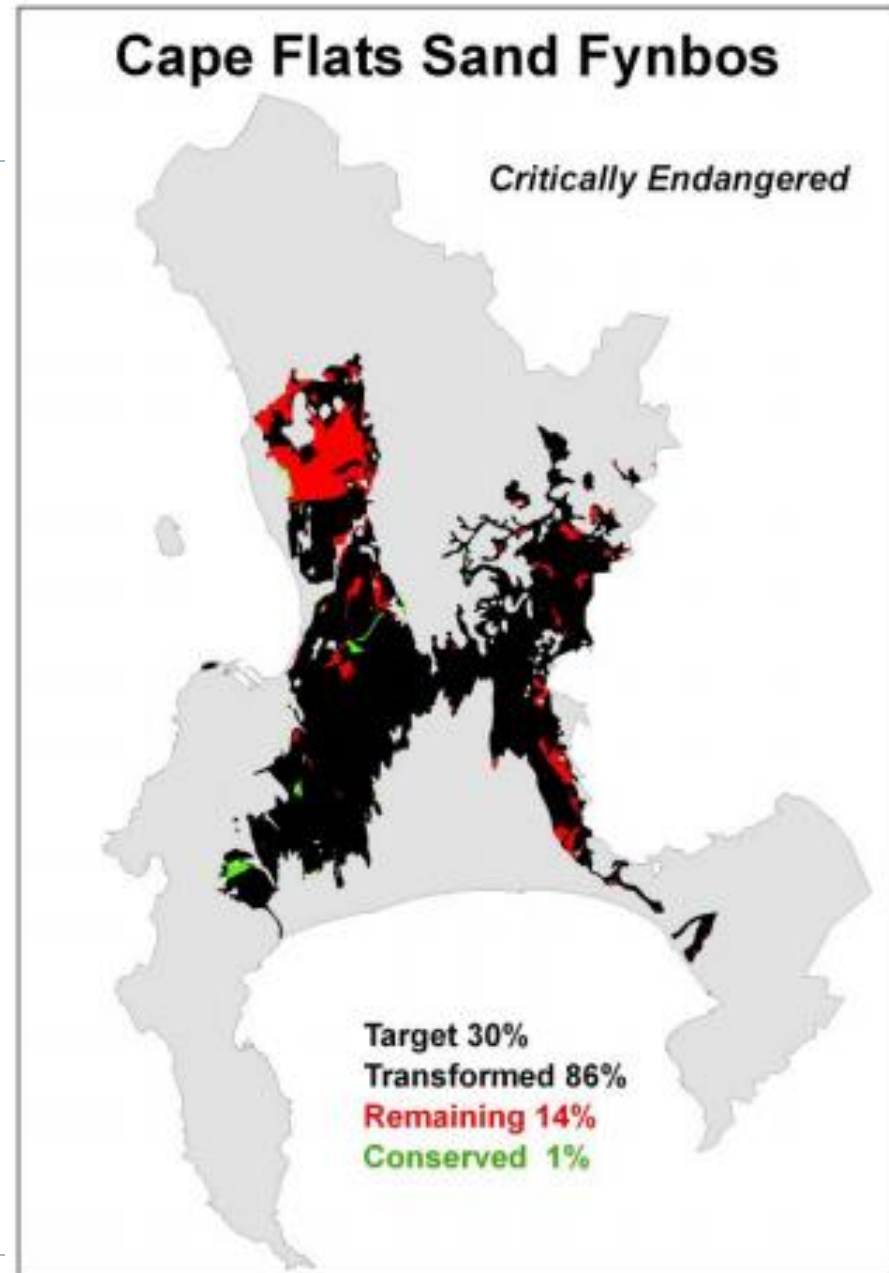
South African National Biodiversity Institute



- ▶ Wholly confined to Cape Town
- ▶ National conservation target: 30%

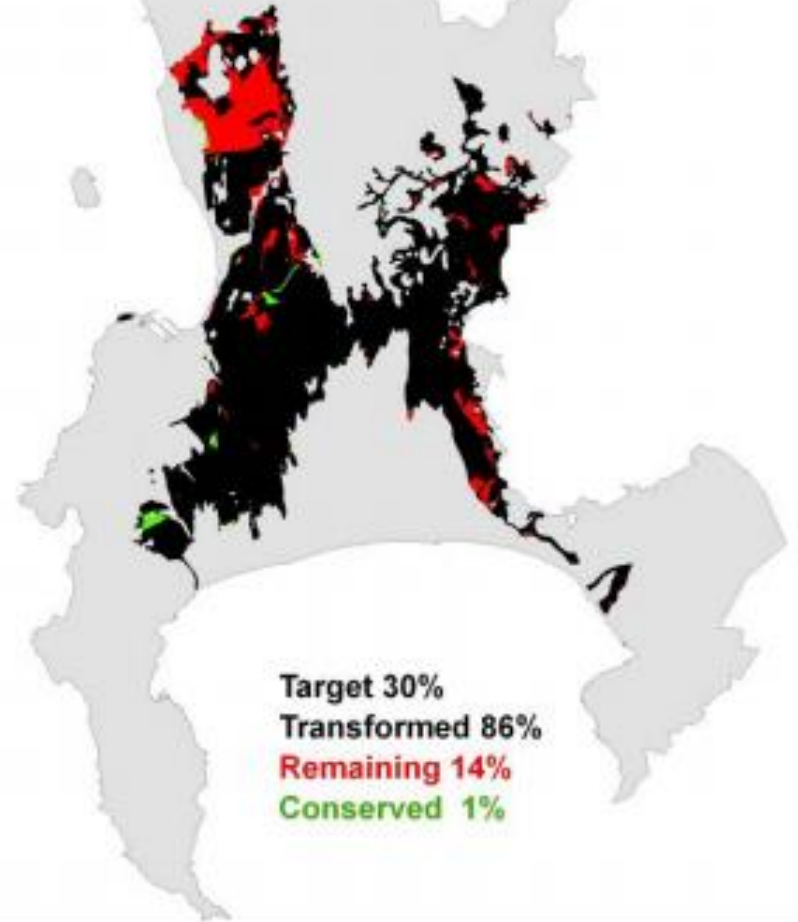
BUT!

- ▶ The most threatened veg type in Cape Town- Critically Endangered



Cape Flats Sand Fynbos

Critically Endangered



- ▶ Only 11 % left
- ▶ Mostly degraded by alien invasive trees
- ▶ **CALL FOR RESTORATION**

Tokai Park

- ▶ Pine Plantation for over 100 years.
- ▶ Accidental burn in 1998 which resulted in remarkable Fynbos recovery
- ▶ Saw that we can do passive recovery



Tokai Park

- ▶ SANParks and MTO agreement to harvest pines by 2025
- ▶ Since the harvesting – Core Conservation site for CFSF
- ▶ 440 plants occur within Lower Tokai Park



Tokai Park

- ▶ 22 plant species threatened with extinction



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- ▶ What is the procedure of restoration after Pine felling?
 - ▶ How would various management strategies affect the recovery of CFSF? Particularly with regards to the species compositions of communities and species richness/diversity

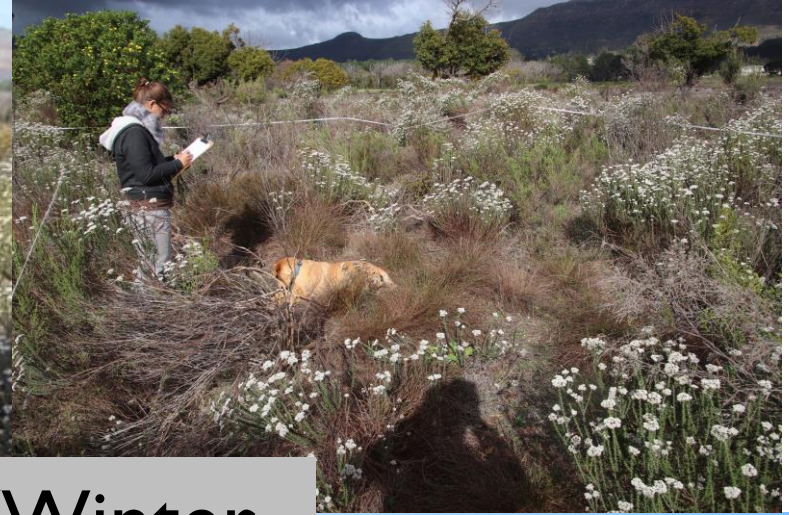


Management strategies:

- ▶ Length of the longest cycle
- ▶ Fire intensity/temp
- ▶ Veld age
- ▶ Pine rotations



Two step process



Autumn/Winter
surveys



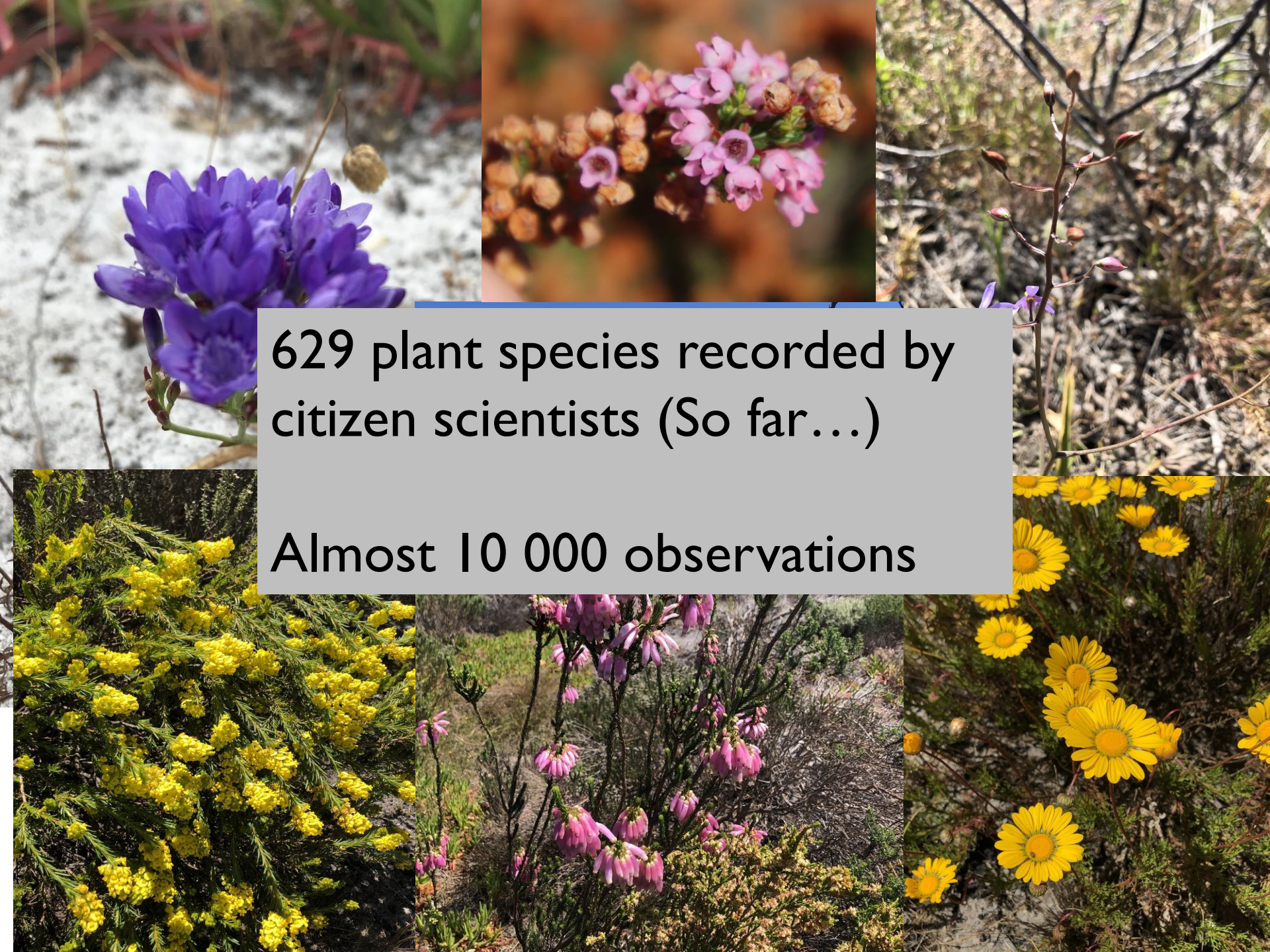


Spring surveys



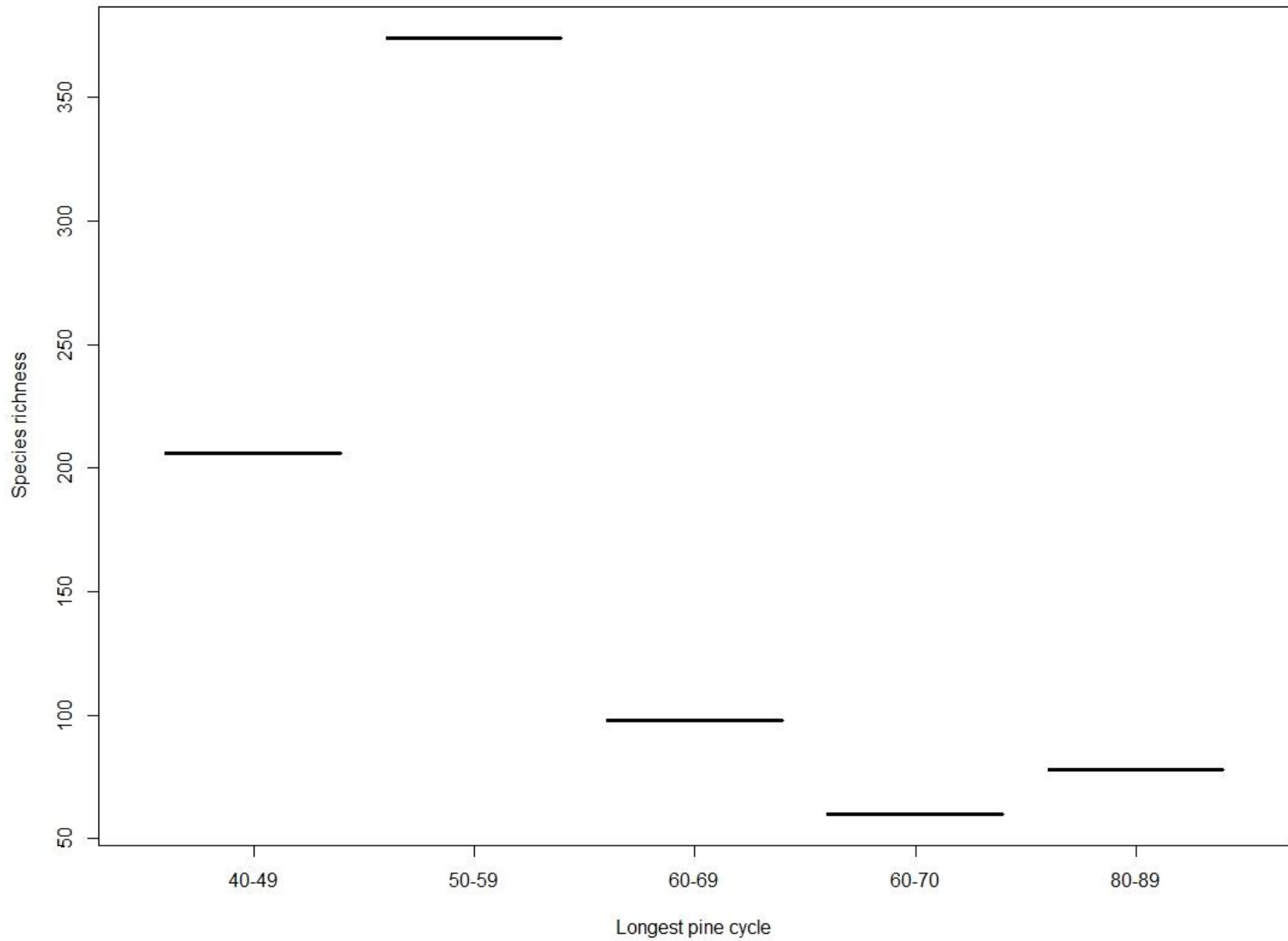


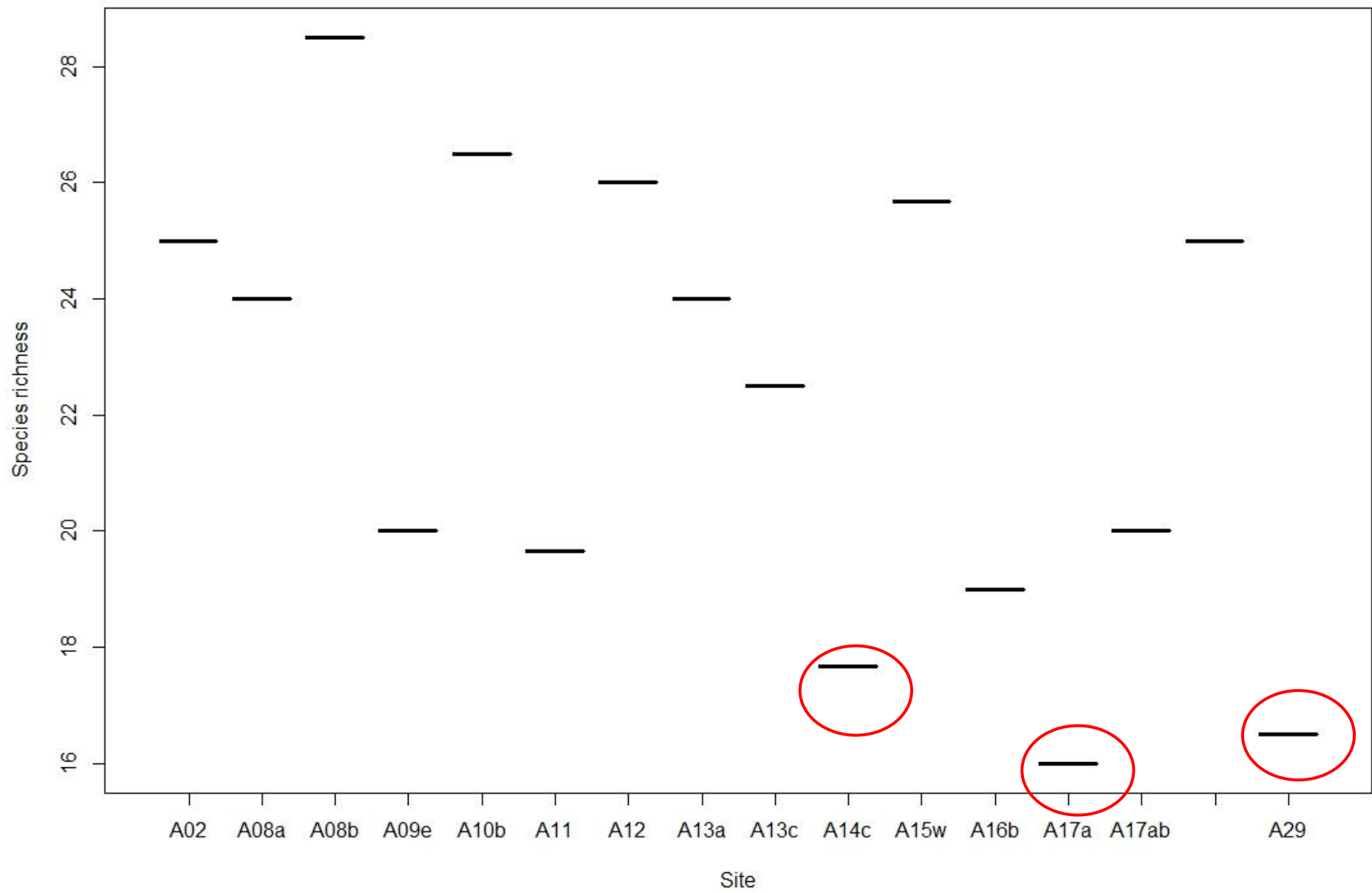




629 plant species recorded by citizen scientists (So far...)

Almost 10 000 observations





Unburnt

Longest pine cycle: 60 years



Unburnt

Longest pine cycle: 60 years



Unburnt

Longest pine cycle: 60 years



Burnt- Hot

Longest pine cycle: 50 years



Burnt- Hot
Longest pine cycle: 50 years





Tokai Park

53
OBSERVATIONS

1
SPECIES

19
IDENTIFIERS

16
OBSERVERS

Map Grid List Places of Interest Redo search in map

Map Legend

School of Cape Town

Soetvelde Ave

Valley Rd

Forest Row

Hawthorne Ct

Almond Ct

Meyland Ave

Bamboo Ave

Gerrit Ave

el FWV

Ruskin Rd

Alstair Rd

Douglas Rd

Restoration Trail, Tokai Park

Tokai Park

Tokai Lower Plantation

Serruria glomerata
(Cluster Spiderhead)
Block A29, Lower T... • Oct 31, 2019
Research Grade 3 1 12d

Serruria glomerata
(Cluster Spiderhead)
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Serruria glomerata

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Plantings



Conclusively...

- ▶ Hot fires are necessary for the restoration of indigenous species – structural elements of Fynbos
- ▶ Annual weeds/grasses cover reduced with hot fires
- ▶ Shorter cycles recommended.
- ▶ Veld Age? Alien clearing? Herbicide use between Pine cycles?
- ▶ A lot of work still to be done: analyse the Spring surveys



What can you do to support the restoration project

▶ Join the alien tree plant removal team

Meet some Saturdays (Upper Tokai)

Every second Tuesday (Lower Tokai)

Check the FoTP Facebook page or sign up to be put on the mailing list



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- ▶ Report anything that might be hazardous to the restoration of natural veld
- ▶ Only walk on designated pathways



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- ▶ Only walk on designated pathways
- ▶ Learn! Join iNat – www.iNaturalist.org



City Nature Challenge

Cities around the world will be competing to see who can make the most observations of nature, find the most species, and engage the most people in the 2020 City Nature Challenge.



Thousands of people from across the globe will get outside to look for nature in their cities!



The 2020 City Nature Challenge takes place in 2 parts

**April
24 – 27**

Taking pictures of wild plants and animals.

**April 28 –
May 3**

Identifying what was found.



Thank you!

All these initiatives are free (we volunteer our time) because of our passion for Cape Flats Sand Fynbos (and other threatened Fynbos types at Tokai).

Funds are needed to continue the amazing work we do (hacks, walks, events etc.) and therefore if anyone really enjoys the talk tonight, you may make a contribution/donation