

conservation & culture



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speaker notes in italics



**Mabula
Ground
Hornbill
Project**



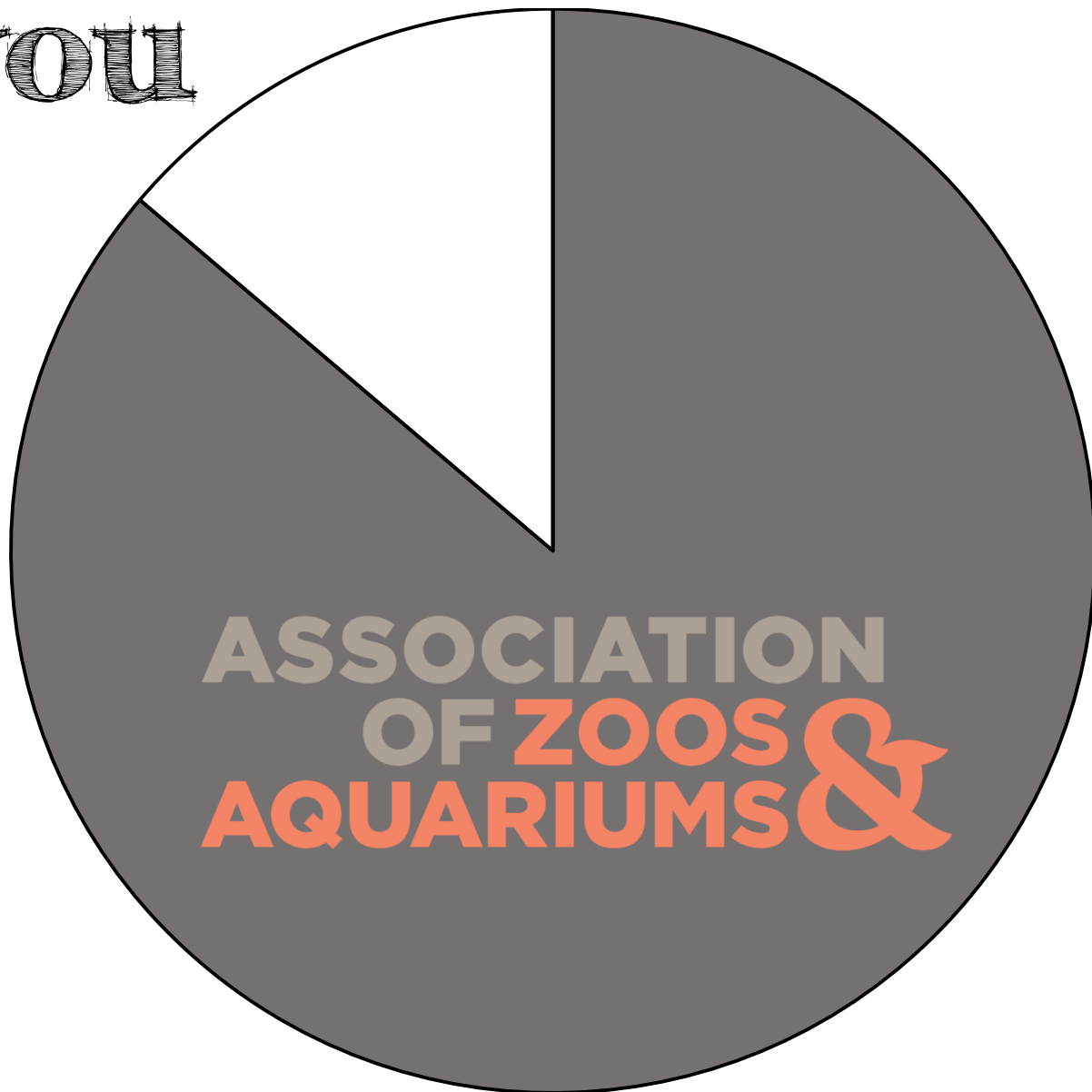
**Hornbill
Specialist
Group**

thank you

sasol
reaching new frontiers



**SAN DIEGO ZOO
GLOBAL.**



LEAD TOXICOSIS

LOSS OF NESTS

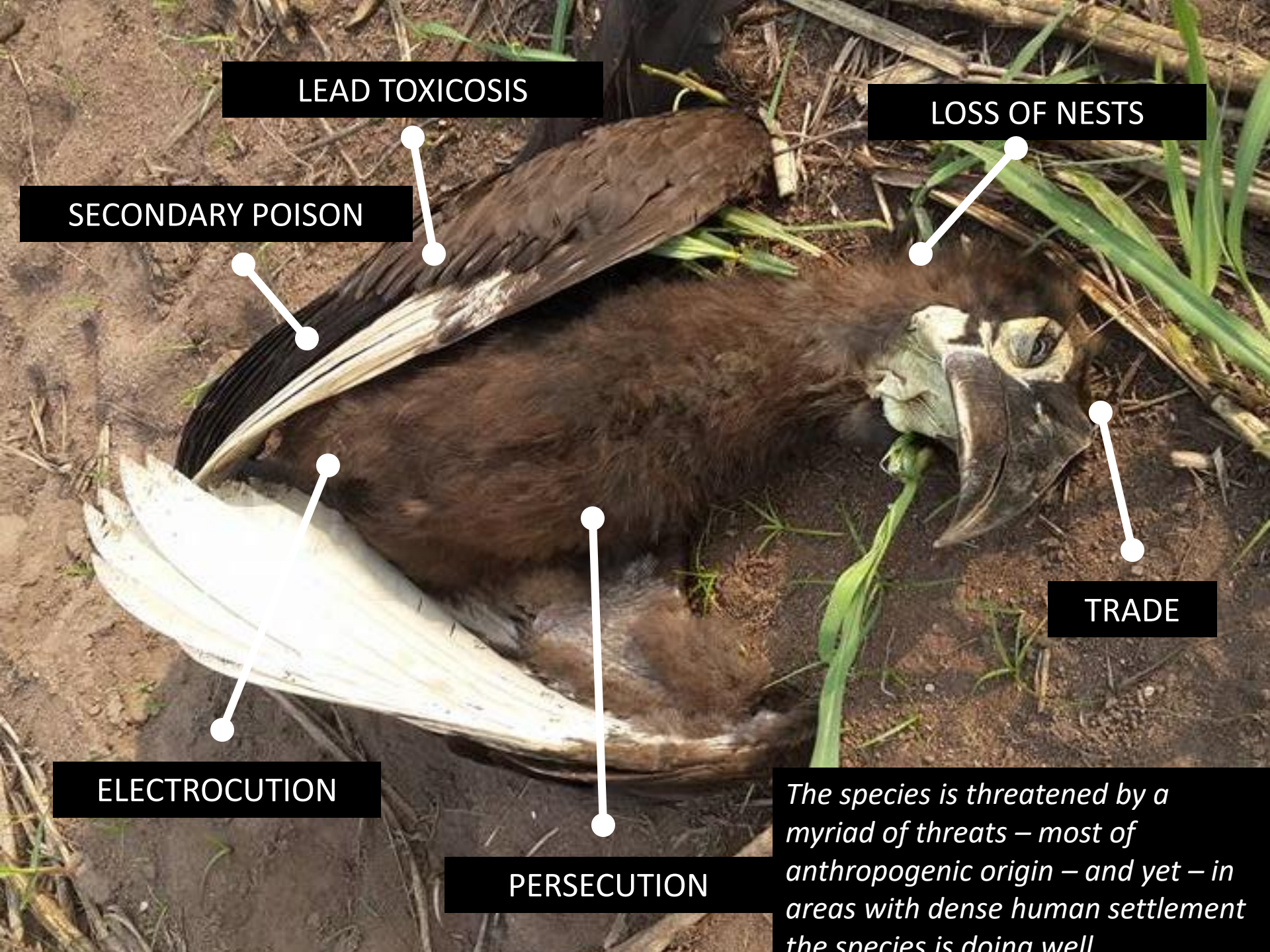
SECONDARY POISON

TRADE

ELECTROCUTION

PERSECUTION

The species is threatened by a myriad of threats – most of anthropogenic origin – and yet – in areas with dense human settlement the species is doing well



CONSERVATION LEGISLATION



RESEARCH



CROSS-BORDER TRADE



CONSERVATION ACTION

- 360 DNA samples
- > 11 000 locality records





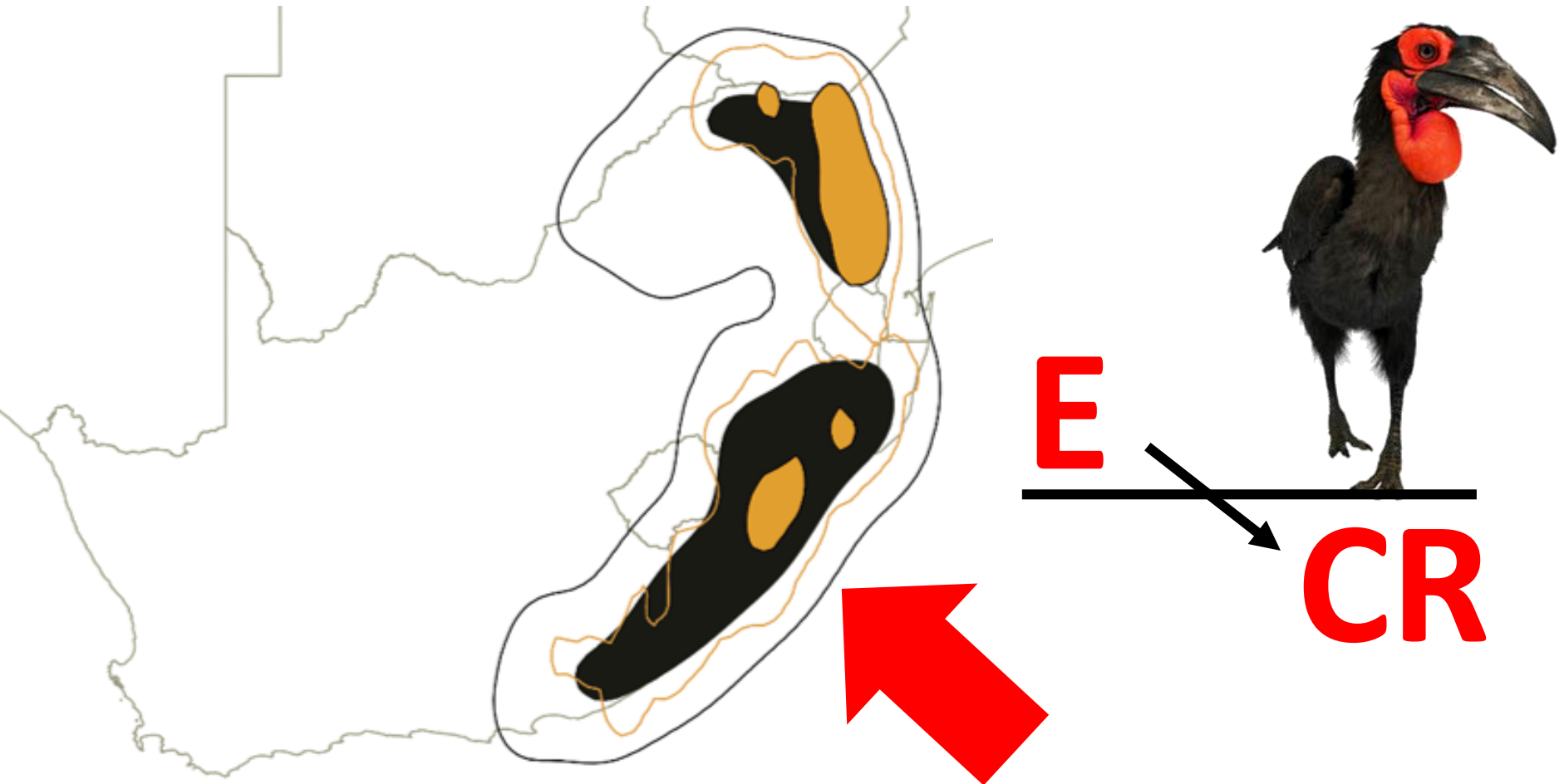


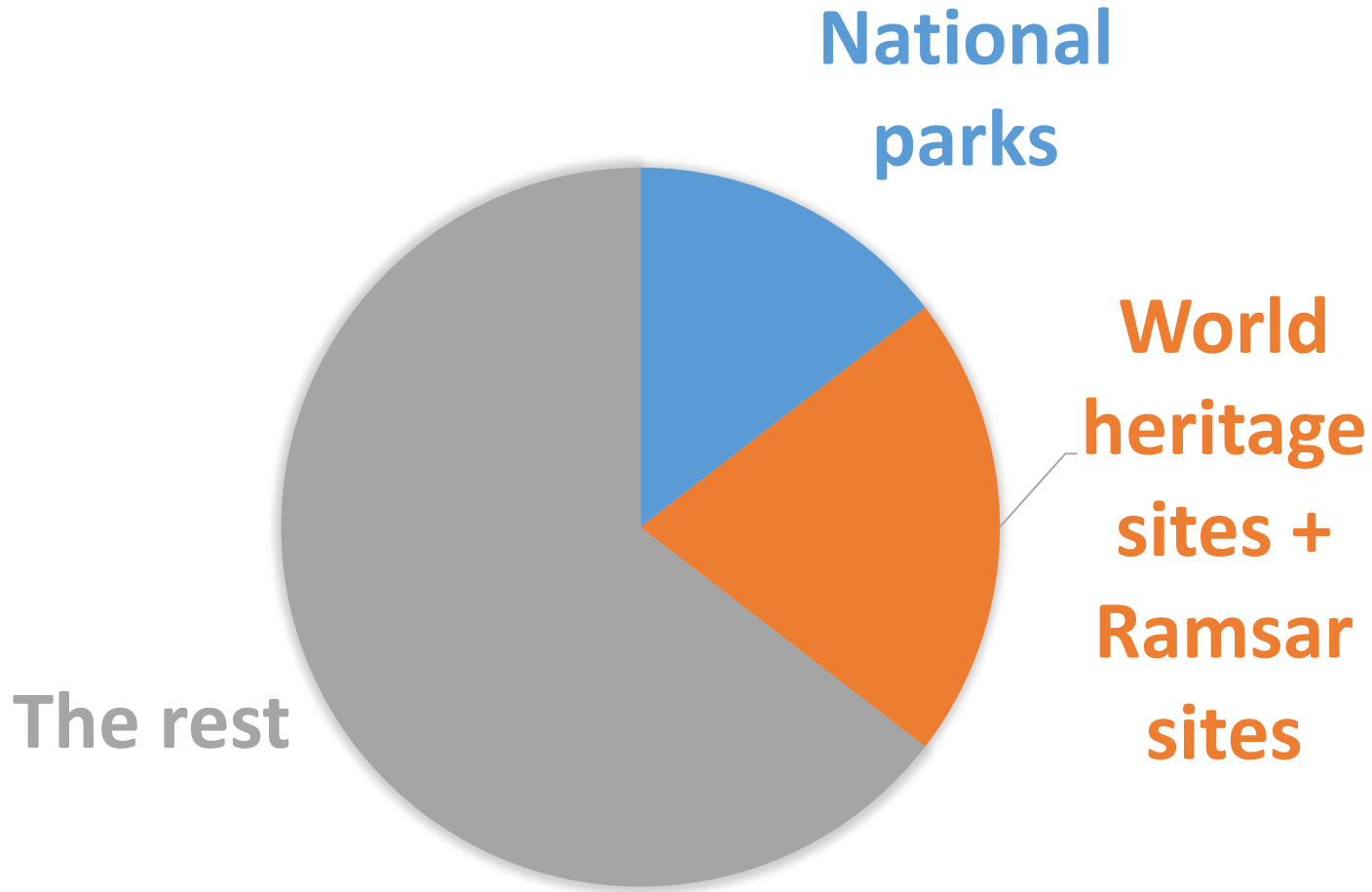


COMMUNITY ENGAGEMENT



- contraction > 50%
- scale of decline (15-20%) in last half-generation





**CENSUS DIFFICULT
ATLAS POWER LOW**

SABAP 2 + MGHP

KwaZulu-Natal

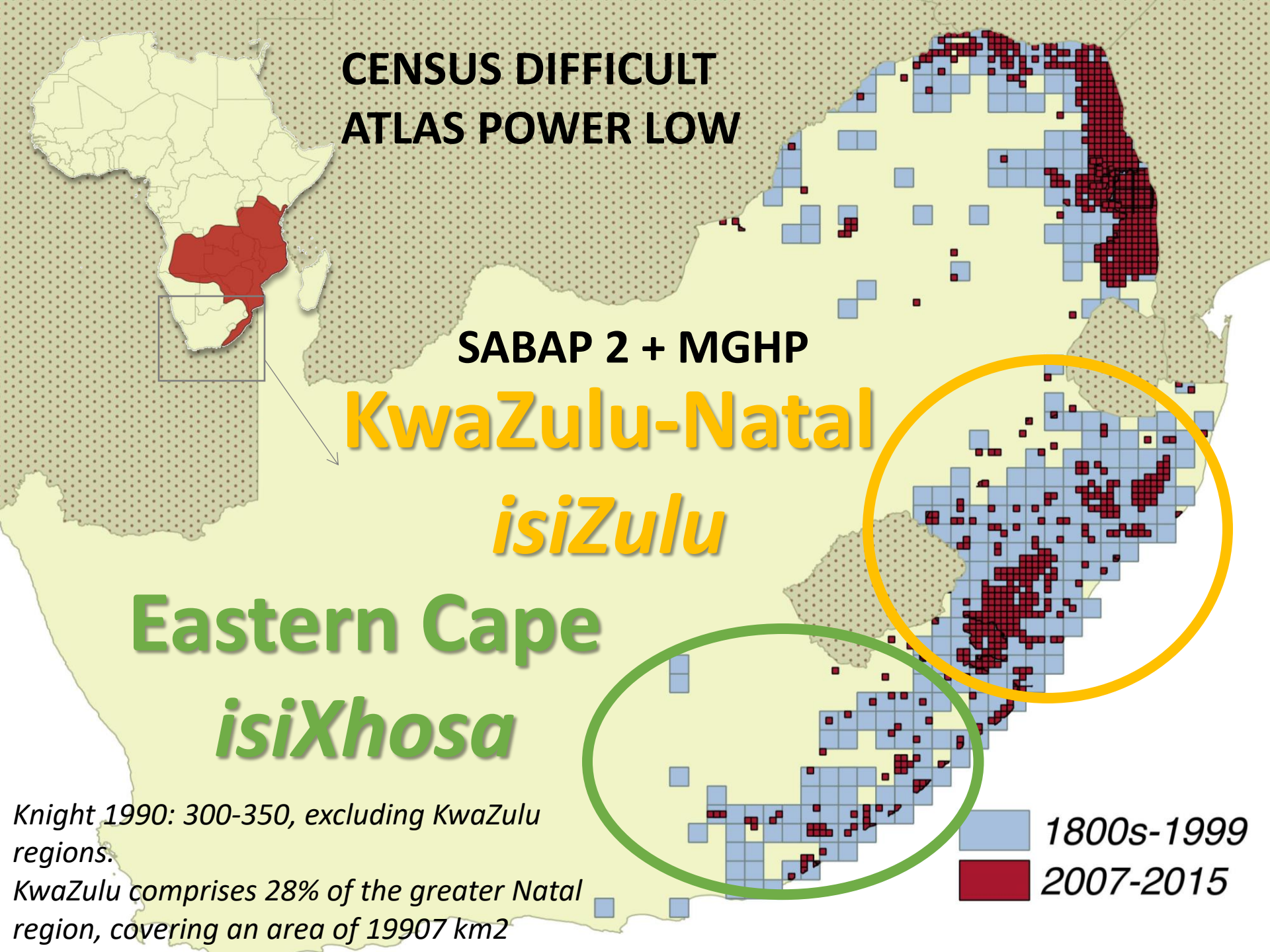
isiZulu

Eastern Cape

isiXhosa

Knight 1990: 300-350, excluding KwaZulu regions.

KwaZulu comprises 28% of the greater Natal region, covering an area of 19907 km²



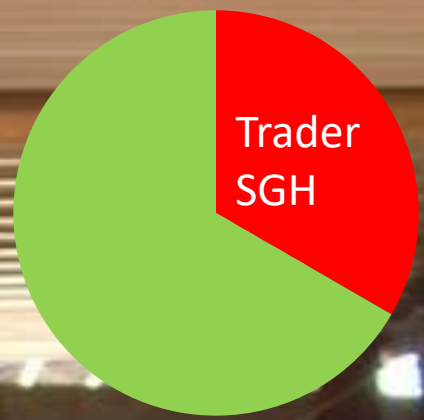
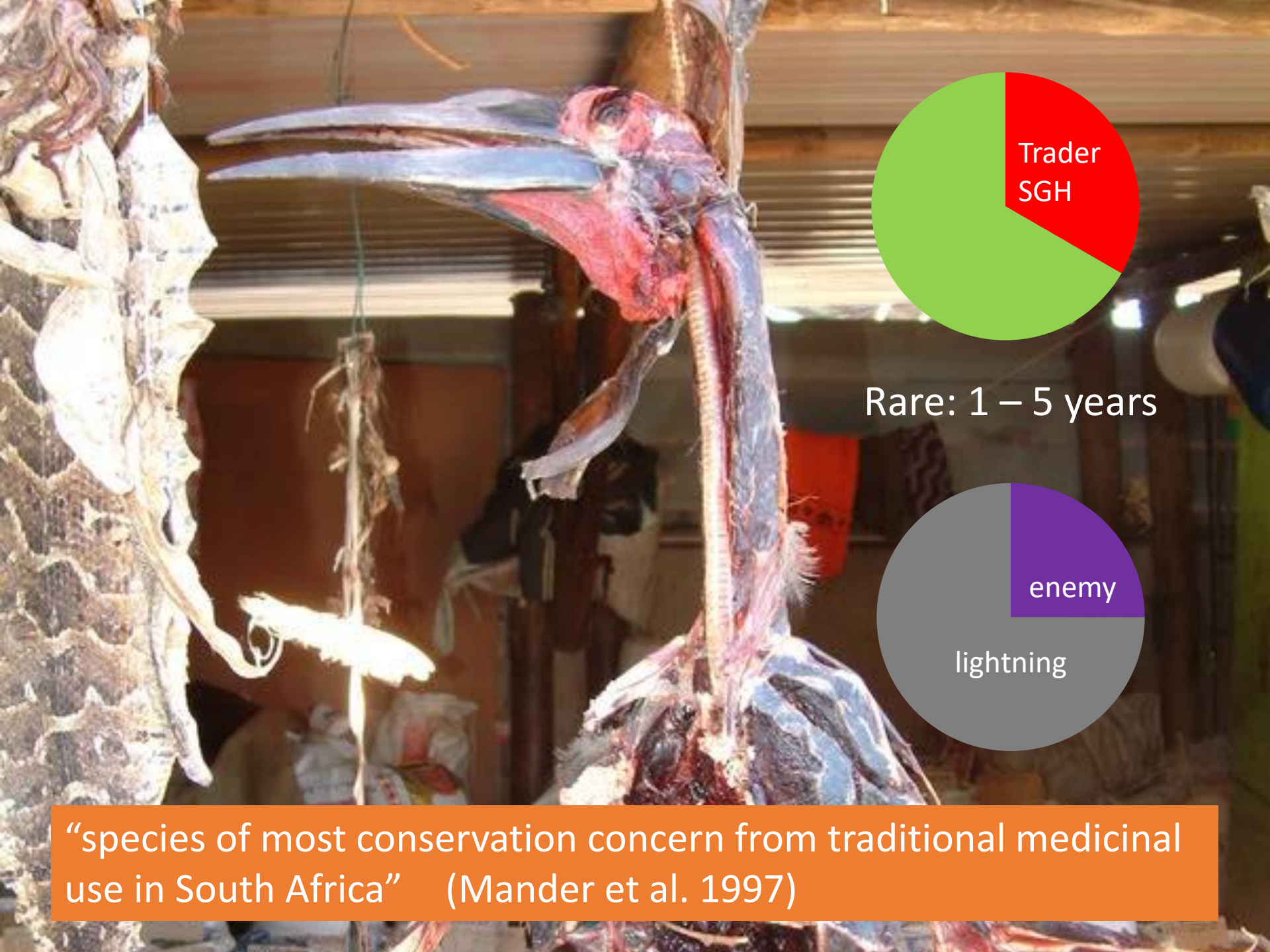


3 BIRD CLUBS

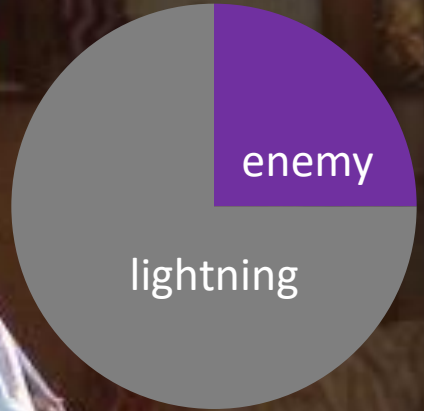
300 YOUNG African birders – bird lists > 200 species



WLTP Populations & Perceptions



Rare: 1 – 5 years



“species of most conservation concern from traditional medicinal use in South Africa” (Mander et al. 1997)

The literature reports on low levels of use for traditional cultural reasons, with the birds reported for most traditional medicine markets.

Ngwenya reported that the species was widely found in medicine markets across the province for surveys conducted in 1999-2000.

Mander in 2007 conducted a survey of SGH alongside vulture surveys and found: 1/3 said they sold SGH, but very rarely – with just 1 sold every few years. 1/4 for protection from enemies but mostly to prevent thunderstorms.

Important to you personally?

Rain indicators/ bringer
Killer of snakes/ rats

Removes ticks from cattle
Brings hope and life
Of value for next generation
Means everything is going to be ok
Created by God
Part of nature/ecosystem
Because it does nothing wrong

No

Yes

0

20

40

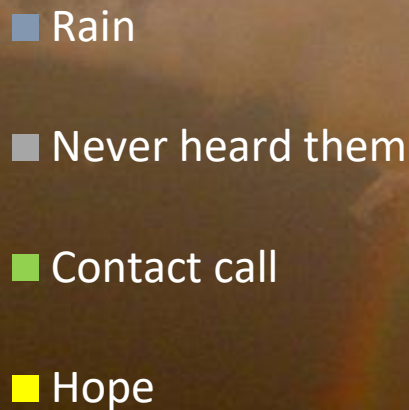
60

80



- *Into house = death*
- *We grew up seeing it – if it wasn't there we would ask... Nb for children to see*
- *No one has ever seen the SGHs droppings before and it is said that when you look at them they reflect back and when you are far they shine, and I have seen them before and it was looking at the mirror. And is very hard to see their droppings.*
- *They are important birds because is a sign that they will live a happy life because there will have enough rain.*
- *If you have killed it you have to take it to the river you have to pray.*

“when the hornbills sing, the heavens will roar as they hear them”



“there will be rain, they are calling the rain, predicting the rain is coming, they are causing the rain...”

to know when to prepare fields

linked to good life and happiness

Female: I'm going, I'm going, going back to my family.

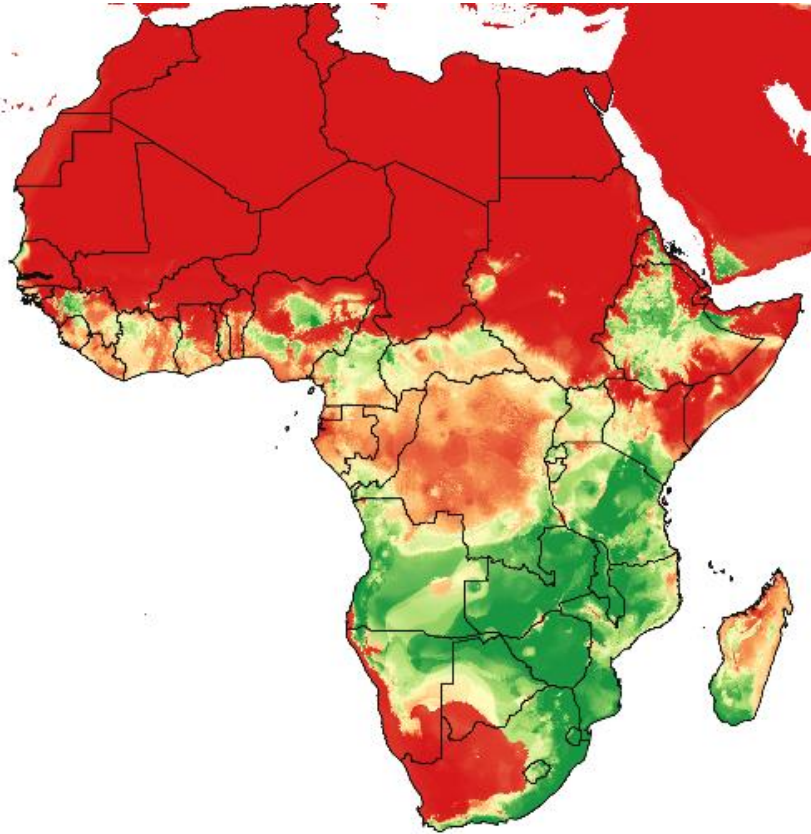
Male: Go, go - you have been saying that for a long time
(= Xhosa Nevill 1984)

believed to possess powers of causing a thunderstorm – Simelane 2011 - Associated



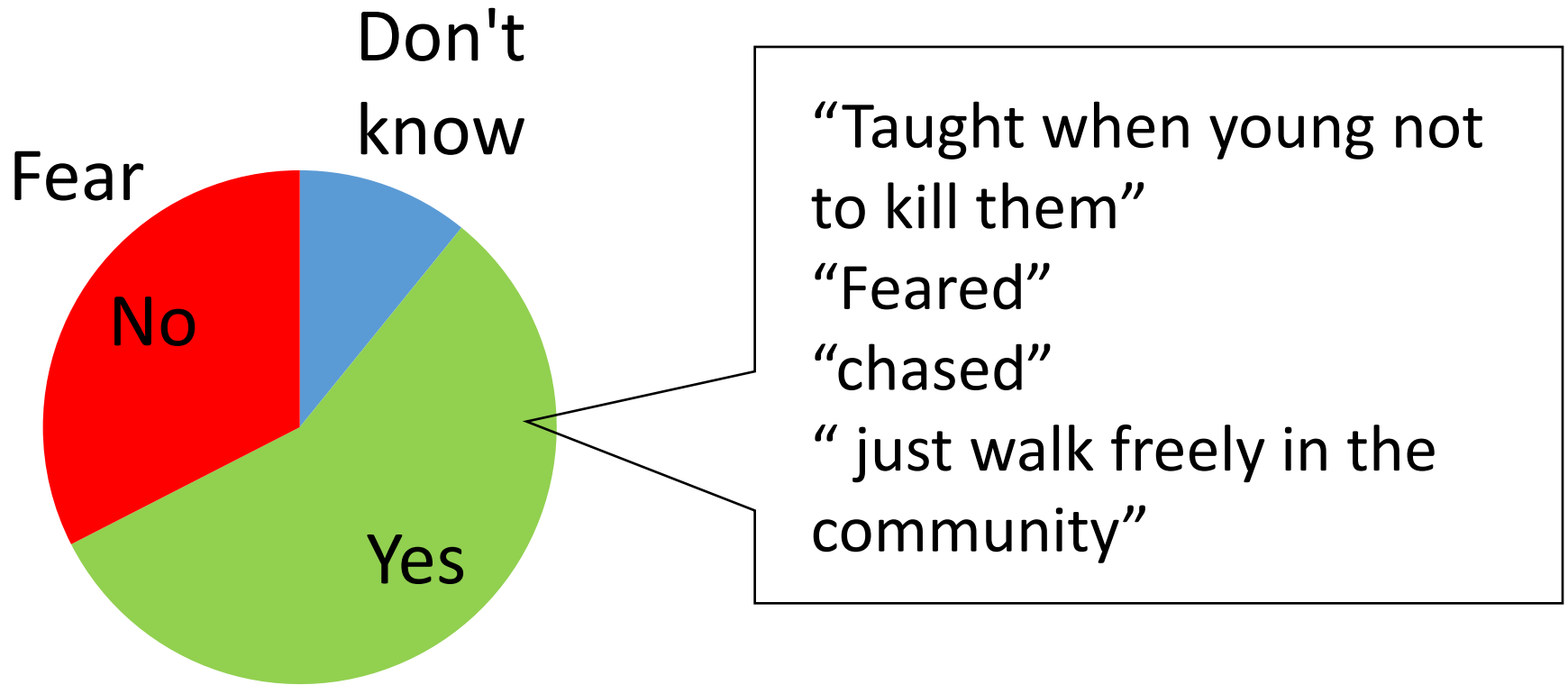
digital recording of all songs

CLIMATIC ENVELOPE MODEL



THUNDER BIRD

LOCAL PROTECTION



“It is against our law to hunt the birds”

When you hear it calling you know is time to plant.



REASONS TO FEAR?

“If you kill it there will be floods”

“On your house - lightening/ death will strike
- if damages roof”

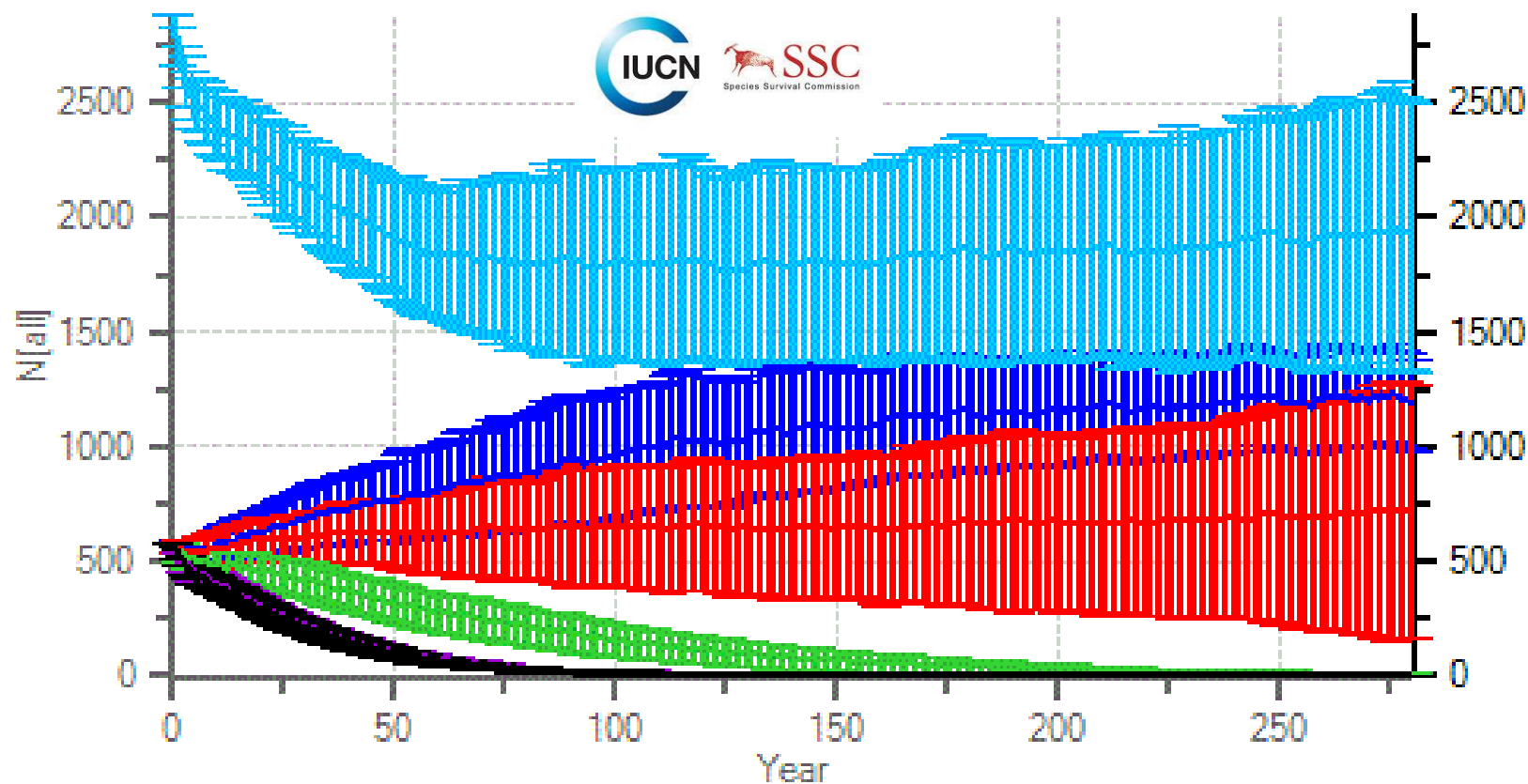
“Is dangerous and stubborn”

“If you chase them they may kill you”

“It is a dangerous bird – don’t mess with it”

“Beak is sharp and dangerous”

- South Africa baseline land-use realistic data Protected Areas
- South Africa baseline land-use realistic data Commun Prot
- South Africa baseline land-use realistic data Commun non-Prot
- South Africa baseline land-use realistic data Comm game
- South Africa baseline land-use realistic data Comm agri
- South Africa baseline land-use realistic data Metapopulation



Growth curve for SGH populations living in different land-use classes.

> 40 STAKEHOLDERS



BMP-S



Southern Ground-Hornbill
Population and Habitat Viability Assessment Workshop

21 – 24 August, Mabula, South Africa

FINAL REPORT

They are habitat generalists and opportunistic foragers, and, if protected, will probably persist.





'heaven-bird, for the death of which the heavens will mourn'



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Google earth

2 m

Imagery Date: 3/13/2015 30°20'54.06" S 30°17'54.22" E elev 852 m eye alt 4.94 km







Show all objects







Prince

Mangosuthu

BUTHELEZI

Prime Minister

Zulu Nation





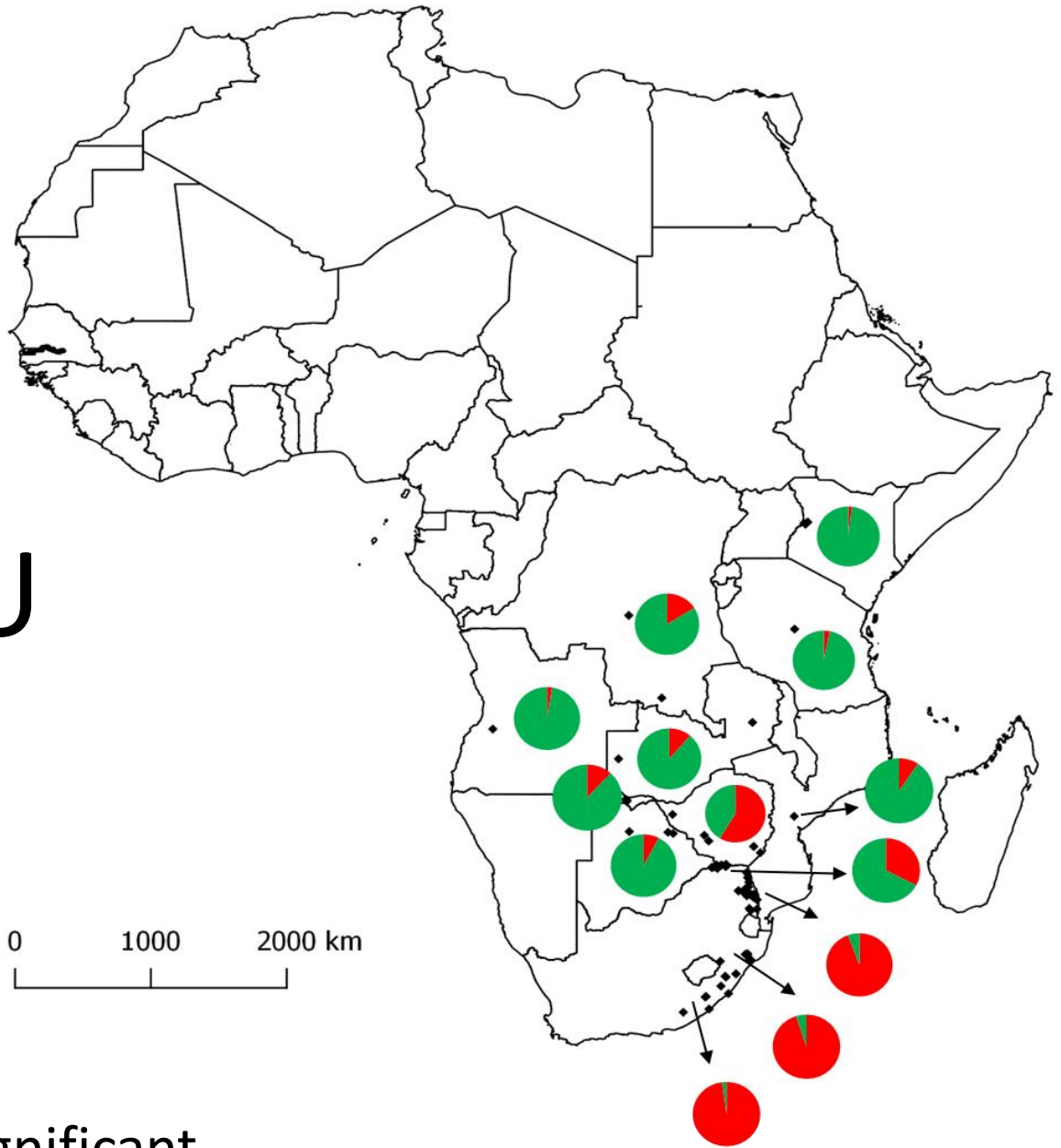
HOPE? YES

OPPORTUNITY

- ~~habitat integrity~~
- artificial nests
- generalist + opportunist
- cultural protection



MABULA GROUND HORNBILL PROJECT

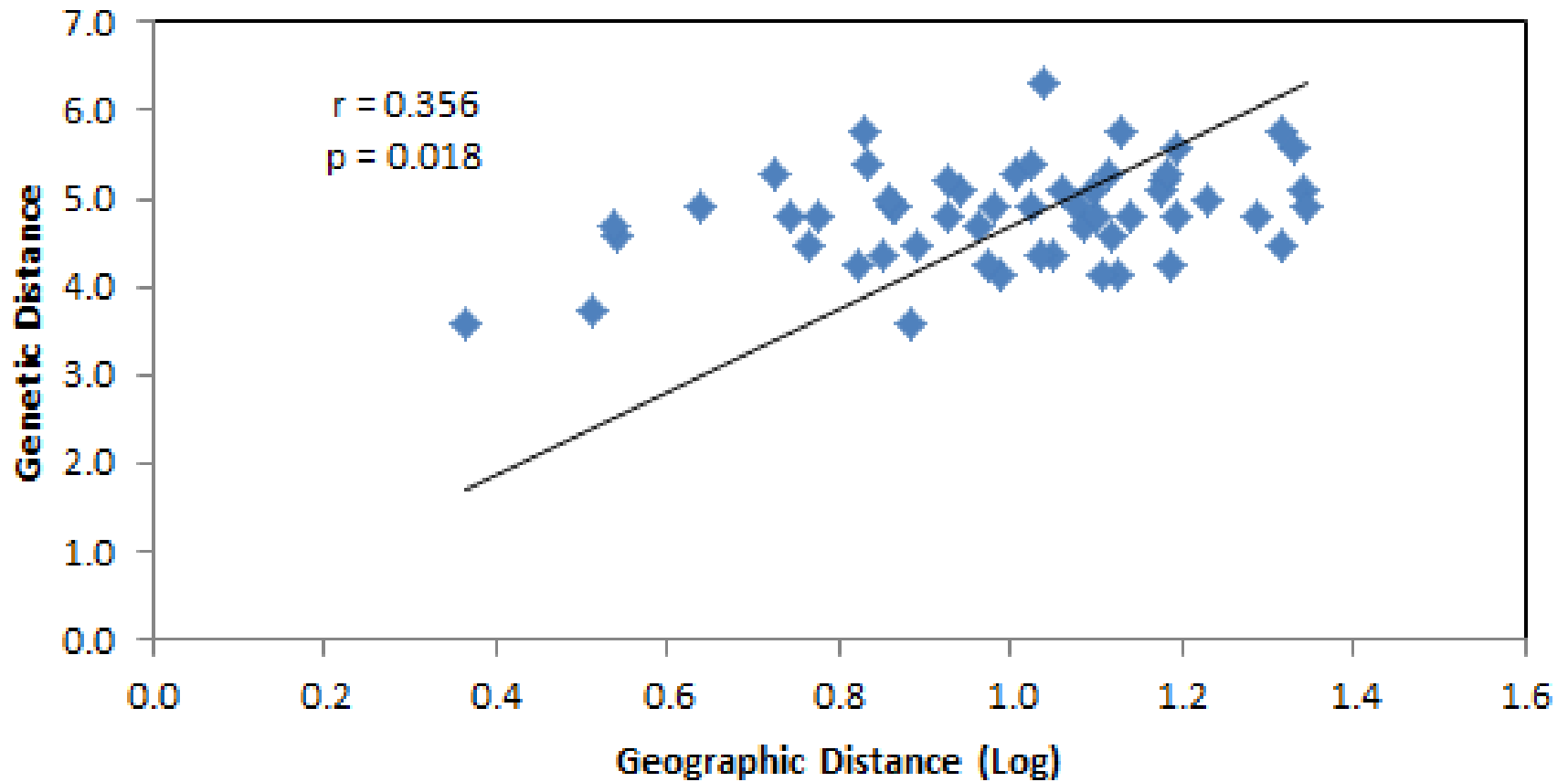


Thank YOU

n = 360

K = 2

support weak but significant



Isolation-by-distance

$$F_{st} = 0.061, P < 0.001$$

Significant differentiation between populations at the extreme ends of the range.



thank you for your time