

Biodiversity mainstreaming and monitoring

- challenges for a changing world





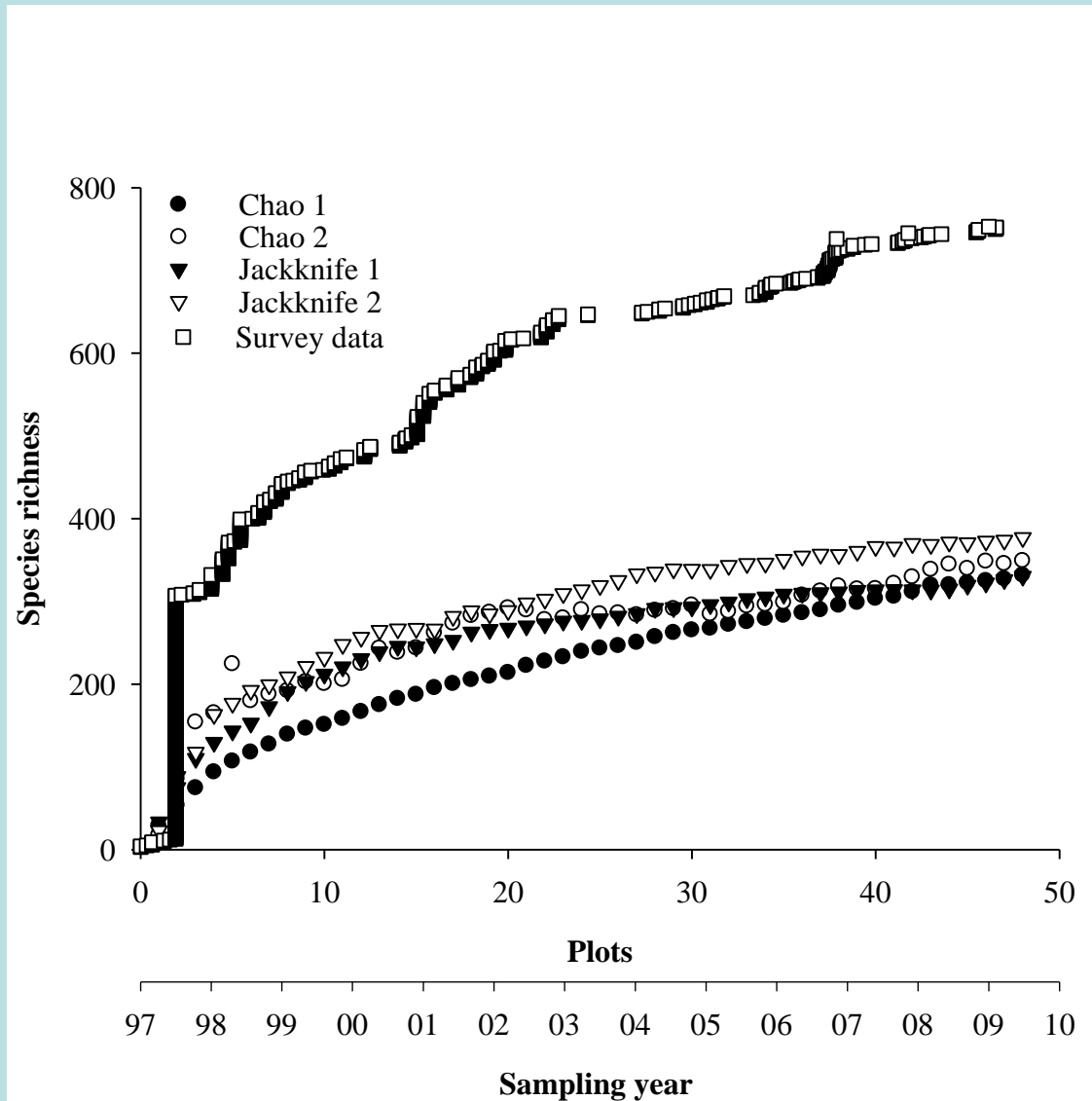




Lachenalia lutzeyeri



1998-2009
753 spp (106 RDB,
5 new)



What did we learn?

Existing databases are likely to fail in identifying many local hotspots

Habitat loss in most of the CFR is likely to result in the extinction of cryptic species

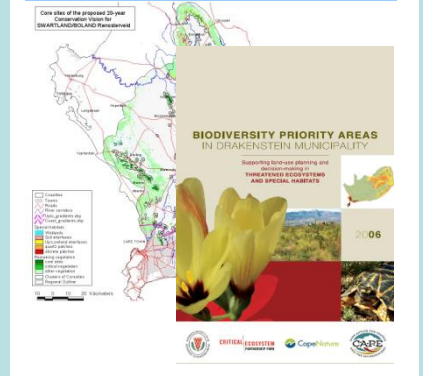
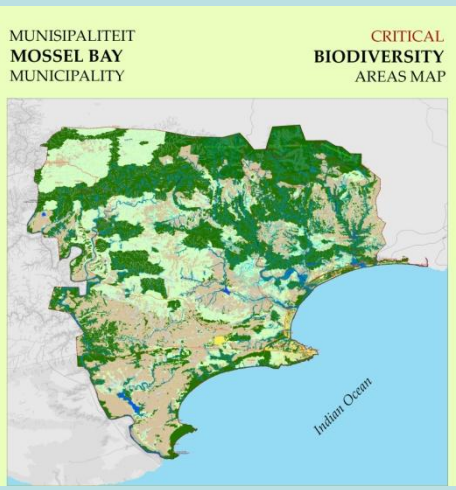
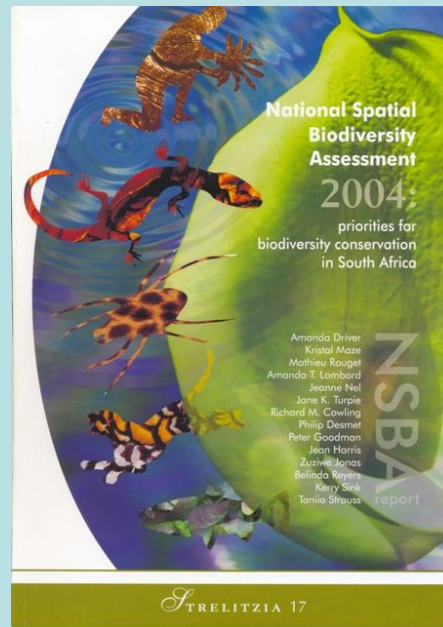
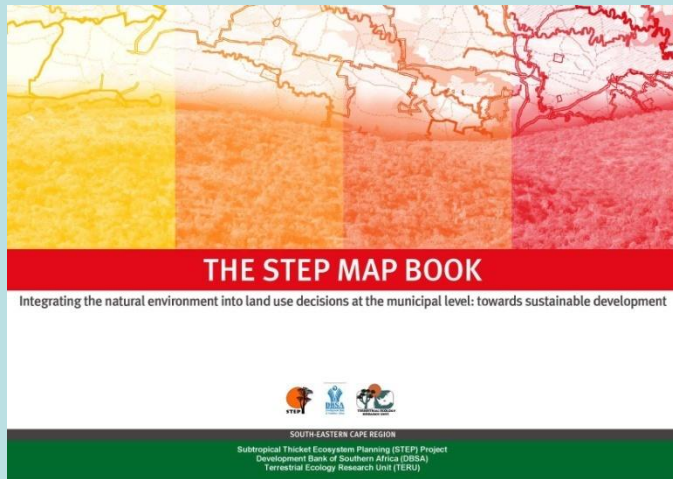
We need to invest limited resources in conservation opportunities and not just in priorities identified in conservation plans



**Mainstreaming
biodiversity at the
local government
level**

Angelika Wilhelm-Rechmann

Biodiversity Act Municipal Services Act



**Service delivery, job
creation, rates
base,
empowerment,
tourism, obstructive
greenies**

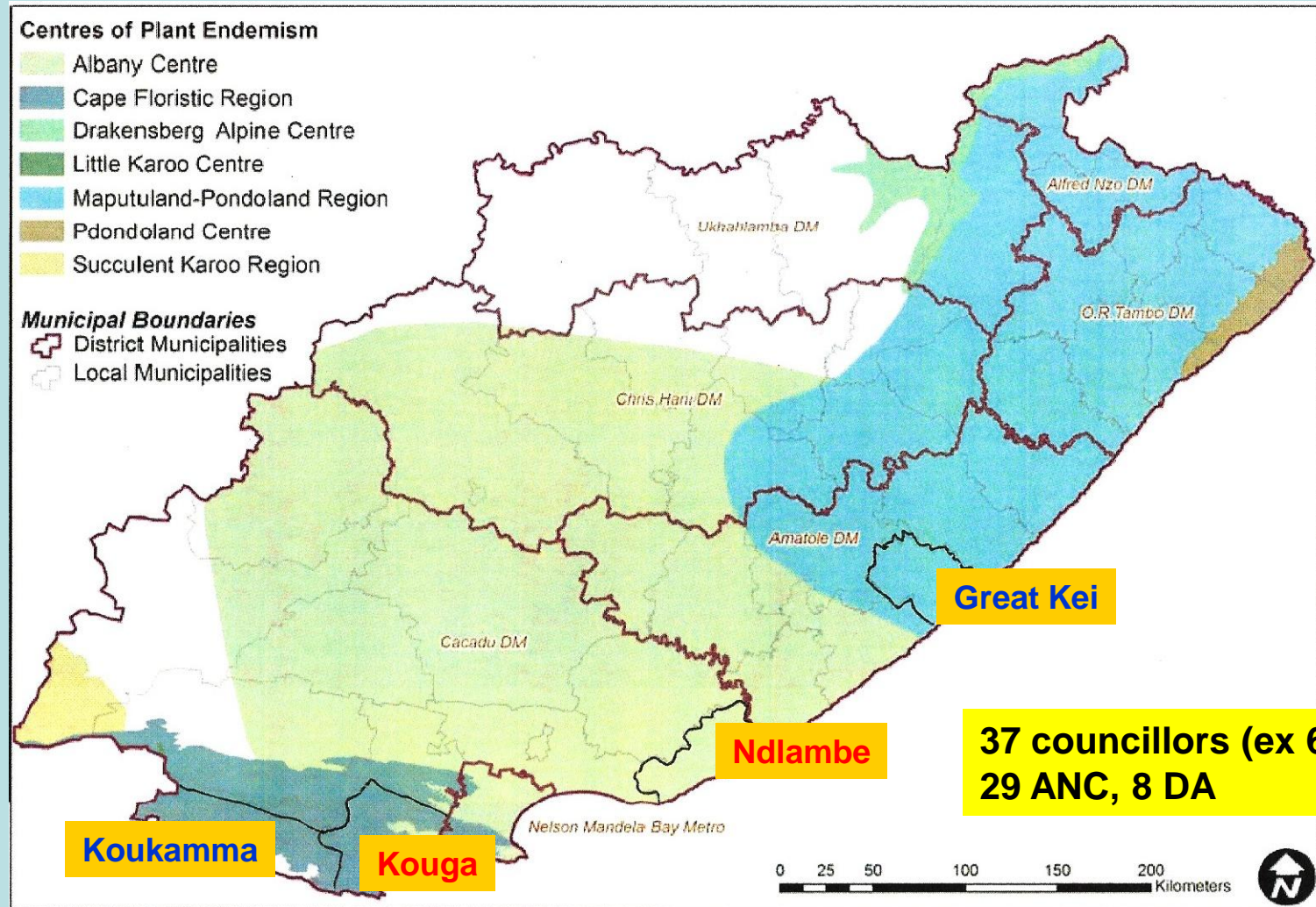


**Biodiversity,
evolutionary
processes, habitat
destruction, nasty
developers, corrupt
officials**

Wilhelm-Rechmann and Cowling (in press) *Cons Letters*

Wilhelm-Rechmann et al (subm) *Cons Biol*

Four Eastern Cape coastal municipalities



Our aims

What is the level of understanding of the terms “biodiversity” and “sustainability”?

What are the prevalent frames of decision makers regarding conservation?

How important is biodiversity and environmental protection in councillor's work?

How can these insights bridge the gap between conservation and development needs?

Method

Interviews and questionnaires with 37 decision makers

“Would you give me your own and personal definition of what the words biodiversity and sustainability mean to you?”



Biodiversity

30% could spontaneously provide a definition; none offered a textbook definition

57% needed prompting before they could provide an intuitive definition

of those that did provide definitions (with or without prompting), 94% did include aspects of nature in their definitions



Sustainability

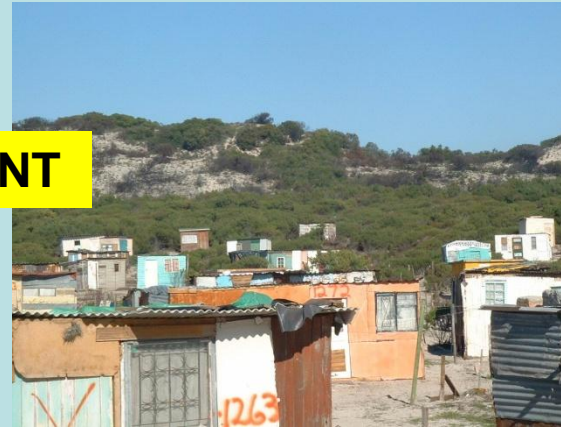
95% of the councillors could spontaneously provide a definition of sustainability

of these, 49% provided definitions that did not refer in any way to nature or the natural environment

Frames are mental reasoning devices which define a person's understanding of an issue .



DEVELOPMENT

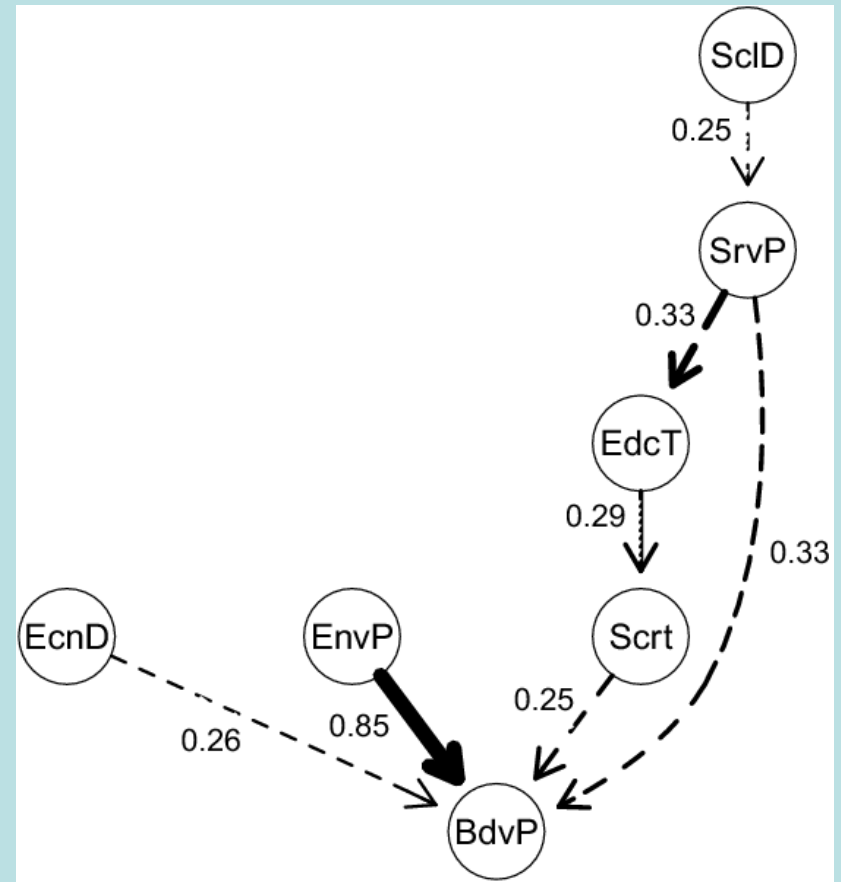
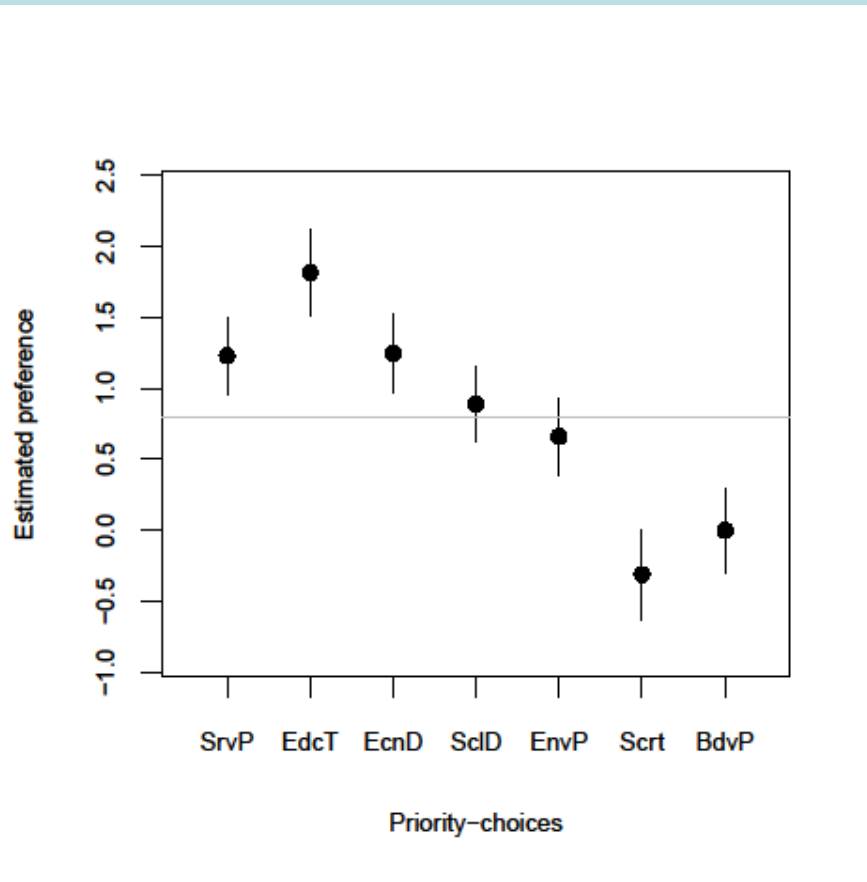


Problem	Cause	Moral judgment	Solution
destruction of biodiversity	economic development	unacceptable	keep the land in a natural state
lack of service delivery and jobs	lack of economic development	desirable	develop the land

Results of the frame analysis

Problem	Cause	Moral judgment	Solution
losing our nature	need for development	sad but unavoidable	impossible
conservation is socially unjust	maintains/re-establishes racist system	unacceptable	reject conservation
conservation is disrespectful	conservationists are aggressive and arrogant; disrespectful of the needs of the poor	unacceptable	reject conservation
Utopian endeavour	conservationists are naïve about issues	pitiable	ignore arguments

↑
Frequency of responses



What did we learn?

Decision makers have a poor grasp of the biodiversity concept (a message transmitted but not received has little value).

The concept of sustainability is currently not a good surrogate for biodiversity

Conservation messages are interpreted in frames that imply they must be countered or ignored

There is a need to mainstream biodiversity via (ecosystem) service delivery

A man in a green jacket is speaking outdoors, gesturing with his hands. The background shows a rocky coastline with a beach and a cliff.

Dr. Curtis W. Marean

Institute of Human Origins
School of Human Evolution and Social Change
Arizona State University

LETTERS

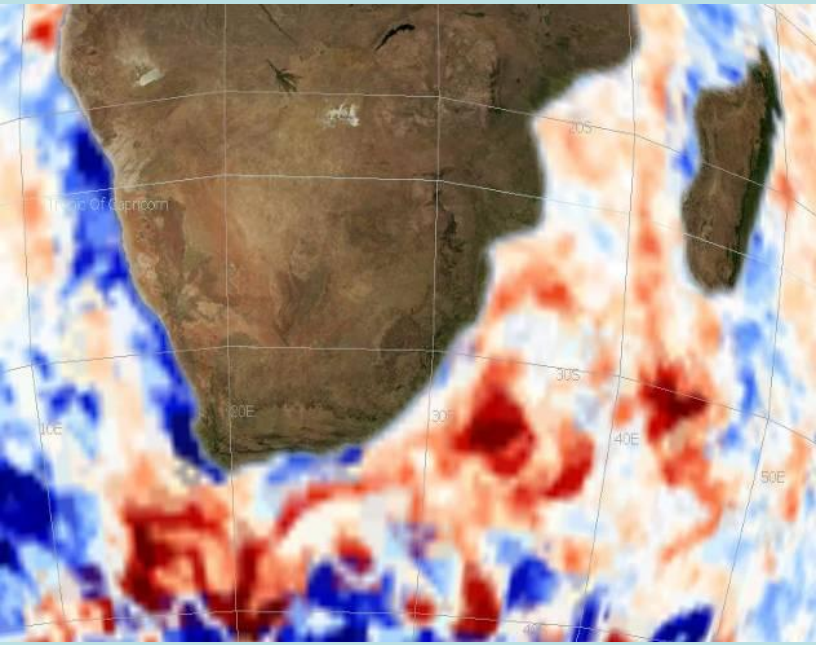
Early human use of marine resources and pigment in South Africa during the Middle Pleistocene

Curtis W. Marean¹, Miryam Bar-Matthews³, Jocelyn Bernatchez², Erich Fisher⁴, Paul Goldberg⁵, Andy I. R. Herries⁶, Zenobia Jacobs⁷, Antonieta Jerardino⁸, Panagiotis Karkanas⁹, Tom Minichillo¹⁰, Peter J. Nilssen¹¹, Erin Thompson¹, Ian Watts¹² & Hope M. Williams²



Whale Barnacle indicates scavenging of whale skin and blubber





**Modern humans arose here about 160 000 years ago,
and NOT in Europe 40 000 years ago**



Marean 2010 *Sci Am*

Biodiversity!!!



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**Biodiversity,
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The Eden (Origins) Coast A World Heritage Site



Pinnacle Point



Klasies River Cave

In closing

**There is much undescribed biodiversity;
in a rapidly changing world lots will be lost**

**The concept of biodiversity lacks resonance with decision makers;
reframe it as ecosystem service delivery**

We need to invest in conservation opportunities that are compelling

