



SOUTH AFRICAN
national
biodiversity
institute
S A N B I



NORWEGIAN MINISTRY OF
THE ENVIRONMENT



Species Survival Commission



The World Conservation Union

Threatened Species Programme

Addressing gaps taxonomic groups with no assessments



Reptile Atlas & RL

Threatened Plant Programme work within SANBI

Threatened Animal Co-ordination unit, with universities, NGOs & government depts



Bird Atlas & RL



Plant Atlas & RL

\$2 million
2003 - 2010



Arachnid Atlas & RL



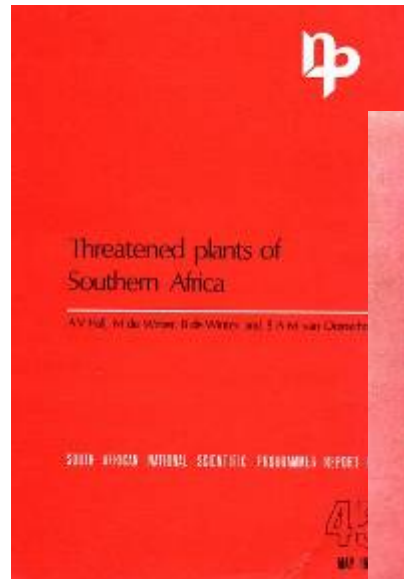
Butterfly Atlas & RL

Civil society volunteer programme that monitors threatened plants

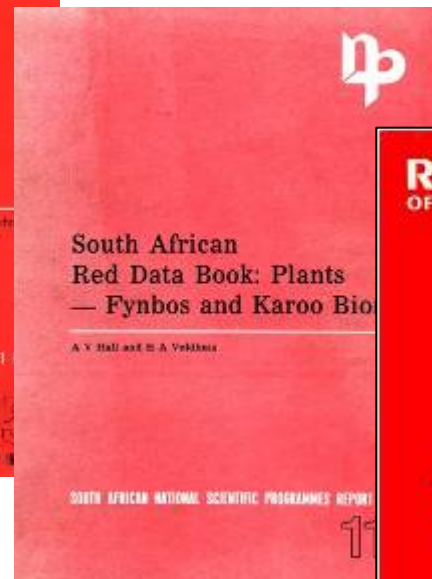


- Involves local civil society groups in monitoring and conserving threatened plants and habitats
- Focuses on the highly threatened ecosystems
- Prioritise DD and CR PE species
- Facilitates linkages and partnerships between civil society groups and conservation and decision-making authorities

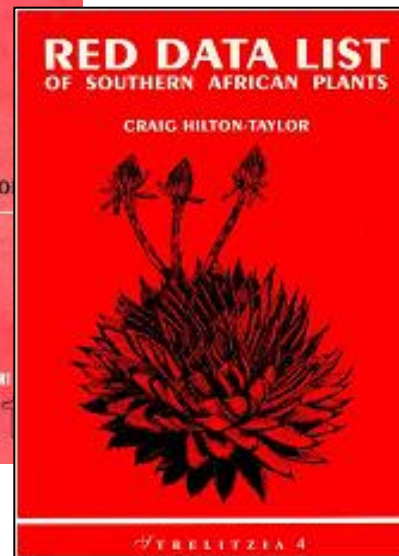




1982



1986



1996/7



2008

First use of IUCN RED LIST CATEGORIES & CRITERIA ver. 3.1
First comprehensive assessment of a megadiverse flora 20,416

Most of South Africa's Assessments are Global Assessments



Total flora 20,415 taxa ca 11,000 are endemic

- Detailed assessments for 6,039
- 94% of these endemic
- Remaining have had cursory assessments LC or DD

688 plant species are only known from only 1 locality



Moraea loubserii CR-PE



Liparia bonaespei CR D

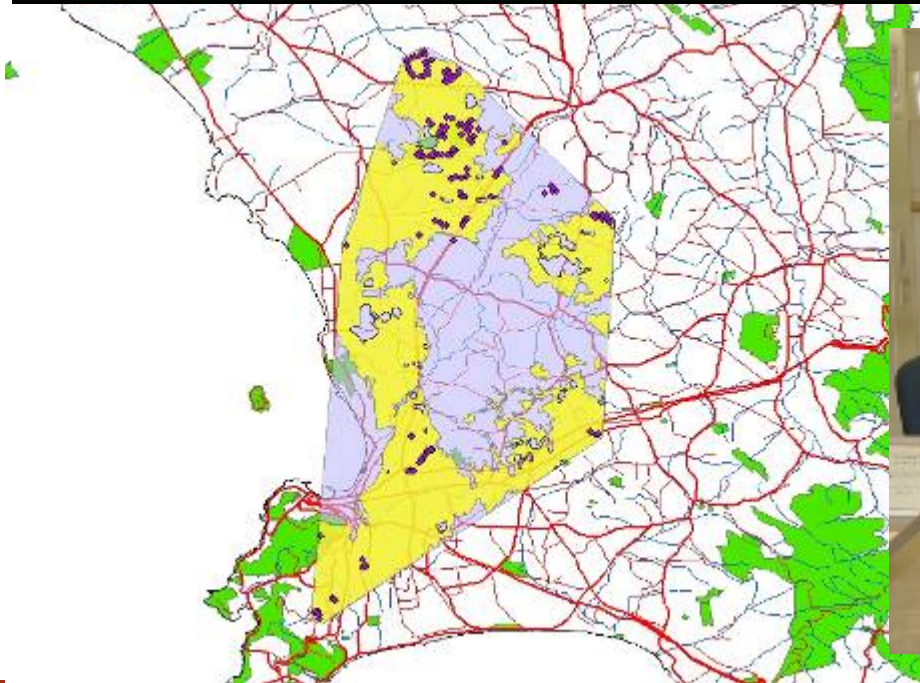


Erica jasminiflora CR A2ac;
B1ab(iii,v)+2ab(iiii,v);D; C2a(ii)b

Process of Conducting Red List Assessments



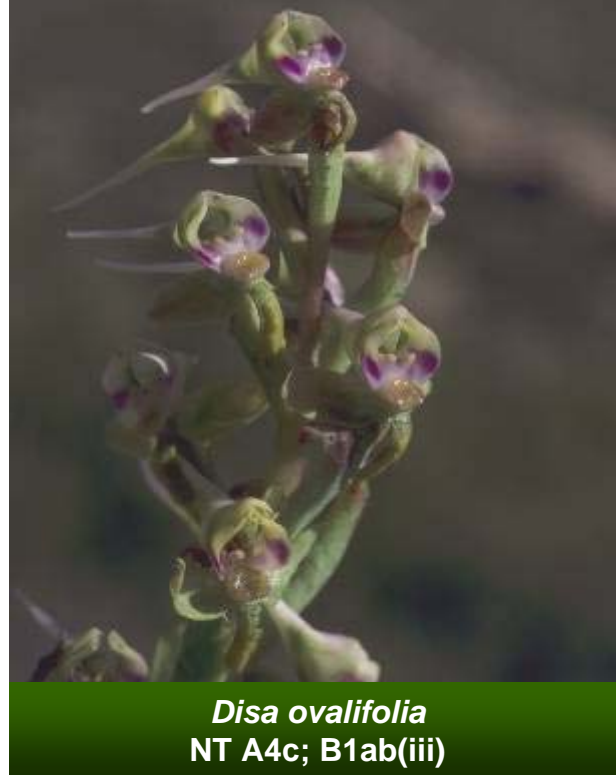
- 1) Coordinating team based in national biodiversity institute
- 2) Collate all data from literature
- 2) Source electronic data:
 - i) encoded herbarium records
 - ii) Atlas data from volunteers
- 3) Work with the expert in the group.



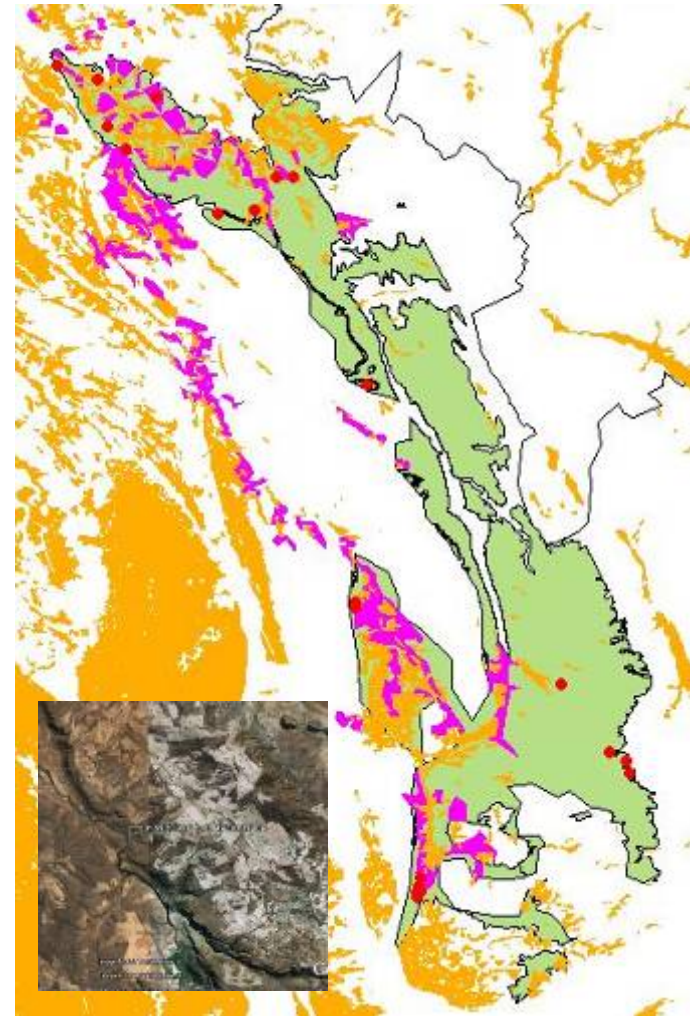
Standard data for all species especially those with no revisions and no recent field data



- Used herbarium locality data, spatially plot these using GIS
- Used a national or local land cover layer or satellite images



Disa ovalifolia
NT A4c; B1ab(iii)



- 1) South Africa's red listing started pre-SIS
- 2) Simple access database with info for RL & documentation required



Systematics Previous Species Next Species Find Search

Assessment Geographic Scale: -538634605

Species Name: *Galanthus platyphyllus*

Taxonomic Authority: Traub & Moldenke

Global Assessment Regional Assessment

Region: Global

Higher Level Taxonomy

Kingdom: PLANTAE Phylum: TRACHEOPHYTA

Class: LILIOPSIDA Order: LILIALES

Family: AMARYLLIDACEAE

Lower Level Taxonomy

Rank: _____ Plant Hybrid:

Infra-rank Name: _____ Subpopulation: _____

Authority: _____

Taxonomic Notes: _____

Common Name	ISO	Language	Primary
BROAD-LEAVED SNOWDROP	eng	English	<input type="checkbox"/>
GANIERPOTOLA TETRAKAVILA	geo	Georgian	<input type="checkbox"/>

Synonym **Taxonomic Authority**

Record: 1 of 6

Species Assessment Return to Main Menu

Enter additional information for this species

Click to draw the species' extent of occurrence on the map

Enter the countries in which the species is found

Enter the habitat preferences for this species

Enter the presence in marine and inland

TSP Database - [Species Detail]

File Edit Insert Records Window Help

Main Page

Quarter Degree Grid (QDS) grids (if <10):

QDS: _____ QDS>10

Record: 1 of 1

Distribution: (incl. notes on historical and current) Durbanville to Somersetwest and Caledon

Locality: 11km S Caledon (~100pts) 20 km E of Caledon (just N of N2 (30 pts) W of Stellenbosch road N of N2 on Vergeenoogd farm (100-200pts) Durmonite suburb, Durbanville, uptributree of Mosselbank river along R302 (100-200pts)'

Habitat: Seasonally wet to flooded shale silty clay lowlands

Fragmentation: Severely Generation Time (years): _____

Notes on fragmentation and ability to recolonize: Connecting drainage lines have been degraded, very specific habitat, historically poorly collected so prob. Naturally rare

Distribution of population into subpopulations or locations: _____

	Past	Current	Future	Justification and date of change if not equal
EOD (square km)		2500		
ADD (square km)		<1		all pops less than 1
# Subpopulations		4		
# Locations		4		
Total Population #		<600		



Resources Spent on This Assessment



- 4 years of work with an average of 3 full time junior scientists and 1 support staff
- 60 systematists and amateur botanists
- 10 generalist field botanists – regional experts
- US\$ 340,000



Lachenalia sargentiae

K → VU D2

It is possible to assess large floras within 5 years

Lessons:

1. Ensure that only field botanists with a good understanding of life histories conduct assessments
2. Volunteer programmes are key to ensure continual population monitoring data feeds into assessments
3. Utilising electronic data can rapidly speed up assessments, digitised herbarium records and land-use layers are key



Major Challenges to Red Listing South Africa's Plants



1. Number of plant species 20,419 plants!!!
2. Despite atlas project, still have lack of field data - more than 60% of taxa listed have not been recently surveyed we rely heavily on herbarium specimen data that generally has no population level information or threat data
3. Lack of adequate taxonomic revisions:
 - 30% of special taxa are from genera with significant taxonomic problems.
 - 12% have not ever had revisions conducted,
 - 14% from groups with revisions that are pre-1940.



Drosanthemum hallii

Rare → CR

Support from Species Programme Team



- Incredible support for training RSA scientists to conduct RDL assessments
- Evaluation and advice on tricky assessments
- Database developments

A screenshot of a web-based data entry interface for the Species Information Service. The interface is divided into two main panels: "Systematics" on the left and "Species Assessment" on the right. The "Systematics" panel includes fields for "Assessment Geographic Scale" (set to -53863402), "Species Name" (Galanthus plicatifolius), "Taxonomic Authority" (Traub & Moidl), and "Region" (Global). It also displays taxonomic classification: Kingdom: PLANTAE, Phylum: TRACHEOPHYTES, Class: LILIOPSIDA, Order: LILIALES, Family: AMARYLLIDACEAE. The "Species Assessment" panel contains a list of assessment categories with input fields: General Information, Extent of Occurrence, Countries of Occurrence, Habitat Preferences, Aquatic Occurrence, Major Threats, Conservation Measures, Ecosystem Services, Utilisation, Red Listing, and Bibliography. At the bottom, there is a "Data Recorder" field with the name "Hilton-Taylor, Craig".

Thank you!



Marasmodes undulata CR B1ab(ii,iii,iv,v)+2ab(ii,iii,iv,v)





Antelope SG/RLA

Groupers & Wrasses SG/RLA



Groupers & Wrasses SG/RLA

- **Started 1998 after 1996 marine fish Red Listing workshop**
- **Challenged by**
 - (a) perspectives on threatened marine species**
 - (b) data paucity**
 - (c) large number of species (about 1,000)**
- **Initial focus on assessing species of apparent concern, expert interests/motivation – ad hoc**

Groupers & Wrasses SG/RLA

- **Global Marine Species Assessment initiated to address RL gaps in marine species; undertook prioritization exercise**
- **Challenge to GWSG to handle increased volume, maintain quality and move to DEM/workshop**
- **Focus is on conservation status and spatial information; need more focus on use/trade**
- **Need Red List Authority for fish groups not covered currently by SG for accountability**

Groupers & Wrasses SG/RLA

- **Excellent support from Red List Unit and Species Programme to run workshops and from GMSA for mapping component – Shark Specialist Group**
- **Channelled energies, mobilized funds and provided opportunities for capacity- and network-building**
- **Positive development for marine fishes in moving towards assessment of all species and beginning to see the ‘bigger picture’**

Groupers & Wrasses SG/RLA

