Listing of species as threatened or protected in terms of NEMBA

Implications for biodiversity planning.

Michèle Pfab
Scientific Co-ordinator: Scientific Authority
Listing of TOPS species

- Species can be listed as threatened or protected in terms of section 56 of the National Environmental Management: Biodiversity Act (NEMBA) of 2004
  - critically endangered
  - endangered
  - vulnerable
  - protected
- Must be reviewed at least every 5 years
- Restricted activities involving specimens of TOPS species
  - may not be carried out without a permit
  - can be prohibited
Restricted activities

i. Hunt / catch / capture / kill
ii. Gather / collect / pluck
iii. Pick parts of / cut / chop off / uproot / damage / destroy
iv. Import into RSA / introduce from the sea
v. Export (re-export) from RSA
vi. Possess / exercise physical control
vii. Grow / breed / propagate
viii. Convey / move / translocate
ix. Sell / trade in / buy / receive / give / donate / accept as a gift / acquire / dispose of
x. Any other prescribed activity

NB does not include activities relating to habitat loss
Principles / Considerations

- Species should be listed in accordance with their current IUCN 2001 Red Listings;
- Regulation of restricted activities must benefit conservation of wild populations;
- Stricter regulation should apply to species with higher risks of extinction;
- Species which are adequately protected by other legislative tools should not be listed;
- Resource inputs must be justifiable and practical in relation to conservation benefits;
- SANBI is required to monitor and report on all threatened or protected species;
- All species listings must be scientifically defensible.
<table>
<thead>
<tr>
<th>Category</th>
<th>Criteria</th>
</tr>
</thead>
</table>
| Critically Endangered | All South African species  
1. Evaluated as Extinct in the Wild or Critically Endangered according to the IUCN 2001 Red List system (regional assessments) AND threatened by direct use OR  
2. Evaluated as Critically Endangered due to an extremely limited geographic range / area of occupancy (IUCN criterion B), an extremely small and declining population (IUCN criterion C) or a very small or restricted population (IUCN criterion D) |
| Endangered          | All South African species  
1. Evaluated as Endangered according to the IUCN 2001 Red List system (regional assessments) AND threatened by direct use                                                                                             |
| Vulnerable          | All South African species  
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2. Evaluated as Least Concern/ Data Deficient (or not evaluated) according to the IUCN 2001 Red List system (regional assessments) BUT in need of regulation/management as current utilization may result in a significant decline in wild populations |
Strategic reasons for not using TOPS to address habitat loss

- Restricted activities relate to direct use only
- Many spatial legislative tools for addressing habitat loss – provincial systematic biodiversity plans are key!
  - Must explicitly include threatened species
- Avoid dilution of the TOPS lists – only legislation available for protecting species at a high risk of unsustainable use
- Impractical – very long lists
  - \( \pm 3192 \) plant species threatened by habitat loss
  - Priorities? Where to spend limited resources?
## TOPS species

<table>
<thead>
<tr>
<th></th>
<th>Amphibians</th>
<th>Birds</th>
<th>Fish</th>
<th>Invertebrates</th>
<th>Mammals</th>
<th>Plants</th>
<th>Reptiles</th>
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</thead>
<tbody>
<tr>
<td>cr</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>29</td>
<td>2</td>
<td>386</td>
<td>5</td>
</tr>
<tr>
<td>en</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>12</td>
<td>3</td>
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<td>1</td>
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<tr>
<td>vu</td>
<td>0</td>
<td>11</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td>60</td>
<td>6</td>
</tr>
<tr>
<td>prot</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>12</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>total</td>
<td>5</td>
<td>24</td>
<td>11</td>
<td>42</td>
<td>25</td>
<td>530</td>
<td>14</td>
</tr>
</tbody>
</table>
Analysis of proposed TOPS lists

- 304 taxa threatened by direct use or subjected to potentially unsustainable harvest levels
- Mostly plants (63%)
- Majority of invertebrates (96%) in higher threat categories (cr & en)
- Use for traditional medicine threatens a high percentage of listed birds (32%), mammals (48%), plants (38%) and reptiles (46%)
- Conservation interventions should be prioritized for:
  - plants
  - invertebrates listed as cr or en
  - the traditional medicine trade
Analysis of proposed TOPS lists

- Conservation interventions also required to address:
  - persecution of birds (affecting 50% of listed birds)
  - fish angling
  - the collector invertebrate trade (affecting 71% of listed invertebrates)
  - hunted and persecuted mammals (affecting between 44% and 48% of listed mammals)
  - horticultural collection of plants (affecting 65% of listed plants)
  - the reptile pet trade (affecting 82% of listed reptiles)
Strategic reasons for not using TOPS to address habitat loss

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  - Must explicitly include threatened species
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- Impractical – very long lists
  - ± 3192 plant species threatened by habitat loss
  - Priorities? Where to spend limited resources?
Strategic reasons for not using TOPS to address habitat loss

- Many spatial legislative tools for addressing habitat loss – provincial systematic biodiversity plans are key!
  - Must explicitly include threatened species
Systematic biodiversity plans / maps of critical biodiversity areas

- Expansion of protected areas
- Stewardship initiatives
- Sensitive geographical areas (EIA regulations)
- Bioregional plans (section 40 of NEMBA)
- Threatened ecosystems (section 52 of NEMBA)
Bioregional plans

- All municipal plans (e.g. IDPs, SDFs, housing plans, infrastructure plans, zoning schemes, etc.) must be aligned with bioregional plans
- Critical biodiversity areas = sensitive geographical areas (EIA regulations)
Gauteng draft bioregional plan
Threatened ecosystems

- Species taken into account
  - Criterion D – threatened species associations
  - Criterion F – priority areas for meeting explicit biodiversity targets as defined in a systematic biodiversity plan
- Regulations can be promulgated
- Must be integrated into urban and regional planning
- Sensitive geographical areas (CR & EN ecosystems)
- Biodiversity management plans for ecosystems (section 43 of NEMBA)
  - Norms & standards
Threatened terrestrial ecosystems: original extent
EIA regulations

- EIAs / BAs required for a wide range of activities (82 in total; thresholds apply)
- Within sensitive geographical areas, BA required for clearance of indigenous vegetation.
EIA regulations

- EIAs / BAs required for a wide range of activities (82 in total; thresholds apply)
- Within sensitive geographical areas, BA required for clearance of indigenous vegetation. Minimum area thresholds apply:
  - <300m² of indigenous vegetation within
    - CR & EN ecosystems
    - CBAs in bioregional plans

- <1ha of indigenous vegetation or clearance of vegetation required for waste management activities or linear activities below a minimum threshold within
  - CR & EN ecosystems
  - CBAs and ESAs in systematic biodiversity plans
  - National Protected Area Expansion Strategy Focus areas
  - Provincial specific areas

- <5ha of indigenous vegetation, or clearance of vegetation required for agriculture/afforestation purposes within areas identified in relevant spatial instruments

- All areas outside urban areas
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### Are our biodiversity plans sufficient?

<table>
<thead>
<tr>
<th>Province</th>
<th>Species included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kwa-Zulu Natal</td>
<td>Threatened species according to IUCN Species endemic to KZN</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>All IUCN Red List species of conservation concern Selected MP species not listed nationally</td>
</tr>
<tr>
<td>Gauteng</td>
<td>IUCN Red List species of conservation concern Orange list species (for plants)</td>
</tr>
<tr>
<td>Western Cape</td>
<td>IUCN Red List species of conservation concern Restricted endemic species</td>
</tr>
<tr>
<td>Northern Cape</td>
<td>Riverine Rabbit observations Aloe pillansii populations</td>
</tr>
<tr>
<td>Free State</td>
<td>Not yet (but planning to)</td>
</tr>
<tr>
<td>Limpopo</td>
<td>Species data included (but limited)</td>
</tr>
<tr>
<td>North West Eastern Cape</td>
<td>None</td>
</tr>
</tbody>
</table>
In conclusion

- CR species with small populations / restricted ranges to be listed on TOPS as a “crisis / emergency” measure
- Threatened species to be explicitly included in systematic biodiversity plans
- National guidelines for appropriate consideration of threatened species in the EIA process required
Thank you
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