

## SANBI POLICY DOCUMENT

DIVISION: Biosystematics Research and Biodiversity Collections	POLICY NUMBER:
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### Creating an e-Flora for South Africa

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#### Background

An e-Flora for South Africa will be created to contribute towards the first target of the Global Strategy for Plant Conservation (2011-2020). Target 1 is aimed at producing an online Flora for the world and South Africa would be able to make a contribution of approximately 8% of which 4% will be unique.

This document serves to ensure that all contributors and users of the South African e-Flora will have a clear understanding of what information will be included in the e-Flora as well as the methods and procedures that will be implemented to compile and publish the online Flora by 2019.

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#### Aim

A policy for the e-Flora of South Africa project is necessary to stipulate the scope and methodology of the project and to outline what information will be included to ensure the compilation of a high quality, credible product.

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#### Policy

- The approach followed by the World Flora Online (WFO) project will guide the development of the e-Flora of South Africa (e-Flora SA) project
- The e-Flora SA may initially only be synoptic

- The South African checklist will be used as the e-Flora SA's taxonomic backbone; the Flora will continually be updated in accordance to changes made in the checklist
- Taxonomic information will be taken from either published literature or contributions compiled by taxonomic experts
- The Botanical Research And Herbarium Management System (BRAHMS) will be used as the repository of floristic data

### **Content**

- Data elements, selected to be in agreement with the WFO (CBD, 2012), will be harvested in a two-layered approach; the first phase will be completed by collecting and uploading information for the core elements for all taxa by 2019; the second phase, harvesting information for supplementary elements, can be completed for individual taxa before 2019 but will be the main focus after 2019
- During the first phase, information up to species level will be provided; in the second phase, information for infraspecific taxa may be accommodated
- Core elements (first phase) include the following:
  - *Up-to-date names with authorship for all taxa within South Africa (covering family, genus, species)*
  - *Protologue citations*
  - *Synonyms (including widely used taxonomically alternative names)*
  - *Descriptions*
  - *Identification keys to the families, genera and where available to species will be included; initially dichotomous keys will be developed but if multi-access keys are available, those will be used as an alternative; inclusion of keys may be facilitated by linkages to existing sources such as <http://www.identifylife.org/> or other online Flora projects*
  - *Images (photographs, scans of herbarium specimens, and/or drawings) of at least one species of each genus (ideally, linked to voucher specimens) should be included where available; a link to a herbarium specimen (e.g. type specimen), if available, can be used*
  - *Geographic scope at a national-level (listing provinces); if available, maps will be provided or floristic regions indicated*

- *Residency status, e.g., indigenous, naturalised or invasive alien*
- *Endemism status*
- *Literature references and credits giving attribution to authors, providers of information and sources of data*
- Supplementary elements (second phase) include the following:
  - *Higher-level classification (such as order)*
  - *Categories of habit/life form*
  - *Categories of habitat and ecology, e.g. altitudinal range (often included in the description of a geographic range, general categories can be added to provide coarse sorting of plant species)*
  - *Multi-access keys*
  - *Specimen citations*
  - *Links to digitised specimen information*
  - *Conservation status*
  - *Vernacular names, if available*
  - *Traditional, economic, and medicinal uses*
  - *Trade statistics and non-detriment information for implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)*
  - *Invasiveness (potential or actual)*
  - *Online links to external data and data sources about the species, e.g. DNA barcodes*
  - *Commentary feedback system*
- Information will be sourced from literature in the following order:
  1. Contributions, by taxonomic experts, following a specified format
  2. Taxonomic revisions
  3. Monographs or floristic treatments
  4. Synopses
  5. Conspectuses
- Written consent from the first author and the publishing house will be obtained where information is sourced from published literature; if the first author is deceased, co-authors will be contacted and if no co-author is available, the closest family relative will be asked for

permission to use the information, if published within the past 50 years (following international copyright laws)

- Where unique contributions will be compiled by taxonomic experts, no new species will be published in the e-Flora SA and will need to be published elsewhere first
- Information up to species level will be sourced in the first phase of the project
- Information for infraspecific taxa is not a prerequisite in the case where information is sourced from published literature
- Data for infraspecific taxa may be included, if available, in the first phase and will be included during the second phase
- A single staff member, with a sound knowledge of plant nomenclature and floristic literature, will take responsibility for coordinating the e-Flora SA project
- A network of family coordinators/contributors may be created to assist with the administrative duties to coordinate contributions by individual experts; they will be accredited accordingly

#### **Review of this policy**

- The policy will be reviewed every three to five years and may be amended then

#### **Dissemination**

- The e-Flora of SA will be published online at the end of 2019, administered by the Biodiversity Information Management Directorate (BIM)
- The website will have a commentary feedback system in place where users can comment on content in order to improve the website; feedback on improvement should be provided to the users

#### **Reference**

- CBD (2012) Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) Global strategy for plant conservation: World flora online by 2020, 16th Meeting, Montreal, Canada. Convention on Biological Diversity, UNEP/CBD/SBSTTA/16/INF/38.  
<http://www.cbd.int/doc/meetings/sbstta/sbstta-16/information/sbstta->

## Appendix 1

### **The SANBI procedures for creating and maintaining the e-Flora of South Africa**

This e-Flora coordinator will:

- Align the e-Flora SA project with the international guidelines provided by the WFO (content conformed with international data standards upon submission)
- Establish a network of 'family coordinators' to obtain contributions from individual taxonomic experts
- Collect contributions from taxonomic experts that are compiled following a standard format (as far as possible); template provided by the e-Flora coordinator
- Search for literature, where no taxonomic expert is participating in compiling a generic or family treatment, in the following order: Taxonomic revisions, monographs, floristic treatments, synopses and lastly conspectuses
- Digitise relevant literature if not available electronically by scanning the pages of the manuscript, transforming it into a searchable document through optical character recognition software, and editing the text to correct errors that may occur during the digitisation process
- Deposit floristic data in the BRAHMS database
- Collect representative images for each genus and deposit it in the BRAHMS database, through the assistance from BIM
- Construct dichotomous keys up to generic level in phase one; include dichotomous or multi-access keys up to species level, where available
- Maintain and update the BRAHMS database according to the South Africa checklist