

SANBI POLICY DOCUMENT

DIVISION: Biosystematics Research and Biodiversity Collections	POLICY NUMBER: D6
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DATA CAPTURE, VERIFICATION AND QUALITY CONTROL OF DATABASED SPECIMEN LABEL INFORMATION

Background For Biosystematics Research and Biodiversity Collections (BRBC) to supply accurate information to end-users, data in the Botanical Database of Southern Africa (BODATSA), which use the Research and Herbarium Management System (BRAHMS) must be correct and match that on the label of a specimen.

Aims of the policy To improve the quality of the data available on specimen labels and data being transcribed to BRAHMS, and to take the required steps to correct inaccurate data in BRAHMS and on specimen labels.
To ensure consistency between collection and the database.

Policy SANBI undertake to:

- Ensure that all specimens kept in the collections, all data captured in the database and information capture on specimen labels is accurate and comply with standards (See Annexure 1);
- Ensure that curation staff are adequately trained to ensure the require procedures and standards are met (See Annexure 1).

Process Addendum 1 provides applicable standards.

Addendum 2 provides procedures for QDS, name changes and correcting specimen data in BRAHMS.

ADDENDUM 1

STANDARDS

The data typing process and subsequent quality control before records are permanently transferred into the database should comply with the following standards:

1. Staff populating Rapid Data Entry (RDE) files must take care to transcribe all the information from the collection label accurately by adhering to applicable standards.
2. Staff responsible for the quality control of databased specimen information must ensure that the data on the collection label have been captured accurately.
3. Staff responsible for transferring RDE files must take care to transfer accurate, quality controlled specimen information.
4. Where there is no SANBI scientist responsible for a specific taxonomic group, designated SANBI staff assume responsibility for identifying and updating data.
5. If an error (discrepancy) is noted on a printed herbarium label or in BRAHMS, staff responsible for curation must:
 - a. Verify data
 - b. Make changes in pencil on the existing label e.g. adding the correct province.
 - c. Inform staff responsible for changes in BRAHMS of these changes required including name changes.
 - d. Arrange for a new label to be printed and the specimen re-mounted if the error is **due to labels being mixed-up during the mounting.**
6. The herbarium labels must be accurate copies of the original labels containing all the provided information, with no error adjustment (e.g. editing spelling mistakes or typographical errors). If the original collector of the specimen made an error, some correction is allowed provided by the quality controller, which checks the RDE file and BRAHMS. Spelling mistakes and typographical errors to be notes in the Curation field.
7. Specimen must only be transferred if they have an accession number and a barcode.
8. All QDS and point data should match original localities given on specimens. All plant names must be captured accurately – based on the lookup function in BRAHMS. (See following definitions).

qds	The grid square on the map at which the taxon was collected.
alt	The altitude at which the taxon was collected e.g. 50 m or 2500 ft. Note that the 'm' and 'ft' are entered in the Altitude unit column
altitude unit	ft. (feet) or m (meters)
latdeg	Latitude degrees
latmin	Latitude minutes
latsec	Latitude seconds
ns	N (North) or S (South)
longdeg	Longitude degrees

longmin	Longitude minutes
long sec	Longitude seconds
ew	E (East) or W (West)
lat & long	For gps readings, or latitude and longitude seconds more than 60 seconds. Used to enter decimal readings (DM, DD or DMS with decimal seconds) or an alternative way to enter DMS readings
llunit	DMS (degrees, minutes, seconds), DM (degrees and decimal minutes), DD (decimal degrees)
llres	Depending on coordinates can be 11-50 m, 51-100, ¼ degree, etc. Make sure that the llres is in metres and not kilometres; one can easily make the mistake.

If the specimen consequently has been identified by a specialist that curates the genus, the updated determination must be captured correctly in BRAHMS.

9. All fields are considered equally important for quality control purposes. Check all fields on BRAHMS with special attention to “Plant name”, “Collector’s name”, “Collector number”, “Locality”, “Province”, “Country” and “QDS” (latitude and longitude field, “llres” field, “llunit” field, “Altitude” field and “Notes” field (information and spelling)).
10. The “llres” and “llunit” fields must be populated, based on the spatial co-ordinates provided on the specimen label.
11. Additional information provided by the collector must be added to the ‘General Notes’ field of BRAHMS (In form view). Do not populate the ‘Comments’ field.
12. Plant names, collectors’ names, the country and major country area fields must be selected via a custom lookup. The ‘major country area’ field must only be populated if the province of a country is known. If only the country is known, select the country via the custom lookup in the ‘country’ field.
13. The full collecting number is typed in the ‘Number’ field, as the ‘prefix’ and the ‘suffix’ fields in Botanical Records are not used.
14. Pretoria National Herbarium (PRE) and KwaZulu-Natal Herbarium (NH) staff must contact the Checklist Co-ordinator for the addition of new taxa and new collectors. Compton Herbarium (NBG) staff must contact the Database Content Manager for the addition of new collectors.

ADDENDUM 2

Procedure for doing QDS and locality verifications

1. Select specimens of taxa being verified from collections/cupboards – based on work plan or urgent projects. Only the Scientific curator of a specific genus/family may update BRAHMS.
2. If the QDS on the BRAHMS database and the specimen differs and the field 'llchecked' is flagged, cross the QDS out on the specimen label with pencil. Insert the QDS from the database on the label in pencil. Make a note of the difference in QDS in the field 'Curation note' (See under Curation in Form view in Botanical Records) as not to lose the Verbatim QDS.
3. After verification, generate maps for taxa/genus verified from the botanical records extract by using ArcGIS etc.
4. Where the dots on the map are out of place check that QDS matches the locality information using a relevant gazetteer and the identification of the specimen. If a discrepancy still exists submit specimen to an expert for re-identification.
5. Where the label information is in another language than English, do not translate the label. If a need arises for the translation of the label, contact the Database Content Manager.

Procedure for updating the plant name

1. If the name is changed (re-identification), this must be done using determinavit slips with the name of the specialist who re-identified the specimens together with the applicable date. If the person re-identifying the specimen is not the specialist, then the new name must be written in pencil on the specimen. Correct the name in the BRAHMS if the specimen has been re-identified by scientific curator of family/genus.
2. Determinavit slips should be mounted as close as possible to the existing label.

Procedure for correcting specimen labels in BRAHMS

Verify that the information on the specimen label is captured accurately in BRAHMS.

1. Locate the correct Botanical Record/Specimen in BRAHMS based on collector and collector's number/barcode/accession number.
2. If the record is not found and the specimen has not been transcribed, follow the process for transcribing of existing specimens.
3. If a scientific curator delegates the update responsibility, he/she remains responsible for the accuracy of the updates done. The scientific curator can follow up by checking the data themselves or asking for a printout/extract and/or even a copy of the map.

4. Primary control of changes to BRAHMS content lies with the individual scientist responsible for the taxonomic group. All changes within these groups must be approved by the responsible scientist.
5. Where there is no SANBI scientist responsible for a specific taxonomic group, designated SANBI staff assume responsibility for identifying and updating data
6. After verifications are made in BRAHMS, click on the  icon (in datasheet view) to indicate that the BRAHMS records has been verified.
7. Details of a specimen on BRAHMS must not be changed if the specimen does not reside physically in your own (home) herbarium. Contact the Database Content Manager if you find mistakes in the specimen details of other herbaria on BRAHMS.
8. Scientists or designated persons are to review literature for taxonomic and nomenclatural changes affecting the southern African flora.
9. The BRAHMS database should be checked by designated BRBC staff for gaps that could possibly be filled, e.g. missing Quarter degree Grid (QDS) where it can be derived from the locality data.
10. The BRAHMS database should be checked by designated staff for data errors, e.g. localities in the sea, mismatch between QDS and province, impossible altitudes.
11. A record must be kept of all changes made. Currently the “**edithist**” field in BRAHMS contains a history of changes to a record.