



# **World Flora Online**

## **Guidelines for Taxonomic Backbone Contributors**

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NB: The following documents relate to Data Contributions:

1. WFO General Guidelines for Data Contributors
2. WFO Guidelines for Taxonomic Backbone Contributors (this document)
3. WFO Guidelines for Content Contributors

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## 1. Introduction

This document provides the technical specification for data contributions to the *WFO Taxonomic Backbone* for the World Flora Online (WFO). Please see the document “WFO General Guidelines for Data Contributors” (General Guidelines) for the meaning of terms here set in italics. An introduction to the WFO project is given on the WFO website ([www.worldfloraonline.org](http://www.worldfloraonline.org)).

The process for becoming authorized and registered as a *WFO Data Provider* is detailed in the General Guidelines. For the technical process for contributing a Flora or other non-*Backbone* data (*Content data*), please refer to the “WFO Guidelines for Content Contributors”.

### ***Taxonomic Backbone***

At the core of WFO is an updatable *Taxonomic Backbone* of scientific names and their classification that contains all Effectively Published plant names (as defined in the International Code of Nomenclature for Algae, Fungi and Plants), and differentiates between accepted names and synonyms. Data in the *Taxonomic Backbone* will be in the Public Domain, under a *CCO waiver*, which will automatically be added upon ingestion of the data to the *WFO Taxonomic Backbone*.

As stated in the General Guideline document, the first version of the *WFO Taxonomic Backbone* based on The Plant List v1.1 is not perfect both with respect to data quality and coverage. It is expected that contributions coming from taxonomists organised in *Taxonomic Expert Networks* will rapidly improve the situation and that actively curated data within the *WFO Taxonomic Backbone* will become authoritative over time. The guidelines for the establishment and governance of *Taxonomic Expert Networks* (TENS) are provided in the General Guidelines.

## 2. Contributing to the *Taxonomic Backbone*

TENS covering an entire taxonomic group (typically a family) should strive to include all names in their group. Only names Effectively Published according to the rules of the International Code of Nomenclature for algae, fungi and plants (ICNAPF) are included in the *WFO Taxonomic Backbone*. Therefore, misapplications (stated as *auct.* or *auct. non*), *pro parte* synonyms, and hybrid formulae (e.g. *Nepenthes northiana* × *N. maxima*) are not included (but names of nothotaxa, i.e. named hybrids are), nor are any names designating cultivated forms (*grex*, *cv.*, etc.), except where these play a role in a nomenclatural context (e.g. as basionyms). Orthographic variants are included. The *TENS* are asked to resolve all names stemming from the first version of the *WFO Taxonomic Backbone*, with the possibility to exclude names from the backbone used for the WFO Portal.

Every scientific name submitted to the WFO should include

- the name of the author,
- the abbreviated citation of the original publication, volume number (if numbered), the page number on which the description begins, and the year in which the name was published.
- If additional data are available (e.g. a full literature citation for the original publication of that name), then this can be stored within the WFO system if provided in the form set out below.
- Nomenclatural citations should follow standard abbreviations for journals from *Botanico Periodicum Huntianum* (BPH; [http://fmhibd.library.cmu.edu/fmi/iwp/cgi?-db=BPH\\_2015&-loadframes](http://fmhibd.library.cmu.edu/fmi/iwp/cgi?-db=BPH_2015&-loadframes)) or other published works from *Taxonomic Literature II* (TL2; <http://www.sil.si.edu/DigitalCollections/tl-2/index.cfm>). For references for which the year of publication is not evident or is questionable, please consult TL2.

Full details for data requirements for WFO are provided below in Tables and Data Elements used in the *WFO Taxonomic Backbone*.

## Getting Started with WFO Data

All data submitted for the *WFO Taxonomic Backbone* must be in the form of a *Darwin Core Archive* (DwCA) and comply with WFO data formatting and controlled vocabularies provided below. This document provides instructions and information to assist in the preparation of the required DwCA file for the taxonomic backbone.

After authorization and registration with the WFO Gatekeeper, as described in the General Guidelines, a *TEN* (as Taxonomic Data Provider) can either work with the data they already hold or ask the *WFO Gatekeeper* to provide an extract of the current *WFO Taxonomic Backbone* data, to be used as a starting point to import into their database system. In the latter case, the name data will come from the *WFO Taxonomic Backbone* with a unique WFO Identifier (*WFO-ID*). Alternatively, the Data Provider may submit a file containing just a list of names which will be matched to the *WFO Taxonomic Backbone* and *WFO-IDs* assigned to the names. A Name Matching Response File will be returned containing all the submitted names along with *WFO-ID* for names that matched, and a Comments field describing the match or non-match results and any data issues. New names submitted by a *TEN* will be assigned new *WFO-IDs*.

Alternatively (in the future), a *TEN* may choose to use the BOTALISTA online system to manage and curate their data. In which case a new project can be set up within BOTALISTA with a copy of the WFO backbone data related to their expert group. Those who wish to use the BOTALISTA system should contact the *WFO Gatekeeper*.

A *TEN* must commit to working with the *WFO Gatekeeper* to correct errors and missing data in their submitted dataset so that the dataset can replace the earlier version in the *WFO Taxonomic Backbone*. The *WFO Gatekeeper* will also consult the *TEN* in the case of new or unrecognised names that are provided by *Content* data providers (i.e. names used as accepted names e.g. in Floras or monographs).

### 3. *WFO Taxonomic Backbone* data ingestion process

#### STEP 1: Authorization and Registration of Contributors

Before submitting data to the WFO, a *Data Provider* must be authorized and registered. The process for authorization and registration is provided in the General Guidelines.

#### STEP 2: Name identification

When not working in the BOTALISTA environment, taxonomic backbone *Data Providers (TENs)* should upload a preliminary list of their names using the Name Matching Input File format shown below to the pre-check service offered under <http://www.worldfloraonline.org/contribute>.

The Name Matching Input File can be either an Excel file (XSLX) or a text file with comma, tab or pipe delimited separation. The first row of the Excel or text file must contain the Field names listed in the table below.

Upon receipt at the WFO name matching service, the input file will be checked for the correct file extension (txt, csv, or xlsx) and the presence of the correct fields in the header row.

A Name Matching Response File will be returned using the file format of the submitted Name Matching File, either Excel or text. The returned file will provide the *WFO-IDs* needed to fill the obligatory "taxonID" field in the *Darwin Core Archive* Classification table. The Comments field is used to return the results of field matching and point out possible inconsistencies in your data. In Excel based response files, additional tabs are sometimes used to list particular name issues.

## NAME MATCHING INPUT FILE

Field	Simplified Description
WFO ID	Provide WFO ID if the provider already has one for the name.
localID	The provider's local identifier for the name.
scientificName	Scientific name, with rank abbreviations for trinomials, but not with author citation
scientificNameAuthorship	Author citation of the names following IPNI standard author abbreviations
taxonRank	The rank of the name using a controlled vocabulary (see below)
family	Scientific name of the family in which the name is/was classified (for accepted names / synonyms), generally according to APG 4

## NAME MATCHING RESPONSE FILE

Field	Simplified Description
WFO ID	The WFO ID assigned to this name. Will be empty if no match found.
localID	The provider's identifier for the name
scientificName	Scientific name, with rank abbreviations for trinomials, but not with author citation
scientificNameAuthorship	Author citation of the names following IPNI standard author abbreviations
taxonRank	The rank of the name using a controlled vocabulary (see below)
family	Scientific name of the family in which the name is/was classified (for accepted names / synonyms), generally according to APG 4
Comment	Explanation of matching results and any issues during name matching. Kinds of match are: Match, Near Match, May Match, Not Match or Empty

For names that did not match (this is common), the *Data Provider* should review the response file and make adjustments as necessary. Commonly, the response file may be modified and resubmitted to the *WFO Gatekeeper* in an iterative fashion. Unmatched names that are new names to the *WFO Taxonomic Backbone* discovered during this process will be assigned new *WFO-IDs* and added to the *WFO Taxonomic Backbone* with a preliminary taxonomicStatus of "Unchecked", if their position in the classification (e.g. to which family they belong) can be clarified. This is to avoid delays in the addition of content data to the backbone.

After the completion of Step 2, all names provided should have a *WFO-ID* assigned, but often many names present in the initial taxonomic backbone are not matched and need further resolution.

### STEP 3 - Data upload into the Backbone

*Taxonomic Backbone Data Providers (TENs)* that send in their *DwCA* files should use the following tables and data elements (see "Creating a Darwin Core Archive File" in the General Guidelines for how to do this). Other file formats maybe acceptable after discussions with the *WFO Gatekeeper*. Replacing the backbone segment with the newly uploaded and verified dataset will be effected by the *WFO Gatekeeper*, who may have additional questions arising from the ingestion process.

#### 4. Tables and Data Elements used in the WFO Taxonomic Backbone Dataset

##### The Classification.txt or Taxon.txt table<sup>1</sup>

(**Bold** = required field. The enumeration column refers to the corresponding entry in the meta.xml file. Further definitions of the fields are provided in the Additional Field Details section below.)

	<b>Backbone field<sup>2</sup></b>	<b>Simplified definition</b>
0	<b>taxonID<sup>C</sup></b>	The <i>WFO-ID</i> of the plant name <sup>3</sup>
1	scientificNameID <sup>C</sup>	Nomenclator ID (IPNI, etc.)
2	localID <sup>E</sup>	The name ID in the contributor's database (used to associate WFO-IDs with the local record (not displayed in the portal)
3	<b>scientificName<sup>C</sup></b>	Scientific name, with rank abbreviations for trinomials, <b>but not</b> with author citation. This field can be compiled from the respective name elements.
4	<b>taxonRank<sup>C</sup></b>	The rank of the name. See list of permitted values below.
5	<b>parentNameUsageID<sup>C</sup></b>	taxonID ( <i>WFO-ID</i> ) of name of taxon at next higher rank (accepted names only; see explanation below). This is the preferred way of providing the classification hierarchy, it takes precedence over any classification given in the denormalised fields (tribe etc.) below.
6	<b>scientificNameAuthorship<sup>C</sup></b>	Author citation of the names following IPNI standard author abbreviations
7	<b>family</b>	Scientific name of the family to which the name is assigned, generally according to APG 4
8	subfamily <sup>B</sup>	Scientific name of the subfamily in which the taxon is classified (accepted names only)
9	tribe <sup>B</sup>	Scientific name of the tribe in which the taxon is classified (accepted names only)
10	subtribe <sup>B</sup>	Scientific name of the subtribe in which the taxon is classified (accepted names only)
11	genus <sup>C</sup>	The generic name (for a genus or as part of a species or infraspecies name) w/o authors. <b>Obligatory for names at or below the rank of genus.</b>
12	subgenus <sup>C</sup>	Scientific name of the subgenus in which the taxon is classified (accepted names only)

<sup>1</sup> Please don't let the terminology confuse you: the 'Taxon table' in reality is the 'Name table'; it contains accepted names, synonyms, unchecked or ambiguous names.

<sup>2</sup> <sup>B</sup> eMonocot term, <sup>C</sup> Darwin Core term, <sup>D</sup> Dublin Core term, <sup>E</sup> WFO term

<sup>3</sup> As before: this is in reality a name ID, used to denote all names, those of taxa, synonyms, unchecked or ambiguous names.

	<b>Backbone field<sup>2</sup></b>	<b>Simplified definition</b>
13	specificEpithet <sup>c</sup>	The species epithet (as part of a species or infraspecies name) w/o authors. <b>Obligatory for names at or below the rank of species.</b>
14	infraspecificEpithet <sup>c</sup>	The infraspecific epithet (as part of a species or infraspecies name) w/o authors. <b>Obligatory for names below the rank of species.</b>
15	verbatimTaxonRank <sup>c</sup>	The rank of the name given in a non-standard way (if needed)
16	nomenclaturalStatus <sup>c</sup>	See list of permitted values below (e.g. invalid, see below)
17	namePublishedIn <sup>c</sup>	Abbreviated reference to place of publication of the name (nomenclatural citation) including details such as the page number. Citations should follow community standards, for example IPNI. References for which the year of publication is not evident or is questionable, please consult TL2. Note that these references are not cited in the references.txt table and, consequently, not in the bibliography.
18	taxonomicStatus <sup>c</sup>	See list of permitted values below (e.g. accepted, synonym, etc., see below)
19	acceptedNameUsageID <sup>c</sup>	The taxonID (WFO-ID) of the accepted name. <b>Obligatory for synonyms.</b> Leave blank when not applicable.
20	originalNameUsageID <sup>c</sup>	The taxonID (WFO-ID) of the basionym or replaced synonym of the name. Leave blank when not applicable.
21	nameAccordingToID <sup>c</sup>	The identifier of a publication reference that is followed with regard to the taxonomic status and (in case of accepted names) with regard to the circumscription of the taxon. The corresponding bibliographic citation is shown in a box as “Taxonomic status reference” before the bibliography in the portal. Note that this is optional; in case it is not used, the reference.txt table can be omitted.
22	taxonRemarks <sup>c</sup>	Text displayed in the portal after “Notes” at the top (may include source reference <sup>4</sup> )
23	created <sup>d</sup>	Date the record was created at the provider’s side. (Not displayed in the portal, format: YYYYMMDD or YYYY-MM-DD.)
24	modified <sup>d</sup>	Date the record was last modified at the provider’s side. (Not displayed in the portal, format: YYYYMMDD or YYYY-MM-DD.)
25	references <sup>d</sup>	A URL linking to a web page providing information on the source of the name record (shown as “Source link” in the Portal).
26	exclude	Leave blank if the name is to be shown in the portal. Otherwise, fill in this field with the reason why the name should not be displayed (plus an attribution for that decision, if deemed necessary).

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<sup>4</sup> Usage of the nameAccordingToID pointing to an entry in the References.txt table is preferred when a status (or circumscription) reference is given.

Example of a Classification.txt table (for a taxon name) taken from the contribution of the family *Nepenthaceae*

	<b>Backbone field</b>	<b>Example</b>
0	<b>taxonID</b>	wfo-0001302504
1	scientificNameID	urn:lsid:ipni.org:names:77128915-1
2	localID	40ce0ce0-cc64-466e-97dd-69d5c22e7376
3	<b>scientificName</b>	Nepenthes abalata
4	<b>taxonRank</b>	Species
5	<b>parentNameUsageID</b>	wfo-4000025900 <sup>5</sup>
6	<b>scientificNameAuthorship</b>	Jebb & Cheek
7	<b>family</b>	Nepenthaceae
8	subfamily	
9	tribe	
10	subtribe	
11	genus	Nepenthes
12	subgenus	
13	specificEpithet	alata
14	infraspecificEpithet	
15	verbatimTaxonRank	
16	nomenclaturalStatus	valid
17	namePublishedIn	Fl. Filip., ed. 1: 805. 1837
18	<b>taxonomicStatus</b>	accepted
19	acceptedNameUsageID	
20	originalNameUsageID	
21	nameAccordingToID	16c55dba-7ba9-4e64-87bf-1ea8d4ad67cc
22	taxonRemarks	A species belonging to the <i>Nepenthes alata</i> Group.
23	created	2017-03-06
24	modified	2017-11-13

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<sup>5</sup> This is the wfo-ID for the genus *Nepenthes*.

	<b>Backbone field</b>	<b>Example</b>
25	references	<a href="http://caryophyllales.org/nepenthaceae/cdm_dataportal/taxon/fb987766-3ea5-45e0-a606-ca9b9d1253cf">http://caryophyllales.org/nepenthaceae/cdm_dataportal/taxon/fb987766-3ea5-45e0-a606-ca9b9d1253cf</a>
26	exclude	

**Example of a Classification.txt table (for a synonym with basionym) taken from the contribution of the family *Nepenthaceae***

	<b>Backbone field</b>	<b>Examples</b>
<b>0</b>	<b>taxonID</b>	wfo-0001302556
1	scientificNameID	
2	localID	c7e42c0d-d65d-404b-8649-476dd67ec1f6
<b>3</b>	<b>scientificName</b>	Nepenthes gracilis var. teysmanniana
<b>4</b>	<b>taxonRank</b>	variety
5	parentNameUsageID	
<b>6</b>	<b>scientificNameAuthorship</b>	(Miq.) Beck.
<b>7</b>	<b>family</b>	Nepenthaceae
8	subfamily	
9	tribe	
10	subtribe	
11	genus	Nepenthes
12	subgenus	
13	specificEpithet	gracilis
14	infraspecificEpithet	teysmanniana
15	verbatimTaxonRank	
16	nomenclaturalStatus	valid
17	namePublishedIn	Wiener Ill. Gart.-Zeitung 20: 190. 1895
<b>18</b>	<b>taxonomicStatus</b>	synonym

	Backbone field	Examples
19	acceptedNameUsageID	wfo-0001250151 <sup>6</sup>
20	originalNameUsageID	wfo-0000381975 <sup>7</sup>
21	nameAccordingToID	
22	taxonRemarks	
23	created	2017-02-19
24	modified	2017-04-01
25	references	<a href="http://caryophyllales.org/nepenthaceae/cdm_dataportal/taxon/c849a63b-e2be-473c-9a81-ec1e21da89d0/synonymy?highlite=3bbda0d1-6786-4e15-9667-40953239e10e&amp;acceptedFor=3bbda0d1-6786-4e15-9667-40953239e10e#3bbda0d1-6786-4e15-9667-40953239e10e">http://caryophyllales.org/nepenthaceae/cdm_dataportal/taxon/c849a63b-e2be-473c-9a81-ec1e21da89d0/synonymy?highlite=3bbda0d1-6786-4e15-9667-40953239e10e&amp;acceptedFor=3bbda0d1-6786-4e15-9667-40953239e10e#3bbda0d1-6786-4e15-9667-40953239e10e</a>
26	exclude	

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<sup>6</sup> This points to *Nepenthes gracilis* Korth. as the accepted (correct) name for this synonym.

<sup>7</sup> This points to *Nepenthes teysmanniana* Miq., the basionym for this synonym.

## The References.txt table

In the context of the backbone contributions, the References.txt table is used for bibliographic references that have been referred to by the “nameAccordingToID” in the classification.txt table. If that field is not used, the entire reference table can be omitted.

Backbone field <sup>8</sup>	Simplified Description
identifier <sup>D</sup>	An identifier that is unique to the datasource and that can be used as a reference in other tables. This is used in the “nameAccordingToID” fields in the Classification.txt table.
bibliographicCitation <sup>D</sup>	The bibliographic citation (shown as in a box as “Taxonomic status reference” before the bibliography in the portal).
URI <sup>B</sup>	A URI to a related reference, often a webpage showing richer information

Example of a References.txt table (for the above taxon example) – name according to (cited in the Portal in the box “Taxonomic status reference”)

Backbone field	Examples
identifier	16c55dba-7ba9-4e64-87bf-1ea8d4ad67cc
bibliographicCitation	Cheek, M.R. & Jebb, M.H.P., Identification and typification of <i>Nepenthes blancoi</i> , with <i>N. abalata</i> sp. nov. from the western Visayas, Philippines in <i>Nordic Journal of Botany</i> 31(2): 151-156. 2013
URI	<a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1756-1051.2012.00012.x/full">http://onlinelibrary.wiley.com/doi/10.1111/j.1756-1051.2012.00012.x/full</a>

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<sup>8</sup> C Darwin Core term, <sup>D</sup> Dublin Core term

## 5. Additional WFO Field Details

### Further definitions and guidance on data elements.

For Darwin Core (DwC) terms, the definitions here given focus on their use in the botanical context of WFO. They thus represent special cases of the general definitions given in the 'DwC Terms' – <http://rs.tdwg.org/dwc/terms/index.htm>.

#### **nomenclaturalStatus** – List of Permitted Values

The status related to the original publication of the name and its conformance to the rules of nomenclature. In WFO, only one the following **case-sensitive terms** may be used:

nomenclaturalStatus	Explanation
valid [or] Valid	Names that are validly published (status not displayed)
invalidum [or] Invalid [or] invalid	Names that are not validly published (displayed as ' <i>nom. inval.</i> ' after the name)
illegitimum [or] illegitimate [or] Illegitimate	A validly published name which is a later homonym, superfluous, or rejected (adds ' <i>nom. illeg.</i> ' after the name)
orthografia [or] Orthographic_Variant	An alternative or corrected spelling for the name (displayed as ' <i>orth. var.</i> ' after the name)
conservandum [or] Conserved	A validly published name which is listed in the ICN appendices of conserved names (displayed as ' <i>nom. cons.</i> ' after the name)
rejiciendum [or] Rejected	A validly published name listed as rejected by ICN – includes <i>utique rejiciendum</i> and <i>opera oppressa</i> (displayed as ' <i>nom. rej.</i> ' after the name)
dubium [or] Doubtful	Unknown or doubtful names (displayed as ' <i>nom. dub.</i> ' in the portal)

Further details, such as the reasoning behind invalid or illegitimate status (*nomen nudum*, etc.), should be given on the contributor's own website and/or preferably submitted to international nomenclators such as IPNI.

#### **parentNameUsageID**

The WFO-ID of the direct, most proximate higher-rank parent taxon (in the backbone Data Provider's classification) of the name cited as the *scientificName* in the present record. ). This is the preferred way of providing the classification hierarchy, it takes precedence over any classification given in the denormalised fields (tribe etc.).

#### **scientificName**

The core scientific name NOT including the author citation (authorship) or other publication data.<sup>9</sup> This element can contain either:

- a monomial (for names of genera and higher ranks), or
- a binomial (for species – genus name + species epithet; for infrageneric subdivisions with the standardised rank abbreviation - see below - intercalated), or
- a trinomial (species binomial name + standardised infraspecific rank abbreviation – see below - + infraspecific epithet.).

#### **scientificNameID**

The GUID of the *scientificName* in an external nomenclator (e.g. IPNI GUID [http://www.ipni.org/link\\_to\\_ipni.html](http://www.ipni.org/link_to_ipni.html)).

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<sup>9</sup> The DwC definition is slightly wider: "The full scientific name, with authorship and date information if known."

## taxonID

This is the WFO-ID<sup>10</sup>, a globally unique ID issued by the World Flora Online for all plant names regardless of status. It is the permanent identifier for the name in the *WFO Taxonomic Backbone* and all data contributed to WFO must refer to a taxonID. After the name matching process (see above under STEP 2 – Name identification) the WFO taxonID should be supplied.

## taxonomicStatus – List of Permitted Values

In WFO, one the following **case-sensitive terms** may be specified:

taxonomicStatus	Explanation
Accepted	Accepted name
Synonym	Synonym - unspecified, but including orthographic variants. N.B.: misapplied names and <i>pro parte</i> relationships are NOT included.
heterotypicSynonym	Heterotypic synonym (will only be displayed in taxon search results as heterotypic synonym, on the WFO portal taxon page simply as a 'synonym')
homotypicSynonym	Homotypic synonym, only of the accepted name (will only be displayed in taxon search results as homotypic synonym, on the WFO portal taxon page simply as a 'synonym'.) Basionym relationships are not included.
unchecked	A name (with a WFO-ID) that has not been checked by the contributing TEN (displayed as “This name is unchecked” in the WFO portal).
ambiguous	A name (with a WFO-ID) that has been checked by the contributing TEN but could not be resolved as accepted or synonym (displayed as “This is an ambiguous name” in the WFO portal).

## taxonRank – List of Permitted Values

The rank of the scientificName. Only the following terms are allowed for backbone contributions:

In taxonRank field	In name string (in scientificName field)
Family [or] FAMILY [or] family	--
SubFamily [or] Subfamily [or] SUBFAMILY [or] subfamily	--
Tribe [or] TRIBE [or] tribe	--
SubTribe [or] Subtribe [or] SUBTRIBE [or] subtribe	--
Genus [or] GENUS [or] genus	--
SubGenus [or] Subgenus [or] SUBGENUS [or] subgenus	subg.
Section [or] SECTION [or] section	sect.
Species [or] SPECIES [or] species	--
SubSpecies [or] Subspecies [or] SUBSPECIES [or] subspecies	subsp.
Variety [or] VARIETY [or] variety	var.
SubVariety [or] Subvariety [or] SUBVARIETY [or] subvariety	subvar.
Form [or] FORM [or] form	f.

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<sup>10</sup> WFO-IDs have been generated for all plant names used in the *WFO Taxonomic Backbone*. WFO will maintain and update a 'master list' of WFO-IDs, scientific names and related IDs from recognised nomenclators (e.g. IPNI).

In taxonRank field	In name string (in scientificName field)
SubForm [or] Subform [or] SUBFORM [or] subform	subf.
InfraspecificName [or] INFRASPECIFICNAME [or] infraspecificName <sup>11</sup>	

**taxonRemarks**

Comments or notes about the name (independent of taxonomic status) and displayed under the name, e.g. indicating taxon circumscription (if not given using the nameAccordingToID), compiler, etc. Comments on descriptive and distributional data should not be included here.

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<sup>11</sup> The value "Infraspecific name" is for unranked infraspecific names only.

## 6. Annex: DwCA meta.xml FILE

Complete DwCA meta.xml file for Taxonomic Backbone Data conforming with the WFO guidelines

Note that the references.txt table is not mentioned here, because it is not a proper DwCA extension.

```
<?xml version="1.0"?>
<archive xmlns="http://rs.tdwg.org/dwc/text/">
  <core encoding="UTF-8" linesTerminatedBy="\n" fieldsTerminatedBy="," fieldsEnclosedBy="&quot;" ignoreHeaderLines="0"
  rowType="http://rs.tdwg.org/dwc/terms/Taxon">
    <files>
      <location>classification.txt</location>
    </files>
    <id index="0" />
    <field index="0" term="http://rs.tdwg.org/dwc/terms/taxonID"/>
    <field index="1" term="http://rs.tdwg.org/dwc/terms/scientificNameID"/>
    <field index="2" term="http://rs.worldfloraonline/terms/localID"/>
    <field index="3" term="http://rs.tdwg.org/dwc/terms/scientificName"/>
    <field index="4" term="http://rs.tdwg.org/dwc/terms/taxonRank"/>
    <field index="5" term="http://rs.tdwg.org/dwc/terms/parentNameUsageID"/>
    <field index="6" term="http://rs.tdwg.org/dwc/terms/scientificNameAuthorship"/>
    <field index="7" term="http://rs.tdwg.org/dwc/terms/family"/>
    <field index="8" term="http://rs.emonocots.org/terms/subfamily"/>
    <field index="9" term="http://rs.emonocots.org/terms/tribe"/>
    <field index="10" term="http://rs.emonocots.org/terms/subtribe"/>
    <field index="11" term="http://rs.tdwg.org/dwc/terms/genus"/>
    <field index="12" term="http://rs.tdwg.org/dwc/terms/subgenus"/>
    <field index="13" term="http://rs.tdwg.org/dwc/terms/specificEpithet"/>
    <field index="14" term="http://rs.tdwg.org/dwc/terms/infraspecificEpithet"/>
    <field index="15" term="http://rs.tdwg.org/dwc/terms/verbatimTaxonRank"/>
    <field index="16" term="http://rs.tdwg.org/dwc/terms/nomenclaturalStatus"/>
    <field index="17" term="http://rs.tdwg.org/dwc/terms/namePublishedIn"/>
    <field index="18" term="http://rs.tdwg.org/dwc/terms/taxonomicStatus"/>
    <field index="19" term="http://rs.tdwg.org/dwc/terms/acceptedNameUsageID"/>
    <field index="20" term="http://rs.tdwg.org/dwc/terms/originalNameUsageID"/>
    <field index="21" term="http://rs.tdwg.org/dwc/terms/nameAccordingToID"/>
    <field index="22" term="http://rs.tdwg.org/dwc/terms/taxonRemarks"/>
    <field index="23" term="http://purl.org/dc/terms/created"/>
    <field index="24" term="http://purl.org/dc/terms/modified"/>
    <field index="25" term="http://purl.org/dc/terms/references" default="http://www.worldfloraonline.org" />
    <field index="26" term="http://rs.worldfloraonline/terms/excluded"/>
    <field term="http://rs.tdwg.org/dwc/terms/kingdom" default="Plantae"/>
    <field term="http://rs.tdwg.org/dwc/terms/nomenclaturalCode" default="ICNAFP" />
    <field term="http://purl.org/dc/terms/rightsHolder" default="World Flora Online Consortium"/>
    <field term="http://purl.org/dc/terms/license" default="https://creativecommons.org/publicdomain/zero/1.0"/>
    <field term="http://purl.org/dc/terms/rights" default="CC0 1.0 Universal (CC0 1.0)." />
  </core>
</archive>
```