Guide to BGCI's PlantSearch

Taxonomic backbone update

BGCI's PlantSearch is a globally unique tool for sharing and accessing information about living collections maintained by botanic gardens and similar organisations. PlantSearch connects collections' information directly to conservationists, educators, horticulturists, researchers, policy makers and many others who are working to save and understand plant diversity.

Matching to external name reference sources in PlantSearch

To standardise the plant names across all collections, on upload PlantSearch matches the garden's taxon name with external reference sources on published names based on static copies:

- World Flora Online (WFO)
- the World Checklist of Vascular Plants (WCVP)
- and/or the International Plant Names Index (IPNI)

On upload the following checks are done:

- **Name Check:** the name and author are checked and if there are matches PlantSearch will provide a link to the reference and the taxon will be listed in PlantSearch for that garden.
- When there is more than one match against one of the three reference sources, PlantSearch will choose WFO as the top copy, then WCVP and last IPNI.
- **Taxonomic Status:** the information from WFO indicates if a taxon listed in PlantSearch is an accepted name, a synonym, or unplaced. Changes to name status assignments in WFO are updated in PlantSearch every six months after a WFO update. A report in PlantSearch is generated for the user's data in PlantSearch with any given change. If the taxon is not matched against the latest WFO taxonomic list, it will try to match to WCVP and assign the status from this reference source. IPNI match does not provide a taxonomic status.
- **Family** information is based on information from WFO. For examples on how the matching works please see the end of the document.

Please view this short video LINK.

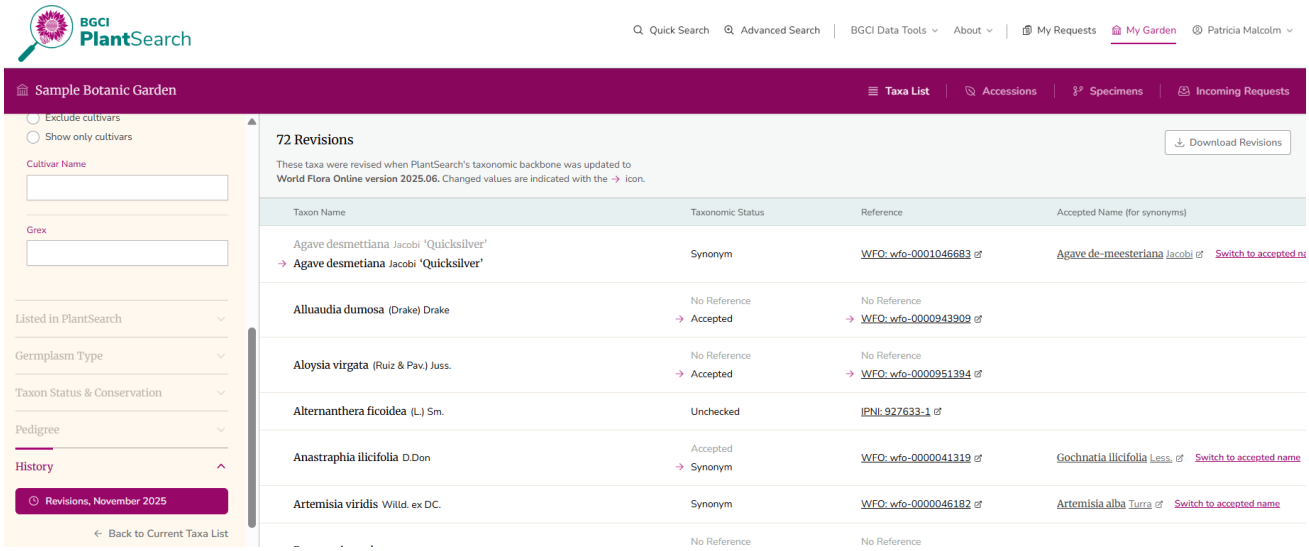
Revision changes: History area in PlantSearch

Every six months BGCI will update the WFO name and taxonomic information in PlantSearch and generate a Revision of the changes made to the garden's data in PlantSearch. NOTE: Changes to taxon name and status relate to changes in WFO data, i.e. when a taxon is linked to a WFO reference on upload, and if name and taxonomic status of this taxon in WFO subsequently changes, it will be changed automatically in PlantSearch. These changes will be available to view under the History > Revision area of My Garden in PlantSearch.

To view the History of the taxon changes in PlantSearch navigate to My Garden (top menu), and then on the left menu to History.

In here it will list all the Revisions. Click on the latest date to view the changes made to the data of the garden in PlantSearch. In this example below of the data listed in Sample Botanic Garden, there were 72 taxa changes made when matched to the latest WFO update 2025.06.

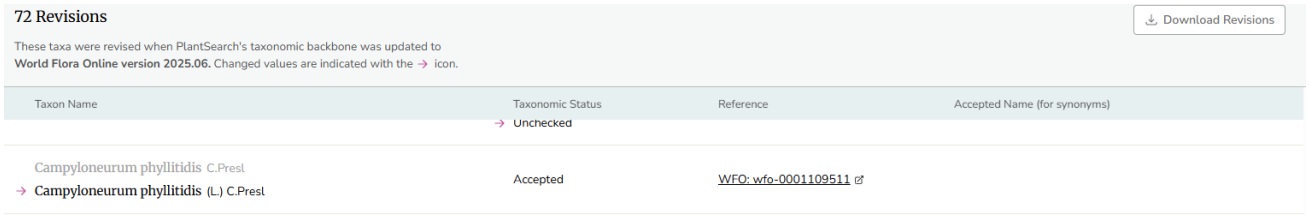
The full 72 reviews can be also downloaded as a csv.



Type of changes

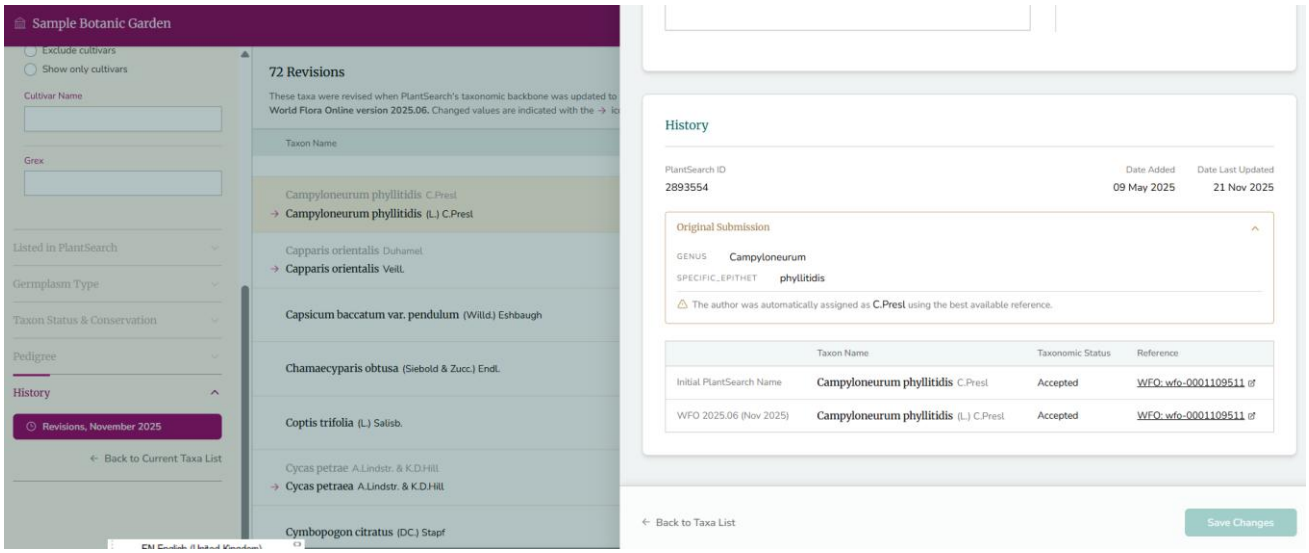
All changes to the garden's data in PlantSearch will be indicated with an arrow.

Changes to the Taxon Name



In the example *Campyloneurum phyllitidis* C.Presl was the listing in PlantSearch (now in grey) but was changed to *Campyloneurum phyllitidis* (L.) C.Presl in the latest revision of WFO. The taxon status remains Accepted and the Reference link is displayed in the third column.

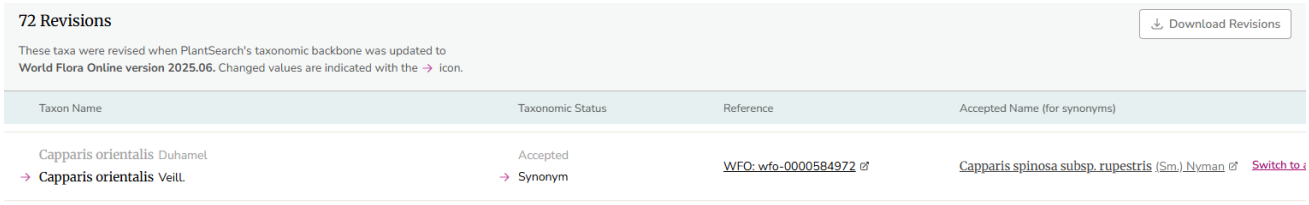
By clicking on the taxon view all revisions on that name can be seen.



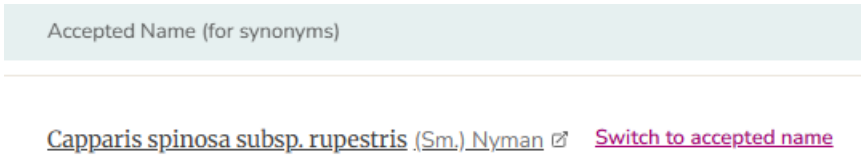
In this particular case the taxon was first uploaded by the garden on 9 May 2025, the genus name was uploaded in a separate column to the species epithet. No author information was provided on upload, so PlantSearch found a match against the reference sources, in this case WFO: wfo-0001109511

The table the shows the revisions that that name had according to the different WFO revisions.

Changes to the Taxon Name and Taxonomic Status



In this example *Capparis orientalis* Duhamel was first uploaded and matched against WFO reference wfo-0000584972. In the WFO revision 2025.06 this name changed to *Capparis orientalis* Veil.; and this taxon status was changed to Synonym. The record for the garden in PlantSearch remains *Capparis orientalis* Veil. The accepted name for that taxon according to WFO is *Capparis spinosa* subsp. *rupestris* (Sm.) Nyman, WFO taxon id: wfo-0000585183.



The user may click on 'Switch to accepted name'. This will change the taxon name and WFO id reference for the garden's data on PlantSearch, and it will now display in the revision as, demonstrating that this taxon name was changed since the revision.

Taxon Name	Taxonomic Status	Reference	Accepted Name (for synonyms)
Capparis orientalis Duhamel → Capparis orientalis Veill. ⚠ Taxon has been updated since this revision Click to view current version	Accepted → Synonym	WFO: wfo-0000584972	Capparis spinosa subsp. rupestris (Sm.) Nyman

Changes in Taxonomic Status

Taxon Name	Taxonomic Status	Reference	Accepted Name (for synonyms)
Mitrocereus militaris (Audot) Bravo	Synonym → Accepted	WFO: wfo-0000375327	

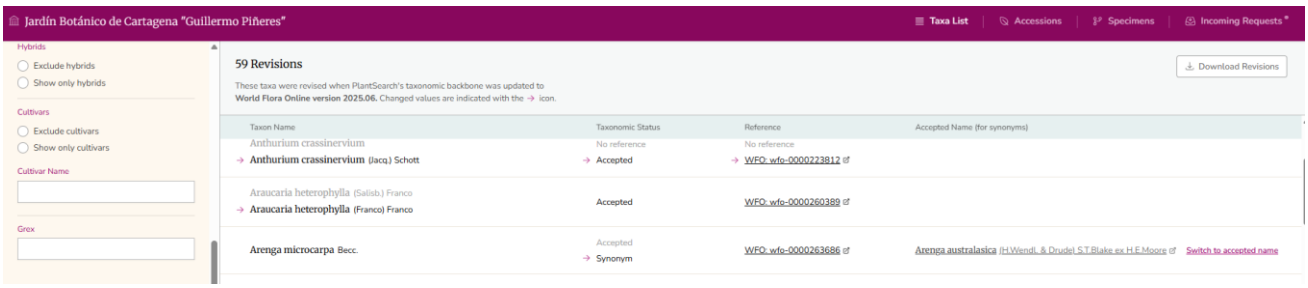
In this example, the latest WFO update changed the taxonomic status of *Mitrocereus militaris* (Audot) Bravo from Synonym to Accepted. The rest of the information remains the same.

Taxon Name	Taxonomic Status	Reference	Accepted Name (for synonyms)
Montanoa atriplicifolia (Pers.) Sch.Bip. ex Klatt	No Reference → Accepted	No Reference → WFO: wfo-0000030155	

In this example XXX

Download taxon changes revision

The report can be downloaded at any time by going to the History>Revisions and then clicking on the top right download



The data can be downloaded as csv or Excel. Each field will have a previous, new and a column with yes if it changed (below highlighted in bold).

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	**Taxon Name (previous)**	**Taxon Name (new)**	**Taxon Name Changed**	**Author (previous)**	**Author (new)**	**Author Changed**	**Taxonomic Status (previous)**	**Taxonomic Status (new)**	**Taxonomic Status Changed**	**Reference (previous)**	**Reference URL (previous)**	**Reference (new)**	**Reference URL (new)**	**Reference Changed**	**Accepted Name (for synonyms)**	**Accepted Name Reference**	**Accepted Name URL**
2	Acianthera lanceana	Acianthera lanceana		(G.Lodd.) Pridge	(G.Lodd. ex Linc	yes	Synonym	Synonym		WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.o	Acianthera cili	WFO: wfo-0000	https://list.worl
3	Albizia niopoides	Albizia niopoides		(Spruce ex Benth	(Spruce ex Benth.) Burkart		Accepted	Synonym	yes	WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.o	Pseudalbizzia	WFO: wfo-1000	https://list.worl
4	Albizia pistaciifolia	Albizia pistaciifolia		(Willd.) Barneby	(Willd.) Barneby & J.W.Grimes		Accepted	Synonym	yes	WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.o	Pseudalbizzia	WFO: wfo-1000	https://list.worl
5	Anthurium clavigerum	Anthurium clavigerum		Poepp. & Endl.	Poepp.	yes	Accepted	Accepted		WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.org/wfo-0000223230			
6	Anthurium crassinervium	Anthurium crassinervium			(Jacq.) Schott	yes	No reference	Accepted	yes			WFO: wfo-0000	https://list.wor	yes			
7	Araucaria heterophylla	Araucaria heterophylla		(Salisb.) Franco	(Franco) Franco	yes	Accepted	Accepted		WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.org/wfo-0000260389			
8	Arenga microcarpa	Arenga microcarpa		Becc.	Becc.		Accepted	Synonym	yes	WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.o	Arenga austral	WFO: wfo-0000	https://list.worl
9	Broughtonia sanguinea	Broughtonia sanguinea		(Sw.) R.Br. in W.T	(Sw.) R.Br.	yes	Accepted	Accepted		WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.org/wfo-0000435208			
10	Bulbophyllum flabellum-	Bulbophyllum flabellum-veneris		(J.Koenig) Aver.	(J.Koenig) Aver.		Accepted	Synonym	yes	WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.o	Bulbophyllum	WFO: wfo-0000	https://list.worl
11	Calathea allouia	Calathea allouia		(Aubl.) Lindl.	(Aubl.) Lindl.		Unplaced	Synonym	yes	WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.o	Goeppertia all	WFO: wfo-0001	https://list.worl
12	Calycanthus chinensis	Calycanthus chinensis		(W.C.Cheng & S.Y	(W.C.Cheng & S.Y.Chang) W.C.C		Unplaced	Accepted	yes	WFO: wfo-1200	https://list.wor	WFO: wfo-1200	https://list.worldfloraonline.org/wfo-1200010374			
13	Chiococca alba	Chiococca alba			(L.) Hitchc.	yes	No reference	Accepted	yes			WFO: wfo-0000	https://list.wor	yes			
14	Christella dentata	Christella dentata		(Forssk.) Browne	(Forssk.) Brownsey & Jermy		Synonym	Accepted	yes	WFO: wfo-0001	https://list.wor	WFO: wfo-0001	https://list.worldfloraonline.org/wfo-0001107250			
15	Citrus limon	Citrus limon			(L.) Osbeck	yes	No reference	Accepted	yes			WFO: wfo-0001	https://list.wor	yes			
16	Citrus reticulata	Citrus reticulata		Blanco	Blanco		Synonym	Accepted	yes	WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.org/wfo-0000608241			
17	Clavija latifolia	Clavija latifolia		(Willd. ex Roem.	(Willd.) K.Koch	yes	Accepted	Accepted		WFO: wfo-0000	https://list.wor	WFO: wfo-0000	https://list.worldfloraonline.org/wfo-0000608797			
18	Codiaeum variegatum	Codiaeum variegatum			(L.) Rumph. ex A	yes	No reference	Accepted	yes			WCVP: 85073-3	https://powo.s	yes			

Taxon Name (previous): name listed in PlantSearch that was uploaded by the garden. **Taxon Name (new):** denotes any changes in the binomial for that WFO reference. These changes are very rare. **Taxon Name Changed:** will denote 'yes' if there has been any changes.

Author (previous): author name displayed in PlantSearch that was selected on upload onto PlantSearch (either through Auto-match or manually selected by garden staff to match to a reference source). **Author (new):** denotes any changes in the author information for that WFO reference. **Author Changed:** will denote 'yes' if there have been any changes.

Taxonomic Status (previous): taxonomic status for that name previously shown in PlantSearch based on WFO or WCVP. From December 2025 BGCI has chosen WFO as the reference for taxonomy. **Taxonomic Status (new):** denotes any changes in taxonomic status for that WFO reference. **Taxonomic Status Changed:** will denote 'yes' if there have been any changes.

Reference (previous): ID of reference source. **Reference URL (previous):** reference link attached to that name. **Reference (new):** changes to any ID reference source since the revision. **Reference URL (new):** new link provided for that reference. **Reference Changed:** will denote 'yes' if there have been any changes.

Accepted Name (for synonyms): provides the accepted name listed in WFO for that WFO reference if the name status is a synonym according to WFO latest update. **Accepted Name Reference:** provides the ID in WFO for that accepted name. **Accepted Name URL:** provides the URL for that accepted name.

Synonyms now listed in search results

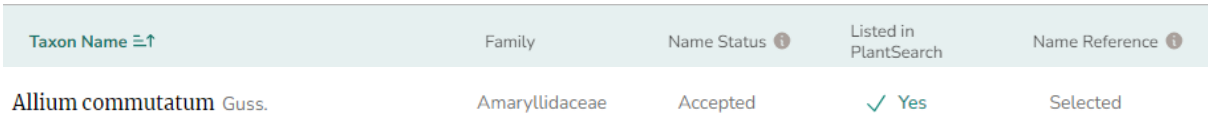
Following the taxonomic decisions made by WFO's Taxonomic Expert Networks (TENs), searches in PlantSearch will now return all synonym names associated with an accepted name. As a PlantSearch user, you will also be able to see how many gardens hold a particular taxon—whether they list it under the accepted name or a synonym. If you are linked to a garden listed in GardenSearch, you will additionally be able to view which gardens hold each taxon and under which name.

Taxa listed in PlantSearch – Examples

Taxa that are successfully added to PlantSearch during the upload process include:

- **Exact name match**: the taxon epithets and author(s) provided match exactly to the name reference data sources used in PlantSearch, or there is only one name reference to select for that taxon.

Example: *Allium commutatum* Guss. was successfully added to PlantSearch and the name status and reference were assigned during the upload process. This means the name matches completely to the epithets and author(s) provided, or no author(s) were provided and there is only one name status and reference option for that taxon.



Taxon Name	Family	Name Status	Listed in PlantSearch	Name Reference
Allium commutatum Guss.	Amaryllidaceae	Accepted	✓ Yes	Selected

- **Auto-assigned name match**: the taxon epithet and author(s) were assigned with confidence based on consensus matching, or there was only one name reference option for that taxon.

Example: *Acer tataricum* L. was successfully added to PlantSearch and the name status and reference(s) were auto-assigned during the upload process. This is most commonly because author(s) were not provided in the upload file and there is only one name status and reference option for that taxon.

Taxon Name	Family	Name Status	Listed in PlantSearch	Name Reference
Acer tataricum L.	Sapindaceae	Accepted	✓ Yes	Selected Author auto-assigned

- **Hybrid name**: The name status is left blank and name reference is 'Unverified'. Hybrid taxa do not require matching during the upload process, but are matched when possible in PlantSearch.

Example: *Spiraea* x *bumalda* was successfully added to PlantSearch but the name status is blank and the name reference is listed as Unverified because hybrid taxa do not require matches but are matched when possible in PlantSearch.

Taxon Name	Family	Name Status	Listed in PlantSearch	Name Reference
Spiraea × bumalda	Rosaceae		✓ Yes	Unverified

- **Cultivar name**: The name status and name reference could be matched or unmatched based on the epithets provided. Cultivar epithets are excluded from matching, and do not require matches to be listed in PlantSearch.

Example: *Arctostaphulos auriculata* Eastw. 'Knobcone Point' was successfully added to PlantSearch, and the binomial was checked with the author auto-assigned, but the cultivar portion of the name was not checked against references.

Taxon Name	Family	Name Status	Listed in PlantSearch	Name Reference
Arctostaphylos auriculata Eastw. 'Knobcone Point'	Ericaceae	Accepted	✓ Yes	Selected Author auto-assigned

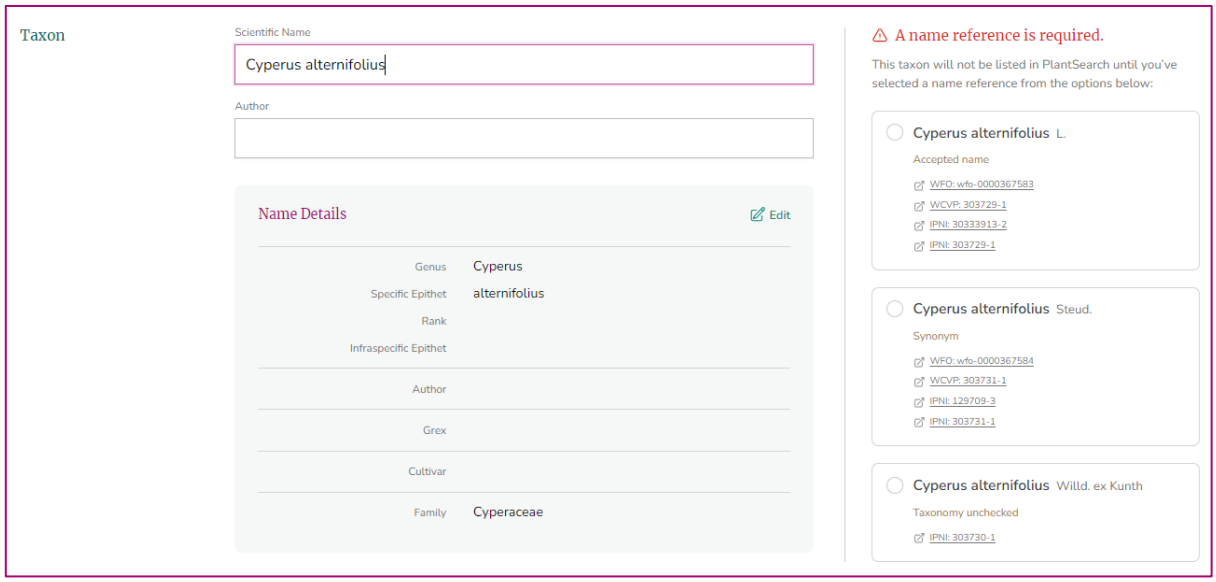
Taxa not listed in PlantSearch – Examples

Taxa that are not listed in PlantSearch during the upload process include:

- **Multiple matched name references**: the upload process matched a taxon with multiple name references that are deemed distinct, and a single reference needs to be chosen. Click on a taxon record to review and select which name reference matches your taxon. Click 'Save Taxon' and it will be listed in PlantSearch on behalf of your garden.

Example: *Cyperrus alternifolius* matched with three possible name references so is NOT listed in PlantSearch until a single name reference is chosen.

Taxon Name	Family	Name Status	Listed in PlantSearch	Name Reference
Cyperus alternifolius	Cyperaceae		⚠ No	3 possible



No matched name reference: the upload process did not find a name reference match for the taxon.

Example: *Fritillaria michailovckyi* is NOT listed in PlantSearch and there are no possible name references that the system is providing you with. This can be due to an upload error such as misaligned data (as in this case), the taxon name is new or not yet recorded by the name references used in PlantSearch, or the taxon name is erroneous. Click on the taxon and try to fix the name provided. Make sure the epithets are in the appropriate fields, and double-check the taxon name in your plant records.

Acknowledgements

Data in BGCI's PlantSearch is made possible by valuable data contributions by thousands of botanic garden staff around the world. BGCI is also grateful to Keith Damiani for designing and building the PlantSearch system and web app, and to many discussions with the WFO and WCVP team and several garden staff who helped BGCI test this new addition to the tool.