

The Merging Software – Additional Features Required

1. Multiple Name Type References for Accepted and Provisional Names

Where identical names occur in the target and incoming databases, with the same Name Type, the incoming reference(s) should be added.

e.g.

Target Database	Incoming Database	Merged Database
Vicia faba L. Name Type: A Name Type Ref: Fl. Europaea	Vicia faba L. Name Type: A Name Type Ref: Flora Iberica Flore de l’Afrique du Nord	Vicia faba L. Name Type: A Name Type Ref: Fl. Europaea Flora Iberica Flore de l’Afrique du Nord
Abies borisii-regis Mattf. Name Type: P Name Type Ref: Fl. Europaea	Abies borisii-regis Mattf. Name Type: P Name Type Ref: MedChecklist	Abies borisii-regis Mattf. Name Type: P Name Type Ref: Fl. Europaea MedChecklist

2. Name Acceptance References where conflicts occur due to differences in circumscription

Where identical names, with the same Name Type, occur in the target and incoming databases, the name type reference(s) from the incoming database should be added, regardless of circumscription.

e.g.

Target Database	Incoming Database	Merged Database
Soliva sessilis Ruiz & Pav. Name Type: A Name Type Ref: Fl. Europaea	Soliva sessilis Ruiz & Pav. Name Type: A Name Type Ref: Fl. Macaronesia Synonym List: Soliva pterosperma (Juss.) Less.	Soliva sessilis Ruiz & Pav. Name Type: A Name Type Ref: Fl. Europaea Fl. Macaronesia
Soliva pterosperma (Juss.) Less. Name Type: A Name Type Ref: Fl. Europaea	Soliva pterosperma (Juss.) Less. Name Type: S Name Type Ref: Fl. Macaronesia Synonym Of: Soliva sessilis Ruiz & Pav.	Soliva pterosperma (Juss.) Less. Name Type: A Name Type Ref: Fl. Europaea

So in the above example, *Soliva sessilis* has different circumscriptions in Fl. Europaea and Fl. Macaronesia. Nevertheless, because *Soliva sessilis* is treated as an accepted name in both treatments, both references should be present in the Name Type Ref field in the merged database.

3. Name Type References for Synonyms

When an identical name is a synonym of the same accepted name in both databases, the incoming Name Type Reference should be added.

e.g.

Target Database	Incoming Database	Merged Database
Gentiana germanica Willd. Name Type: A Name Type Ref: Fl. Europaea Synonym List: Gentiana rhaetica A.Kern & Jos.Kern	Gentiana germanica Willd. Name Type: A Name Type Ref: MedChecklist Synonym List: Gentiana rhaetica A.Kern & Jos.Kern	Gentiana germanica Willd. Name Type: A Name Type Ref: Fl. Europaea MedChecklist Synonym List: Gentiana rhaetica A.Kern & Jos.Kern
Gentiana rhaetica A.Kern & Jos.Kern Name Type: S Name Type Ref: Fl. Europaea Synonym Of: Gentiana germanica Willd.	Gentiana rhaetica A.Kern & Jos.Kern Name Type: S Name Type Ref: MedChecklist Synonym Of: Gentiana germanica Willd.	Gentiana rhaetica A.Kern & Jos.Kern Name Type: S Name Type Ref: Fl. Europaea MedChecklist Synonym Of: Gentiana germanica Willd.

The Name Type Ref. should not be added if the synonym is treated as a synonym of a different accepted name to that in the target database (see point 5 below).

4. Associated Data

During test merges many occasions have arisen where conflicts have arisen because the Type Citation for identical names in the incoming and target databases have differed. Two possible situations can occur and the merging software must allow the operator to deal with these conflicts in different ways:

- Gard. Dict., abr. ed. 4 (1754) vs. Gard. Dict. abr. ed. 4 (1754) where the difference is a comma. This should not be recorded as a conflict.
- Arbor. Fruticet. Brit. 4: 2325 (1838) and Gard. Mag. & Reg. Rural Domest. Improv. 14: 81 (1838). This should be recorded as a conflict

Conflicts that occur between other associated data such as basionyms and parent taxa should also be recorded if possible.

Many of these conflicts can be checked by someone with access to a good library, and do not have to be checked by someone with taxonomic knowledge of the families involved (the Checklist Reviewers and Revisers). It is therefore desirable that the conflicts caused by conflicting associated data can be easily separated from those caused by conflicts in name status, which will only go to the Checklist Reviewers and Revisers. Is this possible?

5. Conflicts caused by identical names being recorded as synonyms of two different accepted names in the target and incoming databases

The inclusion of the feature requested below depends on three questions:

- Is it possible to program such a function?
- If so how long will it take?
- If it takes longer than a week shall we do without it?

Richard, please can you let us know how long you think it will take?

Conflicts are not recorded between identical names that are treated as synonyms of different accepted names in different sources.

This table represents the current situation with the merge software:

Target Database	Incoming Database	Merged Database
Citrullus lanatus (Thunb.) Mansf. Name Type: A Name Type Ref: Fl. Europaea Synonym List: Citrullus vulgaris Schrad.	Citrullus lanatus (Thunb.) Matsum & Nakai Name Type: A Name Type Ref: MedChecklist Synonym List: Citrullus vulgaris Schrad.	Citrullus lanatus (Thunb.) Mansf. Name Type: A Name Type Ref: Fl. Europaea Synonym List: Citrullus vulgaris Schrad.
Citrullus vulgaris Schrad. Name Type: S Name Type Ref: Fl. Europaea Synonym Of: Citrullus lanatus (Thunb.) Mansf.	Citrullus vulgaris Schrad. Name Type: S Name Type Ref: MedChecklist Synonym Of: Citrullus lanatus (Thunb.) Matsum & Nakai	Citrullus vulgaris Schrad. Name Type: S Name Type Ref: Fl. Europaea Synonym Of: Citrullus lanatus (Thunb.) Mansf. Citrullus lanatus (Thunb.) Matsum & Nakai Name Type: A Name Type Ref: MedChecklist

It is correct that the Name Type Ref. for MedChecklist should not be added to Citrullus vulgaris Schrad. because MedChecklist does not record this name as a synonym of Citrullus lanatus (Thunb.) Matsum & Nakai. However, there is no record in the merged database that Citrullus lanatus (Thunb.) Matsum & Nakai had the synonym Citrullus lanatus Schrad. as a synonym in MedChecklist. This should be recorded as a conflict.

If there is time:

6. Conflicting Authority Strings

This feature has been requested in the 'If there is time' section, because we recognise that we are running short of time to get the software working properly, and although it would be nice to have this feature included, it is not vital. The merging process should not be delayed by too much time to include this feature. If it can't be included without causing a long delay I can add all incoming names, and this can be worked out at a later date.

A mechanism for recording conflicts between identical names with different authority strings is needed. Three possible situations can occur and the merging software must allow the operator to deal with these conflicts in slightly different ways:

- a. *Achillea micrantha* Willd. vs. *Achillea micrantha* M.Bieb. (the operator wishes to add the incoming name – no conflict should be recorded)
- b. *Abies cephalonica* Loudon vs. *Abies cephalonica* J.W. Loudon (this needs looking into by someone as Loudon and J.W. Loudon are treated as two separate authorities by IPNI. The incoming name should not be added as a new record, but any data attached to the incoming name should be transferred to the name already present in the target database. A conflict in authority strings should be recorded)
- c. *Acer campestre* L. vs. *Acer campestre* Linn. (the incoming name should not be added as a new name, but any data attached to the incoming name should be transferred to the name already present in the target database. A conflict in authority strings should not be recorded)

As with recording conflicts in associated data, a method for separating such conflicts from other types of conflicts is desirable, for example if someone from the Secretariat has a few days to spend in the library at Kew checking the correct authorities in the original publications. It should be possible to extract a list from the databases which contains those names where the authority strings need checking.