**Search for Scientific Names**

**#1. Search for a full name**

Perhaps, with options: include

[x] Accepted names

[x] Synonyms

[x] Authorstrings

[x] Extinct taxa

[x] Common names

[ ] Fuzzy match

*Example:* search for “trifolium”; results: <http://www.catalogueoflife.org/col/search/all/key/Trifolium/fossil/1/match/1>

**Trifolium** Genus Plantae ILDIS

**Trifolium** abyssinicum D.Heller Species accepted name Plantae ILDIS

**Trifolium** acaule A.Rich. Species accepted name Plantae ILDIS

**Trifolium** aciculare Torr. & A.Gray Species synonym for Trifolium willdenovii Spreng. Plantae ILDIS

**Trifolium** acutiflorum Murb. Species accepted name Plantae ILDIS

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**Trifolium** xatardii DC. Species synonym for Trifolium squamosum L. Plantae ILDIS

**Trifolium** xerocephalum Fenzl Species synonym for Trifolium argutum Sol. Plantae ILDIS

Troxirum **trifolium** Rafin. Species synonym for Peperomia trifolia (L.) A. Dietrich Plantae World Plants

Unifolium **trifolium** (L.) Greene Species synonym for Maianthemum trifolium (L.) Sloboda Plantae WCSP

Venezillo **trifolium** (Dollfus, 1890) Species accepted name Animalia WoRMS Isopoda

Unifolium bifolium var. **trifolium** (Pursh) Farw. Infraspecific taxon synonym for Maianthemum canadense Desf. Plantae WCSP

**#2. Search for a name part**

Searching for parts of names using a wildcard symbol (e.g., Sphea\*, \*flor\*, \*aceae).

*Example:* search for Trif\* results:

**Trif**aricardium Genus Animalia [GSD name]

**Trif**arina Genus Chromista [GSD name]

**Trif**arinella Genus Chromista [GSD name]

**Trif**ida Genus Animalia [GSD name]

**Trif**idacanthus Genus Plantae [GSD name]

*Example:* search for \*trif\* results:

Allo**trif**u r Genus Animalia [GSD name]

Ba**trif**igia Genus Animalia [GSD name]

Eras**trif**acies Genus Animalia [GSD name]

Neo**trif**urcula Genus Animalia [GSD name]

Scep**trif**era Genus Fungi [GSD name]

*Example:* search for \*aceae results:

Aus**aceae** Family Plantae [GSD name]

Bus**aceae** Family Plantae [GSD name]

Cus**aceae** Family Plantae [GSD name]

Dus**aceae** Family Plantae [GSD name]

Eus**aceae** Family Plantae [GSD name]

**#3. Fuzzy search**

Fuzzy match should not be the default search option, but should be activated with a checkbox like in #1 above or perhaps suggested in the search results when 0 search results are returned.

*Examples:*

Typo, incorrect letter. Search for “silvestris” return matched cases with “silvestris” and “sylvestris”. Search for “pinus sylvestre” return “Pinus sylvestris”. Search for “abatia parviflorum” return “Abatia parviflora”.

Typo, incorrect letter. Search for “trufoli” return “Trifolium”. Search for “medicago jawakhetica” return “Medicago dzhawakhetica”. Search for “medicago dzhavakhetica” return “Medicago dzhawakhetica”.

Typo, missing letter. Search for “tymus” return “Thymus”. Search for “albizia tomsonii” return “Albizia thompsonii”. Search for “acanthococcus spireae” or “acanthococcus spirea” return “Acanthococcus spiraeae”.

Typo, flip letters. Search for “zaerchaea” return “Zearchaea”.

**#4. Exact match**

If the user quotes a search term, the term should be both required and be an exact match (e.g., “silvestris” would match records containing silvestris but not sylvestris; “Aus silvestris” would return Aus silvestris but not Bus silvestris).

**#5. Faceted search**

Implementing faceted search would be an incredibly powerful feature (e.g., author:Linnaeus would only return results with Linnaeus as the author, gsd:1140 would only return results from GSD 1140). Currently we have no way to search on author strings and a lot of other database fields. Being able to search on multiple facets to narrow down search results would be extremely useful, too (e.g. author:Linnaeus gsd:1140 genus:Abus would only return records from GSD 1140 authored by Linnaeus with the genus Abus). For example if a user wanted to find a species named after Linnaeus, the search results would be cluttered with Linnaeus authorships when the user actually wants the species named *Caerostris* *linnaeus* and could specify that by searching for species:linnaeus. It looks like this is already almost possible with the CoL+ API, which is great!

**#6. Excluding results that include a term**

It might be helpful to be able to exclude search results. If a user puts a minus in front of a search term, no search results should match that term (e.g., searching -zaerchaea excludes any results containing zaerchaea).

**Presentation of search results**

* scientific names on a first place, then common names; in alphabetical order
* uninominals on a first place, then binomials, then trinomials; sorted in alphabetical order
* starts from highest rank down to lower ranks in alphabetical order,
* starts from matched pattern in beginning of the word, then in middle, then in the end; in alphabetical order