

a) Create a DateLife search query

a1) We assembled a list of species names. This is the list of 6 bird species:

- *Pheucticus tibialis*
- *Rhodothraupis celaeno*
- *Emberiza citrinella*
- *Emberiza leucocephalos*
- ***Emberiza elegans***
- *Platypiza crassirostris*

a2) We processed species names with **TNRS** and **standardized** to the OpenTree Taxonomy (OTT v3.3draft1):

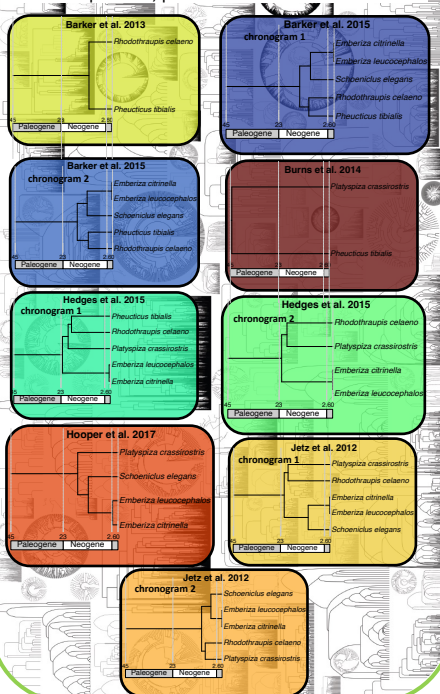
- *Pheucticus tibialis*
- *Rhodothraupis celaeno*
- *Emberiza citrinella*
- *Emberiza leucocephalos*
- ***Schoeniclus elegans***
- *Platypiza crassirostris*

In this small real example, one species name (shown in bold) is a synonym in the OpenTree standardized Taxonomy.

b) Search DateLife's chronogram database

b1) We searched processed taxon names across 253 chronograms in **DateLife's database v0.6.2**.

b2) The search resulted in **9 source chronograms** from 6 independent, published studies:



c) Summarize DateLife's search results

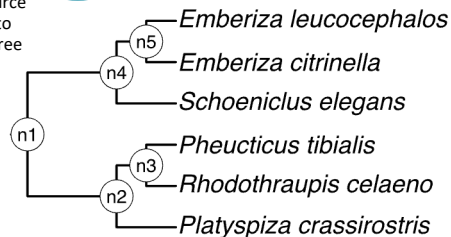
c1) We extracted a **tree topology** from OpenTree's synthetic phylogeny v13.4.



OpenTree topology

c2) We **congruified** source chronogram nodes to nodes of the OpenTree topology (Table 1).

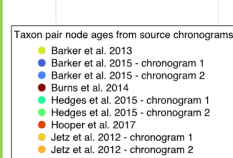
c3) We **summarized congruified** ages per node (Table 2).



c4) We used median summary ages of congruent nodes to **date the chosen tree topology** with BLADJ.



Median summary chronogram



Median of node ages
/ Used as calibration
* Not used

