A) Creating a DateLife search query

A1) Chose a list of bird species names.



A2) Processed species names with **TNRS** and **standardized** to the OpenTree taxonomy.

- Pheucticus tibialis
- Rhodothraupis celaeno
- Emberiza citrinella
- Emberiza leucocephalos
- Emberiza elegans
- Platyspiza crassirostris

- Pheucticus tibialis
- Rhodothraupis celaeno
- Emberiza citrinella
- Emberiza leucocephalos
- Schoeniclus elegans
- Platyspiza crassirostris

Median Summary Chronogram Emberiza leucocephalos Taxon pair node ages from studies Median of node ages Barker et al. 2013 Used as calibration Barker et al. 2015 - chronogram 1 Not used Barker et al. 2015 - chronogram 2 Burns et al. 2014 Hedges et al. 2015 - chronogram 1 Emberiza citrinella Hedges et al. 2015 - chronogram 2 Hooper et al. 2017 Jetz et al. 2012 - chronogram 1 Jetz et al. 2012 - chronogram 2 Schoeniclus elegans Pheucticus tibialis Rhodothraupis celaeno Platyspiza crassirostris Paleogene Neogene

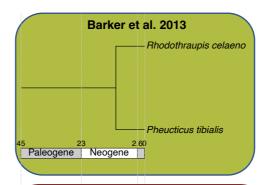
C4) Use ages of congruent nodes to date a tree topology.

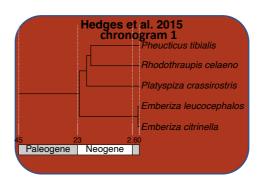
B) Searching DateLife's chronogram database

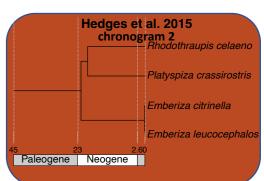
B1) Searched processed names across 253 chronogram in DateLife's database v0.6.2

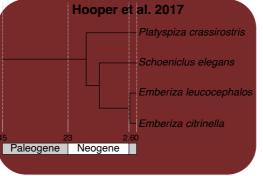


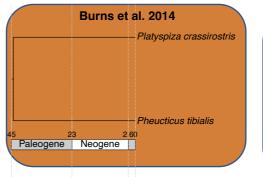
B2) Search resulted in 9 source chronograms from 6 independent, published studies.

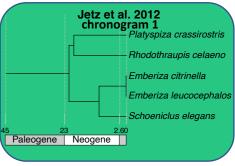


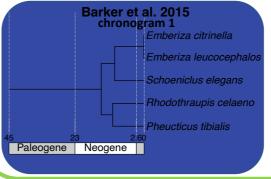


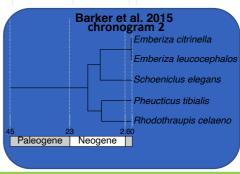


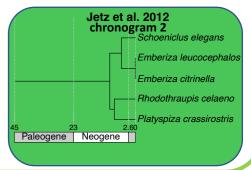












C) Summarizing DateLife's search results

C1) Chose the **tree topology** from OpenTree's synthetic phylogeny.



Tree topology



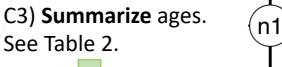
C2) **Congruify** source chronogram nodes to nodes of tree topology. See Table 1.

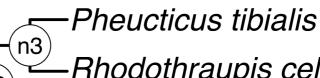
-(n4)

Emberiza citrinella

-Schoeniclus elegans

Emberiza leucocephalos





-Rhodothraupis celaeno

-Platyspiza crassirostris