The ‘rtry’ R package for preprocessing plant trait data

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TRY - Plant Trait Database

- The TRY initiative (www.try-db.org)
  - Started in 2007
  - Data made publicly available in 2014
  - TRY version 5, released on March 26, 2019
    - 387 data sets, 11.8 million trait records

Fast Track Initiative on Refining Plant Functional Classifications

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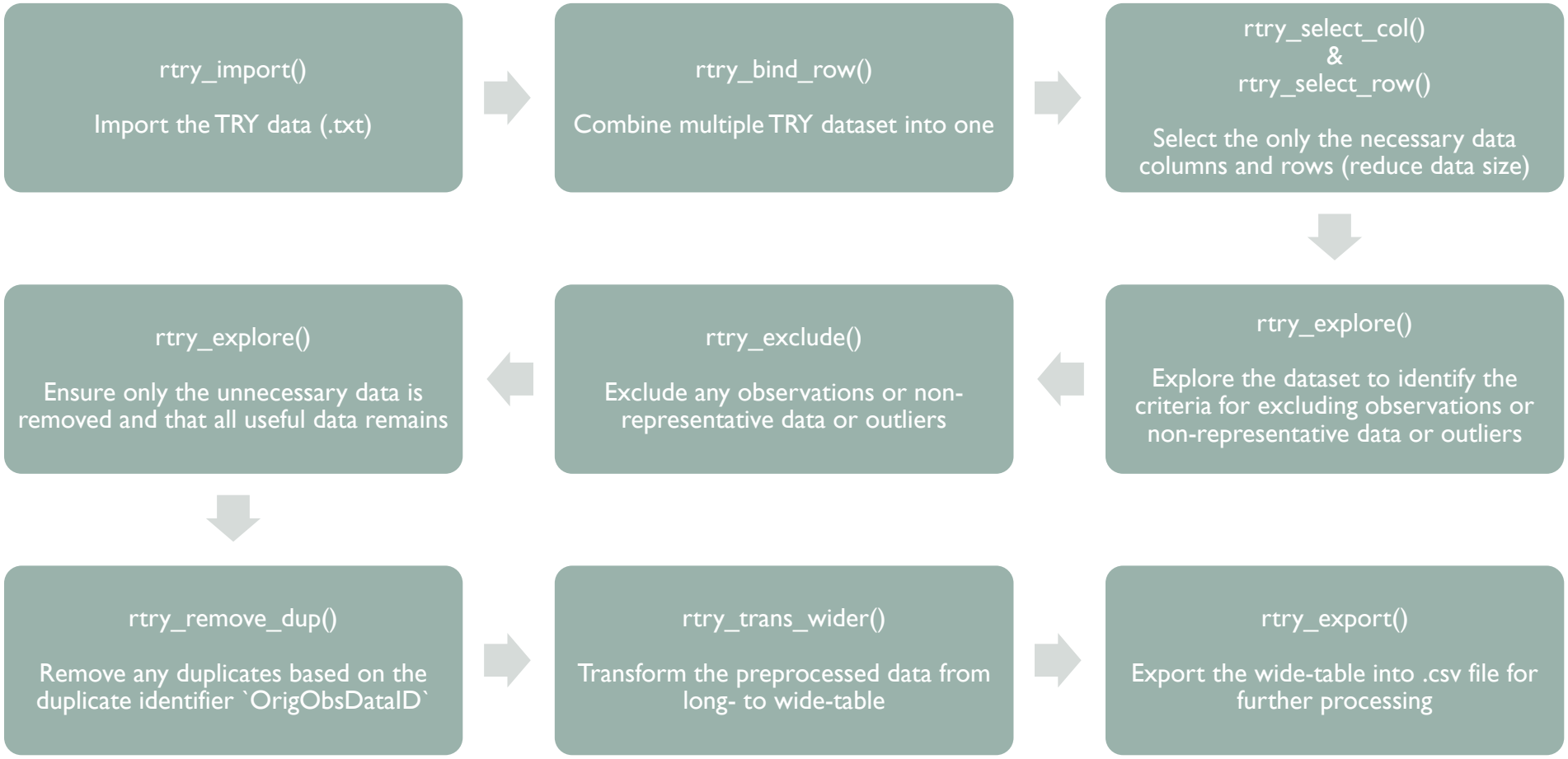
- Goal: A global database of plant traits to make the data available for trait-based approaches in ecology and vegetation modeling

The TRY R project

- Before data can be analyzed, it must be pre-processed
  - Major challenge: unique long table structure combining measurements to observations

- Project objectives
  - Develop an R package ('rtry')
  - Allows users who are not familiar with the R programming language or the TRY dataset structure to easily prepare the data for further analysis
  - Allow users to combine the functions to achieve their needs
  - The package should also be applicable to other trait data (most important)

General workflow for preprocessing TRY data



Outlook of 'rtry'

- Publication of 'rtry' package on CRAN (version 1.0.0)
  - https://cran.r-project.org/web/packages/rtry/index.html

- Open-source, continued development – GitHub
  - https://github.com/MPI-BGC-Functional-Biogeography/rtry
  - Application of 'rtry' for very large files (B. Maitner)
  - Preparing trait data for gap-filling with BHPMF
    (Shan et al. 2012; Fazayeli et al. 2014; Schrodt et al. 2015)

Thank you for listening

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