**Effect of allelopathy on plant performance: a meta-analysis**

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Ecology Letters, 2020.

The data, code, and report

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We collected data from 384 studies on THE effects of allelopathy, and tested whether allelopathy inhibited or stimulated plant performance, and at which condition.

* The file ‘00dat.csv’ is the data.
  + Effect-size related
    - **eff\_size:** lnRR
    - **var:** sampling error variance
    - **se:** sampling error
    - **m\_ck, se\_ck, sd\_ck, n\_ck:** mean, se, sd and replication of control treatment
    - **m\_t, se\_t, sd\_t, n\_t:** mean, se, sd and replication of allelopathy treatment
  + **Fixed effects**
    - **study design:**
      * method: seven methods that were used to test allelopathy (leachate, residue, exudate, volatile, soil, AC [activated carbon], solvent)
      * trait: germination vs growth
      * door: controlled, semi-natural vs natural
      * duration: day as the unit.
      * dose: concentration of leachate/residue
      * color: fresh biomass vs litter
      * plantpart: above-, below- vs total biomass
    - **biological traits:**
      * lifespan: short-lived (annual, biennial) vs long-lived (perennial)
      * lifeform: herb vs tree
      * crop: crop vs wild
    - **evolutionary history:**
      * pd: phylogenetic distance
      * origin\_3level: native, non-naturalized alien vs naturalized alien
      * origin: native vs alien
  + **Random effects:** 
    - **Ref\_ID**: Identity of paper.
    - **xx\_spp** : Identitiy of species [phylogenetic part].
    - **xx\_spp\_nonphylo** : Identitiy of species [NON-phylogenetic part]

\* **xx\_allelo** and **xx\_test** indicate the infomation of allelopathy and test plants, respecitively.  
**\* xx\_dummy** is dichotomous version of categorical variables with two levels.  
**\* xx\_scale** is the variable after mean/median-centering.

* The file ‘**allelo\_meta.Rmd**’ is the code. Running all the code takes about one or two days (i5-6500 CPU).
* The file ‘**allelo\_meta.html**’ is the report, where you can find all tables and figures.
* The file ‘**Allelopathy.tre**’ is the phylogenetic tree of all species in the database.