

## The Barro Colorado Island Tree Reproduction Dataset

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The flowering and fruiting status of trees in and around the 50-ha Forest Dynamics Plot (FDP) on Barro Colorado Island, Panama (the southwest corner of the FDP is located at 625773 easting and 1011774 northing in UTM Zone 17). The reproductive status of individuals was monitored in 1995, 1996, 1997, 2005, 2006 and in 2011 - 2015 for 60 species. Data were collected through direct evaluation of reproductive status of individuals from a wide range of sizes. For each focal species, we randomly selected a size-stratified random sample of individuals whose reproductive status was evaluated in the field during the species' flowering or fruiting season. For each individual the reproductive status was evaluated from the ground, using binoculars for the taller crowns. Reproductive status was scored on a five-point scale and is dichotomized here, with zero indicating a sterile tree and 1 indicating a fertile tree with parts of the crown bearing reproductive structures (flowers, fruits or bracts). See Wright *et al* (2005a) and Visser *et al* (in press) for more details on these datasets.

### FILES

The Barro Colorado Island Tree Reproduction Dataset can be found in BCIreproduction.csv, a csv text file containing the data records on seed production described above. The dataset contains the following labels (columns):

tag = unique id for individual trees (duplicated when measured multiple times). Corresponds to metal tags attached to individual trees in the 50-ha FDP census (data DOI: 10.5479/data.bci.20130603)

rep = reproductive status (1 = reproductive, 0 = sterile)

sp = species code

dbh = diameter of tree in mm at 1.3 meters height (recorded in the 2010 census of 50-ha FDP see dataset DOI:10.5479/data.bci.20130603)

census = various codes corresponding to data from different studies combined here (detailed below). Codes used in column "census" include;

A = The reproductive census from March 2011 to October 2015 (conducted by D. Brassfield and A. Cerezo).

B = Reproductive data collected between March and July 2012 for 15 dioecious species (M. Bruijning, unpublished).

C = Reproductive data collected between 2005 - 2007 for 51 wind dispersed species (S.J. Wright, unpublished).

D = Reproductive threshold data collected between January and April 1996 for 30 species

(Wright et al 2005a).

## References

1.

Visser, M.D., Bruijning, M., Wright, S.J., Muller-Landau, H. C. Jongejans, E., Comita, L.S. & de Kroon, H. (n.d.). Functional traits as predictors of vital rates across the life-cycle of tropical trees. *Funct. Ecol.*

2.

Wright, S.J., Jaramillo, M.A., Pávon, J., Condit, R., Hubbell, S.P. & Foster, R.B. (2005). Reproductive size thresholds in tropical trees: variation among individuals, species and forests. *J. Trop. Ecol.*