Barro Colorado Island 50-ha Plot Seedling Growth and Mortality Data (2001-2013)

The growth, recruitment and mortality of seedlings ≥20 cm tall on Barro Colorado Island, Panama (625773 easting and 1011774 northing in UTM Zone 17). Seedlings were monitored in ~20,000 one square-meter plots within the 50-ha forest dynamics plot (FDP). The 50-ha FDP plot is a 1000 m by 500 m rectangle of lowland tropical moist forest inside of which all woody trees and shrubs with stems at least 1 cm in diameter at 1.3m tall (dbh) have been censused at ~5 year intervals since the early 1980's. In 2001, 20,000 1 m² seedling plots were established in a 5-m grid across the FDP, where all freestanding woody plants greater than 20 cm in height and less than 1 cm d.b.h. are measured, tagged and identified yearly until 2013 (except in 2005, 2007 and 2010; seedlings were not censused in a small subset of the 20,000 plots to avoid damage to previously established research plots; see Comita et al. 2007 and Comita and Hubbell 2009 for more details).

The dataset contains the following labels (columns):

id = Unique ID number in data base consisting of plot + tag

sp = species (see species list for full name and info)

date1 = Date when seedling was measured at the start of the census interval

date2 = Date when seedling was measured at the end of the census interval

hght1 = length of the stem, measured in mm, on date1. *NOTE height ceases to be measured above 3m, all heights 3m and above are coded 3000 ***

hght2 = length of the stem, measured in mm, on date2. *NOTE height ceases to be measured above 3m, all heights 3m and above are coded 3000 ***

status = status at the end of the specified census interval; A=alive, P=not yet entered the seedling census, D=dead, Z=seedling has entered census of saplings and trees ≥1 cm dbh

References

Comita, L.S., Aguilar, S., Pérez, R., Lao, S. & Hubbell, S.P. (2007). Patterns of woody plant species abundance and diversity in the seedling layer of a tropical forest. *J. Veg. Sci.*, 18, 163.

Comita, L.S. & Hubbell, S.P. (2009). Local neighborhood and species' shade tolerance influence survival in a diverse seedling bank. *Ecology*, 90, 328–334.