Supporting Information

Title: A phenology model for tropical species that flower multiple times each year

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Figure S1

Figure S1. The cumulative proportion of *Handroanthus* flower records captured in traps at increasing distances from the nearest reproductively sized conspecific tree based on a 30-cm diameter reproductive size threshold and assuming trees died midway between and grew at a constant rate between censuses conducted every five years.
Figure S2. The logistic function for the drought signal parameterized for the model that incorporated a linear drought signal (red line, see text Eq. 2a) and for the model that incorporated a logarithmic drought signal (black line, Eq. 2b) for *Hydroanthus*. Both models incorporated a skew normal distribution of flowering lag times. The model represented by the red line maximized the log likelihood even though the value of the drought signal never exceeds 0.5.
Figure S3. The proportion of traps that captured *Handroanthus* flowers (black circles) in 1,505 weekly censuses of 200 traps conducted on Barro Colorado Island, Panama. The red line is the predicted proportion for the model with a logarithmic drought signal and a skew normal lag time distribution. Tick marks and years are located at 1 January.