

Supporting Information

Hart et al. 10.1073/pnas.1403376111

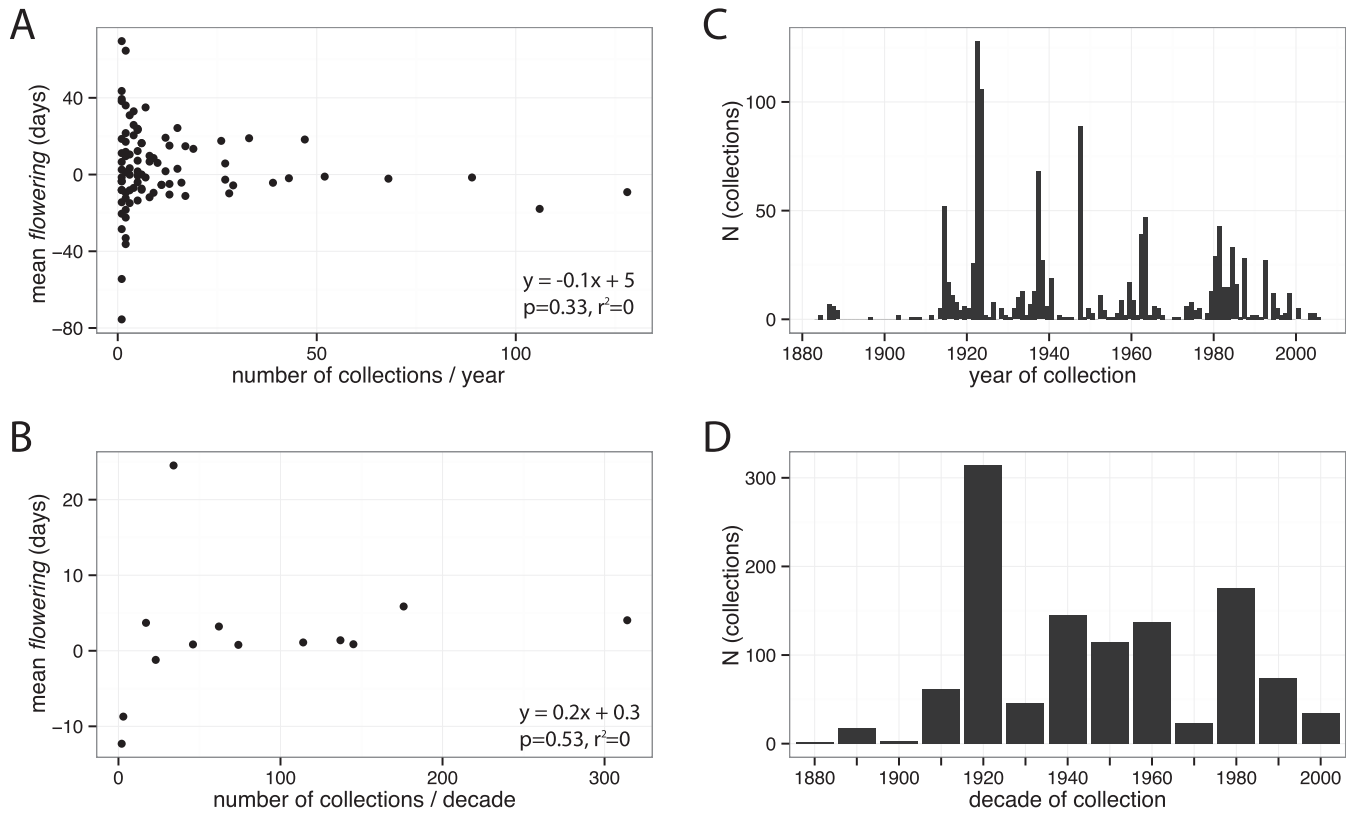


Fig. S1. Day of collection deviation from the species mean (*flowering*) averaged by year (**A**) and by decade (**B**) shows no significant relationship with number of collections. This means that, even though collection intensity varies by year (**C**) and by decade (**D**), this variation does not bias *flowering*. Collections are highest in the 1920s, when several prolific early plant hunters exhaustively sampled the area, and decline in recent decades.

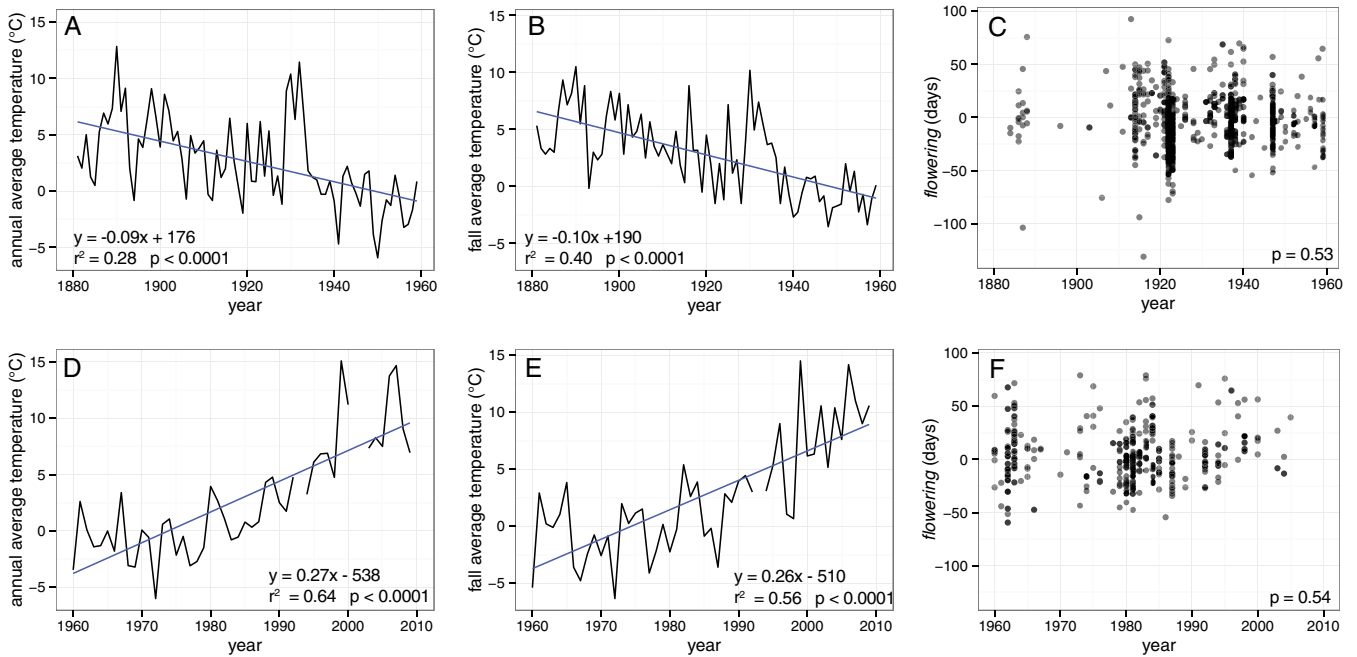


Fig. S2. During periods of significant cooling and warming, day of collection deviation (*flowering*) did not change over year even though it did significantly respond to average annual temperatures, fall temperatures, and elevation. Average annual temperature deviation (A) and average fall temperature deviation (B) for the period 1881–1959 decreased, whereas average annual temperature deviation (D) and average fall temperature deviation (E) for the period 1960–2009 increased. Flowering time (C and F) shows no directional change over year during these periods (1881–1959, $P = 0.43$; 1960–2009, $P = 0.54$). For each period, the generic model (Table 1) $flowering \sim annual.temp + fall.temp + elevation$ is significant, and coefficients are similar in size and direction (1884–1959, $flowering, -2.75annual.temp, +2.83fall.temp, +0.012elevation$; $r^2 = 0.09, P < 0.0001$; 1960–2009, $flowering, -1.46annual.temp, +2.15fall.temp, +0.017elevation$; $r^2 = 0.09, P < 0.0001$).

Table S1. Month of flowering responds significantly to average annual temperatures, fall temperatures, and elevation

Parameter	Estimate	SE	P value
Intercept	0.11	0.74	0.88
<i>annual.temp</i>	-2.10	0.22	$<2 \times 10^{-16}$
<i>fall.temp</i>	3.16	0.28	$<2 \times 10^{-16}$
<i>elevation</i>	0.015	0.002	$<2 \times 10^{-16}$

The model $flowering.month \sim annual.temp + fall.temp + elevation$ was tested for this larger data set of coarser temporal scale by considering month of collection rather than day of collection as our metric for flowering time (adjusted $r^2 = 0.09$). The 1,147 collections with day of collection were converted to month of collection (i.e., every collection recorded as being made in June was coded as June 15, or day 165), and an additional 1,199 collections for which only information about month of collection could be recovered were added to the dataset. As with *flowering*, *flowering.month* is expressed as deviation from the species mean, and in day units.

