Supplemental materials for Phenological sequences: how early-season events define those that follow

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Supplemental Tables

Table S1: Summary of linear models for relationships between later phenophases and earlier phenophases, as shown in Figure 3 in the main text. Linear models were fit with the species-level mean day of year of the later phenological stages as the response variable, and mean day of year of earlier phenostage as the explanatory variable.

previous phenostage model	intercept	slope	r2	p
leafout vs. budburst	65.839	15.331	0.439	0
flowering vs. budburst	3.184	65.271	0.172	0.039
fruiting vs. budburst	-80.306	96.268	0.226	0.016
senescence vs. budburst	243.876	45.52	0.028	0.427
flowering vs. leafout	-105.279	80.043	0.3	0.005
fruiting vs. leafout	-107.193	134.069	0.156	0.051
senescence vs. leafout	237.388	60.891	0.022	0.484
fruiting vs. flowering	5.212	31.73	0.541	0
senescence vs. flowering	261.654	19.358	0.041	0.332
senesence vs. fruiting	253.545	13.996	0.145	0.06

Table S2: Summary of linear models for relationships between phenophases and inter-phenophase duration.

inter-phenophase model	intercept	slope	r2	p
leafout vs. leafout-budburst	128.977	2.33	0.035	0.374
flowering vs. leafout-budburst	144.522	8.307	0.001	0.874
fruiting vs. leafout-budburst	276.477	15.903	0.047	0.3
senescence vs. leafout-budburst	281.98	5.338	0.004	0.763
flowering vs. flowering-leafout	129.28	1.591	0.926	0
fruiting vs. flowering-leafout	245.864	9.92	0.25	0.011
senescence vs. flowering-leafout	278.627	3.698	0.034	0.381
fruiting vs. fruiting-flowering	143.556	15.426	0.74	0
senescence vs. fruiting-flowering	258.294	8.647	0.242	0.013
senesence vs. senescence-fruiting	282.109	3.231	0.047	0.296

Supplemental Figures

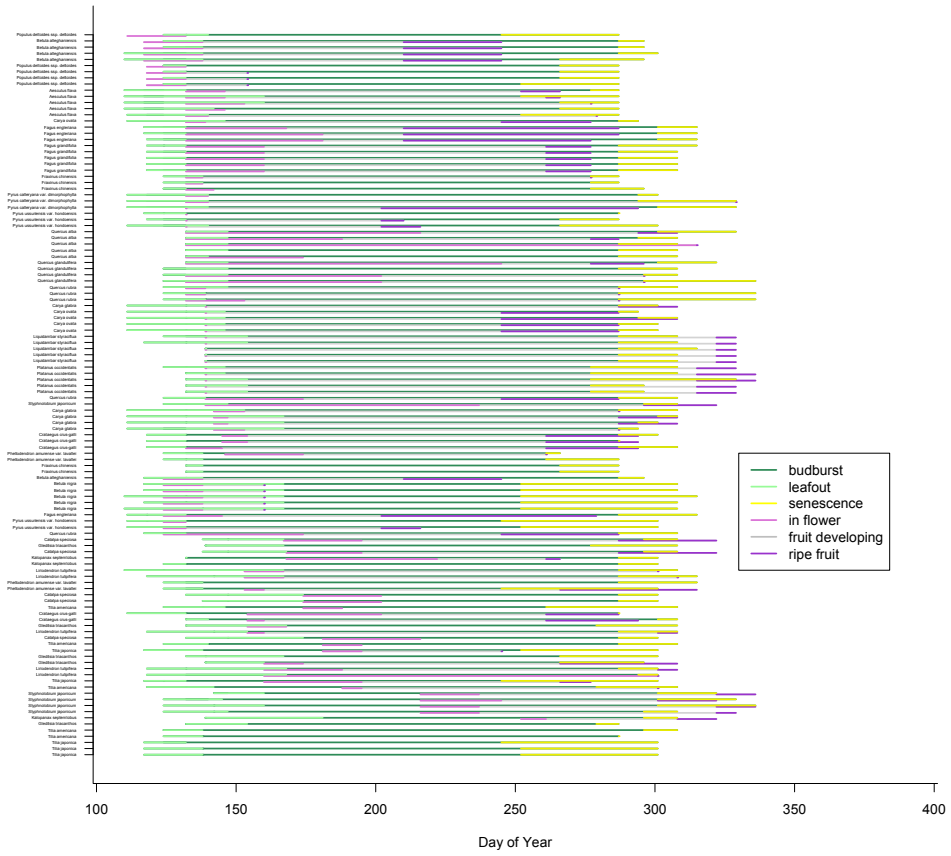

Figure S1: **Individual tree phenology during the 2015 growing season, ordered by first-flower dates.** Growth phenology is shown for budburst (from its mean start day-of-year to the mean start day-of-year for leafout, across all individuals within a species), leafout (from the mean day-of-year when fully-expanded leaves were first observed through the start of senescence), and senescence (from the mean day-of-year when leaves first began changing color through the mean day-of-year when more than 95 percent of leaves on the tree had changed color). Reproductive phenology is shown for flowering (from the mean day-of-year when flowers first appeared to the mean day-of-year when fruits first appeared, across all individuals within a species) and fruiting (from the mean day-of-year when fruits first appeared to the mean day-of-year when more than 95 percent of fruits were first observed as ripe).