

APPENDIX

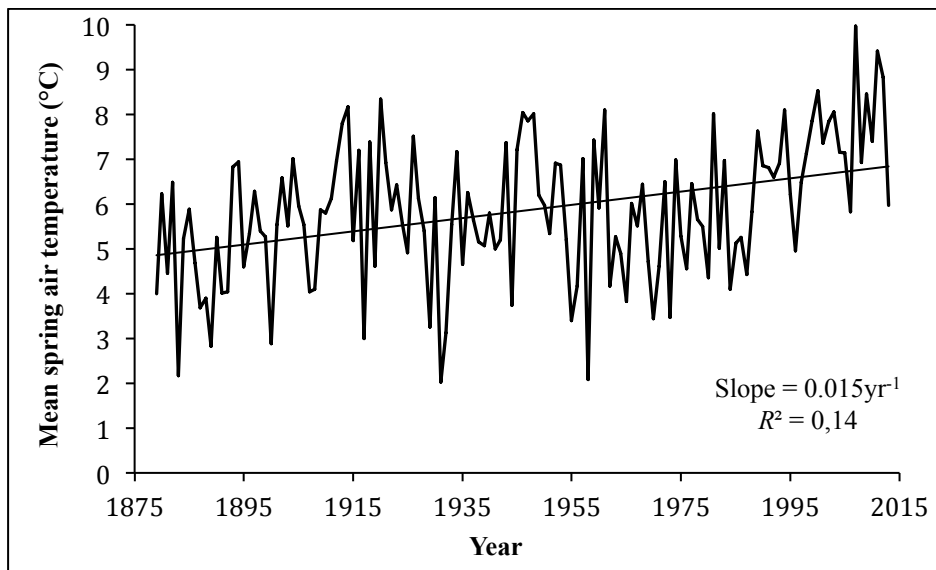


Figure S1 Spring temperatures (March and April) in Munich between 1879 and 2013, showing a mean temperature increase of 1.5°C in 100 years. Data from the weather stations Munich Botanical Garden (1879 - 1954), Munich-Nymphenburg (1955 - 1998), and Munich downtown (1999 - 2013).

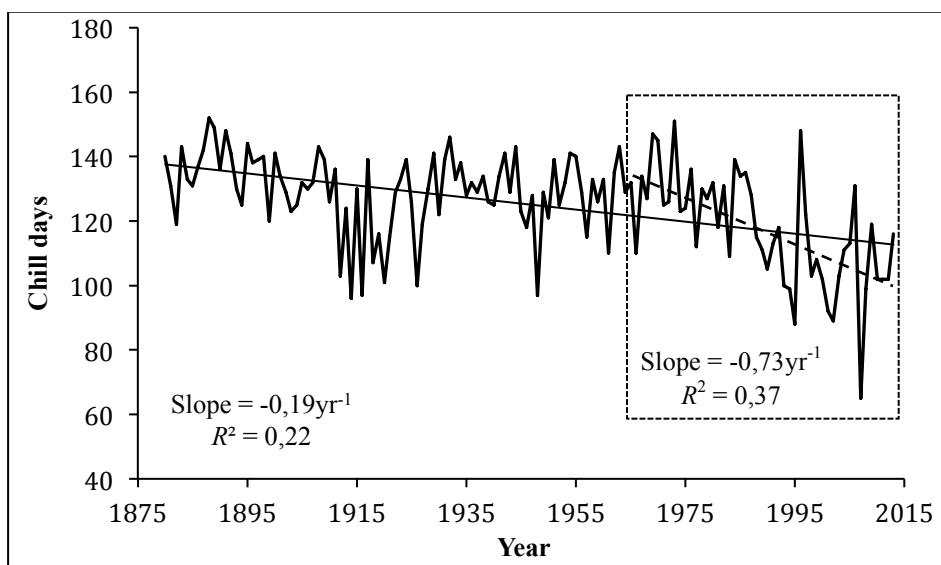


Figure S2 Chill days (number of days with mean air temperature $<5^\circ\text{C}$ from 1 Nov until 30 April) in Munich between 1880 and 2013. Over the whole record, chill days have decreased by 1.9 days per decade. Over the past 50 years (inset), chill days have decreased by 7.3 days per decade (dashed line). Data from the weather stations Munich Botanical Garden (1880 - 1954), Munich-Nymphenburg (1955 - 1998), and Munich downtown (1999 - 2013).

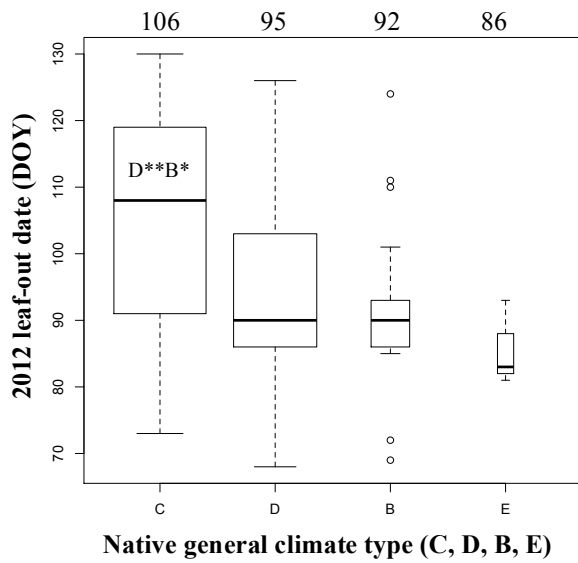


Figure S3 Leaf-out dates in 2012 of 196 woody species from different native climate types cultivated in Munich when species were grouped according to the Köppen climate system (Fig. 1), using only main climate (B = arid climate, C = temperate climate, D = cold climate, E = polar climate). Box plots show the leaf-out date range and quartiles, with box width proportional to sample size (n = 97 C, 79 D, 17 B and 3 E). Letters within boxes indicate which groups leafed out significantly earlier according to a DTK post-hoc analysis (* significant at $p < 0.05$; ** significant at $p < 0.001$). Means are shown above boxplots.

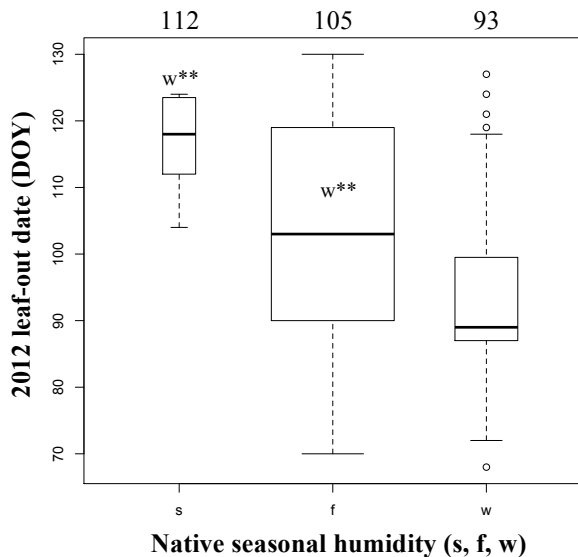


Figure S4 Leaf-out dates in 2012 of 204 woody species from different native climate types cultivated in Munich when species were grouped according to the Köppen climate system (Fig. 1), using only precipitation regime (s = dry summers, f = without dry seasons, w = dry winters). Box plots show the leaf-out date range and quartiles, with box width proportional to sample size (n = 11 s, 153 f and 40 w). Letters above boxes indicate which groups leafed out significantly earlier according to a DTK post-hoc analysis (* significant at $p < 0.05$; ** significant at $p < 0.001$). Means are shown above boxplots.

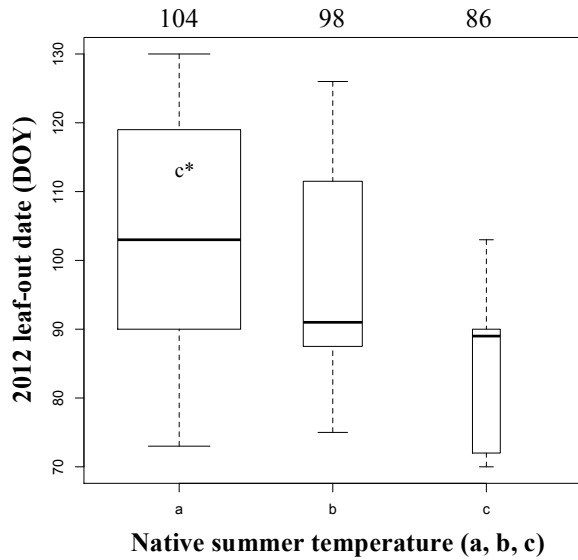


Figure S5 Leaf-out dates in 2012 of 150 woody species from different native climate types cultivated in Munich when species were grouped according to the Köppen climate system (Fig. 1), using only summer temperature regime (a = hot summer, b = warm summer, c = cold summer). Box plots show the leaf-out date range and quartiles, with box width proportional to sample size (n = 117 a, 27 b and 6 c). Letters within boxes indicate which groups leafed out significantly earlier according to a DTK post-hoc analysis (* significant at $p < 0.05$; ** significant at $p < 0.001$). Means are shown above boxplots.

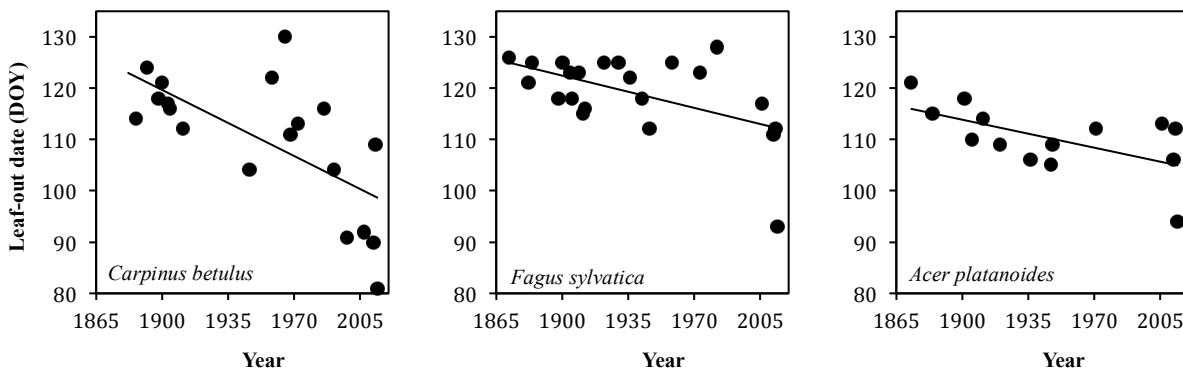


Figure S6 Leaf-out dates of *Carpinus betulus*, *Fagus sylvatica* and *Acer platanoides* based on herbarium specimens and field observations from 2012, 2013 and 2014. The solid line represents the best fit via ordinary least squares regression. **C. betulus:** Mean leaf-out date (DOY) = 110, SD = 13.1. The earliest leaf-out occurred in 2014 on 22 March, the latest in 1965 on 10 May. Least squares regression: Slope = -0.18d/yr , $R^2 = 0.44$, $F(1, 17) = 13.3$, $p = 0.002$, $n = 19$. **F. sylvatica:** Mean leaf-out date (DOY) = 119, SD = 7.7. The earliest leaf-out occurred in 2014 on 3 April, the latest in 1872 on 6 May. Least squares regression: Slope = -0.09d/yr , $R^2 = 0.28$, $F(1, 20) = 7.9$, $p = 0.01$, $n = 22$. **A. platanoides:** Mean leaf-out date (DOY) = 110, SD = 6.6. The earliest leaf-out occurred in 2014 on 4 April, the latest in 1873 on 1 May. Least squares regression: Slope = -0.08 , $R^2 = 0.36$, $F(1, 12) = 6.6$, $p = 0.02$, $n = 14$.

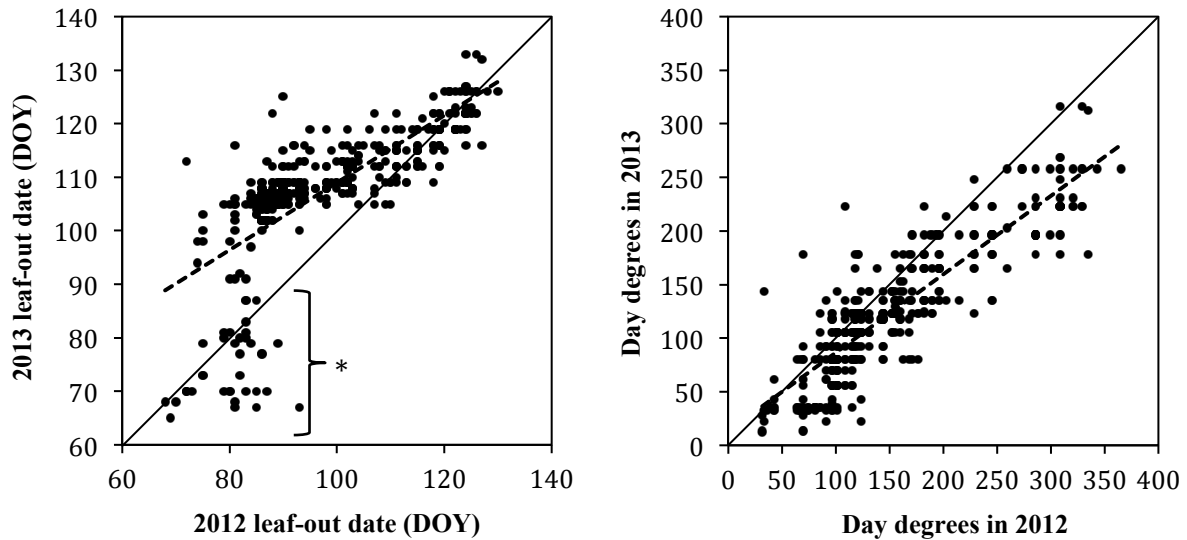


Figure S7 Order of leaf-out and accumulated heat sums (day degrees $>5^{\circ}\text{C}$) until budburst in 2012 and 2013 for 462 species cultivated in the Munich Botanical Garden. The dashed lines represent the best fit via ordinary least squares regression (Leaf-out dates: $R^2 = 0.54$, slope = 0.62, $F(1, 460) = 545.8$, $p < 0.001$; day degrees: $R^2 = 0.77$, slope = 0.73, $F(1, 460) = 1559$, $p < 0.001$; $n = 462$). Solid lines show where points would fall if species leafed out on the same day / accumulated the same heat sums in 2013 as in 2012. * Early leafing species that did not show strong delays in flushing date in 2013 are: *Abelia monsanensis*, *Caragana pygmaea*, *Chaenomeles catayensis*, *C. speciosa*, *Cotoneaster moupinensis*, *Elaeagnus x ebbingei*, *Lonicera alpigena*, *L. caerulea*, *L. caprifolium*, *L. korolkowii*, *L. maximowiczii*, *L. x muscaviensis*, *L. x myrtilloides*, *L. periclymenum*, *L. purpurascens*, *L. pyrenaica*, *L. x salicifolia*, *L. tangutica*, *L. tatarica*, *L. x notha*, *Neillia thibetica*, *Paeonia rockii*, *Prinsepia sinensis*, *P. uniflora*, *Ribes alpinum*, *R. diacanthum*, *R. divaricatum*, *R. glaciale*, *R. himalense*, *R. maximowiczii*, *R. x succirubrum*, *R. uva-crispa*, *Sibiraea laevigata*, *Sorbaria arborea*, *S. sorbifolia*, *Viburnum farreri*, *V. x bodnantense*.

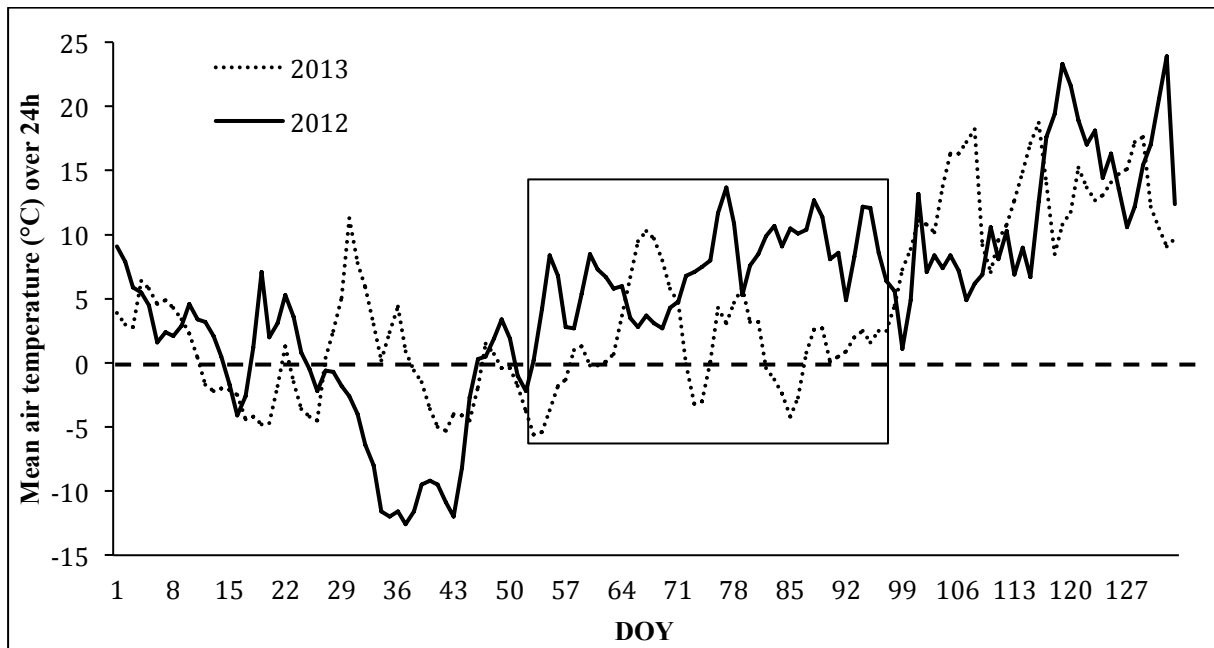


Figure S8 Daily mean air temperature for spring 2012 and 2013. The inset marks the timeframe of most divergent temperatures between both years (20 February - 5 April).

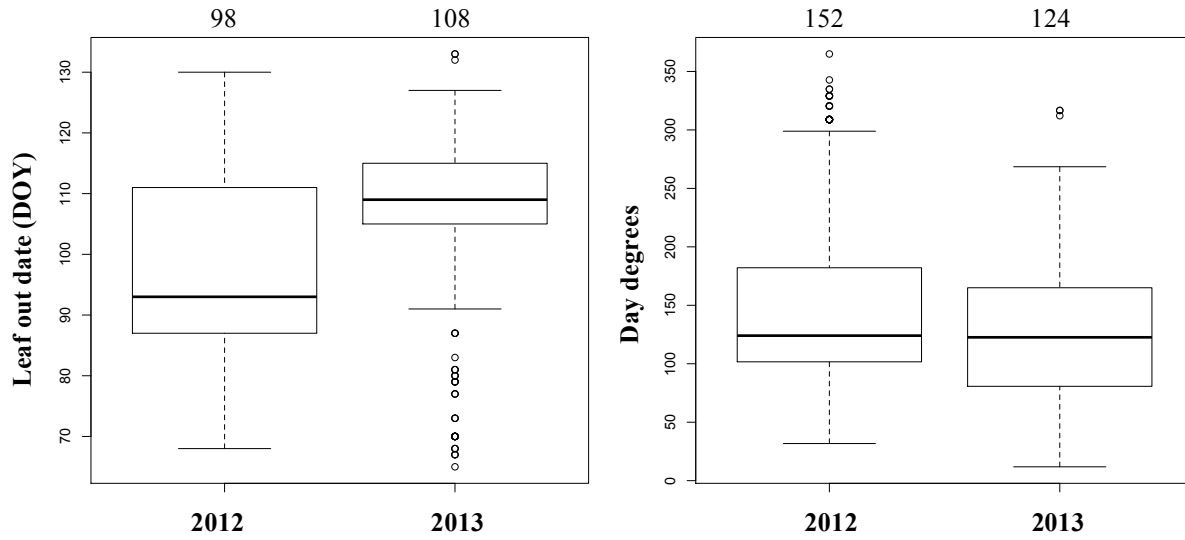


Figure S9 Leaf-out dates and heat sums (day degrees $>5^{\circ}\text{C}$) in 2012 and 2013 for 462 species monitored in the Munich Botanical Garden. Means are shown above boxplots.

Table S1. Leaf-out dates and native continents of 495 woody species growing in the Munich Botanical Garden.

Genus	Species	Flushing dates		Native Continent
<i>Abelia</i>	<i>mosanensis</i>	26.03.12	18.03.13	Eastern Asia
<i>Abeliophyllum</i>	<i>distichum</i>	29.03.12	16.04.13	Eastern Asia
<i>Abies</i>	<i>alba</i>	03.05.12	05.05.13	Europe
<i>Acer</i>	<i>barbinerve</i>	26.03.12	15.04.13	Eastern Asia
<i>Acer</i>	<i>campestre</i>	20.04.12	22.04.13	Europe
<i>Acer</i>	<i>crataegifolium</i>	07.04.12	18.04.13	Eastern Asia
<i>Acer</i>	<i>dauricum</i>	20.04.12	26.04.13	Eastern Asia
<i>Acer</i>	<i>diabolicum</i>	22.04.12	29.04.13	Eastern Asia
<i>Acer</i>	<i>ginnala</i>	25.03.12	22.04.13	Eastern Asia
<i>Acer</i>	<i>griseum</i>	03.05.12	06.05.13	Eastern Asia
<i>Acer</i>	<i>heldreichii</i>	03.04.12	-	Europe
<i>Acer</i>	<i>henryi</i>	01.05.12	29.04.13	Eastern Asia
<i>Acer</i>	<i>hyrcanum</i>	27.04.12	25.04.13	Europe
<i>Acer</i>	<i>negundo</i>	07.04.12	18.04.13	Northern America
<i>Acer</i>	<i>palmatum</i>	30.03.12	26.04.13	Eastern Asia
<i>Acer</i>	<i>pensylvanicum</i>	18.04.12	29.04.13	Northern America
<i>Acer</i>	<i>platanoides</i>	26.04.12	22.04.13	Europe
<i>Acer</i>	<i>rubrum</i>	12.04.12	24.04.13	Northern America
<i>Acer</i>	<i>saccharinum</i>	01.05.12	26.04.13	Northern America
<i>Acer</i>	<i>saccharum</i>	23.04.12	29.04.13	Northern America
<i>Acer</i>	<i>shirasawanum</i>	01.05.12	02.05.13	Eastern Asia
<i>Acer</i>	<i>tegmentosum</i>	28.03.12	20.04.13	Eastern Asia
<i>Acer</i>	<i>triflorum</i>	24.04.12	26.04.13	Eastern Asia
<i>Aesculus</i>	<i>flava (octandra)</i>	03.04.12	18.04.13	Northern America
<i>Aesculus</i>	<i>glabra</i>	03.04.12	19.04.13	Northern America
<i>Aesculus</i>	<i>hippocastanum</i>	22.04.12	22.04.13	Europe
<i>Aesculus</i>	<i>parviflora</i>	24.04.12	23.04.13	Northern America
<i>Akebia</i>	<i>quinata</i>	16.04.12	17.04.13	Eastern Asia
<i>Alnus</i>	<i>firma</i>	12.04.12	-	Eastern Asia
<i>Alnus</i>	<i>glutinosa</i>	30.03.12	18.04.13	Europe
<i>Alnus</i>	<i>incana</i>	30.03.12	18.04.13	Europe
<i>Alnus</i>	<i>maximowiczii</i>	01.05.12	29.04.13	Eastern Asia
<i>Amelanchier</i>	<i>alnifolia</i>	19.04.12	19.04.13	Northern America
<i>Amelanchier</i>	<i>florida</i>	12.04.12	22.04.13	Northern America
<i>Amelanchier</i>	<i>laevis</i>	09.04.12	23.04.13	Northern America
<i>Amelanchier</i>	<i>pumila</i>	19.04.12	-	Northern America
<i>Amorpha</i>	<i>fruticosa</i>	30.04.12	06.05.13	Northern America
<i>Andrachne</i>	<i>colchica</i>	24.03.12	19.04.13	Western Asia
<i>Aristolochia</i>	<i>macrophylla</i>	21.04.12	29.04.13	Northern America
<i>Aronia</i>	<i>melanocarpa</i>	03.04.12	17.04.13	Northern America
<i>Asimina</i>	<i>triloba</i>	04.05.12	06.05.13	Northern America
<i>Berberis</i>	<i>actinacantha</i>	10.04.12	19.04.13	Southern America
<i>Berberis</i>	<i>aggregata</i>	01.04.12	26.04.13	Eastern Asia
<i>Berberis</i>	<i>amurensis</i>	28.03.12	-	Eastern Asia
<i>Berberis</i>	<i>chinensis</i>	30.03.12	17.04.13	Western Asia

<i>Berberis</i>	<i>concinna</i>	10.04.12	23.04.13	Eastern Asia
<i>Berberis</i>	<i>dictyophylla</i>	29.03.12	-	Eastern Asia
<i>Berberis</i>	<i>dielsiana</i>	18.04.12	15.04.13	Eastern Asia
<i>Berberis</i>	<i>francisci-ferdinandi</i>	29.03.12	17.04.13	Eastern Asia
<i>Berberis</i>	<i>jamesiana</i>	27.03.12	-	Eastern Asia
<i>Berberis</i>	<i>koreana</i>	27.03.12	14.04.13	Eastern Asia
<i>Berberis</i>	<i>nummularia</i>	31.03.12	17.04.13	Eastern Asia
<i>Berberis</i>	<i>pekinensis</i>	09.04.12	-	Eastern Asia
<i>Berberis</i>	<i>thunbergii</i>	22.03.12	02.04.13	Eastern Asia
<i>Berberis</i>	<i>tischleri</i>	30.03.12	17.04.13	Eastern Asia
<i>Berberis</i>	<i>vernae</i>	26.03.12	12.04.13	Eastern Asia
<i>Berberis</i>	<i>vulgaris</i>	31.03.12	16.04.13	Europe
<i>Berberis</i>	<i>x mentorensis</i>	30.03.12	17.04.13	Hybrid
<i>Berberis</i>	<i>x ottawensis</i>	30.03.12	17.04.13	Hybrid
<i>Betula</i>	<i>dahurica</i>	28.04.12	22.04.13	Eastern Asia
<i>Betula</i>	<i>ermanii</i>	01.05.12	29.04.13	Eastern Asia
<i>Betula</i>	<i>lenta</i>	29.04.12	25.04.13	Northern America
<i>Betula</i>	<i>maximowicziana</i>	28.04.12	29.04.13	Eastern Asia
<i>Betula</i>	<i>nana</i>	02.04.12	19.04.13	Europe
<i>Betula</i>	<i>pendula</i>	11.04.12	22.04.13	Europe
<i>Betula</i>	<i>populifolia</i>	07.04.12	18.04.13	Northern America
<i>Broussonetia</i>	<i>papyrifera</i>	04.05.12	02.05.13	Eastern Asia
<i>Buddleja</i>	<i>albiflora</i>	26.03.12	15.04.13	Eastern Asia
<i>Buddleja</i>	<i>alternifolia</i>	30.03.12	17.04.13	Eastern Asia
<i>Buddleja</i>	<i>davidii</i>	01.05.12	-	Eastern Asia
<i>Buddleja</i>	<i>japonica</i>	21.03.12	15.04.13	Eastern Asia
<i>Calycanthus</i>	<i>floridus</i>	31.03.12	22.04.13	Northern America
<i>Caragana</i>	<i>aurantiaca</i>	19.04.12	15.04.13	Central Asia
<i>Caragana</i>	<i>pygmaea</i>	25.03.12	11.03.13	Eastern Asia
<i>Carpinus</i>	<i>betulus</i>	30.03.12	19.04.13	Europe
<i>Carpinus</i>	<i>laxiflora</i>	12.04.12	22.04.13	Eastern Asia
<i>Carpinus</i>	<i>monbeigiana</i>	27.04.12	29.04.13	Eastern Asia
<i>Carya</i>	<i>cordiformis</i>	01.05.12	29.04.13	Northern America
<i>Carya</i>	<i>laciniosa</i>	05.05.12	02.05.13	Northern America
<i>Carya</i>	<i>ovata</i>	04.05.12	03.05.13	Northern America
<i>Castanea</i>	<i>sativa</i>	24.04.12	25.04.13	Europe
<i>Catalpa</i>	<i>fargesii</i>	03.05.12	02.05.13	Eastern Asia
<i>Cedrus</i>	<i>libani</i>	03.05.12	29.04.13	Western Asia
<i>Celtis</i>	<i>laevigata</i>	03.05.12	07.05.13	Northern America
<i>Celtis</i>	<i>occidentalis</i>	01.05.12	02.05.13	Northern America
<i>Cephalantus</i>	<i>occidentalis</i>	09.05.12	06.05.13	Northern America
<i>Cercidiphyllum</i>	<i>japonicum</i>	12.04.12	18.04.13	Eastern Asia
<i>Cercidiphyllum</i>	<i>magnificum</i>	07.04.12	22.04.13	Eastern Asia
<i>Cercis</i>	<i>canadensis</i>	03.05.12	02.05.13	Northern America
<i>Cercis</i>	<i>chinensis</i>	20.04.12	26.04.13	Eastern Asia
<i>Chaenomeles</i>	<i>cathayensis</i>	29.03.12	20.03.13	Eastern Asia
<i>Chaenomeles</i>	<i>japonica</i>	25.03.12	28.03.13	Eastern Asia
<i>Chaenomeles</i>	<i>speciosa</i>	25.03.12	08.03.13	Eastern Asia

<i>Chimonanthus</i>	<i>praecox</i>	19.04.12	19.04.13	Eastern Asia
<i>Cladrastis</i>	<i>kentukeya</i>	27.04.12	26.04.13	Northern America
<i>Clematis</i>	<i>ligusticifolia</i>	07.04.12	16.04.13	Northern America
<i>Colutea</i>	<i>orientalis</i>	11.04.12	26.04.13	Western Asia
<i>Cornus</i>	<i>alba</i>	30.03.12	17.04.13	Northern Asia
<i>Cornus</i>	<i>alternifolia</i>	12.04.12	18.04.13	Northern America
<i>Cornus</i>	<i>australis</i>	02.04.12	17.04.13	Europe
<i>Cornus</i>	<i>bretschneideri</i>	10.04.12	23.04.13	Eastern Asia
<i>Cornus</i>	<i>controversa</i>	11.04.12	21.04.13	Eastern Asia
<i>Cornus</i>	<i>florida</i>	28.04.12	26.04.13	Northern America
<i>Cornus</i>	<i>foemina</i>	01.04.12	17.04.13	Northern America
<i>Cornus</i>	<i>kousa</i>	11.04.12	22.04.13	Eastern Asia
<i>Cornus</i>	<i>mas</i>	11.04.12	19.04.13	Europe
<i>Cornus</i>	<i>officinalis</i>	11.04.12	19.04.13	Eastern Asia
<i>Cornus</i>	<i>racemosa</i>	02.04.12	19.04.13	Northern America
<i>Cornus</i>	<i>sanguinea</i>	11.04.12	22.04.13	Europe
<i>Cornus</i>	<i>sericea</i>	26.03.12	15.04.13	Northern America
<i>Cornus</i>	<i>walteri</i>	07.04.12	22.04.13	Eastern Asia
<i>Corylopsis</i>	<i>sinensis</i>	11.04.12	22.04.13	Eastern Asia
<i>Corylopsis</i>	<i>spicata</i>	22.04.12	25.04.13	Eastern Asia
<i>Corylus</i>	<i>americana</i>	27.04.12	26.04.13	Northern America
<i>Corylus</i>	<i>avellana</i>	28.03.12	17.04.13	Europe
<i>Corylus</i>	<i>colurna</i>	26.03.12	18.04.13	Europe
<i>Corylus</i>	<i>heterophylla</i>	20.04.12	22.04.13	Eastern Asia
<i>Corylus</i>	<i>sieboldiana</i>	20.04.12	22.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>acuminatus</i>	26.03.12	12.04.13	Southern Asia
<i>Cotoneaster</i>	<i>acutifolius</i>	24.03.12	07.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>adpressus</i>	26.03.12	18.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>dielsianus</i>	26.03.12	15.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>divaricatus</i>	25.03.12	16.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>foveolatus</i>	15.03.12	10.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>franchettii</i>	24.03.12	16.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>harrysmithii</i>	26.03.12	15.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>horizontalis</i>	26.03.12	12.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>insignis</i>	02.04.12	17.04.13	Western Asia
<i>Cotoneaster</i>	<i>laevigata</i>	26.03.12	-	Eastern Asia
<i>Cotoneaster</i>	<i>lucidus</i>	22.03.12	-	Central Asia
<i>Cotoneaster</i>	<i>moupinensis</i>	20.03.12	22.03.13	Eastern Asia
<i>Cotoneaster</i>	<i>multiflorus</i>	14.03.12	08.04.13	Eastern Asia
<i>Cotoneaster</i>	<i>niger</i>	27.03.12	-	Eastern Asia
<i>Cotoneaster</i>	<i>simonsii</i>	02.04.12	17.04.13	Southern Asia
<i>Cotoneaster</i>	<i>x watereri</i>	03.04.12	23.04.13	Hybrid
<i>Crataegomespilus</i>	<i>dardarii</i>	17.04.12	26.04.13	Hybrid
<i>Crataegus</i>	<i>chrysoarpa</i>	28.03.12	19.04.13	Northern America
<i>Crataegus</i>	<i>crus-galli</i>	27.04.12	02.05.13	Northern America
<i>Crataegus</i>	<i>mollis</i>	28.03.12	17.04.13	Northern America
<i>Crataegus</i>	<i>monogyna</i>	07.04.12	18.04.13	Europe
<i>Crataegus</i>	<i>submollis</i>	27.04.12	19.04.13	Northern America

<i>Crataegus</i>	<i>x prunifolia</i>	29.04.12	30.04.13	Hybrid
<i>Cydonia</i>	<i>oblonga</i>	30.03.12	19.04.13	Central Asia
<i>Cytisophyllum</i>	<i>sessilifolius</i>	17.04.12	22.04.13	Europe
<i>Daphne</i>	<i>laureola</i>	10.04.12	17.04.13	Europe
<i>Davidia</i>	<i>involutrata</i>	27.04.12	29.04.13	Eastern Asia
<i>Decaisnea</i>	<i>fargesii</i>	20.04.12	19.04.13	Eastern Asia
<i>Deutzia</i>	<i>corymbosa</i>	26.03.12	12.04.13	Southern Asia
<i>Deutzia</i>	<i>gracilis</i>	29.03.12	15.04.13	Eastern Asia
<i>Deutzia</i>	<i>scabra</i>	27.03.12	17.04.13	Eastern Asia
<i>Deutzia</i>	<i>x carnea</i>	29.03.12	19.04.13	Hybrid
<i>Deutzia</i>	<i>x elegantissima</i>	25.03.12	16.04.13	Hybrid
<i>Deutzia</i>	<i>x maliflora</i>	27.03.12	17.04.13	Hybrid
<i>Deutzia</i>	<i>x myriantha</i>	27.03.12	17.04.13	Hybrid
<i>Deutzia</i>	<i>x rosea</i>	27.03.12	17.04.13	Hybrid
<i>Diospyrus</i>	<i>virginiana</i>	01.05.12	29.04.13	Northern America
<i>Elaeagnus</i>	<i>pungens</i>	12.04.12	20.04.13	Eastern Asia
<i>Elaeagnus</i>	<i>umbellata</i>	27.03.12	12.04.13	Eastern Asia
<i>Elaeagnus</i>	<i>x ebbingei</i>	23.03.12	24.03.13	Hybrid
<i>Eleutherococcus</i>	<i>senticosus</i>	26.03.12	19.04.13	Eastern Asia
<i>Eleutherococcus</i>	<i>setchuenensis</i>	02.04.12	18.04.13	Eastern Asia
<i>Eleutherococcus</i>	<i>sieboldianus</i>	08.04.12	19.04.13	Eastern Asia
<i>Enkianthus</i>	<i>campanulatus</i>	11.04.12	19.04.13	Eastern Asia
<i>Eucommia</i>	<i>ulmoides</i>	24.04.12	25.04.13	Eastern Asia
<i>Euonymus</i>	<i>alatus</i>	20.04.12	25.04.13	Eastern Asia
<i>Euonymus</i>	<i>europaeus</i>	28.03.12	17.04.13	Europe
<i>Euonymus</i>	<i>fortunei</i>	28.03.12	-	Southern Asia
<i>Euonymus</i>	<i>hamiltonianus</i>	28.03.12	15.04.13	Eastern Asia
<i>Euonymus</i>	<i>latifolius</i>	01.04.12	19.04.13	Europe
<i>Euonymus</i>	<i>macropterus</i>	29.03.12	16.04.13	Eastern Asia
<i>Euonymus</i>	<i>oxyphyllus</i>	01.04.12	19.04.13	Eastern Asia
<i>Euonymus</i>	<i>sieboldianus</i>	02.04.12	17.04.13	Eastern Asia
<i>Euonymus</i>	<i>verrucosus</i>	31.03.12	19.04.13	Europe
<i>Exochorda</i>	<i>racemosa</i>	24.03.12	-	Eastern Asia
<i>Exochorda</i>	<i>tianschanica</i>	27.03.12	15.04.13	Central Asia
<i>Fagus</i>	<i>crenata</i>	25.04.12	22.04.13	Eastern Asia
<i>Fagus</i>	<i>engleriana</i>	22.04.12	22.04.13	Eastern Asia
<i>Fagus</i>	<i>sylvatica</i>	24.04.12	22.04.13	Europe
<i>Flueggea</i>	<i>suffruticosa</i>	28.03.12	02.05.13	Eastern Asia
<i>Forsythia</i>	<i>ovata</i>	27.03.12	17.04.13	Eastern Asia
<i>Forsythia</i>	<i>suspensa</i>	30.03.12	19.04.13	Eastern Asia
<i>Fraxinus</i>	<i>americana</i>	05.05.12	02.05.13	Northern America
<i>Fraxinus</i>	<i>angustifolia</i>	01.05.12	29.04.13	Europe
<i>Fraxinus</i>	<i>chinensis</i>	01.05.12	29.04.13	Eastern Asia
<i>Fraxinus</i>	<i>excelsior</i>	03.05.12	29.04.13	Europe
<i>Fraxinus</i>	<i>latifolia</i>	03.05.12	02.05.13	Northern America
<i>Fraxinus</i>	<i>longicuspis</i>	24.04.12	29.04.13	Eastern Asia
<i>Fraxinus</i>	<i>ornus</i>	01.05.12	29.04.13	Europe
<i>Fraxinus</i>	<i>pennsylvanica</i>	01.05.12	29.04.13	Northern America

<i>Fraxinus</i>	<i>profunda</i>	03.05.12	02.05.13	Northern America
<i>Ginkgo</i>	<i>biloba</i>	01.05.12	29.04.13	Eastern Asia
<i>Gleditsia</i>	<i>casapica</i>	02.05.12	29.04.13	Western Asia
<i>Gleditsia</i>	<i>ferox</i>	20.04.12	20.04.13	Eastern Asia
<i>Gleditsia</i>	<i>japonica</i>	23.04.12	29.04.13	Eastern Asia
<i>Gleditsia</i>	<i>sinensis</i>	30.04.12	06.05.13	Eastern Asia
<i>Gymnocladus</i>	<i>dioicus</i>	02.05.12	06.05.13	Northern America
<i>Hamamelis</i>	<i>japonica</i>	30.03.12	25.04.13	Eastern Asia
<i>Hamamelis</i>	<i>mollis</i>	20.04.12	29.04.13	Eastern Asia
<i>Hamamelis</i>	<i>vernalis</i>	24.04.12	25.04.13	Northern America
<i>Hamamelis</i>	<i>virginiana</i>	18.04.12	25.04.13	Northern America
<i>Hamamelis</i>	<i>x intermedia</i>	20.04.12	02.05.13	Hybrid
<i>Heptacodium</i>	<i>miconioides</i>	30.03.12	15.04.13	Eastern Asia
<i>Hibiscus</i>	<i>syriacus</i>	03.05.12	02.05.13	Eastern Asia
<i>Hippophae</i>	<i>rhamnoides</i>	16.04.12	15.04.13	Eastern Asia
<i>Hydrangea</i>	<i>anomala</i>	30.03.12	19.04.13	Eastern Asia
<i>Hydrangea</i>	<i>arborescens</i>	30.03.12	19.04.13	Northern America
<i>Hydrangea</i>	<i>cinerea</i>	01.04.12	26.04.13	Northern America
<i>Hydrangea</i>	<i>heteromalla</i>	30.03.12	19.04.13	Eastern Asia
<i>Hydrangea</i>	<i>involucrata</i>	31.03.12	19.04.13	Eastern Asia
<i>Hydrangea</i>	<i>macrophylla</i>	21.03.12	12.04.13	Eastern Asia
<i>Hydrangea</i>	<i>paniculata</i>	27.04.12	25.04.13	Eastern Asia
<i>Hydrangea</i>	<i>radiata</i>	31.03.12	19.04.13	Northern America
<i>Hydrangea</i>	<i>serrata</i>	30.03.12	19.04.13	Eastern Asia
<i>Hydrangea</i>	<i>x serrata</i>	20.03.12	15.04.13	Hybrid
<i>Idesia</i>	<i>polycarpa</i>	30.04.12	02.05.13	Eastern Asia
<i>Jasminum</i>	<i>nudiflorum</i>	28.03.12	19.04.13	Eastern Asia
<i>Juglans</i>	<i>ailantifolia</i>	03.05.12	26.04.13	Eastern Asia
<i>Juglans</i>	<i>mandshurica</i>	17.04.12	-	Eastern Asia
<i>Juglans</i>	<i>microcarpa</i>	28.04.12	29.04.13	Northern America
<i>Juglans</i>	<i>nigra</i>	28.04.12	29.04.13	Northern America
<i>Juglans</i>	<i>regia</i>	17.04.12	25.04.13	Europe
<i>Juniperus</i>	<i>communis</i>	29.04.12	06.05.13	Western Asia
<i>Juniperus</i>	<i>sabina</i>	17.04.12	-	Europe
<i>Kalopanax</i>	<i>setemlobus</i>	24.04.12	-	Eastern Asia
<i>Kerria</i>	<i>japonica</i>	11.04.12	17.04.13	Eastern Asia
<i>Kolkwitzia</i>	<i>amabilis</i>	02.04.12	15.04.13	Eastern Asia
<i>Larix</i>	<i>decidua</i>	26.03.12	15.04.13	Europe
<i>Larix</i>	<i>gmelinii</i>	26.03.12	14.04.13	Northern Asia
<i>Larix</i>	<i>kaempferi</i>	30.03.12	18.04.13	Eastern Asia
<i>Ligustrum</i>	<i>ibota</i>	28.03.12	12.04.13	Eastern Asia
<i>Ligustrum</i>	<i>tschonoskii</i>	30.03.12	15.04.13	Eastern Asia
<i>Ligustrum</i>	<i>vulgare</i>	02.04.12	19.04.13	Europe
<i>Lindera</i>	<i>benzoin</i>	18.04.12	29.04.13	Northern America
<i>Liquidambar</i>	<i>orientalis</i>	20.04.12	25.04.13	Western Asia
<i>Liquidambar</i>	<i>styraciflua</i>	18.04.12	25.04.13	Northern America
<i>Liriodendron</i>	<i>tulipifera</i>	29.03.12	15.04.13	Northern America
<i>Lonicera</i>	<i>alpigena</i>	23.03.12	28.03.13	Europe

<i>Lonicera</i>	<i>caerulea</i>	21.03.12	09.03.13	Europe
<i>Lonicera</i>	<i>caprifolium</i>	08.03.12	09.03.13	Europe
<i>Lonicera</i>	<i>chaetocarpa</i>	21.03.12	26.04.13	Eastern Asia
<i>Lonicera</i>	<i>conjugalis</i>	02.04.12	19.04.13	Northern America
<i>Lonicera</i>	<i>ferdinandi</i>	30.03.12	-	Eastern Asia
<i>Lonicera</i>	<i>fragrantissima</i>	02.04.12	10.04.13	Eastern Asia
<i>Lonicera</i>	<i>gracilipes</i>	20.03.12	08.04.13	Eastern Asia
<i>Lonicera</i>	<i>korolkowii</i>	23.03.12	21.03.13	Central Asia
<i>Lonicera</i>	<i>maackii</i>	02.04.12	18.04.13	Eastern Asia
<i>Lonicera</i>	<i>maximowiczii</i>	23.03.12	11.03.13	Eastern Asia
<i>Lonicera</i>	<i>pekinensis</i>	02.04.12	17.04.13	Eastern Asia
<i>Lonicera</i>	<i>periclymenum</i>	27.03.12	11.03.13	Europe
<i>Lonicera</i>	<i>purpurascens</i>	19.03.12	22.03.13	Southern Asia
<i>Lonicera</i>	<i>pyrenaica</i>	24.03.12	20.03.13	Europe
<i>Lonicera</i>	<i>tangutica</i>	19.03.12	21.03.13	Eastern Asia
<i>Lonicera</i>	<i>tatarica</i>	26.03.12	18.03.13	Central Asia
<i>Lonicera</i>	<i>tatarica x notha</i>	26.03.12	-	Hybrid
<i>Lonicera</i>	<i>webbiana</i>	26.03.12	-	Southern Asia
<i>Lonicera</i>	<i>x muscaviensis</i>	20.03.12	11.03.13	Hybrid
<i>Lonicera</i>	<i>x myrtilloides</i>	20.03.12	11.03.13	Hybrid
<i>Lonicera</i>	<i>x purpusii</i>	15.03.12	08.04.13	Hybrid
<i>Lonicera</i>	<i>x salicifolia</i>	19.03.12	11.03.13	Hybrid
<i>Lonicera</i>	<i>x notha</i>	02.04.12	08.03.13	Hybrid
<i>Lonicera</i>	<i>xylosteum</i>	28.03.12	17.04.13	Europa
<i>Magnolia</i>	<i>acuminata</i>	03.05.12	07.05.13	Northern America
<i>Magnolia</i>	<i>denudata</i>	20.04.12	26.04.13	Eastern Asia
<i>Magnolia</i>	<i>kobus</i>	20.04.12	22.04.13	Hybrid
<i>Magnolia</i>	<i>macrophylla</i>	27.04.12	02.05.13	Northern America
<i>Magnolia</i>	<i>salicifolia</i>	22.04.12	19.04.13	Eastern Asia
<i>Magnolia</i>	<i>sieboldii</i>	24.04.12	29.04.13	Eastern Asia
<i>Magnolia</i>	<i>tripetala</i>	03.05.12	03.05.13	Northern America
<i>Magnolia</i>	<i>zenii</i>	24.04.12	26.04.13	Eastern Asia
<i>Malus</i>	<i>baccata</i>	24.03.12	15.04.13	Eastern Asia
<i>Malus</i>	<i>floribunda</i>	26.03.12	15.04.13	Eastern Asia
<i>Malus</i>	<i>fusca</i>	11.04.12	22.04.13	Northern America
<i>Malus</i>	<i>halliana</i>	05.04.12	18.04.13	Eastern Asia
<i>Malus</i>	<i>hupehensis</i>	30.03.12	18.04.13	Eastern Asia
<i>Malus</i>	<i>ioensis</i>	07.04.12	18.04.13	Northern America
<i>Malus</i>	<i>orientalis</i>	03.04.12	16.04.13	Western Asia
<i>Malus</i>	<i>prattii</i>	05.04.12	18.04.13	Eastern Asia
<i>Malus</i>	<i>prunifolia</i>	21.03.12	10.04.13	Eastern Asia
<i>Malus</i>	<i>sieboldii</i>	30.03.12	15.04.13	Eastern Asia
<i>Malus</i>	<i>x hartwigii</i>	23.03.12	01.04.13	Hybrid
<i>Malus</i>	<i>x spectabilis</i>	26.03.12	15.04.13	Hybrid
<i>Malus</i>	<i>x zumi</i>	26.03.12	15.04.13	Hybrid
<i>Menispermum</i>	<i>dauricum</i>	18.04.12	23.04.13	Northern Asia
<i>Mespilus</i>	<i>germanica</i>	30.03.12	19.04.13	Western Asia
<i>Metasequoia</i>	<i>glyptostrobooides</i>	12.04.12	18.04.13	Eastern Asia

<i>Neillia</i>	<i>thibetica</i>	15.03.12	20.03.13	Eastern Asia
<i>Nothofagus</i>	<i>antarctica</i>	17.04.12	22.04.13	Southern America
<i>Nyssa</i>	<i>sylvatica</i>	03.05.12	02.05.13	Northern America
<i>Oemleria</i>	<i>cerasiformis</i>	13.04.12	15.04.13	Northern America
<i>Orixa</i>	<i>japonica</i>	12.04.12	17.04.13	Eastern Asia
<i>Ostrya</i>	<i>carpinifolia</i>	03.04.12	18.04.13	Europe
<i>Ostrya</i>	<i>virginiana</i>	07.04.12	18.04.13	Northern America
<i>Paeonia</i>	<i>ostii</i>	07.04.12	15.04.13	Eastern Asia
<i>Paeonia</i>	<i>rockii</i>	13.03.12	11.03.13	Eastern Asia
<i>Parrotia</i>	<i>persica</i>	05.04.12	18.04.13	Western Asia
<i>Parrotiopsis</i>	<i>jaquemontiana</i>	12.04.12	22.04.13	Eastern Asia
<i>Periploca</i>	<i>graeca</i>	04.05.12	02.05.13	Europe
<i>Petteria</i>	<i>ramentacea</i>	10.04.12	19.04.13	Europe
<i>Phellodendron</i>	<i>amurense</i>	26.04.12	29.04.13	Eastern Asia
<i>Philadelphus</i>	<i>coronarius</i>	27.03.12	12.04.13	Europe
<i>Philadelphus</i>	<i>lewisii</i>	30.03.12	17.04.13	Northern America
<i>Philadelphus</i>	<i>pekinensis</i>	29.03.12	-	Eastern Asia
<i>Philadelphus</i>	<i>pubescens</i>	27.03.12	16.04.13	Northern America
<i>Philadelphus</i>	<i>satsumi</i>	30.03.12	19.04.13	Eastern Asia
<i>Philadelphus</i>	<i>sericanthus</i>	29.03.12	15.04.13	Eastern Asia
<i>Philadelphus</i>	<i>subcanus</i>	27.03.12	17.04.13	Eastern Asia
<i>Philadelphus</i>	<i>x cymosus</i>	27.03.12	15.04.13	Hybrid
<i>Philadelphus</i>	<i>x insignis</i>	31.03.12	17.04.13	Hybrid
<i>Philadelphus</i>	<i>x lemoinei</i>	27.03.12	15.04.13	Hybrid
<i>Philadelphus</i>	<i>x pendulifolius</i>	28.03.12	16.04.13	Hybrid
<i>Philadelphus</i>	<i>x virginialis</i>	02.04.12	17.04.13	Hybrid
<i>Photinia</i>	<i>villosa</i>	20.04.12	25.04.13	Eastern Asia
<i>Picea</i>	<i>abies</i>	27.04.12	05.05.13	Europe
<i>Picea</i>	<i>asperata</i>	06.05.12	12.05.13	Eastern Asia
<i>Picea</i>	<i>glehnii</i>	03.05.12	13.05.13	Eastern Asia
<i>Picea</i>	<i>omorika</i>	05.05.12	13.05.13	Europe
<i>Pinus</i>	<i>armandii</i>	28.04.12	-	Eastern Asia
<i>Pinus</i>	<i>banksiana</i>	01.05.12	-	Northern America
<i>Pinus</i>	<i>ponderosa</i>	03.05.12	-	Northern America
<i>Platanus</i>	<i>occidentalis</i>	28.04.12	29.04.13	Northern America
<i>Poncirus</i>	<i>trifoliata</i>	06.05.12	26.04.13	Eastern Asia
<i>Populus</i>	<i>koreana</i>	21.03.12	16.04.13	Eastern Asia
<i>Pricrasma</i>	<i>quassioides</i>	28.04.12	26.04.13	Southern Asia
<i>Prinsepia</i>	<i>sinensis</i>	08.03.12	01.02.13	Eastern Asia
<i>Prinsepia</i>	<i>uniflora</i>	23.03.12	22.03.13	Eastern Asia
<i>Prunus</i>	<i>angustifolia</i>	21.03.12	13.04.13	Northern America
<i>Prunus</i>	<i>cerasifera</i>	27.03.12	15.04.13	Western Asia
<i>Prunus</i>	<i>grayana</i>	25.03.12	15.04.13	Eastern Asia
<i>Prunus</i>	<i>incana</i>	27.03.12	12.04.13	Western Asia
<i>Prunus</i>	<i>lannesiana</i>	07.04.12	19.04.13	Eastern Asia
<i>Prunus</i>	<i>padus</i>	27.03.12	14.04.13	Europe
<i>Prunus</i>	<i>serotina</i>	29.03.12	19.04.13	Northern America
<i>Prunus</i>	<i>spinosa</i>	28.04.12	22.04.13	Europe

<i>Prunus</i>	<i>tenella</i>	16.04.12	18.04.13	Europe
<i>Prunus</i>	<i>virginiana</i>	26.03.12	15.04.13	Northern America
<i>Prunus</i>	<i>x subhirtella</i>	10.04.12	19.04.13	Hybrid
<i>Ptelea</i>	<i>trifoliata</i>	03.05.12	06.05.13	Northern America
<i>Pyracantha</i>	<i>coccinea</i>	03.04.12	17.04.13	Europe
<i>Pyrus</i>	<i>calleryana</i>	26.03.12	16.04.13	Eastern Asia
<i>Pyrus</i>	<i>elaeagnifolia</i>	24.04.12	25.04.13	Europe
<i>Pyrus</i>	<i>pyrifolia (Sorte)</i>	02.04.12	19.04.13	Eastern Asia
<i>Pyrus</i>	<i>ussuriensis</i>	25.03.12	13.04.13	Eastern Asia
<i>Quercus</i>	<i>alba</i>	05.05.12	06.05.13	Northern America
<i>Quercus</i>	<i>bicolor</i>	03.05.12	02.05.13	Northern America
<i>Quercus</i>	<i>cerris</i>	03.05.12	02.05.13	Europe
<i>Quercus</i>	<i>macrocarpa</i>	01.05.12	29.04.13	Northern America
<i>Quercus</i>	<i>mongolica</i>	28.04.12	02.05.13	Eastern Asia
<i>Quercus</i>	<i>robur</i>	27.04.12	29.04.13	Europe
<i>Quercus</i>	<i>rubra</i>	01.05.12	29.04.13	Northern America
<i>Quercus</i>	<i>shumardii</i>	28.04.12	26.04.13	Northern America
<i>Quercus</i>	<i>variabilis</i>	01.05.12	06.05.13	Eastern Asia
<i>Quercus</i>	<i>velutina</i>	22.04.12	-	Northern America
<i>Rhamnus</i>	<i>alpina</i>	20.04.12	25.04.13	Eastern Asia
<i>Rhamnus</i>	<i>cathartica</i>	13.04.12	24.04.13	Europe
<i>Rhamnus</i>	<i>frangula</i>	24.04.12	25.04.13	Europe
<i>Rhamnus</i>	<i>macrocarpa</i>	13.04.12	23.04.13	Northern America
<i>Rhamnus</i>	<i>pentapomica</i>	10.04.12	23.04.13	Southern Asia
<i>Rhododendron</i>	<i>canadense</i>	28.04.12	02.05.13	Northern America
<i>Rhododendron</i>	<i>dauricum</i>	30.03.12	22.04.13	Eastern Asia
<i>Rhododendron</i>	<i>mucronulatum</i>	07.04.12	15.04.13	Eastern Asia
<i>Rhododendron</i>	<i>schlippenbachii</i>	24.04.12	23.04.13	Eastern Asia
<i>Rhododendron</i>	<i>sichotense</i>	26.03.12	12.04.13	Eastern Asia
<i>Rhododendron</i>	<i>yedoense</i>	12.03.12	23.04.13	Eastern Asia
<i>Ribes</i>	<i>alpinum</i>	12.03.12	11.03.13	Europe
<i>Ribes</i>	<i>diacanthum</i>	12.03.12	11.03.13	Eastern Asia
<i>Ribes</i>	<i>divaricatum</i>	23.03.12	28.03.13	Northern America
<i>Ribes</i>	<i>glaciale</i>	15.03.12	14.03.13	Southern Asia
<i>Ribes</i>	<i>himalense</i>	22.03.12	14.03.13	Eastern Asia
<i>Ribes</i>	<i>maximowiczii</i>	15.03.12	14.03.13	Eastern Asia
<i>Ribes</i>	<i>uva-crispa</i>	22.03.12	18.03.13	Europe
<i>Ribes</i>	<i>x succirubrum</i>	22.03.12	21.03.13	Hybrid
<i>Robinia</i>	<i>pseudoacacia</i>	28.04.12	29.04.13	Northern America
<i>Rosa</i>	<i>acicularis</i>	30.03.12	19.04.13	Northern America
<i>Rosa</i>	<i>amblyotis</i>	26.03.12	-	Northern Asia
<i>Rosa</i>	<i>blanda</i>	26.03.12	18.04.13	Northern America
<i>Rosa</i>	<i>britzensis</i>	26.03.12	15.04.13	Western Asia
<i>Rosa</i>	<i>carolina</i>	29.03.12	19.04.13	Northern America
<i>Rosa</i>	<i>hugonis</i>	27.03.12	12.04.13	Eastern Asia
<i>Rosa</i>	<i>multiflora</i>	28.03.12	-	Eastern Asia
<i>Rosa</i>	<i>majalis</i>	27.03.12	15.04.13	Europe
<i>Rosa</i>	<i>pisocarpa</i>	31.03.12	15.04.13	Northern America

<i>Rosa</i>	<i>rugosa</i>	06.04.12	16.04.13	Eastern Asia
<i>Rosa</i>	<i>sericea</i>	30.03.12	15.04.13	Eastern Asia
<i>Rosa</i>	<i>spinosissima</i>	27.03.12	16.04.13	Europe
<i>Rosa</i>	<i>tomentella</i>	17.04.12	-	Europe
<i>Rosa</i>	<i>willmottiae</i>	29.03.12	15.04.13	Eastern Asia
<i>Rosa</i>	<i>x alba</i>	30.03.12	19.04.13	Hybrid
<i>Rosa</i>	<i>x centifolia</i>	26.03.12	16.04.13	Hybrid
<i>Rosa</i>	<i>x pteragonis</i>	26.03.12	14.04.13	Hybrid
<i>Rubus</i>	<i>allegheensis</i>	28.03.12	14.04.13	Northern America
<i>Rubus</i>	<i>parvifolius</i>	30.03.12	19.04.13	Australia
<i>Rubus</i>	<i>phoenicolasius</i>	30.03.12	19.04.13	Eastern Asia
<i>Salix</i>	<i>alba</i>	30.03.12	22.04.13	Europe
<i>Salix</i>	<i>apoda</i>	10.04.12	19.04.13	Western Asia
<i>Salix</i>	<i>caprea</i>	18.04.12	19.04.13	Europe
<i>Salix</i>	<i>glabra</i>	11.04.12	19.04.13	Europe
<i>Salix</i>	<i>gracilistyla</i>	26.03.12	15.04.13	Eastern Asia
<i>Salix</i>	<i>lapponum</i>	02.04.12	23.04.13	Europe
<i>Salix</i>	<i>magnifica</i>	30.04.12	06.05.13	Eastern Asia
<i>Salix</i>	<i>repens</i>	11.04.12	19.04.13	Europe
<i>Salix</i>	<i>rosmarinifolius</i>	11.04.12	19.04.13	Europe
<i>Sambucus</i>	<i>nigra</i>	21.03.12	15.04.13	Europe
<i>Sambucus</i>	<i>racemosa</i>	19.03.12	15.04.13	Northern America
<i>Sambucus</i>	<i>tigranii</i>	23.03.12	15.04.13	Europe
<i>Sassafras</i>	<i>albidum</i>	07.05.12	06.05.13	Northern America
<i>Schisandra</i>	<i>chinensis</i>	26.03.12	10.04.13	Eastern Asia
<i>Sequoiadendron</i>	<i>giganteum</i>	03.05.12	-	Northern America
<i>Shepherdia</i>	<i>argentea</i>	25.03.12	-	Northern America
<i>Sibiraea</i>	<i>laevigata</i>	12.03.12	11.03.13	Eastern Asia
<i>Sinojackia</i>	<i>sinensis</i>	30.03.12	19.04.13	Eastern Asia
<i>Sinowilsonia</i>	<i>henryi</i>	07.04.12	19.04.13	Eastern Asia
<i>Sorbaria</i>	<i>arborea</i>	21.03.12	20.03.13	Eastern Asia
<i>Sorbaria</i>	<i>sorbifolia</i>	10.03.12	06.03.13	Eastern Asia
<i>Sorbus</i>	<i>aucuparia</i>	07.04.12	19.04.13	Europe
<i>Sorbus</i>	<i>conmixta</i>	26.03.12	17.04.13	Eastern Asia
<i>Sorbus</i>	<i>decora</i>	12.04.12	25.04.13	Northern America
<i>Spartium</i>	<i>junceum</i>	12.04.12	-	Europe
<i>Spiraea</i>	<i>canescens</i>	27.03.12	15.04.13	Southern Asia
<i>Spiraea</i>	<i>chamaedryfolia</i>	27.03.12	12.04.13	Northern Asia
<i>Spiraea</i>	<i>japonica x salicifolia</i>	27.03.12	15.04.13	Hybrid
<i>Spiraea</i>	<i>miyabei</i>	27.03.12	15.04.13	Eastern Asia
<i>Spiraea</i>	<i>salicifolia</i>	20.03.12	01.04.13	Europe
<i>Spiraea</i>	<i>trichocarpa</i>	29.03.12	17.04.13	Eastern Asia
<i>Spiraea</i>	<i>wilsonii</i>	29.03.12	15.04.13	Eastern Asia
<i>Spiraea</i>	<i>x arguta</i>	29.03.12	15.04.13	Hybrid
<i>Spiraea</i>	<i>x billiardii</i>	28.03.12	17.04.13	Hybrid
<i>Spiraea</i>	<i>x conferta</i>	30.03.12	17.04.13	Hybrid
<i>Spiraea</i>	<i>x conspicua</i>	28.03.12	15.04.13	Hybrid
<i>Spiraea</i>	<i>x lenneana</i>	28.03.12	17.04.13	Hybrid

<i>Spiraea</i>	<i>x pumila</i>	26.03.12	12.04.13	Hybrid
<i>Spiraea</i>	<i>x van houttei</i>	26.03.12	12.04.13	Hybrid
<i>Stachyurus</i>	<i>chinensis</i>	27.03.12	23.04.13	Eastern Asia
<i>Stachyurus</i>	<i>praecox</i>	22.04.12	19.04.13	Eastern Asia
<i>Staphylea</i>	<i>colchica</i>	27.03.12	17.04.13	Western Asia
<i>Staphylea</i>	<i>pinnata</i>	28.03.12	18.04.13	Europe
<i>Staphylea</i>	<i>trifoliata</i>	30.03.12	19.04.13	Northern America
<i>Stewartia</i>	<i>monadelpha</i>	03.04.12	23.04.13	Eastern Asia
<i>Stewartia</i>	<i>pseudocamellia</i>	26.03.12	19.04.13	Eastern Asia
<i>Styphnolobium</i>	<i>japonica</i>	16.04.12	26.04.13	Eastern Asia
<i>Symphoricarpos</i>	<i>oreophilus</i>	10.04.12	17.04.13	Northern America
<i>Symphoricarpos</i>	<i>rotundifolius</i>	02.04.12	15.04.13	Northern America
<i>Syringa</i>	<i>josikaea</i>	21.03.12	01.04.13	Europe
<i>Syringa</i>	<i>komarowii</i>	31.03.12	17.04.13	Eastern Asia
<i>Syringa</i>	<i>meyeri</i>	30.03.12	16.04.13	Eastern Asia
<i>Syringa</i>	<i>oblata</i>	28.03.12	22.04.13	Eastern Asia
<i>Syringa</i>	<i>patula</i>	27.03.12	15.04.13	Eastern Asia
<i>Syringa</i>	<i>pekinensis</i>	29.03.12	17.04.13	Eastern Asia
<i>Syringa</i>	<i>pubescens</i>	27.03.12	15.04.13	Eastern Asia
<i>Syringa</i>	<i>reticulata</i>	30.03.12	16.04.13	Eastern Asia
<i>Syringa</i>	<i>tigerstedtii</i>	31.03.12	17.04.13	Eastern Asia
<i>Syringa</i>	<i>villosa</i>	25.03.12	13.04.13	Eastern Asia
<i>Syringa</i>	<i>vulgaris</i>	25.03.12	14.04.13	Europe
<i>Syringa</i>	<i>wolfii</i>	27.03.12	15.04.13	Eastern Asia
<i>Syringa</i>	<i>x chinensis</i>	26.03.12	18.04.13	Hybrid
<i>Syringa</i>	<i>x henryi</i>	31.03.12	17.04.13	Hybrid
<i>Syringa</i>	<i>x persica</i>	27.03.12	17.04.13	Eastern Asia
<i>Syringa</i>	<i>x rothomagensis</i>	26.03.12	17.04.13	Hybrid
<i>Taxus</i>	<i>baccata</i>	25.04.12	01.05.13	Europe
<i>Tetradium</i>	<i>daniellii</i>	28.04.12	29.04.13	Eastern Asia
<i>Thuja</i>	<i>plicata</i>	01.05.12	03.05.13	Northern America
<i>Tilia</i>	<i>dasystyla</i>	04.04.12	25.04.13	Western Asia
<i>Tilia</i>	<i>japonica</i>	11.04.12	22.04.13	Eastern Asia
<i>Tilia</i>	<i>platyphyllos</i>	16.04.12	22.04.13	Europe
<i>Toona</i>	<i>sinensis</i>	03.05.12	02.05.13	Eastern Asia
<i>Tsuga</i>	<i>canadensis</i>	05.05.12	06.05.13	Northern America
<i>Ulmus</i>	<i>americana</i>	07.04.12	18.04.13	Northern America
<i>Ulmus</i>	<i>glabra</i>	28.04.12	-	Europe
<i>Ulmus</i>	<i>laevis</i>	24.04.12	22.04.13	Central Asia
<i>Vaccinium</i>	<i>angustifolium</i>	09.04.12	19.04.13	Northern America
<i>Vaccinium</i>	<i>uliginosum</i>	13.04.12	26.04.13	Northern America
<i>Viburnum</i>	<i>betulifolium</i>	02.04.12	19.04.13	Eastern Asia
<i>Viburnum</i>	<i>buddleifolium</i>	14.03.12	04.04.13	Eastern Asia
<i>Viburnum</i>	<i>burejaeticum</i>	15.03.12	13.04.13	Eastern Asia
<i>Viburnum</i>	<i>carlesii</i>	26.03.12	15.04.13	Eastern Asia
<i>Viburnum</i>	<i>cassinoides</i>	26.03.12	15.04.13	Northern America
<i>Viburnum</i>	<i>dentatum</i>	02.04.12	19.04.13	Northern America
<i>Viburnum</i>	<i>erubescens</i>	28.03.12	-	Eastern Asia

<i>Viburnum</i>	<i>farreri</i>	09.03.12	06.03.13	Eastern Asia
<i>Viburnum</i>	<i>lantana</i>	10.04.12	19.04.13	Europe
<i>Viburnum</i>	<i>lentago</i>	24.03.12	17.04.13	Northern America
<i>Viburnum</i>	<i>molle</i>	12.04.12	23.04.13	Northern America
<i>Viburnum</i>	<i>opulus</i>	02.04.12	16.04.13	Europe
<i>Viburnum</i>	<i>plicatum</i>	02.04.12	17.04.13	Eastern Asia
<i>Viburnum</i>	<i>prunifolium</i>	03.04.12	17.04.13	Northern America
<i>Viburnum</i>	<i>setigerum</i>	10.04.12	-	Eastern Asia
<i>Viburnum</i>	<i>x bodnantense</i>	21.03.12	08.03.13	Hybrid
<i>Viburnum</i>	<i>x carlcephalum</i>	27.03.12	14.04.13	Hybrid
<i>Viburnum</i>	<i>x juddii</i>	26.03.12	12.04.13	Hybrid
<i>Weigela</i>	<i>coraeensis</i>	09.04.12	19.04.13	Eastern Asia
<i>Weigela</i>	<i>florida</i>	12.04.12	18.04.13	Eastern Asia
<i>Weigela</i>	<i>maximowiczii</i>	11.04.12	23.04.13	Eastern Asia
<i>Weigela</i>	<i>praecox</i>	26.03.12	15.04.13	Eastern Asia
<i>Zanthoxylum</i>	<i>simulans</i>	20.04.12	22.04.13	Eastern Asia
<i>Zelkova</i>	<i>schneideriana</i>	28.04.12	29.04.13	Eastern Asia
<i>Zelkova</i>	<i>serrata</i>	28.04.12	29.04.13	Eastern Asia

Table S2 Difference-of-means tests and post-hoc analyses

	Variable	Sample size	Difference-of-means test	Post-hoc analysis	
				Test	
Native climate and leaf-out dates					
Main climate and precipitation regime (Fig. 1 & 2)	Leaf-out year 2012	11 Cs 51 Cf 47 Df 17 Cw 21 Dw	KW-test: $H(4) = 41.4$ $p < 0.001$	DTK	Cs-Cf * Cs-Df *** Cs-Cw *** Cs-Dw *** Cf-Dw ** Df-Dw ***
	Day degrees year 2012	10 Cs 50 Cf 45 Df 13 Cw 19 Dw	KW-test: $H(4) = 36.9$ $p < 0.001$	DTK	Dw-Cs * Dw-Cf *
	Leaf-out year 2013	10 Cs 50 Cf 45 Df 13 Cw 19 Dw	KW-test: $H(4) = 34.8$ $p < 0.001$	DTK	Dw-Cs * Dw-Cf *
	Day degrees year 2013	10 Cs 50 Cf 45 Df 13 Cw 19 Dw	ANOVA: $F(4, 132) = 9.3$ $p = < 0.001$	DTK	Dw-Cs * Dw-Cf *
Main climate (Fig. 1 & S3)	Leaf-out year 2012	17 B 97 C 79 D 3 E	ANOVA: $F(3, 192) = 10.6$ $p < 0.001$	TK	C-D *** C-B **
Seasonal humidity (Fig. 1 & S4)	Leaf-out year 2012	40 w 153 f 11 s	KW-test: $H(2) = 25.9$ $p < 0.001$	Kruskalmc	w-f *** w-s ***
Summer temperature (Fig. 1 & S5)	Leaf-out year 2012	117 a 27 b 6 c	ANOVA: $F(2, 147) = 5.7$ $p = 0.004$	TK	a-c *
Meta-analysis					
Leaf-out cues of 107 woody species (Fig. 3)	Leaf-out year 2012	13 <i>Forcing</i> (F) 26 <i>LowChill</i> (L) 11 <i>HighChill</i> (H) 7 <i>Photoperiod</i> (P)	ANOVA: $F(3, 53) = 9.1$ $p < 0.001$	TK	F-L * F-H * F-P *
	Day degrees year 2012		ANOVA: $F(3, 53) = 5.8$ $p = 0.002$	TK	F-L * F-H * F-P *
	Leaf-out year 2013		ANOVA: $F(3, 53) = 8.1$ $p < 0.001$	TK	F-L * F-H * F-P *
	Day degrees year 2013		ANOVA: $F(3, 53) = 8.8$ $p < 0.001$	TK	F-L * F-H * F-P *

* significant at $p < 0.05$; ** significant at $p < 0.01$; *** significant at $p < 0.001$.

KW = Kruskal-Wallis test; TK = Tukey-Kramer test; DTK = Dunnett-Tukey-Kramer Pairwise Multiple Comparison Test Adjusted for Unequal Variances and Unequal Sample Sizes; Kruskalmc = Multiple comparison after Kruskal Wallis.