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Report on Temperatures and Open-Air Vegetation at the Royal Botanic Garden, Edinburgh, from October 1882 to June 1884. With Register of flowering of Selected Plants, compiled from Reports read at the Monthly Meetins of the Society

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PLATE XI.

The figures here, drawn to one scale, are from transverse sections of roots of *Ruscus androgynus*: (1) from my own garden at Hartree; (2) from Miss Hope's garden at Wardie; and (3) from the Royal Botanic Garden, Edinburgh. In each figure, a small portion of the section is represented, including part of the inner *cortical parenchyma*, with *endodermis*; of the *pericambium*; of the *fibro-vascular zone*; and of the *medullary parenchyma*.

cp = *Cortical parenchyma*.

end = *Endodermis*.

pc = *Pericambium*.

ph = *Phloem tracts*.

xd = *Xylem ducts*.

xp = *Xylem prosenchyma*.

mp = *Medullary parenchyma*.

Fig. 1.—From Hartree Garden. Showing the small size of the tissue-elements; the relatively great induration of *endodermis*, *pericambium*, and *xylem prosenchyma*; and the three distinct layers of the *endodermis*.

Fig. 2.—From Wardie Garden. Showing the larger size of the tissue-elements; the relatively smaller amount of induration of these elements; and the almost complete absence of the third, outermost, layer of the *endodermis*, of which layer only a single cell (towards the left side) is to be seen in the section.

Fig. 3.—From Royal Botanic Garden, Edinburgh. Showing the moderate amount of induration of the *endodermis*, of which, however, all three layers are distinctly developed; the great size and number of the *xylem ducts*, &c. The structure here is the most beautiful of any of the forms I have examined; and a well-prepared section is an exquisite microscopic object.

Report on Temperatures and Open-Air Vegetation at the Royal Botanic Garden, Edinburgh, from October 1882 to June 1884. With Register of flowering of Selected Plants, compiled from Reports read at the Monthly Meetings of the Society. By the late JOHN SADLER, and ROBERT LINDSAY, Curator of the Garden.

October 1882.—There was rain during nineteen of the thirty-one days of this month. On the 26th of the month there was frost, which nipped all the tender Dahlias, of which there was a good show. At that date the thermometer stood at 27° F.; next morning it was at 30° F.

November.—At the middle of the month the rock garden exhibited a wonderful display of blossoms, including different species and varieties of autumn Crocus, &c. On the 9th inst. the thermometer stood at 32° F.

December.—The thermometer, on the night of the 12th inst., fell to 7° F. A severe snow storm began on the 4th, continuing till the 9th inst. At Dalkeith Gardens 40 inches of snow fell, while in the open the average fall was 25

inches. In the garden itself, the ground was covered from 18 inches to 2 feet, protecting outdoor vegetation effectively, though much difficulty was experienced in keeping up a sufficient heat in the plant houses, owing to the cold north-east winds. On the 15th, when the thermometer stood at 3° F., a gradual thaw set in, but the ground was covered with snow till the 23rd.

Considerable damage was done to evergreen trees and shrubs by the continued weight of snow bending and breaking their branches. Unripened shoots of Golden Queen Holly were slightly browned, and some plants left out in the rock garden, which survive during mild winters only, were cut to the ground, as *Cordyline australis*, *Eucalyptus globulus*, and *E. viminalis*; these were tall plants uncovered by snow, while the New Zealand *Veronica Andersonii* and its varieties, which with us are usually killed in severe weather, were safe, by having been protected by snow.

January 1883.—The thermometer was at or below the freezing-point on fifteen occasions, as against twelve during January 1882. The following plants were in flower in the open air on the first day of the year:—*Geum aureum*, *Hepatica triloba alba*, *Erica herbacea alba*, *Helleborus grandiflorus*, and different coloured varieties of the common Primrose.

February.—The thermometer was at or below the freezing-point on nine occasions. The lowest readings were registered on the 1st, 29°; 11th, 31°; 12th, 32°; 16th, 32°; 19th, 28°; 28th, 31°. The highest morning readings were on the 5th, 46°; 14th, 49°; 20th, 45°; 21st, 50°; 24th, 47°; 25th, 46°. Little rain and no snow fell. South and south-west winds were prevalent, bright sunshine being of frequent occurrence during the early part of most days. So mild a month of February has only occurred once during the last thirty years; this was in February 1869, when 2° less were recorded. In consequence of this mild and genial weather vegetation made rapid progress. Leaf and flower buds are well forward on many deciduous trees and shrubs, such as Thorns, Lilacs, Roses, and *Ribes sanguineum*, the latter being also in flower. Herbaceous plants, such as *Fritillaria*, *Hemero-*

callis, *Symphytum*, *Ferula*, and the like, made growths of from 12 to 14 inches in length. The early-flowering *Rhododendron atrovirens*, *dahuricum*, *præcox*, and *Noble-anum*, have been particularly fine this season. On the rock garden forty-three species and varieties of plants came into flower for the month, as against forty-eight in the same month last year.

March.—During the month there were twenty-three frosty nights, as compared with seven in March 1882. The lowest readings registered were on the mornings of the 12th, 27°; 13th, 26°; 15th, 24°; 17th, 25°; 28th, 24°; 29th, 25°; while the highest morning readings at 9 o'clock were on the 2nd, 44°; 5th, 43°; 24th, 42°; 30th, 48°; and 31st, 41°. Vegetation, having been forced on by the unusual mildness of the previous month, suffered a severe check. The small amount of rainfall experienced along with these low temperatures tended in a great measure to protect early-flowering plants from injury. Roses (tea and hybrid perpetual) were slightly injured. Rhododendrons, which were in bloom during the early part of the month, had their flowers destroyed, but later developed buds were in full flower. Scillas and other spring-flowering bulbous plants had their period of flowering somewhat shortened, but otherwise they were as good as usual. Only twenty-eight species and varieties of plants came into flower in the rock garden during the month, while in March last year ninety-three species came into bloom. The retarding nature of the weather during the month may have a beneficial effect on the fruit crop this season.

April.—Towards the beginning of the month, when westerly winds were prevalent, vegetation made considerable progress. Many deciduous trees and shrubs, such as Larch, Poplar, Elder, Amelanchier, Thorns, and Lilacs, had their leaves nearly expanded. Elms and Ashes were literally covered with flowers. The following plants trained on south walls were finely in flower, viz.:—*Prunus triloba*, *fl. pl.*, *Magnolia conspicua*, *M. purpurea*, and *Cydonia japonica*. But a succession of cold east and north-east winds, together with little rainfall, prevailing after the 19th inst., materially checked outdoor vegetation. On the rock garden 108 species and varieties of alpine and dwarf

herbaceous plants came into flower during the month, making a total of 193 since January 1, while at the same date—the end of April—last year, 286 species were recorded as having flowered. The lowest temperatures were registered on the mornings of the 2nd, 31°; 4th, 30°; 6th, 30°; 7th, 31°; and the 26th, 29°. The highest readings at 9 A.M. were on the 9th, 50°; 11th, 52°; 12th, 50°; 15th, 50°; and 26th, 51°. During the early part of the month vegetation made fairly good progress; westerly winds were prevalent until the 19th.

May.—Towards the commencement of this month, on the 6th, 7th, 9th, and 12th, the thermometer was at or below the freezing-point. East winds and occasional showers of hail and sleet also left their marks on many plants. Those which have suffered most were Roses, *Dielytra*, *Astilbe*, *Spiræa palmata*. The young fronds of *Osmunda* and *Athyrium*, which were well advanced, completely blackened and destroyed; even some species of thorns had their leaves browned. The lowest readings occurred on the 6th, 25°; 7th, 30°; 8th, 34°; 9th, 32°; 12th, 32°; 17th, 33°. The highest morning readings were on the 13th, 57°; 14th, 57°; 22nd, 58°; 24th, 56°; 25th, 60°; 29th, 58°. On the rock garden 243 species and varieties of alpine and dwarf herbaceous plants came into flower during the month, making a total of 446 for the season, while at the same date—the end of May—last year 492 were recorded as having flowered.

The show of hardy spring plants, though late, was very fine, and well-developed foliage and abundance of flowers were characteristic features of deciduous trees and shrubs despite the unpromising spring.

June.—The lowest readings of the thermometer during the month were—on the 4th, 40°; 5th, 39°; 8th, 35°; 16th, 40°; 17th, 38°; 21st, 38°; while the highest morning readings were—on the 3rd, 80°; 15th, 60°; 23rd, 60°; 28th, 62°; 29th, 60°; 30th, 62°. The foliage of deciduous trees, such as Plane, Lime, Oak, Service, Spanish and Horse Chestnut, &c., were thoroughly developed and remarkably clean and perfect, owing greatly to the scarcity of the usual insect pests, such as aphids, caterpillars, red-spider. Even Roses, which are peculiarly subject to attacks of

aphis, are, so far, almost free from this enemy; probably owing to the lateness and dryness of the spring. Amongst plants which have flowered unusually well this season *Rhododendron hirsutum* and *R. ferrugineum* (the Swiss alpine Rhododendrons) may be mentioned; large bushes 4 to 5 feet wide have been completely covered with bloom. On the rock garden 255 species and varieties of plants came into flower during the month, as compared with 173 for the corresponding month last year, making a total of 701 for the season, as against 666 at the same date last year.

August.—During the month of August the weather, though mild and pleasant generally, was more favourable in the development of wood and leaves than ripening and maturing of fruit and seed. The lowest readings of the thermometer were on the 10th, 47°; 12th, 45°; 13th, 46°; 20th, 45°; 23rd, 42°; while the highest morning readings were on the 4th, 60°; 14th, 61°; 20th, 65°; 24th, 64°; 25th, 64°. West and south-west winds were prevalent. Rain fell in slight showers nearly every day throughout the month, in consequence of which many kinds of seeds have ripened badly, particularly those of herbaceous plants, which this year are a poor crop.

Seventy species and varieties of plants came into flower on the Rock Garden for the month, making a total of 938 for the season.

September.—September was also mild and pleasant throughout. North-west winds were frequent until the latter part of the month, when north-east winds prevailed, accompanied by rain, which, however, was not so frequent as on the previous month. The lowest temperatures occurred on the 1st, 41°; 5th, 41°; 12th, 32°; 11th, 41°; 22nd, 34°; while the highest morning readings were on the 3rd, 58°; 16th, 57°; 17th, 58°; 22nd, 56°; 25th, 60°. The first frost experienced since the 12th of May last was thus on the 12th of the month, when the thermometer fell to freezing-point. The first frost recorded last season was also on the 12th of September, when the same amount, viz., 32°, was registered. From the 12th till the end of the month the weather was again mild and bright, which tended to ripen and mature the wood of various

trees and shrubs. Autumn tints began to appear on sugar maple and *Pavia flava*, which at the close of the month were very beautiful.

Thirty species of plants came into flower on the Rock Garden, making for the season 968. These included *Gladiolus Saundersii*, *Kniphofia Uvaria*, *Rudbeckia purpurea*, *Aster longifolius*, *Crocus speciosus*, *C. medius*, and *C. vitellinus*.

October.—October was remarkable for the fine, dry, almost summer-like weather which prevailed throughout the entire month; frost occurred only once, viz., on the 22nd, when 3° were registered. In consequence of the mildness, deciduous trees parted with their foliage most reluctantly; many, which in October are usually stripped bare of their leaves, were still covered with foliage. The most beautiful were *Acer saccharinum*, *A. rubrum*, *A. monspessulanum*, *A. Lobbii*, and the varieties of *A. pseudo-platanus*; *Quercus rubra*, *Q. coccinea*, and *Q. conferta*; *Pyrus Aria* and *P. vestita*; *Salisburia*, Beech, Thorns, and Tulip tree; *Ampelopsis*, *Azaleas*, *Cornus*, *Mahonias*, and *Weigelas*, &c. Among herbaceous plants *Saxifraga purpurascens* and *Funkia Sieboldi* were most striking. A few evergreens also showed rich colouring, and contrasted favourably with the more beautiful, but shorter lived, deciduous coloured leaves; amongst such may be mentioned *Cryptomeria elegans*, *Thuia elegantissima* and *aurea*, *Golden* and *Silver Hollies*, and the various *Japanese Retinosporas*. The season, though favourable for the development of foliage, was apparently most unfavourable in developing flower-buds for next year. *Rhododendrons*, *Azaleas*, and other "American" plants, which are usually lifted about the end of the month for forcing purposes, were deficient in flower-buds. *Yew*, *Holly*, and *Coton-easter* had a fair crop of well-coloured berries. The lowest temperatures occurred on the 2nd, 32°; 12th, 34°; 22nd, 29°; 23rd, 35°; 30th, 35°; while the highest morning readings were on the 4th, 50°; 7th, 52°; 8th, 52°; 9th, 60°; and 14th, 51°. On the rock garden thirteen species of plants came into bloom, making a total for the season of no less than 981, being the largest number yet recorded as having flowered in one season, and 107 more than

flowered last year; this result was not due to the season, but simply to the fact that new plants are constantly being added to the collection from various quarters, many of which flower, and are recorded.

November.—During November the thermometer was at or below the freezing-point on fourteen occasions. The lowest readings were on the 7th, 28°; 8th, 29°; 11th, 28°; 12th, 22°; 13th, 27°; 14th, 29°. The highest morning readings were on the 1st, 47°; 2nd, 45°; 3rd, 46°; 25th, 46°; 29th, 51°.

The month began with eight days of mild spring-like weather. On the 9th and 10th a severe storm of wind, rain, and snow occurred, which swept off (with few exceptions) what leaves were remaining on deciduous trees. The latter portion of the month was remarkable for an extraordinary series of most brilliant sunrise and sunset phenomena, which attracted general attention. On the evening of the 28th, when the sunset was perhaps most striking, the thermometer registered 50° as the minimum. On the rock garden the following plants came into flower during the month:—*Aster Reevesii*, *Crocus* sp. (from Asia Minor); *Erica herbacea alba*, *Hepatica triloba alba*, *Iberis stylosa*, *Helleborus purpurascens* var., and *Geum aureum*.

A number of herbaceous and alpine plants which came into flower during previous months remained in fine flower, the finest of all being *Helleborus altifolius*, which began to flower this year about the beginning of September. Amongst others, *Arabis procurrens*, *Veronica rupestris*, *Schizostylis coccinea*, *Lithospermum prostratum*, *Aubrietia*, *Erica vagans*, &c. In other parts of the garden plants were in flower of *Jasminum nudiflorum*, *Hamamelis virginica*, *Erica ciliaris*, China Roses, Wallflowers, Stocks, Primroses (double and single), Pansies, &c.

December.—The month of December 1883 will be long remembered as one of the mildest on record. During the month the thermometer was twelve times at or below the freezing-point being in marked contrast with December 1882, when twenty-two frosty nights occurred. The lowest readings occurred on the 5th, 28°; 7th, 26°; 8th, 29°; 16th, 30°; 17th, 33°; while the highest morning readings were on the 9th, 45°; 13th, 49°; 24th, 49°; 25th, 48°; 29th, 49°.

The lowest reading which has yet been registered at the garden this winter was 22° which occurred on November 12th last.

The mildness of this month was only paralleled by that of December 1868, the mildest season recorded for thirty years, when *Pelargoniums*, *Calceolarias*, and other bedding-out plants remained throughout unprotected in the open. Of the forty plants whose dates of flowering are annually recorded, *Tussilago fragrans* and *Dondia Epipactis* appeared twice this year in flower.

The effects of the mildness of the season are very conspicuous in the case of the Cherry-Laurel, which has flower-buds already advanced, the usual time of flowering being April and May; also *Ribes sanguineum* with much swollen leaf-buds; Roses with young shoots 2 to 4 inches in length. Amongst herbaceous plants, *Ferulas*, *Heracleum*, *Orobis*, and *Sisyrinchium* are well started into growth.

The severe storm of wind of December 11 and 12, which did so much damage throughout the country, passed over fortunately without doing the slightest damage in the garden.

January 1884.—In January there were unprecedentedly high night readings of the thermometer, along with the lowest barometric reading ever recorded in Britain, that of the 12th being 27.333 inches accompanied by gales causing great destruction to life and property. In the garden the effects of the storm were most conspicuous on the hard rigid leaves of *Yucca gloriosa*, of which there are a large number in the rock garden, those in exposed situations having had their leaves bruised and broken off, thus rendering them unsightly for a time. Of the forty plants whose dates of flowering are annually recorded, fourteen came into bloom during the month, while three only were in flower at the same date last year. The lowest readings occurred on the 4th, 23° ; 24th, 30° ; 26th, 29° ; 27th, 30° ; 28th, 30° . The highest morning readings were on the 6th, 47° ; 9th, 50° ; 18th, 47° ; 19th, 48° ; 20th, 47° . On the 22nd and 23rd there was heavy rain, accompanied by high winds from the west and north-west. On the 24th and 25th a considerable fall of snow took place.

February.—During February the mild character of the

previous month was well maintained. The lowest readings of the thermometer occurred on the 2nd, 30°; 3rd, 28°; 8th, 25°; 19th, 30°; 29th, 25°. The highest morning readings were on the 4th, 49°; 5th, 48°; 9th, 47°; 12th, 48°; 13th, 48°. Comparatively little rain or snow fell, and the weather was favourable throughout for gardening work. On the morning of the 21st another severe storm of wind from the south-west occurred, rivalling that of the previous month in the amount of damage done throughout the country. Fortunately, the Botanic Garden again escaped almost unscathed. The mild and open nature of the season throughout brought vegetation very rapidly forward, both foliage and flower being in advance of that of recent years: *Nuttallia cerasiformis* was in flower on the 10th, *Ribes sanguineum* on the 21st, being fully a month later than last season. Forty-one species and varieties of plants came into flower on the rock garden during the month. By the end of the month no less than ninety different species were in flower, including those which opened on previous months, thus giving quite a showy appearance to the rock garden much earlier than usual. Of the forty plants whose dates of flowering are annually recorded seventeen came into flower during the month of February.

March.—The month of March has been very mild compared with that of last year, still it has been the most severe of any month during this unprecedentedly mild season. The thermometer was at or below the freezing-point on twelve nights. The lowest readings occurred on the 3rd, 28°; 11th, 27°; 22nd, 29°; 24th, 28°; 26th, 27°; the highest morning readings ranging from 47° to 53°. Thorns were in full leaf at the end of the month; Poplar, Lilac, Horse Chestnut and Maple being far advanced. *Magnolia conspicua* and *purpurea*, which last year at this date were in full flower, are not yet expanded. These plants are trained on south walls. Their lateness in flowering can only be accounted for by their wood being insufficiently ripened last summer and autumn. To the same cause may be attributed the lateness and poor condition of several other flowering plants on walls, notably *Prunus triloba*. Of the forty spring-flowering plants whose dates of flowering are annually recorded, six

came into flower, completing the list. The winter of 1868-69 compares in mildness with the present season.

April.—Throughout the month of April there were generally low night temperatures, with bright sunshine during the day. The cold easterly or north-easterly drying winds which prevailed almost continuously throughout the month, and the absence of anything like drenching rain, together with a succession of frosty nights at the end of the month, seriously retarded vegetation. The thermometer was below the freezing-point ten times. The lowest readings occurred on the 1st, 28°; 21st, 27°; 23rd, 27°; 25th, 26°; 27th, 27°; 28th, 28°. April has thus been the most severe month of the season. Owing to the advanced condition of vegetation these low temperatures did great injury to fruit trees and bushes in many parts of the country; much more damage, however, appears to have been sustained in the south than in the north. Almost the only plants damaged in the garden are Astilbe and Dielytra; young leaves of Horse Chestnut and Roses are also slightly damaged. On the rock garden 103 species and varieties came into bloom for the month as against 108 for the same month last year, making a total of 225 since January 1, as compared with 210 for the same period last year.

May.—No frost was registered, and once only did the glass fall to the freezing-point, while last May the thermometer was at or below freezing-point on four occasions. From the 1st till the 20th of the month rain fell more or less daily, after which a succession of dry, parching, easterly winds with bright sunshine throughout the day prevailed until the end of the month. Most deciduous trees have developed fine healthy foliage, and a few, owing to the absence of frost, have flowered better than usual, such as Horse Chestnut, Hollies, and *Pavia flava*. Laburnum and Thorns, both single and double, also promised well; but others, particularly Lilacs, double and single Cherries, and most species of Pyrus and Prunus, have not flowered so abundantly as usual. Although no actual frost was registered the average temperature was not high. The lowest readings of the thermometer occurred on the 2nd, 34°; 4th, 34°; 5th, 32°; 7th, 33°; 19th, 34°. The highest morning readings

were on the 12th, 57°; 22nd, 59°; 23rd, 62°; 25th, 62°; 31st, 58°. In the rock garden 228 species of alpine and herbaceous plants came into flower during the month, as against 243 for the same month last year, making a total of 455 since January 1st, as compared with 446 for the same period last year. A large proportion of those which began to flower in March and April continued to flower during May, thus rendering the garden very attractive.

June.—During the past month outdoor vegetation was much retarded, owing to the extreme drought which prevailed. There were twenty-three dry days. Slight showers of rain fell on seven days, viz., the 5th, 6th, 13th, 22nd, 23rd, 24th, and 29th. The lowest night temperature for June was 42°, on the nights of the 7th and 9th; the highest, 58°, on the 29th. The lowest day temperature was 56°, which occurred on the 5th; and the highest, 80°, on the 28th. In consequence of the want of rain, along with the mildness of the past winter, aphides, caterpillars, and other insect pests were very numerous and destructive, especially on Beeches, Elm, Holly, Gooseberry, and Currant; Roses, however, were tolerably clean and well budded. Late varieties of Rhododendron and Azalea were inferior. All late transplanted trees and shrubs suffered severely from drought. Most coniferous plants—Piceas, Abies, and Cedrus in particular—developed fine healthy shoots. The golden variegated forms of *Biota*, *Retinospora*, *Cupressus*, and *Taxus* coloured extremely well. On the rock garden 346 species and varieties of dwarf-growing herbaceous and alpine plants came into flower during the month, making a total of 798 for the season, as compared with 701 at corresponding date last year.

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*Table of Flowering Plants at the Royal Botanic Garden, Edinburgh, from
February 1880 till April 1884.*

		1880.	1881.	1882.	1883.	1884.
1	<i>Adonis vernalis</i> . . .	Apr. 20	May 11	May 1	Apr. 8	Mar. 26
2	<i>Arabis albida</i> . . .	Mar. 3	Mar. 20	Jan. 24	Feb. 19	Jan. 23
3	<i>Aubrietia grandiflora</i> . . .	Mar. 4	Mar. 12	Feb. 16	Feb. 15	Feb. 10
4	<i>Bulbocodium vernum</i> . . .	Mar. 1	Mar. 5	Feb. 2	Feb. 6	Jan. 26
5	<i>Corydalis solida</i> . . .	Mar. 16	Apr. 1	Feb. 26	Mar. 30	Mar. 13
6	<i>Corylus avellana</i> . . .	Feb. 11	Mar. 1	Feb. 3	Jan. 26	Jan. 14
7	<i>Crocus susianus</i> . . .	Feb. 12	Mar. 8	Feb. 2	Feb. 9	Jan. 19
8	<i>Crocus vernus</i> . . .	Feb. 20	Mar. 12	Feb. 9	Feb. 17	Jan. 28
9	<i>Daphne Mezereum</i> . . .	Feb. 28	Mar. 2	Dec. 28	Feb. 10	Jan. 20
10	<i>Dondia Epipactis</i> . . .	Feb. 2	Feb. 28	Dec. 26	Feb. 6	Dec. 29 (1883)
11	<i>Draba aizoides</i> . . .	Feb. 15	Feb. 26	Feb. 1	Mar. 12	Feb. 12
12	<i>Eranthis hyemalis</i> . . .	Feb. 8	Mar. 4	Feb. 1	Jan. 27	Jan. 22
13	<i>Erythronium Dens-canis</i> . . .	Mar. 11	Mar. 29	Feb. 20	Mar. 24	Mar. 12
14	<i>Fritillaria imperialis</i> . . .	Apr. 12	May 6	Apr. 10	Apr. 9	Mar. 27
15	<i>Galanthus nivalis</i> . . .	Feb. 7	Mar. 2	Jan. 24	Jan. 25	Jan. 19
16	<i>Galanthus plicatus</i> . . .	Feb. 8	Mar. 1	Feb. 1	Feb. 6	Jan. 26
17	<i>Iberis gibraltarica</i> . . .	Killed	...	...	Apr. 3	Mar. 20
18	<i>Iris reticulata</i> . . .	Mar. 10	Mar. 28	Feb. 21	Mar. 2	Feb. 28
19	<i>Leucoium vernum</i> . . .	Feb. 9	Mar. 4	Feb. 1	Feb. 4	Jan. 26
20	<i>Mandragora officinalis</i> . . .	Mar. 15	Apr. 2	Feb. 24	Feb. 20	Feb. 9
21	<i>Narcissus Pseudo-Narcissus</i> . . .	Mar. 19	Apr. 20	Mar. 4	Apr. 2	Mar. 18
22	<i>Narcissus pumilus</i> . . .	Mar. 9	Mar. 18	Feb. 2	Mar. 12	Feb. 28
23	<i>Nordmannia cordifolia</i> . . .	Feb. 20	Feb. 25	Jan. 26	Feb. 20	Feb. 15
24	<i>Omphalodes verna</i> . . .	...	...	...	Mar. 14	Feb. 12
25	<i>Orobus vernus</i> . . .	Mar. 8	Mar. 20	Feb. 4	Mar. 30	Feb. 9
26	<i>Rhododendron atrovirens</i> . . .	Feb. 5	Mar. 6	Dec. 27	Feb. 10	Jan. 10
27	<i>Rhododendron Nobleanum</i> . . .	Mar. 5	Mar. 15	Feb. 26	Feb. 22	Feb. 2
28	<i>Ribes sanguineum</i> . . .	Mar. 17	Mar. 24	Feb. 3	Mar. 28	Feb. 20
29	<i>Scilla bifolia</i> . . .	Mar. 6	Mar. 9	Feb. 8	Feb. 20	Feb. 14
30	<i>Scilla bifolia alba</i> . . .	Mar. 7	Mar. 20	Feb. 15	Mar. 3	Feb. 21
31	<i>Scilla præcox</i> . . .	Feb. 25	Mar. 10	Jan. 28	Feb. 7	Jan. 20
32	<i>Scilla sibirica</i> . . .	Feb. 26	Mar. 12	Feb. 3	Feb. 16	Jan. 30
33	<i>Scilla taurica</i> . . .	Mar. 10	Mar. 21	Feb. 8	Mar. 3	Feb. 24
34	<i>Sisyrinchium grandiflorum</i> . . .	Feb. 24	Mar. 18	Feb. 20	Feb. 22	Feb. 14
35	<i>Sisyrinchium grandiflorum album</i> . . .	Feb. 24	Mar. 8	Jan. 26	Feb. 22	Feb. 12
36	<i>Symphytum caucasicum</i> . . .	Mar. 16	Mar. 24	Feb. 23	Apr. 10	Feb. 15
37	<i>Symplocarpus foetidus</i> . . .	Mar. 11	Mar. 14	Feb. 9	Feb. 8	Feb.
38	<i>Tussilago alba</i> . . .	Feb. 10	Mar. 8	Feb. 3	Feb. 6	Jan. 1
39	<i>Tussilago fragrans</i> . . .	Feb. 12	Mar. 4	Feb. 2	Jan. 15	Dec. 26 (1883)
40	<i>Tussilago nivea</i> . . .	Mar. 8	Mar. 9	Feb. 2	Apr. 1	Feb. 14