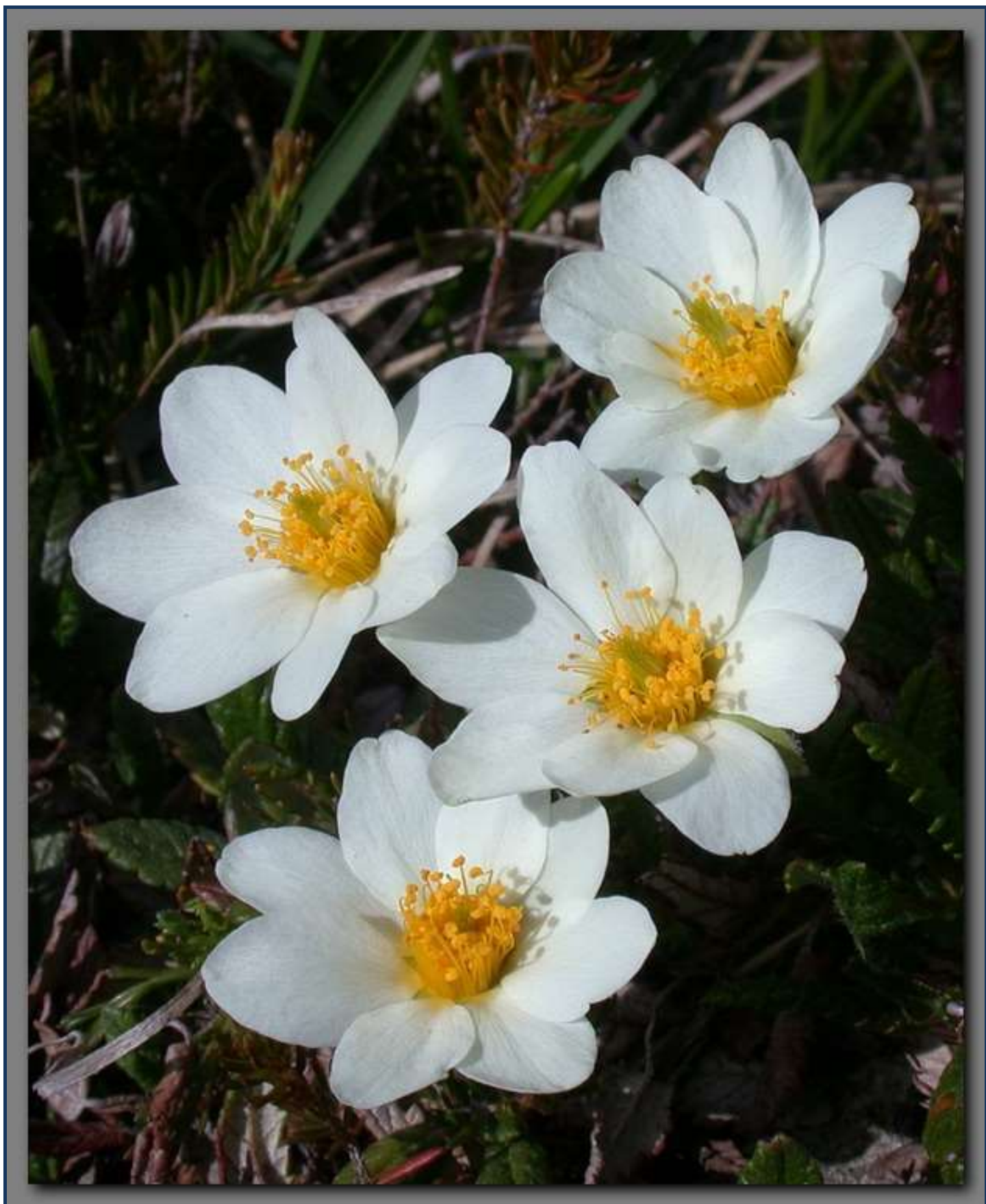


International Rock Gardener

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Time to spend a pleasant interlude with those North American gems, *Lewisia rediviva* and *Eritrichium howardii*. Why? Because we can of course, with the help of contributors, David Sellars from British Columbia and Yara Horáček in Alberta. Zdeněk Zvolánek encourages us all to try growing *Cyclamen* with the stimulus of the fine plants grown by Kirsten Andersen and Lars Hansen in Denmark. Thanks for all the support from our readers over the last year - we look forward to hearing from you and providing more plant-based information in IRG next year. As a token of our appreciation, you are invited to download and print out the IRG 2018 Calendar - filled with a colourful selection of compilation photos of plants at British alpine plant shows, made by Cliff Booker who has generously shared them with us. So many super friends of the IRG – if you'd like to show

your support towards internet costs for our voluntary efforts, you can find a donation button on the SRGC website.

Cover photo: *Dryas octopetala*, the emblem of the SRGC, in the wild, photo Cliff Booker.

Growing *Lewisia rediviva* from seed: text and photos by David Sellars

One of our favourite native wildflowers, *Lewisia rediviva* can be found in semi-desert areas throughout western North America. In early June, the flowers carpet dry, rocky grassland like water lilies.



Lewisia rediviva in habitat near Winthrop, Washington State.

---International Rock Gardener---

The life cycle of the plant is unusual. The flowers unfurl in spring after the narrow leaves shrivel up and disappear. After insect fertilization, the withering flowers form papery capsules which enclose the black shiny seeds (see photo below). The capsules then disengage from the plant and are carried away in the wind. The plant then becomes completely dormant so that it can survive the summer drought conditions in the semi-desert with the short thick stem (caudex) totally below ground. Cool weather and rain in the fall trigger the plant out of dormancy and the thin leaves appear above ground with growth continuing throughout the winter.



Seed capsule - open with seeds inside

We grow *Lewisia rediviva* in raised sand beds in full sun. This ensures that even with summer rainfall, the plants remain dry when dormant. Once the leaves appear in October the plants need no special protection all winter as they are in full growth and are quite happy to receive heavy rain, freezing and snowfall. This is quite the opposite of most alpine plants which are not in active growth in winter and have trouble tolerating our wet, cold conditions on the BC coast.

The cultivation requirements of *Lewisia rediviva* are similar to dryland *Fritillaria*. They need to be dry when dormant in the summer and start growth with the fall rains.

Lewisia rediviva seed is best planted in the fall and the first leaves will emerge in very early spring. In May the leaves wither away and the seedlings become dormant. During the summer period of dormancy the seed pots should be kept cool and only slightly moist. The seedlings resume growth in October and the seedlings can then be potted on. Planting out is normally possible in early spring the following year. In our garden, *Lewisia rediviva* flowers around the middle of May.

In recent years we have been able to donate wild seed of *Lewisia rediviva* to the SRGC seed exchange. We did not find much seed this year but we have sent in a small packet.

---International Rock Gardener---



Lewisia rediviva in the Sellars' garden



The photo, left, shows a seedling of *Lewisia rediviva* during transplanting in October with new leaf growth, the developing caudex and withered leaves from the initial spring leaf growth. The seed was planted the previous November.

How cold a temperature the leaves will withstand?

It does freeze here on the coast. I have been growing *Lewisia rediviva* for about 10 years and we have had temperatures down to at least -12C (10F) in that time. They grow in the wild in semi desert conditions where there is often very little snowfall or snow gets blown off by the wind. So I would think they would experience very cold conditions in the winter in places like Montana and Wyoming.

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October leaf growth of *Lewisia rediviva*

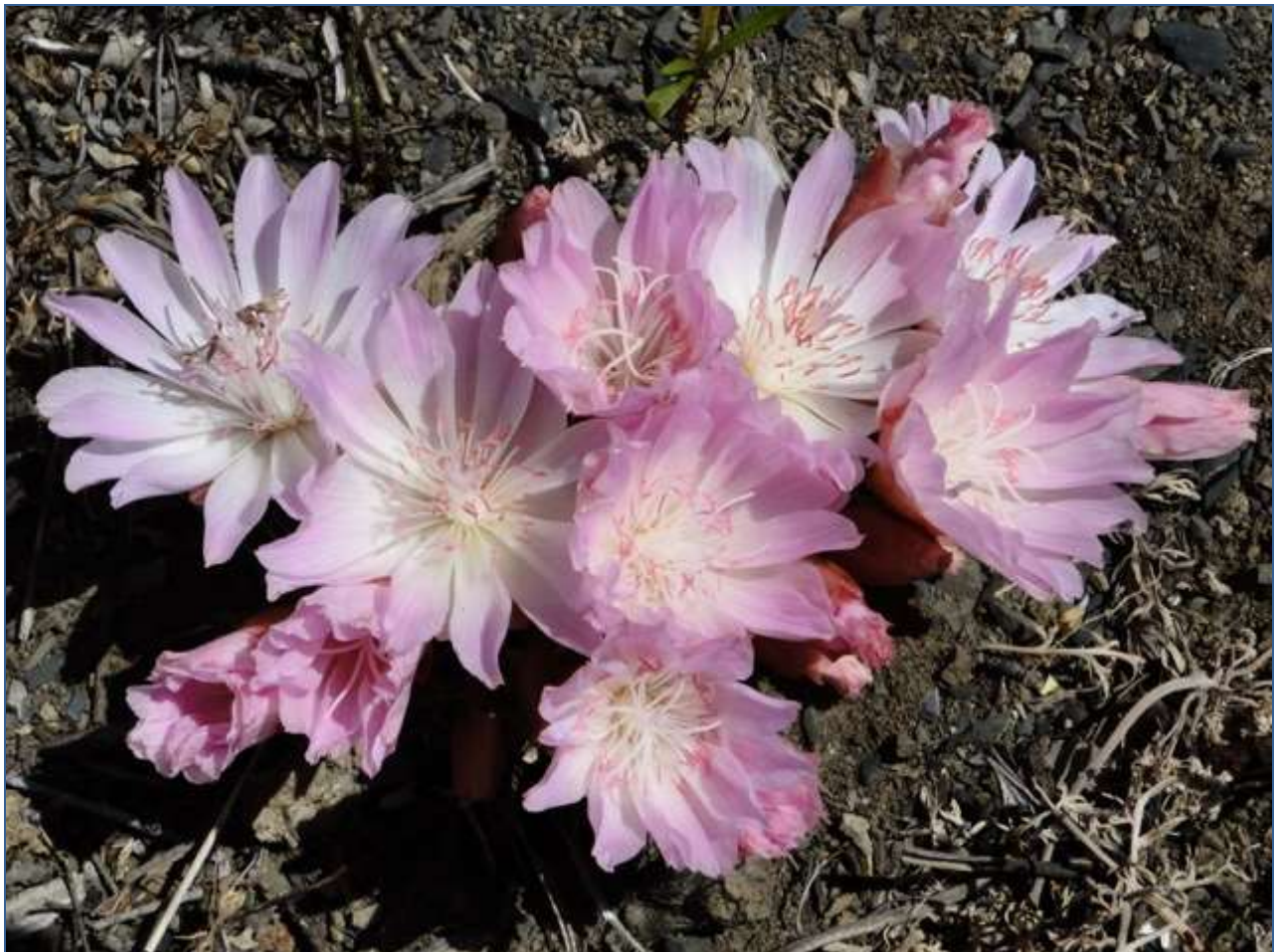
Rain in Scotland vs British Columbia?

Our climate is very similar to the west coast of Scotland though I believe we have even more rain in the winter. 40 days and nights of rain are not uncommon here! With a free-draining pot mix, putting *Lewisia rediviva* outside in the winter should be OK. When I first grew *Lewisia rediviva* I used pots and kept them outside in the winter but under cover. I then experimented with growing them in sand beds and found they are very long-lived in the open garden. Being in active growth, they seem to love the winter rain, hard frosts and occasional snow.

[Click here for a link to David Sellars' "Homage to *Lewisia rediviva* Video" on YouTube.](#)



Below: In full flower in the wild



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White form of *Lewisia rediviva*

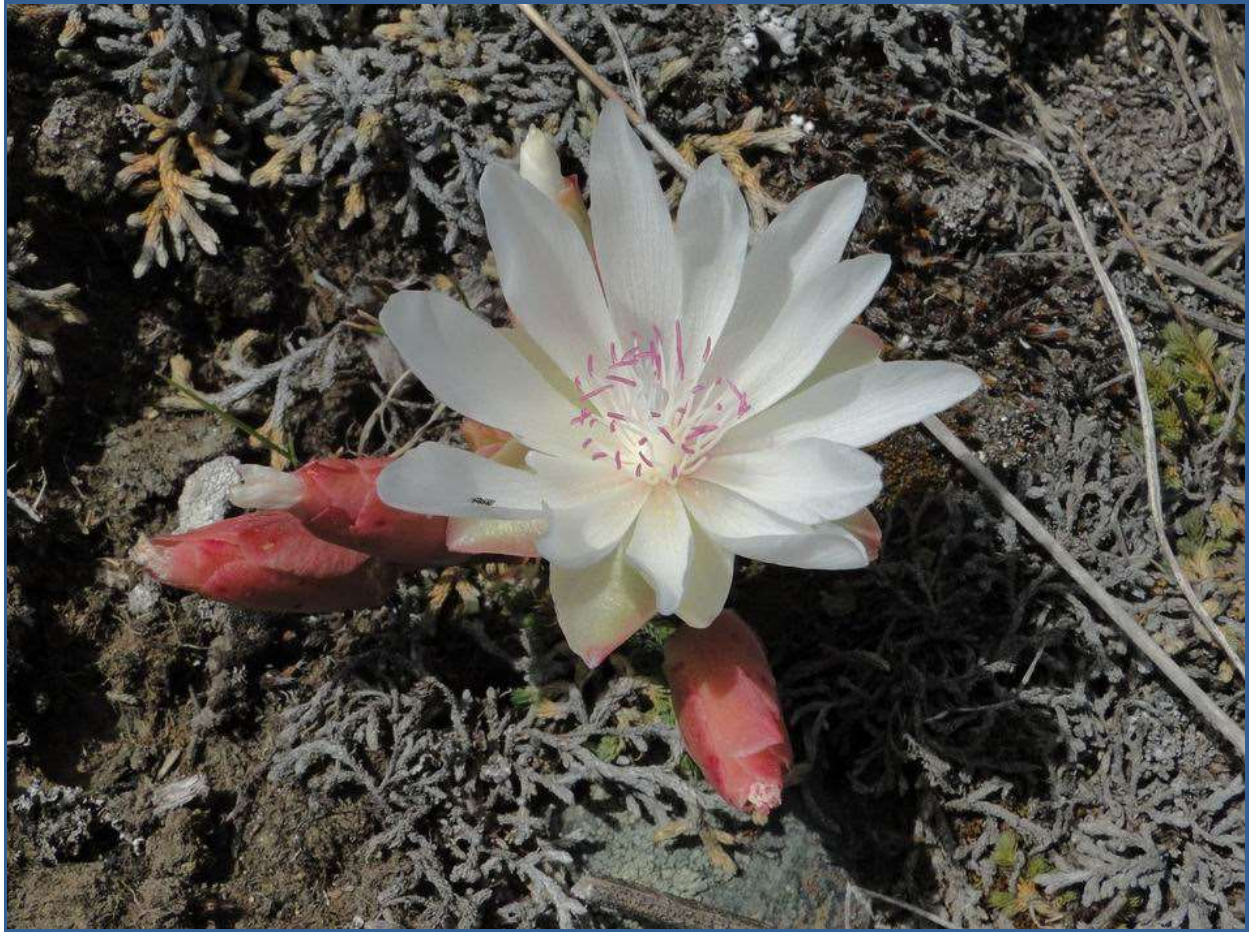
I think *Lewisia rediviva* has the most stunning flower of all the Lewisias. The following are examples from Mount Kobau, in southern British Columbia, showing the remarkable colour variation - all from the same location.



---International Rock Gardener---



---International Rock Gardener---



[D.S.](#)

---International Rock Gardener---

Howard's Forget-me-not, *Eritrichium howardii*: by Yara Horáček, Calgary

Some time ago a mission was bestowed upon me by Zdeněk Zvolánek, editor principalis of Skalničky the Czech rock gardening magazine, which, along with the International Rock Gardener, is my favourite reading. A year later, by the end of June, he reminded me of it: "Time flies and it looks like 'you blew it' for collecting *Eritrichium howardii* that everyone still wants. So, get up and go, you got it just around the corner." And he continued "It's at Roy Davidson's place about 10km west of a [whistle-stop town](#) called Dupuyer on highway US 89 in Montana. A decent gravel lane, the Swift Dam Road, leads there through flat prairie with ground hugging low junipers (*Juniperus horizontalis*). Some 10+ km on the right hand side in the pasture behind a barbed wire fence, there were thousands of *Eritrichium* cushions."



Eritrichium howardii habitat

'Around the corner' – it is 400km to Dupuyer from Calgary; by local standards a small trip and in comparison to travels of Czech seed collectors it really is just a jump next door. I took off for southern Alberta the following weekend, convinced, that if *Eritrichium howardii* grows 50km south of the border of Alberta with Montana then I would surely find it on the Canadian side somewhere on the remaining untouched prairie in the First Nation Reserve of the Blood Tribe, Kainai - or on the gravelly flats in the eastern part of the Waterton National Park, both only a few kilometres from Montana border. I didn't find it, and I did not continue to Montana since Sharka and Zuzana, two ladies from Czech Republic who were with me had no visa to the US. Absence of *E. howardii* in Alberta was later independently confirmed by two professors of biology from the University of Calgary.

---International Rock Gardener---

That damn glaciation! The continental glacier of the last ice age, which covered all of Canada, withdrew eleven thousand years ago from its maximum flow into mid-Montana. Howard's Forget-me-not is apparently in no hurry to get back to Canada. She has crawled barely 200km to north since the glaciers melted.



Dupuyer Creek Valley

Dupuyer, the whistle-stop is the first community south of the Blackfeet Tribe Reservation in northern Montana. Eighty six souls live there and nobody whom I had called there, nor anyone at the tribal council, knew of the tiny blue-eyed Forget-me-not, *Eritrichium howardii*. Eventually I managed to discover Virgil Pederson who, in late May, confirmed that the Howardiis were blooming in front of his home by Swift Dam Road, 10+ km west of the Dupuyer whistle-stop just as ZZ had written. Later, in mid-afternoon of June 9th, I introduced myself to Virgil. Peaks of the Rocky Mountains, 20km to the west across the empty, undulating green plain, took my breath away in spite of being used to such a view.

On a dry gravelly slope of the hillock where Virgil's house stands, the blooms of *Eritrichium* accompanied by whitish **Phlox diffusa**, *Douglasia montana* and carpets of *Juniperus horizontalis* were already fading so Virgil drove me over the valley of Dupuyer creek to a long upper Cretaceous sandstone ridge stretching in SW-NE direction.



Phlox diffusa

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E. howardii habitat with pines.

Eritrichium howardi, a rare plant according to Wikipedia, grows there on the dry northwestern edge at the top of the ridge, along with sparse groves of wind tortured *Pinus flexilis*. Cushions of *E. howardii*, typically about 10cm and exceptionally up to 40cm in diameter, grow in an open area or on the northern side of the pines and in a velvety brown alkaline soil that developed in coarse, mostly limestone gravels left there by the last glacier. I estimated the proportion of soil in the gravel at around 30%.



A plant about 7cm high penetrates into the gravel with roots 20cm long.

---International Rock Gardener---



Howard's Forget-me-not

ZZ did not give me any advice on how to collect *Eritrichium* seeds and it took a while before I discovered where the Forget-me-not hides her seeds. Initially I was trying to collect ripe seeds but then later I began to collect the whole inflorescence. After returning home with the drying inflorescences, I wrote Vojtech Holubec about my trip and in his reply he explained: "Boraginaceae have about 4 (1-4) seeds in bottom of the calyx and when maturing, most seeds fall out they are green. Therefore they must be picked in time and with the whole stem intact.

Mature seeds gradually release themselves during drying – I crush the dry flower clusters on a screen and the seeds are released. When viewing ripening plants from above you see light green seeds in calyxes, such inflorescences can be collected."

To be a happy plant *Eritrichium howardi* will require coarse, perfectly draining calcareous rocky soil and a sunny exposure. Crushed tufa with addition of soil from limestone bedrock should suit her very well.

Y.H.

---International Rock Gardener---



Eritrichium howardii seed

ZZ note: this lovely, never to be forgotten plant looks denser and lower when grown in a tufa (soft travertine) stone hole. The picture by the late Canadian nurseryman Harry Wrightman shows the Howard's *Eritrichium* happily blooming in his trough with tufa boulders. I had a rooted cutting obtained from the German plantsman Michael Kammerlander in the flat field of my tufa bed (not in a drilled hole). The plant was happy only for half a year in 2016 and rotted during the hell of our hot and dry summer.

I am sure that a seedling can better establish to become a stronger plant.



Eritrichium howardii grown in a trough by [Harvey Wrightman](#).

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Collecting Cyclamen: by Zdeněk Zvolánek, photos Kirsten Andersen

The genus cyclamen is rich in spectacular beauty. If you have a broader collection (indoor and outdoor) you can have different species flowering from spring to next winter via both a small summer display and very rich autumn one.

My idea is to show the charm of botanical cyclamen from a good collection in Herskind, Denmark, where it is in the experienced hands of Kirsten Andersen and Lars Hansen. It is a great pleasure for the International Rock Gardener to publish here the high quality photographs of Kirsten Andersen and demonstrate the natural qualities of genus cyclamen to stand forever on the rock garden stage. Some species are true saxatile plants or chasmophytes with their small nests peeping from limestone cliffs, others are the models of woodland nymphs with well-balanced beauty when framed into artistic stony surroundings which always enhances their vibratory effect on our common spiritual life.



Well, somebody may ask why I placed so many tender cyclamen, the “soft” ones, grown in pots in an alpine house, into a journal focusing on the discipline of rock gardening? Some of the softer parts of the group can hybridize with hardy cyclamen and produce tough new hybrids suitable for outdoor cultivation. One example is *Cyclamen x schwarzii* (the hardy *C. pseudibericum* crossed with the more tender *C. libanoticum*). Another reason is that the softer species are happy in plenty of rock gardens with milder climates.

My experience with cyclamen comes from long cultivation in Central Europe, namely in Karlík in Czech Karst area (zone 4) of the Czech Republic. I hope that Kirsten’s pictures with my short remarks will bring many half-known cyclamen closer to our readers.

Hardy Cyclamen

Cyclamen mirabile is able to survive our tough, frosty continental winter, often without snow cover and fluctuations of thawing and freezing.

This species was introduced from South-West Turkey in 1956 by [Peter Hadland Davis](#). The best forms were cherished in England at Tilebarn Nursery (by the late Peter Moore) and spread into cultivation via the [Cyclamen Society](#) seed exchanges. Kirsten presents the cultivar ‘**Tilebarn Anne**’ which has ‘pewtered’ leaves with an attractive pink blush when young. English expert Peter Moore selected one form with a green Christmas tree in the palm of pewter leaves; he named it ‘**Tilebarn Nicholas**’ and its seedlings come true, displaying a good tree symbol in the leaf centre.

---International Rock Gardener---



Above: *Cyclamen mirabile* 'Tilebarn Anne' Below: *Cyclamen mirabile* 'Tilebarn Nicholas'



---International Rock Gardener---

Cyclamen mirabile forma niveum is a very rare, pure white blooming form found only once in nature (under an olive tree at 330m above sea level). It has distinctive serrated margins of petals which is typical for this species.

In my garden, the Beauty Slope, I grow *Cyclamen mirabile* slightly shaded from our local scorching sun. Plants are growing larger and larger during their 10 years at the hot and dry Beauty Slope in the steppe rock garden, flowering regularly for a longer period in September and October. The soil is heavier and slightly alkaline here. Our plants arrived as seedlings from that excellent German grower, Rudi Weiss.



Cyclamen cilicium – two forms shown below

This is another autumn-flowering species from Turkey, quite common in the Cilician Taurus. It is able to establish in suitable gardens in the United Kingdom but never so easily as *C. coum* or *C. hederifolium*. My garden is too sunny and dry for self-seeding of this tiny species. I remember it from limestone crevices in the lower valley of Bolkar Dag mountain. Hardiness is perfect with us without special winter cover.





Cyclamen intaminatum – above

This rare miniature species from NW Turkey can be admired in a milder country in some trough gardens, where it can be viewed more closely. The colours are very conservative, whitish or very pale pink, with very delicate veining. A specimen I planted outside under large *Ulmus* died, so I lost the chance to observe how hardy it might be in the central continent.

Cyclamen coum

I can introduce this species as the friendliest hardy cyclamen for a spot in continental semi-shade and sometimes for a broader crevice in full sun. The corm is placed high in the soil, very near the surface of the garden. Ants distribute the seeds and so start new colonies. A broad palette of colours is offered from white to purple pink. A light cover can protect leaves of plants flowering from January to April (hard frosts can kill all unprotected leaves). Forms of *Cyclamen coum* var. *coum* are more common than from *Cyclamen coum* var. *caucasicum* (here belongs our shown *Cyclamen abchasicum*). I remember a distinct dwarf form with plain round leaves and carmine flowers from garden of Joyce Carruthers in Victoria BC; Kirsten's *C. coum* 'Meaden Crimson' is very similar to that.

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Cyclamen coum



Cyclamen coum 'Dusky Maid'

---International Rock Gardener---

There are many described clones of pink *C. coum*; shown above is 'Dusky Maid' in good blooming mood. Some clones are selected for pretty pewter leaves; one white form is selected for stronger scent.



Left: *Cyclamen coum* with pewter leaves. Right: *Cyclamen coum*, scented form.



Cyclamen coum in the open garden

---International Rock Gardener---



Pure all-white forms are desired and named as cultivars when the seedlings keep the basic character of the parent cultivar.

Very new and intensively white is *Cyclamen coum* forma *albissimum* 'Lake Effect', left.

Quite popular is one selected from the Levant, called *Cyclamen coum* forma *albissimum* 'Golan Heights', which I planted to my tufa raised bed and it comes in bud in early November.



Cyclamen coum forma *albissimum* 'Golan Heights'

I like the clone with painted ceramic white called *C. coum* 'Porcelain'.



---International Rock Gardener---



***Cyclamen coum* 'Meadens Crimson'**

Cyclamen coum* var. *abchasicum (left below) which is a synonym of ***Cyclamen coum* subsp. *caucasicum*** (right below)



---International Rock Gardener---



Cyclamen kusnetzovii

One new species was described in 1958 from the Ukrainian peninsula Crimea as ***Cyclamen kusnetzovii***. We must see yet in future, how much it differs from *Cyclamen coum* var. *coum*, it is currently regards as a synonym of that species.

Below: *Cyclamen alpinum*



Cyclamen alpinum is a very attractive dwarf species come from the edges of the big lakes in Western Anatolia. After long time of spring blooming service as *Cyclamen trochopteranthum* it is correctly *C. alpinum*. I saw one locality near Lake Egridir, where plants were hidden under low canopy of very prickly oaks on a quite sharp slope. Only the 'slim Jim' Josef Jurasek was able to operate in this dense shrubbery. A perfect collection of *Cyclamen alpinum* is kept in pots in an Alpine house in Wisley garden. I lost my 3 plants during their outdoor trial. So, their hardiness in the continental Europe is not proved yet.



Cyclamen alpinum forms



Cyclamen pseudibericum



Cyclamen pseudibericum OS743

Cyclamen pseudibericum

Here we have a quite hardy Turkish species with large carmine flowers blooming later in spring after *C. coum*. I have obtained my seedlings from a German friend who collected this great species in Antitaurus region, where it is often growing in limestone crevices.

Close to it (*C. pseudibericum* x *C. libanoticum*) is *Cyclamen* x *schwarzii*, which is fully hardy in our Czech Karst area and sometimes giving viable seed (*C. x schwarzii* is pictured on page 9).

---International Rock Gardener---

Cyclamen purpurascens

This is our summer blooming European continental fellow (syn. *C. europaeum*), which grows in deciduous forests near the river Dyje in Moravia, living under moss of shaded limestone boulders in Northern Italy and in 15 cm deep dolomitic limestone soil layers, in full sun in Slovenia. Kirsten planted the Slovenian one among paving stones in their mild Danish rock garden. This species is unhappy in some gardens. I was lucky this year with one happy plant blooming like for the Forrest Medal (so I show it here after Kirsten's photographs of the species).



Below: ZZ's. *C. purpurascens*



---International Rock Gardener---



Cyclamen purpurascens forma *album*

Cyclamen parviflorum Pobed is sometimes regarded as a subspecies of *C. coum*.



Cyclamen colchicum

---International Rock Gardener---

Cyclamen colchicum

There are not many of heroes of *C. colchicum* trying to survive central European winter conditions.

Because of this, plants are kept for insurance in pots (usually in the UK and Denmark).

This good new species partly resembles *C. purpurascens* but it has thick blades of rounder leaves. It grows in canyons of Abkhazia in Georgia where there is a fine optimal woodland humidity. We need time and plenty of seedlings to try its hardiness.



Cyclamen hederifolium

---International Rock Gardener---

Cyclamen hederifolium

This species is in paradise in every milder garden in Western Europe. I saw a selection of white seedlings in Victoria, BC, Canada. There were three layers of corms, the oldest ones (30 cm in diameter) occupied the deepest layer. They produced an enormous amount of seed at the end of a dry summer there. I never have seedlings in my steppe conditions but there is solid blooming in autumn time and the species is hardy here without special winter protection. This species was called *Cyclamen neapolitanum* during my young days and it is very decorative just with leaves without its pale pink flowers. White flowering plants are desirable; some have cultivar names, for example, ***Cyclamen hederifolium*** 'Artemis' with its nice ornamental leaves.



Above: *Cyclamen hederifolium* 'Artemis' Below: typical *C. hederifolium* colour



---International Rock Gardener---



Clones producing red-purple or dark pink colours are quite rare; Kirsten photographed her deep pink **Cyclamen 'Ruby Glow'** (left) and three outstanding unnamed seedling ones with silver leaves

Below: Seedling ex dark red form



Very dark red/purple seedling

---International Rock Gardener---

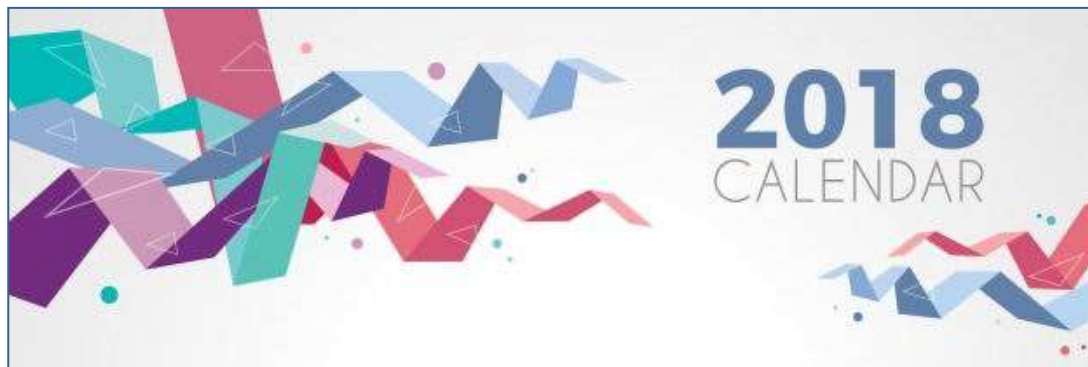


Red Seedling with silver leaves

All mixtures of colours are pleasant to see, a clone with pure white flowers including the nose, at the left in the picture below, is very impressive. Cyclamen are a super genus to grow! Z.Z.



---International Rock Gardener---



The IRG is pleased to provide another calendar for readers to print out from the coming year. The images this year have been provided by [Cliff Booker](#). The pictures are all compilations of plants exhibited at the UK plant shows of the Scottish Rock Garden Club and Alpine Garden Society. Few countries have the history of plant shows in the way of the UK - there are a great many show reports detailing these show plants both on the SRGC main website and in our Forum and these great photo-montages from Cliff give a wonderful insight into the number and standard of plants exhibited at the shows. We are greatly indebted to Cliff, a major supporter of all the main alpine and rock garden organisations in Britain and overseas, for the use of his photos.



Ranunculus semiverticillatus

Cliff is well known as a devotee of the genus *Ranunculus*, and has recently been enjoying, with his wife Sue (another founding member of the [East Lancs](#) AGS group in 1986) and many other SRGC friends, a trip to South America – where we have been told he was on cloud nine to see the extraordinary *Ranunculus semiverticillatus* - pictured here by SRGC Hon. Treasurer - and IRG proof-reader - Richard Green, while he was on a different South American trip this month.

Right: This photo of Cliff and Sue Booker on their South American adventure and, as usual, wielding cameras, is by American member, Elisabeth Zander.

For those of you without the capacity to extract the calendar pages to print out from this IRG, you may download the calendar as a separate, printable file by [clicking this link](#).

THE IRG TEAM SENDS ALL OUR READERS BEST WISHES FOR THE COMING YEAR!



---International Rock Gardener---



DECEMBER 2017

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JANUARY 2018

FEBRUARY 2018

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---International Rock Gardener---



JANUARY 2018

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MARCH 2018

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FEBRUARY 2018

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---International Rock Gardener---



FEBRUARY 2018

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APRIL 2018

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MARCH 2018

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---International Rock Gardener---



MARCH 2018

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APRIL 2018

MAY 2018

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---International Rock Gardener---



APRIL 2018

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MAY 2018

JUNE 2018

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| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
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| 30 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | 1 | 2 | 3 |

---International Rock Gardener---



MAY 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

JULY 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

JUNE 2018

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| 28 | 29 | 30 | 31 | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 1 |

---International Rock Gardener---



JUNE 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|-----|
| | | | | | 1 | 2 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | |

AUGUST 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|-----|
| | | | 1 | 2 | 3 | 4 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

JULY 2018

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| 25 | 26 | 27 | 28 | 29 | 30 | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | 1 | 2 | 3 | 4 | 5 |

---International Rock Gardener---



JULY 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | | | | | | 1 |
| 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

SEPTEMBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|-----|
| | | | | | | 1 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

AUGUST 2018

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| 30 | 31 | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | 1 | 2 |

---International Rock Gardener---



AUGUST 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | | 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

OCTOBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

SEPTEMBER 2018

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| 27 | 28 | 29 | 30 | 31 | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

---International Rock Gardener---



SEPTEMBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | | | | 1 | 2 | |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

NOVEMBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | | |

OCTOBER 2018

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | | |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| | | | | | | |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| | | | | | | |
| 29 | 30 | 31 | 1 | 2 | 3 | 4 |

---International Rock Gardener---



OCTOBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | | | | |

DECEMBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|-----|
| | | | | | | 1 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | | | | | | |

NOVEMBER 2018

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| 29 | 30 | 31 | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | 1 | 2 |

---International Rock Gardener---



NOVEMBER 2018

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| | | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | | |

DECEMBER 2018

JANUARY 2019

| M | T | W | T | F | S | S |
|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | | | |

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY | SATURDAY | SUNDAY |
|--------|---------|-----------|----------|--------|----------|--------|
| 26 | 27 | 28 | 29 | 30 | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | 1 | 2 | 3 | 4 | 5 | 6 |