By purchasing this calendar you are supporting all three linked bodies listed below. The price of the calendar covers the development and printing costs, with two-thirds of the value going to the Friends of Cruickshank Botanic Garden.

The Friends of the Cruickshank Botanic Garden (FCBG) was set up in 1982 and is registered as a Scottish Charity in its own right.

FCBG was created to further the progression of the Botanic Garden. It has three aims that can be summarised succinctly as friendship, fund-raising and learning. FCBG funds are used in a broad manner including an annual Garden traineeship.

If you wish to support Cruickshank Botanic Garden by becoming a member of FCBG, further details are available online at: https://www.abdn.ac.uk/botanic-garden/friends/join/.

In 1495 the Bishop of Aberdeen and Chancellor of Scotland, William Elphinstone, founded the University of Aberdeen “…which would be open to all and dedicated to the pursuit of truth in the service of others”. It is Scotland’s third oldest university and the fifth oldest in the UK.

The University of Aberdeen has been named as Scottish University of the Year 2019 in the Times & Sunday Times Good University Guide and was also awarded the Queen’s Anniversary Prize in February 2018.

The University of Aberdeen has a diverse and vibrant student community of 15,000 individuals comprised of 120 nationalities, along with 3,000 staff. For further information go to: https://www.abdn.ac.uk/.

Cruickshank Botanic Garden was founded in 1898 by Anne Cruickshank in memory of her brother and father who had studied and worked at the University, respectively. Miss Cruickshank bequeathed 7 acres (2.8 hectares) to the University, including the Cruickshank building. The original property continues to be managed by the Cruickshank Garden Trust. The deed of the Trustees stated the Garden was ‘For the teaching and study of Botany as pure science, and as applied to the Arts and Industries, and for the furtherance of University interests and the public good’. An apt phrase, then as now.

Today the garden is 11 acres (4.5 hectares) in size and notable as the most northern University Botanic Garden in the UK. The garden is a recognised resource for the study of botany and horticulture and a significant University asset for research, learning and public engagement. Further information can be found at https://www.abdn.ac.uk/botanic-garden/.

Front cover: Himalayan blue poppy – *Mecanopsis grandis*. Photo: Victor Olayzola Torrejon
Managed through the University of Aberdeen’s Section of Estates and Facilities the Botanic Garden comprises:

**Total staff:** 7
**Total gardening staff:** 4 (one part-time; one trainee)
Audrey Bews; Alana Greig; Victor Olayzola Torrejon; Joy Molyneaux

**Keeper:** Professor David Burslem (School of Biological Sciences)
**Curator:** Mr. Mark Paterson
**Head Gardener:** Mr. Richard Walker

Those who volunteer at the Botanic Garden are of immense help. This year there are over 15 volunteers assisting per week.

The Botanic Garden is 4.5 hectares (11 acres) with physical growing conditions which include:

- **Latitude:** 57° 10’ 0” N / 57.1680183
- **Longitude:** 02° 06’ 0” W / -2.1036942
- **Altitude:** 15 m above sea level (abs)
- **pH:** 6.5 (average)
- **Average rainfall:** 895 mm
- **Average max temp:** 20°C
- **Average min temp:** 0°C
- **Average year round temp:** 8°C

**Support for this Calendar has been made possible by:**
Caroline Inglis; Heather Crabb; UniPrint; Friends of Cruickshank Botanic Garden Committee

**Photography contributors:**
Dagmar Henner; Cameron Singh-Johnstone; Michael McGibbon; Sakthi Norton; Mark Paterson; Alex Penn; Adam Price; Graeme Reid; Andrea Stevenson; Cruickshank Botanic Garden team; Victor Olayzola Torrejon
The scented flowers comprise of the bold yellow petals of the Chinese Witch-Hazel – *Hamamelis mollis* – set against the vibrant red calyx-lobes, as shown in the left image. The flowers are always a January delight to behold. Native to western and central China this species was first introduced into the UK by Charles Maries in 1879 and subsequently reintroduced in 1907-8 by Ernest Wilson when plant collecting for the Arnold Arboretum of Harvard University. The right picture shows the variation in petal colour and length of the cultivar *Hamamelis mollis* ‘Pallida’. Today this cultivar is vegetatively propagated. It originated from a seed grown plant raised at the Royal Horticultural Society’s garden, Wisley. The seed is thought to have come from a nursery in Belgium. The cultivar received an RHS Award of Merit in 1932.

Photos: Mark Paterson
A ‘ground-eye’ view on the beech lawn looking south with the iconic striped green and white glass clad library in the background.

Photo: Cameron Singh-Johnstone
The winter of 2017-18 was the longest and harshest since 2011. The botanic collection survived the cold, wintry conditions with relative ease, though the weather was not always conducive for visitors to explore the property. For those who did, the white adorned foliage in the Central lawn and pond garden was one of many memorable scenes.

Photo: Mark Paterson
During the winter months days of continuous frost seem less common. When cold nights and days do occur, the beauty of frozen water can be admired along the margins of the ponds.

Photo: Michael McGibbon
Maintaining biodiversity across the Botanic Garden is an important element. The use of ponds provide a further varied habitat for fauna that act as both prey and predator. These common frogs – *Rana temporaria* – are a case in point. While the frog spawn seems to always get frosted, the annual return of these adult frogs is proof that late winter conditions are tolerable.

Photo: Graeme Reid
Mechanisation is invaluable when maintaining and improving the plant collection. However, gardening will always be a physical profession of hard work and expertise as clearly shown by Alana.

Photo: Mark Paterson
Looking east, the Sunken Garden is a picturesque and tranquil area in the southern section of Cruickshank Botanic Garden. As dusk falls so this area is all the more atmospheric with the bold colours of *Rhododendron spp*. complementing the blue flowering bulbous North American Indian hyacinth – *Camassia leichtlinii* – visible in the informal meadow.

Photo: Adam Price
Meadow anemone - *Pulsatilla vulgaris* – has a broad native range including the UK, Europe and South-west Asia. The dainty flowers are followed by round, fluffy, tactile seed heads. The species is in decline in its native habitat due to land use changes. It can be seen at Cruickshank Botanic Garden in the Central lawn and pond garden.

Photo: Mark Paterson
Enter Cruickshank Botanic Garden via the official entrance from The Chanonry (beyond the granite corner of the Cruickshank Building in this image) and you will make your way towards the Cruickshank Building courtyard. Immediately visible is a sizeable double flowering gean - *Prunus avium* ‘Plena’. This tree is all the more impressive in May when the cherry white flowers adorn this European native. This natural cultivar is thought to have been introduced from France in the early 19th century. The Cruickshank Building is where plant and soil science disciplines are taught and researched.

Photo: Mark Paterson
Kettle Hill is at the northern end of the Arboretum. A thirty-year-old grove of the European dwarf mountain pine - *Pinus mugo* - has gradually collapsed to help create a natural climbing frame for the young and those young at heart. This grove is the only area we allow tree climbing (or at the very least sitting with your legs off the ground).

Photo: Andrea Stevenson
In the height of the growing season the lawns need to be cut each week. In between the mowing regime vivid ephemeral scenes can naturally occur. The rose petals compliment the daisies – Bellis perennis – in an eye-catching manner.

Photo: Sakthi Norton
The bold colour variation of red and green is all the more distinct with the vivid hue of this native Large red damselfly – *Pyrrhosoma nymphula*. This species prefers wetland habitats, excluding sites of fast flowing water.

Photo: Sakthi Norton
The summer flora of the herbaceous border is a visual delight to all visitors and a bounty of nectar for pollinating insects. The colours of the white-tailed bumble bee - *Bumbus lucorum* - are a bold contrast to the candle larkspur cultivar - *Delphinium elatum* ‘Aurora Blue’.

Photo: Cameron Singh-Johstone
Trees are a beautiful and vital component of any botanic collection. The management of the trees at Cruickshank Botanic Garden remains important; both for the health and longevity of the individual species and the provision of a safe and engaging environment for all visitors.

Photo: Mark Paterson
The herbaceous border is a permanent, seasonal delight at the Botanic Garden and always needs regular maintenance. It is double sided and 87 metres long by 5 metres (285 feet x 16 feet). An important seasonal activity is to make sure the plants will have support as they grow in height. The top image shows the previous labour-intensive method of using stakes and bamboo canes. This year, permanent wooden posts throughout the border were used as anchor points to pull netting tight across the plant collection, saving a great amount of time and effort. As is visible, the plants successfully grew through the netting.

Photos: Mark Paterson
The purple cone flower – *Echinacea purpurea* - is known by some as a medical herb to boost the immune system against respiratory infections. For others it is a summer delight in the daisy family (Asteraceae / Compositae) to be used in a herbaceous border, shrub bed or planter to provide further interest.

Photo: Mark Paterson
Garden volunteers are invaluable in the maintenance and progression of the Botanic Garden. Those who generously give their time are retired, between jobs and students at Under-graduate through to Post-graduate level. Some volunteers have used their time at the Botanic Garden as a 'spring board' to further horticultural training and garden employment. Exposure to the Botanic collection gives an opportunity to expand their seasonal plant knowledge such as recognising the autumn flowering Ivy-leaved *Cyclamen hederifolium*, as per top left. In the lower picture it is encouraging to see possible future volunteers show interest from a young age.

Photos: Mark Paterson; Victor Olayzola Torrjon
Richard, Head Gardener in conversation with Joy, Garden trainee. Checking flora in-situ to confirm the correct label is in place, while simultaneously collecting seed for propagation purposes. Tasks that are all part of maintaining a botanic collection.

Photo: Mark Paterson
Autumn colours of the azalea beds are offset by the white bark of the silver birch - *Betula pendula* - and behind, the ochre, peeling bark of the Chinese maple – *Acer griseum*. To the right of this image a main paved path is used daily by both staff and students to access the Zoology building from the rest of King’s campus.

Photo: Mark Paterson
The University of Aberdeen has been an institute of primary research and notable academics over the past five centuries. When Robert Brown discovered the nucleus of the plant cell he could never have imagined the present advancement of plant genetic research and application.

Photo: Mark Paterson
The Botanic Garden is used for a range of research and data gathering. Over recent years a student fully trained by the British Trust for Ornithology (BTO) in the safe banding of birds has consistently used the Arboretum between October and March to catch and band bird species living in or migrating through the Botanic Garden. All data is sent to the BTO. To match the picture, on this occasion the summary report was, ‘this morning’s session went pretty well, despite a team of gardeners continuously using leaf-blowers in the garden next door all morning! [Neighbourly gardeners, not Botanic Garden staff]. We ended up with 27 birds by 10:30am, with highlights of 6 long-tailed tits (2 of which were re-traps, one from a previous year and I believe one from a nearby ringing site across the river) and 2 great spotted woodpeckers, one of which was also a re-trap from a previous year. Smart birds but they can deliver quite a powerful blow with that bill’.

Photo: Alex Penn
While growth may have slowed at the back-end of the growing season, hard landscaping maintenance is always required. Year-on-year the upkeep of existing paths and the expansion of access is a necessary job within Cruickshank Botanic Garden.

Photo: Cruickshank Botanic Garden team
A crisp winter morning clearly demarcates the nursery stock in pots, along with more tender material in the polytunnel. Behind the public domain space to both propagate and grow on a range of species is vital. In recent years snow has fallen between the months of October to April, but frequently melted within days.

Photo: Mark Paterson
Holly trees – *Ilex* spp. – and their cultivars provide year-round shape, form and colour with their evergreen growth. The red berries on female plants are visible from late autumn and provide a cheerful splash of colour. The fruit are frequently a food for birds through the winter months.

Photo: Dagmar Henner
Cruickshank Botanic Garden is 120 years old and the most northern University Botanic Garden in the United Kingdom. All flora is grown outside in the 4.5 acre (11 acre) property with a significant emphasis on plants from the extremes of the northern and southern hemispheres.

There is year-round interest when visiting the Botanic Garden with the range of plant species always offering diversity and colour, no matter the season. If you know the Botanic Garden well I trust this calendar will be a reminder of what is on offer. If you have never had the opportunity to walk the grounds, then I hope the images and information within will encourage you to visit; it would be a pleasure to meet you.

I wish you a good gardening year for 2019.

Yours sincerely,

Mark Paterson, Curator, Cruickshank Botanic Garden, University of Aberdeen