

Sibbaldia procumbens: an icon redrawn

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Abstract

A new cover has been created for *Sibbaldia: the International Journal of Botanic Garden Horticulture* to commemorate the 350th anniversary of the Royal Botanic Garden Edinburgh (RBGE) in 2020. The Sibbald Trust, which supports the work of the Garden, agreed to fund the commissioning of a botanical drawing of the alpine species *Sibbaldia procumbens* L. to be used as the cover image for volume no. 20 and subsequent volumes. The drawing and accompanying watercolour painting will become part of the RBGE Florilegium – a collection of botanical drawings that forms a visual record of the Living Collection and a reflection of the scientific and horticultural interests of the institute. This article describes the process of creating a painting of a small plant with minute details. Colour images of the plant and the drawings are also reproduced.

Background

A stylised image of the diminutive native alpine species *Sibbaldia procumbens* has been used as a symbol of the Royal Botanic Garden Edinburgh (RBGE) since it was chosen by Ian Hedge and Bill Burt, Senior Researchers at RBGE at the time of the institute's 300th anniversary in 1970 (Leonie Paterson, pers. comm.). This plant was known to seventeenth-century botanists, including John Ray and Leonard Plukenet, but in 1737, in his *Flora Lapponica* (Linné, 1737) and then in *Genera Plantarum* (Linné, 1742), Carl Linnaeus described the genus *Sibaldia* (sic). In May 1753, in his *Species Plantarum* (Linné, 1753), the foundation of binomial nomenclature, Linnaeus corrected the spelling of the genus in the name *Sibbaldia procumbens* L. The generic name commemorates Sir Robert Sibbald, eminent doctor of medicine and natural historian. With his fellow physician Andrew Balfour, Sibbald worked to secure a plot of land in Edinburgh on which to grow plants

and teach students about their medicinal properties and uses. Such information was crucial for medical practitioners because plants and their derivatives were ingredients in many, if not most, remedies at the time. Both men were born in Scotland, but had travelled and studied overseas. On their return they were 'appalled' at the state of medicine in Edinburgh' (Fletcher & Brown, 1970) in contrast to the practices they had experienced elsewhere. Their motivation in establishing an educational resource, as with their founding of the College of Physicians (1681), was to raise the standards of medical practice and thereby the health of the population of Edinburgh. The rewards of their innovation were felt beyond Edinburgh at the time through the impact they had on the education of doctors, and all of us who work at and enjoy RBGE today still benefit from their actions.

Linnaeus recognised Sibbald's importance and even though the species named for him is a small plant, it could

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be thought of as a 'survivor' of the most extreme conditions. It forms low, spreading mats in northern arctic and temperate regions at high altitudes on mountain screes. It lies under snow for much of the year and is frequently in strong sunlight for the rest. The plant itself has not often been depicted, but the first known drawing is in Robert Sibbald's own *Scotia Illustrata* (1684) (Fig. 1). The drawing most frequently used on RBGE publications until now is an adaptation by Mary Mendum (née Bates) of a painting originally made by Gillian Meadows. It is this drawing that has appeared on the cover of *Sibbaldia: the International Journal of Botanic Garden Horticulture* since the first volume was published in 2003 (Fig. 2). The journal was established by David Rae, Director of Horticulture at RBGE at that time.



Fig. 1 The plant on the right, labelled '1', is the first known depiction of *Sibbaldia* sp. in Sibbald's *Scotia Illustrata* (1684). It was then unnamed, and was annotated 'Fragariae affinis planta non scripta', i.e. an unnamed species like a strawberry. Image: RBGE Library.

In April 2020 the Sibbald Trust generously agreed to fund the commissioning of a pen-and-ink drawing of the whole plant, with a separate colour painting. This drawing would accurately display the plant's minute botanical details. It would enable a wider use of the iconic imagery to represent the institute, not least as a new cover design for the volume of *Sibbaldia* commemorating the Garden's 350th anniversary.

The original colour painting will go on to form part of the RBGE Florilegium (RBGE, 2021), a visual record of the Living Collection and a reflection of the institute's scientific and horticultural interests. This new collection is being created under the auspices of the Florilegium Society, whose aim is to raise RBGE's profile as a centre of botanical art in relation to both

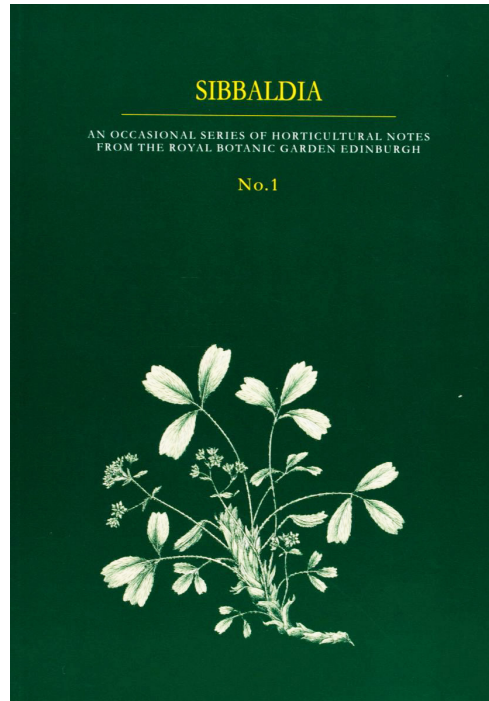


Fig. 2 Cover of *Sibbaldia* vol. 1 when the journal was 'An occasional series of horticultural notes from the Royal Botanic Garden Edinburgh'. Photo: Lynsey Wilson.

its educational work and its historical art collection. As the Garden's iconic species, it is only fitting that a painting of *Sibbaldia procumbens* should be included in the Florilegium.

The creation of a botanical drawing

The botanical artist Claire Banks agreed to undertake the commission. A botanical drawing starts with the study of a plant, and the artist must first get to know the plant in some detail before committing it to paper. Claire started this process by looking at the plants in the RBGE Rock Garden when lockdown restrictions were lifted in June 2020. There are at least two plantings of two different accessions: one was collected in 2006 from a wild population at about 800 m at the edge of the Cairngorms National Park in Scotland. This plant displays the typically diminutive and sturdy stature of the species, and the whole plant is adpressed to the gravel mulch, where it flowers and seeds. Linnaeus's epithet 'procumbens' is visibly appropriate (Fig. 3).

The second plant was accessioned in 1971, as seed gifted to RBGE by Oslo Botanic Garden (Norway), and is assumed not to be wild-collected (though it could be, or it could be the progeny of a wild-collected plant). From a distance it looks as if it may be a different species altogether. It grows lush and expansively over the bed and rocks, with stems longer and larger than those of the 2006 accession (Fig. 4). The flowers are larger and more conspicuous. They are held well above the mat of leaves, which are distinctly tinged with red.

Those of us who work with plants know that variations in the size of a leaf, stem or any other part are not necessarily indicative of specific difference, and that provenance



Fig. 3 *Sibbaldia procumbens* 2006.1156A flowering in the Scottish Native Plants area on the east side of the Rock Garden. Photo: Kate Hughes.



Fig. 4 *Sibbaldia procumbens* 1971.0390D flowering near the waterfall in the Rock Garden. Photo: Kate Hughes.

and growing conditions can lead to marked differences in plants of the same species. However, the differences between these two plants seem sufficiently marked to merit further investigation. Significantly, the 1971 accession does not have 'V' on its label so has not been verified by a researcher who can determine with confidence its correct name. It is crucial that the correct species is depicted in Claire's painting and so it was essential that she work from the verified plant.

Heather McHaffie, RBGE Research Associate and one of the collectors of the 2006 accession, looked at the plants in July 2020, just before the Garden reopened to the public after the easing of lockdown restrictions. She collected samples from both plantings and is currently working to verify the name of the earlier accession.

Claire collected parts of the plant, labelled them carefully and took them home in a sealed plastic bag, having sought permission and followed the requirements of the RBGE Plant Health Policy. Observing the process of the creation of a botanically accurate drawing has been fascinating to me. While I had a general awareness of the skill required – the combination of artistry, scientific knowledge and attention to detail – I was still astonished when I saw the final result at close quarters.

Drawings are made at a scale of $\times 20$ or $\times 30$ magnification, in order to reveal the plant's structure. Understanding the form and constituent parts of a plant is essential to create a successful drawing. The significance of this is not only in the interests of accuracy, although that is important, but also because the depth of familiarity with the plant that emerges from looking at it in detail leads to a more consistent portrayal in the final drawing.

Those of us who have seen the plant growing are in no doubt that the same plant is depicted on the page. Those who have not seen the plant in the wild or in a garden can understand and learn about its morphology from the drawing. This level of accuracy is required to fulfil the main purpose of a botanical drawing.

Over the winter of 2020 Claire studied and sketched, with the help of a microscope, all parts of the plant (Figs 5 & 6). The final drawing and painting are shown in Figs 7 & 8.

The cover image

The drawing was scanned and an electronic file created. Using illustration software the image was then traced and adapted for reproduction in print. The resulting artwork was used to make the cover of this volume.

Conclusion

It takes many hours of an artist's time and close attention to produce a detailed, botanically accurate drawing of a species. It is intended that this drawing will be used for study and verification of other specimens, and that the artwork will serve to represent RBGE as an expression of its history and location for many years to come.

Acknowledgements

With thanks to Leonie Paterson for information from the RBGE Library and Archives about the creation of the logo, to Greg Kenicer for information about Sir Robert Sibbald and for pointing me towards the illustration in *Scotia Illustrata*, and to Henry Noltie for information about the naming of the species.

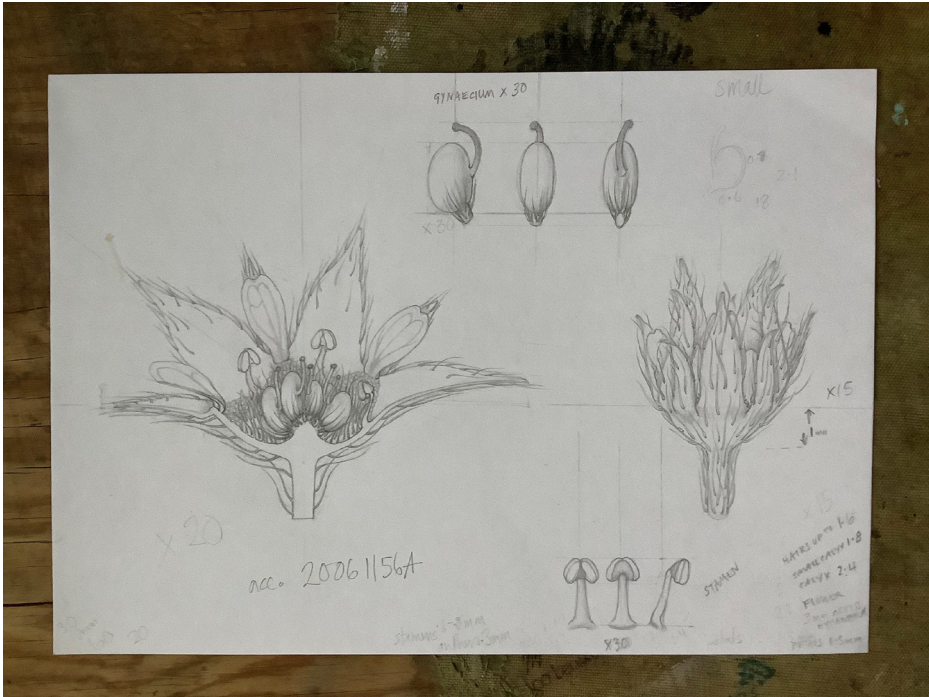


Fig. 5 Sketches of accession 2006.1156. The drawing of the unopened bud on the right has a scale indication of 1 mm, which gives an idea of the detail at which Claire works in order to understand the plant's structure. Drawing & photo: Claire Banks.



Fig. 6 Claire studied and sketched the plant with the help of a microscope. Photo: Claire Banks.

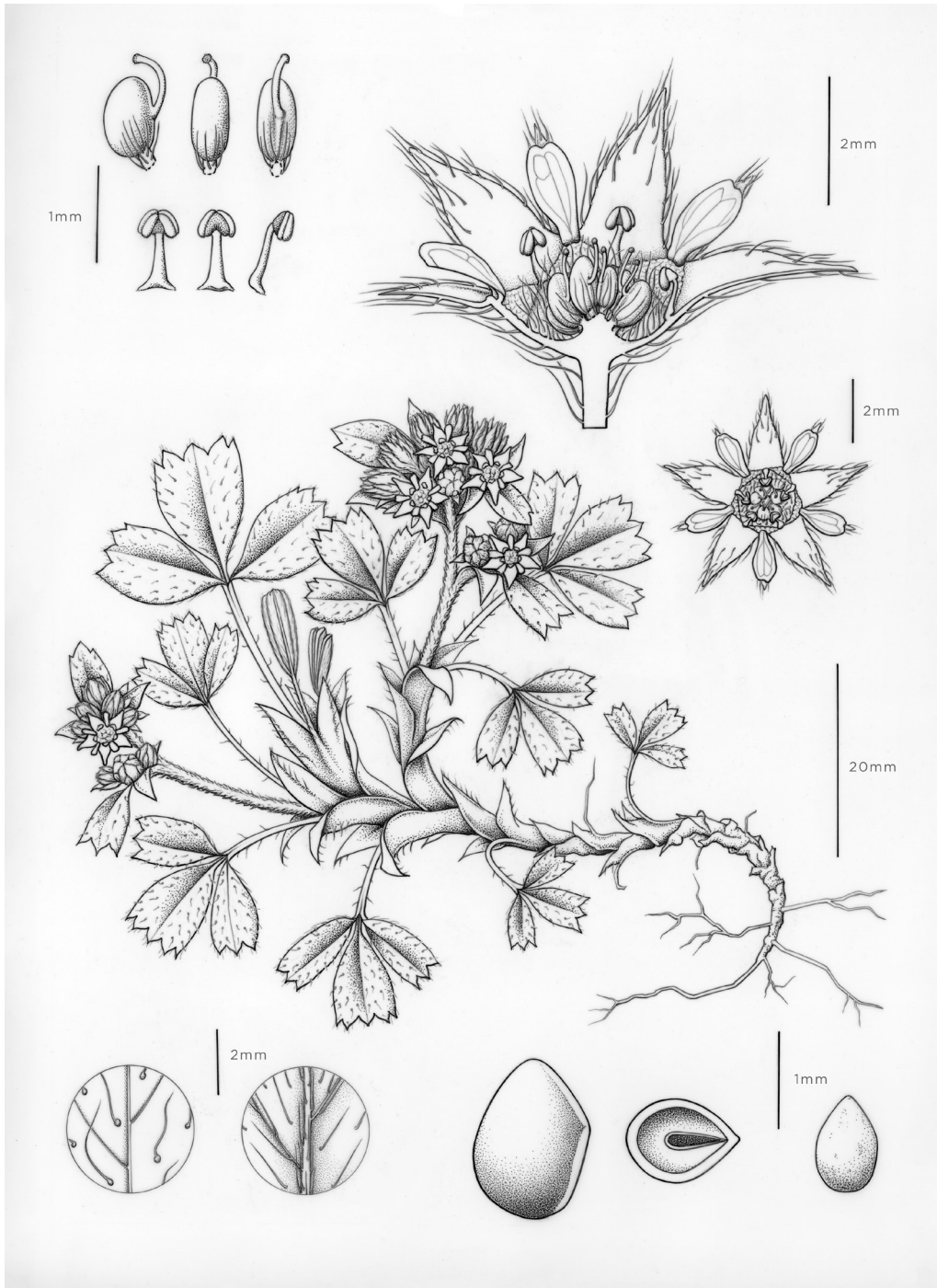


Fig. 7 The finished pen-and-ink drawing of *Sibbaldia procumbens*. Drawing: Claire Banks.



Fig. 8 *Sibbaldia procumbens* watercolour painting. Painting: Claire Banks.

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