



Primroses

THE QUARTERLY OF THE AMERICAN PRIMROSE SOCIETY

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Growing Primulas in Ontario - Why is a Primrose a Primrose? - Sakurasoh - the 'Star Primrose' of Japan - Ernest Henry Wilson

Primroses

*The Quarterly of the
American Primrose Society*

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The purpose of this Society is to bring the people interested in *Primula* together in an organization to increase the general knowledge of and interest in the collecting, growing, breeding, showing and using in the landscape and garden of the genus *Primula* in all its forms and to serve as a clearing house for collecting and disseminating information about *Primula*.

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Front Cover: Barry Porteous' winning entry in the 2007 APS Photo Contest in the category "Grown from APS Seed", *Primula capitata ssp mooreana*.
Back Cover: *Primula secundiflora*, photo by Riho Teras.

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President's Message

LEE NELSON

Hello, Everyone,

By the time you read this, the 2008 National Show will be one of the many wonderful memories in the annals of APS history. If you weren't able to join us in beautiful Victoria, British Columbia for this year's show, perhaps you'll plan to attend next year.

At the next meeting of the Board of Directors, we will select the venue for our 2009 show. If your chapter has not hosted a National Show before, I urge you to consider the idea, if not for next year then perhaps in the future. Our membership hails from shore to shore, and staging the National Show in different cities is one of the best ways to promote primroses and enlarge our membership.

On a different note, the twenty-first century has brought with it many changes: some good, some not so good. The rising cost of many things that we have long taken for granted has affected the way we conduct business within the society. Your Board of Directors has had to review and deal with some of these changes.

One of the first was the way in which we manage our seed exchange. In past years a list has been mailed to all current members which involved high printing and postage costs. This year, as was stated in the previous two issues of the Quarterly, the seed list was posted on the Society's web site: americanprimrosesociety.org. Those members without internet access could obtain a paper copy of the seed list by contacting our seed exchange manager, Jacques Mommens. Next year, we will provide a check box on the membership renewal form to indicate whether you would like a printed list sent by regular mail. Information about renewals made by late November would be shared with the Seed Exchange Coordinator so all members would have access to the exchange.

The largest challenge facing our organization is the continuing production of a quality publication on a quarterly basis without increasing the annual dues or

compromising the content and quality of the Quarterly. Your Board of Directors is to be applauded for its efforts in working through this difficult issue. The results to date will be the same four issues per year, with color pictures to compliment the articles. For now, the only change is this minor reduction in the over-all size so we can use less expensive paper and a standard size for envelopes. With the ever increasing costs of paper, printing and mailing, balancing expenses will continue to be a challenge. Rest assured, we are determined to do all that we can to bring you a quality publication at the lowest cost. We welcome your comments about *Primroses*, and hope to receive many letters to the editor and questions about Primulas from our members.

On a personal note, I want to take this opportunity to thank Jacques Mommens for all his work for the seed exchange. Jacques, with the help of VP Judy Sellers, has put together a seed list unequalled anywhere else in quality and selection. I wish you luck with your seed sowing and I'm looking forward to seeing some of those seedlings on the show benches at future chapter and National shows. Thank you Jacques and Judy, and a special thanks to those of you who made the exchange possible by donating seeds.

One of my goals during my tenure as your president is to meet and greet as many of you as I can. I also hope to add new chapters, be it through reinstating previous ones or starting up new ones. I need your help to make this happen. Let me know if any of you are aware of any groups of Primula lovers who might want to consider forming a new chapter. Our membership is scattered far and wide, but if we all network and work together, we can make good things happen.

Lee



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Growing Primulas in Ontario

BARRY PORTEOUS

Temperatures can vary quite significantly in Southern Ontario where I maintain 2 gardens. Downtown Toronto, by the shores of Lake Ontario, would be considered as a zone 7a. However, as you move north by 20 miles or so to Richmond Hill where we live, you enter a 5b/6a zone. A hundred miles further north, right on the 45th degree of latitude we have a cottage in the Muskoka region in a zone 3b/4a. It is here, where summers rarely get into the 80's and where snow fall is fairly reliable, hopefully arriving before temperatures plunge to the -40 range, that I grow all of my primulas. The pH of the snow tends to be in the range 3.5 to 4.0 making it 5,000 times more acidic than tap water, great for growing ericaceous material but not so good for lime lovers. Over the approximately 1 acre of garden, it has been possible to create a number of areas in which to grow primulas. These include bogs, troughs, woodland gardens, perennial beds, raised gravel beds, a tufa cliff and even limestone paths.

The first bog I built started life as a pond where I was hoping to grow water lilies. Sadly, it was far too shallow, the concrete was runny and the ground probably wasn't even level to start with, the net result being a 12-15" deep depression which sloped to one end, totally useless for its intended purpose. In an attempt to make something out of it, since the concrete was too thick to break up and remove, I added a mixture of peat moss, gravel and sand raised to a height of 10" above the edge, partly to allow for compaction but also to let plant roots either go down to seek water or stay in the less damp soil further up. Neither this, nor any of the other bog gardens, ever became "smelly" and the slope allowed excess water to seep away. Exbury Gardens, in the south

of England, surround their ponds with these primulas making a superb floral display and, at Inverewe Gardens in the north of Scotland, rivers of colour follow streams through the property. It is therefore pretty tempting to try something similar but it all too quickly became apparent that many of these primulas are extremely weedy in a damp environment and, when happy, grow very large and seed everywhere. I do, however, continue to grow *P. japonica* 'Appleblossom' and the deep darkish red *P. pulverulenta* which cross to yield attractive pinks but which also provide some pretty ugly flower heads with half the petal being white and the other half red. As a result, deadheading after flowering is pretty well essential. My second plantings in this bog consisted of *P. scotica*, *P. mistassinica*, *Pinguicula grandiflora* and *P. rosea* 'Grandiflora'. For the first year or two all went well with more and more seedlings becoming established. It was only later that I realized they were all *P. rosea* seedlings and within a very short time everything else disappeared, a valuable lesson in paying attention.

I have spent a fair bit of time researching the fascinating lives and discoveries of the Europeans who botanized China and who were responsible for many of the introductions that we take for granted today. Amongst them was Frank Kingdon Ward who brought back *P. florindae* in all its color forms from the common yellow to shades of burnt umber and deep orange red. He named it after his first wife while his second, Jean, gave her name to *Lilium mackliniae*, both splendid plants. *Primula florindae* is very amenable and doesn't need to be grown in a bog as it quite happy in a well mulched perennial bed in dappled shade. It too will

self seed but, being far less robust than the common candelabra types, is a welcome addition to the garden. Other long lived successes in the bog garden have included *P. involucrata*, *P. sikkimensis*, *P. nivalis*, *P. alpicola* and *P. luteola*. There is also a natural damp area where water drains from high up in the back woods and comes closer to the surface as the bed rock rises near the lake. Here *P. nivalis* and *P. macrophylla* do well, planted in amongst *Meconopsis* and *Gentiana sino-ornata* hybrids.

One of the best and perhaps rarest plants that I am growing in a bog is *Primula* X 'Peter Kleine', a hybrid of the difficult *P. clarkei* with the weedy *P. rosea*. The result is a very well behaved plant that slowly increases over time. *P. farinosa* and *P. laurentiana* also thrive in a bog environment but seem to prefer life in a path, composed of a mixture of pure limestone chips and screenings located next to the bog, where they self sow and appear to be much happier in a totally soil free environment.

I have a total of 14 troughs, the largest being 8' long by 5' wide and 3' high with walls 10" thick and the smallest being about half that size. While very small, portable, troughs may work well for some people, I have never found them to be of much use. Larger ones seem to promote better airflow and probably keep roots a lot cooler with just the correct amount of moisture. The first ones I made were constructed of concrete reinforced with chicken wire. However, this was hard work, expensive and time consuming. Newer ones have all been made using 4" by 4" pressure treated landscaping ties and seem to work just as well.

Over the last 20 years I have led a number

of trips to the Alps and Pyrenees. There we saw *P. allionii*, *P. auricula*, *P. carniolica*, *P. daonensis*, *P. glutinosa*, *P. hirsuta*, *P. integrifolia*, *P. latifolia*, *P. marginata*, *P. minima*, *P. spectabilis*, *P. tyrolensis* and *P. villosa* growing in the wild, some on cliff faces and boulders with others in open alpine meadows. *P. auricula* and *P. marginata* will succeed just about anywhere in the garden and are easy to propagate by cutting off the leggie stalks in late summer and sticking them in a shady spot with a moisture retentive soil. By the following spring almost 100% of the cuttings will have rooted and can be planted out into a permanent spot. In spite of the fact that *P. allionii* is found only in the Maritime Alps on tufa-like limestone, not very far north of the Mediterranean, it and many of its hybrids seem to be fairly hardy and will survive the extreme cold of a Muskoka winter.

"...*Primula* X 'Peter Kleine', a hybrid of the difficult *P. clarkei* with the weedy *P. rosea*. The result is a very well behaved plant that slowly increases over time."

On the other hand, they never seem to be all that happy, at least not for me. We have found *P. integrifolia* in the Pyrenees growing in turf saturated by snow melt, conditions which are hard to duplicate in the home garden. *P. tyrolensis* prefers limestone cliffs and boulders above the Rolle Pass in the Dolomites and again, is not easy to grow even if plants or seed are available. The rest, along with *P. glaucescens*, *P. wulfeniana* and *P. clusiana*, the Murray-Lyon form of which has double the flower size of the type, all do well in troughs, although it has to be said that *P. minima* is a shy bloomer in my garden. Perhaps it would be happier in an open bed as we have seen it throughout Europe flourishing in open high meadows often side by side *P. glutinosa* with which it forms interesting hybrids.

We all may have, in the back of our minds, the concept that primulas must have a source of water to grow well and that very

few of them really appreciate being baked in full sun. While it is true that, in the wild, a lot of primulas grow in alpine meadows or on cliff faces, temperatures there tend to be modified by altitude and also by the fact that temperature readings drop significantly as night approaches, certainly not the case in Eastern North America through the summer months. One of the troughs that I constructed over 20 years ago was really designed for drabas, androsaces and eriogonums. To finish off the trough, which is located in a very sunny spot, and to get rid of some surplus seedlings, I planted *P. auricula*, *P. villosa* and *P. glaucescens*. Since then, these plants have grown larger and more floriferous in spite of the fact that they virtually disappear by late summer having been baked to a crisp and receiving water only in the form of rainfall. Rather than dying off, they retreat to ground level and then, every following spring, put on a superb floral display.

I first encountered *P. vulgaris* growing in the woods at my grandparent's farm located in the north of Scotland. At the time, I really wasn't interested in gardening, however, I have since come to appreciate the beauty of this particular primula. Paths, lined with rotting logs and filled in between with 12" of partially composted chipped wood, weave their way through dappled sunlight, a great environment for growing this primula where it tends to flourish for many years. There are many excellent *P. vulgaris* crosses and selections but the best, for me, is the Jelitto Arctic Series in shades of white, rose, red, deep red, blue and yellow. These plants will grow well in a woodland setting but they also thrive in a sunny bed composed of a soil and gravel mixture. Blooms are very large and occur once in the spring and again, just as impressively, in the fall. There are obviously lots of doubles such as 'Sunshine Suzie', 'Quaker's Bonnet', 'Dawn Ansell', 'Marie Crousse' or 'Val Horncastle' that



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also do very well but these, and the single forms, need to be divided every few years otherwise they will slowly disappear. In brighter areas of the woodland *P. denticulata* grows to form huge clumps and self seeds everywhere, making it a bit of nuisance. Nevertheless, there are good white and red forms as well as an 'almost' blue that comes true from seed. The Edinburgh Botanic Gardens grew an excellent red selection for many years in a bog at the edge of a pond but I think that *P. denticulata* is happy in many locations other than full sun where it tends to wilt. *P. kisoana*, from Japan, spreads by runners, and can be quite vigorous. While some color forms are a dingy lilac red, there is a very nice pink which does set seed and an excellent white form that doesn't, at least not for me.

P. sieboldii, from the Far East, is a worthwhile addition to the woodland garden although it also seems to be happy in sunnier spots. While it doesn't come in a huge range of colours, having mostly white, pink or lilac flowers, or combinations of these, the petal structures are often very attractive. In Japan, where this primula is taken very seriously, there are many named clones, some of which can be pretty expensive to purchase. Most of my plants were grown from seed obtained from various exchanges and many of the resulting plants are really quite attractive. They all seem to set copious amounts of seed which can be scattered around to obtain more plants. It is advisable to consider intermixing other blooming perennials as *P. sieboldii* completely disappears underground, to a resting rhizome, by midsummer.

P. cockburniana lights up the woodland garden with its orange red blossoms and looks much like a dainty candelabra. The correct pronunciation is not as in cock-a-doodle-do but as co-burn, after H. Cockburn of the British Consular Service and/or the Reverent G. Cockburn who assisted the

collector A. E. Pratt. Scottish names are often never pronounced as they are written. *Penstemon davidsonii* var. *menziesii* usually comes out as P. d. men-zees-e-i but in fact the correct pronunciation is P. d. ming-us-i, all very confusing even if you are a Scot! Speaking of Scots, another excellent introduction was made by George Forrest in the form of *P. bulleyana*, named after Arthur Kilpen Bulley, the owner of Bees Nursery and financier of his early expeditions to China, a tortured relationship that Forrest would soon come to regret. The golden orange flowers are attractive and the plant is longer lived than *P. cockburniana* as is *P. b. ssp. beesiana* with its pink/magenta flowers. Dappled shade and a well drained, mulched, soil is also an excellent place to grow *P. cernua*, *P. capitata* ssp. *mooreana* and *P. muscarioides*. So far, many of the Chinese androsaces and gentians also seem to be happy here but time will tell.

My tufa bed is made up of 2 tonnes of rock and is 30 feet long, 3 feet high and 8 feet wide. Since it was constructed in the fall of 2006, hundreds of plants, mostly seedlings, have been either placed between the rocks or inserted into holes drilled in the tufa. While primulaceae in general seem to be quite happy in this environment, it is too early to state that primulas are, other than various selections of *P. auricula*, *P. allionii* and its hybrids have not done particularly well but it is too early to draw any conclusions other than to say that tufa and limestone are perhaps not necessarily the same thing, at least as far as plants are concerned.

With regards to North American primulas we have seen *P. cuneifolia* in Alaska, *P. suffrutescens* in California, *P. cusickiana* in Idaho as well as *P. parryi* and *P. angustifolia* in the Rockies. *P. parryi* looks as though it should be growable but isn't for me, making *P. angustifolia* the only one I have succeeded in keeping for any length of time.

Even this wasn't much of a triumph for, when it bloomed, the flowers were hidden by the leaves.

Many years ago I grew tender rhododendrons at the cottage. To save them from the extreme temperatures of winter I had a backhoe construct a large pit, lined it with wood and then dug up the rhodos every fall and buried them over the winter. This was a complete failure for, come spring, the pit was the lowest point around and filled almost to the top with icy water. The experiment was soon abandoned. The lesson learned was that plants are either going to live or die no matter what you do and, by extension, there are really no hard and fast rules in succeeding with primulas. The main thing is to create a number of different environments, grow lots of seedlings and stick them in. You might be pleasantly surprised!



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Primula Summer Care, Thinking Ahead

Seedlings

- keep as cool as possible
- keep them growing steadily for sturdy plants
- fertilize once a month with weak tomato fertilizer
- don't let them dry out!

Plants in the garden

- if you haven't done so, you can divide up to the end of June
- enrich soil with leaf mold, well rotted manure or compost
- don't let roots dry out while you are working
- mulch after replanting
- water in well, and be sure plants don't dry out!

Repotting auriculas

- best done while evenings are still cool, not after June
- pot in a rich but well-draining mix
- keep as cool as possible over the summer
- maybe stand them on the ground in a shady area
- don't let them dry out!

Notes compiled from articles by Florence Bellis and Mrs. A.C.U. Berry in APS quarterlies from the 1940s and 1950s.
Maedythe Martin

Why is a Primrose a Primrose?

MARILYN BARKER

A year ago I was invited to speak at the American Primrose Society Meeting held in Juneau, Alaska. My training is as an academic, not a gardener, so I was a bit anxious with this assignment. I have worked as a botanist in Alaska for 20-30 years and have learned the flora fairly well, I decided to broaden my presentation to include all members of the Primrose family in Alaska. What follows is a synopsis of my presentation at the 2007 Juneau Conference.

The family Primulaceae is named after the genus *Primula*. Like most families, it is made up of several genera that share similar characteristics. In Alaska we have 7 genera and 24 species. Worldwide there are over 700 species, more than half of them in the genus *Primula*. It is interesting that about half of our native Alaska species are also in the genus *Primula*!

All members of the Primulaceae have flowers that are regular (symmetrical) and perfect (have both anthers and pistils). The group is distinguished by 4 characteristics. They have (1) an herbaceous habit, (2) usually a corolla of 5 fused petals, (3) a single whorl of stamens opposite the corolla lobes and (4), free-central placentation of the ovary.

(1) Herbaceous habit. Most members of this family are scapose herbs with simple leaves. This means that flowers are produced on a leafless stalk arising from the ground. Others have leafy stems with flowers borne in the axils of leaves.

(2) Corolla of 5 fused petals. Five petals are fused to form a corolla tube which divides typically into 5 lobes. (Some members of this family have

as few as 4 or as many as 9 petals; one genus lacks petals).

(3) Single whorl of stamens opposite the corolla lobes. This is one of the more significant characters. Most flowers with only 5 stamens have the stamens alternating with the petals. In Primulaceae, they are opposite the petals indicating the stamen number has been reduced from 10 to 5.

(4) Free central placentation. The ovules (future seeds) are borne on a central column. No partitions divide the ovary into chambers.

The family is most commonly found in boreal and north temperate regions with outposts in tropical mountains. Many of the plants prefer moist soils. A large proportion of the species are beautiful plants and very attractive to gardeners. The 7 genera in Alaska are: *Glaux*, *Lysimachia*, *Trientalis*, *Dodecatheon*, *Androsace*, *Douglasia* and *Primula*.

Glaux

Glaux is represented by one species, *Glaux maritima*, the Sea Milkwort. (Fig. 9) Unlike most Primulaceae, *Glaux* has a leafy stem (10-20 cm) with opposite succulent leaves. It grows from a short rhizome. Most



Joe F. Duff @ USDA-NRCS PLANTS Database

genera of the Primulaceae have complete flowers, but *Glaux* lacks petals. In their place is a showy petaloid calyx. Since the petals are missing, the stamens alternate with the calyx lobes. *Glaux* prefers saline soils and can be sporadically found on coastal tidal flats, seashores and saline marshes of South-central and Southeast Alaska.

Lysimachia

Lysimachia, is also represented by only one species in the Alaska: *Lysimachia thyrsoiflora*, the Tufted Loosestrife (Fig. 11). Like *Glaux*, it also has a stem with opposite leaves; but these plants are much larger (2-8 dm). The



R. Mohlenbrock @ USDA-NRCS PLANTS Database

leaves and stems and flowers are dotted with minute blackish-red glands. The tiny yellow flowers are complete and grow in dense peduncled racemes upright in the leaf axils. *Lysimachia* prefers very wet sites such as lake margins, freshwater marshes or fens scattered from the Aleutians to Southeast Alaska.

Trientalis

Trientalis is represented in Alaska by 2 species: *T. borealis* and *T. europaea* (Fig. 4). Both species are known commonly as Starflower. The name Starflower was given to them because the flowers form at the tips of very thin pedicels, leaving the flowers apparently hanging in the air, like stars hanging in the sky. Again *Trientalis* doesn't look much like a primrose. Starflowers are perennial herbs growing from short

rhizomes and tubers. They are slender, dainty plants with 6-8 alternate leaves crowded in a whorl at the top of the stem. One to a few white flowers form on long pedicels from the leaf axils. The flowers typically are 7-merous, meaning they have 7 sepals, 7 petals, 7 stamens and 7 carpels. However, this number can vary from 5 to 9. Seven is an unusual number for flower parts, most flowers have parts divisible by 3 (the monocots) or 4 and 5 (the dicots). These delicate plants are common to woodlands and meadows throughout Alaska south of the 67th parallel. They have been known to remain decades after an area has been cleared, or flooded.

Dodecatheon

Dodecatheon is represented in Alaska by 3 species: *D. pulchellum*, *D. fridigum*, and *D. jeffreyi* (Fig. 10). These are the shooting stars. These plants are beginning to look more like real primroses as they are scapose, with flowers in umbels. The leaves are all basal. The calyx is cleft into a 5 lobed cup. The corolla is 5-lobed with the lobes being considerably longer than the corolla tube. Petals are magenta to lavender though white forms have been found. Unlike primroses, the petals are reflexed much the same way as *Cyclamen*. This gives the flower the appearance of a dart or a comet, hence the origin of the common names for the genus shooting stars and prairie pointers. The shooting stars are commonly found in wet meadows or along stream beds throughout the state.

Androsace

There are 4 species of *Androsace* in Alaska: *A. septentrionalis*, *A. chamaejasme*, *A. filiformis* and *A. alaskana* (Fig. 1). All are commonly known as Rock Jasmines. They are all characterized by small size and leaves in tight basal rosettes. Most are perennial, but *A. septentrionalis* is probably biennial.

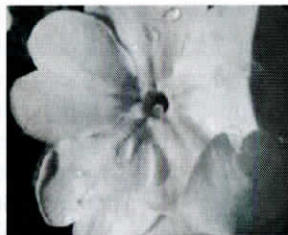
Species of *Androsace* are scapose plants with flowers in umbels (just like *Primula*) but the throat of the corolla is constricted and the style is very short. They prefer rocky slopes and/or tundra habitats. Though each of the species has a distinct range, at least one species of *Androsace* can be found throughout the state.

Douglasia

Douglasia's are mat or cushion forming perennials. Individual stems of *Douglasia* terminate in a rosette of simple leaves. There are 3 species of *Douglasia* in Alaska: *D. gormanii*, *D. arctica*, and *D. ochotensis* (Fig. 3). The flowers are solitary and arise from the apex of the terminal rosettes; the corolla is deep pink and has 5 crests in its throat. The combination of densely caespitose habit and the production of solitary flowers separate *Douglasia* from the other genera of the Primulaceae. *Douglasia*'s preferred habitats are tundra, rocky ledges and stony alpine slopes. It is an uncommon treat to see *Douglasia* as it can only easily be spotted during its short early-summer blooming season.

Primula

Primula is the largest genus of the family Primulaceae in Alaska, its members can all be commonly called Primroses. *Primulas* are scapose plants with flowers in umbels. Leaves are all basal and simple. Flowers are produced in umbels of few to several flowers. Both calyx and corolla are tubular. The throat of the corolla is not constricted though the mouth may be constricted. The lobes of the corolla are typically emarginated (see photo *P. borealis*). Corolla crests may or may not



be present, but are never as prominent as in *Douglasia*. Five stamens are opposite the 5 petals. The style of the ovary is usually filiform and elongate. There are 10 species of *Primula* in Alaska representing 4 sections of the genus.

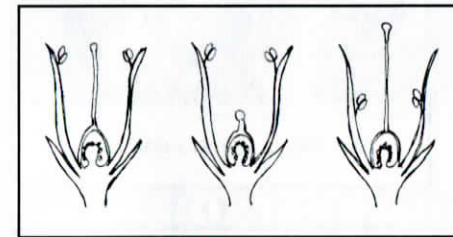
1. Section *Crystallophlomis*: *P. tschuktschorum*, *P. eximia*
2. Section *Cuneifolia*: *P. cuneifolia* ssp. *cuneifolia*, *P. cuneifolia* ssp. *saxifragifolia*
3. Section *Armerina*: *P. egalikensis*, *P. nutans*
4. Section *Aleuritia*: *P. anvilensis*, *P. stricta*, *P. incana*, *P. mistassinica*, *P. borealis*

One characteristic found in the genus *Primula* is polymorphic flowers.

This means that all flowers of the same species may not be the same. Species are divided into two groups as whether their flowers are homostylous or heterostylous. Homostylous flowers are characterized by having the stamens and the stigma at the same height. In homostylous plants all the flowers are the same. As a general rule, homostylous plants are self compatible and often lack pollinator attractants such as scent and/or honey-guides. These plants produce abundant seed and have relatively broad distributions.

In heterostylous plants, flowers come in 2 forms: the "pin" and the "thrum". Pin flowers have a long style extending out of the corolla tube; the anthers are buried deep within the corolla

tube. Thrum flowers are just the opposite, anthers are attached near the mouth of the corolla and the style is very short. The physical separation of the male and female parts of the flower imparts a barrier to self fertilization. Several other features are associated with the two flower morphs. Pin flowers are likely to produce small pollen grains and long stigmatic papillae. Long papillae are correlated with a higher rate of pollen germination. In contrast thrum flowers produce larger pollen grains and have very short stigmatic papillae. Hence the heterostyly promotes outcrossing. To get the best seed production with heterostylous plants you need to have both pin and thrum flowers.



Homostylous Heterostylous
Thrum Pin

Within the genus *Primula*, the homostylous *Primulas* are in the minority as there are many more heterostylous forms. Within our Alaska *Primulas*, the division is about 50-50. In each section there is at least one homostylous and one heterostylous form.

1. Section *Crystallophlomis*. Plants in this section have revolute leaves (leaf margins roll under) which are 1.5 times longer than wide and have entire flower petal lobes. In Alaska there are 2 species: *P. tschuktschorum* (Fig. 6) and *P. eximia* (Fig. 2). Both are commonly known as the Chukchi primrose. Not too long ago, these species were considered as two subspecies of *P. tschuktschorum*. They have since been separated from each other on the basis of homostyly and heterostyly. *P. tschuktschorum* is heterostylous and has a restricted range, found mostly only on the

Seward Peninsula. *P. eximia* is more robust, homostylous and ranges from the Seward Peninsula across SW Alaska, following the mountains to the Canadian border.

2. Section *Cuneifolia*: Plants in section *Cuneifolia* are characterized by having involute leaves (margins roll up), rather than revolute and leaves that are widest at the apex. Also, the mouth of the corolla is constricted by a ring—the annulus. These flowers are commonly known as "pixie eyes" (Fig. 8). Both subspecies of *P. cuneifolia* are in Alaska, one is homostylous (ssp. *saxifragifolia*) and the other heterostylous form (ssp. *cuneifolia*). Their range distribution parallels that of *P. tschuktschorum* and *P. eximia*, with the heterostylous *P. cuneifolia* ssp. *cuneifolia* being most restricted in range.

3. Section *Armerina*: The leaves of the *Armerina* section are involute, like section *Cuneifolia*, but in *Armerina* the leaves are widest in the middle. These plants lack meal and hairs, and their flowers lack an annulus. Two species are found in Alaska *P. egalikensis* and *P. nutans* (*sibirica*) (Fig. 7). Again one is homostylous (*egalikensis*), and the other heterostylous (*nutans*). Both of these plants prefer wet meadows and streams. An interesting side note is that it appears that *P. egalikensis* has arisen as a hybrid between *P. nutans* and *P. mistassinica* (section *Aleuritia*). DNA evidence shows that *P. mistassinica* was the female plant.

4. Section *Aleuritia*: Section *Aleuritia* is represented by the most species in Alaska. The leaves in this group are revolute and more than 1.5 x longer than wide and they lack multicellular hairs as in Section *Crystallophlomis*. The flowers are borne in tight heads. Again the species can be divided into homostylous and heterostylous forms. Homostylous *Aleuritias* include: *P. stricta*, and *P. incana*; heterostylous *Aleuritias* include: *P. mistassinica*, *P. borealis*, and

P. anvilensis (Fig. 5). All of these species prefer wet soils.

I've sure learned a lot in developing this presentation and really enjoyed the Juneau meeting. I found John Richards book on *Primula* particularly informative and nice reading on a cold winter day as thoughts drift towards spring and bright colorful primroses!

References:

Hultén, Eric. 1968. Flora of Alaska and Neighboring Territories. Stanford University Press. 1008 pp.
 Kelso, Sylvia. 1987. Systematics and biogeography of the arctic and boreal species of *Primula*. Dissertation Univ. Alaska Fairbanks.
 Richards, John. 2003. *Primula*. Timber Press Inc. 346 pp.



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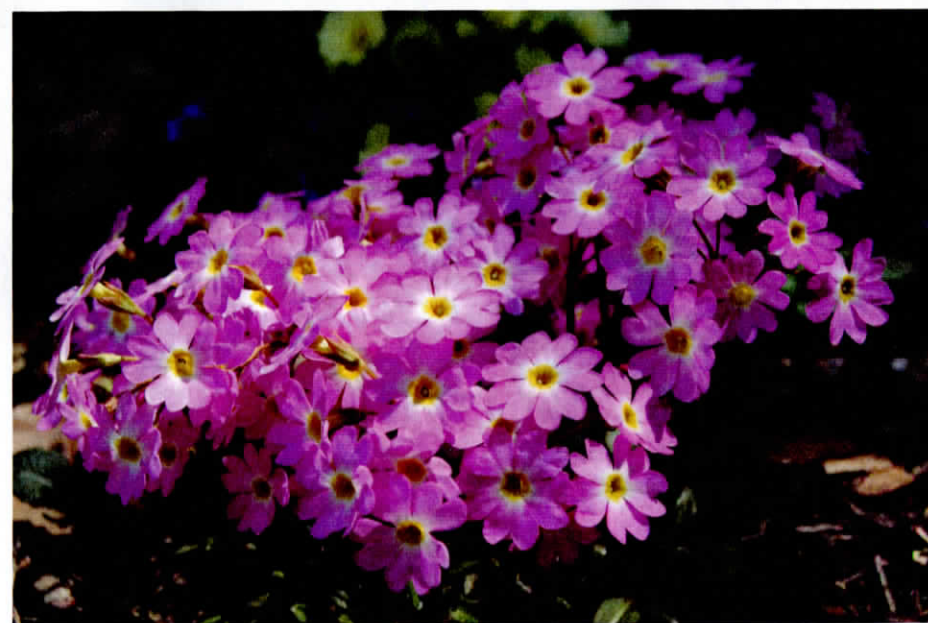
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Photos, clockwise from top left: white *P. denticulata*, *P. x 'Peter Kleine'*, *P. marginata*, *P. japonica 'Rowallen'*
 Below: *P. x 'Peter Kleine'*

Growing Primulas in Ontario

BARRY PORTEOUS



NEW ENGLAND CHAPTER'S ANNUAL PRIMROSE SHOW

will be held on May 2, 3, 4, 2008
 Tower Hill Botanic Garden, Boylston MA (near Worcester).

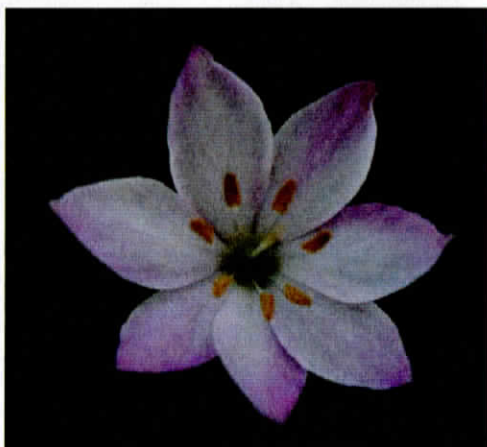
Registration includes 3 day pass to Tower Hill gardens, the Primula Show and presentations, Seven States Daffodil Show, and Buffet lunch in the Old Farmhouse at Tower Hill. Saturday evening Banquet to be held at a local restaurant, pay at the time.

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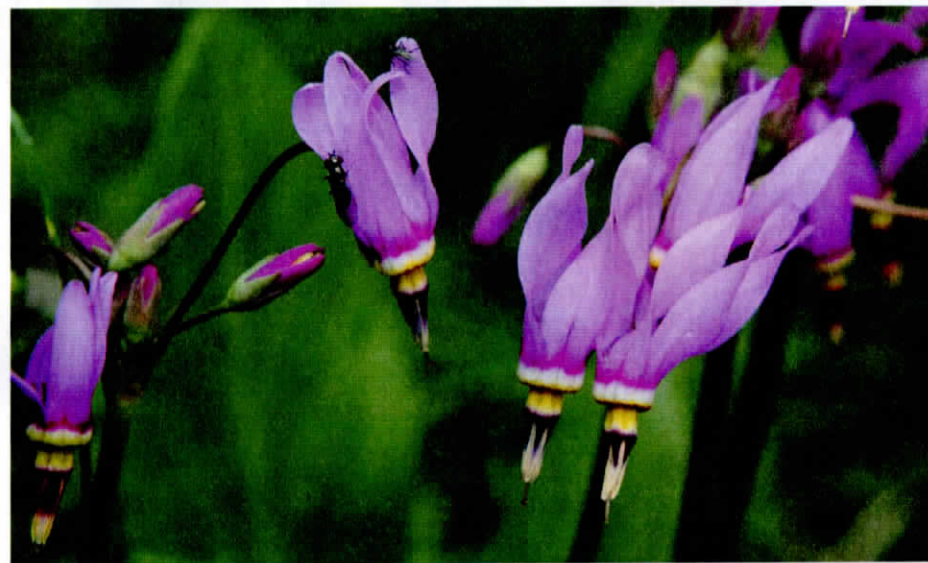
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Why is a Primrose a Primrose?

MARILYN BARKER

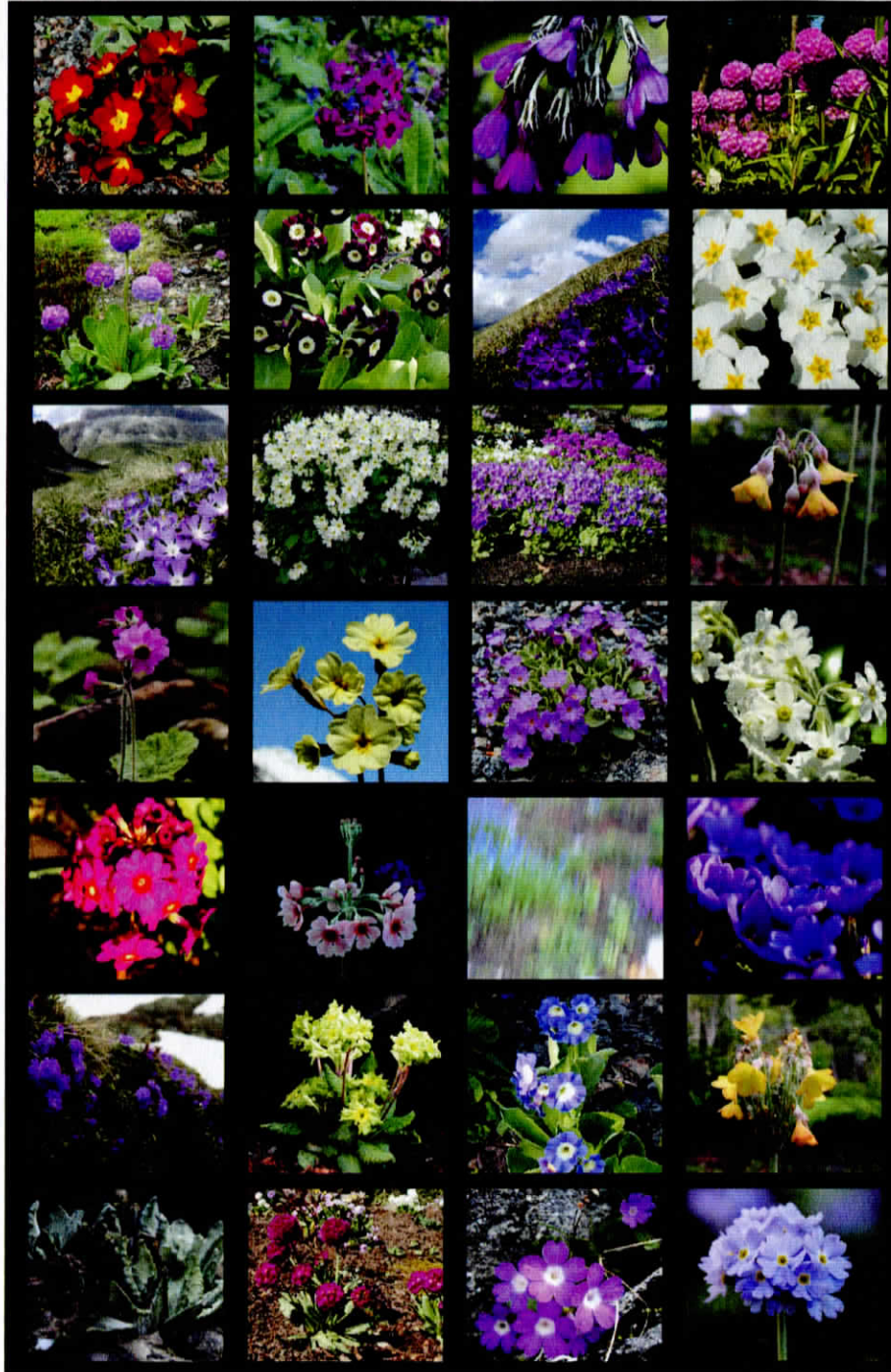


Clockwise from top left: Figure 1. Rock Jasmine *Androsace chamaejasme*; Figure 2. Chukchi Primrose *Primula eximia*; Figure 3. Douglasia *Douglasia gormanii*; Figure 4. Starflower *Trientalis europaea*; Figure 5. Northern Primrose *Primula anvilensis*; Figure 6. Chukchi Primrose *Primula tschuktschorum*



Clockwise from top left: Figure 7. Siberian Primrose *Primula nutans*; Figure 8. Pixie-eye Primrose *Primula cuneifolia* ssp *saxifragifolia*; Figure 9. Sea Milkwort *Glaux maritima*; Figure 10. Shooting star *Dodecatheon pulchellum* Photo by W.T.Kluge; Figure 11. Tufted Loosestrife *Lysimachia thyrsiflora* Photo by Verna Pratt

THE 2007 AMERICAN PRIMROSE



SOCIETY'S PHOTO CONTEST ENTRIES



Thank you!

The American Primrose Society would like to extend our congratulations and thanks to the entrants and contest winners of the 2007 APS Photo Contest. Overall winner and current cover photo: Barry Porteous in the 'Grown from APS seed' category. Winners of the other categories will be revealed on the covers of the Summer and Autumn Issues.

We would also like to thank this year's judge, Joseph Philip.



The previous pages show all the excellent entries into the 2007 APS Photo Contest. Thank you for sharing them with us. The contest would be nothing without you!

As spring arrives and your plants are flowering, don't forget to capture those blooms on film to enter in the 2008 APS Photo Contest!

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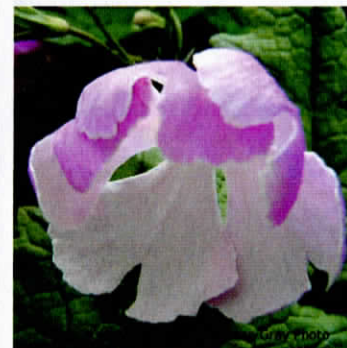


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Susan Gray Photo



Susan Gray Photo

Sakurasoh -
'Star Primrose'
of Japan
SUSAN GRAY



Susan Gray Photo

Clockwise from top left: classic wild form, pink sieboldii, white snowflake, bi-color flower, cupped form with dark reverse.

Sakurasoh - the 'Star Primrose' of Japan

SUSAN GRAY



Susan Gray Photo

Primula sieboldii
snowflake form, in
some of its variations



Susan Gray Photo

"Petals are found in smooth, lobed, notched, lacy, or fringed form. Colours range from solid to blushed, flushed two-tone, speckled, dappled, or streaked. The color of the petal reverse may be different from the front, sometimes bleeding into the tips of petals over the top. Combinations of these variations are endless."



Susan Gray Photo



Susan Gray Photo

I first learned of *Primula sieboldii* from Patrick Lima's book "The Harrowsmith Perennial Garden - Flowers For Three Seasons" (Camden House, published in 1987). He included a section devoted to primulas and is obviously a primula lover and grows many of them in the famed Larkwhistle garden at his home in the Bruce Peninsula area in Ontario. Lima described *Primula sieboldii* as the 'star primrose' of Japan: "the easiest, hardiest and most beautiful of primroses". We owe a lot of thanks to the Japanese collectors who developed such a diverse collection of named forms over hundreds of years. More than anything, we should simply be thankful for the beautiful *Primula sieboldii* as is.

Sadly, *P. sieboldii* in the wild is threatened and is on the vulnerable or endangered list (Red List as per Ministry of Environment of Japan). For the last few years, Japanese scientists have been using *Primula sieboldii* as a model for studying the biological process for saving plants from becoming monocultures or from extinction of the species. They are also using it to develop bio-security against the threat of genetically modified plants. Why are they using *Primula sieboldii* for such studies in Japan, you may ask. *Primula sieboldii* in the wild is now protected, and populations should become relatively stable. The natural conditions are just right for pollination by bumblebees without manipulation by humans in the wild populations. Isolation and density of the plant are also other considerations. Additionally, the wild plant is heterostylus and has been well studied for its botanical properties.

Sakurasoh, (the original Japanese name for the plant) was extensively cultivated in Japan long, long before the plant collector, F. von Siebold introduced the plant to the West in the 1860's. By that time, there were hundreds of forms appreciated in the country. In North America, only a few nurseries carried the plant for sale in the 1970's, but it is now growing steadily in popularity and is appreciated for its hardiness, ease of culture and beauty. The internet certainly has created an interest in the plant. Just visit Matt Mattus' blog at <http://exploraculture.blogspot.com> and see his May 2007 entry. *P. sieboldii*, however, has not attained the popularity of the venerable *Primula vulgaris* and its hybrids.

In the winter, in North America, some of us keep *Primula vulgaris* hybrids in pots for shows or home decoration. Meanwhile in Japan, particularly in February, the sakurasoh collectors exchange bareroot plants of named forms to grow on in pots as they show their collection. Their

Sakurasoh collectors have exquisitely described the classification of the flower.

aesthetic beauty is deeply appreciated in the country, much as the auriculas are treasured in North America and especially in the UK. We in the West haven't yet developed a sense of appreciation for the various distinct forms and shapes that sakurasoh has.

There are several characteristics which distinguish the sakurasoh from one and another - size, colour, petal shape, and shape of the flower. Sakurasoh collectors have exquisitely described the classification of the flower. The translation of meaning are very interesting. In petal forms, sakura-ben means cherry blossom petal (this is actually

the standard petal as on *P. sieboldii*, wild); kire-ben means cut petal (a notched lobe on the petal); bai-ben, or folded petal (the tips of lobed petals curl slightly; hence, "fold"). Regarding the shape of a corolla, hoshi-zaki means star, hira-zami means flat, and ume-zaki means resembling flower of plum tree. It's absolutely a delight to learn a few Japanese words to describe sakurasoh forms.

P. sieboldii can be grown from seed which are quite easily found in the seed exchanges of specialty flower societies on both sides of the pond. I have found that after keeping the seed in the fridge for a few months, sowing them in late winter or early spring and setting them out in freezing weather before bringing them back indoors will break dormancy. In nature, they are sown as ripe seed in late summer and early fall. In spring after a natural freezing and thawing cycle, they'll sprout. They grow well in dappled shade or half sun (sun in AM and shade in PM). In too much shade they droop and weaken. They are not too fussy but appreciate some moisture, some richness, and a good mulch in the fall to replenish while dormant. They appear in spring, in my garden late in May, and remain flowering for many weeks. In hot summers, they retreat underground to rest. In cool summers, the leaves are prolonged before finally disappearing. It's a good idea to know where they are planted and also make room for them as unlike most primulas, the star primroses creep and the babies emerge just a bit away from mama, forming a nice clump, although never invasive.

This primula can also be propagated by division. They are best divided just after they finish blooming or in early fall well ahead

of frost time. Plant them just under topsoil enriched with good mulch. In a few weeks, check again to make certain the roots are still under the ground and not exposed. Winter care entails making sure they are covered with mulch, just slightly covered as the creeping rootstock (like "spine with ribs") tend to expose themselves in the freezing and thawing stages, drying themselves to death. Generally they are tough and very winter hardy.

Flower and individual petal sizes, shapes, colours and overall form are remarkably distinctive. The flowers can be subtly tiny, medium, or large in size. The petals can be wide, skinny, round, or fat. The corolla can be flat, inverted, wavy, curly, ruffled, or bowl shaped. Petals are found in smooth, lobed, notched, lacy, or fringed form. Colours range from solid to blushed, flushed two-tone, speckled, dappled, or streaked. The colour of the petal reverse may be different from the front, sometimes bleeding into the tips of petals over the top. Combinations of these variations are endless. The colours range from pure white to various shades of pink to lavender. There are no oranges, yellows, blues or greens. The eye is always white, never yellow. The corolla tube is either white or rose. The stalk also has subtle variations, with some stocky, some skinny, some hairy, some smooth.

When the plants are pollinated naturally it is always a delightful surprise to see what the new seedlings will be in form and shape when they flower. 'Star primroses' are always beautiful, whether in the wild or cultivated.



The colours range from pure white to various shades of pink to lavender.

Ernest Henry Wilson

JOAN N. FRASER

"Go over and investigate the *Davidia* trees and the forest generally. Crossing a narrow neck a woodcutter's circuitous path leads us down to a narrow defile through a fine shady wood. Ascending a precipice with difficulty, we soon reach the *Davidia* trees.... By climbing a large *Tetracentron* tree growing on the edge of a cliff, and chopping off some branches to make a clear space, I manage to take some snapshots of the upper part of the *Davidia* tree in full flower. A difficult task and highly dangerous. Three of us climb the tree to different heights and haul up axe and camera from one to another by means of a rope. The wood of *Tetracentron* is brittle and knowledge of this does not add to one's peace of mind when sitting astride a branch about 4 inches thick with a sheer drop of a couple of hundred feet beneath. However, all went well, and we drank in the beauties of this extraordinary tree".¹

This description of photographing plants in China is dated May 31st, 1900, and comes from the diary of Ernest Henry Wilson, later known as "Chinese" Wilson. His descriptions of his exploits makes hunting plants sound more dangerous than hunting lions. A man who started as a gardener, loved field-work, and wrote well, he had the opportunity to do collecting and in doing so he rose to the top of the professional ladder.

Born in 1876, he started as an apprentice in a nursery at Solihull and went on to become a gardener at Kew. Then Veitch Nursery hired 1 E.H.M. Cox, *Plant hunting in China: a history of botanical exploration in China and the Tibetan Marches*, London, Collins, 1945, p 140.

him to collect in China, first providing him with further training and contacts in both there and in the U.S. The first trip lasted from 1899-1901. He went on a second trip for Veitch in 1903-05, and on his return he was appointed as a botanical assistant at the Imperial Institute. Shortly after that he was hired by the Arnold Arboretum of Boston, and eventually he became its director. He collected for the Arboretum on a trip to China in 1907-09 and on his final trip there was in 1910-11.² He went to Japan in 1914 and 1917-19, where he found azaleas and flowering cherries.

By all accounts, no doubt primarily his own, Wilson was an intrepid and hugely eccentric explorer. He traveled with bearers and a large, heavy whole-plate camera with its plates, tripod, and black head cloth. On his first trip Wilson had been sent out by Veitch to find a specimen of the Dove (*Davidia*) tree. As can be inferred from his description of taking photographs of it, he had nerves of steel. On this trip, he was "hemmed in" by the Boxer Rebellion, and in spite of (or perhaps because of?) a host of difficulties and discomforts, he became utterly fascinated with the country and its flora. He traveled south and north of the Yangtze, mostly in northwest Hupeh through limestone hills and valleys that had one of the finest floras in the world. On this expedition he established his modus

His descriptions of his exploits makes hunting plants sound more dangerous than hunting lions.

² Cox, a footnote on p 223: "Professor (Charles Sprague) Sargent proved the extent of Wilson's accomplishments by writing an account of his introduction of woody plants to the Arnold Arboretum. It was entitled *Plantae Wilsonianae*, and was published in nine parts forming three large volumes."

operandi. He was thorough, methodical, and nothing stopped him. Not the Boxer Rebellion. Not the overturning of the sampan he was using on the Yangtze River when it snagged on a boulder and everything including his camera and hundreds of photographic plates were lost. Undaunted, he purchased another camera.

His daring produced results. From this first expedition he produced a Dove tree and the seed of 305 other plant species, thirty-five Wardian cases of tubers, corms, bulbs, rhizomes and rootstocks and the dried and pressed herbarium material of 906 plant species.³ He sometimes found twenty-five or thirty species a day. Some of the best known introductions from this trip were: *Abies fargesii*, *Acer griseum*, *Davidia*, *Actinidia chinensis*, *Astilbe davidii*, *Buddleia davidii* (*variabilis*) *magnifica*, *Clematis armandii*, *m Montana* and *rubens*, *Cotoneaster*, *Dammeri*, *Dielsiana*, *Davidia involucreata*, *Dipelta floribunda*, *Magnolia delavayi*, *Malus theifera*, *Potentilla fruticosa Veitchii*, *Rhododendron discolor*, *Fargesii*, *Senecio clivorum*, *Standvaesia davidiana undulate*, *Styrax hemsleyanum* and *Viburnum rhytidophyllum*.⁴

On his second trip for Veitch he was looking for yellow lilies from the desolate high Min valley. He found the *Lilium regale*, for which he is best known. "He and his coolies were returning from the valley through wild hill country where the track was narrow and avalanches not uncommon, when a boulder suddenly dropped from the hillside above them and broke his leg in two places.... (They were) many days journey from the nearest medical help and (he was) attended only by coolies who would have deserted

3 Tyler Whittle, *The plant hunters, being an examination of collecting with an account of the careers and the methods of a number of those who have searched the work for wild plants*, New York, PAJ Publications, 1970., p.221

4 Cox, p 142.

him if they had thought it worth their while. And no sooner had a splint been improvised from his camera tripod than a fresh hazard confronted him in the shape of a mule train traveling in the opposite direction. It was a large train of fifty mules and the track was too narrow for them to be turned. Nor could the train wait while Wilson's party edged its way, one at a time, past each mule in turn because streams of falling pebbles augured another avalanche... He told his men to lay him across the narrow track. Then, one by one, the fifty mules stepped over him. Fortunately they were surefooted beasts..."⁵ This accident left him with a permanent limp, popularly called his "lily limp". On this trip he found some previously unknown primroses, some of which include *P. secundiflora*, *P. polyneura*, *P. cockburniana* and *P. pulverulenta*.⁶

On his final trip to China in 1910-11, "he traveled 2000 miles parallel to the Yangtze but about 50 miles to the north of it. This brought him through the limestone hills of Hupeh out on to the red sandstone of Szechun. The difficulty of the country is shown by the fact that it took Wilson and his experienced band of coolies twenty-two days to walk the 200 or so miles."⁷ No matter what problems, Wilson writes lovingly and with care of the country and what he saw. This is a description of a day's march made through the Hupeh country in 1910:

"The next morning we made an early start in order to cover the 60 li between Hsin-tientze and Mao-fu-lian. Immediately on leaving we traversed an old wood especially rich in species of Maple. *Davidia* and Beech are also common, whilst the interesting *Cornus sinensis* occurs sparingly as a thin tree 60 feet tall. *Pinus Armandii*

5 Cox, p 4.

6 John Richards, *Primula*, Portland Oregon, Timber Press, 1993. p. 15.

7 Cox, p 147.

is present, but Conifers generally are very scarce in this particular locality.

"We meandered around the mountain-sides, by a tortuous ascending path, until we reached a gap in the ridge and crossing over made a breakneck descent of a couple of thousand feet. A new kind of Poplar, having the young foliage bronzy-red, was common on all sides, and in the descent I gathered *Primula violodora*, *Rhododendron Augustinii*, *Acer friseum*, and a pink-flowered *Staphlea*, the last two both small trees. The most interesting find, however, was a new hydrangea [*H. Sargentiana*], a shrub 5 or 6 feet tall, with stems densely felted with short bristly hairs and large, dark green leaves with a velvet luster in foliage alone this species is strikingly handsome.

"What a collection of really first-class garden plants to see in one day."⁸

He was such an expert collector that at least sixty species and varieties of Chinese plants bear his name. His remarkable legacy is not only for plants, but also for excellent photographs and writing. His main book was *A naturalist in western China*, first published in 1913 and re-issued in 1929.

It seems ironic that, having survived so many perilous escapades abroad, Wilson and his wife were killed in a car accident in Massachusetts in 1930.



8 Cox, p 141.

Mary Baxter

We are sad to relate the death of Mary Baxter on February 20, 2008. Mary was a long-time member of the American Primrose Society and a keen primrose grower for many years. Among her many plants were a few particular treasures that came from all the seed she sowed. I remember a tiny deep purple Juliana, as one of them. She grew a number of anomalous primroses as well, Hose-in-hose and Jack-in-the-green and loved them all. I'll never forget her approach to planting primrose seed. She took all the seed she collected and all she received from the American Primrose Society seed exchange and dumped it all into a container and shook it up, and then planted it in flats outside, and waited. She loved the surprise of what came up, she said.

Some of Mary's introductions continue on, and we will remember her with her plants, and miss her.

Maedythe Martin

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By MICHAEL PLUMB

For those of us living on the 'wet coast', the advice about using mulch to protect primulas from the effects of heavy rain is something to think about next fall before the rainy season.

Fertilizing and Post-Winter Care

Excerpts from Volume 5, Issue 4
(April 1948) - pages 73, 77

Marguerite Clarke, nationally known grower of Primrose and Pansy seed, was also a guest speaker at the February meeting. Mrs. Clarke said that as far as fertilizing was concerned, to talk about it at this season of the year was like locking the barn after the horse had been stolen. That a good mulch of well-rotted manure or rich compost should have been put around the Polyanthus and Acaulis in November and that the woodlanders and other Asiatic species should have been treated to a mulch of well-rotted leaf soil and/or rotted sawdust at the same time. Such mulch not only feeds but protects the soil from packing under the heavy beat of the rain. If, however, the mulch didn't get on in the fall, put in on in the early spring.

In looking around to note winter damage, plants can be trimmed up and made neat by removing the old and dead leaves. If seedlings were set out late and heaved out of the ground by frost action,

they should be reset and mulched as should all plants with exposed roots.

Mice are still active in the spring and mole runs should be baited with rodent exterminator. Cutworms and beetles should be baited for at this time and Mrs. Clarke referred to that part of Mr. Millers discussion.

The practice of ration is valuable so that the same ground is not used for the same plants too long. Fertilizers carrying trace elements are good in maintaining the health of the soil and avoiding deficiency diseases. Soil analysis is also valuable, not only in one part of the garden but in various locations.

Cutting stalks after blooming to conserve strength of plants and a summer mulch were two suggestions made for the post-bloom period.



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Mail Call...

We've received quite a few emails lately and wanted to share some of them with you. It's great to see that the website is being found and used and we hope you might find a bit of information here that is of use to you too!

Debb in California writes:

Hello and first let me thank you profusely for making your wonderful and informative site available to all of us! The photos are beautiful and the information is very concise, easy to understand and helpful beyond measure. These gorgeous little plants really do seem easy to grow, following the proper care instruction that you encourage us to use.

My question is partially in their history. I am interested to know what they were originally used for as many plants and flowers had medicinal origins or were used to help us beautify ourselves as well as our environments and moods.

Secondly, are they edible? I have browsed the Internet for hours and can't seem to find the answer. I am particularly concerned about this because we have a Desert Tortoise Preserve & Rescue where we accommodate wild sick, lost or unwanted captive Tortoises that can no longer be released into their natural environment and we pride ourselves in providing the best care and habitats that we can possibly build so we plant many of their natural plant foods. Mexican Evening Primrose, similar to an indigenous variety, is one of their favorite meals but it can become very thick and rangey. These Acaulis and Primula just seem to lend themselves to our nursery compounds where we keep the hatchlings and yearling tortoises but,

of course, I want to be sure these beauties aren't toxic before we plant them.

Any help or advice you can offer will be hugely appreciated and will also go a long way to enhancing the quality of life for some of this wonderfully quiet and rather helpless creatures.

Thank you so much for your time in responding to our query. We anxiously await your reply.

APS response:

You obviously care about the environment and all it encompasses, and are to be commended in your work for the Tortoises.

I think the plant you are concerned about is actually the *Oenothera deltooides*, or Desert Evening Primrose, (or one of the other 125 *Oenothera* species) rather than any *Primula* species such as *acaulis* or *auricula*.

The old herbalists suggest that the related species, *Oenothera biennis*, is totally edible, and has been used for centuries for soothing coughs, depression, and as a cleansing astringent. The Primrose oil sold in health food stores is from the seeds of this plant, and many believe in healing properties for several disorders. You might check on line under some of the horticultural terms to see if you find your plant. The USDA website www.plants.usda.gov lists the Mexican Evening Primrose as occurring naturally only in Texas, as you are in California, you might check the site, and also CalPhotos (plants) site for a match. calphotos.berkeley.edu

The Primulas on our site are not considered toxic, but some people are sensitive to the substance primulin, a chemical in the leaves of *P. obconica*, *P. sinensis*, *P. auricula* and several others which causes an itchy rash on the skin, so they wear gloves when handling

the plants.

The flowers of the plain Primrose, *Primula vulgaris*, have been used medicinally as a soothing tea, and are listed as having other benefits for ailments from insomnia to migraine, rheumatism, and skin infections.

So -- I can't answer your question in terms of a Tortoise diet, but I believe moderation in all things to be wise. Limiting the amount of any plant they have access to, unless it is their main indigenous food, might be the best bet.



Melissa in Oregon asks:

I'm unsure whom to turn to, and I figured this site was the best place to start. I live on the Oregon Coast, where we can enjoy primroses in our gardens for many, many months. Typically, we plant the 'garden center variety', mentioned on your site as the grocery store variety. However, this variety does rather well in our wet, cool climate. For two years, I enjoyed beautiful blooms from the primroses left behind by a previous owner, but this year, I'm noticing that they don't have a chance to bloom. As soon as the buds open, something is munching on them! I've spoken to neighbors, but they're as clueless as I am. Do you have any ideas as to an all-around deterrent that wouldn't damage the plants or wildlife? (i.e. hot oil, pepper, soap) I would (and my neighbors) would appreciate any information you can give.

APS Response

I have a strong suspicion that either slugs or snails, or both, are eating at your primroses. Since they are mostly out at night (and on some dark, cloudy days) you usually don't see them. Take a flashlight out at night and

look around. Birds will sometimes pick off the flowers, but they usually aren't that much of a problem and usually leave the broken off flower laying on the ground.

We put out Slugg-O this time of the year to save our plants from foraging. We have used other slug baits that have metaldehyde as the active ingredient, but that is usually put in a dried apple material that attracts some pets. We had a chocolate lab that we suspect ate some of our slug bait and had convulsions. We had to take her to the vet for treatment or she might not have survived. The Slugg-O's active ingredient (as well as in Escar-Go and Worry Free) is iron phosphate (1%) and is supposed to be safe for kids and animals. I think it also lasts a little longer in our rainy weather. You don't see the dead slugs laying around like when using bait with the metaldehyde, but the damage to plants seems to subside after applying the Slugg-O even though there aren't any dead bodies around to tell if it is effective. The down side of Slugg-O is the cost. I note that we bought 2 1/2 pounds for about \$15.00 several years ago. I now buy it in 25lb bags from a farm supply store and the price is a lot less per pound when bought in that quantity. I don't know if you have a farm supply store in Florence, but I suspect that you could find one that carries it in Eugene.

I've tried beer as others have suggested, but have given up on it. It does work, but then you have a lot of containers with beer in it around the garden. It is a lot easier to just broadcast the Slugg-O around and not worry about your beer getting watered down by the rain.

I hope this helps you and your neighbor. Maybe you can go together and buy a big bag of Slugg-O to try.



American Primrose Society Minutes of the Quarterly Board Meeting February 10th, 2008

The meeting was held online and by telephone. It ran from 2:10 pm to 3:40 pm, Pacific Time.

Present: Linda Bailey (Director), Rodney Barker (Director), Ed Buyarski (ex-President of the APS, President of the Juneau Chapter), Jane Guild (Editor), Julia Haldorson (Director and Membership Secretary), Jon Kawaguchi (Treasurer), Marianne Kuchel (Director), Michael Plumb (Secretary), Judith Sellers (Vice President)

Others present: Cheri Fluck (Editorial Committee)

Regrets: Maedythe Martin

1. **The Minutes of November 27th, 2008** - Accepted as presented (Judy / Michael)
2. **Treasurer's Report**
 - Total liabilities and equity as of February 1st, 2008: \$23,470.76 [November 16th, 2007: \$20,245.39]
 - Income less expenses January 1st, 2008 to February 1st, 2008: (\$1,485.25)
 - Total income less expenses January 1st, 2007 to December 31st, 2007: \$2,301.45
 - TABLED: Funds are available from the closure of the Oregon and Washington chapters. Cheri asked that these funds be assimilated into the APS General Fund. The Board agreed to table this matter for the Annual General Meeting in April.
 - The Treasurer's report was accepted with thanks. (Jane / Linda).
3. **Committee Reports**
 - Seed Exchange**
 - The exchange has made a small profit.
 - New supplies (glassine envelopes, etc.) are needed for next year.
 - Absence of a printed list was a problem for some members. SUGGESTION (Jane and Jon) that members check a box on membership renewal form and reminder cards if they want a printed list (ACTION Julia).
 - The Board expressed their gratitude to Jacques Mommens for his sterling work for the Exchange.
 - Primroses Quarterly**
 - The issues are now back on time, and planning of future issues looks

good.

- Envelopes are now stuffed automatically. Automated stuffing together with initial bulk postage to mailing stations costs \$170 for about 400 copies.
- MOTION (Cheri / Julia): That the size of the Quarterly be reduced to 8.5 inches by 5.5 inches (smaller, standard size, therefore less expensive). Carried, two abstentions.

Website

- The Board expressed approval for the new layout.

National Show Planning Committee

- Michael told the Board that bringing silver trophies into Canada would cause problems for the winners on leaving. He suggested a system of rosettes be used instead. A good source for these was available.
- MOTION (Judy / Jane): That the form of awards such as trophies be at the discretion of the Show Chair. Carried.

Membership Committee

- Julia said there had been one sustaining membership.
- She has sent out second notices to 81 members who have forgotten to renew.
- Membership as of November, 2007, was 402 with 221 membership expiring at the end of 2007. Membership as of February 2008, was 336 with 81 memberships expiring at the end of 2007 not renewed. The net loss in membership in February, 2008 as compared to November, 2007 is 66 members. A second round of renewal reminders were mailed in February, 2008, which may help generate more renewals.

4. New Business

Three matters were tabled for the April AGM:

- Tacoma Chapter's application for reinstatement as a full APS chapter (requested in a letter from Candy Strickland)
- The current status of the East Side Chapter
- The use of the funds left after the dissolution of the Washington and Oregon Chapters.

Compilation of APS Board members' duties

Board members were asked to send Lee (APS President) a list of their regular functions. A record will be kept so that future board members can take on their duties more easily.

5. Adjournment (Cheri / Linda) at 3:40 pm Pacific Time.

Next board meeting

- The AGM will be held on Saturday, April 26th, 2008 at the National Show in Victoria, BC.

Respectfully submitted,
Michael Plumb, Secretary

Allan Hawkes, a Tribute

Sadly, Allan passed away February 19, 2008 in his eighth decade. He had been a member of the three sections of the National Auricula and Primula Society in England for many years, but particularly of the Southern Section and it was at one of their shows at the Brompton Oratory that I met him in the 1970s. He kindly gave me one of his show auriculas, a yellow self, named for his wife Sheila. It was when I met him again in 1996 that I got to know him well.

Allan was a great hybridizer of auriculas and carefully set about creating and introducing some exceptional auriculas that are still grown widely. 'Doublet' a very double, very dark purple, almost black, is his introduction, as are a number of exhibition alpinas. 'Valerie' and 'V2' were named for his daughter, Valerie. In the late 1970s he began his project to re-create the striped auriculas, and finally produced some fine plants some 15 to 20 years later. When he began, there was little material to work with, but through persistence and inspired crosses, Allan was able to present such fine plants as 'Marion Tiger' named for Marion, Virginia. His correspondent of many years, Jimmy Long, lived in Virginia, and Allan was always supportive, sending plants and answering questions in many letters.



Allan Hawkes in his garden with Peter Martin holding one of Allan's antique bicycles. Photo: M. Martin

Allan named many of his striped auriculas with the word tiger in their name, for the stripes, but some of his plants were named for his favorite antique bicycles. 'Raleigh Stripe' and 'Rover Stripe' commemorate his love of old bicycles. I guess we are grateful he didn't name one Dursley-Peterson, his bike of choice when I visited him in 1998.

Allan was a great and generous friend and I will miss him.

Maedythe Martin



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NATIONAL AURICULA AND PRIMULA SOCIETY

SOUTHERN SECTION

The National Auricula & Primula Society - Southern Section was founded in 1876 by and for enthusiasts who raised and exhibited Auriculas, Gold-Laced polyanthus and other primulas.

The Annual subscription is £7.00 (UK) for single or family membership, Overseas £8.00
Members receive an illustrated Year Book and a Newsletter - Offsets, containing interesting articles on growing and raising Primulas together with their history and cultivation.

Applications for membership of the N.A.P.S. Southern Section should be made to:
The Honorary Secretary, Lawrence Wigley,
67 Warnham Court Road, Carshalton Beeches,
Surrey, SM5 3ND.

NATIONAL AURICULA AND PRIMULA SOCIETY

NORTHERN SECTION

Please consider joining the National Auricula and Primula Society - Northern Section.
Overseas memberships are some of the best ways to learn more about your favorite plants.
Benefits include publications and more.

Write: Mr. K. Leeming, 3 Daisybank Drive,
Sandbach, Cheshire. CW11 4JR

Overseas membership £7.50 (\$10.00 US)

Please make checks payable to NAPS.

www.auriculas.org.uk

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2010 Expiry

Francesca Mugrace-Aiello 16 Paul Holly Drive Loudonville, New York 12211 U.S.A.

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