

# International Rock Gardener

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# ---International Rock Gardener---

August 2015



Welcome to IRG 68. Two contributions this month come from Canada and the Netherlands. We remind readers that your own suggestions or submissions for IRG are most welcome. There seem to be more than the usual number of moans about the weather this season – some have their garden fried in the heat, others nearly washed away. Trying times for many, yet from the southern hemisphere we are seeing fabulous spring flowers being shown in the forum which are enough to cheer even this grumpy Scottish soul! Such are the joys of a plant obsession I suppose.

Cover picture: Trough made and photographed by J. Ian Young.

## ---Plant Puzzle---

Robert Pavlis is from Guelph, Ontario, in Canada. This article is republished from his [Garden Myths](#) blog and he has also profiled the *Hylomecon* as a [Plant of the Month](#) for the Ontario Rock Garden and Hardy Plant Society.

### ***Hylomecon japonica* – Which is The Real Plant?**

**Text and photos by Robert Pavlis, unless otherwise stated.**

*Hylomecon japonica* is a fairly rare plant that is mis-identified frequently on the internet and in seed exchanges. Various seed exchanges have been sending out the wrong seeds for a number of years and discussions on the SRGC forum make it clear that getting seed from the right plant has been a global problem (Ref. 1).



Instead of receiving *Hylomecon japonica* seed, it is common to get seed from one of the other wood poppies. Since I grow *Hylomecon japonica* and its 3 imposters I decided to prepare a complete review of the plants, and provide a list of features that will allow people to clearly identify their plants.

All of the details are based on my plants which represent a limited set of clones. If your findings disagree with mine, please [let me know](#).

*Hylomecon japonica* flower and leaves - photo [Alpsdake](#) (Ref. 2)

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## Hylomecon japonica and Imposters

*Hylomecon japonica* is similar to *Stylophorum diphyllum*, *Stylophorum lasiocarpum* and *Chelidonium majus*. All four plants will grow in similar climates, flower in spring or early summer with yellow flowers and prefer to grow in part shade.

*Hylomecon japonica* is a wood poppy from Japan, China, Korea and Russia. It is a low growing perennial that forms underground tubers. By mid-summer, the leaves die back and the plant recedes underground. Synonyms include *Chelidonium japonicum*, *Hylomecon vernalis*, and *Stylophorum japonicum*.

*Stylophorum diphyllum* is also called a wood poppy or celandine poppy. It is a true perennial from North America. The common name, celandine poppy, is a result of this plant looking very much like *Chelidonium majus*, the greater celandine. Out of the four plants being discussed, this one is the best garden worthy plant.

*Stylophorum lasiocarpum*, commonly called Chinese celandine poppy, is a herbaceous perennial that is native to eastern to central China. Synonyms include *Hylomecon lasiocarpum*.

*Chelidonium majus*, the greater celandine is native to Europe. It is a biennial that has become an invasive weed in North America. In North America at least, it is rarely encouraged to grow in the garden because it is a bit weedy.

### Species Comparison

The following table compares the four species being discussed. Using the information provided it is fairly easy to identify any of the four species.

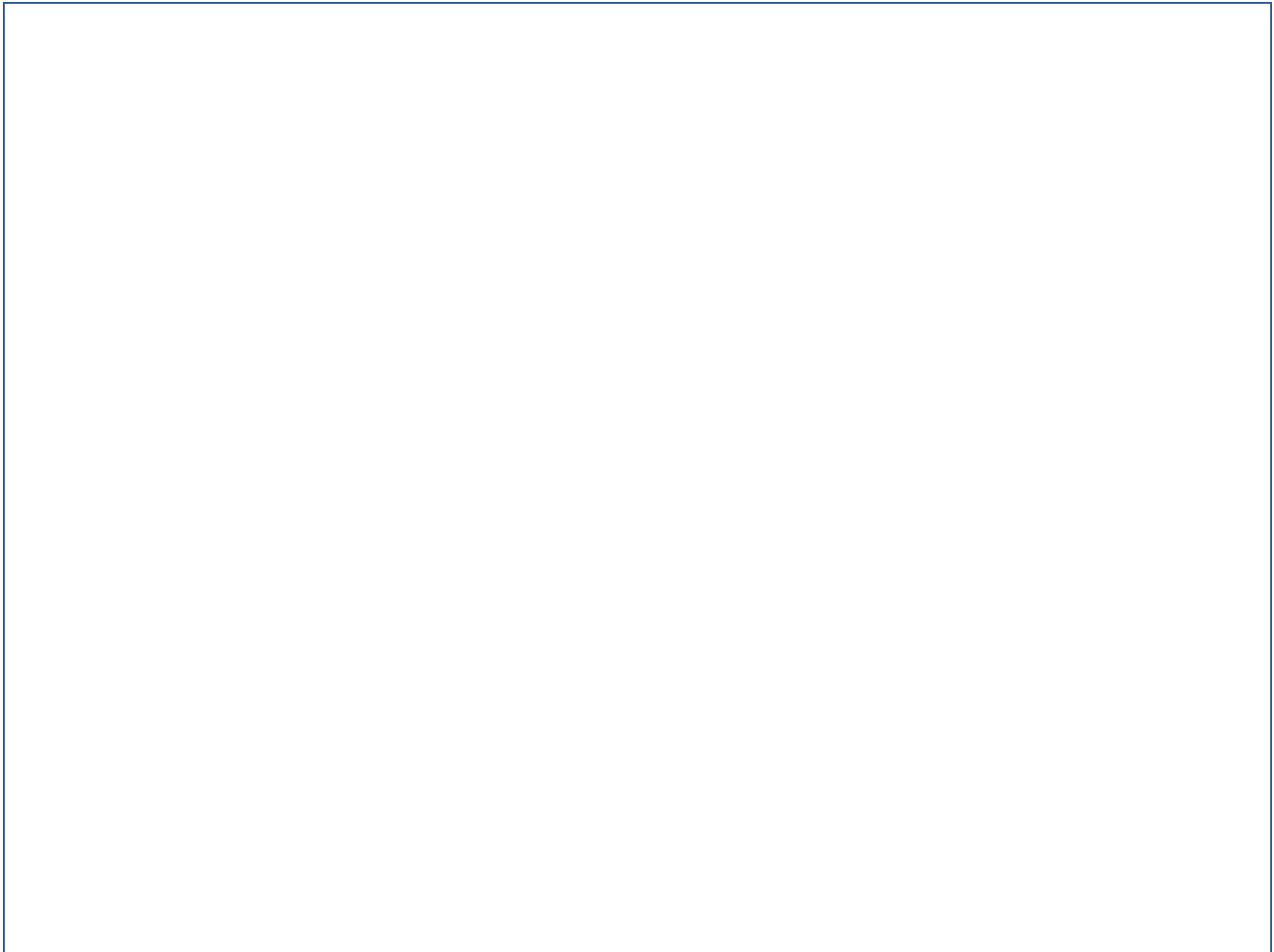
Feature	Hylomecon japonica	Stylophorum diphyllum	Stylophorum lasiocarpum	Chelidonium majus
seed pod orientation	points up	hangs down	points up	points up
seed pod thickness	thin	plump	medium	thin
seed pod texture	smooth	hairy	hairy	smooth
seed pod length	19mm	25.4mm	50-76mm	50mm
# of seed chambers in pod	1	3 or 4	1	1
color of sap	orange	yellow	orange/red	slightly orange
flower color	yellow	yellow	light yellow	yellow
# of flowers per peduncle	1	1	1	4 to 8
# of peduncles per node	1	multiple	up to 5	multiple
texture on leaf surface	slight	prominent	slight	slight
hairs on leaf bottom	few and short	prominent	prominent	only on midrib
leaflet at base of peduncle	1, round	3, very small	3 very small	2, oval
leaflets	2	2 or 3	2 or 3 (3rd is smaller)	1
leaf margins	serrate	lobate	serrate	lobate

#### Notes:

- 1) The seed pod length for *Hylomecon japonica* from another grower was 25mm long, and it contained fertile seeds.

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## Leaf Comparison

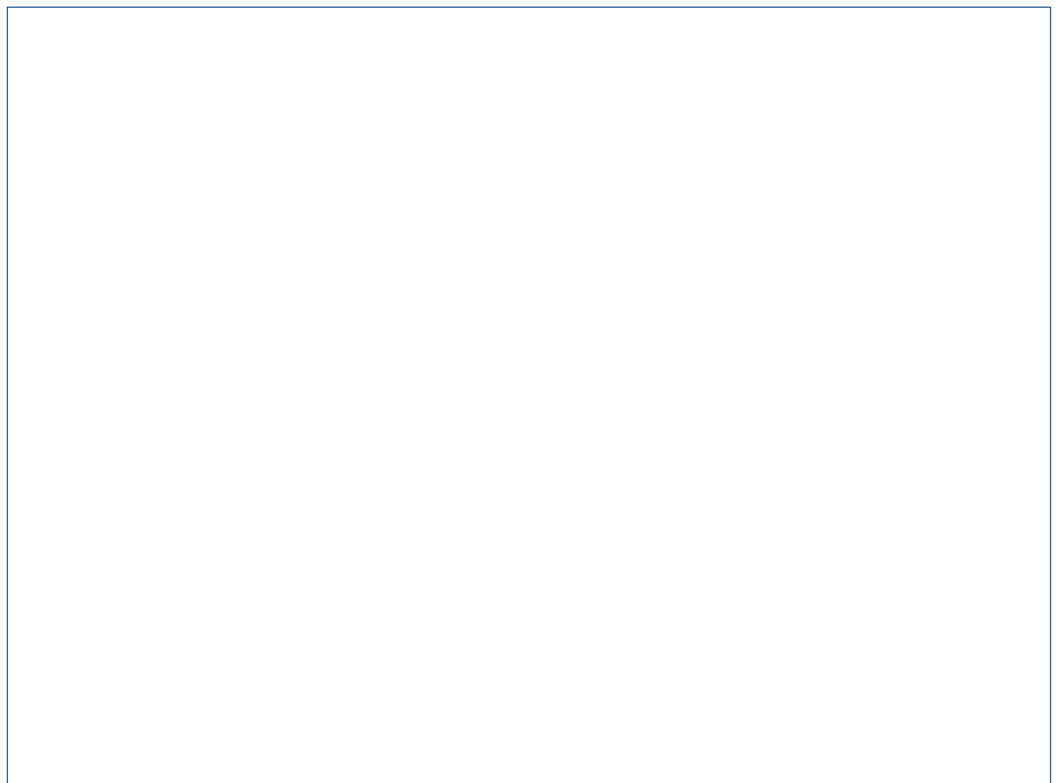


*Hylomecon japonica* and imposters – leaf comparison (includes ¼ inch grid)

## Seed Comparison

In this picture the seed of *Stylophorum lasiocarpum* was just collected. They show the shiny colour as well as a fresh elaiosomes. The other two seeds were collected a month earlier and stored moist. The colour of *Stylophorum diphyllum* seed, at collection time, was a shiny dark brown and had prominent elaiosomes. The seed of *Hylomecon japonica* were a shiny brown and had a small elaiosome.

*Hylomecon japonica*  
seed comparison



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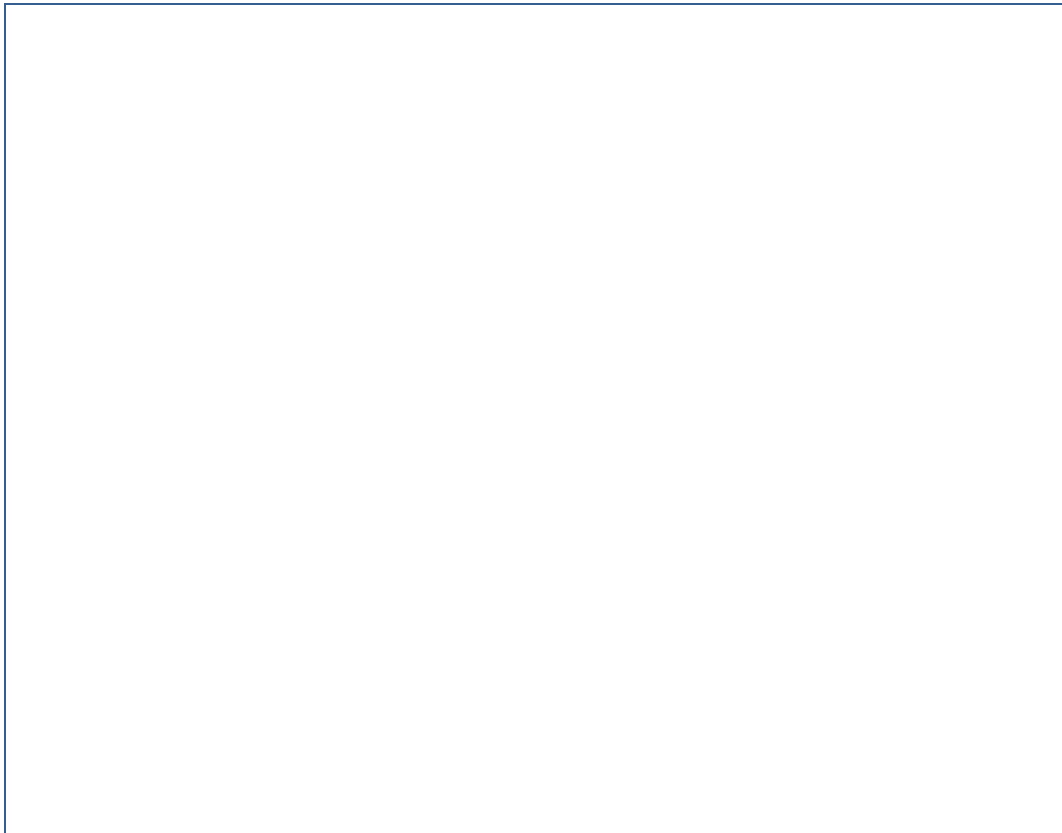
## *Hylomecon japonica*



*Hylomecon japonica* single leaf



*Hylomecon japonica* two leaves



*Hylomecon japonica* seeds: Most were very small, but two were larger with a length of 1.5 mm, this seed is fresh.

After storing seed for a month in a moist package, the smaller seed rotted. The larger two seeds were still firm. I suspect that the small seed was infertile – hence its small size. If that is the case, the percentage of viable seed on my plants was very small this year.

### Germination Tips:

Germination is improved by using Gibberellic acid (GA3)

Sow @ 20°C for 6 weeks, then place @ 4°C for 6 weeks, and then slowly raise temperature to 10°C for 6 weeks. If there is no germination, repeat the cycle. This mimics fall sowing outdoors for spring germination.



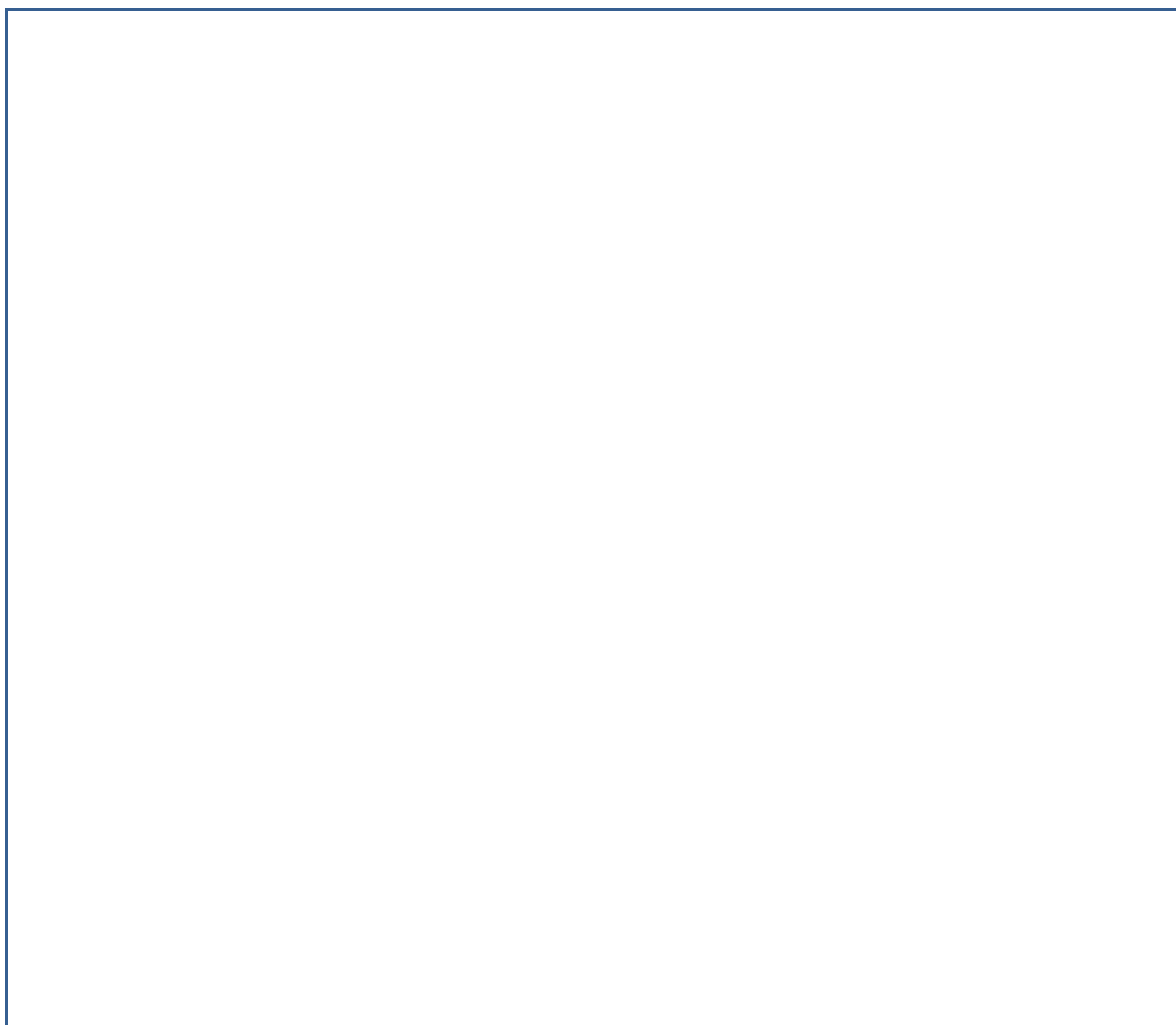
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*Hylomecon japonica* var. *dissecta*



*Hylomecon japonica* var. *dissecta*, photo source: Liuzc, Planta.cn (Ref. 3)

*Stylophorum diphyllum*

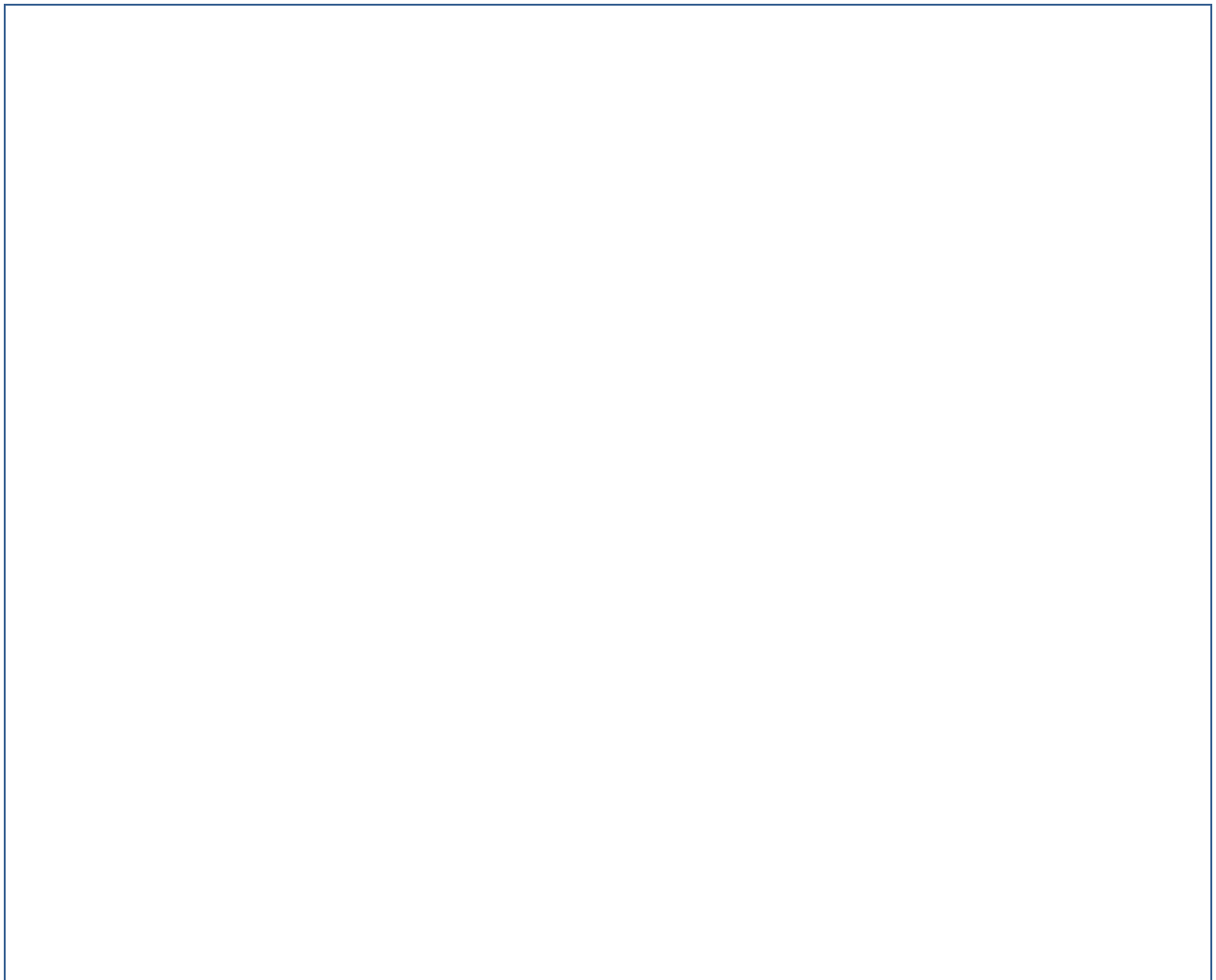


*Stylophorum diphyllum* plant

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*Stylophorum diphyllum* flower



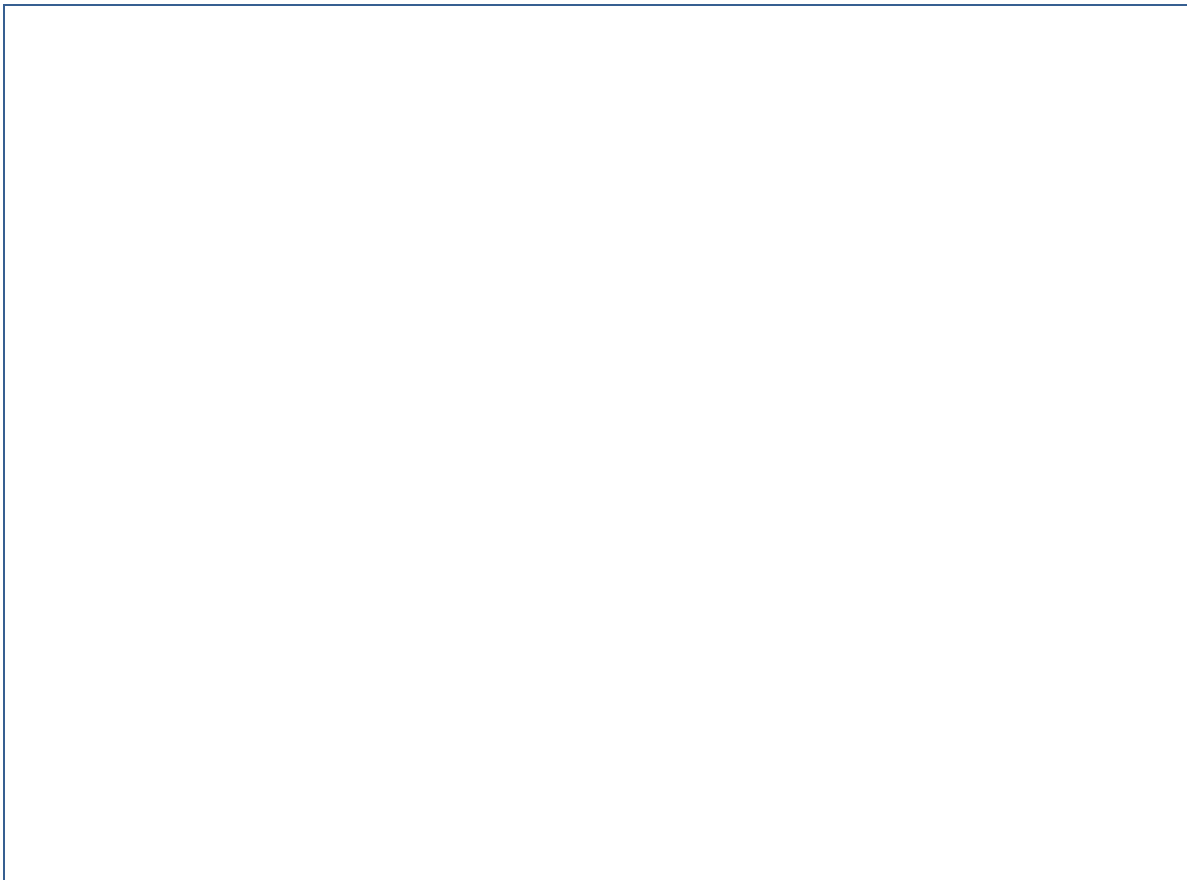
*Stylophorum diphyllum* seed pod and leaf

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*Stylophorum diphyllum* showing peduncle leaves

### ***Stylophorum lasiocarpum***



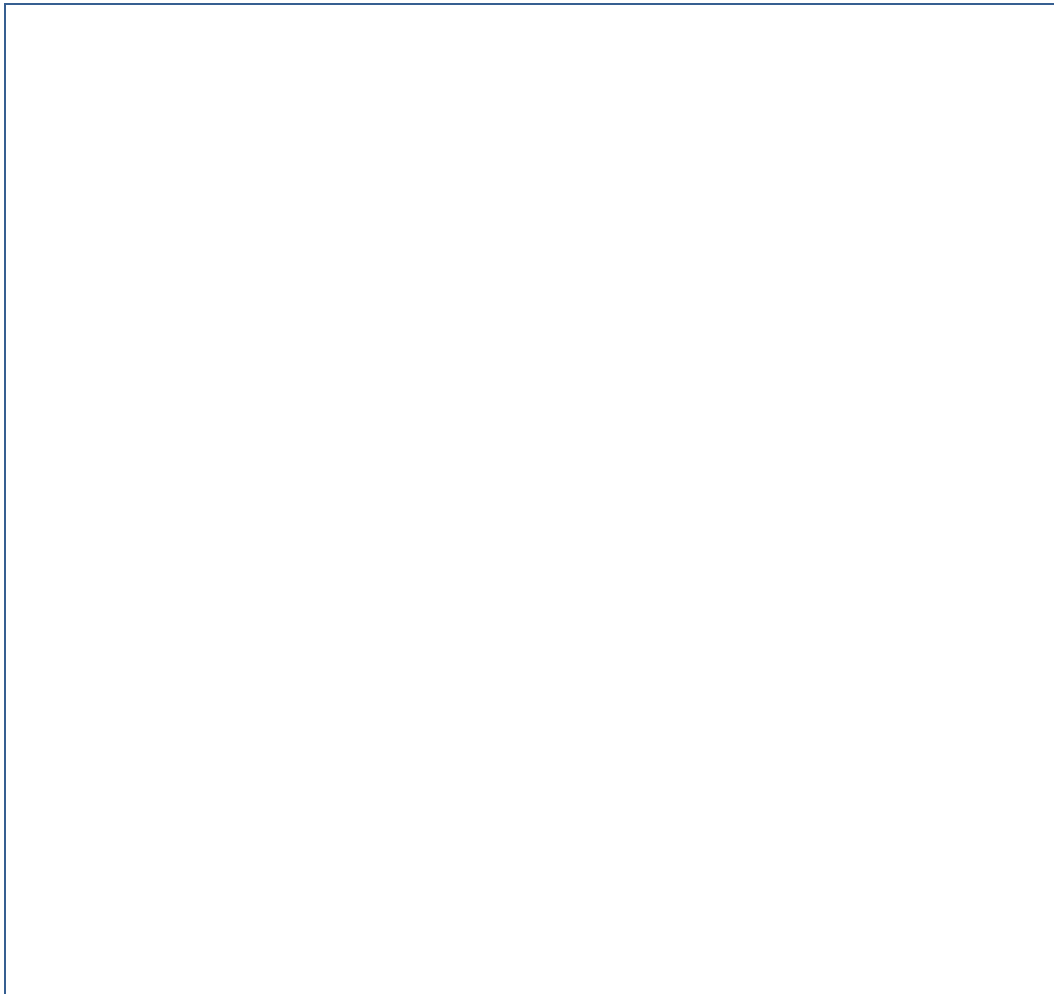
*Stylophorum lasiocarpum* plant



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*Stylophorum lasiocarpum* leaves and flowers



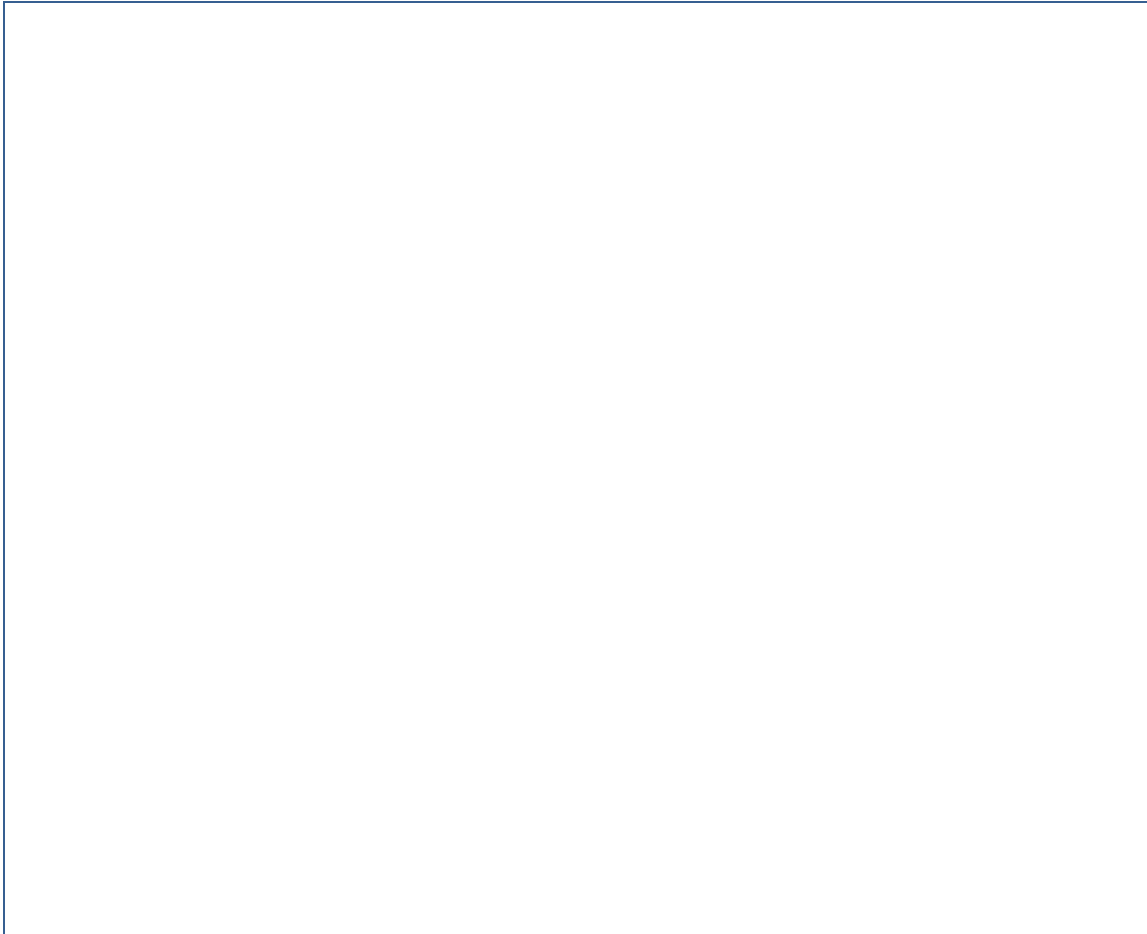
*Stylophorum lasiocarpum* seed pods

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***Chelidonium majus***

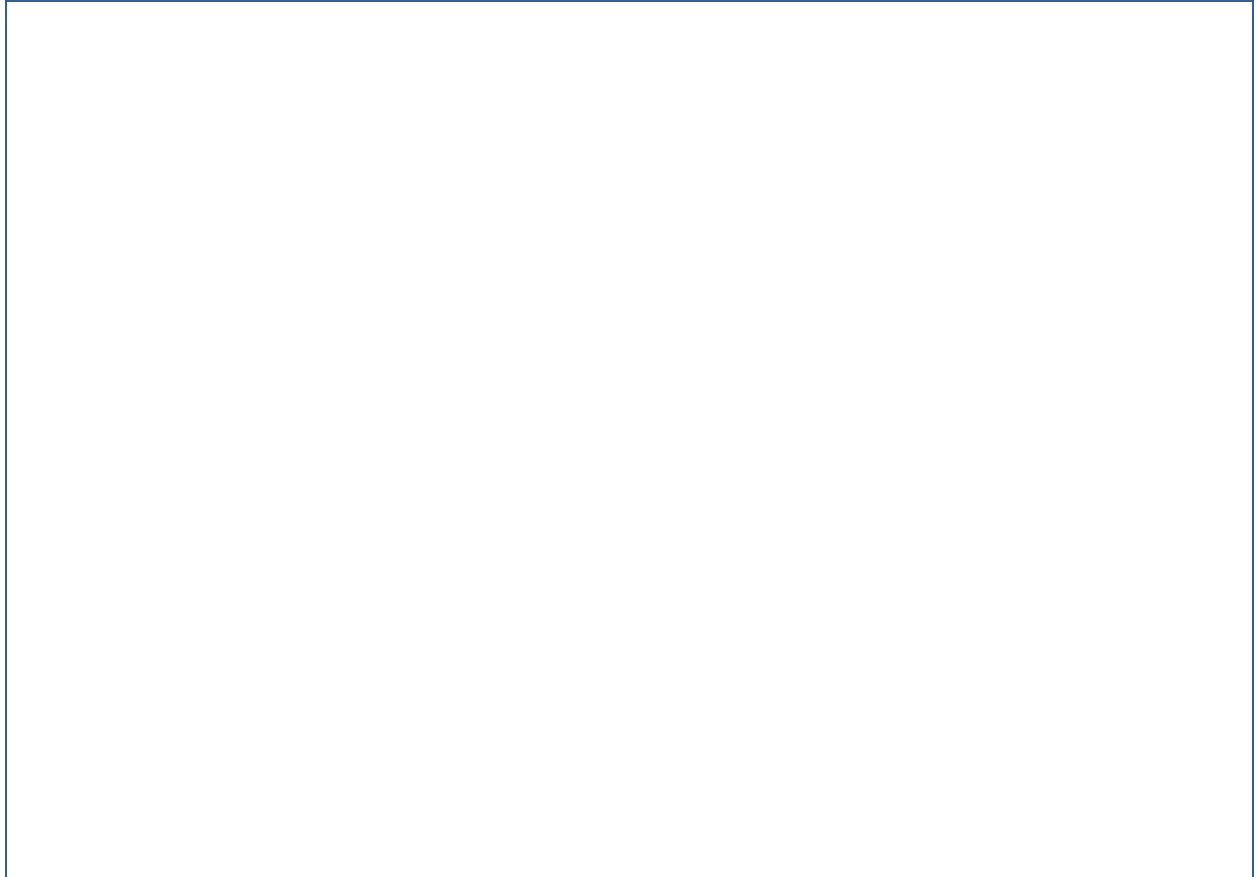


*Chelidonium majus* leaf structure



*Chelidonium majus* flower

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*Chelidonium majus* peduncle leaf

### References:

- 1) [Scottish Rock Garden Club Forum – discussion on \*Hylomecon japonica\*](http://www.srgc.net/forum/index.php?topic=7477.30):  
<http://www.srgc.net/forum/index.php?topic=7477.30>
- 2) Photo Source for “*Hylomecon japonica* flower and leaves” photo credit: [Alpsdake](#)  
[Hylomecon japonica, in Mount Ibuki, Ibigawa, Gifu, Japan.](#)
- 3) Photo Source for “*Hylomecon japonica* var. *dissecta*” photo credit Liuzc,: [www.planta.cn](http://www.planta.cn)

### Web sources:

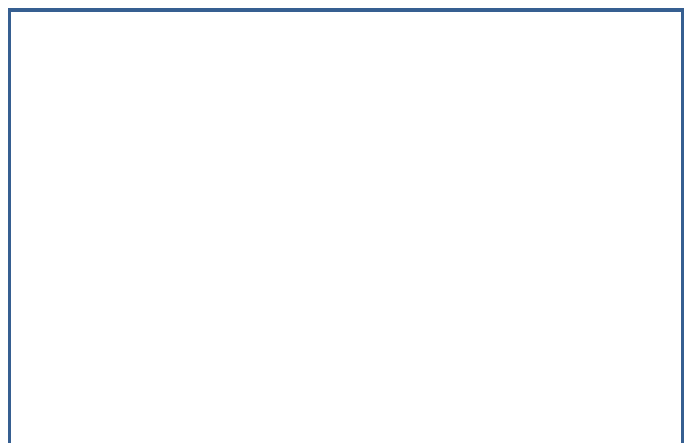
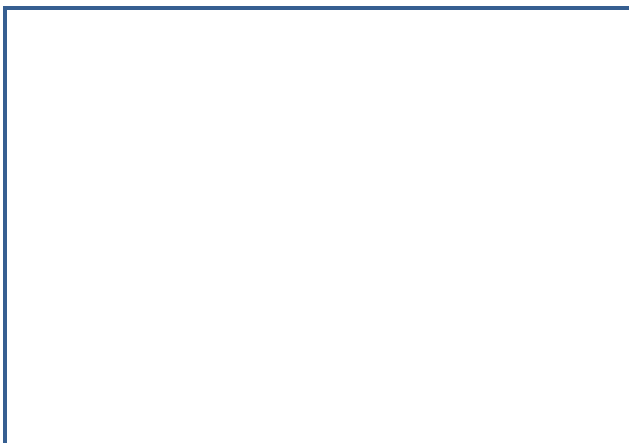
[Hylomecon and comparisons](#) Harvard/ Flora of China 7:285-286, 2008

[Hylomecon japonicum in e-flora of China](#)

Comparison photos of the species by [Takato Natsui](#) of “Professor Summer’s Web Garden”

[Stylophorum lasiocarpum](#) at the Botany.cz site

[Stylophorum diphyllum](#) at the Botany.cz site



*Hylomecon japonica*



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## ---Seed Photo Project---

The discussion, referred to by Robert Pavlis in connection to *Hylomecon japonica* that has gone on in the SRGC Forum highlights the difficulty of seed not coming true to name that persists in bedevilling seed exchanges of specialist organisations. Such problems are also reported from a great many other seed sources too; there seem few, if any, which are found to be above such errors.



*Androsace carnea* seed with millimetre markings on ruler, photo by Magnar Aspaker.

In an attempt to tackle this problem a project was begun in the [SRGC forum in 2009](#) to gather photos of correctly identified seed, primarily from the types of plants likely to be donated to the likes of the SRGC Seed Exchange. It is hoped that such a scheme may be of great assistance to the various seed exchanges to be able to consult such a resource to check seed. There are

assorted sites online where photographs of seed may be viewed and we try to list those too but our primary thought was to build a resource for seeds of particular interest to our members, and those of the likes of NARGS and AGS.



*Androsace carnea* in the garden of Anne Spiegel

Naturally, building this resource depends on the submission of photos of clean seed, for which the photographer has a positive ID, to be sent to the project. This can be done by anyone registered to the SRGC Forum. We take this opportunity to both thank those who have so far contributed hundreds of



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photos to the project and also to ask that those of you collecting seed for the Seed Exchanges might take a few moments to photograph your seeds and [add them to the list](#).

The existing seed photos are searchable on the forum and are worth checking if you have seed for which you are not sure of the identity.

There is another [thread in the forum](#) where comments may be made and where you may post photos to query the identity of other seeds.



*Scabiosa crinita* seed and plant: photos by Christopher Greenwell and Simon Silcock.



As you collect and clean the seed from your plants, would you please take photos of the various seed types you have, spread on 1mm graph paper to show the scale; [register to the forum](#) and post them in [the special thread](#) to help produce a "library" of photos of seed likely to be found in the seed exchanges of SRGC, NARGS and AGS.



*Gentiana asclepiadea* at 55 times magnification made using a USB microscope by Ian Pryde.

[Such magnification is marvellous but not essential to our project, though Ian tells me that such equipment is inexpensive and quite simple to use. Ian reports that magnification x 40 is probably optimum since the eye using a x 10 hand lens will be able to see that detail.]

We are trying to compile a file of photos of correctly named seed to help identify true seed for packers of the seed exchanges and to let

folks see if the seed they "think" they have bears any resemblance to the true type seed at all.

It would be very helpful if those of you with seed you know to be true to name would be so kind as to take part in this project.

It will be an enormous task, taking many years to amass a full list of seeds likely to be of interest to rock gardeners, but with many helpers we hope progress can be made.

I do hope you will all consider taking part in this project.

M. Y.



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## ---Troughs: for Mountains in the Garden---

Troughs are very popular for growing alpine plants - they allow plants to be given a particular soil or aspect that might be difficult to provide for them in the open garden. They can also allow a miniature landscape or pseudo-mountain to be made in a small area, giving a chance for an interesting planting opportunity which can be used in even the smallest space. Readers of the weekly Bulb Log Diary of Ian Young will be familiar with his enthusiasm for making troughs to provide homes for alpine plants and bulbs. He has written and illustrated his versions of a trough made using at its "heart" a polystyrene (styrofoam) box at various times over the years - you can find references in the Bulb Log Index by Len Rhind as well as all issues of the Bulb Log on [this page](#) online.

This [Bulb Log #22 of 2015](#) has an update on making and planting troughs plus a link to the main article from 2008 for the cement-covered version of Ian's "fish box troughs" and this [Bulb Log #24 of 2015](#) has more examples of Ian's plantings.



From the earliest examples of recycling polystyrene "fish boxes" into troughs [Ian's method](#) has been popular and has provided great fun and publicity for the SRGC and NARGS at demonstrations across the world, such as those made at State Fairs and Plant Shows in the USA and Canada, originally by friends in Minnesota and Alberta. Based in Aberdeen in the North East of Scotland, a city famous for its fish, it was clear that the most readily available boxes made of food grade polystyrene (the strongest type for this use) would be those used for the transport of fish from the market.

As Ian has refined and experimented with new methods many have taken these projects and have made troughs for their own gardens using Ian's methods. One such is the accomplished gardener, **Jan Tholhuijsen** of Roosendaal in the Southern Netherlands. Last September Jan made some troughs, according to Ian's concept with fish-boxes. He has landscaped and planted them most attractively and even has a rather special stand on which to display them.

On the last page of this IRG there is a list of the plants in Jan's six troughs.



Jan Tholhuijsen's trough display stand



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Trough 1



Trough 2



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Trough 3



Trough 4



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Trough 5



Trough 6



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Plant list for the six troughs of Jan Tholhuijsen

Genus	Species	Cultivar
<b>Trough 1</b>		
<i>Sempervivum</i>		'Sprite'
<i>Sempervivum</i>		'Wollaus'
<i>Sempervivum</i>	<i>arachnoideum</i> subsp. <i>doellianum</i>	
<i>Sempervivum</i>	<i>pumilum</i> var. <i>techensis</i>	
<i>Sempervivum</i>		'Lilac Time'
<i>Sempervivum</i>		'Voodoo'
<i>Sempervivum</i>	<i>x barbulatum</i> Schott	
<i>Sempervivum</i>	<i>montanum</i>	'Rubrum'
<i>Sempervivum</i>	sp. coll. Nemrut Dagi	
<i>Sempervivum</i>	<i>pumilum</i>	'Album'
<i>Sempervivum</i>	wild collected - Col du Rosalend	
<i>Sempervivum</i>	<i>montanum</i> subsp. <i>stiriicum</i>	
<b>Trough 2</b>		
<i>Arenaria</i>	<i>alfacarensis</i>	
<i>Arenaria</i>	<i>lithops</i>	
<i>Arenaria</i>	<i>tetraquetra</i>	
<i>Arenaria</i>	<i>lithops</i>	'Babi Lom'
<i>Campanula</i>	<i>anomala</i>	
<b>Trough 3</b>		
<i>Androsace</i>	<i>villosa</i>	
<i>Androsace</i>	<i>himalaica</i>	
<i>Androsace</i>	<i>studiosorum</i>	'Doksa'
<i>Androsace</i>	<i>cylindrica</i> x <i>hirtella</i>	
<i>Androsace</i>	<i>mariae</i>	
<i>Androsace</i>	<i>sarmentosa</i>	
<i>Androsace</i>	<i>barbulata</i>	
<i>Androsace</i>	<i>sarmentosa</i>	'Chumbyi'
<b>Trough 4</b>		
<i>Asperula</i>	<i>gussonii</i>	
<i>Asperula</i>	<i>nitida</i>	
<b>Trough 5</b>		
<i>Sempervivum</i>		'Seerosenstern'
<i>Sempervivum</i>		'Gargamel'
<i>Sempervivum</i>		'Picos de Europa'
<i>Sempervivum</i>	<i>dzhavachischvilii</i>	
<i>Sempervivum</i>	<i>arachnoideum</i> subsp. <i>arachnoideum</i>	'Graubunden'
<i>Sempervivum</i>	<i>ciliolum</i> var. <i>galicum</i>	
<i>Sempervivum</i>	wild coll. - Gyadikvank arinenia	
<i>Sempervivum</i>	wild coll. - Col du Pourtalet	
<i>Sempervivum</i>	<i>montanum</i> cf <i>heterophyllum</i>	
<i>Sempervivum</i>	<i>erythraeum</i>	'Rila Pass'
<i>Sempervivum</i>	<i>cantabricum</i>	
<i>Sempervivum</i>	<i>tectorum</i> var. <i>boutignyanum</i>	
<b>Trough 6</b>		
<i>Saxifraga</i>	<i>x gloriana</i>	'Chez Nous'
<i>Saxifraga</i>	[Preludium Group]	'Václav Talich'
<i>Saxifraga</i>	[Investigative Group]	'Ivan Papanin'
<i>Saxifraga</i>	[Krasin Group]	'Umberto Nobile'
<i>Saxifraga</i>	<i>x boydii</i>	'Cherrytrees'
<i>Saxifraga</i>	<i>sempervivum</i>	
<i>Saxifraga</i>	<i>spruneri</i> var. <i>deorum</i>	
<i>Saxifraga</i>	<i>dele</i> 9 1 98	