# THE SPECIES LILY

The Newsletter of the
Species Lily Preservation Group
Affiliated with The North American Lily Society

*L. wardii*

Spring, 2000

# SLPG GOALS

* Growing as many species as possible, especially those rare and in danger of extinction
* Making excess species bulbs available to members
* Collecting, preserving, planting, growing and distributing species seed
* Collecting all possible information on each species: its habitat, distribution, cultural needs, etc.
* Disseminating cultural information on each species
* Assembling a slide and photo record of all species lilies
* Identifying areas where specific species grow and seeking protection for these areas.

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*L. wardii* photos: Ed McRae. All other photos by John Lykkegaard.

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# Board of Directors

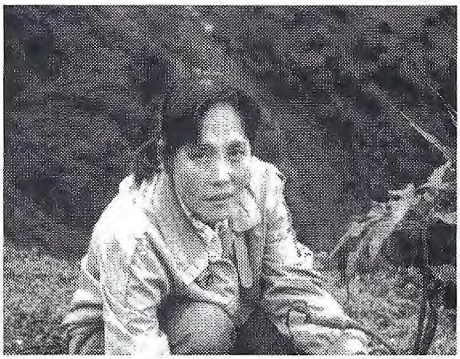
# Our Chinese Adventure

John Lykkegaard, Denmark

**China Trip, Part 1**

We (Ole Larsen, Arne Jensen, Harald Larsen and John Lykke-gaard) came to Beijing the 26th of June without our luggage. It was lost at Heathrow, U.K. Can you imagine sitting in a plane for 13 hours without the possibility of changing to new clothes? Our luggage arrived two days later in Beijing, but we were already 2000 km away. Three of us received our luggage one day before we were going home, but Arne's is still somewhere out there. We had to buy everything: clothes, shampoo and shoes for those who fitted less than size 43. I use size 45, but they are not produced in such large numbers in China, so I had to climb mountains in dancing shoes.

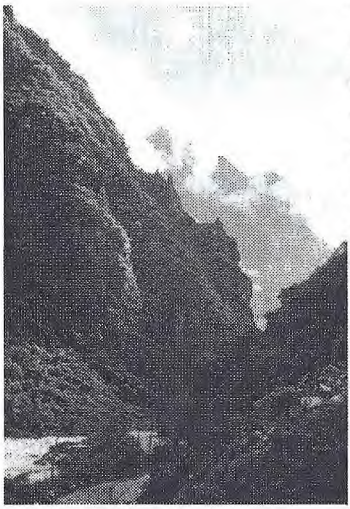
We flew on to Chen Du, where Chen Yi (who is a 35-year-old nice looking lady) was waiting with two four-wheel jeeps to start the trip. Chen Yi was the only one who could speak English.



Nearly every Chinese can say "Hello," but that's it. They learn English in school – for those who go to school! There were two drivers, her father-in-law (Professor of Botany at Beijing University) and a plant finder who could spot lilies from a mile away. We later learned to appreciate that fellow who was worth his weight in gold. The first lily we saw was *L. sargentiae* just outside Chen Du City at 900 meters. Later that day we visited a small mountain nursery at 2000 meters where we saw *L. duchartrei, L. sargentiae, L. regale, L. lophophorum* (a small 15-inch high form) and *L. tigrinum* as well as other plants such as orchids and arisema.

The first night we slept at a hotel with warm water, but Chen Yi told us that the hotel standards would later decline, so we should appreciate it. We used some time to buy clothes, but we found out that it was much cheaper to let Chen Yi buy them as the price was usually three to four times higher when we tried to buy them ourselves. But we were all excited to finally be in China and looked forward to seeing lots of lilies.

**China Trip, Part 2**



On day one we say *L. sargentiae* growing just outside Chen Du at 900 meters. As you can imagine, there was no problem with the drainage! We dug the bulb just to see how it looked. It wasn't, to our surprise, very big. The 10-15 cm above the bulb was leaf mould, pretty moist, but the bulb and the basal roots were bone dry. The temperature at this height was 25 C. and the air was humid. I had some of the same bulbs from Chen Yi flowering in my winter garden where the day temperature is 42 C. on the days when the sun shines. As long as it gets water, it hasn't complained. I hope to get some seed. [I got plenty ! -matured in December.]

**China Trip, Part 3**

This is a picture from a small nursery in the mountains where we saw some *L. sargentiae* in flower all with plenty of bulbils. What you cannot see is that the flower is very big. *L. regale* is flowering in the background. Some of the bulbs I have re-

ceived as *L. regale* are in fact *L. sargentiae.* This form is what I think is *L. sulphureum* and it has just started to flower in my greenhouse, where lilies usually flower one month before they flower outside, which fits the flowering time for *L. sulphureum* (August – September).

**China Trip, Part 4**

This is *L. duchartrei.* A bulb from Chen Yi flowered just before I left. We saw it once in flower, but near Xichang there were some unidentified lilies in the thousands that I am sure are *L. duchartrei.* They were growing on a hillside shaded by other vegetation.

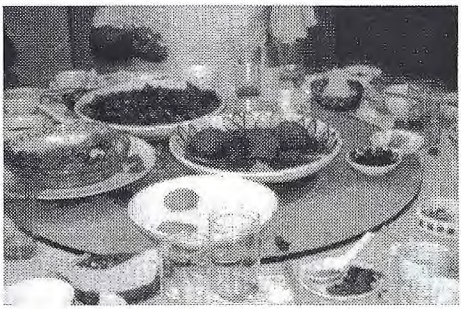
We found one with an unopened flower, but it was too immature to tell if it was really this lily. Chen Yi collected bulbs there but had never seen any in flower. I collected a few bulbs and they could be *L. duchartrei* as the bulbs were white with stoloniferous stems. It was a very wet area and the ground was soaked with water. We could spot a large stem on the other side of the river with a seedpod, but we couldn't get to it.

I have a picture of three different *L. bakerianum* var. *delavayi* collected within a few yards in an area close to Xichang, but it is still in my camera. Delavayi is something between orange and yellow. We found one plant 1.75 meters high with six flowers. They all grew in deep shade and actually only the top was to be seen. One area was very stony and they actually grew just a few feet away from the river – I am sure the roots must have been down to the river water. Although there were several Chinese people looking for the species, we found it ourselves! The ground was pure sand without humus of any kind. The other growing place was found by accident and was made of deep leaf

mould – you can actually stick your hand into the ground and get a bulb! This one had three to four flowers. The height was around one meter, and we found several growing near where the first was discovered. As I recall, they were found at 2000 meters, but in a subtropical area that doesn't justify the statements that they are hardy. I took several bulbs of this species home with me and have planted them in my garden in a shady position. We didn't find any other lilies in this same area.

News about *L. taliense* var. *kaichen* [*The Species Lily*, Chinese edition, fall 1998]: Chen Yi colleted these bulbs from the Muli region, an inaccessible area where people don't even wear clothes, she told us. The Muli region has one main city where you can go by car, but if you have to get further, you have to use horses or men to carry you on their backs while using machetes to intrude into the forest. Chen Yi told us about plenty of unknown lilies from this region as well as other plants and insects (there was a butterfly so big you wouldn't believe it). People there do not understand the usual four to five Chinese languages and wear clothes made with natural fibers. They don't know about beds, and they sleep sitting in a corner. Recently she has found a lily in this region that flowered in March.

This was the day when our Chinese hosts invited us to a special Chinese chicken dinner fondue! There was no chicken meat, only the heads and feet of some, and something I found out was the small intestine. I found a piece of liver and let the rest of the team eat the rest. Did you say generous? The next day Arne was very sick – I warned him – and from that day he asked me every time, "Can I eat this?"



[See the back cover for more of John Lykkegaard's lily photos.]

# More Related Species

William M. Hrubik Akron, Ohio

My interest in the "related species" was first sparked by Patrick Synge's book *Lilies* (1980, Universe Books) which included *Cardiocrinum* and *Nomocharis*, the two main genera which have at times been described under *Lilium*. I like the way these "near lilies" were presented right along with the true lilies as such similar plants, and the color plates were enough to make me want to try to grow these things. *Cardiocrinum giganteum* seed was always readily available from the RHS Lily Group, so I started trying that, and then somehow I heard about bulbs being available from some in the UK such as Derek Fox (when he was still selling bulbs) and Edrom Nurseries in Scotland. This was back in the 1980s when I lived in Georgia. My *C. giganteum* seed germinated and I grew them on for three years or so before I lost them (I don't think they enjoyed my move to Ohio in 1990).

Of the bulbs I bought, I flowered *Nomocharis aperta, N. saluenensis,* and *L. oxypetalum insigne* and *L. nanum* around 1988 or so. *N. aperta* actually flowered in its same outdoor spot again the following spring (in a raised bed with my own mixed soil), despite the previous hot Georgia summer, but I lost the other things. I also had *L.mackliniae* and *Notholirion thomsonianum* as well as a small *C. gigantuem,* but they gradually shrank and vanished without flowering. I especially enjoyed the beauty of the *Nomocharis* species. The plants never reached a foot in height (is that related to altitude?), but the flowers were unforgettable.

Upon moving to Ohio, I was busy with many things including keeping up with some of my other lilies, but I never forgot about the *Nomocharis.* In the last five years or so, I have started trying again with seed and bulbs. Sources included the seed exchanges, and for bulbs, Potterton & Martin, and Paul Christian in the UK, along with Arrowhead Alpines, Russell Graham and McClure &

Zimmerman. *Cardiocrinum* are becoming more widely available through Robert Long in Salem, Oregon. I have also been getting more interested in *Fritillaria* which also seem to be more available just recently, but the best treatment for *Fritillaria* is still not clear to me. I have flowered *F. acmopetala, camschateensis imperialis, meleagris* and *michailovskyi*, and this year I hope to see *F. raddeana* and *recurva.*

I still haven't flowered any *Nomocharis* again, although I think I'm getting close (high hopes for 2000!) with *N. aperta* and *mairei* (which many now combine into *pardanthina*). What I am learning thus far is that the *Nomacharus* seem to prefer being treated like *L. nepalense*, which my dad and I are becoming fairly comfortable with. This involves plenty of moisture (loose, well-draining "soil" mix with leaf mould) in spring, but keeping the bulbs bone dry all winter (in pots). I think temperature control is also important, so here again pot culture helps. Keeping the pots in the garage prevents severe winter freezing, and in summer I bring the pots into the air conditioning if outside temperatures exceed 85° F or so (maybe that's cheating!?). *N. aperta* looks to be the most vigorous; one small plant showed a stem bulbil which I eventually took off and it began growing on its own. I would love to see some of the variation one sees in photos of *N. aperta.* Some photos of more recently-collected specimens (Alpine Garden Society bulletins) look like the plate in *Synge*. I wrote to some people in the UK about this, but with no response yet. One of my *N. mairei* had a bud in 1999, but I think the plant was still too small to support it to the blooming stage.

A real highlight was flowering *C. giganteum* here in 1997. I was amazed that the plant flowered the first year after I planted the bulb, but the stem didn't quite reach six feet in height. The cover photo of the last SLPG bulletin looks exactly like a picture I took. I have several other *C. giganteum* which seem to be getting bigger each year; I mulch the bulb sites very heavily each winter. I expect at least one flowering stem this year. And with *Lilium*, I am again trying *L. nanum, oxypetalum, mackliniae*, and even

*lophophorum.*

I think what the Species Lily Preservation Group is doing is just fantastic, especially allowing bulbs to be widely distributed. Could some of that expertise be applied to these "alpine" types and their near relatives? I sure hope so.

## Treasurer's Report

Donald Egger, Treasurer

July 29, 1999 — March 18, 2000

| | | |
|---|---|---|
| **INCOME** | Color | $1,774.21 |
| | Dues | $2,710.06 |
| | **Total** | $4,484.27 |
| **EXPENSES** | Postage | $ 506.62 |
| | Publications | $1,725.27 |
| | **Total** | $2,232.44 |
| **NET WORTH** | | $2,251.83 |

## Thank You

Warmest thanks to the Wisconsin Illinois Lily Society for their recent donation to the Species Lily Preservation Group.

## Membership Information

Canadian dues $9.00 per year, 3 years for $25.00. United States dues $7.00 per year, 3 years for $20.00. Memberships may be renewed by contacting our membership chairperson

Maureen Barber
336 Sandlewood Rd.
Oakville, ON L6L 3R8
Canada
905-827-5944

# A Brief Introduction to Fritillarias

David King, Sheffield, England

Prompted by the Species Lily Preservation Group's decision to become more interested in *Liliaceae*, I am responding to a request to pen a short article on *Fritillarias.* I have made many plant hunting visits to western USA and have been able to observe and photograph all of the American species in the wild. The world population of *Fritillaria* is between 130 and 150 species, and approximately 22 of these are native to the western states. Although they are a small part of the total, they are a homogenous group and exhibit great variety and interest. It is not possible to cover many species, so I am concentrating on a few of the more colorful ones as an introduction. It is clear that they are not as spectacular as lilies, but the *Fritillarias* have a charm of their own and in England they seem to be very easy to grow.

Let us start with a wonderful pink one that grows in Colusa County, California. It flowers in mid-March and its major habitat can be pink to the horizon with hundreds of thousands flowering simultaneously. This is *Fritillaria pluriflora,* commonly known as the Adobe Lily which tells us that it inhabits the fine-grained, stiff clay, pliable in winter for root action and setting hard in summer preventing the desiccation of the bulb. It is not the easiest species to cultivate; it should be quite deep in the pot – five to six inches down in a free-draining but moisture-retentive potting medium and not being allowed to dry out. It gives of its best in more secluded habitats and has been observed with 14 flowers on the stem.

Another pink-flowered species in the old world is *Fritillaria alburyana*, named after its discoverer Sydney Albury who later died plant hunting in the Himalayas. In character, it is almost the opposite of *F. pluriflora*, being only four inches tall with usually a single very handsome open-faced saucer-shaped flower on the

stem with paler pink checkering. It comes from high elevations in N.E. Turkey where it flowers in March through April close to the melting snow patches on the ridges where it grows. It has been reported in flower today (3 February 2000) in England, which is exceptional due to the relatively warm winter.

Many *Fritillaria* are thought dull because they are of a mid-brown color, but this has its charms especially when it is combined with another color. *Fritillaria reuterii* is such a species with open, bowl-shaped, outward-facing flowers of a warm chestnut brown shade with contrasting mid-yellow tips to the tepals. It is pollinated by wasps. It grows on the slopes of the Zagros mountains in Iran and, consequently, it is not commonly seen in cultivation. It is worth a lot of effort to get seed, grow it on carefully and wait for the reward of flower in four to five years' time.

We must not forget the only species with scarlet flowers – the spectacular *Fritillaria recurva*, a native of California. When first seen in habitat, its flowers are eye-catching with their tubular bell shape, with recurved tips to the tepals from which it takes its specific name. The checkering on this species is very variable from hardly visible, pale-purple brown to sharply outlined chrome yellow. It can be found in Central California west of the Sierra Nevada and, depending on elevation, the flowers can be seen from mid-March to early June. There is also a similar plant growing in southern Oregon named *Fritillaria gentneri* whose status as a species is unconfirmed at present, but it has larger flowers of a slightly deeper color and grows to about 70-90 cm tall like *F. recurva*.

There are many more, but the purpose of this article is to give a flavour of *Fritillaria*, and having given a taste, the key to greater enjoyment is cultivation. This genus is, on the whole, not difficult to keep in cultivation provided some basic rules are observed.

Firstly, they are generally considered hardy, but prolonged exposure to frosts lower than minus 2° C will kill them, and a late frost will ruin leaves or flowers if they are not protected and may possibly cause the death of the bulb. Protection is thus required and a well-constructed cold frame will do the necessary job, but an underground heating cable controlled via a thermostat to 0 or minus 1° C will give further insurance against the cold. Suitable pots – either clay or plastic – need to be utilized, and these should be sunk up to the rim in a free-draining coarse sand mixture, providing a more even temperature at root level. Using plastic pots requires great care to be taken to avoid over watering.

Some growers use black plastic net or mesh pots that have small holes in the sides and are available from water garden specialists; these allow root growth beyond the confines of the pot and avoid over watering if the potting medium is correct. The potting medium should be free-draining and yet moisture-retentive and, although this sounds impossible, it can be achieved with the following ingredients:

Two parts sieved loam or fertile garden soil
One part medium milled sphagnum moss
Three parts coarse sand, washed to remove all fines

All parts are by volume not packed down, and never use the fine sand used for making mortar or silty sand from lowland rivers or sea sand. Make sure your potting medium is moist when you pot up the bulbs.

The key is watering with care, and the pots should be thoroughly soaked at the end of November and December and then can be left until the weather warms up in late January/February when careful watering can commence, avoiding getting the bulbs over wet. Avoid getting them too dry as well – experience will provide the guidelines. Carry on until flowering is complete and try to keep the leaves going as long as possible. When they wilt, reduce watering until they are gone. Then keep them just slightly

moist whilst the roots die back, and about early September you can turn them out and repot them in fresh potting medium to start again.

The Alpine Garden Society of the U.K. has a Fritillaria Group that is an organization like the Species Lily Preservation Group with similar goals and a twice-yearly newsletter. We welcome overseas members and can assist with botanical or cultural information. Membership is $12.00 annually and can be obtained by writing to the Membership Secretary Mrs. Marion Charman, 24, Clifton Road, Coulsdon, Surrey, CR5 2DU, England.

## SLPG Meeting

The annual meeting of the Species Lily Preservation Group will be held at 1:30 p.m. on Friday, June 30, 2000 during the North American Lily Society's 53rd International Lily Show at the Monarch Hotel, Clackamas, Oregon. Our two outstanding speakers will be Marina Baranova (Russia) "Lily Species of the Former USSR" and Harris Howland from the RHS Lily Group "Lily Species in the UK." We hope to see you there!

## Where to Find Related Species Bulbs

The list of available *Cardiocrinum, Fritillaria, Nomocharis* and *Notholirion* is prohibitively long. If you would like a complete list of available bulbs, please send a self-addressed, stamped business-sized envelope to Barbara Small, 4234 Randhurst Way, Fair Oaks, CA 95628.

[Abbreviations refer to the suppliers on pages 20-23]

| Species | Supplier |
|---|---|
| *Cardiocrinum* | AA (1) CH (1) GP (1) MZ (1) PC (3) VB (1) WG (1) |
| *Fritillaria* | AA (25) CF (31) CH (45) JS (13) MZ (14) OH (3) PC (13) PM (39) VB (3) VD (3) VE (11) WF (6) WGR (7) WW (2) |
| *Nomocharis* | CH (2) PC (9) PM (1) |
| *Notholirion* | AA (1) CH (2) PC (3) |

# Species Lily Preservation Group Report

Edward A. McRae, President
Sandy, Oregon

We were all saddened by the news that Cebeco Lilies of Aurora, Oregon, will have been completely relocated to Holland by the end of the year 2000. The Species Group must offer their heartfelt gratitude to all staff members for their unfailing support over the past years. We will miss them in numerous ways. We continue to enjoy the support of Fairdale Nursery, Lava Nursery and Willowwood; both seedlings and commercial bulbs are being grown at their facilities. Without their cooperation, the Species Group could not function as a productive unit.

We had a very successful year in 1999. The bulb quality seemed excellent and well over 75 orders were filled. With only two exceptions, we were able to fill all orders. The higher price (3 bulbs for $15.00 in some species) didn't seem to deter members and we sold over 200 bulbs of *L. canadense* v. *rubrum* at this price. (We could have sold more as we limited the number to certain members.) I would recommend that we sell single bulbs of the rarer species at perhaps $7.00 per bulb. These would include such species as *L. primulinum* and *L. wardii.*

We also imported three boxes of species bulbs from Chen Yi in China. Many of these species are very rare in cultivation (if they are at all). I have been intensely interested in new lily introductions from China since my visit to Edinburgh Botanic Garden during the International Lily Conference in 1989. Growing in the garden was a group of lilies named *L. taliense* (a recent introduction from China). This group was dramatically different from the *L. taliense* I was familiar with (this form had been introduced from China in the late twenties). I obtained seed from the new form and was deeply impressed by both its beauty and vigor, with most plants producing 15 to 20 flowers per stem. This form, to

my understanding, is now named *L. taliense* var. *kaichen.* We will sow a considerable quantity of seed of var. *kaichen* this spring. I hope it will inspire budding hybridizers in the Asiatic lily group!

My interest was piqued further due to several experiences over the past few years. Writer and bulb authority Brian Matthew showed slides of new Chinese Lily introductions during a lecture in Portland a few years ago; two were beautiful and I didn't even recognize the species! Tim Whiteley of the RHS Lily Group also showed a fascinating new Chinese species during his excellent talk in Chicago in 1999. He kindly sent slide copies and this species is included in the SLPG slide collection recently sent to the NALS library. My friend Raymond Booth from England recently sent prints of a beautiful species we were also unable to identify: pure white with rich purple centers, perhaps *Lilium henrici*? Walter Britton of Victoria, BC, recently mailed files of information about lilies in China. These files included beautiful pictures of many rare and some unknown species. Pictures included *L. amoenum, L. bakerianum* var. *rubrum, L. fargesii, L. lophophorum, L. nanum, L. sempervivoideum* and *L. sulphureum.* It made me more determined than ever to obtain as many of these lilies as possible for the Species Group.

Late in 1999 I worked with a friend Bret Hanson from Vancouver, Washington, who is not only a lover of species, but was also in direct contact with Chen Yi in China. Three boxes of bulbs were eventually imported from China. Bulb size varied enormously and ranged in size from the tip of your small finger to bulbs that were 16/18 cm in circumference. Bulbs were simply wrapped in paper with no media, such as peat moss or shavings, being used. All seemed fresh, however, and little dehydration was noted – all basal roots were shaved off! Hopefully we can change this in future shipments!

The following is the list of bulbs received from China, averaging eight bulbs per variety:

*L. amoenum*
*L. bakerianum* var. *delavayi*
*L. bakerianum* var. *aurem*
*L. bakerianum* var. *rubrum*
*L. brownii*
*L. cernuum*
*L. disticum*
*L. duchartrei*
*L. henrici*
*L. henryi*
*L. leuchanthum*
*L. lophophorum*
*L. nanum*
*L. papilliferum*
*L. pumilum*
*L. regale* (white bulbs!)
*L. sargentiae*
*L. sempervivoideum*
*L. speciosum* var. *gloriosoides*
*L. sulphureum*
*L. taliense*

Eleven species were also received under numbers: #s 1, 3, 4, 6, 7, 9, 10, 11, 12, 13, and 14. Chen Yi may have shipped these numbers to other members of the Species Group; needless to say, we welcome information, especially pictures.

A number of the more rare species were placed in tissue culture, and tests at Cebeco Lilies indicated that all were virus free. Several of the larger bulbs were scaled at the end of the year (only the older, outer scales were removed, leaving a good-sized bulb). The following species were scaled:

*L. bakerianum* var. *delavayi*
*L. bakerianum* var. *rubrum*
*L. brownii*
*L. henryi*
*L. leucanthum*
*L. regale*
*L. sargentiae*
L. species #1, 4 and 6

The following *Nomocharis* species were also imported from Chen Yi, again approximately eight bulbs of each species:

*N. aperta*
*N. aperta* var.
*N. basilissa*
*N. forrestii*
*N. meleagrina*
*N. pardanthina* var. *farreri*
*N. salvenensis*

One bulb of each *Nomocharis* was also placed in tissue culture.

All bulbs are now planted in pots and trays in a cool greenhouse. We eagerly await the coming season and we are confident that the majority will survive! We will, of course, attempt to get excellent pictures of all that flower. Most importantly, however, is to produce seed and raise seedling populations of all the species that flower. We can then offer quality bulbs to all who are willing to grow and enjoy the special, new, beautiful lilies from China.

We also plan to offer *C. giganteum* bulbs from Robert Long, in Salem in the fall of 2000; such additions can only increase interest and knowledge in our Group.

Our most urgent need is to establish contacts with interested parties world-wide. I have very limited time to do correspondence and hope David Sims will be willing to become more involved. I deeply appreciate all the help, support and encouragement received during the past year.

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# Lily Species Availability, Fall 2000

Edward. A. McRae
Sandy, Oregon

We have mentioned several seedling growing tests involving lily species over the past four years, some being highly successful, others varying from either poor results to downright failures. We have now decided that the most dependable method for both epigeal and hypogeal germinating species is to grow them in a cool greenhouse for the first year, followed by one or two years in field rows or beds. This method ensures the highest quality bulbs possible.

The following species are anticipated to be available this coming fall:

**Asiatic Species**

*L. amabile*
*L. amabile* var. *luteum*
*L. callosum*
*L. cernuum*
*L. concolor*
*L. dauricum*
*L. davidii*
*L. lankongense*
*L. leichtlinii* var. *maximowiczii*
*L. pumilum*
*L. pumilum* 'Golden Gleam'
*L. pumilum* 'Yellow Bunting'
*L. wilsonii*

**Martagon Type Species**

*L. martagon*
*L. martagon* var. *album*
*L. tsingtauense*

**Candidum Type**

*L. candidum*. Members must send in orders by mid-August. Bulbs will be shipped early in September. The price will be 3 bulbs for $15.00.

**North American Species**

*L. michauxii*
*L. pardalinum*
*L. parryi*

**Chinese Trumpet Species and *L. henryi***

*L. henryi*
*L. henryi* 'Carlton Yerex'
*L. leucanthum* var. *centifolium*
*L. regale*

**Oriental Species**

*L. auratum* var. *platyphyllum*
*L. rubellum*
*L. speciosum* var. *rubrum*

The following species, along with a number of North American species, will be made available at a much higher price due to the limited supply: *L. lancifolium* var. *flaviflorum*, *L. primulinum* and *L. wardii.*

We may also offer large bulbs of *Cardiocrinum giganteum* from Robert Long in Salem; only to those with shade and a deep soil rich in humus!

Seed production in meaningful quantities of all species continues to be our top priority. A sufficient quantity of bulbs must be available for this purpose.

# Where to Find Species Bulbs

## Darrel Roeder, Weyerhaeuser, Wisconsin
## Barbara Small, Fair Oaks, California

**AG**
Ambergate Gardens
8730 Country Road
Chaska MN 55318-9358
Voice/Fax 612-443-2248
mjhamber@aol.com

**AA**
Arrowhead Alpines
P.O. Box 857
Fowlerville, MI 48836

**AB**
Autumn Glade Botanicals
46857 W. Ann Arbor Trail
Plymouth, MI 48170
Voice 313-480-4675
Fax 313-459-2604
www.autumnglade.com

**BD**
B&D Lilies
P.O. Box 2007
Port Townsend, WA 98368
Voice 360-385-1738
Fax 360-385-9996
www.bdlilies.com

**BG**
Borbeleta Gardens
15980 Canby Ave.
Faribault, MN 55021

**BB**
Brent and Becky's Bulbs
7463 Heath Trail
Gloucester, VA 23061
Voice 804-693-3966
Fax 804-693-9436

**BC**
The Bulb Crate
2560 Deerfield Road
Riverwoods, IL 60015
Voice 847-317-1414
Fax 847-317-1417

**CB**
Cascade Bulb and Seed
P.O. Box 271
Scotts Mills, OR 97375
Voice 503-873-2218
halinar@open.org

**CV**
Cascade Valley Farms
P.O. Box 387
Parkdale, OR 97041
Voice 888-340-7098
Fax 541-352-7170
www.cascadevalleyfarms.com

**CF**
Catch Flower Company
Shuangyushu Post Office, Box 24
Beijing, 100086
PR China
Fax 0086 -10-62571472
Catch@public.east.cn.net
www.catch.com.cn/

**CH**
Chenyi Plants
China
Fax 86-10-62645305
chenyi@public.netchina.com.cn
www.chenyiplants.com.cn/

**CN**
Collector's Nursery
16804 NE 102nd Ave.
Battleground, WA 98604
Voice 360-574-3832
Fax 360-574-8540
dianar@collectorsnursery.com
www.teleport.com/~dianar/index.html

**CR**
Crownsville Nursery
P.O. Box 797
Crownsville, Md 21032
Voice 410-849-3143
Fax 410-849-3427
dave@crownsvillenursery.com
www.crownsvillenursery.com

**CGG**
Cruickshank's, The Garden Guild
780 Birchmount Road
Scarborough, ON M1K 5H4
Canada
Voice 416-750-9249
Fax 800-665-5605
lledget@ibm.net

**DM**
The Daffodil Mart
30 Irene St.
Torrington, CT 06790-6668
Voice 800-255-2852

**DG**
Dutch Gardens
P.O. Box 200
Adelphia, NJ 07710-0200
Voice 800-818-3861
Fax 732-780-7720

**FW**
Far West Bulb Farm
14499 Lower Colfax Road
Grass Valley, CA 95945
Voice 530-272-4775

**FF**
Fiddley Fronds Nursery
P.O. Box 252
Norridgewock, ME 04957
Voice/Fax 207-634-4918
Cmetcalf@wworx.net

**GI**
Garden Import Inc.
P.O. Box 760
Thornhill, ON L3T 4A5
Canada
Voice 800-339-8314
Fax 905-881-3499
Flower@gardenimport.com
www.gardenimport.com

**GB**
Gardens of the Blue Ridge
P.O. Box 10
Pineola, NC 28662

**GP**
The Great Plant Company
P.O. Box 1041
New Hartford, CT 06057
Voice 800-441-9788
Fax 860-379-8488
www.greatplants.com

**HG**
The Hartle-Gilman Gardens
4708 East Rose St.
Owatonna, MN 55060
Voice 507-451-3191
Fax 507-455-0087
mjhlily@mnic.net

**HN**
Heronswood Nursery
7530 NE 288th St.
Kensington, WA 98346-9502
Voice 360-287-4172
Fax 360-297-8321
www.heronswood.com

**HH**
Hillcrest Harmony
P.O. Box 24
Churchbridge, SK S0A 0M0
Canada
Voice 306-896-2992
putld@sk.sympatico.ca
www.pacific-pages.com/putld/index.html

**HF**
Hollandia Flowers & Bulbs
Box 36, Site 219 RR2
Carvel, AB T0E 0H0
Canada
Voice 780-963-8153
Fax 780-963-7307

**HL**
Honeywood Lilies
P.O. Box 68
Parkside, SK S0J 2A0
Canada

**JG**
Johannsen's Greenhouse & Gifts
2600 W. Beltline Highway
Madison, WI 53713-2372
Voice 608-271-6211
www.johannsens.com

**JS**
John Scheepers, Inc.
23 Tulip Drive
Bantam, CT 06750
Voice 860-567-0838
Fax 860-567-5323

**LG**
The Lily Garden
4902 NE 147th Ave.
Vancouver, WA 98682
Voice/Fax 360-253-6273
thelilygarden@aol.com

**LN**
The Lily Nook
P.O. Box 846
Neepawa, MG R0J 1H0
Canada
P.O. Box 657
Rolla, ND 58367
Voice 204-476-3225
Fax 204-476-5482
lilynook@mail.techplus.com
www.lilynook.mb.ca

**LV**
Little Valley Farm
5693 Snead Creek Rd.
Spring Green, WI 53588
Voice 608-935-3324

**ML**
Maple Leaf Nursery
4236 Greenstone Rd.
Placerville, CA 95667
Voice 530-626-8371
maple_lf@inforum.net
www.inforum.net/mapleleaf

**MZ**
McClure & Zimmerman
P.O. Box 368
Friesland, WI 53935-0368
Voice 800-883-6998
Fax 800-692-5864
infor@mzbulb.com
www.mzbulb.com

**MG**
Milaeger's Gardens
4838 Douglas Ave.
Racine, WI 53935-2498
Voice 800-669-9956
Fax 414-639-1855

**MN**
Munchkin Nursery
323 Woodside Dr., NW
DePauw, IN 47115-9039
genebush@munchkinnursery.com
www.munchkinnursery.com

**NG**
Niche Gardens
1111 Dawson Rd.
Chapel Hill, NC 27516
Voice 919-967-0078
Fax 919-967-4026
orders@nichegdn.com
www.nichegdn.com

**OH**
Old House Gardens
536 Third St.
Ann Arbor, MI 48103-4957
Voice 734-995-1486
Fax 734-995-1687
OHGBulbs@aol.com
www.oldhousegardens.com

**OM**
Ozark Mountain Lilies
P.O. Box 306
Mansfield, MO 65704

**PS**
Park Seed Co.
1 Parkton Ave.
Greenwood, SC 29647-0001
Voice 800-845-3369
info@parkseed.com
www.parkseed.com

**PP**
Parkland Perennials
P.O. Box 3683
Spruce Grove, AB T7X 3A9
Canada
Voice/Fax 780-963-7307

**PC**
Paul Christian Rare Plants
P.O. Box 468
Wrexham LL13 9XR
England
Voice 01978 366399
Fax 01978 266466
paul@rareplants.co.uk
www.rareplants.co.uk/

**PD**
Plant Delights Nursery, Inc.
9241 Sauls Road
Raleigh, NC 27603
Voice 919-772-4794
Fax 919-662-0370
office@plantdel.com
www.plantdelights.com

**PM**
Potterton & Martin
Moortown Road
Nettleton, Caistor
Linconshire LN7 6HX
England
pottin01@globalnet.co.uk
www.users.globalnet.co.uk/~pottin01

**PM**
Prairie Moon Nursery
Rt. 3, Box 163
Winona MN 55987
Voice 507-452-4362
Fax 507-454-5238
pmnrsy@luminet.net

**RC**
Rice Creek Gardens
11506 Highway 65
Minneapolis, MN 55434
Voice 612-754-8090
www.ricecreekgardens.com

**RGA**
Riverside Gardens
RR 5
Saskatoon, SK S7K 2J8
Canada

**RGR**
Russell Graham
4030 Eagle Crest Rd., NW
Salem, OR 97304
Voice 503-362-1135

**SP**
Southern Perennials & Herbs
98 Bridges Rd.
Tylertown, MS 39667-9338
Voice 800-774-0079
sph@neosoft.com
www.s-p-h.com/home.html

**TR**
Telos Rare Bulbs
P.O. Box 4978
Arcata, CA 95518

**VB**
Van Bourgondien Bros.
P.O. Box 1000
Babylon, NY 11702-9004
Voice 800-622-9997
Fax 516-669-1228
www.dutchbulbs.com

**VD**
Van Dyck's
P.O. Box 430
Brightwatters, NY 11718
Voice 800-248-2852

**WGA**
Wayside Gardens
1 Garden Lane
Hodges, SC 29695-0001
Voice 800-845-1124
www.waysidegardens.com

**WF**
White Flower Farms
Plantsmen
P.O. Box 50
Litchfield, CN 06759-0050
Voice 800-503-9624
www.800allbubl.com

**WGR**
Winter Greenhouse
W 7041 Olmstead Rd.
Winter, WI 54896
Voice 715-266-4963
Fax 715-266-5502

**WWN**
Woodstock Wildflower Nursery
422 Roseland Park Rd.
Woodstock, CT 06281
Voice 860-928-9441
Arther.manthorne@snet.net
www.woodstockwildflower.com

## Species Names

The species *L. pumilum* and/or *L. tenuifolium* have been listed as they appear on the various catalogues. McClure & Zimmerman, for example, lists both of them. *L. lancifolium* is listed as *L. tigrinum.*

| Species | Supplier |
|---|---|
| *L. albanicum* | PC |
| *L. amabile* | LG LN WW |
| *L. amabile* var. *luteum* | LN WW |
| *L. amoenum* | CF CH |
| *L. auratum* | LG |
| *L. auratum* var. *platyphyllum* | BC MZ OH WW |
| *L. bakerianum* | CH PC |
| *L. brownii* | CF CH |
| *L. bulbiferum* | PC |
| *L. callosum* | CH |
| *L. canadense* | ML MN PC WGR |
| *L. canadense* var. *coccineum* | RGA |
| *L. candidum* | AA JS MZ PM PS VE WF WGR WGR |
| *L. carniolicum* | PC |
| *L. carniolicum* var. *albanicum* | AA ML |
| *L. cernuum* | CH LG ML |
| Chinese species 1-8[?] | CH |
| *L. columbianum* | ML PC |
| *L. concolor* | CH WW |
| *L. x dalhansonii* | AG |
| *L. dauricum* | HF LG ML PP |
| *L. davidii* | CH LG ML PC RGA |
| *L. davidii* var. *willmottiae* | AA HH LN |
| *L. distichum* | CH |
| *L. duchartrei* | CH PC |
| *L. fargesii* | CH PC |
| *L. formosanum* | AA BD LN NG OH PD PS RG SP WGA |
| *L. grayi* | PC RGR |

| Species | Supplier |
|---|---|
| *L. hansonii* | HF MZ OH PP RGA |
| *L. henricii* | PC |
| *L. henryi* | AA BB CB CH HH LG LN ML MZ OH PC RGR VB |
| *L. henryi* 'Carlton Yerex' | WW |
| *L. henryi* var. *citrinum* | BD OM |
| *L. japonicum albomarginatum* | PD RGA |
| *L. humboldtii* | FW |
| *L. kellyanum* | ML PC |
| *L. kelloggii* | ML |
| *L. leichtlinii* var. *maximowiczii* | CH HG |
| *L. leucanthum* | CH LG PC |
| *L. leucanthum* var. *centifolium* | LN WW |
| *L. longiflorum* | BB |
| *L. lophophorum* | CH PC |
| *L. mackliniae* | ML PC |
| *L. maritimum* | ML |
| *L. martagon* | AA CF HH JG MZ OH PC PM PP RC VB WGA WGR WF |
| *L. martagon* var. *album* | AA HH MZ OH PC PM PP RC VB WF |
| *L. martagon* var. *cattaniae* | AA PC |
| *L. martagon* var. *pilosiulum* | CF CH |
| *L. medeoloides* | PC |
| *L. michiganense* | AA ML OM PC PM |
| *L. nanum* | AA CH PC |
| *L. nanum* var. *flavidum* | PC |

| Species | Supplier |
|---|---|
| *L. nepalense* | CH MZ PC |
| *L. oxypetalum* | PC |
| *L. oxypetalum var. insigne* | PC |
| *L. pardalinum* | CB ML RGR TR VB |
| *L. papilliferum* | CH PC |
| *L. parvum* | ML |
| *L. parvum* var. *crocatum* | ML |
| *L. philadelphicum* | AA |
| *L. philippinense* | ML LN |
| *L. pitkinense* | ML |
| *L. pumilum* | AA BB CF CH LG LN ML OH WW |
| *L. pumilum* var. 'Golden Gleam' | OH |
| *L. pumilum* var. 'Yellow Bunting' | LN |
| *L. pyrenaicum* | PC |
| *L. regale* | AA BB BC BD CH CV LG LN OH PS RGA VB VD WW |
| *L. regale* var. *album* | BB BC BD CV LN VB VD |
| *L. rubellum* | WW |
| *L. sargentiae* | CH |
| *L. semper-vivoideum* | CH PC |

| Species | Supplier |
|---|---|
| *L. shastense* | ML |
| *L. speciosum* var. *album* | BB MZ |
| *L. speciosum* var. *gloriosoides* | BB CH PC |
| *L. speciosum* var. *rubrum* | BB BC LG MZ OH VB VD WB WF WGA |
| *L. speciosum* var. 'Uchida' | BB BC BD PS |
| *L. sulphureum* | CH |
| *L. superbum* | AA BD JG ML MN OH OM WGR |
| *L. szovitsianum* | AA |
| *L. taliense* | CH PC |
| *L. tenuifolium* | MZ VB VD |
| *L. tianschannica* | CF CH |
| *L. tigrinum* var. *splendens* | BB CF DG JG OH RC VB VD WGR |
| *L. tsingtauense* | AG HF HG LN ML |
| *L. vollmeri* | ML PC |
| *L. wallichianum* | MZ |
| *L. washingtonianum* | ML RGR |
| *L. wigginsii* | ML PC TR |
| *L. wenshanense* | CF |
| *L. wilsonii* | LG LN ML |
| *L. wilsonii* var. *flavum* | LN |
| *L. xanthellum* var. *luteum* | PC |

# L. wardii

Edward A. McRae
Sandy, Oregon

*Lilium wardii* is named for plant collector Frank Kingdom Ward (1885-1958), who first collected the species. Native to SE Tibet in the Tsangpo Gorge (an extension of the Brahmaputra Valley), it has been recently reported in other nearby areas.

*L. wardii* grows at higher elevations, from 2000 to 3000 meters (6600 to 9800 ft.). It is found in meadows among native grasses and on dry slopes among shrubs.

The bulb is round (concentric) and very firm with strong basal roots. Bulbs seldom exceed two inches in diameter. The bulb color is soft gold with oxblood red markings. *L. wardii* may have the most beautiful and least vulnerable bulb of all lily species! The dark purple-brown stems are from two to five feet in height and have a stoloniferous habit. The leaves are two to three inches long, broad and dark green. The pendant to outfacing flowers are deep rose-pink in color and frequently covered with tiny carmine spots; the flowers are usually two inches in diameter. They are also sweetly fragrant. Stems carry from 10 to 30 flowers if plants are grown well. Seed germination is epigeal and the species is easily grown from seed.

Cultivation has been easy and large populations were grown in Oregon in the sixties and early seventies. The soil was a clay loam and stems averaged five feet in height after two years in the field. Kingdom Ward believed it was indifferent as to soil, fine groups being grown both in sandy loam and heavy clay. Like all species, it benefits from an organic mulch. I have read nothing of its hardiness in areas of extreme winter cold; information would be welcome. Several seedlings of *L. wardii* bloomed at Lava Nursery in 1999; these had survived below zero temperatures without snow cover in December 1998. *L. wardii* is an excellent

subject for container culture. I was privileged to view some fine specimens grown by Jerry Robertson at Silverton, Oregon, in 1998. In Victoria, Australia, I found *L. wardii* growing strongly and profusely in many areas. In the nursery of the late Brian Tonkin, near Monbulk, it was growing beautifully in raised beds on a gentle slope – perhaps 1000 plants! In another farm in Victoria, the species was happily growing among natural grasses and herbs.

Earl Hornback had high hopes of using *L. wardii* in Asiatic hybridizing, feeling that the species had enormous potential to produce high quality garden lilies, especially in the pastel range of colors. Many crosses were made, sadly without success. Embryo rescue, unfortunately, was not available at that time. Seedlings of *L. wardii* will be planted in the field at Lava Nursery this spring; a larger quantity of seed will also be planted in greenhouse beds. We may soon enjoy the natural beauty of this fine species and also explore its potential as a parent to new and exciting Asiatic hybrids.

*L. bakerianum* var. *delavayi*

*L. lophophorum*

*L. bakerianum*

*L. sulphureum ?*