THE SPECIES LILY

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

Lilium parryi

Western American Species Edition
Spring, 1999

SLPG GOALS

* Growing as many species lilies 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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Table of Contents

There's No Place Like Home: **In Search of Species Lilies** Curt Kline, Medford, Oregon	4 - 8
L. parryi Jeff Johnson, Long Beach, California	9 - 14
Annual Meeting Announcement **Proposed Officers and Board Members**	14
Man Bites Dog: **The Making of a New Western Lily Population** Ed Guerrant, Portland, Oregon	15 -17
Where to Find Species Bulbs Reg Gallop, Winnipeg, Manitoba Darrel Roeder, Weyerhaeuser, Wisconsin Barbara Small, Fair Oaks, California	18 - 24
L. kelloggii Boyd C. Kline, Medford, Oregon	25-26
Twenty-One Lily Species Listed as **Threatened Worldwide** George Hortin, Fair Oaks, California	27-29
Proposed Constitution and Bylaws **for the Species Lily Preservation Group** Based loosely on the NALS Constitution and Bylaws with amendments and additions by Maureen Barber, Linda Darnton, Don Egger, Ed McRae, Barbara Small and June Taylor	30-34
Treasurer's Report Julius Wadekamper **Membership Information** **Auction Announcement**	35

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Front cover: *Lilium parryi* Jeff Johnson
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There's No Place Like Home: In Search of Species Lilies

Curt Kline
Medford, Oregon

L. bolanderi, a 'dryland' lily

Before we go any further, I'd like to clear the air. I am not an expert on lilies. My dad, Boyd Kline, former half-owner of the Siskiyou Rare Plant nursery, has been involved in rare plants (including lilies) for the last 50 plus years and I have been involved through involuntary servitude since I was about eight years old.

The reason for this article is that I have probably seen, looked for, found, photographed, collected seed from and, yes, dug more lilies than anyone should ever have to. However, I've loved every minute of it, so here goes nothing.

If I had a dollar for every time someone has visited my father's gardens and asked directions for finding 'rare' plants, only to return the next day and say that they didn't find anything, I'd probably have enough money to buy some *L. bakerianum* bulbs. Ten times out of ten, the problem was not a lack of plants, but the fact that you have to actually get out of the car to find them.

My dad and I are extremely fortunate that we live literally in the middle of some of the rarest and most beautiful plants you could ever hope to see. In July of this past year we drove for less than two hours and saw the following lilies: *L. vollmeri, L. washingtonianum, L. kelloggii* (white form), a hybrid between *L. columbianum* and white *kelloggii* (spectacular!), *L. columbianum,* more *L. washingtonianum, L. bolanderi* and finally *L. wigginsii.* Four species alone were all on one logging road just off the Redwood Highway near the California-Oregon border. Now I'm not trying to say that if you live in Texas and you hop in your trusty Toyota that you will find lilies, but if you love plants, then get to know what's in your neighborhood and go find them in the wild. There is nothing like it. And if lilies are what you're crazy about and you are within driving distance (even if you have to stay overnight), then fire up the Ford or crank up the Chrysler and go find 'em!

I have pictures of my grandfather surrounded by *L. washingtonianum* with seven-foot stems. I have pictures of *L. maritimum* towering over me with six-foot stems (yes, at 5'6", I'm a certified dwarf). These pictures were the result of driving many, many back roads and, in the early days, a 1954 Chevy filled the bill (never was meant to be on those roads), and later, one of those new-fangled Volkswagens got us up and back. But don't let the logging roads deter you, we have yet to get stuck or even need a 4-wheel drive on any of our trips. You have to be careful how you drive, pack a lunch and some Band-Aids and please don't forget the camera. And tell someone where you're going and when you should be back (leave 'em a map).

If you want to see the Western lilies, look for blooms in July and then go back in late September for the seed. And don't ever think that you will remember that certain stand of *L. parvum* (the one at the entrance to the campground near that hollow log), because when you go back, that hollow log will have somehow left town and you'll swear you've lost your mind. Write it down, to the

(Continued on page 6)

(In Search of: continued from page 5)
tenth of a mile if possible. Yes, keep a log book. You'll find other things along the way and skip right by them in the fall.

If you find lilies in a particular area, go back, year after year, and don't skip a spot just because you haven't seen anything in one spot by the road. My dad and I have driven the route to Baby Foot Lake about 200 times, but one year we saw a *L. bolanderi* up on a high bank, growing out of a stand of brush (deer can't get the seed), and it must have had twenty blooms on it. Now it's been there for at least ten or more years but why we never saw it before that day remains a mystery! On our trip up Little Jones Creek we saw literally hundreds of *L. kelloggii* (white form) and we had driven by them ten or twenty times before. Another interesting point is that on the way back down the road we drove right past them and had to turn around and come back up the hill to finally 'see' them. It's all light and shadows. I think they do it on purpose.

If you'd rather not beat the bush, you can find lilies without getting out of your car. However, you have to educate your eyes first. Have someone take you out the first time, if possible, and see what they look like in the wild. Once you educate your eyes (and your brain), life will be much easier. I swear my dad can spot a seed head fifty feet off the road in thick brush at twenty miles an hour! Having someone else drive might also keep you from going over a cliff or dropping a tire into a rut while you're burning out your irises looking for iris. (Yes, we have lots of iris in 'them thar hills.') Speaking of iris, if lilies are all you seek, then you might want to check with the local plant clubs. Find out what else is out there that you can photograph or collect seed from that would compliment your garden lilies.

You also need to read up on your quarry first. There are a lot of really good lily books available and you don't have to go back to 1946 to find them; some of the most recent books are probably the

These 'wetland' *L. pardalinum* grow in moving water almost all year.

best. If you're Internet savvy, then try some of the book sellers or just ask around. For instance, if you want to find *L. vollmeri,* don't look on dry land. It typically grows in running water and if you collect seed in the fall you might find out five years later when it finally blooms that you have *L. wigginsii* or *L. pardalinum*! But that's OK. If you're looking for *L. bolanderi*, look at the higher altitudes, with lots of rocks and very, very dry. (This is just a hint — they are all very sneaky and tend to grow wherever they want to.)

Keep one thing in mind: when you finally get them to grow, treat them just awful or they will turn on you. I have a *L. bolanderi* (a 'dryland' lily) which I planted in a raised berm at the edge of my driveway; it gets watered every day from the automatic sprinkler system during the summer and just gets better and better with each passing year.

But to continue: look for *L. bolanderi* on the high side of the road as you drive and look in empty spots or breaks between the brush. They crave drainage and the healthy ones seem to like a very gritty soil, but you will find them growing in almost anything but concrete. We've found *L. washingtonianum* growing with five-foot stems out of almost solid rock with little if any of what you would actually call soil. Of course, we only counted 45 stems,

(Continued on page 8)

(In Search of: continued from page 7)
some with as many as 14 blooms (dry as a bone!). You will also need to look high and low. Dad and I have driven right by lilies because we didn't look high enough, only to find them on the way back down the road. After a while you will begin to get the feel for lily territory and will know that it's time to slow down and smell the lilies. (Yes, in full bloom you can smell *L. washingtonianum* for quite a distance.) And don't forget your log book!! And don't forget all the other wonderful things Ms. Nature has to offer: ferns, rhodies, azaleas, silene, phlox and the first cousins — fritillarias.

Last but not least, grow lilies for whatever reason you want, but if you don't have the room or money or whatever but you can make at least one trip a year to see them in the wild, then please do and take pictures if at all possible. Grow them in flower beds, flower pots or wheelbarrows and when they bloom don't be afraid to make crosses — I make the most outrageous crosses every year and most of them never make it to blooming size, but I keep on trying.

And, in keeping with this, don't ask me how to grow the Westerns. I've killed more lilies than I even care to think about. My raised beds have been invaded by a huge silver maple so this year everything is going into pots. I've actually had my best luck in pure sand, in a raised bed on my patio. That's right, sand over concrete, no rain except what blows in under the patio cover. They were spectacular the first year but then we had 120 degrees on the patio and I watered them — in the summer!! This is certain death to a Western lily and by the next year at least half of them had gone to the big greenhouse in the sky. (I think that the bulbs get confused and immediately rot.) They'll take lots of water in the winter with adequate drainage but they need dry feet in the summer. Let them wilt, they'll survive and thank you for it.

L. parryi

Jeff Johnson
Long Beach, CA

When I was transferred to Southern California I gave away all my lilies — a trade-off for living a block from the beach with no space for a garden. Instead of growing lilies, I started looking for the wild Southern California lilies that I had read about.

L. parryi had always seemed mysterious to me. The Lemon Lily, as they call it, is described in books as the most beautiful of the American West Coast lilies, pure yellow and fragrant too. I read that it grows near water at high elevation in the mountains, high enough that it is covered with snow in winter. The mystery was that *L. parryi* grows in Southern California, which, in my mind, was chiefly an artificially watered suburban desert trapped under brown photochemical smog, where traffic comes to a standstill at any hour. Where could this rare beauty be hiding in all that mess? This misunderstanding was soon cleared up.

The mountains of Southern California have risen very rapidly,

(Continued on page 10)

L. parryi: continued from page 9)
which means they are rugged and steep. Access into the mountains is along a few main roads, and then along well-used fire roads and trails. Anywhere there is a peak, there is a way to get to the top. However, there are many places you cannot reach easily. From several peaks with views of downtown LA, you look down into designated wilderness areas so rugged that you can't climb up to them from below and or down to them from above. Since Southern California has not been heavily populated for long, this wild land is almost all National Forest and open to the public.

Most of Southern California is naturally very dry. A few thousand feet up in the mountains, the rain increases enough to support open coniferous forest. There are small perennial streams and, occasionally, wet seeps or meadows. When I started looking for *L. parryi*, all I knew was that I should be looking for these high, wet areas, and probably in the places where the fewest people go.

A friend said he had seen *L. parryi* while driving through the San Jacinto Mountains. These mountains lie east of LA, between Palm Springs and the coastal basin. With about that much to go on, I headed out one late June day to look for lilies. Asking for guidance locally, and getting little, I stopped in a State Park parking lot at about 5,000 feet elevation and just started bushwhacking up a stream. Within twenty yards of the road I found one modest lily in bloom. So, my first lesson in lily hunting was that if you look where lilies are supposed to grow, and where it's a little inconvenient to reach, you can often find lilies.

Like many of the *L. parryi* one can find, the first one I saw was a couple of feet tall, with a few leaves and a single flower. Most *L. parryi* plants are pretty humble, only calling attention to themselves at all when they bloom. If they survive grazing, erosion, and encroaching overhead growth, they get to be two or three feet tall, with two or three buds. A very few get to be five or six feet tall, with as many as a dozen buds.

The biggest *L. parryi* plant I have seen was growing next to a house by the same stream where I saw the first one. It was well over six feet tall, with perhaps twenty buds. It was growing in an artificial pond and must have been well looked after and well protected.

I have spent most of my time looking for *L. parryi* in the San Gabriel Mountains, directly north of LA, and closer to home in Long Beach. The lilies I have seen in the San Jacinto Mountains seem to be distinguished from the lilies in the San Gabriels in two ways.

First, they seem to bloom earlier, maybe even a few weeks earlier. That may be because I have found them at a lower elevation than in the San Gabriels, where the earliest I can count on finding any in bloom, at 6,000-7,500 feet, is the beginning of August. The first lily I saw in the San Jacinto Mountains was in late June, though that was a very early year everywhere. Last year, a very late year, I found a few *L. parryi* still in bloom in the San Gabriels a few days before Thanksgiving. The main blooming period in the places I have visited the most often seems to be well over a month long.

Second, the largest San Jacinto plants do have whorled leaves. I have only rarely seen anything like whorled leaves in the San Gabriel lilies. I noticed that Ed McRae reported in the December 1998 NALS QB that the *L. parryi* he is growing for the species group had no whorled leaves.

The interesting common plants nearby are also different. In the San Jacintos, there are bright red and yellow columbine, a very small-flowered rose, and white-flowered Western azalea. In the San Gabriels, the most noticeable neighbor and companion plant (I don't know the name) has a daisy-like flower exactly the same yellow color as the lilies. As if by design, their yellow flowers magnify the colorful impression of a group of lilies in bloom. In

(Continued on page 12)

(L. parryi: continued from page 11)
boggy areas, there are small, pink-gray orchids and mint as thick as grass. I come away from there with my clothes smelling like mint.

Where the lilies grow by streams, the soil is grainy grit and forest duff. The lilies may grow back several yards from the water but are usually right next to it. One wonderful lily stream has a border of greenery, including lilies, maybe half a mile long. The high sloping banks above the stream are dry, bare, and gritty. Debris constantly falls from the banks and collects at the water level, building up the soil where the lilies grow. In boggy areas, the soil is built-up organic matter and is not gritty or rocky. It can be wet and squishy underfoot.

The most common trees in the mountains are pines. Near water, cedars are common. There are many magnificent big trees, and many dead trees, killed by lightning and smog. Very little of the National Forest land in Southern California has been logged in recent times. The forest is very open. Anywhere that lilies are growing well, there is some open sky overhead. Where the trees close overhead, there are few lilies.

The flowers of *L. parryi* are always a beautiful, clear yellow, and outfacing. Beyond that, they vary a lot. The largest are about four inches in diameter, and many are smaller. The inner segments often recurve more than the outer segments, giving the flowers a triangular shape. Some flowers face a bit upward, which makes the petals sag apart in an unattractive way. Some of the flowers have a funnel-like trumpet form, and others open very flat or recurved. Many have what appear to be nicks in the sides of the segments. I assume these develop when the segments overlap inside the developing bud, getting in each other's way.

The spotting varies from heavy to none, but most flowers have a few dark purplish spots. The anthers are usually reddish-orange when the flowers open. The pollen quickly drops off, leaving

small black anthers. You can often see bees visiting the flowers, getting dusted with pollen. Many flowers are full of crawling bugs gathering nectar. If you visit the lilies in blooming season, you may be full of bugs too. The mosquitoes can get fierce, especially at dawn and dusk, the best times for taking pictures.

On stems with several buds, the pedicels may emerge from the stem at two or three discrete levels. This does not ever seem to create in *L. parryi* the geometrically tiered, candelabrum inflorescence common in some other West Coast lilies. Also, in other West Coast lilies, individual plants may have a distinctive shape or pattern in the form of their pedicels. In the *L. parryi* I have seen, the pedicels always rise up sharply along the stem.

Despite the name Lemon Lily, the sweet fragrance is not lemony, but very much like the fragrance of *L. rubescens* or *L. washingtonianum*. I don't think I could distinguish among them. The fragrance doesn't seem to carry far through the woods — I see the lilies before I smell them.

The mountain herbivores also appreciate the lily flowers. In the best lily area I know, there are at least a thousand *L. parryi* plants of various sizes within a mile. By October, there are only dozens of seed pods left on the plants. On successive visits through the season, one finds more and more lilies neatly decapitated and defoliated.

Reference books claim that *L. parryi* grows as far east as the mountains of Southern Arizona. One summer I visited the Nature Conservancy property in Ramsey Canyon, in the Huachuca Mountains south of Tucson. They claimed to have *L. parryi* growing there, in an area closed to the public. To my great satisfaction, I did find two plants (count 'em — two) in another part of the canyon.

The literature at the preserve gave an estimated *L. parryi* census of

(Continued on page 14)

(L. parryi, continued from page 13)
a few thousand stems in Arizona, and half that in California. I am sure this estimate for California is way too low. When I consider that I can find a thousand plus lilies in one small area, thousands more must be hiding in all the more inaccessible areas of mountain habitat. Of course, you shouldn't expect to find *L. parryi* blooming by the roadside. If you are willing to go well off the road, then you might find it.

SLPG Meeting

The annual meeting of the Species Lily Preservation Group will be held at 4:30 p.m. on Thursday, July 8, 1999 during the North American Lily Society's 52nd International Lily Show at the Chicago Botanic Garden Auditorium, Glencoe, Illinois.

We will be having an election of officers and board members as well as discussion of the proposed constitution and bylaws [see pages 30-34].

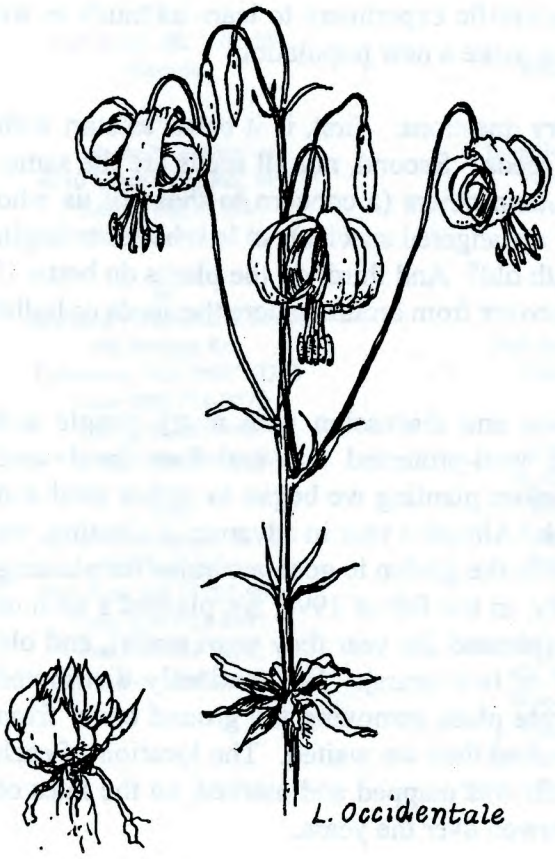
Proposed officers are

President: Ed McRae
Vice President: Barbara Small
Treasurer: Don Egger
Secretary: David Sims
Board Members:

If you would like to be an officer or board member, please contact Ed McRae before the meeting (503-668-6443).

Man Bites Dog: The Making of a New Western Lily Population

Ed Guerrant



Dogs bite people every day, and it doesn't make the news. Rare plant populations disappear every day, and, sadly, it doesn't make the news. Take, for example, the endangered western lily (*Lilium occidentale*), which is native only to a narrow strip of land along the coast between Coos and Humboldt Bays straddling the Oregon-California border. In the 101 years since it was discovered and described, somewhere between one third and one half of all populations that have ever been found have already disappeared. That works out to the loss of one population every three to five years, for this species alone!

(Continued on page 16)

(Man Bites Dog, continued from page 15)
But in this 'man bites dog' story, I will describe our efforts to make a new population of this attractive, but highly endangered species. Working in conjunction with the Coos Bay District of the Bureau of Land Management (and with the blessings of the U.S. Fish and Wildlife Service), we started a new population late in the fall of 1996. There are, obviously, no manuals on 'How to Make a New Western Lily Population from Scratch,' so we set up the project as a rigorous scientific experiment to learn as much as we could about how best to make a new population.

We tested three primary questions. First, is it better to start with small bulbs than with seeds? Second, not all seeds are the same; some are more viable than others (a concern to those of us who operate seed banks for endangered species), so is it better to begin with new seed than with old? And third, do the plants do better if we remove the ground cover from around where the seeds or bulbs are planted?

After much deliberation and discussion with many people and agencies, we chose a well-protected site and four local seed sources. Two years before planting we began to gather seed and store it in our seed bank. Almost a year in advance of planting, we sowed lots of seed here in the garden to generate bulbs for planting in the field. Eventually, in the fall of 1996, we planted a total of 760 bulbs, new seeds (planted the year they were made), and old seeds (stored for one or two years). We randomly distributed these among 20 replicate plots, removing the ground cover from one half of each plot. And then we waited. The location of each and every seed and bulb was mapped and marked, so the fates of individuals can be followed over the years.

We eagerly went back in the spring of 1997 to see what had come up, and how big the plants were. Not surprisingly, small bulbs came up in much greater numbers (90%) than either new (23%) or old (48%) seeds. But, of course, not all seeds came up in the garden to make bulbs (so the comparison is not as straightforward

as it might seem). That the old seeds did better than new was both surprising and interesting (not to mention, a relief!). Just why that should be so is not clear, but I expect we will see some delayed germination this spring, so the story is not yet finished. Another surprise was that more plants emerged in those areas where we left the ground cover intact than in those areas where we removed the ground cover (48% to 40%)! We also measured the size of every bulb before planting, and not surprisingly, larger bulbs produced larger leaves the next spring. These initial results are promising, but it will take many years before the questions can be confidently answered.

So now what? The narrow interpretation is that we would do well to start with bulbs and leave the ground cover in place. Accepting that we do better with bulbs and that larger bulbs give rise to larger plants, the challenge is to get the highest germination from seed lots, and make the bulbs grow as rapidly as possible. Preliminary results show that we get better germination and faster growth using laboratory tissue culture techniques than we do either in the garden or in the field.

The ultimate conservation value of the seed bank is not the stored seed itself, but the impact it can have on long term survival of species in the wild. Fortunately, we have not often had to use the seed, but if a population or species does become extinct, stored seed can made the difference between survival and extinction. We, the people, are beginning to bite back.

[From *The Berry Botanic Garden Newsletter* with the kind permission of Linda McMann]

Where to Find Species Bulbs

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

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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/

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

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

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
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

WW
Willowwood
P.O. Box 445
Parkdale, OR 97041-0445
Voice 541-352-7706

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, list both. *L. lancifolium* is listed as *L. tigrinum.*

Species	Supplier
L. albanicum	PC
L. amabile	BD LN WW
L. amabile var. *luteum*	WW
L. auratum	AA LG WF
L. auratum var. *platyphyllum*	BD OH WW
L. bakerianum	CH PC
L. bulbiferum	PC
L. canadense	CV MN PC WGR
L. canadense var. *coccineum*	BD
L. canadense var. *flavum*	BD
L. candidum	DM MZ WF WGA
L. carniolicum	PC
L. carniolicum var. *jankae*	AA
L. cernuum	BD CGG CH GI
Chinese species 1-5 [?]	CH
L. concolor	AA BD CGG WW
L. x dalhansonii	AG
L. dauricum	PP

Species	Supplier
L. davidii	AA RGA
L. davidii var. *willmottiae*	AA HH HN
L. duchartrei	PC
L. fargesii	CH
L. formosanum	BD CN HN NG WGA
L. formosanum var. *phillipinense*	SP
L. formosanum var. *pricei*	AA LN NG
L. grayi	NG PC RGR
L. hansonii	HN PP
L. henricii	PC
L. henryi	AA CGG CH HH LG LN ML MZ OH PM PP RGR VB
L. henryi 'Carlton Yerex'	WW
L. henryi var. *citrinum*	BD PP
L. kellyanum	PC
L. lankongense	BD HN LG
L. leichtlinii var. *maximowiczii*	HG HN
L. leucanthum	CH HN LG PC
L. leucanthum var. *centifolium*	BD LN WGA WW
L. longiflorum	AA

Species	Supplier
L. longiflorum var. 'Snow Queen'	CGG
L. lophophorum	CH PM PC
L. mackliniae	PC
L. maculatum var. *davauricum*	PC
L. maritimum	ML
L. martagon	AA BD CV DM GI HH MZ OH PC PM PP VB WGA WF
L. martagon var. *album*	BD CGG CV DM GI HH MZ OH PM PP VB WF WGA
L. meleoloides	PC
L. michiganense	CN PC
L. monadelphum	AA LN PM PC
L. nanum	AA CH HN PC
L. nanum var. *bhutan*	PC
L. nanum var. *flavidum*	PC
L. nepalense	AA HN LG MZ PC PM
L. nepalense var. *robusta*	HN

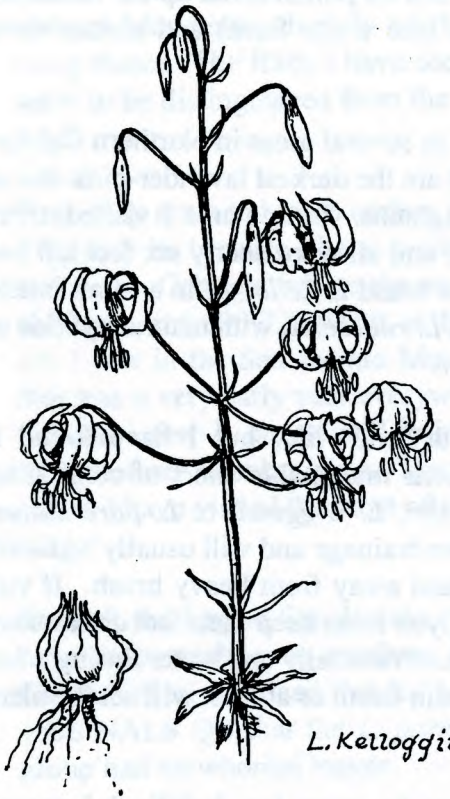
Species	Supplier
L. oxypetalum	PC
L. oxypetalum var. insigne	PC
L. pardalinum	BD CGG ML
L. pardalinum var. *giganteum*	CN RGR
L. parvum	ML
L. parvum var. *crocatum*	ML
L. parvum var. *luteum*	PC
L. philippinense	LN
L. pitkinense	ML
L. pulchellum	CGG
L. pumilum	AA BD CGG CH CV DM LG LN MZ OH PM WW
L. pumilum var. 'Golden Gleam'	BD LN OH
L. pumilum var. 'Yellow Bunting'	BD
L. pyrenaicum	PC
L. regale	AA BD CH GI JG LG OH RGA VD WGA WW
L. regale var. *album*	BD CGG LN VD WGA

Species	Supplier
L. rubellum	AGB WW
L. semper-vivoideum	AGB JA
L. shastense	ML
L. speciosum var. *album*	JA VB PM WGA
L. speciosum var. *gloriosoides*	CH PC
L. speciosum var. *rubrum*	CGG CV DG DM JA LG OHPM VB VD WB WF WGA
L. speciosum var. 'Uchida'	BD PS
L. speciosum var. 'Wing Dancer'	BD
L. stewartianum	CH
L. superbum	AA BD CGG CV FF GBR JG LV NG RG WWN
L. szovitsianum	AA PC
L. tenuifolium	CV PM MZ VB VD

Species	Supplier
L. tigrinum var. *flavum*	LN
L. tigrinum var. *flore pleno*	HN LN
L. tigrinum var. *splendens*	DG JA LN OH SP VB VD
L. tsingtauense	AG HG HN LN
L. umbellatum 'Orange Triumph'	PM
L. vollmeri	CN ML PC
L. wallichianum	MZ PC
L. washingtoni-anum	PC RGR
L. wigginsii	ML PC
L. wenshanense	PC
L. wilsonii	LN ML
L. wilsonii var. *flavum*	LG
L. xanthellum	AA
L. xanthellum var. *luteum*	PC

Lilium Kelloggii

Boyd C. Kline
Medford, Oregon



Rumor has it that a man by the name of Henry Bolander of *L. bolanderi* fame first discovered *L. kelloggii;* the lily itself was named after Dr. Albert Kellogg, also a renowned plantsman. The first description was by Purdy around 1901.

As for my own introduction to this beautiful lily, it was in July of probably 1948 that I first came across it in the wild. This was near Eureka, California. If you go back far enough in the literature you will see it described as a 'Western Martagon.' This is also how I might have described it on my own first encounter. It is not a large or showy plant, its usual height being about three feet, although I have found them 'eye to eye' in the wild. The color has been variously described as pink, pinkish, red, wine-red or white — the white form being found, as far as I know, only near the California-Oregon border, around Oregon Mountain. The flowers are almost always spotted, some quite heavily. It is a very fragrant plant but not disagreeably so if brought inside. I

(Continued on page 26)

(L. kelloggii, continued from page 25)
would have to say that the 'average' stem would carry from three to five blooms.

I have never found this lily in Oregon, although it is found just over the border into California. *L. columbianum* is right on the border also and close enough that its pollen drifts up the mountain and crosses with *L. kelloggii* (the white form) and makes some delightful golden *kelloggiis*.

I have discovered *L. kelloggii* in several areas in Northern California. The plants near the coast are the darkest lavender-pink and as one travels inland the color lightens. In one area I visited, there were more than twenty plants, and all were nearly six feet tall and light pink in color. I have also found *L. kelloggii* in a small inland valley growing among several *L. rubescens* with natural hybrids of the two found scattered nearby.

L. kelloggii is typically a 'dryland' lily, but I have found it growing in almost all conditions imaginable short of coming up out of the water like *L. vollmeri, L. wigginsii* or *L. pardalinum*, found in the same area. It loves drainage and will usually be found on the high side of the road and away from heavy brush. If you can get them to grow at home, you must keep their feet dry as soon as the buds form in early June. Practically any water during a hot summer will mean almost certain death or at least will set the plant back for a year or more.

L. kelloggii is relatively easy to grow but 'relatively' means difficult for all of the Western natives. It is not as 'picky' as *L. bolanderi*, a dryland lily, nor does it have to be sitting in running water like *L. volmeri* or *L. wigginsii.* The bottom line is that it is one of the more beautiful Westerns and should be seen, or better yet, grown if at all possible.

Twenty-one Lily Species Listed as Threatened Worldwide

George Hortin, Fair Oaks, California

The 1997 IUCN Red List of Threatened Plants (hereinafter referred to as the Red List) lists twenty-one lily species worldwide considered threatened plants. The Red List is compiled and published by the International Union of Conservation of Nature and Natural Resources (known as the World Conservation Union, or IUCN). 'Among the plants most at risk, the survey found, are 14 percent of rose species, 32 percent of lilies, 32 percent of irises, 14 percent of cherry species and 29 percent of palms. Coniferous trees as a group, and many species found in island nations, were also judged especially vulnerable.' [William K. Stevens, in the *N.Y. Times*, April 1998]. The IUCN is headquartered in Gland, Switzerland. Institutions contributing to the Red List database include The Nature Conservancy, The Smithsonian Institution, The New York Botanical Garden, The Royal Botanic Garden in Edinburgh, The Royal Botanic Gardens at Kew, and others. The Red List is edited by Kerry S. Walter of the Royal Botanic Garden in Edinburgh and Harriet J. Gillett from the World Conservation Monitoring Centre.

Six categories are used in the Red List to denote the relative level to which a species is threatened:

* **Extinct** (EX), where the plant has not been definitely located in the wild for 50 years
* **Extinct/Endangered** (EX/E), where the plant is expected to become extinct
* **Endangered** (E), where the species is likely to become extinct if the threatening causes continue
* **Vulnerable** (V), where the species are likely to become en-

(Continued on page 28)

(Red List, continued from page 27)

dangered in the near future if the causal factors continue operating

* **Rare** (R), where there are small world populations that are not at present endangered or vulnerable, but are at risk where the species are localized within restricted geographical areas or habitats or are thinly scattered over a more extensive range
* **Indeterminate** (I), where the species are known to be endangered, vulnerable or rare, but information is insufficient to place the species more specifically [Red List, p. il]. Categories used by the IUCN are not the same as the U.S. Endangered Species Act categories.

Lily species from the Red List [p. 686] follow. [Not included is a number linked to each listing, i.e., 20850 linked to *L. humboldtii,* which appears to apply to the Red List database source but is not further specifically identified in the Red List.] Entries show the risk level, the genus, species and, if applicable, subspecies or variety, the cataloger and the lilies' geographical location. Risk levels are further subcategorized for some geographical locations, such as in the case of *L. grayi.*

* **R** ***L. carniolicum.*** Bernh. ex W. Koch var. *artvinense* (Miscz.). Davis and Henderson. Turkey
* **I** ***L. caucasicum.*** (Miscz. ex Grossh.). Russia — North Caucasus
* **I** ***L. cernuum.*** Kom. Russia (Far East) — Primorye (south)
* **I** ***L. ciliatum.*** Davis. Turkey
* **R** ***L. grayi.*** S. Watson.
  R U.S. — North Carolina
  E U.S. — Tennessee
  V U.S. — Virginia
* **R** ***L. humboldtii.*** Roesl % Leichtl. ex Duchartre ssp. *humboldtii.* U.S. — California
* **R** ***L. humboldtii.*** Roesl % Leichtl. ex Duchartre ssp. *ocellatum* (Kellog) Thorne. U.S. — California
* **E** ***L. iridolae.*** Henry

E U.S. — Alabama, Florida, North Carolina, Virginia
I U.S. — South Carolina

* **I** ***L. ledebourii.*** (Baker) Boiss. Azerbaijan
* **E** ***L. mackliniae.*** Sealy. India — Manipur (Shirhoy Hill)
* **V** ***L. maculatum.*** Thunb. var. *monticola.* Hara. Japan
* **V** ***L. maritimum.*** Kellogg. U.S. — California
* **I** ***L. neilgherrense.*** Wright. India — Karntaka and Tamil Nadu
* **E** ***L. occidentale.*** Purdy. U.S. — California and Oregon
* **E** ***L. pardalinum.*** Kellogg ssp. *pitkinense* (Beane & Volmer). Skinner. U.S. — California
* **R** ***L. parryi.*** S. Watson.
V U.S. — Arizona and California
* **V** ***L. pomponium.***
V France — Provence
E Italy — Liguria
* **R** ***L. rhodopaeum.*** Delip.
V Bulgaria (south — one area, one site)
R Greece
* **R** ***L. rubellum.*** Baker. Japan
* **I** ***L. wallichianum.*** Schultes f.
I India — Uttar Pradesh (Chamoli dist. Kumaun)
V Nepal

These listings are, of course, only as good as the science that goes into them. At best, they will serve as a point of reference with SLPG's members' own experience with these species as well as a possible beginning for dialog of members with contributors to this database. The Chairman of the Bulb Specialist Group is listed on the IUCN Web site as Dr. Alan Meerow, University of Florida, Research and Education Center, 3205 College Ave., FL 33314. U.S. telephone 954-475-8990. E-mail awm@icon.ftld.ufl.edu.

[See Jeff Johnson's assessment of *L. parryi*, pp. 13-14.]

Draft

CONSTITUTION OF THE SPECIES LILY PRESERVATION GROUP

Adopted at the annual meeting of the Group
[July 1999 at Chicago, Illinois] or [June 2000 at Portland, Oregon]

ARTICLE I. NAME

The name of this group shall be the Species Lily Preservation Group.

ARTICLE II. DURATION

The duration of the Species Lily Preservation Group shall be perpetual.

ARTICLE III. PURPOSE

The Species Lily Preservation Group shall be operated exclusively to promote the preservation and distribution of *Lilium* species, especially those threatened or in danger of extinction.

ARTICLE IV. MEMBERS

The members of the Species Lily Preservation Group shall consist of such classes and shall have such priviledges as shall be stated in the bylaws of the group.

ARTICLE V. DIRECTORS

The affairs of the Species Lily Preservation Group shall be governed by a board of directors consisting of not less than three nor more than six directors. The directors shall be elected in the manner prescribed in the bylaws of the group, but the minimum and maximum number of directors specified herein shall not be altered except by amendment to this constitution.

ARTICLE VI. INITIAL DIRECTORS

The three individuals whose names and addresses appear below shall serve as the initial directors until the [fourth] [fifth] annual meeting of the group when their successors shall be elected in the manner prescribed in the group's bylaws.

Edward A. McRae, Sandy, Oregon
Barbara M. Small, Fair Oaks, California
Julius Wadekamper, Parkdale, Oregon

ARTICLE VII. NOT-FOR-PROFIT CHARACTER

The Species Lily Preservation Group is not organized and shall not be operated for pecuniary gain or profit. No part of the net earnings, if any, of the group shall benefit any private individual. Upon dissolution of the group, all of its assets, if any, shall be distributed exclusively for charitable or educational purposes to the North American Lily Society, Inc.

ARTICLE VIII. AMENDMENTS TO THE CONSTITUTION

This constitution may be amended at any annual meeting by a two-thirds vote of the members present provided that such amendment(s) shall have been submitted to the membership in writing at least thirty days prior to the meeting.

Draft

Bylaws of the Species Lily Preservation Group

SECTION I. MEMBERSHIP

ARTICLE I.
Any person interested in supporting the purpose of the group is eligible for membership. Applications for membership in the group shall be presented to the membership chairman in writing, accompanied by the required dues. Membership may be in the name(s) of one or more individuals who reside at a common address.

ARTICLE II.
The Species Lily Preservation Group shall be affiliated with The North American Lily Society, Inc.

SECTION II. ELECTED OFFICERS

ARTICLE I.
The officers of the group elected by the members shall consist of a president, vice-president, a secretary and a treasurer or a combined secretary-treasurer.

ARTICLE II.
The president shall co-ordinate and direct the affairs of the group in accordance with its constitution and bylaws. The president shall preside at all meetings of the group. The president shall appoint all standing committees and such special committees as may be deemed necessary. The president shall be a member of all committees of the group except the nominating committee.

ARTICLE III.
In the absence of the president, the vice-president shall perform the duties of the president.

ARTICLE IV.
The secretary shall keep the records of the group, keep the minutes of the annual meeting, and conduct correspondence relating to the interests of the group.

ARTICLE V.
The treasurer shall account for all monies of the group and pay all bills which have been approved by the president. The treasurer shall submit an audited financial statement to the annual meeting.

(Continued on page 32)

(Constitution and Bylaws, continued from page 31)

SECTION III. CONSERVATIONIST

ARTICLE I.
The conservationist shall be appointed [yearly] or [for an indefinite term] by the board of directors at its annual meeting.

ARTICLE II.
The conservationist shall grow and distribute species lilies with an emphasis on those listed as being threatened or endangered, consistent with the goals of Section III, Article III below.

ARTICLE III.
The conservationist shall meet the guidelines set by the board of directors and run operations under the budget approved by the board. The conservationist shall present a copy of the year's proposed budget to the board of directors at least one month before the annual meeting.

SECTION IV. BOARD OF DIRECTORS

ARTICLE I.
The board of directors shall consist of four (or three if the secretary-treasurer is combined) elected officers, and three to six members who shall be elected by the membership of the group at their annual meeting.

ARTICLE II.
The board of directors shall consider proposals made to the group and make their considered recommendations to the members at the annual meeting. Proposals may be made by individual members through the president or secretary of the group.

The board of directors shall determine guidelines for the conservationist and approve the conservationist's budget yearly.

It shall also be the responsibility of each director to further the interest of the group locally by securing memberships and by suggesting means whereby the group interests may be improved locally. The directors will meet before the annual meeting at the time and place specified. Members in attendance shall constitute a quorum and decisions may be reached by a simple majority of those present.

SECTION V. ELECTION OF OFFICERS AND DIRECTORS

ARTICLE I.
The officers of the group shall be elected at the first annual meeting of the group and at the annual meeting in every second year thereafter, and they shall hold office from the close of the annual meeting at which they are elected until the close of the annual meeting two years later.

ARTICLE II.
The elective members of the board of directors (normally one or two each year) shall be elected at the annual meeting and shall hold office for three years from the close of such annual meeting. Any member being elected to complete an unfinished term shall serve only until the end of the term of the director replaced. A director who has served one full term may not be re-elected for another term as director until one year has elapsed.

ARTICLE III.
The nominating committee shall present a slate of names for election to the offices and directorates of the group at the beginning of the annual meeting. Care should be taken to give regional representation. The consent of each candidate shall have been secured prior to the presentation of such slate. Nominations for any office and for vacancies on the board of directors may be made from the floor of the meeting at any time during the presentation of the slate or at the proper time previous to the election. Consent must have been obtained previously for any nominee not present at the annual meeting. The election shall take place at the end of the annual meeting.

ARTICLE IV.
When needed, a nominating committee of three members shall be elected to present a slate of officers at the following annual meeting. The president shall select the chairman of the nominating committee from among the three members elected.

ARTICLE V.
A quorum at a regularly called annual meeting shall be ten members.

SECTION VI. FINANCIAL MATTERS

ARTICLE I.
The fiscal year of the group shall extend from January 1 through the following December 31. [Note: this is a change from the current fiscal year.]

ARTICLE II.
The board of directors shall determine the group's dues.

ARTICLE III.
The names of all members whose dues have not been paid by April 1 shall be dropped from the rolls of the group. Final notices of arrears shall be mailed to delinquent members at a convenient time between February 1 and March 15.

ARTICLE IV.
The president or treasurer shall appoint someone to audit the books for the ensuing two years not later than three months after assuming office, preferably from among the members of the group. This person shall sign the statements from the treasurer before they are presented to the group for approval at the annual meeting.

(Continued on page 34)

(Constitution and Bylaws, continued from page 33)

SECTION VII. MEETINGS

ARTICLE I.
The time and place of the annual meeting shall be designated at the annual aeeting of the North American Lily Society, Inc. In the event of changed circumstances or conditions, the board of directors may adjust the time and place of such meetings as may be necessary.

SECTION VIII. APPOINTMENTS OF COMMITTEES

ARTICLE I.
The president shall appoint such committees as are necessary for the group's business. Among the appointed committees are membership and publications.

ARTICLE II.
The membership committee shall receive dues and keep track of all memberships.

ARTICLE III.
The publications committee shall assume all responsibility for publishing all publications of the group. The committee may, however, delegate responsibility for minor publications as they deem expedient.

SECTION IX. AWARDS

ARTICLE I.
The group may provide suitable awards for outstanding contributions to the genus *Lilium*, outstanding contributions to the group, and suitable recognition for meritorious exhibits.

SECTION X. AMENDMENTS TO THE BYLAWS

ARTICLE I.
These bylaws may be amended at any annual meeting by a two-thirds vote of the members present provided that such amendments shall have been submitted to the membership in writing at least thirty days prior to that meeting.

Comments, Please

Please be prepared to make comments on and suggestions for the proposed constitution and bylaws at the Chicago meeting. The group may adopt the constituion and bylaws as they stand or with minor alterations. If there are considerable alterations, it's back to the drawing board and we'll try again in Portland.

Treasurer's Report

Julius Wadekamper

Balance as of January 1, 1999.....$2,299.35

Native Plant Society for the preservation
of *L. occidentale* $68.00.....$2231.35

Check to Barbara Small for extra fall 1998
newsletters $112.65.....$2,118.70

Balance as of April 30, 1999 .....$2,118.70

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
mbarber@cgocable.ca

Auction

During the Chicago show, six framed species lily drawings by Virginia Howie will be auctioned to benefit the newsletter color fund for the Species Lily Preservation Group. Last summer in Saskatoon, three of these beautiful drawings were sold for $500 Canadian each. Those drawings (all colored and signed by Gini) to be auctioned are the prints in the fall 1998 newsletter (*L henryi, L. lankongense,* and *L. leucanthum* var. *centifolium*) and the three from this newsletter (*L. parryi, L. occidentale* and *L. kelloggii*). If you are unable to attend the meeting but would like to bid on the drawings, please send your bids to Barbara Small.

L. kelloggii

L. occidentale