Past and Future Propagation Efforts With Bulbs at the Arboretum

By Laura Lyons, UCI Arboretum

The Arboretum’s prized southern African winter growing bulb collection has gone into its summer ‘sleep’ after a long and successful growing season, both out in the Bulb Garden and in our nurseries.

Back in 2006, the Nursery staff, under my direction, embarked on a stepped up propagation effort with our South African bulbs. We embarked on a more active program to grow by seed and also experimented with new propagation techniques to increase our stock.

Bulb propagation is not a short term project. Bulbs can take 5–7 years to reach blooming size from seed; other, more exotic methods, such as chipping, yield many offsets but also can take time for bulbs to reach blooming size.

Two of our largest projects were the propagation of *Gladiolus tristis* by seed and the isolation of desirable hybrids of *Amaryllis belladonna* from our rather extensive plantings of the classical ‘Naked lady’ and the propagation of those hybrids—and also the basic dark pink, white and medium pink colors—by a technique known as ‘chipping.’

In the case of the *Gladiolus tristis* seed, we saw results much quicker than usual for bulbs, with the first bulbs going out for sale in 2009. Now, we have a good supply of these beautiful and fragrant bulbs to support our sales and also to be planted out in the garden.

Our first large scale attempt at chipping *Amaryllis* was in Fall 2007, and was also a very successful endeavor, with a few bulbs reaching sellable size by 2010 and quite a lot ready for sale by this year. This fall we intend to do more chipping, particularly of some of the hybrids. I have my eye on a particularly colorful clump I noticed last year, tentatively named ‘Mardi Gras.’ Last year each flower showed patches of every shade of pink from very light to very dark, with each flower unique in its patterning. I intend to check out the blooms and confirm they are ‘true’ – in other words, that they show the same stunning variegation. Amaryllis can show a certain amount of temperature and light sensitivity that can affect the shading of a flower. A plant that is blush pink in a cool summer might be pure white if the temperature is higher. I usually like to observe an amaryllis flower for two seasons minimum to make sure the color is consistent.

Bulbs, of course, multiply naturally by division, creating one or more offsets each year. Some of them multiply quite enthusiastically! A good fertilizer pro-

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*Ornithogalum, sp.* one of our bulbs in active propagation for future release.

*One of our white Amaryllis belladonna*
By Laura Lyons, UCI Arboretum

Summer mornings, crisp, sunny and (hopefully) cool are a nice time to go plant shopping. The Arboretum continues its once a month plant sales through the summer months, but reduces its hours to the morning only, 9 a.m. to noon. They are usually busy mornings!

For July, our sale is on the 21st, and I hope all our volunteers will plan to help out. With the abbreviated schedule, I am looking for volunteers primarily for setup from 7 a.m. to 9:30 a.m., or the sale itself, 8:30 a.m. till 12:30 p.m. I also would like one volunteer for the afternoon – from 1 p.m. to 3 p.m. – to help with watering around our nursery.

For the sale, I need the usual helpers: cashiers, sales people, and people to help take plants to the customer’s cars. Our clients really appreciate the extra service we provide in an era when takeout help is usually only available by special request, if at all.

Annual Summer Bulb Repotting Begins

By Laura Lyons, UCI Arboretum

Each summer is a busy one around the Arboretum. Besides all our usual tasks—weeding, propagating perennials, finding the best breeze, and of course, lots and lots of watering—our winter bulbs, now gone dormant, are ready for a Summer of Love from our Arboretum volunteers. That is, many of them need nice fresh soil in which they will happily grow for the next 2–3 years.

Most of our bulbs are on a three-year cycle. After about three years, most of the organic content has decayed from our potting soil, leaving a few sad shreds of redwood compost amongst a sea of sand and perlite. This tired old soil is ready for an honorable retirement. Volunteers carefully sift the soil and remove the bulbs, storing them in paper bags. Much of that work is done by our good friends at the Pacific Life Good Guys during their two visits to the Arboretum each summer—more details on that are below!

In addition, bulbs propagate actively by offsets, in essence, making clones of themselves—sometimes just one a year, but sometimes more. During bulb repotting the offsets are carefully separated from one another. The bulbs are then sorted by size. Most of the bulbs are potted in fresh potting soil and put back into the bulb house for another three-year-growing cycle. If we are fortunate enough to have excess blooming size bulbs, they are sold as dormant corms during the fall sale, held for planting in the garden, or potted into 1-gallon pots to sell as blooming bulbs next winter and spring. The sorting and repotting is carried out primarily by our Nursery staff, particularly the Friday Club during their regular volunteer sessions each Friday morning from 9 a.m. to noon.

Pacific Life’s first visit of the summer is on Saturday, July 14 from 8:30 a.m. to noon. The Good Guys typically bring between 20–30 volunteers to the July session, and a significant amount of our bulb lifting for the summer is completed in a single morning. All Arboretum volunteers are also welcome to join us on July 14th. The bulb repotting work is quite easy. Groups of 10 volunteers sit at tables and work together on their assigned pots.

The Friday Club will begin working on bulb repotting July 6th. While they will mostly be sorting and repotting, the Friday Club also lifts a handful of species that require special handling. For example, the roots of some bulbs like Massonia echinata (starfish flower) do not die off; they survive, protected by the soil, until the next growing season. Bulbs like this need
gram can encourage that process. There were some very nice species that we had somewhat limited quantities of – a pot or two – and I was determined to build up our ‘parent stock’ of those bulbs to support future sales. One of those bulbs, *Allium* ‘White Bells’ was sold as blooming pots this winter for the first time; other items will be lifted this summer. If we have sufficient extra blooming size bulbs, they will be released this fall. Others will certainly become available in the next two years, including the wonderfully fragrant *Freesia alba* and the rich ruby red of *Babiana villosa*.

We continue to collect seed from a number of different species and will sow them in the fall. Seed from previous years is in various stages, and many items are ready for repotting this summer.

I have had the opportunity to obtain some wonderful bulbs commercially, including *Babiana villosa*, *Freesia alba*, *Babiana odorata*, and some interesting *Gladiolus*. These have been incorporated in our propagation program. Once we have sufficient quantizes of parent stock, these bulbs will also be available for sale from our nursery.

For details on this summer’s bulb repotting activities, check out the story on page 2.

*For reprints of some of my earlier articles on bulb propagation, including a collection of articles on growing *Gladiolus tristis* from seed and an article detailing the technique known as chipping, please drop me an email and I will be happy to forward them to you - LL*

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**Annual Repotting**

Repotting, From Page 2

Plants provide the air we breathe, food, medicine and shelter. In fact, one quarter of all prescriptions written in the U.S. are derived from wild plant species. Yet right now, 29% of U.S. plant species are at risk of extinction, one plant in eight is at risk worldwide

![Embroidery](http://www.gardendigest.com/)

*Photos by Laura Lyons*
**IMPORTANT DATES**

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<thead>
<tr>
<th>DATE</th>
<th>EVENT</th>
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<tr>
<td>July 4</td>
<td>Arboretum Closed</td>
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<td>Independence Day</td>
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<tr>
<td>July 14</td>
<td>Bulb Repotting Day</td>
<td>8:30 a.m. – noon</td>
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<tr>
<td>July 21</td>
<td>Saturday Plant Sale</td>
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**LOOKING AHEAD**

See Season Event Calendar

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**SEASON EVENT CALENDAR**

- August 11: Saturday Plant Sale
- September 22: Saturday Plant Sale
- October 20: Fall Art and Flower
- November 10: Fall Clearance Sale

Saturday Plant Sales are from 9 a.m. to noon.

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**CURRENT VOLUNTEER SCHEDULE**

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<th>GROUP</th>
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<tr>
<td>Nursery</td>
<td>Wednesday 9 a.m. – noon</td>
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<tr>
<td>Orchid Care</td>
<td>Wednesday 9 a.m. – noon</td>
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<tr>
<td>Bulb &amp; Perennial</td>
<td>Wednesday 9 a.m. – noon</td>
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<tr>
<td>California Garden</td>
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<tr>
<td>Herbarium</td>
<td>Thursday 1 p.m. – 4 p.m.</td>
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<tr>
<td>Friday Club</td>
<td>Friday 9 a.m. – noon</td>
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<tr>
<td>Special Events</td>
<td>See Important Dates</td>
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For information on any of these or for general information on volunteering, call Laura Lyons at: 949/824-5833 or e-mail: ldlyons@uci.edu

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**WE NEED**

**USED 1-GALLON POTS**

Drop off by our garage any time we are open, or outside the front gate when we are closed.