



Drummondii

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Photo by Mark Todd

Letter from the Editor

It's spring, according to the calendar, though for many of us there hasn't been much of a winter. Lots of us are seeing flower buds on our *Sarracenia* and soon they will be in bloom and starting to send up the first pitchers of the year. If you're interested in pollinating your own plants and don't know where to start, you're in luck, the next page starts a detailed description on how to successfully get seed out of your plants!

We have been busy so far this year working on a rescue in Florida and getting around for this year's benefit auction (more on those later!). Recently the new website was launched, so if you haven't seen it yet, check it out!

If you have an article you'd like see in *Drummondii*, send me an email at: publicrelations@nasarracenia.org to discuss potential topics or to review your manuscript. I look forward to hearing from you!

Good Growing!

Shane R. Myers

Head of Public Relations and Education



2012 Benefit Auction Information

The dates have been announced for the 2012 Benefit Auction. Bidding begins April 21 and ends May 5, 2012. We have selected Boiling Springs Lakes Preserve in Boiling Springs Lakes, North Carolina as the beneficiary for the auction. As always, the auction is hosted by

www.terraforums.com and www.flytrapshop.com.

Boiling Springs Lakes Preserve is a 6, 942 acre preserve that takes up approximately half of the incorporated area of the town of Boiling Springs Lakes. Managed by The Nature Conservancy, this incredible site owes its existence to a collaborative effort between the North Carolina Department of Agriculture & Consumer Services' Plant Conservation Program, The Nature Conservancy, the City of Boiling Spring Lakes, and the North Carolina Natural Heritage Program.

On this site one can find the federally endangered red-cockaded woodpecker and more than 400 species of vascular plants, including: several native orchids, rough-leaf loosestrife and a variety of carnivorous plants. The carnivorous plants that can be found here are the Venus' flytrap (*Dionaea muscipula*), *Drosera brevifolia*, *Drosera intermedia*, *Pinguicula caerulea*, *Pinguicula pumila*, *Utricularia biflora*, *Utricularia cornuta*, *Utricularia juncea*, *Utricularia purpurea*, *Utricularia subulata*, *Sarracenia flava*, and *Sarracenia purpurea*!

Watch Terra Forums for the list of rules for bidding and donating.

Getting Involved with NASC

I bet you're reading this and wondering how you can get involved with NASC. We actually have lots of options available for you to participate. Firstly, of course, is having a paid membership. You can also donate any amount of money you'd like by visiting our website (www.nasarracenia.org) and clicking on the 'Donate' paypal button. Your money goes directly to our day-to-day function and helps in our efforts to conserve, protect, maintain, and sometimes relocate *Sarracenia*. We have meetings via Skype on Thursday nights at 9pm EST where you can chat with us and share your ideas. Instructions on joining meetings are available on our website under the 'Meetings' tab. There are also several committees you can join, including: PR and Education, Conservation, Distribution, Grower, and Research. Information about these committees, and how to join them can be found under the 'About' tab and clicking on 'Committees'. There are many ways to help and we look forward to hearing from you!

Flower Pollination of *Sarracenia*

Yann J. Rodenas

As most *Sarracenia* enthusiasts will readily admit, the most awaited event of the growing season is the flowering period. Not just to admire the beauty of these uniquely shaped flowers but to hybridize them. The procedures required to complete a successful pollination are somewhat of an art form and require a steady hand in order to prevent unwanted results such as contamination. While there certainly are many different ways to properly pollinate these flowers, the procedures below are simply ones that have proven successful for me over several seasons.

Equipment:

- Mesh fabric
- Twist ties
- Fine paint brushes
- Aluminum foil/ wax paper
- Permanent Marker
- Pencil
- Labels
- Scissors



All of the above materials are available from fabric stores such as JoAnn Fabrics or Michaels. Fine mesh netting is preferable in order to prevent unwanted pollinators while minimizing the weight on the flower especially during heavy rains and spring cold snaps. It is important to remember that *Sarracenia* flowers are protogynous, meaning that the stigma is receptive before the anthers actually release any pollen. This trait can be taken advantage of by using previously collected pollen and pollinating a flower that has been opened for one or two days. During this time frame, pollen from the flower has not yet dropped and accidental self-fertilization is minimized. Netting of the flower can be done upon opening or before (preferred) using an 8in x 8in cutout of fabric. The later will help minimize any unwanted pollinations. Flowers which are bagged prior to opening should not be wrapped too tightly and be given extra netting as the bud will continue to swell with development and petals will emerge. Improperly wrapped flowers will be more difficult to pollinate than loosely wrapped flowers. Upon properly wrapping the flower, twist-ties may be used to secure the netting to the stem of the flower. Be sure to not wrap the tie too tightly and accidentally sever the stem.



Figure 3: Sequence of images showing wrapping of developing flower bud with mesh netting prior to opening.



Figure 4: *Sarracenia* flower exhibiting mature anthers (left) and freshly collected pollen (right) ready for use and/or storage.



Figure 5: Example of improperly wrapped flower buds.

Upon flower maturation, pollen will drop from the anthers unto the style. It is preferable to collect fresh pollen rather than older pollen to ensure viability upon pollination. Collection may be done using a flower or plant specific paint brush and pollen stored in folded aluminum foil or wax paper until desired for use. The foil should be labeled and stored in a fridge to maximize the viability of the pollen. When collecting pollen, it is vital to not touch any of the five receptive stigmas to prevent unwanted self-pollination. To simplify the process, if there are numerous flowers on the plant, it is appropriate to select one or a few and remove the receptive tips of the stigmas and let the flower drop pollen accordingly. Upon collection of the pollen and maturation of receptive flower, pollen may then be collected onto the paintbrush and touched onto the stigmas of the receptive flower.



Figure 6 (above): Receptive *Sarracenia* flower exhibiting unpollinated stigma (left) and pollinated stigma (right).

Figure 7 (right): Example of a successfully pollinated flower.



To assure proper pollination, it is recommended to repeat pollinations two to three times over the course of two to three days. This is particularly important with self-pollinated plants in order to maximize seed setting. Upon successful pollination, the flower ovary will swell, petals drop and flower will tilt. Over the course of the growing season, the seeds will mature and be released in the fall when the flower dehisces. At this point seeds may then be collected and stored or stratified. Seed viability remains fairly high for the first few years but does decline substantially over time. It is personally recommended that seeds should be stratified and sown no later than 3 years after harvest.

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