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Conserving wild flowers and wild places

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Are hawkmoths the mysterious pollinators of the Jamestown lily?

"Hawkmoth flowers are easy to predict but difficult to document," noted botanist Verne Grant in his comprehensive review of hawkmoth pollination systems in North America (*Botanical Gazette* 144: 439-449. 1983). Grant included Jamestown (atamasco) lilies (among other zephyr lily species) as examples of plants that are *probably* hawkmoth-pollinated, but for which the actual pollination mechanism remains undocumented.

The white flowers of atamasco lily are visible in the dim light of evening or on moon-lit nights, the times when hawkmoths are active; the nectar is produced in a floral tube, available to hawkmoths because of their long-coiled mouthparts, but not available to most other floral visitors; and the anthers and stigmas project above the floral tube in a position where a hovering hawkmoth, intent of sipping nectar, could easily pick up or deposit pollen grains.

So, it is a pretty good bet that Jamestown lilies are pollinated by hawkmoths. Many hawkmoths are active in the dim light of evening; indeed, some species are active only at night. Thus, answering the simplest question, whether or not hawkmoths actually visit atamasco flowers, is difficult. Almost a quarter century after Grant's prediction, the pollinator of atamasco lily remains unknown. Here is a case where a simple photograph of a hawkmoth

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Where the water meets the land

VNPS Annual Meeting Sept. 14-16

The John Clayton Chapter will be co-hosting the 2007 VNPS Annual Meeting / Conference this year with the Virginia Institute of Marine Science (VIMS). Chapter Annual Meeting Coordinator Leslie Herman and the committee have been busy planning an exciting weekend of lectures, workshops, fieldtrips, and tours based on the theme "Where the Water Meets the Land." The conference, to be held at VIMS in the city of Gloucester Point, will begin on Friday, September 14 at 1 p.m. and will end on Sunday, September 16.

Speakers and fieldtrips are scheduled for Friday afternoon, including a kayak trip down the Dragon Run led by Teta Kain, a talk and walk at Jamestown Island, a presentation by Wesley Greene, Garden Historian with the Colonial Williamsburg Foundation, and some wonderful presentations offered by VIMS. The annual meeting will

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• SOS

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The aims of the Millennium Seed Bank Project are:

• Collect and conserve 10 percent, over 24,000 species, of the world's seed-bearing flora, principally from the dry lands, by 2010.

• Carry out research to improve all aspects of seed conservation.

• Make seeds available for research and species reintroduction into the wild.

• Encourage plant conservation throughout the world by facilitating access to and transfer of seed conservation technology.

• Maintain and promote the public interest in plant conservation.

• Provide a world-class facility as a focal resource for this activity.

Jan Newton, John Clayton Chapter
Nicky Staunton, VNPS 2nd VP

• Hawkmoths

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hovering over an atamasco lily, with enough detail to permit identification of both the plant and the insect, could make a real contribution to Virginia's natural history. Of course, complete documentation of hawkmoth pollination would require more data, e.g., recovery of atamasco pollen from the bodies of floral visitors, comparison of seed set in visited flowers versus flowers bagged to exclude visitors, recording peak times of nectar production, etc. But a good, clear, photograph would be a great start. Surely someone out there is up for the task of expanding the knowledge base of the VNPS 2007 Wildflower of the Year.

W. John Hayden, VNPS Botany Chair

• Permaculture

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to create sustainable cultivated ecosystems. Participants will learn how to design and build gardens, homes, and neighborhoods that model living ecosystems. The cost for the course is $895, and a few work trade positions are available. Early registration is encouraged as space is limited. Lunches and snacks will be provided. Students will be responsible for their own overnight accommodations off-site, as well as transportation to and from the site. For a list of accommodations close to RVCC, go to http://www.nelsoncounty.com/visit/lodging. For more information visit www.permacultureactivist.net/DesignCourse/PcSyllabus.htm or contact Christine Gyovai at 434-982-6464 or christinegyovai@gmail.com.

VNPS SOS Statewide Workshop and Hands-on Training

WHEN: March 24 full day event 10 a.m.

WHERE: University of Richmond with Andy Walker, NCBG SOS Coordinator

CONTACT: Nicky Staunton at nstaunton@earthlink.net or 540-547-2813 for information or to register.

Former VNPS collectors and those interested in collecting for Seeds of Success will meet for review and update by their SOS American South Atlantic Coast coordinator, Andrew Walker, Herbarium Curator, University of North Carolina at Chapel Hill. To deliver viable seeds efficiently within the protocols, training is necessary. At this workshop we will review the protocols including assessing seed viability, collection methods and shipping. Theory and practice of seed banking will be covered. Then a collection will be attempted to teach participants how to take and record herbarium samples, how to evaluate the amount of seed available and how to collect, record and process appropriate amounts of seed. Please join us for this informative session.