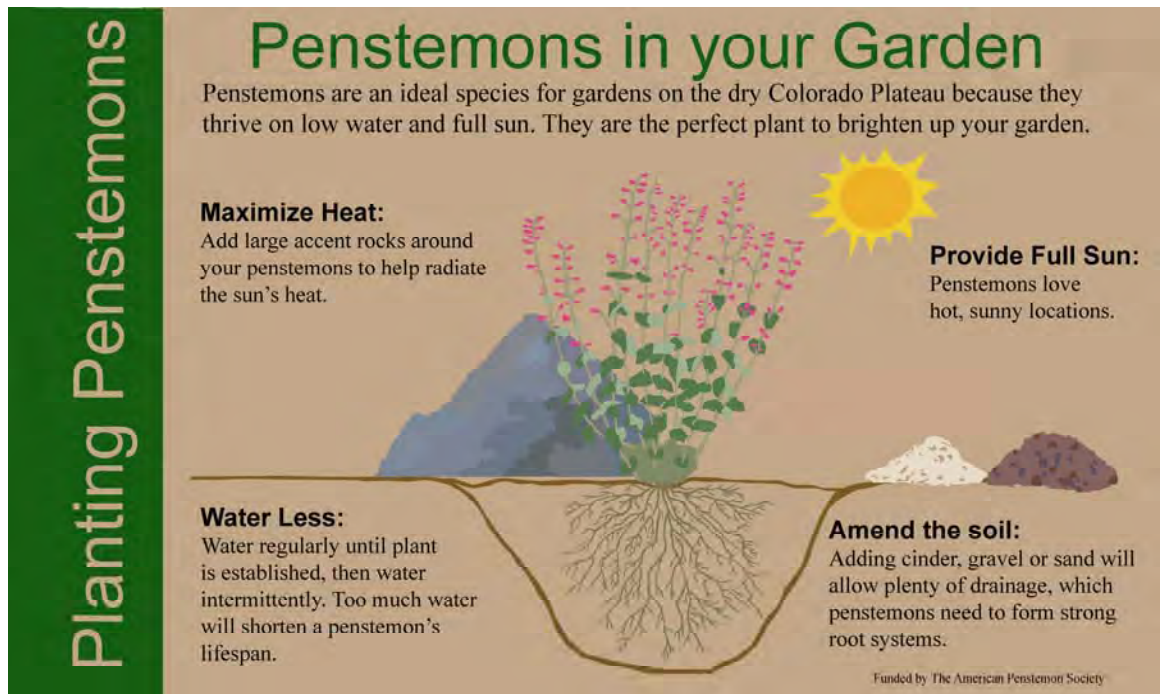


AMERICAN PENSTEMON SOCIETY NEWSLETTER

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Interpretive Sign at the Arboretum at Flagstaff's Penstemon Demonstration Bed
Both the sign and plantings were funded by a 2009 APS Special Projects' Grant

CONTENTS FOR THIS ISSUE

This issue of the newsletter finds us all experiencing winter in some form or another. The Winter Solstice is fast approaching. I hope we collected seeds for our next year's seedlings and to share in the seed exchange. There are reports on the grants given to very deserving projects and funded by American Penstemon Society's Special Projects. The next issue of the newsletter is due to be out in February. The Samhain, Cross Quarter is the 7th of February, right after Ground Hog Day. Anyway, please send Ginny all your articles around that time and be sure to forward this issue to all your friends. For more on the grand octal, equinoxes and solstices check out - <http://archaeoastronomy.com>. The APS 2011 Photo Contest is ongoing and seeking submissions. Bob McFarlane will organize and administer this year's APS photo contest. Please submit photographs (by January 6) to: Bob McFarlane, 5609 S. Locust Street, Greenwood Village, CO 80111, Phone: 303-740-8110, Email: denvrbob@gmail.com. Contact bob for more information and rules. This is a great time to share images we all would like to see. A membership for is in this issue. If you have not done so, please print it out and send in your renewal. Now, get a cup of tea, sit back and peruse.

**Nine Grants Funded
“Something for Everyone”
Photos and Article by Barbara Lewis**

Thanks to a generous increase in funding for the American Penstemon Society’s Special Projects, there will be nine outstanding grants supported in 2011-2012. The grants are as wonderfully diverse as the varied interests of our APS membership.

- Adopt-A-Rare Plant Field Surveys for Rare Penstemon Species in Dinosaur National Monument
Bernadette Kuhn and Peggy Lyon, Colorado Natural Heritage Program
- Grand Canyon National Park Penstemon Information and Visitor Center Planting Project
Janice Busco, horticulturist, Vegetation Program Grand Canyon National Park
- North American Plant Collections Consortium Penstemon Collection Establishment and Designation
Ann DeBolt, Idaho Botanical Garden
- Burlington FFA Cooperative Penstemon Project
Linda Langelo and Lisa Brewer Colorado State University Extension
- Smoke-induced Seed Germination of Colorado Penstemon Species
Dr. Paula Fornwalt
- Taxonomic Status of the Tualatin River National Wildlife Refuge “*P. rydbergii*” a Molecular Genetic Approach
Dr. Dorothy E Tuthill, University of Wyoming and Ginny Maffitt
- Relationships and taxonomic affinities among members of the genus *Penstemon* subsection *Caespitosi*
Aaron Wenzel, Ohio State University
- Blowout Penstemon Visitor Kiosk and Garden
Leslie Stewart-Phelps, US Forest Service
- A Horticultural Inquiry into Penstemons of the Southern Colorado Plateau
Whitney Rooney, The Arboretum at Flagstaff

More About the Grants



Penstemon scariosus

Adopt-A-Rare Plant Field Surveys for Rare Penstemon Species in Dinosaur National Monument

Focus: *rare and endangered penstemons*

This grant will support a long overdue field survey of five rare penstemons in Dinosaur National Monument. All of them lack the kind of up-to-date information

needed to evaluate their long-term needs. Of particular concern is *Penstemon scariosus* var. *cyanomontanus*. Dinosaur National Monument supports nearly all of its known populations, yet occurrence records have not been updated for 20 years. The other rare penstemons to be surveyed are: *Penstemon gibbensii*, *Penstemon angustifolius* var. *vernalensis*, *Penstemon grahamii*, and *Penstemon yampanensis*.

The penstemon survey will be done in cooperation with the Colorado Natural Heritage Program, Colorado Native Plant Society and Denver Botanical Gardens.

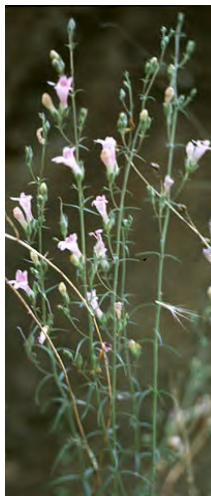


Penstemon barbatus

Grand Canyon National Park Penstemon Information and Visitor Center Planting Project

Focus: *Reaching the public*

How many Americans would have no answer to the question “What is a penstemon?” How many of us in APS have scratched our heads wondering how to reach and teach more people about our all-American plant genus *Penstemon*? This grant launches one approach with the goal of reaching many of the three million people who visit the Grand Canyon Visitor Center Plaza on the South Rim each year. The main approaches include establishing a display garden with educational materials and developing a web page about Grand Canyon penstemons (www.nps.gov/grca/naturescience/index.htm.) as well as produce a PowerPoint presentation on Grand Canyon penstemons. Information about the American Penstemon Society will be included with the materials.



Penstemon triphyllus

North American Plant Collections Consortium Penstemon Collection Establishment and Designation (Idaho Botanical Gardens in Boise)

Focus: *Reaching the public*

And while we are on the topic of reaching and teaching the public about all things Penstemon, here is a fine grant that also does just that. The Idaho Botanical Gardens (IBG) has been invited by the North American Plant Collections Consortium (NAPCC) to establish a Penstemon collection. This will be a first; currently there is no NAPCC sanctioned Penstemon collection in North America. APS funding will help to finance this first collection. IBG, thanks to the efforts of member Ann DeBolt, already has an impressive display of 21 penstemon species in their informal garden. The Gardens also already sponsor a course entitled, “A Passion for Penstemons.” Clearly IBG was the perfect choice by the NNAPCC for establishing a Penstemon collection site. The grant will also include the further development of educational materials for classes and for the garden’s website.

This project's completion will be ready for us to see at the time of our annual meeting in 2013.



Penstemon grandiflorus

Burlington FFA Cooperative Penstemon Project

Focus: *Reaching students and the public; model of cooperative effort*

This grant, now entering its third year of APS funding, is a wonderful example of the power of partnering and the energy and creativity of the two people receiving the grant funds. It is an outgrowth of the energy and creativity of a Colorado State University Extension Agent and a Master Gardener, their work with high school students (Future Farmers of America), and collaboration with a local nursery.

This year FFA students, now experienced in germinating penstemons in the high school's greenhouse, will develop and distribute educational materials about germinating and growing penstemons. These materials will reach other students in Burlington schools as well as the public. These students will also expand their collaborative relationship with a local nursery; together they will host workshops on penstemons and other natives of the area. There are also plans to have penstemon displays at Community Night in nearby Holyoke, the Kit Carson County Fair, and the Burlington Garden Show. Further, the FFA students will provide penstemon plants for the general public.

This is a fabulous model of what could be done in other areas of the country. We encourage Ms. Langelo and Ms. Brewer to give presentations about their model "reach and teach" program.



Penstemon pachyphyllus

Smoke-induced Seed Germination of Colorado Penstemon Species 120

Focus: *improving germination rates; interface of science and the gardener*

Here's a grant many of us will be watching closely. Earlier studies report that Regen 2000 (a smoke compound) enhances germination in several penstemon including *P. barbatus*, *pachyphyllus*, *palmeri*, *rostriflorus*, *virgatus*, *glaber* and *centranthifolius*. The work to be done in this grant will test the efficacy of Regen with several penstemons native to Colorado.

Dr. Fornwalt, using a controlled experimental design and appropriate statistical analysis will examine "the effects of smoke versus no smoke on non cold-moist stratified seeds in

one experiment and then again in a separate experiment, on cold-moist stratified seeds.” She explains that “results will benefit the American Penstemon Society members, as well as land managers, scientists and others by providing them with a clearer understanding of smoke’s role in penstemon germination ecology. Our results may also be of practical use to horticulturists who wish to germinate penstemons for commercial purposes.

We are hoping for positive outcomes and that Dr. Fornwalt will provide the American Penstemon Society with guidelines for the use of Regen 2000.



Penstemon rydbergii oreodcharis or perhaps a new species?

Taxonomic Status of the Tualatin River National Wildlife Refuge “*P. rydbergii*” a Molecular Genetic Approach

Focus: *rare and endangered penstemons; confirming a new species*

How often is a new species of penstemon discovered? This grant will support the final step in confirming that indeed, the penstemon spotted by our member Ginny Maffitt, is the first new species of penstemon discovered in the 21st century. This final step will pave the way for management decisions for this rare penstemon, apparently closely related to *P. rydbergii* var *oreocharis*.

Dr. Tuthill, generously giving of her time at the Berry Biodiversity Conservation Center at the University of Wyoming, has already conducted the preliminary research -- a rigorous process necessary for confirming a new species. APS is delighted to provide support to enable her to complete the process.

We all look forward to hearing about her findings.



Penstemon thompsonii

Relationships and taxonomic affinities among members of the genus *Penstemon* subsection *Caespitosi*

Focus: *cutting edge botanical research addressing classification for species now in subsection *Caespitosi**

Some of us are drawn to the classification system for *Penstemon* species within the genus *Penstemon*. We derive pleasure from learning the classifications and their characteristics. But don’t count on it being a static system. What you learn today may not be “true” tomorrow! All is not quiet on the “classification front.” In fact it might be said that there is a “revolution” in progress. Up until fairly recently the classification of penstemons relied upon the judgment of the botanist, his/her observations of the morphology of the flower and plant. However, what we see

with our eyes does not tell the whole story and now that scientists can conduct DNA analyses of plants, it seems clear that several penstemons have been sorted incorrectly. Some of the botanists that are now doing DNA analyses of penstemons, based on their research findings, are proposing modifications of the current classification system. Among this group of scientist is our esteemed Vice President, Dr. Andrea Wolfe.

Aaron Wenzel, a graduate student at Ohio State University working with Dr. Wolfe, is planning to examine then evaluate the taxonomy of subsection *Caespitosi*. His grant from APS will help support his fieldwork. Aaron cites Robert Nold's description of the classifications within subsection *Caespitosi* as they now stand (*albietinus*, *acaulis*, *caespitosus*, *crandallii*, *glabrescens*, *procumbens*, *ramaleyi*, *retrorsus*, *teucroides*, *thompsoniae* and *tusharensis*, "The taxonomy of this group has often been recognized as confusing and the result of 'excessive lumping,' i.e. placing several variable varieties into the same species.

Aaron's work is an enormous and worthwhile undertaking, one of which APS is proud to be a part. We wish him well.



Penstemon haydenii

Blowout Penstemon Visitor Kiosk and Garden

Focus: *Reaching the public*

Many of us know about *Penstemon haydenii* which "...is the only federally endangered plant species in Nebraska and is the rarest endemic plant in the northern Great Plains." But how well informed is the general public? The answer is, soon the public will know more.

Plans are being made to educate the public about *haydenii* using an educational kiosk at one of the primary sites where it blooms. This grant will help fund the development of this kiosk and garden. The kiosk will be easily available to visitors enjoying the Nebraska Sand Hills within the Bessey Ranger District. What could be a better introduction to the world of penstemons! And who knows? This experience may provide a portal to interesting folks in APS membership.



Penstemon utahensis

A Horticultural Inquiry into Penstemons of the Southern Colorado Plateau

Focus: *rare and endangered penstemons*

We all recognize the importance of field studies for documenting locations of penstemons, particularly with respect to the identification and protection of rare and endangered species. Good field studies provide the bedrock foundation upon which management plans can be developed to help preserve these species.

One such study is being planned by The Arboretum at Flagstaff for the Southern Colorado Plateau in northern Arizona. Presently there is relatively little information available about penstemons in this lovely and wild area; and some of the information is incorrect. It is clear that the status of penstemons in the Southern Colorado Plateau must be re-studied and the sooner the better. Funds from our grant will help pay a small part for this very important project. We wish them the best.

APS Annual Meeting 2012
By Hugh Mac Millan

Save the Date!

Where; Laramie, Wyoming and the high Laramie Plains.

When; June 22-24, 2012



Penstemon secundiflorus

Robert Dorn

What; The Laramie plains include a host of beautiful penstemons, including *Penstemon eriantherus* v. *eriantherus*, *P. secundiflorus*, *P. virens*, *P. radicosus*, *P. angustifolius* (may be gone

by), *P. glaber* v. *alpina*, *P. strictus*, *P. whippleanus*, *P. procerus*, *P. rydbergii* (and *P. laricifolius* v. *exilifolius* in bloom only if we're lucky).

After long drives, *P. gibbensii*, *P. laricifolius* v. *laricifolius*, *P. cyathophorus*, *P. caespitosus*, *P. haydenii* and possibly *P. albidus* may be seen as well.

Some other plants we hope to see: *Sphaeromeria simplex* (Laramie false sage), *Aquilegia laramiensis*, *Eriogonum acaule*, *E. exilifolium*, *Astragalus tridactylus*.

We plan on day long field trips to the Snowy Mountain Range of the Medicine Bow mountains and Highway 34 through Sybille Canyon. We will also offer two shorter, self guided trips in the Laramie area. Those shorter trips will be along Highway 287 to the Colorado border and to Hutton Lake, a treasury of 'bun' plants. Our field trips will be guided by members of the Wyoming Native Plant Society and local botanizers.

An 'after the event' trip is planned to see the Blowout Penstemon (*P. haydenii*) in the sand dunes north of Sinclair, Wyoming, on Monday, June 25.

Our basis of operation will be the University of Wyoming campus in Laramie. The Berry Biodiversity Center is the main building wherein we will have speakers and meetings. This is a very new, modern facility with a green roof.

Who; This event will be open to APS members and this year we are also inviting members of the Wyoming Native Plant Society to join us. Registration details will be available on the APS website very soon.

Much more detail will be forthcoming both on the web and in our next newsletter.

NEW APS MEMBERS

OCTOBER THROUGH NOVEMBER 2011

We are happy to welcome the following new members to APS. John Wickham, a new member from Los Angeles, has wasted no time in becoming a Life Member! Thanks, to all 6 new members, from all of us.

Peter George, Petersham, MA

Mark Trivier, Haut-le-Wastia, Belgium

Steve Law, West Sussex, UK

John Wickham, Los Angeles, CA - Life

Becky Richards, Missoula, MT

Terrie Woodrow, Scotland, Ontario

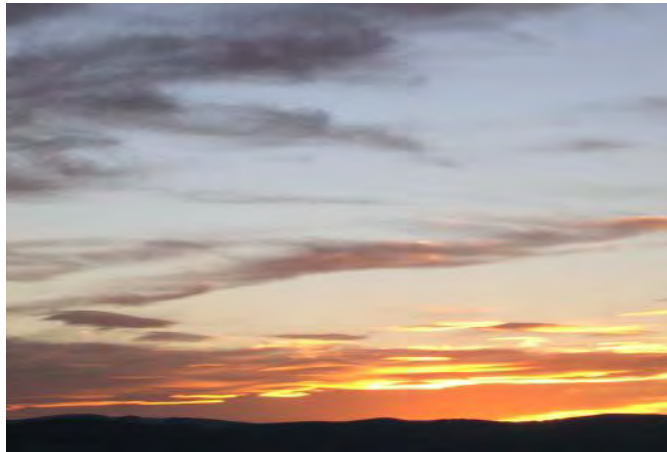
DOROTHY TUTHILL, NEW SPECIAL PROJECTS COORDINATOR

Dorothy Tuthill of Laramie Wyoming, has become the new Special Projects Coordinator. This means she will be in charge of the APS grant program which was started under Bob McFarlane's presidency and run by Barbara Lewis until this fall. Dorothy has a PhD from The University of Wyoming Department of Botany, with a specialty in soil microfungi. Currently, she works in the interdisciplinary Berry Biodiversity Conservation Center at UW, where a major part of her job is biodiversity science outreach education to middle and high school students and their teachers. There will be more information in the next newsletter--specifically, changes in the proposal submission deadline to better accommodate summer projects. Her contact info is "Dorothy E. Tuthill" <dtuthill@uwyo.edu>.

APS GOES DIGITAL IN 2012 – A REMINDER

Val Myrick, APS President, Sonora, California

For those who still receive the newsletter through the US Mail, please be sure to contact Phoebe McFarlane, our membership co-chair (APS.Membership@yahoo.com or (303) 740- 8110), to let her know where your emailed newsletter should be sent. If you do not have a friend or relative willing to print out your newsletter, you can go to your library and view it on our website, APSdev.org. If you have only seen the printed version of our newsletter, you'll be surprised and delighted by the color and clarity of our electronic version.



Sunset over Snowy Range, Taken from the Overland Trail Marker, west of Laramie, Wyoming.

Membership renewal

The American Penstemon Society involves almost 300 penstemon aficionados world-wide, many of whom will enjoy meeting and traveling to Laramie, Wyoming for our annual meeting on June 22-24, 2012. Dues include our newsletter, annual bulletin, and the annual seed exchange. Dues run on a calendar basis, renewed at the first of each year.

US and Canadian dues \$15 US; elsewhere \$20 US. Dues for students are \$5. Life Membership is \$150. In addition, members may pay two years in advance and receive the third year free. Please do not send cash.

You may pay either by check or by PayPal on our website at www.apsdev.org. Make checks payable to American Penstemon Society. Mail to:
Dale Lindgren/Phoebe McFarlane, Membership Secretaries
9202 Maloney Drive, North Platte, NE 69101



If you wish to contact Dale Lindgren and/or Phoebe McFarlane, they can be reached at aps.membership@yahoo.com. Please update any current info with new phone numbers or e-mail addresses. Thanks for your enthusiastic support of the Society.

Name- _____

Address- _____

Phone #- _____

E-Mail- _____

We do not sell, share or distribute member data in any manner.

POSITIONS OF RESPONSIBILITY 2012

APS Officers and Board Members for 2012 are listed below. They represent eight different states and The Netherlands. We appreciate their willingness to serve and hope that the membership will help them out when asked.

President: Val Myrick vkmyrick@pacbell.net

Vice President: Andrea Wolfe wolfe.205@osu.edu

Treasurer: Mary Cunningham APS.Treasurer@yahoo.com

Membership: Dale Lindgren and Phoebe McFarlane APS.Membership@yahoo.com.

Board Position 1: Libby Wheeler glwheel@prodigy.net

Board Position 2: Eric Gouda_e.j.gouda@uu.nl

Board Position 3: OPEN

Seed Exchange: Louise Parsons parsonl@peak.org

Bulletin: Steve Love slove@uidaho.edu

Website: Hugh MacMillan humanator@yahoo.com

Auditor: Ed Godleski e.godleski@csuohio.edu

Nominating: Dallas and Sharon Boge dalboge@juno.com

Special Projects: Dr. Dorothy E Tuthill, DTuthill@uwyo.edu

Membership Marketing: OPEN

Past President: Bob McFarlane denverbob@aol.com

Historian: Dale Lindgren dlindgren1@unl.edu

Registrar of Cultivars and Hybrids Dr. Dale Lindgren, dlindgren1@uni.edu

Librarian: Dr. Stephen Love, slove@uidaho.edu

Custodian of Slide Collection: Dr. Dale Lindgren, dlindgren1@unl.edu

Digital Newsletter : Ginny Maffitt, maffitt6540@comcast.net

The next issue of this newsletter will be out in February and will be edited by Ginny Maffitt. Ginny will do a great job. I have enjoyed honing my digital cutting and pasting skills. Hope to see you all on the Laramie Plains in June. Bring a coat. Mike Evans

