

COLORADO NATIVE PLANT SOCIETY

NEWSLETTER

Volume 10, Number 5

November 1986

"DEDICATED TO THE APPRECIATION AND CONSERVATION OF THE COLORADO FLORA"



A CALL FOR ARTEMISIA SEED

Researchers at Walter Reed Army Hospital are currently conducting investigations into the anti-malarial properties of extracts from Artemisia species. Fresh plant materials for sampling are being grown at the Denver Botanic Gardens and other locations from seed offered by other botanic gardens throughout the world.

Native to the dry steppe regions of the world where neither botanic gardens nor collectors abound, it is understandable why this project is a massive one and that only 70 Artemisia species have been sampled to date out of the 250 to 400 worldwide species.

Your help in gathering seed of all species, subspecies, and varieties is requested. Only enough seed to grow 25 plants is needed and the correct identification of the plant is not absolutely necessary. Identification can be made at a later date upon blooming in the greenhouse. Unidentified seed should be accompanied, however, with good information regarding collection site (e.g., state, country, elevation, etc.).

Please send to:

Jim Borland
Plant Propagator
Denver Botanic Gardens
909 York Street
Denver, Colorado 80206



*Artemisia
tridentata*

CALENDAR

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|---------|--|
| Nov. 22 | Pteridophyte Identification
Workshop: Mr. Peter Root |
| Jan. 17 | Parasitic and Saprophytic Plants
Workshop: Dr. Frank Hawksworth |
| Feb. 7 | Ecology of Wetlands
Workshop: Mr. Steve Dougherty |
| Feb. 28 | Selected Woody Genera in Rosaceae
Workshop: Ms Gayle Weinstein |
| Mar. 21 | Propagation of Colorado Native Plants
Workshop: Jim Borland |

HELP WANTED

Your editors need your help. We need informational articles, filler material, etc. for the newsletter. If you have visited a particularly botanically interesting area this past summer or fall, send us a short article on it for us to share with other members. Field trip participants, send us short articles on the field trips you enjoyed this summer. Anyone, send us material for the newsletter. Thanks.

We have received a number of suggestions for a new name for the newsletter. We plan to make a final decision at the November Board meeting, so we will start the new year off with a "new" newsletter. Thanks for your suggestions.

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To the Editor:

On the subject of Paxistima vs Pachystima, I would like you to publish this portion of a letter to me from Dan H. Nicholson, Dept. of Botany, Smithsonian Institution, June 13, 1986.

Sincerely,
William Weber

"I looked into the Paxistima vs Pachistima Raf. question a bit. According to Merrill (Index Raf.) there were three early publications of 'Pachistima' Raf., all as nomina nuda: Ann. Monthly Mag. Crit. Rev. 2: 176. 1818; op. cit. 4: 191. 1819; and J. Phys. Chem Hist. Nat. 89: 257. 1819. These publications are not easily available to me but I have no reason to doubt Merrill's report.

In the first valid publication (Sylva Telluriana 42. 1838) he used Paxistima three times (including the index). The only evidences that Rafinesque used Greek letter

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chi, instead of transliterating it as ch, are (1) as your colleague suggested, that he must have meant pachi- (thick, a variant of pachy-), since 'paxi' is meaningless and the preceding invalid usages. Indeed, Endlicher accepted "Pachistima".

My feeling is that one should stick with what an author did, not climb on to the slippery slope of trying to guess what an author intended. For example, -stima, is also meaningless and Rafinesque probably meant -stigma. 'Pachystima' was accepted by Meissner (1843), later than Pachystigma Hochstetter (1842, Rubiaceae).

In this case, as sometimes happens, the more tinkering with the original spelling one gets into, the more likely one gets into problems affecting other names.

Article 20.1 states: "It (a name of a genus) may be taken from any source whatever, and may even be composed in an absolutely arbitrary manner."

I would be inclined to stick to the spelling used at the point of first valid publication, ignore the earlier invalid publications, and not begin 'correcting'. Rafinesque, admittedly mercurial, was composing many names and was undoubtedly trying to avoid homonymy (no Index Kewensis was available then) and may well have shifted the spelling to avoid potential homonymy. The fact that his final spelling is meaningless is not as important as the fact that it really is a different name and, at his time, was an improbable later homonym.

Rather than second-guess what he may have intended or meant to do, the easiest course is to accept what he did."

TENTH ANNUAL MEETING

The tenth Annual Meeting was a huge success with just under one hundred people attending. It was held at the University Park Holiday Inn in Fort Collins, Colorado, and hosted by the Fort Collins Chapter.

The morning events began at nine o'clock with two tours. Tour #1 visited xeriscape gardens in which many native plants are integrated with other drought-tolerant species. Tour #2 went to the Tissue Culture/Seed Lab on the Colorado State University campus to see the Tissue Culture for Crops Project, an international program, and the U.S. Department of Agriculture's National Seed Storage Laboratory.

A film session was held at ten o'clock at the University Park Holiday Inn with "The Garland of Generations", a Center for Plant Conservation and Garden Club of America slideshow. This show focuses on conservation of rare and endangered plants throughout the country. "The Garden of Eden" a Nature Conservancy film showing plant diversity and the rationale for preserving that diversity, was also shown.

At eleven o'clock, the group heard Dr. Holmes Rolston III, Professor of Philosophy from Colorado State University, speak on the topic, "Why Preserve Rare Plants? The Philosophical Considerations of Endangered Species". Steve O'Kane, Botanist from the Colorado Natural Areas Program, then discussed "Colorado's Rare Plants and Their Habitats".

After a delicious luncheon at the Holiday Inn, the participants reassembled to hear Dr. Dieter H. Wilken, Professor of Botany at Colorado State University, give a "Ten Year Retrospective of the Society" after which he was presented with an honorary life membership in CONPS for his outstanding contributions in furthering the knowledge of Colorado Flora.

Three speakers followed who continued on the theme of the day.

Sue Galatowitsch, Ecologist from the Colorado Natural Areas Program, spoke about "Protecting Rare Plants in Colorado"; Betsy Neely, a consulting Botanist, discussed her research with the rare plant, Braya humilis ssp. ventosa, and Don Falk from the Center for Plant Conservation spoke on "The Center for Plant Conservation: Building a Living Collection of Endangered Plants".

An election was held to fill the five Board of Director's positions being vacated by Bill Jennings, Velma Richards, Ann Cooper, Scott Ellis, and Anna Thurston. We appreciate the service these people have given to the Society and wish them well. Jim Borland, Mark Galatowitsch, Elizabeth Otto, Velma Richards, and Dr. Doug Ripley were elected to fill the vacancies. Congratulations to each one of them.

During the afternoon break, there was time for visiting, seeing exhibits and sales items, viewing some of the slides being assembled for the monograph of Colorado rare Plants, and for enjoying coffee, cider, and cookies.

The final session of the day began with Ann Cully, Planner and Botanist from the New Mexico Department of Natural Resources, who spoke about "Obtaining Rare Plant Legislation: The New Mexico Experience". David Kuntz, Director of the Colorado Natural Areas Program, spoke on "Prospects for Rare Plant Legislation in Colorado". Concluding comments were then made by Dr. Sue Martin who is the Conservation Chair for CONPS.

This meeting was one of the highlights of the ten year history of the Society and provided much food for thought and stimulus for action. A big thank you goes to the Fort Collins Chapter for planning such an outstanding meeting.

Eleanor Von Bargen
President

CONPS Workshops

Sat., Nov. 22, 1986
Pteridophyte Identification
Leader: Mr. Peter Root

Pteridophytes are the ferns and similar plants which are often called fern allies. The main emphasis of this workshop will be identification of pteridophytes from various parts of the United States. The relationships of the various groups will also be discussed. Participants should have a copy of John Mickel's How the Know the Ferns and Fern Allies. This can be ordered when registering. This workshop will be held at the Denver Botanic Gardens. Registration fee: \$8 (members) \$16 (non-members).



Sat., Jan. 17, 1987
Parasitic and Saprophytic Plants
Leader: Dr. Frank Hawksworth

Parasites like mistletoes and broomrapes derive their nourishment from other living plants. Saprophytes like pinedrops live off decaying plant material in symbiosis with fungi. Dr. Hawksworth, who has published extensively on the mistletoes, will cover these plants plus broomrapes, dodders, and the saprophytic genera in the Orchidaceae and Ericaceae. To be held at the US Forest Service, Fort Collins. Registration fee: \$8 (members); \$16 (non-members).

Sat., Feb. 7, 1987
Ecology of Wetlands
Leader: Mr. Steve Dougherty

Wetlands are extremely important for many reasons, not just botanically or zoologically. Steve will explain just what is really meant by the broad term wetland, why they are so vital, and what plant associations are present. To be held at the Denver Botanic Gardens. Registration fee: \$8 (members); \$16 (non-members).

Sat., Feb. 28, 1987
Selected Woody Genera in Rosaceae
Leader: Gayle Weinstein

This workshop will focus on the winter identification of woody plants in the Rose family. Examples include: Cowania, Fallugia, Chamaetataria, Purshia, Cercocarpus, Prunus, Paraphyllum, and Ame-lanchier. These genera are important components of western plant communities. Registration fee: \$8 (members); \$16 (non-members).



Cercocarpus montanus

Sat., March 21, 1987
Propagation of Colorado Native
Plants

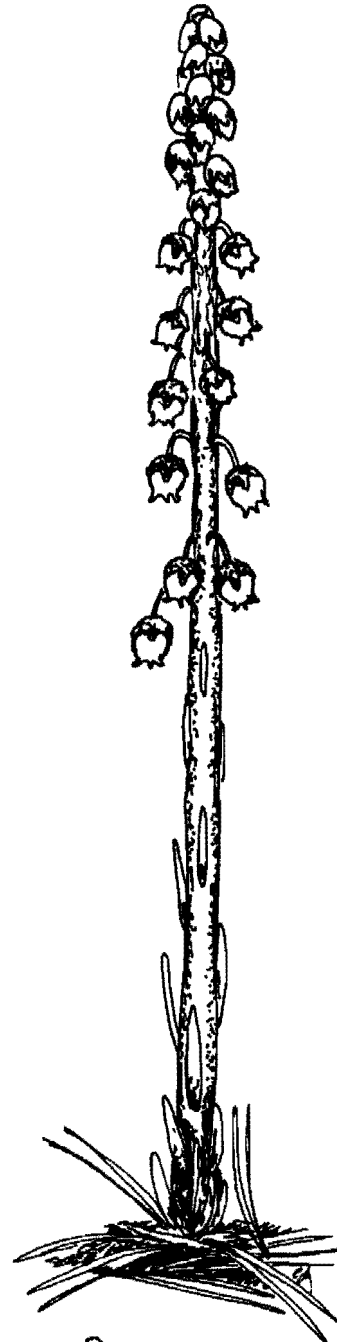
Leader: Jim Borland

Starting native plants from seeds and cuttings is not a secret known only to a select few nurseypeople and greenthumbers. Special techniques and procedures for starting native seed will include descriptions and demonstrations of stratification, scarification and after-ripening processes to overcome dormancy problems. Many of our alpine-to-desert species can also be easily propagated by the same cutting techniques used for African violets and philodendrons. This workshop will be held at the Denver Botanic Gardens. Bring: knife, pruners or scissors, fingernail file, large zip-lock bags and a large dose of inquisitiveness. Registration fee: \$8 (members); \$16 (non-members).

To register, contact CONPS workshop coordinator, Bill Jennings, 360 Martin Drive, Boulder, 80303, 494-5159. Please register promptly as workshops tend to fill up fast. You may pay in advance or at the workshop as you wish. Registrants will be notified by mail about two (2) weeks prior to the workshop regarding final location, time, lunch, suggested references, etc. Be sure to include your mailing address and phone number if you mail in your registration. Cancellations sometimes create openings, so check with Bill a few days before the workshop if you want to try to register at the last minute.

Workshops scheduled for March, April and May 1987 will be announced in later newsletters.

Please let us know how you like the workshops and field trips we plan. We need your suggestions for others as well as your feedback on whether you enjoyed them, found them informative and exciting or dull and nothing new. Send us feedback! We need to know if we are serving you, our members, the way you wish. Thanks.



*Pterospora
andromeda*

TROPICAL RAINFORESTS:
STRATEGIES FOR WISE MANAGEMENT
A Four Day Conference

The University of Colorado will host a conference on tropical rainforests February 5 - 8, 1987. The four-day conference will bring together many of the world's leading rainforest experts to discuss ways of better managing this irreplaceable resource.

Keynote speakers will be David Brower of Earth Island Institute and Catherine Caulfield, author of In the Rainforest. Other speakers include Ghilleen Prance of the New York Botanical Gardens, Bruce Rich of the Environmental Defense Fund, Judy Gradwohl of the National Zoological Park, Shelton Davis of the Anthropological Resource Center, and many others.

Topics to be covered include: biological diversity, indigenous peoples, international consumerism, climatic effects, international lending policies, and the impact of economic activities such as cattle ranching, colonization, and dam building.

The goal of the conference will be to educate participants on the problems of rainforest management and to provide a context for policy solutions and outlets for activism.

Sponsors of the conference to date are: the University of Colorado Environmental Center, the Kuja Sni Research Group, the CU Departments of Biology, Geography, and Anthropology, the Rainforest Action Network, and the New York Botanical Garden.

Registration fees are: individuals: \$15/day; \$30/four days. representatives of groups: \$30/day; \$60/four days.

For more information, contact the CU Environmental Center, UMC 331A, Campus Box 207, University of Colorado, Boulder, Colorado 80309, 303-492-8308.



BOOK REVIEWS

North American Range Plants Third Edition
By J. Stubbendieck, Stephen L. Hatch, and Kathie J. Hirsch
Lincoln, NE: University of Nebraska Press
1986 465 pp. \$18.95

This book is a guide to 200 plants that are particularly significant for their abundance, desirability as forage, or noxious properties. The species included are those on the Master Plan List for the International Range Plant Identification Contest sponsored by the Society for Range Management.

A brief, illustrated guide to the identification of range plants is given at the beginning of the book. Ninety-four grasses and one hundred-six forbs and woody plants are described in detail.

The species descriptions include nomenclature, life span, origin, season of growth, and inflorescence, vegetative, and growth characteristics. Brief notes are given on habitat, estimated forage value, livestock losses, and historic, food, and medicinal uses. The descriptions also include characteristics for their identification, a full-page drawing of the plant or enlarged plant parts including the ligule, and a general distribution map for North America. These illustrations are beautifully done.

James Stubbendieck is a professor of agronomy at the University of Nebraska-Lincoln. Stephen L. Hatch is an associate professor and curator of the Tracy Herbarium in

the Department of Range Science at Texas A & M University. Kathie J. Hirsch is an environmental scientist with the Reclamation Division of the North Dakota Public Service Commission.

review by Eleanor Von Bargaen

Flora of the Great Plains
By The Great Plains Flora Association
Lawrence, KS: University of Kansas Press
1,400 pp.

This volume is the only up-to-date floristic treatment in existence for the Great Plains area. Founded on a massive specimen collection program, it is a definitive compendium of information about the vascular plants that occur spontaneously in Kansas, Nebraska, North and South Dakota, eastern Montana, Wyoming, and Colorado; northeastern New Mexico; the Texas panhandle; northwest Oklahoma; and western Missouri, Iowa, and Minnesota. Included are general keys, descriptions, statements of range, flowering times, ecological data, and relevant synonymies (sic) for every flowering plant, conifer, and fern known to occur in the region.

review from book jacket
(available on loan from the Denver Botanic Gardens library)

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	OFFICERS	
President	Eleanor Von Barga	756-1400
Vice-President	Steve O'Kane	744-2479
Secretary	Meg Van Ness	279-2569
Treasurer	Myrna P. Steinkamp	226-3371

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Eleanor Von Barga (87)	Denver	756-1400

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Boulder	Virginia Crosby	666-5303
Denver Metro	Peter Root	433-9340
Ft. Collins	Carol Brandt	484-9251

SCHEDULE OF MEMBERSHIP FEES			
Life	\$250.00	Family or Dual	\$12.00
Supporting	50.00	Individual	8.00
Organization	25.00	Student or Senior	4.00

Please direct all other inquiries regarding the Society to the SECRETARY in care of the Society's mailing address.

COMMITTEES		
Conservation	Sue Martin	226-3371
Editorial	Peter Root	433-9340
Education	Miriam Denham	442-1020
Field Trips	Nevin BeBee	733-1038
Florissant	Mary Edwards	233-8133
Horticulture & Rehabilitation	Gayle Weinstein	333-3024
Membership	Myrna Steinkamp	226-3371
Publicity	-----	
Workshops	Bill Jennings	494-5159

NEWSLETTER CONTRIBUTIONS
Please direct all contributions to the newsletter to
Peter Root
4915 West 31st Avenue
Denver, CO 80212
Deadlines for newsletter materials are one month prior to publication dates, which are January 15, March 15, May 15, August 15, and November 15. There is a special need for short filler items such as some unusual information about a plant, a little known botanical term, etc. Please include author's name and address, but items will be printed anonymously if requested.

MEMBERSHIP RENEWALS AND INFORMATION
Please direct all membership applications, renewals and address changes to the MEMBERSHIP chairperson, in care of the Society's mailing address.

RETURN AND MAILING ADDRESS
Colorado Native Plant Society
P.O. Box 200
Fort Collins, Colorado 80522

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PAID THRU 1986

COLORADO NATIVE PLANT SOCIETY MEMBER RENEWAL NOTICE AND SURVEY, 1987

Membership in ConPS is on a calendar year basis, January 1 through December 31. Your address label in the upper right corner shows the year through which your dues are paid. If you have not paid THRU 1987, please enclose this form with your renewal. All members including "Life" and "1987" are asked to complete and return the survey. Thanks!!

NAME(S) _____

MEMBERSHIP CLASS

ADDRESS _____

INDIVIDUAL, \$8

(ADDRESS) _____

FAMILY/DUAL, \$12

CITY _____ STATE _____ ZIP _____

SENIOR/RETIRED, \$4

STUDENT, \$4

PHONE _____ NEW MEMBER _____ RENEWAL _____

CORPORATE, \$25

SUPPORTING, \$50

LIFE, \$250

I WISH TO BE A MEMBER OF THE FOLLOWING CHAPTER (mark one only):

_____ BOULDER _____ COLO. SPRINGS _____ FT. COLLINS _____ FOUR CORNERS _____ METRO DENVER

I would give a Chapter program on _____, or lead a local trip to _____.

In addition to my membership, I wish to donate \$_____ to further the purposes of the society. ConPS IS A NON-PROFIT ORGANIZATION; DUES AND CONTRIBUTIONS ARE TAX-DEDUCTIBLE.

***** PLEASE DO NOT DETACH *****

1. There are occasional vacancies on the Society's standing committees. Please indicate your interest in possible committee service. (Information on duties can be obtained from the committee chairperson, listed in the newsletter, c/o the Society address.)

CONSERVATION

_____ Reviewing governmental documents, EIS, etc.

_____ Representing ConPS to other conservation groups

_____ EDITORIAL (Newsletter)

_____ Art Work for Newsletter or other publication

_____ EDUCATION (see #5 below)

FIELD TRIPS

_____ FLORISSANT

_____ HORTICULTURE & REHAB.

_____ MEMBERSHIP

_____ PUBLICITY

_____ WORKSHOPS

2. Would you consider running for the Board of Directors? _____ Yes _____ No

3. The field trips committee welcomes suggestions for field trips---let's have yours!

Location: _____

Plants of special interest in the area: _____

Best flowering dates or period: _____

Time needed to see area: (1/2 day, day, wkend, longer?): _____

I am willing _____ to lead, or _____ to help organize this trip. (If you are unable to lead, suggest leader(s) who might be willing: _____)

4. The newsletter editor solicits contributions by members. Anything that might be of interest to native plant lovers is wanted.

I could contribute an article or note on: _____

Any suggestions re the newsletter? _____

5. The Education Committee is working on a slide program, "Life in an Aspen Grove."

Could you _____ donate original slides (not duplicates) on this subject, or help as

_____ a driver or _____ a photographer to explore aspen groves this year, or _____ help

write/assemble the program? (For info, contact Miriam Denham, 442-1020 in Boulder.)

6. CONPS should sponsor a workshop on _____ (topic, plant taxon, etc.)

Your comments and suggestions are always welcome. What are we not doing that should be done, and vice versa? What could be improved? (Please use the back of this sheet for potshots or praise!)

COLORADO NATIVE PLANT SOCIETY
BOULDER CHAPTER

CALENDAR

- Tuesday, November 11 COMPARISON OF THE BIOLOGY OF THREE RARE
AND THREE WIDE SPREAD SPECIES OF MILKVETCH.
Jeff Carron, of the EPO biology Department
at CU, will discuss his findings on
the reproduction ecology and genetics
of several species of Astragalus
(milkvetches).
Time: 7:30 pm
Place: Foothills Nature Center
- Tuesday, December 9 WILDFLOWERS OF BIG BEND AND GUADALUPE
NATIONAL PARKS. Bill Jennings will
present a slide talk on the plants of
these fascination areas of Texas.
Time: 7:30 pm
Place: Foothills Nature Center
- Tuesday, January 13 ABORIGINALS USE OF FIRE AND ITS
INFLUENCE ON THE NATIVE VEGETATION.
Dr. Omer Stewart, Prof. emeritus of
Anthropology, CU, will share his views
on the relationship between modern
plant communities and the use of fire
by native human populations.
Time: 7:30 pm
Place: Foothills Nature Center
- Tuesday, February 10 CITY OPEN SPACE MANAGEMENT WITH
EMPHASIS ON THE TALL GRASS PRAIRIES
Jim Crain, director of Boulder's office
of Real Estate and Open Space, will be
present to describe and answer
questions about the city's open space
management program.
Time: 7:30 pm
Place: Foothills Nature Center
- Tuesday, March 10 SENSIBLE LANDSCAPING FOR WATER
CONSERVATION, BEAUTY, AND LOW
MAINTENANCE. Jim Knopf, landscape
architect and xeriscape authority,
presents this slide program of landscape
ideas featuring native, low maintenance,
and water conservation plantings.
Time: 7:30 pm
Place: Foothills Nature Center

Meetings are open to the public. For information call 449-3041.

DENVER CHAPTER CALENDAR

Wednesday, November 26

Roxborough State Park Management Plan and the Problems of Managing a State Park/Natural Area. Susan Trumble, Park Manager of Roxborough State Park/Natural Area will discuss the problems with managing a natural area in a location which is being increasingly impacted by residential development.

Time: 7:30 pm

Location: Denver Botanic Gardens House

Wednesday, January 28

Plants of the Colorado Plateau. Karen Trout will discuss the flora and geology of the canyonlands and mesas of southwest Colorado.

Time: 7:30 pm

Location: Denver Botanic Gardens House

