

Summer 2007 Volume 20 No. 4



Kelseya

Newsletter of the Montana Native Plant Society www.umt.edu/mnps/

MNPS 20 YEARS OLD! THE REST OF THE STORY

by Peter Lesica with help from Kathy Ahlenslager and Virginia Vincent

Reprinted from Kelseya, Vol. 10, No. 1

ome would say that the founding of the Montana Native Plant Society is shrouded in mystery, and it is true that many of the important details have heretofore been known only to a few. In the interest of posterity, I have decided to divulge what went on in dimly lit herbaria in the wee hours of the morning. How MNPS was born is a tale that must be told.

Of course we would all like to think that the Montana Native Plant Society was founded by some hero pulling the sword from the stone, but if there is any hero to this story it's guilt. Let me explain. We all know about newsletters, annual meetings, and field trips, but here's the rest of the story.

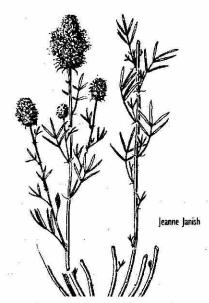
It was autumn of 1986. Jerry Davis, a new professor of botany at the University of Montana, had just finished his PhD at the University of Washington, where Art Kruckeberg was one of his advisors. On a number of occasions Art complained to Jerry that there was no native plant society in Montana and that it was up to Jerry to start one now that he taught at UM. Jerry felt the pressure, but he knew that one quick way to assuage guilt is to pass it on.

Every once in a while I would stop by Jerry's office to shoot the breeze, and he would mention that Montana needed a native plant society and why didn't I start one? Well, I can handle a little guilt, and I could have comfortably entertained the idea in my mind for a long time, but I made one mistake. I told the UM herbarium collections manager, Kathy Ahlenslager, about it.

Kathy is an energetic person and very tenacious (perhaps sometimes even obsessive). Jerry briefly mentioned the subject to me once or twice, but Kathy was more heavy-handed. Every time I walked into the herbarium, she would pleasantly greet me by asking, "So, when are we going to start the native plant society?" I could ignore Jerry, but this was not an option with Kathy. She'd had a taste of the California Native Plant Society and yearned for field trips led by enthusiastic savants.

After a few months of pressure I realized that, in the long run, it would be easier to help start a native plant society than bear the burden of guilt I incurred every time I wanted to look at a plant specimen. So Kathy and I called up Virginia (alwayswilling-to-help) Vincent, a seasonal fire lookout, and we got to work in mid-November.

The first thing we needed was membership. We asked a number of plant friends for names of people they thought would be interested. We wrote those people and included cards they could return if they were interested in joining a native plant society. The three of us sat in the herbarium, stuffed envelopes, typed address labels, licked stamps, and sent them off to 170 people. The former Botany Department at the University of Montana graciously covered postage for that long ago mailing.



Dalea purpurea, a Montana native

Now that guilt had done its job and gotten things going, I remember how pleasantly surprised we were at the response. Both Shelly Bruce of Bozeman and Mike Chessin of Missoula said that they'd wanted to start a native plant society, too! With support growing it was time to seek out officers for a board of directors. By April 1987 a board of directors was nominated and in May a slate of five was selected.

But summer was coming on. Kathy worked as a naturalist in Glacier National Park; Virginia had her lookout to attend to; and I always spend my summer on the road, cruising for posies and ferreting out ecological anomalies. I was willing to let things (Continued on page 10)



President's Platform

Susan Winslow



What a difference rain and cooler temperatures make! This year compared to last is like night and day. The vegetation all around the area is amazingly green and happy, especially the bad actor, cheatgrass. Many western states have battled for decades the invasion of Bromus tectorum. So much so that innumerable conferences and studies have attempted to address the issue and stem the tide. In fact, Wyoming held their first cheatgrass awareness conference in March 2003 and established a task force to develop and implement action items. In Montana. the lengthy drought has now set the stage for a population explosion in our rangelands. Cheatgrass is classified as a winter annual and the moisture that began last September was perfect for the fall germination requirements of the seed. This spring the threat seems to be everywhere and in unbelievably dense stands. A standard weed control method is mowing, but that only seems to make it mad and set seed at an extremely

short height (the same response as knapweed). Cheatgrass does just what the name implies, it cheats other flora of moisture and nutrients, and it cheats fauna of necessary cover and forage. There are so many negative impacts associated with cheatgrass and it is so aggressive that the threat must be taken seriously. Wyoming, for example, recently revised seed standards and lowered the legal percentage for certifying seed production (see page 3 for details). I encourage our society to pursue this topic and possibly even sponsor a learning event to promote the development of a proactive, integrated management plan.

But, what else is happening? The Board of Directors received notice in May from the newsletter editors, Kathy Lloyd and Drake Barton, that they will be stepping down, preferably after the publication of the fall issue. This is a serious situation and obviously the position needs to be filled as soon as possible. If anyone has an inkling of interest, don't hesitate to contact them for more information. Thank you to Kathy and Drake for their stupendous job over the past 7 years! By now the summer meeting is over and the happy results will be chronicled in the upcoming fall issue. I will, however, take this opportunity to welcome the following individuals as officers to the Board: President Dave Hanna, Vice President Karen Shelly, reigning Treasurer Madeline Mazurski, and Western Representative At-large Judy Hutchins. Thanks to each of you for taking on these duties and, as Past President, I look forward to working together.

The last two years as President have flown by, but I feel much was accomplished towards fulfilling the goals of the Society—it is an organization of truly dedicated individuals. I greatly appreciate the patience and assistance of everyone during my short tenure, and will definitely continue to promote conservation of, and education about, Montana's native plants. Thank you.

Welcome to our new President, Dave Hanna!

Dave can be reached at P.O. Box 842, Choteau, MT 59422 406-466-3661 e-mail: pteryxia@3rivers.net

Flora of North America Asteraceae NOTE CARDS

To celebrate publication of the Asteraceae volumes, FNA created a set of 12 note cards (4 × 6" plus envelopes) featuring FNA plants, artists, and authors. Each card reproduces the botanical illustration of the taxon on the front, and a distribution map, taxonomic placement, and notes about the taxon, author, and artist on the back. This first set includes:

Arctanthemum arcticum subsp. polare, Baccharis halimifolia, Cirsium douglasii var. breweri, Dicranocarpus parviflorus, Echinacea pallida, Helianthus maximiliani, Madia elegans, Munzothamnus blairii, Pluchea odorata var. odorata, Packera cymbalaria, Senecio amplectens var. holmii, Townsendia

To order send your name and mailing address with a check for \$12/each set to:

Nancy Morin **FNA Business Office** P.O. Box 716 Point Arena, CA 95468 USA

If you can suggest a botanical garden, museum, nursery, or other gift shop that might like to carry the cards, please e-mail nancy.morin@nau.edu

WELCOME new members!

The Montana Native Plant Society extends a warm welcome to the following new members:

Artemisia Chapter: Johanna Hergenrider; Clark Fork Chapter: Sue Newell. Wendy Udall, Heather Whiteley; Flathead Chapter: Anita Ho, Elizabeth Nauertz; Maka Flora Chapter: Joy Barsotti; Valley of Flowers: Jeff Copeland, Mary Keck, Missy Mayfield; Western at-large: Deep Creek Ranch.

Your participation and support are important to us! Please contact your chapter representative with any ideas or suggestions you may have. They are listed on the back page of this newsletter. Thanks for supporting Montana's native plants!

Wyoming's New Seed Law

Reprinted from the May 2007 issue of Castilleja, with thanks.

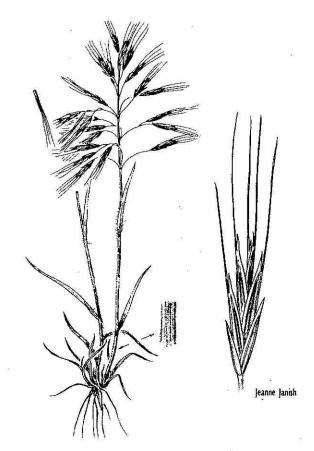
Significant changes in our seed law were passed by the Wyoming legislature this year (HB123), which address weeds, the seed lab, and regulatory process. Recognizing the need for a more dynamic and species-flexible law, the Society of Range Management, Wyoming Crop Improvement Association, Weed and Pest Council, and Department of Agriculture undertook a revision of existing law.

Before the new law, all noxious weeds were set by statute into three categories: "prohibited noxious" (zero tolerance), "restricted noxious" (45 seeds per pound), and "other weeds" (2%). Technically, each species had to be voted onto the weed list by the legislature, though the Department of Agriculture had found a round-about way to add weeds. Now, new weeds will be added to the list through a review process utilizing the Department of Agriculture, the State Seed Analyst, and the Seed Lab Advisory Group through regulation rather than stat-

Arising out of the desire to control the unintentional planting of cheatgrass, (Bromus tectorum), we have added a new category: "Regulated Weeds." Before this law, cheatgrass was allowed at 2%, which roughly translates to 4,800 seeds per pound as a contami-

sold in Wyoming. Recognizing that ex-

isting categories were either too lenient to slow the spread of cheatgrass or too strict beyond the capability of the seed industry, the legislature created a fourth category labeled as "Regulated Weeds" in which a specific tolerance can be set for individual problem species. The current consensus is that all of the weedy annual bromes will be listed as "Regulated Weeds" and capped at 1,200 seeds per pound (0.5%), which is a fourfold reduction compared to the previous law. As seed production technology advances we hope to lower this limit.



Cheatgrass, Bromus tectorum, has become a major problem for land managers and residents in the West

Other changes that may affect land managers are the increase of secondary noxious weed caps from 45 to 50 seeds per pound. This was done because just one seed found in a lab sample could quarantine a seed lot, where now it will take at least two seeds in a sample. Additionally, the

are now being drawn for the Department of Agriculture to administer. So far the process has been professional and comprehensive.

Expect a large number of new weeds to show up as Prohibited Noxious Weeds in the near future. Our philosophy is to head off problems by

> aggressively listing weeds that have proven themselves very troublesome in surrounding states.

Criteria for designation will include such qualities as competitiveness against natives, economic loss to crops or livestock, difficulty of control, allelopathic or competitive attributes, and others. We must be very careful to establish reasonable and compelling criteria for inclusion of weeds onto these lists lest they become a political football.

A full copy of the new law may be viewed at the website of the Wyoming State Legislature: http:// legisweb.state.wy.us/2007/bills.htm Richard Dunne

nant in all seed Our philosophy is to head off problems by aggressively listing weeds that have proven themselves very troublesome...

> use of a tetrazolium test (TZ) is now legally used in species for which no germination rules have been established by the Association of Seed Analysts. TZs for species in which rules of germination have been established may still be used with consent between buyer and seller. TZs have been common in Wyoming where time does not allow for a slow germination test. This law now recognizes for the first time the legitimate use of TZs.

> As with all good laws, the devil is in the details, and regulatory rules

A book review

Medicinal Plants of North America A Flora Delaterre Color-

A Flora Delaterre Coloring Book by Beth Judy

Flora Delaterre is a plant detective. In her own words, "I travel the world in search of medicinal plants and tell their intriguing stories." She's been telling these stories to Montana Public Radio listeners since 1995. Flora is the invention of Beth Judy, a MNPS member and a native plant enthusiast, as well as a writer and researcher of phytomedicinals.

Now Flora has leaped from the air waves to the pages of a coloring book. With beautiful and accurate plant illustrations by DD Dowden, Flora (delightfully depicted by artist Anna Veltfort) tells us the stories of 14 medicinal plants, including many that most Montana kids have seen in gardens, lawns, or hillsides: calendula, dandelion, echinacea, flax, lobelia, and more. Some are Montana natives, some are hated weeds. All are common plants with an extensive history as medicinal helpers.

Two pages are devoted to each plant. One page has a large black and white drawing of the plant's stems, leaves, and flowers, along with tips

for coloring the picture (the stems are reddish-brown; the berries are ruby-red, etc.). The opposite page contains mainly text, information about the medicinal properties of the plant and its historical uses. Flora writes about echinacea, "When infection threatens our bodies, natural





by Beth Judy

chemicals in echinacea help our immune systems meet the challenge." Then there's a section called Fun Facts, which has just that: "Linen, the fabric, is made from flax. An-

cient scraps in Stone Age caves in Switzerland show that humans were using linen at least 10,000 years ago."

The text is fairly sophisticated, so Flora Delaterre's book provides a great opportunity for parents and kids to share an activity. Mom, dad, an adult friend, or teacher can read and explain the text while the child gets to color the pictures. Okay-you can color them too! Little coloring book drawings of Flora are sprinkled throughout the text pages: Flora in a tree examining a fruit with a hand lens; Flora on the ground studying a flower. She is an engaging young figure who may just inspire other young plant detectives to do a little of their own plant sleuthing.

There's lots of good information in this attractive book, plenty to color, and an effective presentation of the simple proposition that plants are interesting and important and deserve our care and attention. As Flora says, "Folks, medicinal plants are everywhere and you gotta treat 'em right, because someday they might be treating you."

Visit www.floradelaterre.com for purchase information, or ask your local bookstore to stock this delightful book.

Annie Garde

Calypso Chapter Report

On Saturday, May 19, the Calypso Chapter, led by Rich Prodgers, took a 3-mile hike through lodgepole forest and beaver pond landscape. The field trip was originally scheduled for Burton Park, where the wildflowers were radiant, but a reconnaissance earlier in the week showed the flowers were fewer in species variety than had been hoped. So the group headed for the Basin Creek area instead. The hikers identified five species of trees, two subshrubs, 16 shrubs, 40 forbs, and 16 grasses and allied species-it was a great lesson in vegetative identification! Thank you Rich. Calypso's next field trip will be led by Steve and Bridget Parker. The trip will highlight the bitterroots abundant in the Camp Creek area. Consult the Summer 2007 Field Trip Booklet for details.

Rich Prodgers and Debbie Mueller

MNPS WEB SITE GETS A FACE LIFT

Welcome aboard Kevin and Lisa Tucker, the new volunteer web masters! They took over for Marilyn Marler this spring (many thanks to Marilyn) and have fresh, new ideas for our web site. Kevin and Lisa say they hope to develop the MNPS web site so folks can have a public site available with all kinds of informational and entertaining facts and photos about Montana native plants. They would like to post more photos, so send your native plant images to the address below. Also under consideration are menu changes for the site so that specific MNPS items (contact info, MNPS activities, etc.) can be accessed from pull down menus at the top of the web page. Kevin and Lisa have been busy with updates to our site. Check out the new bitterroot article and the section on purchasing native plant materials. There are also links to other native plant related sites. In the future Kevin and Lisa hope to add a blog site that talks specifically about native plants so that MNPS members can communicate and share native plant information and photos. The site could be monitored by Board members and MNPS members from all counties, which would open up greater communication and sharing of activities, plant information, and plant interests between members around the entire state. Send your calendar items, photos, or other information to prairiewild@qwest.net and log on frequently to see updates.

The web address is: www.umt.edu/mnps

Montana Takes a Closer Look at Threats to Rare Plants

In February 2006, Montana Native Plant Society (MNPS) and the Montana Natural Heritage Program (MTNHP) hosted a Montana Plant Conservation Conference in Helena that focused on the status, conservation, and restoration of rare and endangered plants in Montana. During that meeting it was concluded that rare plants in Montana could be better protected if a threats ranking system was created. Towards the end of the conference an Interagency Plant Threats Assessment Steering Committee (IPTASC), consisting of various agency personnel and others, was formed to create a system that would assign threats rankings to individual Species of Concern (SOC).

Rare plants are rare for various reasons and some are more at risk than others. Some species may be limited in their distribution but their populations may be relatively stable because there are few external threats (e.g. habitat loss, resource development, hydrological alteration) while other species may be more at risk because they have immediate or numerous threats throughout part or all of their range. A threats ranking system helps to identify which species are more at risk and what specific threat(s) is the underlying cause. A ranking system will help biologists and land managers to better prioritize conservation strategies for SOC, especially when limited funding is an issue. This system would be created to augment current efforts by the MTNHP to assign threat rankings to SOC.

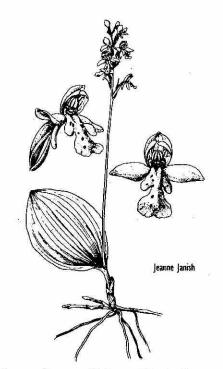
During the months following the conference, Maria Mantas of The Nature Conservancy (TNC) worked diligently to design a data form that was distributed to botanists throughout Montana. The survey asks individuals to identify what, if any, threats are associated with SOC they are familiar with. Additionally, participants were asked to describe the severity, immediacy, and scope (how much of the population was affected) of the specific threat. Twenty individuals collectively submitted nearly 400 records representing 252 species. A variety of threats were reported that

included impacts such as mining activity, ski area development, hydraulic alteration, oil and gas development, weed invasion, herbicide treatments, and livestock foraging. Maria compiled this information into a format that could be reviewed by the IPTASC.

In October 2006 the Committee met for the first time to review the data and create a system by which species could be ranked based on current threats. Their tasks included: identifying individuals responsible for assigning ranks; creating a list of specific criteria to be used to assign threats ranking; and determining how many ranking categories there would be.

It was decided that an expert panel (i.e. the IPTASC) would be responsible for assigning threat rankings under the new system. Four ranking categories were created and include: Highly Threatened, Threatened, Insignificant Threat, and None Known. To be Highly Threatened there must be a threat to that species that 1) has or could cause a major reduction of the state population or habitat that will require 50 years or more for recovery (Severity); 2) 20% or more of the state population of that species has been or will be affected (Scope); and 3) the threat is likely to occur within 5 years or less (Immediacy). If one or more of these criteria are not met the species will be Threatened. Insignificant Threat would be assigned to those species where information collected indicated that the threat was currently inconsequential to the species survival. Numerous data were collected on species where no current threat was identified; those species were assigned the ranking of None Known.

In February 2007 the Committee met for a second time to assign ranks to the 251 species for which data had been collected. After discussion, the Committee changed the terminology used to describe threat levels. The group agreed to change the ranking category "None Known" to "Insignificant or None Known." To be Insignificant or None Known there must be no known threats, or either Severity or Scope is rated as insignificant. The Immediacy rank can be anything. A Not Ranked category was



Amerorchis rotundifolia rated "Insignificant or None Known"

also created as ranking progressed, to indicate those species that for some reason were not ranked and can be visited again later. The term Highly Threatened was changed to Category 1 and the term Threatened was changed to Category 2. The same definitions and criteria apply, only the name was changed.

After reviewing the data, 29 were ranked Category 1, 66 were ranked Category 2, 141 had Insignificant or None Known, and 15 required more information to make an adequate ranking determination and were Not Ranked. The next step will be to develop a database where this information can be easily accessed and utilized by individuals in need of this type of information.

The Committee plans to present this new ranking system for discussion at the next Montana Plant Conservation Conference tentatively scheduled for late winter of 2008 in Bozeman. The Steering Committee thanks all individuals who contributed information and time to this important effort. If you are interested in submitting threats information on Species of Concern or for more information about this project please contact Kathy Lloyd at (406) 449-6586 or Mel Waggy at (406) 273-6140 for more information.

Mel Waggy

Flora of North America Reaches Halfway Mark

More than 900 botanists, working as part of the Flora of North America project, have now cataloged over half of the genera of higher plants native or naturalized in North America north of Mexico, and hope to finish by 2011. This is the first comprehensive and scientifically authoritative publication treating the 20,000+species of plants in the U.S. and Canada together.

Thirteen volumes have been published (including an introductory volume), one is being printed, and publication of two more is expected this year, out of a total of 30. The second volume of grasses (Poaceae, Volume 24) came out in early 2007, completing the monocotyledonous plants. The first of three volumes on mosses, liverworts, and hornworts is in press. Especially exciting was the publication of all three volumes on the sunflower family (Asteraceae, Vols. 19, 20, 21) last year. The treatments include identification keys, nomenclatural information, common names. descriptions, distributions (including maps), and discussions. Every genus,

and 1/3 to 1/6 of the species, is illustrated.

FNA makes many lifetimes of study, and the best knowledge from regional floras, available in print and electronically. Editorial centers are located at Missouri Botanical Garden, the Hunt Institute for Botanical Documentation, Université de Montréal, and University of Kansas. Authors base their work on knowledge of plants in the field, herbarium specimens, and review of the literature. The project also has a network of regional reviewers. Authors and editors work as volunteers; grants and donations support technical editors and botanical illustrators. The books are published by Oxford University Press-US and currently are on sale at the discounted price of \$76/volume (available at www.oup.com/us/ fnaseries with promo code 25316). More information on Flora of North America and treatments from published volumes are available at www. fna.org

For more information contact Nancy R. Morin, FNA Business Office, P. O. Box 716, Point Arena, California, 707/882-2528, nancy.morin@nau.edu

4% Day Grant Awarded To Valley of Flowers

The Valley of the Flowers Chapter of the Montana Native Plant Society (MNPS) was recently awarded the Bozeman Community Co-op 4% Day Grant. The Community Co-op's mission is "to provide food and goods, promote sustainable practices, and follow co-op principles." The 4% Day Grant provides nonprofit organizations in the Bozeman community four percent of the Co-op's profits on the fourth Friday of every month. July 27th is the Montana Native Plant Society's 4% day. With the proceeds of the 4% Day Grant, MNPS will work with Gallatin Valley Land Trust (GVLT) and the City Parks Department to produce native plant informational signs for the "Main Street to the Mountains" trail system in Bozeman. Please help support the MNPS, Co-op, and GVLT by shopping at the Co-op on July 27, 2007. Thank you for your support.

Monica Pokorny

Looking for Hawkweeds

I have partial funding from the Montana Noxious Weed Trust Fund to develop an Extension Bulletin that would help people identify the different species in the noxious meadow hawkweed complex (Hieracium pratense, H. floribunda, H. piloselloides, etc.) and separates the noxious weeds from native hawkweeds with similar vellow flowers. I want to characterize the full range of variability of the noxious yellow flowered hawkweeds in Montana, and find out what native yellow flowered plants are being confused with those in the noxious group.

Please send me specimens of your suspected noxious yellow flowered hawkweeds, look-alike natives, or unknowns. Include roots, rhizomes, and stolons with the specimens (after you dislodge the soil). They can be in

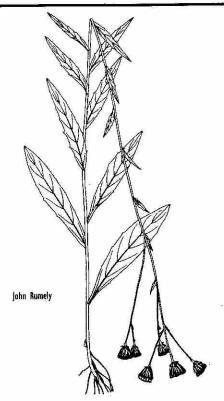
a plastic bag with a slight amount of water; or pressed dried specimens. Include a note on where the specimens were colleted. If they are fresh plants please send them overnight mail, and e-mail or call so I know to pick them up at my mail drop.

Peter Rice 32 Campus Drive #4824 Division Biological Sciences at UM Missoula, MT 59812-4824 406-243-2671 peter.rice@umontana.edu

I will send you back a note on what species the material represents.

I would also be interested in highresolution photos that might be candidates for including in the printed bulletin. Particularly photos that show the overall growth form of the plant, rhizomes/stolons, leaf arrangements on the stem, or other key diagnostic features.

Peter M. Rice



Hieracium umbellatum, a native hawkweed

Growing Native Plants of the Rocky Mountain Area

by Robert D. Dorn and Jane L. Dorn. 2007. 252 pages. Book version: \$82.94 plus postage, cd-rom version: \$7.50 plus postage.

A book review reprinted from the May 2007 issue of *Castilleja*, with thanks.

Perhaps unique among all animals, humans have an innate need to garden. The earliest gardeners (dating back 14,000 years) were driven primarily by a need for food and fiber. Besides cereal grains, some of the earliest edible crops grown by people included showy flowers such as dahlias, sacred lotus, violets, and primroses. These latter species eventually fell out of favor as new edible species were brought into cultivation, yet they continued to be grown into modern times. Though we may never know if our Neolithic ancestors had an aesthetic sense, is it so farfetched to assume they also enjoyed the beauty of the crop flowers they grew?

Nearly as ingrained as the need to garden is the desire to grow new and unusual plant species. Since the 15th Century, European explorers and traders have scoured the Earth for previously unknown plants to name, categorize, and introduce into horticulture. While many introduced species have been beneficial, others have escaped to become serious pests, disrupting natural habitats, displacing vulnerable native plants, and competing with more desirable crop species for space and nutrients.

The invasive species crisis has contributed to a renewed interest in native plants as an alternative for use in gardens and public landscaping. Natives are increasing in popularity due to their adaptability to local soils and climates, and because they usually require less water and less care once established. Gardeners are also increasingly learning that native species are just as attractive as introduced species. With rising demand, natives are becoming more readily available commercially.

The surge in popularity of native plants is reflected in the growing number of books devoted to native

plant cultivation and garden design. A new entry into this field is Growing Native Plants of the Rocky Mountain Area, self-published by Robert and Jane Dorn. The Dorns are no strangers to members of the Wyoming Native Plant Society—Bob is the author of Vascular Plants of Wyoming (the state's most current and comprehensive plant identification manual), and Jane and Bob have written a guide to Wyoming birds and birding areas. This foray into horticulture may seem like a new direction, but actually the Dorns have been long-time amateur native plant gardeners in eastern Wyoming. Their 30 plus years of experience growing Rocky Mountain native plants, coupled with their intimate knowledge of the regional flora, is captured in this new book.

Unlike many other native gardening books on the market, Growing Native Plants of the Rocky Mountain Area is geared specifically for the demanding growing conditions of the Rocky Mountain states (defined by the Dorns as all of Montana, Idaho, Wyoming, Utah, and Colorado, the NE corner of Nevada, northern New Mexico, and the western quarter of the Dakotas and Nebraska). Dorn and Dorn have recognized that the conventional USDA hardiness zone criteria (based on the average lowest winter temperature of an area) are inadequate in predicting how well many native and non-native plants will adjust to the Rocky Mountain climate where temperature extremes (as great as 140 degrees F between summer highs to winter lows) truly dictate which plants will persist. In place of the familiar USDA system the Dorns have developed a more appropriate, ecologically-based system for classifying the nine major plant regions of the Rocky Mountains. Each plant region has a characteristic flora shaped by differences in soils, topography, and the timing and quantity of precipitation. By recognizing the needs of a particular species according to its plant region preferences, the home gardener has a better chance of identifying plants that will be suited for their particular garden. Homeowners can also make better decisions about what specific microsites are best suited for a particular plant (such as warm, south-facing slopes for drought-hardy species), or whether they will need to ameliorate growing conditions through seasonal irrigation or soil treatments. For example, New Mexico locust (Robinia neomexicana), a common flowering shrub from the Southern Mountains Region of south-central Colorado, the Utah High Plateaus, and northern New Mexico, is adapted to the high summer precipitation of this region, and thus may not thrive in otherwise similar mountainous areas that lack a monsoon unless supplemental moisture is provided. This kind of Rocky Mountain-specific gardening information is often lacking in other guides that are geared for more general, widespread audiences, or assume everyone has great loamy soil, adequate water, and plenty of frost-free days (ok for California maybe, but not perhaps for Laramie, or Rock Springs, or where you actually live).

The introductory chapters describe specific environmental factors affecting plant distribution and survival (such as soils, moisture availability, topography, light, temperature, and snow cover), how these factors affect how a garden should be laid out to mimic natural habitats, how to treat weeds, plant pests, and how to attract birds. Scattered among these chapters are seven "principles" that pithily summarize the take-home lessons of gardening with native plants in the Rockies. These principles all seem straight-forward (e.g. principle 5: "the major enemies of plant seedlings are not enough water, too much water, molds, animal consumers, and competition from other plants"), but all provide a succinct summary of the typical errors novice gardeners make when trying to grow new plants. There are books that go into greater detail on all of these topics, but the Dorns have done a nice job of condensing these concepts into one easy to comprehend reference appropriate to our local conditions.

Most of Growing Native Plants of the Rocky Mountain Area is devoted to a full color section describing over 400 native tree, shrub, grass, and wildflower species suited for garden use in the Rocky Mountain region.

(Continued on page 10)

CALENDAR

Please remember to leave pets at home during MNPS field trips.

ARTEMISIA CHAPTER

For a schedule of Artemisia Chapter events or to get your questions answered, please call Leslie at 445-9178.

CALYPSO CHAPTER

For information about events call Sheila Thompson at 846-1855.

CLARK FORK CHAPTER

Friday - Sunday, July 6-8

"Big Snowy Mountains/Matador Ranch and American Prairie Restoration Project." Wayne Phillips will introduce us to the Big Snowy Mountains' many attractions, including Crystal Lake, Crystal Cascades, an ice cave, and sinkhole caves. Vegetation of the plains, forest, and alpine will be studied, featuring silverleaved scurfpea (Pediomelum argophyllum) in the plains, wood lily (Lilium philadelphicum) and pink-yellow columbine (Aquilegia flavescens) in the forest, and mountain avens (Dryas octopetala) in the alpine. Folks can arrive and camp together at the Crystal Lake campground, near Lewistown Friday night, or arrive by 10 a.m. Saturday morning in time to hike to the top of the Big Snowies to the ice cave and alpine cushion plant communities. This will be an all day trip. Sunday we will carpool to the CMR Wildlife Refuge, cross the Missouri River, and pass the Little Rockies to the Matador Ranch at noon, returning to our camp at Crystal Lake in the evening. It is a beautiful area, full of exciting new things for prairie restoration and grass banking. There is the option of staying at Crystal Lake on Sunday, taking a short hike to the gushing springs at Crystal Cascades and heading home, or staying to visit with the crew returning from the Matador Ranch Sunday evening. Contact Kelly at 258-5439 or Wayne at 453-0648 for more information.

Saturday, August 4, 9:00 a.m.

"Indian Meadows Research Natural Area." Join Scott Mincemoyer (MT Natural Heritage Program Botanist) and Steve Shelly (U.S. Forest Service Botanist) for a cross-country hike to visit the Indian Meadows Research Natural Area (RNA) north of Lincoln. This will be a unique opportunity to see floating fen habitat (very uncommon in Montana), and one of the rarest plants in the state, linear-leaved

sundew (Drosera linearis), a carnivorous species. This will also be an opportunity to assist the MTNHP and USFS by helping to monitor the condition of the RNA and rare plant populations. The hike may traverse some areas that were burned in the Snow Talon Fire of 2003, providing opportunities to view post-fire recovery. Meet at the Conoco station in Lincoln at 9:00 a.m. Bring lunch, water, rain gear, and sturdy hiking boots, as well as sandals or other shoes that you don't mind getting wet. It's a 4-mile cross-country round trip to the fen, so we expect to be out most of the day (returning to Lincoln about 6:00 p.m.). Call Scott at 360-6202 or Steve at 329-3041 if you have any questions.

Saturday, September 8, 9:00 a.m.

"Carlton Ridge Research Natural Area." Steve Arno and Clint Carlson will host an all-day field trip to the Carlton Ridge Research Natural Area with botanist and RNA specialist Steve Shelly. We will experience several forest types on varying habitat types from about 5500 feet elevation to the unique alpine larch community above 8000 feet on Carlton Ridge. Effects of fire exclusion on current forest attributes will be discussed. Effects of white pine blister rust on whitebark pine will be examined. An area of overlap where alpine and western larch coexist and produce hybrids will be observed from a distance. Unique ecological and physiographical features of Carlton Ridge will be discussed in relation to existing vegetation on the ridge. Events leading to inclusion of Carlton Ridge in the Research Natural Areas program will be discussed in relation to past and present plans for ski area development. This will be an allday event. The hike is moderately strenuous; we will gain about 2800 feet in elevation, but on a good trail. Weather in September on the ridge can be cold and snowy, so be prepared. We'll meet at the Conoco Station at the junction of Highway 12 and 93 in Lolo, MT and carpool. We will leave promptly at 9:00 a.m. so please arrive a little early. Limit 20 people. Call Kelly at 258-5439 to reserve.

EASTERN MONTANA

For information about eastern Montana events call Wayne Phillips at 453-0648.

Friday - Sunday, July 6-8

"Big Snowy Mountains/Matador Ranch and American Prairie Restoration Project." See the event under Clark Fork.

FLATHEAD CHAPTER

The Flathead Chapter meetings and programs are on the first Wednesday of each month. All meetings begin at 5:30 p.m. and all programs begin at 7:00 p.m. We meet at the Flathead County Library in Kalispell in the Meeting Room downstairs. Everyone is welcome to the business and working meetings. We will again be organizing a plant photo and art contest for the community that will be held during the summer. Call Jen Asebrook at 863-9630 for information.

May through August

"Wildflower Photo and Art Contest." This contest celebrates the beauty and diversity of Native Plants in Montana. It is open to the public, and encourages kids and adults of all skill levels to participate. The goal is to enhance knowledge and appreciation of native plants through art. Entry forms can be obtained at: Arrowhead Gallery, Columbia Falls; Stumptown Art Studio, Whitefish; Brett Thuma Gallery, Bigfork; Flathead County Library, Kalispell; or the MNPS website: http://www.umt.edu/ mnps/ and click on Local Chapter Events, then Flathead. Entries can be dropped off at any of the above locations or mailed to: Montana Native Plant Society, Flathead Chapter, 724 1st Ave. W., Kalispell, MT 59901. Entry deadline is Friday, August 10. Winners will be notified by phone before August 27.

Every Tuesday, mid-June to the end of August

"Volunteer opportunity at the Glacier National Park Nursery." 9:00 - 4:30 p.m. (come and leave as you choose). Help with seeding, transplanting, weeding, and cleaning. Those who are interested may also help with data management, or work on a particular research or experimental project. Bring a sack lunch, your favorite work gloves, and clothes that can tolerate dirt. Meet at the Native Plant Nursery at Glacier National Park. Contact Joyce Lapp at 888-7817 for details, RSVP.

Saturday, July 14

"Weed Pull at a Rare Plant (Grindelia howellii – gumweed) Site in the Swan Valley." Help pull weeds within and around a rare plant exclosure near Holland Lake. Bring lunch, a potluck item to share, and gloves. Meet at the Swan Lake Ranger Station in Bigfork to carpool at 8:30 a.m. or at Holland Lake Picnic Area at 10:00 a.m. Contact Linh Hoang for details (270-7533 or 758-5331).

(Continued on page 9)

...Calendar (Continued from page 8)

August 27 and September 9

"Wildflower Photo and Art Contest Display." Selected entries will be displayed at Kalispell Center Mall. There will be a ribbon presentation Sunday, September 9 at 2:00 p.m.

KELSEY CHAPTER

For more information about Kelsey Chapter programs and events, call Kathy at 449-6586.

Saturday, August 4, 9:00 a.m.

"Indian Meadows Research Natural Area." See the event under Clark Fork Chapter.

Wednesday, October 3, 9:30 a.m.-11:00 "Xeriscaping with Patrick Plantenberg." Sponsored by the Whitehall Garden Club. Contact Norman DeNeal 723-6656 for directions and location and Patrick at 266-5265 for program details. No charge.

MAKA FLORA CHAPTER

For information about the Maka Flora Chapter call Rebecca Kallevig at 488-5455.

Sunday, July 15, 12:00 p.m

"Missouri and Yellowstone Rivers Confluence." Explore river bottom vegetation and enjoy the confluence visitors' center trails and the historical sites of Forts Union and Buford. Easy hiking. Meet at the boat ramp at 12:00 noon. Call Becky Kallevig at 488-5455 or Doug Smith at 483-5431.

Sunday, August 12, 12:00 p.m.

"Brush Lake State Park." A deep, clear lake with white, sandy beaches surrounded by grass fields, brush, and wheat fields. A new state park, thanks in part to the advocacy of Maka Flora member Doug Smith. An easy hike. Bring a picnic potluck dish, your bathing suit, and canoe/boat if you'd like. Meet at the lake at 12:00 noon. Directions: 31 miles southeast of Plentywood. Off State Highway 16, go east on Highway 258 (East Reserve Highway) for 16.5 miles, turn south on Brush Lake county road, go 1 mile. Call Becky Kallevig at 488-5455 or Doug Smith at 483-5431.

VALLEY OF FLOWERS

Saturdays, May 12 through summer

"Wildflower Walks at Lewis and Clark Caverns State Park." Tom Forwood, Naturalist at Lewis and Clark Caverns State Park, will hold wildflower walks at the park on Saturdays starting May 12. The walk will focus on a different trail weekly. Call Tom for details on walk themes, times, and meeting locations: TJFishing@bresnan.net or 406-287-3541. Friday, July 27

"4% Day Award Bozeman Community Co-op (all day)." The Valley of the Flowers Chapter of the Montana Native Plant Society was recently awarded the Bozeman Community Co-op 4% Day Grant. The Community Co-op's mission is "to provide food and goods, promote sustainable practices, and follows co-op principles." The 4% Day Grant provides nonprofit organizations in the Bozeman community four percent of the Co-op's profits on the fourth Friday of every month. July 27th is the Montana Native Plant Society's 4% day. With the proceeds of the 4% Day Grant, MNPS will work with the Gallatin Valley Land Trust (GVLT) and the City Parks Department to produce native plant informational signs for the "Main Street to the Mountains" trail system in Bozeman. Please help support the MNPS, the Co-op, and GVLT by shopping at the Coop on July 27, 2007. Thank you for your support!

Saturday, July 28, 1:00 p.m.

"Wildflower Ramble near Hyalite Reservoir." Join Jan Nixon for an easy ramble around the meadows, forests, and streams near Hyalite Reservoir, south of Bozeman off South 19th Road (follow Forest Service signs). Meet at 1:00 at the parking area on the right, just before Hyalite Canyon Road goes over the dam at the foot of the reservoir. Watch for the "M o R Field Trip" signs. Emphasis will be on identifying the trees, shrubs, and flowering plants we encounter. If you'd like a little pre-trip brush-up on tree species, plan to arrive 20-30 minutes early to walk through an easy self-teaching display "Conifers 101." Dress for the weather—unless it's raining hard, we'll proceed. Bring water/juice, snacks, and bug repellent plus (optional) binoculars, hand lens, notebook. This trip may involve moderate elevation gains, and will be mostly off-trail. Handouts will be provided. We'll finish up back at the cars around 5 p.m. There is a small fee for this trip and space is limited. Call the Museum of the Rockies Education Department at 994-6618 to sign up. No pets please. Fallback date (in case of heavy rain on July 28) will be the same place/ time on Sunday July 29.

WESTERN MONTANA

For details about activities in western Montana, call Judy Hutchins, 847-2717.

Available from MNPS

Available free from MNPS Publications: MNPS membership brochures, Plant Collection Guidelines for Teachers brochures, and Echinacea Cultivation Information. Also available are additional copies of Plants Collected in Montana During the Lewis & Clark Expedition. Please send a SASE to 1270 Lower Sweet Grass Road, Big Timber, MT 59011 to receive any of these publications.

Available from the Flathead Chapter: a packet of information about gardening with Flathead Valley native plants. The packet can be mailed to you for \$3.50. Contact Tara Carolin at 334 North Many Lakes Drive, Kalispell, MT 59901.

Available from the Kelsey Chapter: a packet of information on landscaping with natives in the Helena area. The packet will be mailed to you for \$3.50. Contact Kathy at 449-6586 or e-mail: drakekath@hughes.net to order.

Available from the Valley of Flowers Chapter: a booklet of information on landscaping with natives in the Bozeman, Livingston, and Big Timber areas. The booklet will be mailed to you for \$6.50. Contact Denise Montgomery at 586-0156 or e-mail: nmontgomery@montanadsl.net to order.

Visit the MNPS website at www. umt.edu/mnps to download in pdf format Weeds Listed as Noxious by Montana Counties, a list of weeds that are targeted by each county; Guidelines for Selecting Horticultural Plant Material for Montana, voluntary guidelines by MNPS and the Montana Nursery and Landscape Association; and Lewis & Clark Plants Collected Elsewhere That Occur in Montana, an inclusive list of Lewis & Clark plants found in the state.

The Joys of MT Gardening

My wife and I live in the Helena area and are interested in sharing information with others who have used greenhouses. If you have, please send an e-mail to gvarnga@msn.com and we will contact you directly. If you have not used a greenhouse but know of someone in Montana who has, please forward the party's name and phone number or e-mail address.

Mike Lee

Rest of the Story (Continued from page 1) go until the next year, but Kathy said, "We can't wait until next year, when we're off to such a good start." We would have been guilty of failing to strike while the iron was hot.

We decided to have an organizational meeting and potluck supper that summer. If you're going to have to go to a meeting in the summer. you might as well get some good food out of it. We hurriedly sent out 250 postcards and then headed for the hills. About 40 native plant people from the western half of the state gathered in Missoula's Bonner Park on August 29 to talk about founding a Montana Native Plant Society. Just before the potluck, the newly elected board members met at Kathy's house and decided who would take each office. Kathy became our first president, Shelly Bruce was vice president, Wayne Phillips agreed to serve as secretary. and John Pierce as treasurer.

Art Kruckeberg, who was visiting his daughter in Polson, came down and gave us a pep talk at the park, sharing some of his experiences from the early days of the Washington Native Plant Society. We ate a bunch of food and went home happy.

That September, we had the first annual MNPS canoe trip on the Swan River. People came from Missoula and Helena, as well as the Flathead, and Kelly Chadwick learned to face forward in a canoe.

Many Native Plant Society members have also been members of the Audubon Society. Cary Lund from Helena was one such member. He is a lawyer and helped draw up the Helena-area Audubon's bylaws and articles of incorporation. He volunteered to guide us through the process, doing much of the work himself.

Kathy and I gathered examples of bylaws from other native plant societies and put together a draft set for Montana. We sent these around to board members for suggestions. On November 19, 1987, less than one year after our original mailing, we filed articles of incorporation and received non-profit tax status. Our incorporation allowed us to open a bank account and finally cash the checks of 120 paid members. Cary and our officers continued to work on

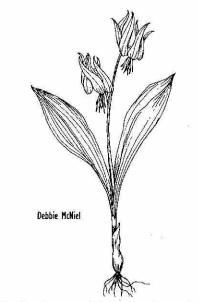
the bylaws, which were signed on February 10, 1988.

Fall of 1987 also saw the first issue of our at-the-time un-named newsletter. We sent out 250 of them, hoping for more members. Virginia Vincent, also an Auduboner, volunteered to do it. She typed up the first two issues on my computer and got John Strommes, a reporter at the *Missoulian*, to do the layout. It was a lot of work.

Virginia always contended that it was easier to use a typewriter and cut-and-paste than to use a computer. When Kathy and I strongly suggested that she learn to use a computer, Virginia set her jaw, dug in her heels, and said, "no computers!" Kathy jerry-rigged the third issue on the UM herbarium computer and Neanderthal printer.

The newsletter was named in the winter of 1988 through a mascot contest. Greg Fraser and yours truly both nominated *Kelseya uniflora*, one of 16 nominations. By the summer of 1988, Jan Nixon took over as newsletter editor, and it was smooth sailing.

The Bozeman, Missoula, and Flathead chapters were consolidated the winter of 1988-89, with the Helena chapter forming not long after. That spring we had our first official MNPS annual meeting in Bozeman. I drove over in the rain and drove home in snow. Nonetheless, committees were formed and the Montana Native Plant Society was off and running.



Erythronium grandiflorum, another native

...Growing Natives (Continued from page 7) The species accounts include information on which of the nine regions of the Rockies the plant is best suited for, along with a brief description of its growth habit and appearance, habitat, cultivation, and means of propagation. The photos accompanying the descriptions are of high quality and large size (one of my pet peeves with many horticulture books is how tiny and grainy the photos are) and show just how beautiful our native plants can be. For those who are not swayed by appeals to reduce global homogenization, save water, or reduce demands for fertilizer, the photos alone are perhaps the best promotion for going native.

Plant descriptions are arranged alphabetically by scientific name. This may prove a challenge for those who are squeamish about taxonomic names (especially since the nomenclature follows more recent treatments and uses some unfamiliar names for asters, ricegrass, and others). Fortunately the index is crossreferenced by widely used common names and taxonomic synonyms. Besides, if a gardener can learn to recognize "common" names like Chrysanthemum, Forsythia, and Geranium (all Latin genus names too), they can expand their vocabulary with a few more native scientific names! The book concludes with several appendices depicting sample precipitation tables, examples of designing plant beds, and tables comparing various attributes of the species described previously.

Growing Native Plants of the Rocky Mountain Area is currently available in printed form for conventional bibliophiles, or as a cd-rom using Microsoft Word for the techno-savvy or bargain-hunter, requiring Adobe Acrobat to read. Me, I'll stick with the printed version and read it in the comfort of a hammock and enjoy the solitude of being away from the computer while planning my native garden-in-progress.

Walter Fertig Note: For a limited time, individuals interested in purchasing the book version of Growing Natives can do so directly from the Dorns for \$50 (postage included). Contact Bob Dorn at linglebird@yahoo.com for details.

MNPS Chapters & the Areas They Serve:

ARTEMISIA CHAPTER - Yellowstone and Carbon Counties; southeastern/south-central Montana CALYPSO CHAPTER - Beaverhead, Madison, Deer Lodge, and Silver Bow Counties; southwestern Montana CLARK FORK CHAPTER - Lake, Mineral, Missoula, Powell, and Ravalli Counties FLATHEAD CHAPTER - Flathead and Lake Counties plus Glacier National Park KELSEY CHAPTER - Lewis & Clark, Jefferson, and Broadwater Counties MAKA FLORA CHAPTER - Richland, Roosevelt, McCone, Sheridan, and Daniels Counties VALLEY OF FLOWERS CHAPTER - Gallatin, Park, and Sweet Grass Counties plus Yellowstone National Park

All MNPS chapters welcome members from areas other than those indicated. We've listed counties just to give you some idea of what part of the state is served by each chapter. Watch for meeting announcements in your local newspaper. Ten paid members are required for a chapter to be eligible for acceptance in MNPS.

Your mailing label tells you the following:

CHAPTER AFFILIATION: ART= Artemisia; CAL=Calypso; CF=Clark Fork; F=Flathead; K=Kelsey; MF= Maka Flora; VOF=Valley of Flowers DATE YOUR MEMBERSHIP EXPIRES: If your label reads "2/06" your membership expired February 28, 2006. Use this form to renew your membership TODAY! Please drop us a note if any information on your label is incorrect. Please notify us promptly of address changes.

Membership in Montana Native Plant Society is on a calendar-year basis, March 1 through the end of February of the following year. New-member applications processed before the end of October each year will expire the following February; those processed after November 1 will expire in February of the year after. Membership renewal notices are mailed to each member in January. Please renew your membership before the summer issue of *Kelseya* so your name is not dropped from our mailing list. Your continued support is crucial to the conservation of native plants in Montana. THANK YOU!

MONTANA NATIVE PLANT SOCIETY MEMBERSHIP Name (please print)______E-mail_____ Address_____City/State/Zip_____ Phone_______New Membership $(\sqrt{})$ ______Renewal $(\sqrt{})$ ______ If you wish to be affiliated with a chapter (see above), list it here______ Membership Dues with chapter affiliation no chapter affiliation Individual \$20 \$15 Family **S25** \$20 **Business/Organization** \$40 \$35 Living Lightly \$15 \$15 Lifetime (one-time payment) \$300

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Canadian subscribers please add \$4.00 to cover mailing costs. Additional donations may be specified for a particular project or the general fund.

Montana Native Plant Society

The Montana Native Plant Society (MNPS) is a 501(c)(3) not-for-profit corporation chartered for the purpose of preserving, conserving, and studying the native plants and plant communities of Montana, and educating the public about the value of our native flora. Contributions to MNPS are tax deductible, and may be designated for a specific project or chapter, for the Small Grants fund, or the general operating fund.

Your yearly membership fee includes a subscription to *Kelseya*, the quarterly newsletter of MNPS. We welcome your articles, field trip reports, book reviews, or anything that relates to native plants or the Society. All items should be typed, saved in Microsoft Word or rich text format (rtf) for a PC, and sent electronically to: drakekath@hughes.net or mailed to *Kelseya* Editors, 503 State St., Helena, MT 59601.

Changes of address, inquires about membership, and general correspondence should be sent to MNPS Membership, P.O. Box 8783, Missoula, MT 59807-8783.

Advertising space is available in each issue at \$5/column inch. Ads must be camera-ready and must meet the guidelines set by the Board of Directors for suitable subject matter; that is, be related in some way to native plants or the interests of MNPS members.

The deadline for each issue is: Fall—September 10; Winter— December 10; Spring—March 10; Summer— June 10. Please send web items to our webmaster concurrent with these dates.

If you want extra copies of *Kelseya* for friends or family, call the Newsletter Editors, write to the above address, or e-mail: drakekath@hughes.net

No part of this publication may be reprinted without the consent of MNPS. Reprint requests should be directed to the Newsletter Editors.

Visit our website at: www.umt.edu/mnps/ or contact our webmasters Kevin & Lisa Tucker at: prairiewild@qwest.net

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