

# Borealis

the newsletter of the



March 1995

P.O. Box 141613, Anchorage, AK 99514

## Anchorage Chapter

★ March Meeting ★

*Please note the change of venue for this month's meeting!*

Monday, March 6  
7:30 p.m.

First Congregational Church  
2610 E. Northern Lights Blvd.  
(Please use back entrance)

### High and dry -- Further observations on limestone and alpine floras of Interior Alaska

The main program will be given by Robert Lipkin, Research Botanist with the Alaska Natural Heritage Program, University of Alaska, Anchorage. It will be an unplanned addendum to last month's talk by Dr. Glen Juday, and will compare the flora of several alpine areas with notes on their phytogeography. These areas have a number of attractive endemic and rare species.

**Plant Family** - Verna will continue our series on the Figwort Family. Plants in the genera *Linaria*, *Synthyris*, *Lagotis*, *Euphrasia*, *Rhinanthus* and *Pentstemon* will be featured this month.

**Mini-Botany** - Garry Davies will present a talk on phytochrome. See page 2.

A board meeting will be held half an hour beforehand, starting at 7 p.m.

## Mystery Plant

This month's mystery plant is a low, evergreen, prostrate sub-shrub. Its leathery leaves have a wrinkled appearance and scalloped margins. They are green-brown above, but densely covered in white hairs below. The nodding, yellow flowers do not fully open. Each fruit is attached to several long, silky plumes, that twist together into a spiral before pening out into a tan-colored fluffy head, somewhat resembling that of a dandelion seed head. Eventually the seeds parachute away from the parent plant to pioneer new locations on gravel bars and rocky slopes. A shorter species of the same genus is commonly found on rocky, alpine slopes. Its white flowers usually have 8 petals.

Answer on Page 3.



Mystery Plant drawings by Toby Tyler, ANPS Kachemak Chapter.

**Don't Forget!**  
**Anchorage Chapter**  
**Meetings have moved!!!**

## Meeting Space Changes

The Alaska Aviation Heritage Museum is no longer able to host Anchorage Chapter meetings, as they are about to embark on a construction project that will affect our meeting room. We have decided to hold the March and May programs at our previous location, the First Congregational Church, 2610 E. Northern Lights Blvd. (The April program will be a repeat of last year's popular keying exercise, and we hope to meet in the labs at UAA.)

The location of subsequent meetings is open for debate. If you have any meeting place ideas, bring them to the March meeting for discussion or contact Jean Poor at

## T-shirts - the story continues...

For all of you who have been following the T-shirt saga, the latest news is that Verna Pratt and Susan Jensen are discussing a joint design. When it is completed, Ginny will get T-shirts made, hopefully in time for the summer.

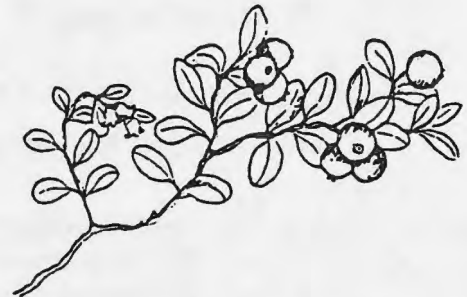
## Mini-Botany Feature: Phytochrome by Marilyn Barker

Have you wondered how some plants can tell time? Why are some plants short day plants and some long day plants? Plants contain a pigment called phytochrome which can exist in two chemical forms: phytochrome red (Pr) and phytochrome far red (Pfr). They can toggle back and forth by absorbing different wave lengths of light -- red 660 and far red 730 nm. Come to the March meeting and listen to Dr. Garry Davies explain how this works.



## Thanks, Marlena,

At last month's meeting we were treated to some wonderful refreshments, provided by Marlena Mooring. Unfortunately, due to our problems in accessing the building, Marlena was unable to give the talk she had planned for the Mini-Botany program. Instead she has written a short piece on cranberries (see Page 4), and included the recipe for the lowbush cranberry and banana jam that was so popular at the meeting. Thanks again, Marlena, for a wonderful spread!



## Alaska Rare Plant Working Group is a Happenin' Thing in April by Ginny Moran

The annual meeting of the Alaska Rare Plant Working Group (AKRPWG) is scheduled for April 5-7.

The group is, at best, a 'loosely knit' collection of botanists, ecologists, and "plant enthusiasts" who focus on rare plant issues, range extensions, inventories, and monitoring. Members are friendly, conscientious, competent and fun, and represent university faculty, federal and state agencies, as well as the private sector. The series of slide talks summarizing last season's plant work are always a treat. We are the first (and sometimes the ONLY) group to see many of the state's newest botanical discoveries, and this alone is an exciting reason for attending! Please come to hear or GIVE a talk in April! If you would like to give a talk, contact Rob Lipkin at . If you would like to simply attend, the meetings are free and open to everyone. We hope to see you there. Call Ginny Moran at for a time and location.

**The Figwort Family continued:  
Euphrasia, Rhinanthus and Pentstemon**

All this month's featured plants have opposite leaves. Plants in the genera *Euphrasia* and *Rhinanthus* have 4 stamens, while those of *Pentstemon* have 5 (however, one of these is sterile). The name "Pentstemon" is derived from the Latin words "pente", meaning 5, and "stemon", meaning stamens.

Two species of *Euphrasia* (Eyebright) occur in Alaska. Both are small and relatively inconspicuous. *E. mollis* has short, simple stems covered with soft white hairs. The leaves are broadly ovate (egg-shaped), with 1 - 4 blunt, rounded teeth on each side. Flowers are small, with purple-lined white petals and a lavender upper lip. It grows in sub-alpine meadows in south-coastal Alaska. The similar species *E. disjuncta*

is taller, and has narrower leaves with wedge-shaped bases. Its upper parts may be glandular. This species occurs in the southeastern part of mainland Alaska (although not along the coast), and in isolated pockets elsewhere.

The name "Rhinanthus" is derived from the Greek words "rhin" (snout), and "anthos" (flower). A literal translation would be "snoutflower", an obvious reference to the shape of the bloom. *R. minor* is a leafy, erect annual, growing 12 - 20 inches tall. The rough, hairy leaves are sessile (without stalks), long and narrow in shape, and toothed along the margins. The small, yellow flowers are in leafy-bracted terminal spikes, but are relatively inconspicuous. They barely



Rattlebox

protrude from the flattened balloon-like structure formed by the fused sepals. The calyx becomes inflated in fruit, and the mature seeds rattle inside it, leading to the common names of Rattle Box and Yellow Rattle. This common plant is found in open fields, along roadsides and in meadows throughout southern Alaska and the Aleutian Islands.



Yukon Beardtongue

Plants in the genus *Pentstemon* are perennial herbs with a woody stem-base, and in Alaska bear blue-purple flowers. *P. Gormanii* (Yukon Beardtongue) has showy, vivid violet-blue flowers. The basal leaves are spatula-shaped, with entire margins. It grows on arid, alpine slopes up to 3000 feet elevation in southeastern parts of the Brooks Range, the eastern Alaska Range, the Saint Elias Mountains, the Yukon and northern British Columbia. Two other species, *P. procerus* and *P. serrulatus* occur in British Columbia and S.E. Alaska.

**Mystery Plant Answer:**



*Dryas Drummondii*

**Yellow Mountain Avens (Rose Family)  
The other species was *D. octopetala*  
Mountain Avens/Eight-petaled Avens**

## What's in a Name?

### *Linum perenne* (Flax)

This wispy plant has narrow, blue-green leaves and one-inch blue flowers that bloom in June and July. It grows in dry, sandy soils in eastern and central Alaska.

"*Linum*" is the classical Latin name for flax. "*Perenne*" can be translated as perennial. Members of this genus have been economically important for thousands of years. An Old World species, *L. usitatissimum*, was cultivated in Mesopotamia more than 4000 years ago, and may date back even further. Besides serving a number of early medicinal uses, it yielded cloth, thread and oil. Today fibers from this plant are manufactured into fine writing papers, cigarette paper and linen. Oil, extracted from the pressed seeds, is used in paints, printing ink, and varnishes. The remaining material is used for animal feeds. Linen and linseed oil, both important products of commercial flax, derive their names from this plant.



## Recipe of the Month by Marlena Mooring

It was fun to see everyone enjoying all the lowbush cranberry goodies on the back table at February's meeting. Cranberries have such a wonderful flavor and gorgeous color, plus they have a high Vitamin C content. Special thanks to Verna Pratt for her contribution of lowbush cranberries and the lowbush cranberry banana jam, which was DELICIOUS! Her recipe is printed below, so we can all make it. All we need to do is collect the berries!

*Vaccinium vitis-idaea* is a member of the Heath Family (Ericaceae). "*Vaccinium*" is the classical name for blueberry and cranberry. "*Vitis-idaea*" means "vine of Mt. Ida" and honors a mountain in Crete. Common names for this species include lingonberry, mountain cranberry, rock cranberry, cowberry, foxberry and partridgeberry. Although the berries ripen in early September, they are best picked after the first frost. They contain benzoic acid, a natural preservative, and they also freeze well.

Inupiat Eskimos use mashed lingonberries as a poultice for rashes. Chewing the berries soothes a sore throat and aids digestion.

Verna also told me that these berries are excellent when added (1 cup) to your favorite banana bread recipe. Martha Ellen Anderson of Sterling dries lowbush cranberries, grinds them in a blender and uses the tangy red powder on Christmas cookies in place of red-dyed sugar. These versatile berries can be used in breads, cookies, jams, jellies, drinks, and sauces. All it takes is berries and your imagination!

### Lowbush Cranberry and Banana Jam

3 cups lowbush cranberries  
1 1/2 cups water  
2 cups mashed banana (6 medium bananas)  
7 cups sugar  
1 packet liquid pectin

Simmer the cranberries and water for 10 minutes. Add the mashed bananas and sugar. Mix well and bring to the boil. Boil hard for 1 minute. Add the packet of pectin and stir well.

Remove from heat and skim off foam (bananas make it foamy - save the foam - its delicious over ice-cream). Fill sterilized jars.

## In Defense of Monocotyledonous Diversity!

by Ginny Moran

Sure, we all have groups of plants we tend to turn our leaves up at. For some it's the Aster Family, for others it's the willows. But while there are some challenging dicotyledonous plant families, for a lot of folks it's the monocots, especially the grasses and sedges, that should be avoided. If you want to be a politically correct botanist, it's time to break down the walls of cotyledonous prejudice and get to know those monocots! After all, the Sedge Family is represented by over 100 species in Alaska, and they occur all over the state. They are important components of Alaskan ecosystems.

Like our showy friends, the dicots, monocots also flower. However, aside from the lilies, orchids and irises, they don't all do it with bells and whistles. Grasses, rushes, and sedges are more subtle, more refined, but their flowers can be just as beautiful. It simply requires a little closer scrutiny.

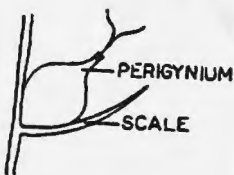
Maybe sedges are so scary because they aren't particularly showy, they all sort of look alike, and they grow in places where you need some very reliable mud boots, hip waders or an outboard motor? Perhaps, it's that sedges have their own terminology? (What is a perigynium anyway? No doubt the topic of the next Talk of the Nation. . .)

There are some important characters one needs to observe when studying sedges. Working our way from the "macro" to the "micro" level, is the growth habit tufted or not tufted? Do the leaves look flat or rolled? Is the base of the plant leafy or just covered with reduced scale-like leaves? Are the male and female flowers on separate plants? (In sedges, dioecy is rare.) The flowers of sedges are in spikes. The spikes may have all female flowers (pistillate), or all male flowers (staminate), or both may occur

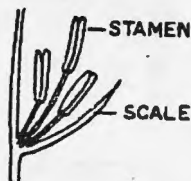
in the same spike. If they occur on the same spike, one needs to note if the male flowers are above the female flowers or vice versa. Are the spikes all erect or do a few of them hang down? How many stigmas does the pistil have (sticking out of the top of the perigynium)?

Looking at an individual pistillate flower, we can see the perigynium. (This term is also applied to the anatomy of Liverworts but we won't be discussing them here). The perigynium is actually a bract that surrounds the female portion of the flower (the pistil). In many species it is somewhat inflated and mostly joined at the edges, giving it the appearance of a sac. Inside the perigynium is the ovary, which will develop into the "nut" or achene. Growing directly beneath (or subtending) the perigynium is a modified leaf also called the bract or scale. (One common sedge of the south-central, southeast, and Aleutian Island areas is *Carex macrochaeta*, or Long-awned Sedge. This sedge is distinctive because the scale extends into a 1 cm or so "awn". Its species name is descriptive of this; "macro" meaning large, and "chaeta" meaning bristle). It's important to be able to identify the scale and perigynium because they are the characters most often used to distinguish species of sedge. Once you can identify the perigynium, keying sedges can be a breeze! (Granted, an eye-glass or microscope is helpful in most cases!) Don't be intimidated! Try keying at least ONE sedge this summer. You'll see that sedges get a bad rap. I'd rather key out a sedge than a *Draba* any day!

*How to Identify Grasses and Grasslike Plants*, by H. D. Harrington, is an excellent book for helping to sort out the differences between our sublime monocots. It's published by Swallow Press of Ohio University Press in Athens, Ohio. If you start losing hair from scratching your head over sedges this summer, please take heart in a quote from this book, "It is rather consoling, though, to remember that many others have toiled down the path before you and have finally reached the goal." Happy sedging!



PISTILLATE FLOWER



STAMINATE FLOWER

Illustrations from *How to Identify Grasses and Grasslike Plants*.

## Field Trips and more . . .

### Beginnings of ANPS Summer '95 Field Trip Schedule

It might only be March, but plans for the field trip season are underway. Already, some of you have submitted field trip dates and ideas, but we need more. Dates so far are:

May 14 - Wishbone Hill

May 17 - Evening Spring Wildflower Walk on  
Turnagain Arm Trail

May 24 - Evening Spring Wildflower Walk at Glen  
Alps

June 24 - July 2 - The Native Plant Society of  
Texas meets the Alaska Native Plant  
Society. Get ready for an action-packed  
week of field trips.

July 14-16 - Devils Pass backpack

A detailed field trip schedule will be mailed out to members by the beginning of May.

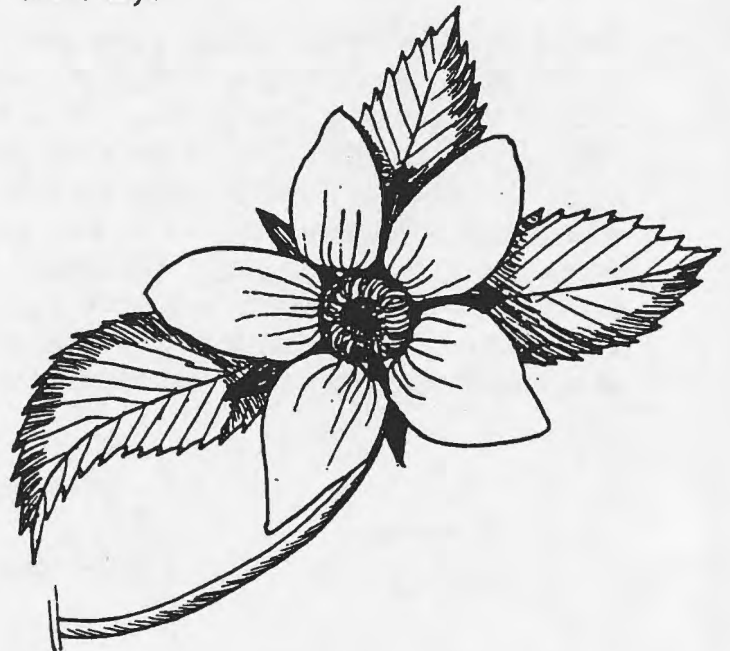
We'd particularly like to hear from members outside of the Anchorage area. If you would like to lead a plant hike or have an idea for a botanical trip, call Julia Ricketts at . . . . Let's make this a great field trip season.

### Celebrating Wildflowers Campaign by Ginny Moran

Volunteers from the ANPS are requested to help out with a "Celebrating Wildflowers" campaign this summer. The objective is to devote a week to educating the "general public" about the native plants of our area through talks, walks and hikes. All events will be free and the schedule will be published in local newspapers. Various agencies and organizations have been asked to participate. If you would like to give a talk, lead a hike or walk, or otherwise help out, we could certainly use your help. An organizational meeting for this event will be arranged. For dates or more information, contact the event coordinator, Ginny Moran, at the US Fish and Wildlife Service . . . . Thanks!

### Mat-Su State Parks Request Volunteers to Lead Botanical Hikes submitted by Ginny Moran

Dale Bingham, Superintendent for the Mat-Su/Valdez/Copper River Area Parks, would very much appreciate any volunteers that could lead native plant/wildflower hikes this summer. In particular, Dale would like his area to participate in the "Celebrating Wildflowers" week. State Parks, Historical Parks, Recreation Areas and Recreation Sites under his jurisdiction include: Denali, Montana Creek, Willow Creek, Nancy Lake, Rocky Lake, Big Lake, Kepler-Bradley Lakes, Finger Lake, Wolf Lake, Independence Mine, Summit Lake, Moose Creek, King Mountain, Bonnie Lake, Long Lake, Matanuska Glacier, Little Nelchina, Lake Louise, Dry Creek, Porcupine Creek, Liberty Falls, Squirrel Lake, Little Tonsina, Worthington Glacier and Blueberry Lake. If you would like to help Dale out by conducting a hike (or hikes) during this event (dates to be determined in the near future), or if you want to lead a hike at a different time, contact Dale at . . . . (and don't forget to tell Julia so it can be included in the ANPS Field Trip Schedule)..



**The Plant Notice of Review**  
**What is it and why should we know about it?**  
 by Ginny Moran

Boy am I glad you asked! In February, the Washington DC Office of Endangered Species made a "call" for recommendations for the 1995 Plant Notice of Review. "Notice(s) of Review" are lists published in the Federal Register every two years by the US Fish and Wildlife Service (Service). They summarize the plant and animal species that either have been or may become candidates for listing as threatened or endangered in the future. These species are not protected by the Endangered Species Act. Notices of Review are basically administrative "watch-lists" for the Service.

Although candidates are tracked continuously by the Service, every two years they make a "call for data" which leads to publication of the latest information. Alaska has 16 "Category 2" plant species. These are species for which the Service has insufficient information to make listing decisions.

Anyone can recommend changes to the Notices of Review. Documentation is required for a change

to be accepted. The deadline for getting changes to the Anchorage Field Office is April 15. The Service needs to have their recommendations to Washington by April 30. Do you have a species to recommend? Would you like more information, a copy of the current Notice of Review, or the list of Alaska's candidate plants? Call Botanist, Ginny Moran at the USFWS at



*Artemisia globularia* var. *lutea*  
 A Category 2 plant found on  
 St. Matthew Island

☞ 1995 Dues are Due ☜

**ANNUAL MEMBERSHIP APPLICATION / RENEWAL**

The Alaska Native Plant Society was organized in 1982 by an enthusiastic group of amateur and professional botanists. It is a non-profit educational organization with the aim of uniting all persons interested in the flora of Alaska.

Membership is open to any interested individual or organization. If you wish to join us, please indicate the category of membership you desire, then clip and mail this application with the appropriate remittance to: Alaska Native Plant Society, P.O. Box 141613, Anchorage, AK 99514.

Select the membership category you desire:

Full Time Student	<input type="checkbox"/> \$5	Name: _____
Individual	<input type="checkbox"/> \$10	Address: _____
Family	<input type="checkbox"/> \$15	City: _____ State: _____ Zip: _____
Organization	<input type="checkbox"/> \$25	Telephone: (Home) _____ (Work) _____

Membership is on a calendar year basis.

### ANPS State Officers

President Sally Karabelnikoff  
Vice-president Ginny Moran  
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### Anchorage Chapter Board Members

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Vice-president Julia Ricketts  
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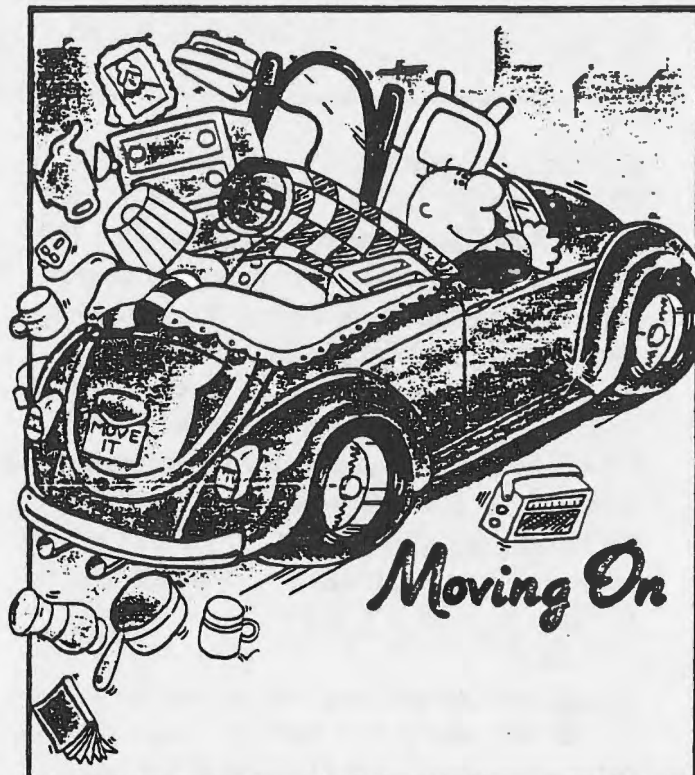
### Anchorage Chapter Program Coordinators

Ginny Moran Main Program  
Verna Pratt Plant Family  
Marilyn Barker Mini-Botany  
Julia Ricketts Field Trips

### Borealis

Editors Julia Ricketts  
Trevor Ricketts  
Circulation Martha Hatch

The newsletter of the Alaska Native Plant Society is published monthly except for June, July, August and September. Contributions for the April issue should be mailed to: Julia and Trevor Ricketts, , Anchorage, AK 99516 to arrive by March 10.



**The Anchorage Chapter is Moving  
See pages 1 and 2 for details**

**Alaska Native Plant Society  
P.O. Box 141613  
Anchorage, AK 99514**

### **IS YOUR MAILING LABEL CORRECT?**

Please take a moment to check your mailing label and make sure that your name, address and your renewal date are correct.