

# Borealis

the newsletter of the



PO Box 141613, Anchorage, Alaska

January 2003

## Join us at our Winter meetings!

**Campbell Creek Center**

**Monday, January 6 , 7:30 p.m.**

**Topic:** "Invasive Plants in Alaska"

**Speaker: Michael Flemming**  
U.S. Forest Service

**Monday, February 3 , 7:30 p.m.**

**Topic:** "Growing Natives Successfully"

**Speaker: Nancy Moore**  
Plant Materials Center, Palmer

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**Plant Family Study**

**"THE IMMIGRANTS"**

**January: Brassicaceae/Mustard "weeds"**  
**Presenters: Dan Bogan and Luise Woelflein**

**February: Menthaceae/Mint "weeds"**  
**Presenter: Cara Wardlaw-Bailey**

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**Look inside for  
SEED EXCHANGE list!  
Order SOON!**

## Building A Future For The Past

The Alaska Museum of Natural History is embarking on an ambitious project of spontaneous reincarnation! Incorporated in 1992 and previously located in Eagle River, the Museum is partnering with Anchorage Neighborhood Housing Services, Inc. to purchase and renovate a 12,000 square foot building near downtown Anchorage. It will become a cornerstone of an innovative Arts and Cultural District now underway in Anchorage.

Dedicated to the preservation and display of Alaska's natural history, the museum will provide education and enjoyment for years to come! The Museum will include a classroom, mini-theater, office space, library space, a collections room and over 3200 square feet of exhibit space. Building, maintaining and operating the permanent Museum will be a major undertaking for our organization.

The purchase of land and infrastructure will be made possible by fundraising initiatives conducted over the next year. The Museum's Capital Campaign Committee has established a target goal of \$1.5 million for the museum and exhibits, administrative costs, and added endowment.

As plans are developing for the core structure of the Museum, they are actively seeking donations for the building and for an endowment fund that will support the Museum.

**Your help is needed to move this project forward!** Now is the time to take a giant step forward and share your generosity.

The Alaska Museum of Natural History will be a work in progress for years to come. Collectively, as the museum unfolds, we can become a part of its history.

For information on how you can get involved, contact Anne Pasch at [ahadp@uaa.alaska.edu](mailto:ahadp@uaa.alaska.edu) or Ginny Moore at [mooretg@alaska.net](mailto:mooretg@alaska.net).

There are over a dozen genera of plants in the Brassicaceae/Mustard family that have been introduced in Alaska. Undoubtedly, most have been brought in through roadside revegetation or mixed in with vegetable seeds. Most are annuals, and most have not become too troublesome, but they are often unsightly. They often tend to look and be "weedy" but usually stay in waste areas. The following species are probably the most common.

*Capsella bursa-pastoris*, commonly known as Shepherd's Purse, is frequently seen in waste areas, lawns and gardens. Shepherd's-purse is a cool season annual weed. Seed leaves are pale green with tiny granules on the surface. The first true leaves have smooth margins, but fourth and later leaves may be indented. The true leaves are covered with star-shaped hairs that distinguish shepherd's-purse from most other weed seedlings. Mature plants may be as tall as 20 inches and grow from the center of a rosette of indented and nonindented leaves. The heart-shaped seed pods make this species easy to recognize when mature.



*Lepidium densiflorum*

Field pennycress (*Thlaspi arvense*) was introduced to North America from Eurasia at a very early date. The plant bears an unpleasant odor, making it easy to identify. The most characteristic attribute of this species is the round or oval wafer-like pod which justifies the name pennycress and in England during the last century the pods were likened to silver pennies. The simple leaves clasp the stem and the tiny white flowers are barely noticed. The large, round, relative flat seed pods are indented at the apex (end/tip).

*Thlaspi arvense* overwinters either as seeds or as vegetative rosettes. During its vegetative phase, the rosettes protect the overwintering plants from freezing temperatures and drying winds, enabling them to survive

under the insulating effect of the snow cover. In fact winter snow cover plays a significant role in its survival.

Plants in bloom when winter sets in become frozen, but they thaw out in spring and continue to grow and mature their seeds without the slightest injury. Fruits continue ripening until frost. The seeds of these early plants are ripe early in July. Plants that grow from seeds in the spring are not ripe until some weeks later. After the

middle of June they are too far advanced to be plowed down. At the turn of the century, T. N. Willing, Chief Weed Inspector of the Northwest Territory, said: "It will pay well to drop all other work and fight this weed when it is first noticed".

*Lepidium densiflorum*, Peppergrass, is also seen in farming areas. Basal leaves are toothed; flowers are tiny and usually white. The numerous tiny, round seeds are hot and peppery tasting.

The most obvious alien plant of this family is *Brassica rapa*, Bird Rape, Its yellow flowers, though small, are very showy, and its economic value is well known. Like many other members of the family, it is edible and this is the plant from which canola oil is made.



*Thlaspi arvense*

# An "Arctic Beauty" Love Affair

by Bob Uhl

*Introductory Note from Carolyn Parker: Bob and Carrie Uhl have made their living in the Kotzebue Sound area for 55 years. The region is home to Carrie's family; Bob is a 'recent' immigrant from California who lost his return ticket and had to stay. Summers are spent fishing and hunting on the Chukchi coast at Cape Krusenstern. Winters are spent in the forested inland up the Noatak River. They have hosted the Christmas Bird Count in their winter home for many years, and have always been a gold mine of information on the natural history of the entire region. It was a commercial fishing partner (who had taken Plant Systematics at UAF the preceding winter) who pointed out to Bob the flower that would become his obsession for over 20 years. Bob has monitored one large population growing in an open meadow linked to a back water (low energy) lagoon system near their summer home. He has come to some interesting, and probably very valid, insights into what conditions could be controlling both the widely oscillating population size and the varying size of individual plants he has observed over the years.*

*Having no formal training, Bob thinks from the gut, and from his strong sense of 'place' that comes from living on, and living off of, this landscape through all its seasons for many years. He has challenged us urban-summertime botanists to whom he has sent so many excellent questions. It is a delight to be in the field with him. Few people today have the intense feel for the dynamics of an entire system, and its many separate components, as Bob and Carrie do. Enjoy his story!*

For 75 years I have wondered, to various degrees, if it is possible for there to be a meaningful relationship between man and plant. It has become obvious to me that the relationship must be of a spiritual nature, and very likely is not shared by everyone, though there is no reason that anyone, and everyone, could not share this wonderful human experience. I've found that relationship with a special plant.

The flower – *Gentianopsis detonsa* - the plant is by Latin classification and is a fringed gentian called "shaved gentian" in some parts of its circumpolar range.

Found only near, or north of, the Arctic Circle, it is truly an Arctic Beauty and a successful living species in a very harsh environment.

Now, as a transplanted Northern Californian, growing there for 20 years before joining the gentian for the next 55 years in its harsh environment, I have a true feeling of rapport on a spiritual plan with this unique plant. It is hard for me to admit then, that for some 20 years or more I walked through the habitat of this fine plant, probably even stepping on some, without even noticing it!

It does seem likely though that I am not alone in this transgression of unawareness of things that might later be seen as sacred. In the busy times of growing up, establishing, and then feeding and caring for a family, and meeting the challenges of environment, financial needs, career concerns and all, most folks fail to note the beauty and the miracles of life that commonly go on right under our feet.

My friend and commercial fishing partner pointed this plant out to me one morning on our way through the salt marsh to our anchored fishing boat. It was then that my fascination and relationship began with this Arctic Beauty.

A relationship developed much as any relationship with another. A name – what is the plant called? When and where does it grow? When does it flower? When are seeds mature and when and how widely are they distributed?

Now, the plant of course doesn't respond the way another person would, but the answers are there for those careful enough to seek them out. After seeing the beautiful, short-lived flower this plant produces, I cared enough and I have since spent many years seeking answers and following the natural trends of such a relationship that requires the formulation of additional questions.

It seems there may not be an end to this kind of relationship. Answers lead to more questions and more wonder at the beauty of the plant and the systems by which it functions to be a successful living species on this great earth.

Somewhere along the line the quest – that is, the quest for a satisfactory relationship – can become spiritual.





With me, the spiritual aspect came quite spontaneously with my own recognition, in mid-life, of the reality of a spiritual world as well as the world we can see, feel, touch and measure.

As one gains a religious faith and focuses on the promises of that faith, it appears that having a particular love relationship with a specific plant species is not beyond what one might expect in heaven.

Now we have mixed science and theology here, and that is good, because in truth, there should be no contradiction between the two as we seek to form love relationships with living life forms on this remarkable planet.

Each mid-July as this plant comes into flower in our backyard – a salt marsh on the north shore of Kotzebue Sound, called Sisaulik, I am awed simply by its being there again! It seems such a fragile bit of life, dependent on a hot sun on black mud and warm snowmelt water to spark germination in a tiny microscopic seed, barely a month before flowering and finished plant growth.

There is a sense in which all life can be seen as sacred, the handiwork of a supreme creator. As one becomes intimately aware of another life form, along with some of its complexities, beauty and capabilities of sustaining itself in the harshest of habitats, it only makes one more willing to serve in love the One who could create such a marvel.

Now, this plant is found in Alaska *only* in a narrow strip from the Noatak Delta down through the Baldwin Peninsula on its saltwater side, and up to Cape Espenberg. It is not found again until one reaches the Mackenzie Delta. This is quite a distribution gap, and poses more questions. And miracle of miracles, it is abundant in our backyard salt marsh at Sisaulik.

We can have winter temperatures to -50° F and summer temperatures to 90°F. The location in which the plant chooses to grow within the salt marsh is the storm flood surge zone where all floating debris gathers and begins its deterioration. Plastics, lumber, driftwood, net corks, lost buoys and, of course, crude oil. If there were a bad oil spill in Kotzebue Sound during storm flood conditions, the existence of this plant would be in question. It does however have several attributes that might allow the species to survive even this most severe threat.

The ability of this plant to be a survivor of adverse conditions is one of the characteristics that draws us closer together. Living on and from the land for these many years makes one share in the struggle for existence with other forms of life.

We tend to become very possessive of the moose, caribou, or bear that settle on what we call "our land" for awhile. They always move on, but for a while we have shared the same air, same water, same plants, same vision of sunrise and sunset, and of course, the negative things – thick biting flies and mosquitoes, air so cold it seems hard to breathe, drifting snow so dense your hand or foot in front of your face can't be seen, and summer rainy spells so long lasting that the world, and your body, seem forever wet and dripping.

As one shares these day-to-day things and seasonal changes over long periods of time, it is no wonder that relationships that one can only call spiritual develop between animal, plant, bird, river, mountain, waterfall, or whatever. Many of the cultures of the world, not surprisingly, have developed religions around such spiritual relationships.

As for this shave gentian and me, we do share some common traits. Our lives orbit around a mixture of salt and fresh water habitat. We both manage to eke out an existence in unlikely habitat, making do with what is there, and then, in that short period of glory, flower into well-being and satisfaction. Our well-being and exuberance, and the flower's beauty spread over the whole marsh. A short week or ten days of this and we both fade back into the anonymity of our surroundings.

We have made it for another year in spite of all obstacles to our existence. In our different ways, we have committed ourselves to whatever comes our way this coming year and will know again the glory of making it through in spite of all.

The moral to this story, if there is one, has to do with recognizing things, even most sacred things that one might be trampling on without recognizing their value. This world is filled with absolutely amazing forms of life, and inanimate things - rivers, mountains, waterfalls, and creeks - that one might establish a relationship with, and that could lead to a life-changing attitude. Look around where you are stepping – focus on things large and small that you have not noticed before, and follow up on the questions that will quite naturally come to you. Finding one answer will lead to five more questions, which will be just the beginning.

Year after year, in these my later years, I must say it is great to be alive, if for no better reason than to observe the early flowering of this near luminescent, deep purple-blue Arctic Beauty.

Editor's Note: The plant, listed as *Gentiana detonsa* in Hulten, is closely related to the *Gentiana barbata* from the Interior in ways not yet well understood.

## Alaska Native Plant Society - Seed Sale List - 2003

The Alaska Native Plant Society sells seed of plants native to Alaska, which have been collected by members during the year. Seeds can be purchased at the regular monthly meetings or by mail order.

The price is \$0.50 per package. Package sizes vary considerably due to the number or amount of seeds collected. Some rare or difficult to collect species may contain few seeds, while some easy to collect species may contain a large number of seeds.

For mail orders, include an additional \$0.50 for 1 -5 packages, or \$1.00 for 6 or more.

Make checks payable to: Alaska Native Plant Society

Send order to: Alaska Native Plant Society, PO Box 141613, Anchorage, AK. 99514

# Pkgs.	NAME	DESCRIPTION
NATIVE PLANTS		
	1. <i>Androsace chamaejasme</i> Rock Jasmine Donor: Richard Russell	Perennial rock garden plant, 2-4" tall. Small white flowers. Prefers dry, sandy or gravelly soil and full sun.
	2. <i>Aquilega brevistyla</i> Blue Columbine Donor: Marilyn Barker	Perennial small blue columbine; 12-15"; Small flowers Easy, average soil, likes sun.
	3. <i>Aster subspicatus</i> Leafy Aster Donor: Verna Pratt	Perennial 16-20" with 1-1/4" lavender flowers. Average soil.
	3. <i>Astragalus umbellatus</i> Tundra Milk Vetch Donor: Verna Pratt	Perennial 5-7". Flowers in yellow racemes. Presoak seeds for a couple hours. Average soil; likes moisture.
	4. <i>Bupleurum triaradiatum</i> Thoroughwax Donor: Richard Russell	Perennial 4-20" depending on soil and conditions. Double umbels of small yellow flowers atop bright yellow bracts. Prefers dry sunny areas.
	5. <i>Campanula lasiocarpa</i> Mountain Harebell Donor: Verna Pratt	Perennial 3". Flowers lavender, funnel-shaped. Easy to grow, average or gravelly soil; likes soil.
	6. <i>Dryas drummondii</i> River Avens/Yellow Dryas Donor: Marilyn Barker	Yellow flowering sub-shrub. Forms a mat. Flowers not. 4-5". Slow to germinate, stratification may help. Likes sun and gravelly soil.
	7. <i>Elaeagnus commutate</i> Silverberry Donor: Marilyn Barker	Shrub 5-10 feet. Silvery-willow-like foliage, small yellow aromatic flowers. Slow-soak seeds to remove pulp to hasten germination.
	8. <i>Erigeron eriocephalus</i> Mountain Fleabane Donor: Verna Pratt	Perennial 3-4" pinkish white flowers. Easy. Likes gravelly soil and lots of sun.
	9. <i>Erigeron peregrinus</i> Coastal Fleabane/Daisy Donor: Marilyn Barker	Large pink flowers, 12-14" tall. Keep moist during germination, stratification may help. Average soil.
	10. <i>Fritillaria camschatcensis</i> Chocolate Lily Donor: Jean Christy	Brown flowers with distinctive odor, 12-24" tall. Slow to germinate; needs damp stratification and patience. Easy to grow; prefers average soil and sun.
	11. <i>Gentiana platypetala</i> Broad Petaled Gentian Donor: Verna Pratt	Perennial 8-12". Large sky- blue up-facing flowers. Easy to germinate, seedlings very small. Average soil, lots of sun.

12. <i>Geranium erianthum</i> Wild Geranium Donor: Verna Pratt	Perennial, 16-20" white form. Easy to germinate and grow. Average soil, likes sun, but will tolerate shade.
13. <i>Lomatogonium ratatum</i> Marsh feldswort/tar gentian Donor: Richard Russell	Annual 6-12" tall. Light blue 5-petaled flowers. Prefers damp areas; damp stratification would be helpful.
14. <i>Oxytropis nigrescens</i> Purple or Blackish Oxytrope Donor: Verna Pratt	Perennial 2", small mat forming. Purple flowers. Average or gravelly soil. One-two hour soaking will hasten germination.
15. <i>Papaver alboroseum</i> Pink Poppy Donor: Verna Pratt	Short-lived perennial, 3-5". Will bloom first year. White form (from Lazy Mt.) Easy to grow and germinate, likes sun, space, gravelly soil.
16. <i>Potentilla uniflora</i> One-Flowered Cinquefoil Donor: Verna Pratt	Perennial, 4" yellow flowers. Germinate easily. Average soil; lots of sun.
17. <i>Potentilla villosa</i> Villous Cinquefoil Donor: Verna Pratt	Perennial, 4-6"; yellow flowers. Easy to grow, likes sun and average oil.
18. <i>Pyrola secunda</i> Side-Bells Donor: Verna Pratt	Evergreen perennial, 4-5". Small green flowers. May need stratification. Slow to germinate. May need extra nitrogen when growing.
19. <i>Saxafraga hieracifolia</i> Stiff-stemmed saxifrage Donor: Richard Russell	Perennial, 10-18" with a spike of greenish-brown flowers. Likes moisture.
20. <i>Sececio resedifolius</i> Groundsel or Dwarf Arctic Butterweed Donor: Verna Pratt	Perennial 4-5"; yellow daisy type flowers. Prefers gravelly soil. Easy to germinate.
21. <i>Streptopus amplexifolius</i> Watermelon Berry or Twisted Stalk Donor: Verna Pratt	Perennial, 18-24" tall. Good in either sun or shade. Prefers rich soil. Small white flowers. Edible berry. Soak seeds for a couple hours.
22. <i>Viola langsдорffii</i> Alaska Violet	Perennial, 4-6" tall; purple flowers. Easy, average soil, moderate sunlight.
23. <i>Veratrum viride</i> False Hellebore Donor: Marilyn Barker	Perennial, 4-5 feet. Large dramatic leaves and long racemes of green flowers. Stratify. Likes moisture.
NON-NATIVE PLANTS	
24. <i>Allium</i> Purple Sensation Donor: Verna Pratt	Perennial, purple flowers in a 3" ball atop a 20" stem. Average soil, will tolerate partial shade. Very nice plant
25. <i>Lychnis alpine var. nana</i> Alpine Catchfly Donor: Verna Pratt	Perennial 6", pink. Easy to grow, re-seeds nicely. Average soil, likes sun.
26. <i>Veronica schmidiana</i> Light Pink Veronica Donor: Verna Pratt	Perennial, 6". Easy to grow from seed.

## Immigrant Plants: Menthaceae/Mint Family

Although the Menthaceae/Mint family is relatively small in Alaska (about 14 genera) half of the members are introduced. It is difficult to determine exactly how many are here as new introductions. Some have been seen in only one area and may have since been eradicated.

Member of this family have square stems and opposite leaves. Most are prolific reseeder and can be troublesome for home or commercial gardeners.

The most annoying introduced specie is probably *Galeopsis bifida*, Hemp Nettle. This is a rapid growing annual, 18-30 inches tall, that blooms throughout the summer, constantly scattering seeds everywhere. The small, bilateral mauve flowers grow in whorls above the ovate, slightly toothed leaves. It was probably introduced through careless seed gathering for home and commercial gardening.

*Prunella vulgaris*, Self Heal, is probably the next most troublesome plant. This perennial plant was originally introduced from Europe as a garden plant. It spreads by rhizomes, is about 6 inches tall with oblong to lanceolate leaves and an elongated spike of small violet flowers with sometimes purplish sepals. These plants were originally limited to Southeast Alaska, but have since been found in Prince William Sound, Mt. Alyeska, Penguin Ridge, and Glen Alps. Seeds are probably carried by birds.

*Prunella vulgaris* is common at lower elevations and in spruce and aspen forests. In fact its species name, "vulgaris" means "common". But *Prunella* is usually passed by because it is such a small, slender plant. A close look will reveal lovely, tiny, purple/lavender flowers in the arching swirls characteristic of the Mint family. The word "Prunella" is either from the Latin for "purple" (as in the fruit "prune"), or from the German word "Braune" and then the English cognate, "Brunella". "Braune" is "quinsy", a form of tonsillitis which *Prunella* was thought to cure.

Other aliens in this family have mostly small and scattered populations, but if we all are not careful *Glechoma hederacea* could become a horrendous weed. The tiny Ground Ivy, up to 3 inches in height, flourishes in groves and in woody grasslands. It is a trailing perennial and propagates through the stem that can take root and runners. The runners can grow to a length of 1 meter. The leaves looks like little hearts with serrated edges and are situated opposite each other on the stem. The flowers, situated in the leaf folds are blue purple and

are barely noticeable. It flowers from May - June. This herb is aromatic but the taste is sharp. Ground Ivy contains one etheric oil, bittersubstance marrubine, choline, tannic acids and vitamin C. In the 1600th century Ground Ivy was used both on external and internal wounds, against depressions and insanity

In a climate where few ground covers survive, it may seem a blessing. This plant, also called "Creeping Charlie", spreads rapidly, though, and it could easily escape from cultivation by careless gardeners. Sometimes people throw the villain over the fence or into a vacant lot to rid their own yard of the menace. Fortunately the roots are shallow, so with a little diligence it can be kept in bounds.



***Galeopsis bifida*  
Hemp Nettle**

**Drawing by Cara Wardlaw- Bailey**



# Stratification: Simulating Winter



Plants native to climates with cold winters often times require a period of moist cold before planting. The method used to simulate the period a seed would spend in the cold moist ground is called *stratification*. By exposing them to conditions that mimic those in nature, we break the dormancy period and promote germination. Many perennials, woody plants, trees and shrubs require this type of pre-treating to simulate winter.

Mother Nature can be fooled by placing your seeds in damp peat moss, sphagnum moss or vermiculite and storing them in a cold place with temperatures around 34 to 40 degrees Fahrenheit. Coincidentally, that's about the average temperature of most modern refrigerators. A plastic bag or old plastic containers work well for your fake winter storage. The stratification mixture should be labeled to avoid your spouse from making it a midnight meal, as well helping you to remember what it is.

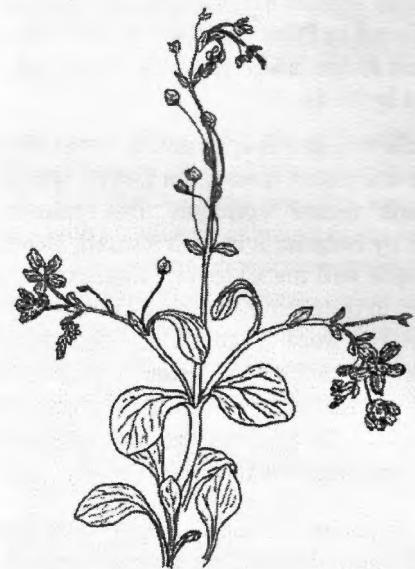
A few species have a hard seed coat which prevents water access and resultant germination. Again this is nature's method of ensuring that not all seeds shed germinate immediately but over an extended period, giving a better chance of survival of the species. To break down the seed coat or achieve *scarification* we suggest rubbing them between two sheets of abrasive paper. The seedcoat of large seeds such as cranesbills, vetches and sweet pea can be broken one at a time with coarse sand paper or a junior hacksaw blade.

## MYSTERY PLANT

This plant can be found in moist, coastal areas of the Aleutian Chain, Prince William Sound, Southeast Alaska and in moist coastal and inland areas of British Columbia.

The spoon-shaped fleshy leaves have an acute tip, very long petioles and are tasty in salads or when cooked like spinach.

In sunny areas it usually is 8-10 inches tall, but can grow to 16 inches if found in the shade. The flowers are about 5/8 inch across, have five obcordate petals. Usually the petals are pink but occasionally white, often with darker pink lines. The flowering stem has two leaves from which the several flowers may emerge.



**Mystery Plant**

**By Cara Wardlaw-Bailey**



## 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 goal 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, fill in the form below and mail it with the appropriate remittance to:

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

STATUS  New  RENEWAL  
CATEGORY

- |                          |                   |      |
|--------------------------|-------------------|------|
| <input type="checkbox"/> | Full-time Student | \$ 5 |
| <input type="checkbox"/> | Senior Citizen    | \$10 |
| <input type="checkbox"/> | Individual        | \$12 |
| <input type="checkbox"/> | Family            | \$18 |
| <input type="checkbox"/> | Organization      | \$30 |

Name \_\_\_\_\_

Address \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone: (Home) \_\_\_\_\_ (Work) \_\_\_\_\_

Membership is on a calendar year basis.

## Volunteers Are Needed!

- To present Immigrant Plant Family information at the monthly meetings:

Call Verna at \_\_\_\_\_ and specify which unit and the month you prefer:

Scrophulariaceae/Snapdragon

Plantaginaceae/Plantain

Polygonaceae/Buckwheat

Chenopodiaceae/Goosefoot

Mar 3, April 7, May 5

- To provide mini-botany presentations at monthly meetings.

Call Marilyn Barker,

## Condolences

Our heartfelt sympathies go to ANPS member, Nancy Krieger, whose husband Ronald, died in November.



## MYSTERY PLANT ANSWER

Answer: *Claytonia sibirica*

Siberian Spring Beauty

Purslane/Portulacaceae Family

## SEEDS FOR SEED EXCHANGE!!

Order your seeds from this newsletter or at the next meetings. Packets are available on a first-come, first-served basis.



to our guest speakers for November and December:

**Blain Anderson and Tom Heinlein**

## ALASKA NATIVE PLANT SOCIETY State and Anchorage Chapter Officers

President	Leonard Grau
Vice President	Connie Kison Keeney
Secretary	Cara Wardlaw-Bailey
Treasurer	Sue Jensen

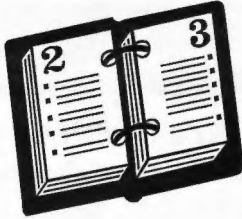
## Anchorage Chapter Program Coordinators

Main Program	Susan Klein
Plant Family	Verna Pratt
Mini-Botany	Marilyn Barker
Field Trips	Open

## Newsletter ("*Borealis*")

Editor Ginny Moore

*Borealis* is published bi-monthly October through May. Articles may be sent to Ginny Moore, Anchorage, AK 99516. Phone or FAX: \_\_\_\_\_ or E-mail: [mooretg@alaska.net](mailto:mooretg@alaska.net)



## UPCOMING PLANT EVENTS

### January 6

**Alaska Native Plant Society:** 7:30 p.m., Campbell Creek Science Center off 68<sup>th</sup> and Lake Otis

### January 15 - May 7, 2003

**Advanced Gardening Principles:** Wednesdays 4:00p - 7:45p; AGRI A294B;

Instructor: Sue Lincoln; Mat-Su Campus

Prerequisite: Modern Home Gardening - AGRI A139

Instructor approval is required if you do not meet the College prerequisite. The course will cover advanced techniques and principles in growing crops. The course emphasizes microclimate, soils, cultivar selection, and enhanced observation skills. Research and laboratory projects will enhance this hands on course.

### January 16 - May 8, 2003

**Greenhouse Operations and Management:** Thursdays 7:00p - 9:45p; AGRI A240; Instructor: Sue Lincoln; Mat-Su Campus

This course will cover operations and management of crop production in a greenhouse whether a commercial operation or a back yard greenhouse. Topics include greenhouse construction, heating, cooling, growing media, watering, fertilization, carbon dioxide fertilization, light and temperature management, chemical growth regulation, insect and disease control, and the management of several crops.

### February 1, 2003

**Alaska Statewide Master Gardener Conference:** Fairbanks Princess Hotel (Fairbanks Princess Riverside Lodge), 4477 Pike's Landing Road, Jade Room; 8:00 AM to 5:00 PM

Contact: Alaska Cooperative Extension: 786-6300 or <http://www.corecom.net/~gardener/>

### February 3

**Alaska Native Plant Society Monthly Meeting:** 7:30 p.m., Campbell Creek Science Center.

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

