

# Borealis

the newsletter of the



PO Box 141613, Anchorage, Alaska

May 2003

## Join us at our Spring meetings!

Campbell Creek Center

Monday, May 5<sup>th</sup> , 7:30 p.m.

### Topic: "The Trees of Unalaska"

A look at a forestation efforts on Unalaska from the Russian's first plantings in 1804 to today.

### Speaker: Jim Labau

Research Associate  
Environment and Natural Resources  
Dept.  
University of Alaska Anchorage

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### Plant Family Study

#### "THE IMMIGRANTS"

Scrophulariaceae/Figwort

and

Chenopodiaceae/Goosefoot

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Look inside for  
Summer Field Trip  
Schedules!

## Our "Most Wanted" List

By Verna Pratt



It is not only the FBI that maintains a **Most Wanted** List. Our contest last month produced five strong **MOST WANTED** weeds, which will be pictured on a flyer that will be produced by the Alaska Native Plant Society.

Those we have identified as most troublesome include:

*Vicia cracca* – Bird Vetch

*Melilatus sp.* – Sweet Clover

*Linaria vulgaris* – Butter and Eggs

*Taraxacum officinales* – Dandelion

*Hordeum jubatum* – Squirrel-tail Grass



*Vicia cracca*/Bird Vetch

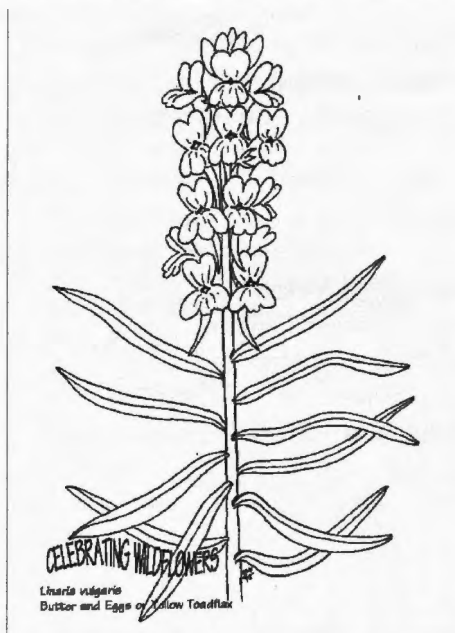
## Scrophulariaceae/Figwort and Chenopodiaceae/Goosefoot Families

The May Plant Study will focus on "weeds" of the Scrophulariaceae and Chenopodiaceae families.

Although both of these families have three or four alien species, only one in each family is of any concern as an invasive species. Both were introduced from Europe, but for different reasons.

*Linaria vulgaris*, which is in the figwort family, is well known to most people. It is more commonly known as "Butter-and eggs" or "Wild snapdragon". This introduced creeping perennial is an escaped ornamental that reproduces by seed and extensive horizontal roots.

Stems are smooth, erect, leafy, often in clumps, and 1 to 2 1/2 feet tall. Numerous pale green leaves are alternate, narrow, pointed at both ends, and 2 1/2 or more inches long. Flowers resemble those of cultivated snapdragon; each has a spur extending below from the lower lip of



the corolla. They are about 1 inch long, bright yellow with a bearded, orange throat and occur in terminal, somewhat elongated clusters with the youngest flowers at the tip. The fruit is a

brown, globe-shaped, two-celled capsule, 1/4 inch in diameter containing many seeds.

Seeds are small, round, rough, flattened, with a papery, notched circular wing, dark brown, and about 1/12 inch in diameter. The pretty yellow flowers are long lasting and make a lovely addition to any garden until they get well established. While the narrow bluish-green leaves adorn many vertical stems, the rhizomes quickly multiply causing the plant to completely take over a

flower bed. Attempts at eradicating this plant seem almost useless.

The Goosefoot family's weed species was probably brought to this country as an edible plant. It is one of my favorites and I gladly give *Chenopodium album*, Lambs Quarter a little bit of garden space. Their succulent leaves are thick and mealy and a wonderful substitute for spinach. They have spade-shaped thick leaves with a mealy texture and tiny green inconspicuous flowers. They like good soil and are annuals so they probably will not

become a real problem in a natural setting. Annuals do not fare well where there is competition or limited water and unimproved soil. Although Europeans once valued lambsquarter as a vegetable and as an important fodder for their animals, it lost favor when spinach was introduced from

southwest Asia in the 16th century. But its name persisted: the Anglo-Saxons called it "melde," and it grew so profusely in some areas that settlements were named for it. Tenth century Meldeburna (the stream where melde grew), in England, is now called Melbourn. From Europe and Asia, lambsquarter traveled to the United States. A hardy weed, growing well in many climates and soils, it spread rapidly across the continent and is now common throughout the country. It persists as a weed in gardens, field crops, pastures, and almost any waste ground in Europe, the British Isles, North and South America, Asia, and Australia.

This month brings our study of non-native invasive plants to an end, but it also marks the beginning of the gardening season and a time to become *weed warriors* and take extra measures to eliminate these pests before they become too invasive.

Lamb's Quarters  
(*Chenopodium album*)



## Taxonomists:

# The Unsung Heroes of Our Quest to Save Biodiversity

Brooke Ann Aanetell & Gus Rassam

It is an odd paradox to be losing biodiversity while simultaneously lacking a scientific knowledge base about what exactly comprises our biodiversity. Even if we adhere to a conservative estimate of 10 million species on Earth, only 1.5 million of these (15%) have been formally described and named. So why isn't there a boom of budding young taxonomists? Just like the entertainment industry, and sometimes even presidential politics, the decline of taxonomy has to do with public image and money.

Science is not immune to public fascination with the latest trend and controversy. Graduate students are advised by their mentors that getting published in *Science and Nature* requires provocative research with sexy titles. Who wants to do "old-fashioned science" when there are sheep to be cloned and fish genes to be put in tomatoes? Genetic engineering and other modern forms of biological science have pulled both funding and spry young minds away from graduate school training in taxonomy. In addition, only a limited number of jobs is available to taxonomists, mostly due to a decrease in government funding.

To be sure, taxonomists are the unsung heroes of our current quest to save biodiversity. Under-appreciation for and lack of awareness about the critical role that taxonomy plays in species conservation has served to dethrone what was once a highly-respected and sought-out form of expertise. Dating back almost 300 years to the pioneering work of Swedish naturalist Carolus Linnaeus, taxonomists adhere to strict international codes that provide "a vocabulary to discuss the world; specifically the names of organisms. Most of our current taxonomists are older and few are coming through the ranks to replace them.

So, how do we revitalize taxonomy? First, we need to address taxonomy's image problem. While scantily clad taxonomists would certainly draw attention to the profession, revamping public perception of taxonomy needs to be more than just cosmetic. Instead, we can begin by educating the educators – scientists in academic institutions, government agencies, and conservation groups – about the critical role that taxonomists play in building the knowledge base upon which many other scientific disciplines depend. We also need to encourage these scientists to be team players, giving credit where credit is due, especially when cutting edge research is rooted to basic taxonomic information. In turn, these educators need to encourage more students to consider taxonomy as a vital and respectable career. This will

have to be accompanied by increases in tenured positions and professional opportunities for taxonomists.

Second, governments need to increase funding for taxonomic research. The link between identifying species and saving biodiversity is clear. Newly identified species also add to the known gene pool and their evolutionary strategies for evading predators, resisting parasites, and constructing structures are valuable for genetic and medical research.

Third, improving taxonomy's image, funding and job availability should be a global phenomenon so that in-country taxonomists are available worldwide, empowering developing countries to have more say over the use, conservation, and profitability of their biodiversity.

Fourth, species research should not be limited to charismatic species – e.g. large mammals – that we already know a great deal about. The next frontier in species exploration should occur at the macro- and micro-levels, focusing on insects, fungi, and microfauna.

Fifth, taxonomists cannot limit themselves to the field or the laboratory. They must also put themselves in the limelight and publicly communicate the importance of their work to our understanding of and relationship to life on Earth.

Some positive strides are being made. For example, the United Nations' Convention on Biological Diversity is sponsoring a Global Taxonomy initiative to remove or reduce the knowledge gaps in our taxonomic system (including those associated with genetic systems), the shortage of trained taxonomists and curators, and the impact these deficiencies have on our ability to conserve, use and share the benefits of our biological diversity" ([www.biodiv.org/programmes/corss-cuttingtaxonomy](http://www.biodiv.org/programmes/corss-cuttingtaxonomy)).

In the United States, Representative Vernon Ehlers introduced the Aquatic Invasive Species Research Act in September 2002. A major component of H.R. 5395 is a National Science Foundation grant program to encourage more students to pursue advanced degrees in taxonomy.

Professional societies can also play a role in promoting taxonomic research and recognition among their members. Lastly, we can share our appreciation for these unsung scientific heroes by thanking the taxonomists working in our own universities, agencies, and museums. After all, they are holding the Earth's biodiversity in their hands...literally.

## GENETIC SLEUTHING TO TRACK MICROSCOPIC WEED WARRIORS

By Jan Suszkiw

Certain fungi and other microbes that attack invasive weeds offer an environmentally friendly method of controlling the pesky plants without resorting to traditional chemical herbicides. Now, Agricultural Research Service scientists have developed molecular sleuthing techniques to monitor these biocontrol agents once released into the environment.

ARS plant physiologist Doug Luster says their approach can both detect and identify a weed pathogen's unique genetic "fingerprint" using polymerase chain reaction (PCR), amplified fragment length polymorphism (AFLP), DNA sequencing, molecular marking, and other sensitive technologies.

This has already resulted in DNA fingerprints for several isolates, or types, of *Myrothecium verucarria*, a soil fungus that kills morning glories. Morning glory is a weed that plagues sugarcane and other crops.

In field studies, spraying redroot- and smallflower-morning glories with an oil-based carrier containing *Myrothecium* spores proved as lethal to these weeds as the herbicide atrazine. Luster conducted the study with ARS plant pathologist Dana Berner and agronomist Rex Millhollon.

Though used in the lab, DNA fingerprinting is intended to help scientists keep close tabs on the spore growth and spread, host range and effectiveness of biocontrol pathogens like *Myrothecium* once they've been released to control weeds. The technology also allows researchers to pinpoint and analyze particular DNA regions that can differentiate strains of the same fungal family, such as *Puccinia carduorum* and *P. jacea*, which attack musk thistle and yellow starthistle, respectively.

In weed-infested crop fields or pastures, for example, scientists hand-collect spore samples to identify weed pathogens and their whereabouts. They also examine the spores under a microscope, subject them to biochemical tests, and scrutinize infected plants for tell-tale disease symptoms. But the results can be ambiguous.

DNA fingerprinting offers genetic evidence linking a specific microbial release to a specific disease seen in target weeds. It also reveals the spread of biocontrol microbes and demonstrates their effectiveness in

reducing invasive weed populations. ARS is the U.S. Department of Agriculture's principal research agency.

**Scientific contacts:** Douglas G. Luster and Dana K. Berner, ARS Foreign Diseases-Weed Science Research Unit, Fort Detrick, Md., phone (301) 619-7344 [Luster], (301) 619-7339 [Berner], fax (301) 619- 2880, [luster@ncifcrf.gov](mailto:luster@ncifcrf.gov); and Rex W. Millhollon, ARS Sugarcane Research Unit, Houma, La., phone (504) 853-3174, fax (504) 868-8369, [rmillhol@nola.srrc.usda.gov](mailto:rmillhol@nola.srrc.usda.gov).

From USDA Agricultural Research Service Newsletter, Sept 2000

## No State Has All Necessary Laws in Place

A new Environmental Law Institute (ELI) publication finds that most states lack comprehensive invasive species laws and regulations. Non-native species like the voracious snakehead fish, the tenacious glossy buckthorn tree, and the damaging zebra mussel, threaten the ecological integrity and biological diversity of our nation's natural systems. They displace native plants and animals, disrupt ecological processes, upset the stability of our ecosystems, and can permanently change our natural landscapes, costing state and local governments millions of dollars to remedy the damaging effects. Though few federal regulations address invasive species, a wide variety of state laws may be used to effectively address the problem, according to a new report by ELI's State Biodiversity Program. *Halting the Invasion: State Tools for Invasive Species Management* analyzes the current legal tools available at the state level to combat invasive species. From defining which species will be considered "invasive" to outlining ways to ensure early detection of and rapid response to widespread infestation, state laws offer effective means by which to protect the nation's agriculture and sustain biodiversity of our natural environment.

*Halting the Invasion: State Tools for Invasive Species Management* may be ordered from ELI for \$20.00 plus shipping by calling (800) 433-5120, via email to [Pressrequest@eli.org](mailto:Pressrequest@eli.org) or online at <http://www.eli.org>. For more information about ELI's State Biodiversity Program or the Environmental Law Institute, please contact Jessica Wilkinson at (609) 818-0518. ELI is an independent, non-profit research and educational organization based in Washington, D.C. The Institute serves the environmental profession in business, government, the private bar, public interest organizations, academia and the press.

From *Weed Watch*, the newsletter of the Colorado Weed Management Association, March 2003.

## Alaska Native Plant Society - SUMMER FIELD TRIPS 2003

### May 21 – Wednesday – Baxter Bog

**Leader:** Marilyn Barker Phone:

**Meeting Time:** 7pm Time Allotted: 1 ½ -2 hours

**Meeting Place:** Baxter Elementary School, south side of parking lot (off of Northern Lights & Baxter)

**Level of Difficulty:** Easy

**Description of trip:** Easy walk around the bog. Great time to see early blooming wildflowers such as bog rosemary and leatherleaf.

**Items to bring:** binoculars.

### May 31 – Saturday – Bird Ridge

**Leader:** Susan Klein

**Time Allotted:** 4-6 hours (we'll head back down at 3:00pm at the latest)

**Driving Distance:** 20 miles from Anchorage

**Meeting Place -** Meet at 8:00 AM at Huffman Carrs - snack area. Leave by 8:15 and meet at Bird Ridge at 9:00a. People coming from the south can meet us at the Bird Ridge parking lot. Due to roadwork, please call cell phone number if we're not at the Bird Ridge parking lot on time

**Meeting Time:** 9:00am (Bird Ridge Parking lot)

**Level of Difficulty:** Moderate to Difficult

**Trip Description:** We'll hike through the lower area and concentrate on getting to the alpine plants. We will do at least 1500' in elevation gain and up to 3,000 foot depending on the group. This is an excellent area to see early blooming alpine such as moss campion and windflowers.

**Minimum age:** 10

**Items to Bring:** lunch, water, sun screen, bug dope, binoculars, rain gear, walking stick and wear good hiking shoes, a flower book or two.

Susan will have Viereck and Verna's wildflower guide.

**Additional information:** If not meeting at Huffman Carrs please call the trip leader (Susan Klein) and let her know you will meet us at Bird Ridge - If you decide to cancel - call her cell the day of the event so we won't wait for you. The hike will begin from the Bird Ridge parking lot at 9:15am sharp.

### June 1 – Sunday – Arctic Valley

**Leader:** Verna Pratt Phone:

**Meeting Time:** 10 am Time Allotted: 4-6 hours

**Meeting Place:** Ski Lodge

Carpool from Fred Meyers on Muldoon and Debarr Road. Meet in parking lot on Debarr Road side near entrance closest to Muldoon at 9:20am.

**Driving Distance:** About 15 miles from Anchorage

**Level of Difficulty:** Moderate to Difficult

**Description of trip:** We will be searching for more

*Douglassia gormanii* plants. Two plants were found last June (1<sup>st</sup> time in the Chugach). We will walk straight up the mountain area to search the steep slopes that are somewhat precarious. Children must be at least 10 and accompanied by an adult.

**Items to bring:** Wear sturdy hiking shoes with a good tread. There will undoubtedly be some snow and it could be cold and windy. Bring lunch and water.

### June 4 – Wednesday – Butterfly Garden at Campbell Creek Science Center

**Leader:** Sue Jensen Phone:

**Meeting Time:** 7pm Time Allotted: 2 hours

**Meeting Place:** Campbell Creek Science Center (off of Abbott Loop Road near E. 68<sup>th</sup>)

**Level of Difficulty:** Easy

**Description of trip:** Native plant society members are needed to help pull weeds from the butterfly garden. Trip leader will help identify native and non- native plant species. Great time to see early blooming wildflowers.

**Items to bring:** trash bag, trowel, kneepads, water bottle and bug dope.

### June 7 – Saturday – Hatcher Pass

**Leaders –** Cecily Fritz, and Nancy Moore, 745-1540 **Time Allotted:** 6-7 hours

**Meeting Place:** Gold Mint Trailhead parking lot in Hatcher Pass (This parking area is the one on the right side immediately past Mother Lode Lodge and it has an outhouse. From there, we will car pool down Archangel Road, park and begin our walk along a section of the road and then down the Reed Lakes Trail. )

**Meeting Time:** 7:30am (starting rather early to hear the early active birdsong - thrushes, warblers, sparrows with a chance for Harlequin Duck and Wandering Tattler).

**Level of Difficulty:** Easy – Moderate

**Minimum age:** 10

**Description of trip:** This trip "Songbirds and Spring Shoots" is being organized by the Mat-Su Birders and the Alaska Native Plant Society. The plant habitat is sub alpine meadows and wetlands with easy to moderate walking depending on how far participants want to wander in search of the wetland plants and birds. We will walk approximately 3-4 miles and expect the event could last up to 6-7 hours.

**Items to Bring:** Snow melt can make the trail very muddy so participants should wear either water proof hiking boots or rubber boots. Pack a lunch and bring extra water, the weather will be fantastic!

**June 8 – Sunday - Gunsight Mountain**

**Leader:** Anjanette Steer Phone:

**Meeting Time:** 10:30am Time Allotted: 5-7 hours

**Meeting Place:** Mile 118.9 Glenn Highway – Chickaloon – Knik- Nelchina Trailhead (Trailhead Road is the turnoff, it is the north side pull out with bathrooms). Allow at least 2 1/2 hours driving time from Anchorage, the Glenn Highway is under construction from Mile 100-109.

**Level of Difficulty:** Moderate – Difficult, 4-6 miles hiking with 1500’ - 2500’ elevation gain

**Description of Trip:** Early June is a great time to see alpine area wildflowers in this area including *Rhododendron lapponicum* or Lapland rosebay. We will walk the old roadbed of the Glenn Highway for approximately 1 mile and then begin our slow ascent up to the alpine areas of Gunsight Mountain. The trail is not well traveled and will require sturdy hiking boots and a sense of adventure.

**Minimum age:** 10

**Special Instructions:** Pack a lunch, bring extra warm clothes, raingear and a water bottle. Please call ahead to let the leader know you are coming.

**June 11 – Wednesday – Alaska Botanical Garden**

**Leader:** Sue Jensen Phone:

**Meeting Time:** 6:30pm Time Allotted: 2 hours

**Meeting Place:** Entrance to Alaska Botanical Garden

**Level of Difficulty:** Easy (but lots of bending or kneeling)

**Description of trip:** Enjoy the early evening sunshine (hopefully) and help pull weeds from the Lowenfels Family Nature Trail and garden paths. Total distance covered – up to 2 miles.

**Items to bring:** trash bag, trowel, kneepads, water bottle and bug dope.

**June 19 – Thursday – Kenai Area Willow Workshop**

**Leader:** Dominique Collet Email: collet@alaska.net

**Meeting Time:** 9 am Time Allotted: 6 hours

**Meeting Place:** Kenai Peninsula College parking lot (off of Kalifornsky Beach Road – across from Food Bank, follow signs)

**Level of Difficulty:** Easy

**Description of trip:** This is a “willow workshop”. Many of you are familiar with Dominique’s willow guidebook. Donation of \$5.00 is suggested to support the Kenai Watershed Forum.

**Items to bring:** lunch, hand lens, notebook, bug dope and water bottle.

**July 9 – Wednesday – Alaska Botanical Garden**

**Leader:** Sue Jensen Phone:

**Meeting Time:** 6:30pm Time Allotted: 2 hours

**Meeting Place:** Entrance to Alaska Botanical Garden

**Level of Difficulty:** Easy (but lots of bending or kneeling)

**Description of trip:** The Native Plant Society will help pull non-native plants (weeds) from the Lowenfels Family Nature Trail and garden paths. Total distance covered – up to 2 miles.

**Items to bring:** trash bag, trowel, kneepads, water bottle and bug dope.

**July 12 – Saturday - Mt. Marathon, Seward**

**Leaders:** Marilyn Barker and Carol Griswold  
Marilyn in Anchorage Carol in Seward,

**Meeting Time:** 10:45am.

**Meeting Place:** Meet at base of trail, located at intersection of First Avenue and Monroe Street in Seward. Limited parking available only next to street; carpool if possible.

**Time Allotted:** 11:00 am to 5:00 pm or later, depending on the weather and wishes of the group

**Level of Difficulty:** Moderate

**Description of trip:** Initially steep gravel jeep road levels off in meadow, steep climb up dirt trail into former glacier bowl and alpine habitat. We will climb from about 90 feet to 1500' and up.

**Items to Bring:** Bring sturdy hiking boots, walking staff(s), visor hat, raingear, fleece jacket, wind breaker, water bottle, lunch/snacks, camera, binoculars, "Wildflowers of Alaska," etc. Long pants and long sleeve shirt recommended to avoid Pushki burns.

**Minimum age:** depends on attitude and parental control. This is a fragile habitat that deserves respect; it is not a playground. Well-behaved children welcome.

**Special instructions:** The Seward Highway becomes Third Avenue in town. Turn right on Monroe Street off Third Avenue, go two blocks west to First Avenue, and park along road. We will try to leave on time at 11:00. If you are late, follow the jeep trail up to the old water reservoir at the start of the walking trail. The trail winds its way north and up to the bowl; you will soon catch up.

**July 18 – Friday – Seward Highway**

**Leader:** Verna Pratt **Phone:**

**Meeting Time:** 7pm **Time Allotted:** 3 hours

**Meeting Place:** Potter Section House (South on the Seward Highway just past Potter Marsh). We will carpool from here, as it is difficult to park where we are going.

**Level of Difficulty:** Easy to Moderate

**Description of trip:** This is a work party to remove *Tragopogon dubius* along the highway. We have a permit from the State Park.

**Items to bring:** Dandelion digger type tools, plastic grocery bags to collect the debris (large trash bags will be provided). Wear good sturdy shoes, as some areas are steep and rocky. No children please.

**August 12 – Tuesday – Seward Highway**

**Leader:** Verna Pratt **Phone:**

**Meeting Time:** 6pm **Time Allotted:** 3 hours

**Meeting Place:** Potter Section House (South on the Seward Highway just past Potter Marsh). We will carpool from here, as it is difficult to park where we are going.

**Level of Difficulty:** Easy to Moderate

**Description of trip:** This is a repeat work party to remove *Tragopogon dubius* along the highway. We have a permit from the State Park. We'll be removing long roots and cutting flowering seed stalks to prevent reseeding.

**Items to bring:** tools to dig out tough long roots and cutters, plastic grocery bags to collect the debris (large trash bags will be provided). Wear good sturdy shoes, as some areas are steep and rocky. No children please.

**August 23 – Saturday - South Fork Eagle River**

**Leader:** Cara Wardlaw- Bailey

**Phone:** **Time Allotted:** 6 hours

**Meeting Time:** 10 am

**Meeting Place:** South Fork Valley trail head off end of Hiland road

**Directions:** From Anchorage, head north on the Glenn Highway until you reach the Eagle River Loop road / Hiland drive exit (near the Anchorage landfill).

Curve right off the exit ramp, then right again at the first traffic light onto Hiland drive. Follow Hiland drive up the valley for several miles. (It has some confusing turns and side roads, but is marked clearly.) It turns down a hill and crosses the South Fork of Eagle River higher in the valley. Turn right on South Creek drive (after the brown state park sign) shortly before the end of Hiland

drive. It is the first street after South River drive, which is also to the right. Follow South Creek drive for a short distance. Just after it crosses the river, turn right on West River drive.

(Another brown state park sign points the way.) Just past this turn is the trailhead with a small dirt parking lot.

**Level of Difficulty:** Moderate

**Description of trip:** Hike to the glacial Eagle Lake to see the early fall colors. Ten mile round trip on established trail with 800-foot elevation gain. The trail follows the valley through hemlock and spruce and onto tundra.

**Special Instructions:** The trail can be muddy at the beginning and boggy further on, so wear sturdy shoes.

**Items to bring:** Bring lunch and water. Dress for the weather (a windproof layer is useful and a hat and gloves are always good to have).

**August 30 – Saturday – Sterling (Kenai Peninsula)**

**Leader:** Dominique Collet

**Email:** collet@alaska.net

**Time Allotted:** 6 hours

**Meeting Time:** 9 am

**Meeting Place:** Sterling Senior Center

**Level of Difficulty:** Easy

**Description of trip:** The purpose of this trip is to learn mushroom identification. This trip is organized by the Kenai Watershed Forum and a suggested donation of \$5 goes to the forum.

**Items to bring:** lunch, hand lens, paper bags, mushroom id guidebook, mushrooms you would like to identify, notebook, bug dope and water bottle.

**September 20 – Saturday –Campbell Creek Science Center Public Lands Day**

**Leader:** Sue Jensen

**Phone:**

**Time Allotted:** 4 hours

**Meeting Time:** 8:45am

**Meeting Place:** Campbell Creek Science Center (off of Abbott Loop Road near E. 68<sup>th</sup>)

**Level of Difficulty:** Easy

**Description of trip:** Native plant society members are needed to help with a revegetation project on public lands at the Science Center. Exact projects will be determined in September. Lunch is provided afterwards by the Science Center.

## Upcoming Wildflower Classes

### UAA Biology Department

#### Biology 075 "Local Flora"

Thurs. May 8, 15, 22, 29

2 Sessions, Morning and Evening

Instructor: Verna Pratt

#### Biology A-124 "Summer Flora"

Wed. May 28-June 25 06:15P-10:15P

and Sat. June 14, 09:00A-06:00P

Instructor: Marilyn Barker

### Physical Education Dept

#### "Discovering Wild Plants"

Mon. Aug.4, Wed Aug. 6 06:15P-10:15P

Sat Aug9, Sun Aug 10 09:00A-06:00P

For more information, or to register contact UAA

<http://www.uaa.alaska.edu/summer/registration/>

Or try University of Alaska FAIRBANKS!

### Introduction to Alaska's Flora

BIOL F195P - F01

June 5 - 8 6:00 - 9:00 p.m., RF, Irving 103

9:00 a.m. - 6:00 p.m., Sat and Sun, Fieldtrips

Instructor: Carolyn Parker

E-mail: [summer@uaf.edu](mailto:summer@uaf.edu)

Telephone:

Fax:

## SUMMER SOLSTICE AT ARCTIC VALLEY

The Arctic Valley Ski Club is hosting a special day on the mountain on Saturday, June 21, from noon until 8 PM. They will be inviting the public to ride up the mountain on the chair lift as a solstice activity, similar to last year's solstice event.

They are looking for persons willing to walk down the mountain (your choice which way) with a small group and identify the flowers. You don't need to be an expert. It is great fun and you'll get a ride up for free!

Call Beverly Luedke-Chan at

## 2003 Plant Sales

May 17 - Saturday Alaska Rock Garden Society, 7435 Old Harbor Ave. (Muldoon), 9am- 4pm

May 24 -Saturday and May 25 Sunday - Alaska Rock Garden Society - Recluse Gardens, Wasilla -Parks Hwy near Church Road. Just beyond downtown Wasilla. 9am - 4pm both days.

May 31- Saturday - Wildflower Garden Club, Harbor Ave. (Muldoon), 9am - 4pm

June 7 - Saturday - Anchorage Garden Club - Anchorage 9am - 5pm

June 28 - Saturday and June 29 Sunday - Alaska Botanical Garden, 10am - 5pm Annual Garden Fair

## Are You A Wildflower?

Wildflowers grow from mere dust to reach their full potential.

Wildflowers grow well, even in adverse soil conditions.

Wildflowers don't require late nights at the office to grow.

Wildflowers grow thick and stick together.

Wildflowers grow strong and tall.

Wildflowers display their brilliant personalities for all to see.

Wildflowers withstand drought and grow all the more beautiful when watered.

Wildflowers withstand frost and hail.

Wildflowers last late in the season, when other flowers have given up.

Are you a wildflower?

By David Leonhart

[www.thehappyguy.com](http://www.thehappyguy.com)



## Plant News from the Bering Glacier Region

By Marilyn Barker

The Bering Glacier region is part of the boundary zone between the Pacific Coastal Forest and the Boreal Forest. Its floristic elements include those from Beringia, the Aleutians, the south east coastal ranges and the Cordilleran. It is probable that some of the higher mountains and nunataks contain glacial refugia. Geographically this region includes the region south of the Bagley Ice Field, east to the Robinson Mountains and west to the Copper River. Virtually no specimens from this region document the flora until the current survey. Now specimens reside in both the University of Alaska Museum Herbarium in Fairbanks, and at the UAA herbarium in Anchorage.

Recent field studies done by Marilyn Barker, Alan Batten, Garry Davies and Verna Pratt (and partly sponsored by the ANPS) have identified 334 species of vascular plants. These species are from 175 genera and 60 plant families and represent 21% of the known flora of Alaska. Many of these species (264) were expected in the region, but 36 species represent range extensions and 39 are range connectors, i.e. bridging two sections of a disjunct population. For example the Aleutian gentian (*Gentiana aleutica*) is found on the Aleutian Islands, and again in Glacier Bay, but not in between. Recent collections from the Robinson Mountains, Grindle Hills and Suckling Hills help bridge the gap.

Six species encountered at the Bering Glacier are on the Alaska Natural Heritage Program's Vascular Plant Tracking List. These are *Carex enanderi*, *Carex phaeocephala*, *Galium kamtschaticum*, *Minuartia biflora*, *Platanthera chorisana* and *Romanzoffia unalasschensis*.

We have exciting plans for the 2003 Field season!



## What is The Alaska Natural Heritage Program?

The Alaska Natural Heritage Program (AKNHP) was established in 1989. In 1993, it became part of the University of Alaska Anchorage, residing in the Environment and Natural Resources Institute of the College of Arts and Sciences.

AKNHP monitors the occurrence of over 1,300 plant and animal species. The heart of AKNHP is the **Biological Conservation Database (BCD)**, winner of the Smithsonian Institution's "Computerworld Prize for Software with Most Beneficial Impacts on Society". The BCD is used to store data on species distribution, population trends and habitat usage, providing a dynamic and quality-controlled catalog of biological information.

The BCD can be used to produce reviews of individual species, species lists for particular areas, or to identify hot spots, of high conservation value. This information is available for use during the development, management and conservation activities of private, state and federal organizations.

### PROGRAMS

The Alaska Natural Heritage Program has five main programs to fulfill its mission:

**Botany:** This program identifies, evaluates and monitors rare and endemic plant taxa in Alaska and maintains these data in the BCD. Staff also conducts status reviews for individual species and floristic inventories for specific areas of the state upon request.

**Ecology:** Describes Alaska's major plant communities and identifies those that are rare to the state, maintaining the data in the BCD. Staff also conducts research on ecological processes.

**Zoology:** This program assesses the status of rare and potentially endangered species in Alaska, cataloging existing data and documenting occurrences in the BCD. Staff also conduct status reviews for individual species and zoological inventories for specific areas of the state upon request.

**Natural Features:** This program identifies areas of high conservation value, such as concentrations of rare species or plant communities, significant ecological features such as migratory stopovers or migration routes, or rare geological features.

**Biodiversity Threats to Humans:** The newest AKNHP program monitors and investigates exotic or disease-bearing plants and animals that may affect human health or damage Alaskan ecosystems and economy.

For more information on ANKHP, visit their website at [www.uaa.alaska.edu/enri/aknhp\\_web](http://www.uaa.alaska.edu/enri/aknhp_web)

# DEALING WITH ALIEN WEEDS

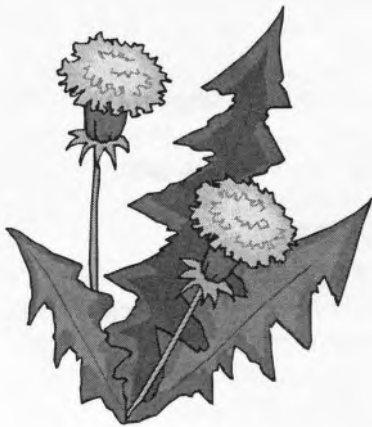
## MANUAL & MECHANICAL WEED CONTROL TECHNIQUES

Manual and mechanical techniques such as pulling, cutting, and otherwise damaging plants, may be used to control some invasive plants, particularly if the population is relatively small. These techniques can be extremely specific, minimizing damage to desirable plants and animals, but they are generally labor and time intensive. Treatments must typically be administered several times to prevent the weed from re-establishing, and in the process, laborers and machines may severely trample vegetation and disturb soil, providing prime conditions for re-invasion by the same or other invasive species.

Manual and mechanical techniques are generally favored against small infestations and/or where a large pool of volunteer labor is available. They are often used in combination with other techniques, for example, when shrubs are pulled and cut, and re-sprouts and seedlings are treated with herbicides or fire several weeks or months later.

When using manual and mechanical methods, it is especially important to thoroughly clean and inspect all equipment and clothing before moving it off-site. This will lessen the probability of spreading the weed(s) to the next worksite.

In addition to the tools described here, the Wildland Invasive Species Program reviews other innovative tools. See <http://tncweeds.ucdavis.edu/tools.html>.



### *Untitled Weed Poem*

**By Cheri Marsh  
Master Gardener, Chelan County, WA**

*It looked so pretty,  
There in the ditch,  
So I moved it to the rockery,  
In a little niche...  
It loved the sun, the water, the care,  
it flourished, it bloomed and had seeds to spare.  
The sprouts, they were many, all over the place,  
I moved them again, now my walkway they graced.  
My friends all admired them, and gladly I shared,  
for the beauties abounded, I had plenty to spare.  
They seemed to enjoy all my loving attention,  
so I transplanted more, too many places to mention!  
I was proud as punch of those pretty flowers,  
as I watched them spread, almost by the hour.  
Then one day Terry Weedboard stopped by for a visit,  
so I pointed it out and asked, "What the heck is it?"  
"Oh my gosh, it's noxious, you'll have to spray!"  
and with that one little sentence, he ruined my day.  
This story, it's true, and 'twas mournful for me,  
the day St. John's Wort succumbed to the 2,4-D.*

## 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.

### 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	Anjanette Steer

### 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)

## MYSTERY PLANT ANSWER

Answer: *Ledum palustre* in the Ericaceae/Heath Family

New genus name is *Rhododendron*  
*Ledum palustre* ssp *groenlandicum* is now called  
*Rhododendron palustre groenlandicum*  
*Ledum palustre decumbens* is now called  
*Rhododendron palustre decumbens*.



*Ledum palustre*

Drawing By Cara Wardlaw Bailey



to our guest speakers for  
March and April:

**Steve Talbot**  
and  
**Bruce Bennett**



## UPCOMING PLANT EVENTS

**May 1 Anchorage Garden Club: "Growing Maples in Anchorage"** presented by George Lyle; Pioneer Schoolhouse, lower level; located at 3rd and Eagle Streets; 7:30 p.m. Programs are free and open to everyone.

**May 1 Community School Class: 6:30-8:30 p.m. - "Thugs in the Garden" - Monica Lyall @ Rogers Park,**

**May 5 Alaska Native Plant Society Monthly Meeting, 7:30 Pm Campbell Creek Science Center**

**May 9, 10, 11 Alaska Rock Garden Society: Northway Mall Mother's Day Garden Show**

**May 17 Anchorage Garden Club: Lobelia Basket Workshop \$45** Learn how to make a lobelia basket similar to the ones the Municipality of Anchorage does downtown. Location to be determined

**May 17 Alaska Botanical Garden Memebership drive and Early Plant Sale**

**May 17 Alaska Rock Garden Society: PLANT SALE - Sally Karabelnikoff's,**

**May 18 Alaska Rock Garden Society: Alaska Botanical Garden rock garden clean up, 2 p.m.**

**May 24, 25, 26 Alaska Rock Garden Society: PLANT SALE - Recluse Gardens in Wasilla**

**June 5 Anchorage Garden Club: "Primulas" presented by Sally Arrant; Pioneer Schoolhouse, lower level; located at 3rd and Eagle Streets; 7:30 p.m. Programs are free and open to everyone.**

**June 7 Anchorage Garden Club: Annual Plant Sale held at \_\_\_\_\_ ; 9 am to 5 pm**

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



**Look inside for Summer Field Trip Schedule!**