

BOREALIS

APRIL 1987

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by the

Alaska Native Plant Society

P.O. Box 141613, Anchorage, AK 99504

MEETING NEWS

The April meeting of the Anchorage Chapter will be on Monday, April 6th, 1987 at 8PM in the basement meeting room of the Grandview Gardens Library, on Primrose (just west of Bragaw and south of DeBarr). Entrance on Primrose (west) side.

BOARD OF DIRECTORS MEETING---7:15PM immediately preceding the general meeting. Board members are:

President-----	John Wenger
Past President-----	Verna Pratt
Vice-President-----	Sandy Underwood
Secretary-----	Peggy Pletcher
Treasurer-----	Larry Haller
Representative to State Board-----	Frank Bogardus
General Program Chairperson-----	Lynn Catlin
Educational Programming-----	Lynn Catlin
Field Trips-----	Frank Pratt

SPEAKER---ANPS member Dr. Bart Sveinbjornsson will present "Treelines: Old Problems, New Ideas", a study of effects of rock slides, avalanches, and other natural occurrences on the treeline status in Alaska. Come and hear what new ideas have surfaced in recent years.

PLANT FAMILY---ANPS member Dr. Marilyn Barker will present a discussion on the Hippuridaceae or Hippuris or Mare's Tail family. This family is represented in Alaska by 1 genus, the Hippuris (Mare's Tail). They are aquatic plants with simple, linear, entire leaves placed in whorls. The flowers are minute, sessile, and placed axillary (on the main stem). Perianth is absent, leaving the corolla composed of 1 stamen and 1 carpel and the fruit 1-seeded, hard, and nutlike.

THANKS !

ANPS has received a very nice letter of appreciation from Dr. Bob Glock, the winner of the Name the Newsletter contest. The newsletter editor generated a certificate on the computer, and Verna decorated it with real Alaskan wildflowers. Dr. Bob says, "I had expected an ordinary paper certificate of lesser significance, and was overwhelmed by such a beautiful work of art. It will be displayed prominently--not for the award recognition, but for its own beauty. Thank you."

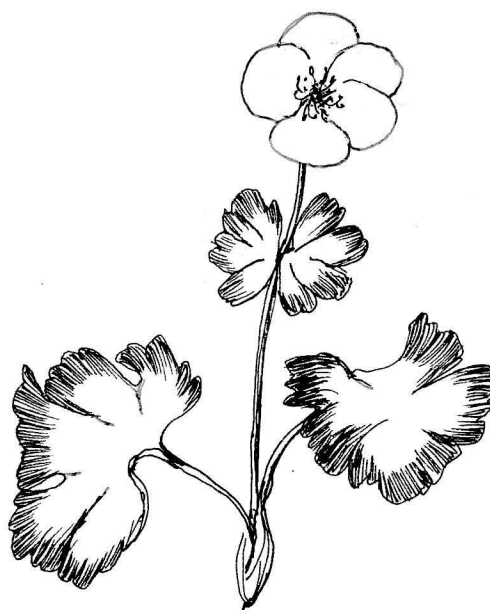
MYSTERY PLANT

I can be found from Alaska to the Cascade Mountains of Washington. I have a preference for wet soil, but in Alaska I can also be found on stony slopes.

I produce a crowded, basal cluster of shiny leaves. Each leaf is long-petioled and three-foliate. In the center of my leaves is a long stem carrying a single white terminal flower. Just below the flower is a ring of 3 deeply cleft smaller leaves (an involucre).

My seemingly fragile flower is about one inch in diameter and consists of 5 or 6 sepals, many stamens and many simple pistils. I do not have any petals. After flowering, I produce a whitish-grey oval head of many wooly seeds.

One last clue---if you haven't figured out my name yet---when the wind blows, each of my sepals shows a bluish tinge.



1987-88 STATE OFFICERS ARE:

President-----Verna Pratt-----
Vice-President-----Marilyn Barker-----
Secretary-----Charlu Choate-----
Treasurer-----Larry Haller-----
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Newsletter-----Frank Pratt-----

FRIENDS MEETING

The Friends of Chugach State Park, a non-profit group, keeps you informed of happenings and problems of Anchorage's Backyard Wilderness. Meeting is Tuesday, April 7th, 7:30PM, the night after ANPS meeting, same location.

COURSES

"THE ALASKA NATURAL HISTORY FIELD STUDIES"--Biology 193, John Wenger. This college level course is an introductory study of Alaska Natural History with emphasis placed on learning the major taxonomic groups of our state's animals and plants, insects, fishes, birds, mammals, mosses, lichens, fungi, ferns and their allies, and flowering plants. One evening weekly lecture, per group, and 5 weekend days of field observation, recording and collecting various species.

2 credit course, or may audit.

Lectures--Wed. 29 Apr; 6, 13, 20, 27 May; 3, 10 June.

Field trips--2, 16, 30 May; 13, 14 June.

Register by calling Wasilla Comm. School, 376-7813.

BIRD CLASS---There may still be time to register for John's Bird Class (which fills quickly!). It meets Sunday morning, 7AM-12noon, April 26-June 7. Registration is thru Wasilla Comm. School.

MORE COURSES

WINTER PLANT IDENTIFICATION---Instructor-Marilyn Barker. Meets Monday, 30 March at 10AM to Noon. Emphasis is on winter identification of local woody plants. The class is offered through Chester Valley Community School. Call Lois Kniefel at 337-5033 for more information. Registration fee \$2.00

ALASKA WILDFLOWERS---Biology 075., Instructor-Marilyn Barker. Two sections are offered on the 4 Tuesdays in May. One in the morning (9:30AM till 1PM); a second section in the evenings (6:30-10:00PM). The one credit course emphasizes Alaska plants and Alaska plant lore. Highlights are field trips to a bog and an alpine meadow. In addition, all students can attend an all-day hike up Bird Creek Ridge on May 30 and/or May 31. For registration information, call ANCHORAGE COMMUNITY COLLEGE at 786-1344.

"EASY IDENTIFICATION OF WILDFLOWERS"---Instr.-Verna Pratt. Rogers Park Community School, Tuesday evenings, Apr. 28, May 5, 12, 19. 7-9:30PM. Includes 2 field trips-Monday evening, May 18 and Wednesday evening, May 20. Cost \$8.00 plus Community School Fee.

BRYOPHYTES OF SOUTH EAST ALASKA---an intense 2-week field course offered jointly thru the University of Alaska, Juneau, and the University of Colorado. The course emphasizes field identification and ecology of mosses and liverworts. The course is offered June 1-June 12. For more information, call or write the Mountain Research Station, University of Colorado, Nederland, Colorado 80466---(303) 492-8841.

FLORA OF SOUTH EAST ALASKA---an intense 2-week field course offered jointly thru the University of Alaska, Juneau, and the University of Colorado. The course emphasizes field identification and ecology of vascular plants. The course is offered June 15-June 26. For more information, call or write the Mountain Research Station, University of Colorado, Nederland, Colorado 80466---(303) 492-8841.

INVASION

ANCHORAGE INVADDED BY TREES--by Marilyn Barker.

Anchorage is presently being invaded by new tree species--an invasion which has been going on for at least 14,000 years. During the Pleistocene Epoch, Anchorage was covered with a thick blanket of ice. Nearly all vegetation was eliminated. As the climate warmed, the glaciers retreated and the land was again ready for plant invasion.

The vegetation history of the Anchorage area can be reconstructed by use of fossil pollen data. Locally, nine lake bottoms and ten outcrops (including Point Woronzof) were sampled for fossil pollen.

The oldest pollen assemblages dating 14,000 BP (years before present) represent the post glacial flora of the Anchorage area. They show that herb-shrub tundra dominated our area soon after the glacial retreat. Dominant plants were dwarf birch, willows and members of the heath family. The same plants which dominate present day herb-shrub tundra like the north slope.

By 10,000 BP, cottonwood pollen began to appear and within a thousand years, cottonwood woodlands became interspersed with willow thickets and shrub tundra communities.



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HOW TO GROW ALASKA WILD IRIS FROM SEED

1. Collect iris pods that are fully brown and just beginning to open at the top. Spread the pods onto newspaper or in a shallow tray and air dry at room temperature for at least one week. Iris pods average 3.22 cm (1 1/4 inch) in length and contain an average of 69.8 seeds per pod (range 0 - 147). The largest pods do not necessarily contain the greatest number of seeds.
2. Separate seeds from pods by vigorously shaking the pods over a screen (i.e. hardware cloth, soil sieves; holes must be large enough to allow seeds to fall through, but retain the pods). Small bits of chaff, dried leaves, pod pieces can be removed by blowing air over the seeds.
3. Store the dry seeds in plastic bags in the refrigerator (40°F for 1 year; 32°F for longer storage).
4. Mix 1 part (by volume) of seeds in at least 2 parts moist (but not soggy) and preferably pasteurized peat moss, Sphagnum moss or coarse sand. Place mixture into plastic bags (Zip locks work well) and store in the refrigerator at 40°F for 125 days. For direct planting outdoors on June 1, start this stratification process on January 27. For greenhouse planting on March 1, start stratification on October 27.
5. Remove the seeds from the peat, sand, etc. and soak in 1000 ppm gibberellic acid (available commercially from greenhouse supply businesses; one commercial product name is Pro-Gibb). Seeds should be completely submerged and covered by approx. 1/2 inch of the liquid for 24 hours. Rinse off the gibberellic acid and sow immediately. Seeds may be surface dried for an hour or two to facilitate sowing. This GA treatment is not absolutely necessary but does improve germination percentages and uniformity of seedling emergence.
6. Sow the seeds outdoors or in flats of your favorite potting mix. Moisten thoroughly and cover the flats or garden soil with black plastic to exclude light. Remove this plastic after 10 days. Seeds will germinate rapidly in about 7 days, and complete seedling emergence will occur within 2-3 weeks.
7. If sowing in cell packs (i.e. 6-packs) the following sowing rates are recommended:
 No GA-- 4.3 seeds per cell
 GA ---- 3.6 seeds per cell

FOR MORE INFORMATION CONTACT: DR. PAT HOLLOWAY
NATURAL RESOURCES MANAGEMENT
301A O'NEILL RESOURCES BUILDING
UNIVERSITY OF ALASKA
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(907)474-7433

Soon afterwards, about 9,500 BP, alder migrated into the region and set the stage for rapid black spruce invasion. Black spruce entered from the Copper River basin by traveling through the Matanuska Valley and then quickly spread throughout much of the Cook Inlet region between 8,200 and 8,000 years BP. Our most recent tree invader is the mountain hemlock, which arrived from the east just a mere 2,000 years ago.

Is Sitka spruce next?

[Information from: Ager and Brubaker--Quaternary Palynology and Vegetational History of Alaska].

PLEASE HELP

ANPS member Ludean Marvin is anticipating a grant to continue his studies of Potentilla nivea this coming summer and upcoming year. He is interested in people gathering and potting live plants to place in his greenhouse for his studies. He is willing to reimburse for costs of materials and shipping, and is especially interested in collections in remote areas. If you are interested in helping, he may be reached at:

, Anchorage, AK 99502.

QUIZ ANSWER

Anemone parviflora Michx.

LOTIONS, NOTIONS and POTIONS

by Old Doc

This month, let's take another look at a plant that is becoming very prominent as Springtime approaches, the Salicaceae or willow family. Other names are: Pussy Willow, Drummond's Willow, Glaucous Willow, Bebb Willow, Alaska Willow, etc, etc. The names could go on and on for there are over 50 varieties of Salix in Alaska, and it takes a real expert to distinguish between them. On the other hand, the average person can quite easily tell a willow from other trees, which is the important thing, for all willows can provide life-sustaining food in an emergency. Everyone who has experienced our outdoors in the spring has taken notice of the pussy willow, nothing more than the developing flower tassels of this branch of the family which also includes the poplars, which themselves have edible inner bark.

The willow has alternate, or rarely opposite, one-piece leaves with sawtoothed or smooth edges. Most species have long and narrow leaves with short stems, although a few are oblong or lanceolate. A number have persistent and many times leaflike appendages at the bases of the leaves. In other willows, these stipules, as they are called, are tiny and fall away upon maturity.

The twigs are slim, flexible, and round, often brittle at the base. The buds are ordinarily very flat on the side next to the twig and outwardly rounded on the other side, usually pressing closely to the twig and being covered with a single bud scale. The large majority of the willows are shrubby, although a few become small and others large trees. The bark of many species is bitter with the drug salicin, used medicinally to reduce fever, aches and pain. (So, when you develop a headache while afield, just chew on some willow for awhile. It works!). Some barks are surprisingly sweet.

The flowers appear in the early springtime, either before or with the developing leaves. Male and female blossoms appear on different trees, each with a nectar-secreting gland to facilitate reproduction by insects. Both these staminate (male) and pistillate (female) flowers grow in catkins. In no other family do both kinds of blossoms appear on drooping tassels.

The seeds are extremely light, produced in tremendous numbers and provided with a dense cover of long hairs which encourage their dispersal by the winds. Too, not only do the willows reproduce freely, in many wet situations forming thickets to the exclusion of all other woody growth, but they live for long periods even after they seem to be dying, repairing damaged parts with surprising rapidity.

Willows provide the favorite browse of moose. Often the first spring source of Vitamin C, willow sprouts provide the main subsistence of ptarmigan.

The outer bark of the new shoots is stripped off and the inner portions eaten raw with some varieties. In others, the outer bark is cut off and removed and the thin inner layer scraped off with knives and eaten. Eskimos call this Keeleeyuk which means the scrape, and in such a variety as the Salix alaxensis it is amazingly sweet.

Young willow leaves, when they are not too bitter, are eaten in emergencies. The young underground shoots of any of the small, creeping willows found on the Arctic tundra and on the mountains can be peeled and eaten raw. Everywhere the inner bark is edible, raw, cooked in strips like spaghetti, or dried and powdered into flour.