

Borealis

the newsletter of the



PO Box 141613, Anchorage, Alaska

NOVEMBER 1999

JOIN US AT OUR ANNUAL POTLUCK

Monday, December 6th 6:30 p.m.
at the Campbell Creek Center
off 68th and Lake Otis
(See Map on Back)

Speaker: Julie Riley
Topic: "Landscaping For Birds"

Julie Riley of the University of Alaska Cooperative Extension will present a program on "Landscaping to Attract Birds." She will talk about vegetation that will entice different birds to your home and garden.

Plant Family Study:
BRASSICACEAE/Mustard

Arabis Genus

Presenter: Sue Jensen



Can you identify this plant? Read the clues for this month's Mystery Plant on page 2. The answer is on page 3.

Ice Breaker Botany

By Carolyn Parker, Herbarium
University of Alaska Fairbanks

'....you have been nominated as a participant in the Tundra Northwest 1999 expedition to the Canadian Arctic...'. I stared at my mail in amazement. Plans for this trip, sponsored by the Swedish Polar Research Secretariat, had begun 5 years ago and a friend who was involved had kept me updated. The Louis S. St. Laurent, Canada's largest ice breaker, would be used to transport scientists throughout the arctic archipelago with frequent stops for field work in a diversity of disciplines. I felt envious of those who would be going; what an incredible way to visit this unique and very remote region of the world. A few weeks before the 'Lois' was to sail the need for another botanist was apparent and my name was offered. Juggle a commitment here; find a substitute there; this was an opportunity to jump on. By early July I was leaving Alaska to join them.

The expedition's route spanned both a north-south and east-west traverse of Canada's arctic archipelago. Most researchers had designed projects to detect gradients that might exist along these geographical ranges. Investigations were diverse and included questions concerning species richness and genetic diversity in both terrestrial (land) and freshwater ecosystems, nutritional value of plant food sources, bird migrations, and lemming cycles. An ice breaker was needed as the ice pack would not break up along our route until late summer. My role was to help others with plant identification (most of the participants were from Europe and unfamiliar with North America's arctic flora) and to help build up a voucher plant collection for the expedition record.

BRASSICACEAE/Mustard

Arabis Genus

This month Sue Jensen will give a presentation of the *Arabis* genus of the Mustard family. There are eight species represented in Alaska and all are biennial or perennial plants. Most have a long tap root, a tight rosette of simple hairy leaves at the base, and many leaves placed alternately up their stems. The 4-petaled, white to pinkish flowers quickly form a seed pod in the shape of a silique (3 or more times longer than broad.) *Arabis lyrata* and *Arabis arenicola* are exceptions to the rule as they have very few hairs on their stems or leaves.

A. lyrata is probably the most common plant in this genus in Alaska and is also found in other parts of North America. It can be found in dry rocky areas in open woodlands, fields or tundra at least as far north as Fairbanks. This is a very distinctive plant due to its edible lyrate (Dandelion like) leaves. A mature plant can have several branched 6-10 inch stems with many open small white flowers giving it the appearance of "Baby's Breath". It is one of our earliest blooming flowers.



Arabis holboellii is probably the next most common species and is found in eastern Alaska and parts of interior and south central Alaska. Hairiness is variable. Basal leaves are in a tight rosette and the clasping leaves on the 8-40 inch stem overlap each other. The flowers are pinkish, hang down and are somewhat bell shaped.

Distinguishing this species from similar ones is difficult when plants are in bloom but obvious when they are in seed. *A. Holboellii* has siliques that are reflexed, hanging down at maturity. *A. Lemmoni*, *A. Lyallii*, and *A. Drummondii* have upright siliques and *A. Divaricarpa* has divergent siliques (spreading in different directions).

There are two subspecies of *Arabis hirsuta* that can be found on rocky slopes in Alaska. *A. hirsuta Eschscholtziana* grows on the Aleutian Chain, in SE and Coastal Central Alaska, and has clusters of very small whitish flowers. *A. hirsuta pycnocarpa* which grows in Interior Alaska has very small pinkish flowers. Both have distinctive dentate leaves that aid in identification.

Mystery Plant

This lovely plant deserves a place in everyone's garden but so far has not been successfully brought to cultivation. It is 5-10 inches tall. The long narrow glabrous leaves are bluish green in color and placed opposite on the stems. The five pink petals are subtended with a calyx of five short connected sepals that have purplish blotches. Below the calyx are two bracts. This plant is found in scattered parts of N. Western Alaska, and one isolated spot on the Kenai Peninsula. Several years ago we also found it at Peterson Bay, across from Homer. It also grows in Asia and parts of Arctic Europe. Can anyone assist us in obtaining seeds of this choic plant? Perhaps a field trip is in order to see it in bloom.

ICE BREAKER BOTANY (continued from page 1)

Two ship-based helicopters took us to shore where we camped for 2 to 3 days at each site. The arctic summer sun never sets so both field work and polar bear watches could continue all night. The beautiful barren landscapes captivated us and each site offered both it's own unique charm and some surprise observations for our studies. Loaded with samples, hungry and tired, we were always ready to return to the ship.

Back on 'Lois' we processed samples and caught up on field notes (and sleep!) as the ship pushed through the ice to our next stop. This was also a time to compare observations and socialize with fellow researchers. Notices on a large board in the map room kept everyone updated on seminars, meetings, and parties (ship crew and science staff combined efforts here with great results). E-mail via satellite kept us in touch with the rest of the world. Time went by swiftly.

Results from all projects will ultimately be published. As a result of our participation the Museum Herbarium gains both a large and diverse plant collection from this region and more involvement with European arctic ecology researchers. The opportunity to become familiar with the Canadian arctic has broadened my perspective of Alaska's flora in several ways.more to come!



CORRESPONDENCE

*Editors Note: Last February, we reported that a website hosted by the US Department of Agriculture had listed two native plants of Alaska as endangered species: *Erysimum capitatum* var. *angustatum* (sanddune wallflower) and *Polystichum aleuticum* (Aleutian holly fern)*

1. We subsequently received an e-mail message from Carolyn Parker at the University of Alaska Herbarium in Alaska, wondering how that information had been determined and questioning the inclusion of *Erysimum capitatum* var. *angustatum*.

2. I sent an e-mail to the web site host asking for verification and explanation.

3. In June we received this message:

Ouch,

It's a bad mistake caused by incompetent interpretation of data tables. Please check back in July for updated information. That *Erysimum* does not occur in AK!

We're very sorry,
Mark Skinner
mkskinner@npdc.usda.gov

3. In November I checked back at their web site and, sure enough, the list of endangered species for Alaska was: *Erysimum capitatum* var. *angustatum* (sanddune wallflower) and *Polystichum aleuticum* (Aleutian holly fern).

MORAL: It may be easier to put information onto the internet than to take it back! Or as Ronald Regan once said: "Trust but verify."

SPECIES 2000

Indexing the world's known species

Species 2000 is a "Federation" of database organisations working closely with users, taxonomists and sponsoring agencies. The goal of Species 2000 is to provide a uniform and validated quality index of names of all known species for use as a practical tool. The index will be used to provide:

1. an electronic baseline species list for use in inventorying projects worldwide;
2. the index for an Internet gateway to species databases worldwide;
3. a reference system for comparison between inventories;
4. a comprehensive worldwide catalogue for checking the status, classification and naming of species

In order to achieve this goal Species 2000 will:

1. Operate a dynamic Common Access System on the Internet through which users can locate a species by name across an array of on-line taxonomic databases.
2. Produce a stable species index, the Species 2000 Annual Checklist, available on the Internet and on CD-ROM, to be updated once a year.
3. Stimulate completion of the array of taxonomic databases by seeking resources both for the completion of existing databases, and to help establish new databases to cover identified gaps.
4. Establish a system of onward links connecting each species entry in the checklist with a wide range of other species databases with information about that species (to include germplasm, museum/herbarium, ecosystem and other data systems).

The Species 2000 Programme was established by the International Union of Biological Sciences, the Committee on Data for Science and Technology and the International Union of Microbiological Societies in September 1994. It is being developed by a multi-national Project Team. The North American web site for access to the Species 2000 Program is <http://www.usa.sp2000.org>

MYSTERY PLANT ANSWER

Dianthus Repens
Caryophyllaceae/Pink Family

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**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

- Full-time Student \$ 5
 Senior Citizen \$10
 Individual \$12
 Family \$18
 Organization \$30

Name _____

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Membership is on a calendar year basis.

**Alaska Native Plant Society
P.O. Box 141613
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