

# Borealis

the newsletter of the



P.O. Box 141613, Anchorage, Alaska

NOVEMBER 1998

## MEETING NEWS

Monday, November 2nd, 7:30 PM at the  
Campbell Creek Science Center  
off 68th and Lake Otis  
(See map on back)

Keith Boggs an ecologist with the Alaska Natural Heritage Program will present a talk on Vegetation and Ecology of the Gates of the Arctic National Park and Preserve. This program will take you on a tour of the plants and landscapes of Gates of the Arctic National Park and Preserve. During the summer of 1998, the Alaska Natural Heritage Program was contracted through the National Park Service to develop a land cover map for the Gates of the Arctic National Park. They had the opportunity to visit most of the Park by helicopter, and to observe its plants and animals. The emphasis of the program will be to describe the vegetation and ecological processes in the Park, and describe how landcover maps are developed.

## HELP NEEDED !

Articles are welcomed (and badly needed) for the newsletter. It doesn't take much time or effort to put together an article. It can be on any botany-related topic. Remember, this is your Newsletter. Remember the old computer saying, "Garbage in---garbage out"? Well, nothing in = nothing out! Please contribute even a short article. The staff can't do it all.

## PLANT FAMILY

by Verna Pratt

Plant family---Ophioglossaceae (Adder's Tongue Family) These are spore bearing plants with one-stalked leaf and spores borne on a stalked fertile frond.

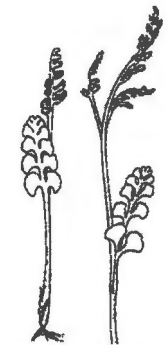
The Ophioglossum genud is represented in Alaska by one rare species found only on the Aleutian Chain.

Plants are very small and have one ovate leaf. The Botrychium genus, commonly called Moonworts, is represented by 5 species. All have one-stalked sterile leaf blade with a stalked fertile leaf blade above it.

*B. lunaria* and *B. boreale* are found throughout most of the State on grassy slopes and alpine meadows. Plants are 2 to 4" tall (taller at maturity) , and leaves are light green. *B. lunaria* has a long narrow sterile leaf blade with 8 to 12 mostly rounded segments. The fertile blade is long and narrow (can be simple or slightly branched). *B. boreale* has a somewhat triangular sterile leaf blade with 5 to 8 slightly lobed segments. The fertile blade is branched and short. *B. lanceolatum* is found in coastal areas of Southcentral Alaska and the Aleutian Chain. The sterile leaf blade is broadly triangular with 5 to 7 strongly lobed segments. The fertile blade is short and heavily branched. *B. virginianum* (Rattlesnake fern) is 8 to 20" tall and has a long petiole with a very large, broad, yellowish-green sterile frond that has tri-pinnate segments. The fertile blade is long and narrow. This fern is rare and seen in small woodland communities in Southcentral Alaska and on the Aleutian Chain.

(cont'd on page 2)

*B. multifidum* (The Grape Fern) has a short petiole with a broad tri-pinnate leathery sterile leaf blade. The previous season's sterile blade is often still visible. The fertile leaf blade is tall and branched. This fern also seems quite rare having been found in Southeastern Alaska and the Aleutian Chain. Although I have not personally seen it, long time Alaska plant explorer, Aline Strutz, once said she saw it in a wooded area along the Seward Highway in the Turnagain Pass area. I now wish that I had asked for more complete directions. Does anyone out there know where it might be seen other than Southeastern Alaska or the Aleutian Chain?



*B. lunaria*



*B. boreale*



*B. lanceolatum*



*B. multifidum*



*B. virginianum*

## Botrychium Destruction

by Verna Pratt

The following article is being reprinted from *Douglasia*, Volume 22, #4, Fall 1998 (The Newsletter of the Washington Native Plant Society).

The fern in question, *Botrychium pumicola*, does not grow in Alaska, but is similar to *B. multifida* and *B. virginianum* which do grow here. *B. virginianum* is the fern that we feared was destroyed when the Potter Trailhead (just south of Potter Marsh, on the Seward Hwy., south of Anchorage) was re-routed two years ago.

The trail was re-routed to make it wider, more gradual, and easier walking. The decision to re-route the trail through this area was poor judgement because it was based solely on the fact that no endangered plants were in this woodland. This fern, however, (according to Hultén's *Flora of Alaska*) exists only in that spot plus 2 areas halfway out the Aleutian Chain. The population here was small and only in the very wet woods. The decision to bury this ugly, muddy wet area with gravel was nearly devastating, but this past spring 3 little yellow sprigs managed to poke through the ground. Thank Heavens for rhizomes that found their way past the gravel.

Botrychiums seem to fascinate plant collectors but, similar to many orchid species, they do not transplant well and often die. Their yellowish leaves tell a story. They are relying on help from other sources for production of food. Our chances of duplicating the environment are nil. So, it is best to enjoy and admire them in the wild. They are quite inconspicuous amongst the *Gymnocarpium dryopteris*.

## "A RULE OF THUMB FOR BOTANISTS: THE 1-IN-20 RULE"

by Dr David H Wagner [103132.2716~compuserve.com](mailto:103132.2716@compuserve.com)  
originally published in the *Oregon Flora On-Line Newsletter*

volume 1 Number 3 . Oregon State University . July 1995.

There have apparently been instances in the past where well-meaning botanists have destroyed plant populations through over zealous collecting. The case most familiar to me concerns one of the world's rarest ferns, the pumice grape-fern, *Botrychium pumicola*. A student searching for new sites found two individuals of this species on Oregon's Tumalo Mountain in 1954 which he collected to make herbarium specimens. In the late 1970s I searched the top of Tumalo Mountain with friends. We were experienced fern hunters, but we found no *Botrychium*. I strongly suspect that the two plants removed in 1954 eliminated the population at this location. Today we would hope that botanists finding only one or two plants at a site would document their discovery with photographs and notes. Good photographs and careful field notes are increasingly acceptable for recording plant discoveries.

Nevertheless, from time to time, a field worker may encounter a small population of a plant and feel it is necessary to collect a bit of it for positive identification and documentation. The Native Plant Society of Oregon's Guidelines and Ethical Codes for botanists urges that a collector use good judgement and rules of thumb when deciding whether or not to collect. But in this case, what is a good rule of thumb? During the past 10 years, I have been using what I call the "1-in-20 Rule".

The 1-in-20 Rule dictates that a botanist never collect more than one out of twenty plants. It means NOT collecting ONE plant UNTIL you have found at least TWENTY. Only if twenty are found should you consider collecting one plant. And forty should be present before two are taken, and so on. The rule applies to parts of plants, also: remove no more than five percent (one-twentieth) of a shrub, one fern frond from a clump of twenty, 5% of a patch of moss, 5% of seeds from a plant. I use the 1-in-20 Rule whether I am collecting voucher specimens for the herbarium, doing rare plant work, or gathering common species for classroom use.

The 1-in-20 Rule does not obviate the need for good judgement. Only when a botanist has the knowledge to assess whether collecting is both ecologically justified and legally permitted should a specimen be taken. Any pertinent factor relating to the survival of a population needs to be superimposed on the 1-in-20 Rule. The main value of this rule is to provide a clear point of reference from which to begin assessing a situation. It helps a botanist determine how much time should be spent inventorying before sampling is appropriate. I suggest the 1-in-20 Rule as a minimal criterion to be met before any taking of a plant be considered.

There is at least a modicum of scientific logic behind this rule. Statistically, a population sample of nineteen is not significantly different from a sample of 20. One population geneticist I consulted advised me that contemporary statistical theory would support the 1-in-20 Rule. Another pointed out, however, that repeated collecting would tend to reduce every population to nineteen individuals. This caution serves to emphasize that the 1-in-20 Rule is a rule of thumb, not a license to ravage.

An interesting line of argument in support of the 1-in-20 rule has developed since I first published the idea in the *Bulletin of the Native Plant Society of Oregon* in 1991. First, I received a letter from **James Grimes** of the New York Botanical Garden querying whether or not I had picked up the idea from a similar article he and others had published in the newsletter of the *Idaho Native Plant Society* a few years before. I honestly cannot recall seeing their note. Then, last year, four botanists from Australia and New Zealand published an article in the international journal, *Taxon*, which made essentially the same recommendation. Thus, three botanists or groups of botanists, deliberating independently, have arrived at the same standard. I submit that this concurrence from three separate sources speaks strongly for the sensibility of the 1-in-20 Rule.

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## THANKS

☺ Many thanks to Susan Klein for becoming our new Program Chairperson. If you have any program ideas please call her at \_\_\_\_\_.

☺ Many thanks to Sue Jensen ( \_\_\_\_\_ ) for volunteering to do the Seed Exchange again this year. Please bring seed donations to the November meeting or mail to the Society address and please write "Seed Exchange" on the envelope.

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## MYSTERY PLANT

by Verna Pratt

This plant is found only on the west end of the Aleutian Chain and the Kamchatka Peninsula. It is 3 to 4" tall and spreads by rhizomes. Stems and leaves are hairy. The 4-petaled flowers are about 1/2" wide and blue. The long pistil and 2 long stamens make it a distinctive flower. This plant has been prized by gardeners since it was originally transplanted to the Anchorage area, and is now the emblem of the Alaska Rock Garden Society (Alaska Chapter of North American Rock Garden Society---NARGS). The reason for this choice was its ease of growing, its height, and its limited distribution. Start multiplying it, folks, as it will be a highly sought after plant in the summer of 2002 when the Alaska Chapter hosts the Annual Meeting of NARGS.

What is this plant?



Hints above.

Answer on page 4.

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## NEWSLETTER

☺ The newsletter this month is brought to you by ANPS member Frank Pratt (You may remember him, he was editor from 1982 to 1992). Our regular editor, Ginny Moore, is out of town. We presume that she is having a great time playing in the sunshine somewhere.

## HELP !!!

Help, please! We are in need of a person to organize presenters for Plant Family study at the monthly meetings. This only entails asking people to do a brief 5 to 10 minute talk. Call Verna at

Help, please! We are also in need of a person to organize presenters for the Mini-Botany portion of our monthly meetings. This would be brief 5 minute talks on any plant or plant related subject.

Help, please! We are still looking for a person to mount and label the plant specimens collected last summer on the BLM plant collecting trips. This is not a big job, but a very important one. Call Verna at

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### Alaska Native Plant Society State Officers

President Marilyn Barker  
Vice President Open  
Secretary Jean Poor  
Treasurer Yaso Thiru

### Anchorage Chapter Board Members

President Marlena Mooring  
Vice President Nancy Krieger  
Secretary Marilyn Upton  
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### Anchorage Chapter Program Coordinators

Main Program Susan Klein  
Plant Family Open  
Mini-Botany Open  
Field Trips Diane Toebe

### Newsletter ("Borealis")

Editor Ginny Moore  
Circulation Martha Hatch

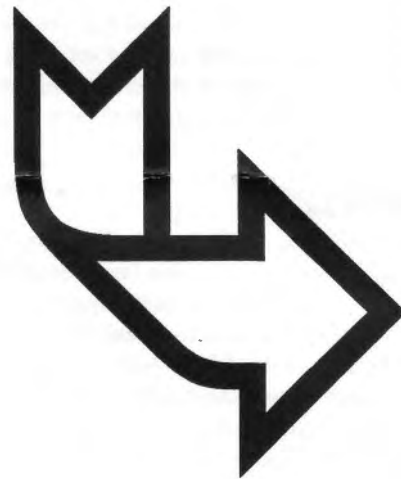
*Borealis* is published monthly October through May. Articles may be sent to: Ginny Moore,  
, Anchorage, AK 99516. Phone or FAX is

## MYSTERY PLANT ANSWER

Scrophulariaceae / Figwort family

Alutian Speedwell

*Veronica grandiflora*





# Anchorage Garden Clubs and Associations 1998

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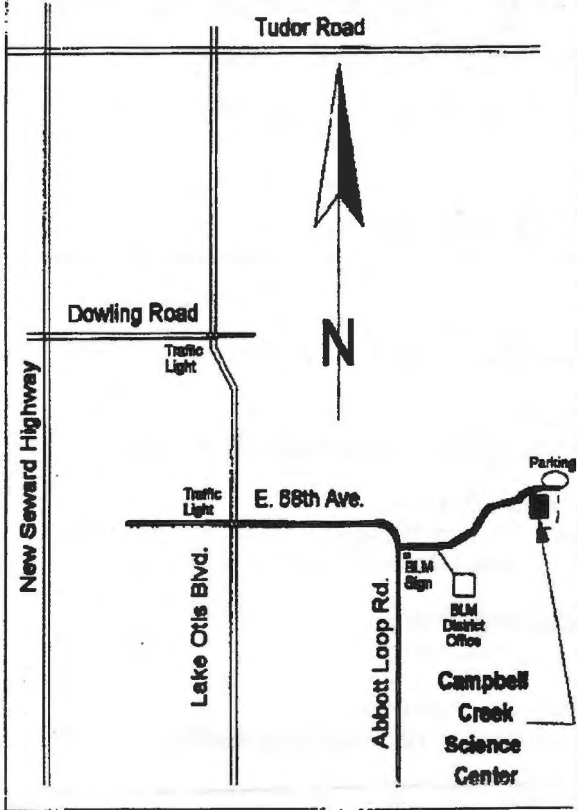
## Club

## Meetings

<i>Alaska Native Plant Society</i>	1st Monday, 7:30-9:00 p.m. Contact: Marlena Mooring, President,	
<i>Anchorage Garden Club</i>	1st Thursday, 7:30 p.m. Contact: Carol Norquist, President	
<i>Alaska Rose Society</i>	2nd Tuesday, 7:00 p.m. Contact: Barbara Hedges, President, Allen Deitz,	
<i>Wildflower Garden Club</i>	2nd Thursday, 10:00 a.m. Contact: Liz Rockwell,	
<i>Alaska Pioneer Fruit Growers</i>	2nd Thursday, 7:00-9:00 p.m. Contact: Kevin Irvin, President,	
<i>Alaska State Beekeeping Association</i>	3rd Monday, 7:00 p.m. Contact: Fletcher Miller,	
<i>Alaska Master Gardener Association, Inc.</i>	3rd Monday, 7:00 p.m. Contact: Martie Black, President	
<i>Alaska Ikebana Society</i>	3rd Tuesday, 7:00-9:00 p.m. Contact: Nina Stehr,	
<i>Aurora Borealis African Violet Society</i>	3rd Tuesday, 7:30 p.m. Contact: Pat Addison,	
<i>Alaska Botanical Garden</i>	3rd Wednesday, 7:00 p.m. Contact: ABG Office,	
<i>Alaska Orchid Society</i>	4th Tuesday, 7:30-9:00 p.m. Contact: Jane Bibee,	
<i>Herb Study Group</i>	4th Thursday, 7:30 p.m. Contact: Mary Shier,	
<i>Alaska Rock Garden Society</i>	Contact: Verna Pratt, President,                    or Wendy Anderson,	
<i>Cook Inlet Bonsai Study Group</i>	Contact: Sandy Markon,                    or Ken Chalk,	
<i>Greater Anchorage Mycological Association (GAMA)</i>	Contact: Diane Pleninger, Chair                    or Phyllis Kempton,	



**Map To The New Meeting Place  
Campbell Creek Science Center**



**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 \_\_\_\_\_

Address \_\_\_\_\_

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

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

**Membership is on a calendar year basis.**

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

