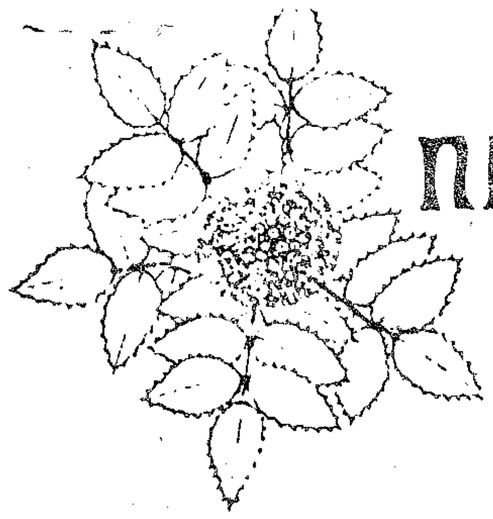


THE BULLETIN OF THE NATIVE PLANT SOCIETY of OREGON

•OBJECTIVE•
To increase the knowledge of members and public in identification and conservation of the native plants of the Pacific Northwest.

Vol. XIV No. 9 SEPTEMBER 1981

CHAPTER NEWS

EMERALD CHAPTER

Meetings:

Monday, September 14. Ken Hixson, Emerald Chapter member and long time plant lover, will present a demonstration and examples of the propagation of some of the native wild flowers. He will also share some book references and information about native plant nurseries. THIS IS THE SECOND MONDAY OF THE MONTH to avoid Labor Day. Meet at 7:15 p.m., Eugene City Library.

Monday, October 5. Rhoda Love, Ph.D., Dept. of Biology, U of O, Emerald Chapter member, will present a program on Hawthorn systematics and hybridization. She will draw on her recent research for her doctoral dissertation. Her degree was awarded in June 1981. Meet at 7:15 p.m., Eugene City Library.

Monday, November 2. Alan Curtis, Emerald Chapter member and BLM botanist, will show us slides of the native plants of Hawaii. Alan and his wife, Marianne, visited the Islands in July.

LANE COUNTY FAIR - August 18-23.

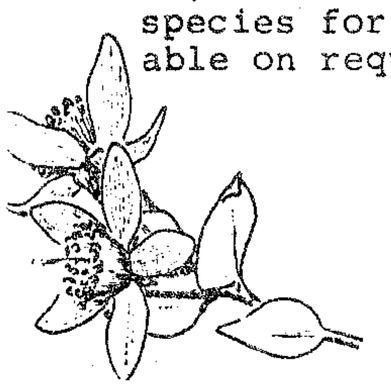
The Emerald Chapter sponsored a display and membership promotional in the flower section. This was well worth our time and effort as it provided maximum public exposure for our society. The Lane County Fair, as always, was a well attended event, drawing thousands.

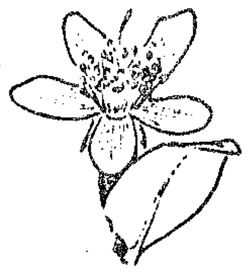
Field Trip Report, Emerald Chapter NPSO

Blair Lake Meadows, July 17, 1981.

Eight Emerald Chapter members and friends visited the flower abundant Blair Lake Meadows in the Oak Ridge Ranger District. Seepage, watering the meadows, drains into Blair Lake, elev. 4,900, which is situated on the western slopes of the Old Oregon Cascades.

Sightings added to a check list of flora already compiled by Emerald, NPSO, visitors on July 21, 1979, and two trips led by Rhoda Love, Emerald member, on July 5 and 11, 1981. A composite list of 122 flowering species for this area is on file and available on request.





We botanized along the incoming road and lower meadow and stream bed until noon enjoying Pedicularis bracteosa, Habenaria dilatata, Sisyrinchium augustifolium, Mertensia paniculata, Boykinia major, Angelica genuflexa, Hypericum formosum var. scouleri and, after much debate over fruit wings and ribs, Ligusticum apiifolium.

It took little urging to break for lunch and retreat back to the Campground where we joined the Luneskis, who were staying the night.

After a leisurly lunch we hiked to the upper meadows and were rewarded by fields of color provided by: Delphinium menziesii, Lilium columbianum, Gilia aggregata, Calochortus subalpinus, and Castelleja miniata --- a photographer's dream! Photographers in our group were not lacking. Four cameras clicked off rolls of film, endearing us to Kodak.

Underfoot, and available only to photographers at the price of a wet knee, were Mimulus moschatus, Orthocarpus imbricatus, and Hypericum anagalloides.

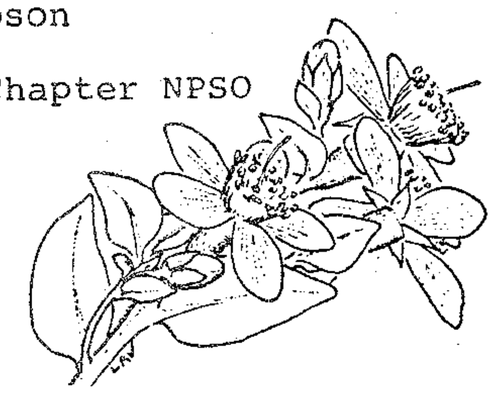
Rising above the meadow to the ridge at forest's edge caused enough physical exertion to give in to the pleadings for a beverage break and rest. We then folowed the ridge trail a short distance among Polemonium carneum, Galium oreganum, Smilacina stellata and Amemone deltoidea, before bushwacking down through forests and thickets to emerge, once again, in meadow and wet ground.

A special delight was a concentration of brilliant scarlet, Gilia aggregata, literally alive with feeding hummingbirds. We sat very quietly while photographers with mounted telephoto lenses crouched close to waiting Gilia trumpets. The flurry of hummingbird activity, each aggressively defending or challenging for a favorite feeding station, was a highlight of our trip.

Reluctantly, we left this glory and swamp slogged (sometimes to our boot tops) down to the lake's edge through Pedicularis groenlandica, Tofielda glutinosa var. brevistyla and Aconitum columbianum var. howellii (still in bud).

Trip Report by Trip Leader
Charlene Simpson

Field Trip Report, Emerald Chapter NPSO



Lane County Coast Dunes and Wet Places, August 15, 1981.

Three Eugeneans from the Emerald Chapter traveled to the coast to meet trip leader Margaret Markeley of Florence. We proceeded by car to Siltcoos outlet and Wax-Myrtle Campground. By trail, then beach walking, dunes hiking, thicket bushwacking and swamp slogging, we were introduced to some 40 species of flowering plants and 6 species of birds (Dowitchers, Sandpipers, Coromorants, Mergansers, Gulls, and Great Blue Herons). We were amazed at the floral abundance to be seen this late in the summer.

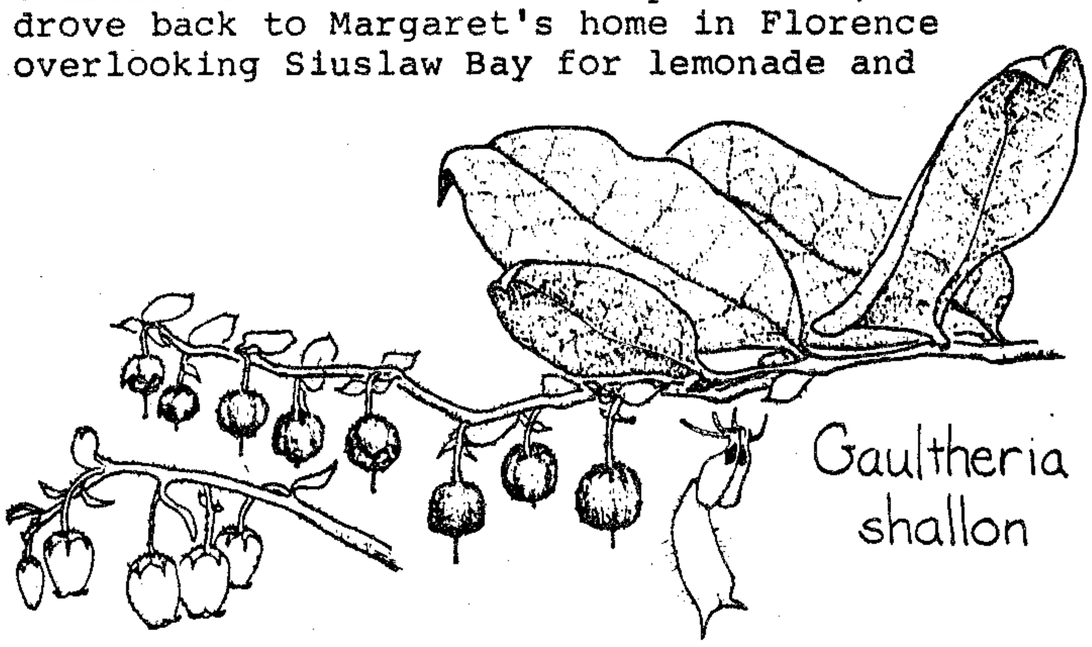
Along the beach:
Mimulus gutattus subsp. litoralis, Grindelia integrifolia var. macrophylla, Trifolium wormskjoldii, Lupinus littoralis, Lathyrus japonicus, Potentilla pacifica, Cakile edentula, Cakile maritima, Rumex maritima var. feruginus, Honkenya peploides, Polygonum amphibium, Tanacetum camphoratum, Cotula coronopifolia, Fragaria chiloensis, and more.

In wet deflation plains, behind the foredunes:
Ranunculus flammula, Sisyrinchium californicum, Spiranthes remanzoffiana, Lotus corniculatus, Hypochaeris radicata, Botrychium multifidum subsp. silaifolium (what an exciting surprise), Hypericum anagalloides, Centaurium umbellatum, Aster clilensis and the beautiful, tall blue Gentiana sceptrum (the day's highlight).

In the brush thickets:
Vaccinium ovatum, Gaultheria shallon, Arctostaphylos uva-ursi, Salix hookeriana, Baccaris pilularis (in bud), Myrica californica, Pinus contorta, Lonicera involucrata, and Cytisus scoparius.

And in a very wet place:
Cicuta douglasii. After much consultation and keying through the Family Umbelliferae we reached consensus on identification and all wanted to wash our hands after handling it.

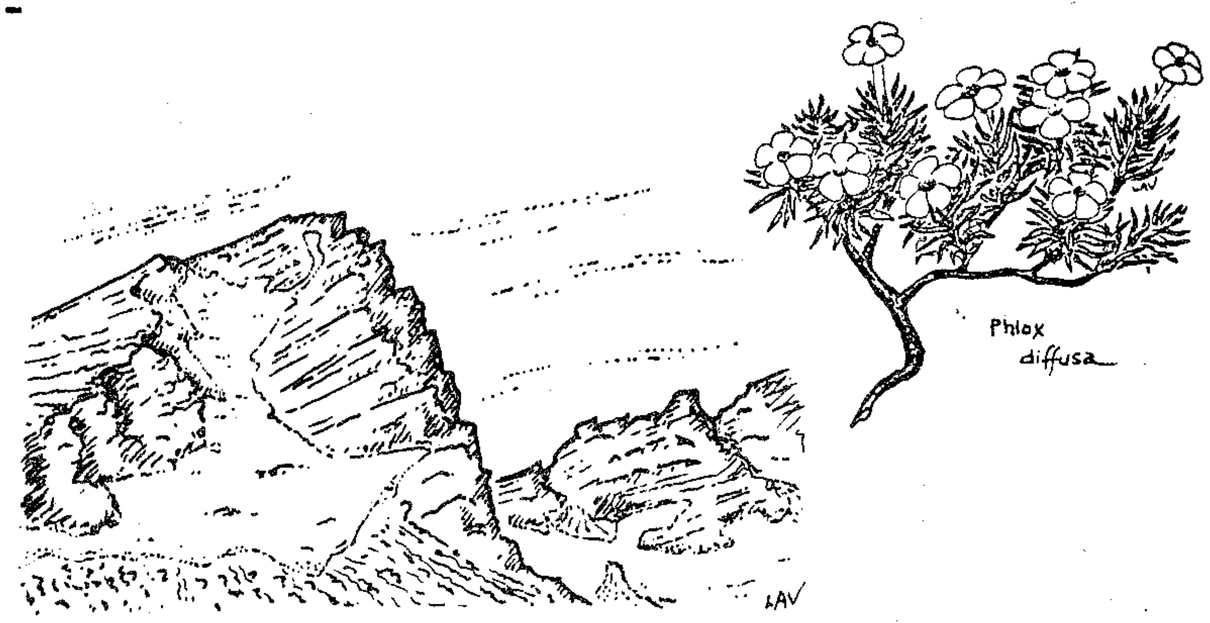
After our delightful 4 mile field trip, under overcast skies with mild temperatures, we drove back to Margaret's home in Florence overlooking Siuslaw Bay for lemonade and



cookies. We engaged in further "homework" to confirm sightings by referring to the 5 Vol. Flora by Hitchcock, et. al.

Field Guide used was: Wiedemann, Dennis and Smith, Plants of the Oregon Coastal Dunes, OSU Bookstore, Corvallis, OR., 1969.

Trip Report by Charlene Simpson



PORTLAND CHAPTER

Meeting:

Tuesday, September 8, 7:00 p.m. Central Library, 801 S.W. 10th, Portland. Timberline Trail Around Mount Hood. The program will be presented by Glen Walthall, Botanist, photographer, naturalist and biology teacher. Glen has been a member of NPSO for many years.

Field Trips:

Saturday, 5 September, 1981. Labor Day. No trip scheduled.

Saturday, 12 September, 1981. Breitenbush/Papoose Lakes Area - Wilbur Bluhm, leader. Carpool at Handyman/Tri-Met Park and Ride Lot (15550 SE McLaughlin Blvd.) in Oak Grove at 7:30. Take Highway 224 to Estacada, Ripplebrook (note: in the National Forest this road may be designated No. 46), and across 6-8 miles of rough road to a junction with S-42. Wilbur will meet us there. This is a very easy 4 mile round trip hike through at least three distinct plant communities; wet mountain meadow,. open subalpine forest and dry scree. Wilbur expects to see Gentiana calycosa, Microseris borealis, Gaultheria humifusa plus emerging fall color on the huckleberries and mountain ash. This is not a trip to miss!

Saturday, 19 September, 1981. Elk Meadows - Florence Ebeling, leader. Carpool at State Motor Vehicles Department parking lot (NE 60th and Glisan) at 7:30 or Heidi's, at 8:00 a.m.

"This area of Mt. Hood is truly a hiker's paradise with rushing streams, waterfalls, and European-type alpine vistas of broken glaciers and deep canyons . . ." 100 Oregon Hiking Trails by Don and Roberta Lowe.

You may want to continue past the meadows to spectacular Gnarl Ridge.

Saturday, 26 September, 1981. A Day in Indian Heavan.- Elizabeth Handler, leader. Carpool at State Motor Vehicles Department parking lot (address above) at 8:00 a.m. This short hike begins at the top of Red Mountain and descends to the Racetrack. This area is rich in Indian history and culture. Myrtle Overbaugh, long time resident of Klickitat County and former liaison between the Yakima and Klickitat Indian Nations and the U.S. Army Corps of Engineers will discuss the importance of this subalpine meadowland to the Indians.

continued on next page

Saturday, 3 October, 1981. Cape Lookout - George Lewis, leader. Carpool at OMSI at 8:00 a.m. or meet at the trailhead at 10:00 a.m. This is a late season hike through alternating tunnel-like forest and broad ocean views from precipitous cliffs. This is our last coast trip of the season. Don't miss it!

Saturday, 10 October, 1981. Little Crater Lake/Timothy Lake - Charlene Holzwarth, leader. Carpool at State Motor Vehicles Department parking lot (address above) at 8:00, or Government Camp at 9:00 a.m. This late season hike is along a flat portion of the Pacific Crest Trail between Little Crater and Timothy Lakes. Charlene will discuss the geologic forces which have formed Little Crater Lake. Prepare for a frosty morning. Bring mittens and wool clothes. The weather can be unpredictable at this time of year.

HIGH DESERT CHAPTER

The High Desert Chapter will meet at a new location. The next regular meeting will be held September 1, Tuesday, at 7:30 at Cascade Natural Gas Company. The program will be identification of flower slides. Members are encouraged to bring slides of flowers they have not been able to identify.

WILLAMETTE VALLEY CHAPTER

Meeting:

Monday, September 21. First Methodist Church, State & Church Streets, Salem, 7:30 p.m. Program: Native Alliums by Cal Burt. Also: plant sale of native plants grown by members, seeds of natives.

Field Trip:

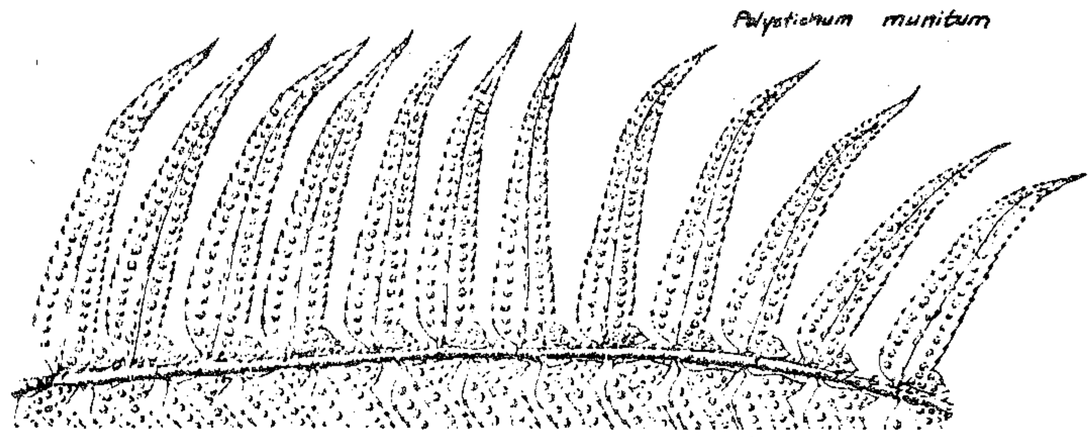
Saturday, September 26. Rescheduled. Dwarf Mistletoe with Peter Paquet. Margo Wing, leader (370-7350). Meet at the north end of the parking lot of south Salem K-Mart at 8:00 a.m.

RARE PLANT PUBLICATIONS

Endangered, Threatened and Sensitive Plants of Washington. April 1981. Washington Natural Heritage Program. 3111 Seminar Building (SE3109). The Evergreen State College. Olympia, Washington, 98505. 26 pp. This publication is a list of rare Washington plant species, including a description of basis for inclusion and species lists organized by the status of Endangered, Threatened, or Sensitive. It also includes a list of plant taxa possibly extinct or extirpated in Washington and a Monitor list. The list is to be followed by a more complete book on the Wahsington rare plants. The list is available upon request to the WNHP with the inclusion of four first class postage stamps ($0.72)

Threatened and Endangered Plants of Oregon. An Illustrated Guide. In Press. Bob Meinke. U. S. Fish and Wildlife Service, Endangered Species Office. Portland, Oregon. This publication of Oregon rare plant taxa will be available in the near future. When availa available, this Bulletin will print how to obtain a copy.

LAV



GATHERING FERN SPORES

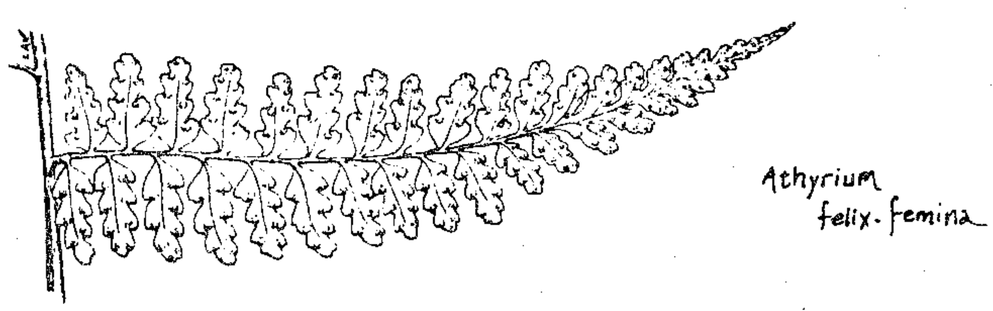
Ferns can be grown from spores just like flowering plants can be grown from seeds. People often have the notion that this is a difficult process and never try. Although not as easy as many flowering plants, ferns are no more difficult than growing begonias from seeds, and are certainly easier than raising orchids from seeds.

The first step in the process, gathering spores, is the easiest. The only trick is finding fertile fern fronds at the right stage, when the spores are mature but not yet shed from their sporangia. This can be determined readily with a hand lens, but requires a little experience to distinguish unopened sporangia from empty ones. The simplest advice is to suggest that a person make several collections at approximately the proper season. A goodly fraction of the collections thus made will turn out to have ample spores for growing. In the Pacific Northwest, August and September are the best months of the year for most ferns. The common licorice fern (Polypodium glycyrrhiza) is one of the few which does not have good spores at this time.

Tips of fertile fronds with many sori (clusters of sporangia) should be picked off and immediately placed in plain letter envelopes. Write the locality data and date on the envelope. If one removes less than a quarter of the leaf area from any one plant, no damage to natural populations will result. The envelopes should be sealed, seams covered with tape if pure samples are desired, and placed in a dry place with good air circulation.After a week or so, tap the bottom edge of the envelope on a table top to get the spores in the bottom. Carefully cut off the top edge of the envelope with a pair of scissors and lift out the frond tips with forceps. There will be a fine yellow, brown or black powder (the spores!) in the bottom crease of the envelope if the ferns were at the proper stage. Cut off one end of the envelope, form it into a trough, and pour (with careful tapping) the spores into a vial for storage. The frond tips can be replaced in the envelope with collection data as vouchers.

(NEXT TIME--SOWING AND GROWING)

David Wagner, Eugene



PLANT FAMILY PROFILES
By Herm Fitz

The Violaceae - VIOLET FAMILY

The Violet Family is a small family of 22 genera and about 900 species, cosmopolitan in distribution, but more typical of the Temperate Zone. Representatives occur in the Tropics, but are restricted to mountainous areas there. We are most familiar with our single genus *Viola*, the violets, of which there are 27 species in Oregon.

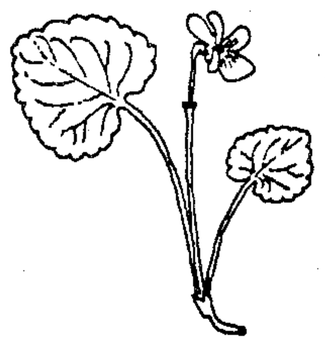
Members of this family are mostly perennial herbs and shrubs with simple alternate leaves that bear small stipules at the base. The flowers are in racemes or solitary. Most members of this family have regular (actinomorphic) flowers, except the genus *Viola*, which is unusual in that it has an irregular (zygomorphic) corolla. The flowers are bisexual, with 5 sepals, 5 petals, 5 stamens and a pistil of 3 carpels. The petals are unequal, the lower being the largest, and together with the two adjacent petals, form a "landing field" for the pollinators, complete with "nectar guides," or delicately pencilled purplish or brown lines that converge at the central point - incidating to the pollinating insect the source of nectar within the spur. Of course, in probing toward this source, the insect body must touch the stigma, thus depositing pollen from a previously-visited flower, and in backing out, must touch the spurs of the anthers, stimulating a shower of pollen on the back that will be carried to the next flower.

The 5 stamens have their filaments fused at the base to form a ring around the ovary, which is superior, of 3 carpels, fused into a single locule with three parietal placentae. The style and stigma are simple.

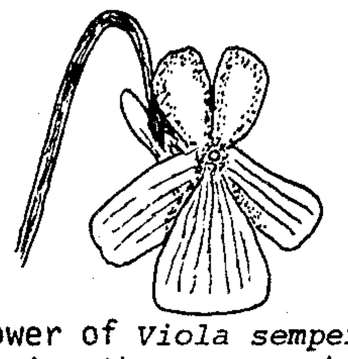
Many species of *Viola* have small "cleistogamous" flowers which never open and are self-pollinated. Following pollination the ovary matures to a capsule which often dehisces violently, throwing its many seeds some distance.

Many violets and pansies are cultivated ornamentals, in addition to those natives that occur in woods, meadows, hillsides or bogs. One species, *Viola odorata*, is grown in southern France for essential oils that are used in manufacturing perfumes, flavorings, toiletries and a liqueur *parfait amour*, very sweet and violet-colored.

Cross section of ovary of *Viola* species. Note the tricarpellate condition, with a single locule and three parietal placentae.



Viola sempervirens (Evergreen Violet) plant. Note the nodding solitary flower, the simple cordate leaves.



Flower of *Viola sempervirens*, showing the zygomorphic corolla of 5 petals, the striking nectar guides on the lower three petals, and the spur formed by the lower petals, which bears nectar to attract insect pollinators

We may write the generalized floral formula for the Violaceae (*Viola*):

$$Ca^{5}\ \ Coz^{5}\ \ S^{5}\ \ P\textcircled{3}$$

When you encounter a small herbaceous plant with simple leaves, small stipules, nodding, saccate zygomorphic flowers with prominent nectar guides on the lower petals - and if the ovary is tricarpellate, unilocular with three parietal placentae - there can be little doubt that you have chanced upon some member of the Violaceae- the Violet Family.

(Note to readers: I am resuming my monthly column Plant Family Profiles after a three month layoff. With the close of a busy sabattical leave, during which time it was nearly impossible to find regular times to write, I expect to be able to resume a normal schedule. I am sorry for the gap. Herm Herm)

Grass Scholar's Verse

In the January-March issue of the Colorado Native Plant Society *Newsletter*, the recent death of Dr. Harold D. Harrington, 1908 to 1981, Professor Emeritus in the Department of Botany and Plant Pathology at Colorado State University, is reported. He is the author of *A Manual of the Plants of Colorado* (1954) and other works on Colorado plants.

His last work was *How to Identify Grasses and Grass-like Plants* (1977), in the introduction of which there appeared the following poem written by him. Because of *Fremontia*'s recent grass issue, it seems appropriate to quote it in full:

THE IDENTIFICATION OF GRASSES

A grass can be "glumey" in more ways than one,
When its classification remains to be done;
You pull off the parts, and soon feel your age
Chasing them over the microscope stage!

You peer through the lenses at all of the bracts
And hope your decisions agree with the facts;
While your oculist chortles with avid delight
As you strain both your eyes in the dim table light.

You are left on the horns of quite a dilemma
When you count the nerves on the back of the lemma;
Then you really get snoopy and turn each one turtle
To see if the flower is sterile or fertile.

And then the compression, no problem is meaner —
Is it flat like your wallet or round like a wiener?
"How simple," you think "for a mind that is keen" —
But what do you do when it's half-way between?

You probe and you guess how the florets will shatter,
For you know later on it is certain to matter;
You long for the calmness of labor that's manual
When the question arises — "perennial" or "annual"?

And that terrible texture, the meanest of all,
Is one of the pitfalls in which you can fall;
"Cartilaginous" maybe — or is it "chartaceous"?
Has even the experts exclaiming "Good gracious!"

Then you wail as you wade through the long tribal key,
"Oh, why must this awful thing happen to me?"
"Grasses are easy," our teacher declares,
As he mops off a brow that is crowned with gray hairs!

[from Fremontia, July 1981, p. 25,
"Notes and Comments"]

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Rosa nutkana Presl
L.A Vorobik © 1981

NATIVE PLANT SOCIETY OF OREGON

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