

# 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. XIII No. 7

JULY 1980

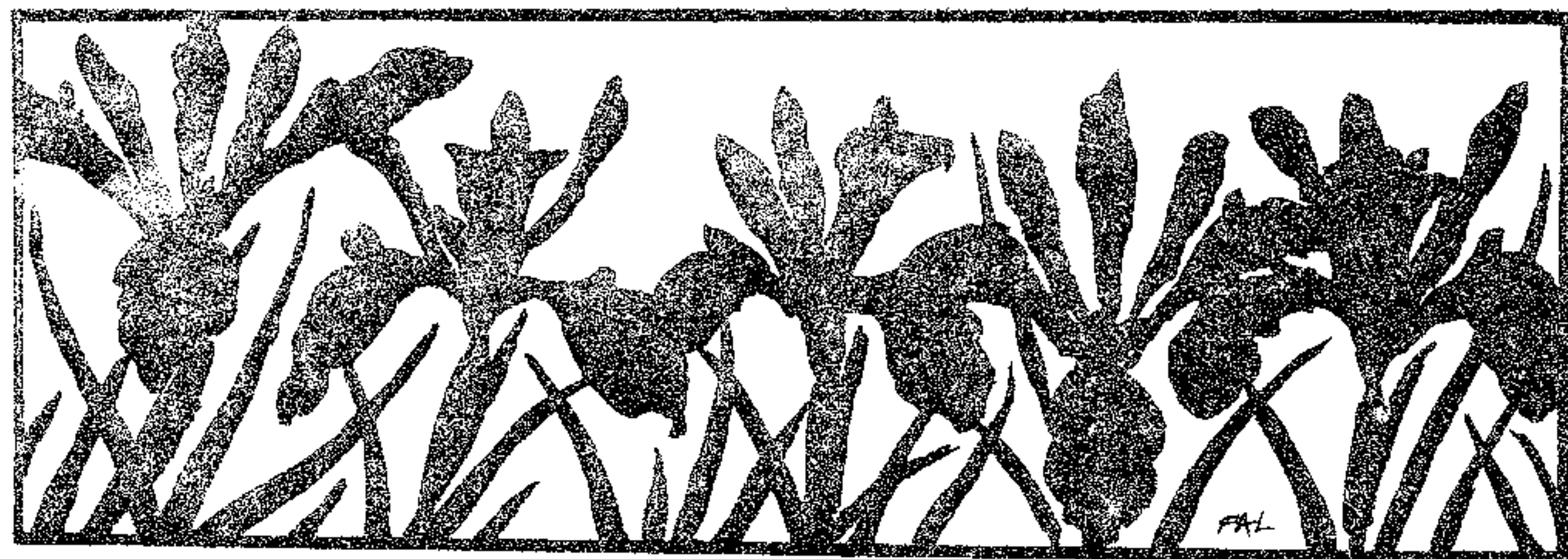
### DON'T MISS THE T/E SYMPOSIUM!

Everyone vitally concerned about our Threatened and Endangered species will want to gather for "Threatened and Endangered Plants: A West Coast Perspective," a symposium to be held July 25, 26, 27 at Southern Oregon State College in Ashland. As announced in an earlier Bulletin, speakers for this major event will include Dr. A. R. Kruckeberg, Dr. G. Ledyard Stebbins, Mr. Gerald Hillier, and Dr. Janet Hohn, all experts in the field of sensitive plant conservation and study. A High Siskiyou Field Trip will be held on the final day, traversing granitic, ultrabasic, and metamorphic rock types at about 7,000 feet elevation.

If you plan on going, please advise us in advance.

### NPSO RECEIVES GIFT OF SLIDES

NPSO has received several hundred 35mm slides of Western wildflowers from the species Iris Group of North America, the American Iris Society. Sent by Mrs. Jean G. Witt of Seattle, the slides were taken by the late Mrs. Ruth Hardy of Eugene, a longtime wildflower enthusiast. NPSO is grateful for this thoughtful and useful gift to our society.



### HIMACHAL PRADESH/KASHMIR BOTANICAL EXPEDITION

\$100 of your cost of attending this exciting trip will go directly to NPSO. So plan to join the group May 5-29 1981. The program in India will be hosted by an Indian Botanist who will accompany the group during the entire trip. Four days will be spent in Delhi with a tour of the city included. Ten days botanical trekking in the Himachal Pradesh, with porters, tents, cook & kitchen help, all meals, and sherpas, will follow. At the return of the trek, we will go further north to Srinagar and explore the region and gardens of Kashmir. Our program will reach an end in Delhi after the flight from Srinagar. A day's rest at Janpath, then the group will board the plane for the return flight. An optional two-day visit to the Taj Mahal, red Fort, and Bharatpur Bird Sanctuary.

Land Cost: \$1450

Airfare: \$1250 (east coast slightly less. Subject to change).

For information, contact Folkways International Trekking, Inc. 14903 S.E. Linden Lane, Milwaukie, OR 97222, telephone (503) 653-5882.

### HIGH DESERT CHAPTER ORGANIZED

The following Bendonians are charter members of the High Desert Chapter NPSO.

Diane Abernathy	Margaret Meritt
Rebecca Bair	Barbara Robinson
Joyce Bork	Ken Robinson
Kathleen Cooper	Peggy Robinson
Marge Ettinger	John E. Schwartz
Stuart Garret	Karen Talbot Throop
Jack Kennison	Alice B. Updegraff
Richard Liddell	

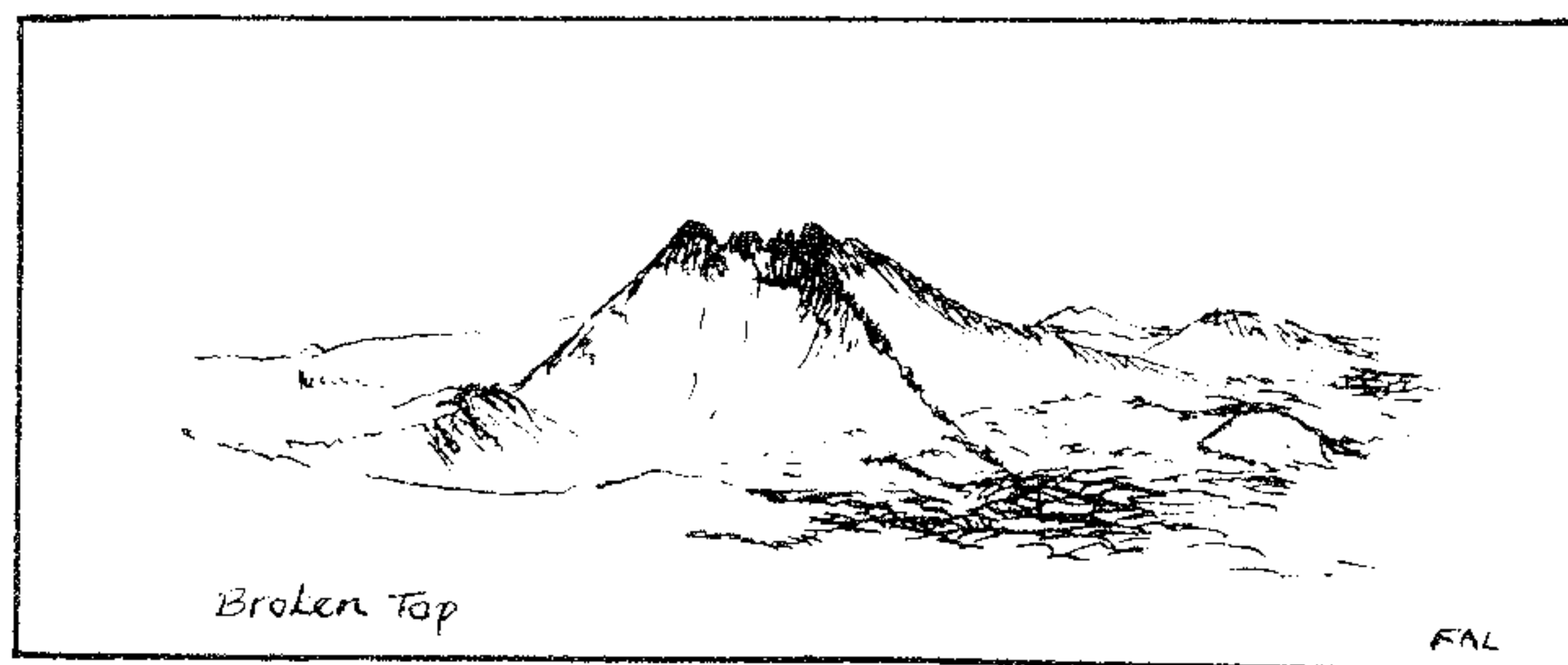
### OFFICERS ARE:

President:	Joyce Bork
1st Vice President	Dick Liddell
2nd Vice President	Barbara Robinson
Secretary	Louise Burgess
Treasurer	Ada Carew

Meetings -- The first Tuesday of every month at 7:30 p.m. Contact Joyce Bork, 389-5657 for location.

Field Trips -- Sat. June 28, Black Butte, Leader Joyce Bork. Meet at 9:00 a.m. McDonald's, 9:45 a.m. Indian Ford Campground.

Sat. July 19, Broken Top and Ball Butte, Leader, Barbara Robinson. Meet at 8:00 a.m. Cascade Jr. High Parking lot.



### T/E ALERT

\*Annie Kowalishen of the NPSO T&E Committee has distributed to all chapters lists of the T&E plants for counties adjacent to each chapter. These are lists developed by the U.S. Fish and Wildlife Service. These will be very helpful in alerting members to be on the lookout for both the plants and for threats such as development, mining, lumbering, roadside spraying, wetland drainage, and so forth.

## MT. ST. HELENS AND YOUR GARDEN

What will be the effect of Mt. St. Helens' ash on garden plants? Before I answer this, it is important to review some background information I have looked into since the first eruption of April 1.

The initial ash collected at North Bonneville on 2 April was very dark in color, being nearly 80% small obsidian flakes. Obsidian is quite abundant in the Cascades where volcanic activity has occurred in relatively recent geologic time (the last several thousand years).

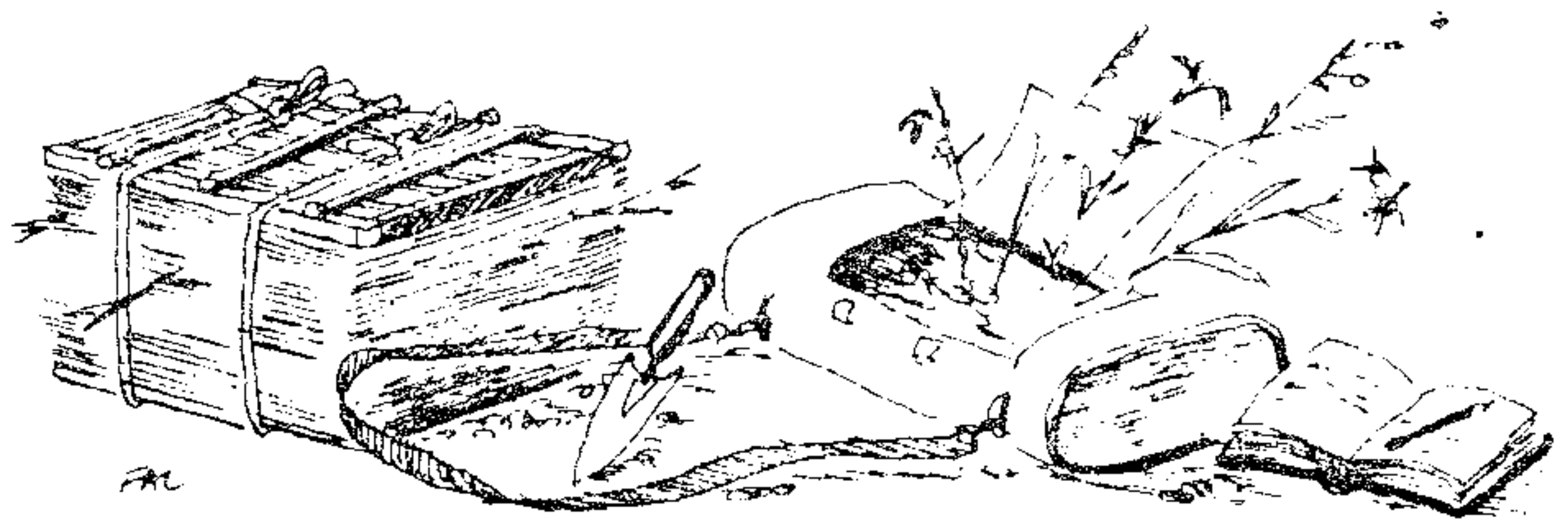
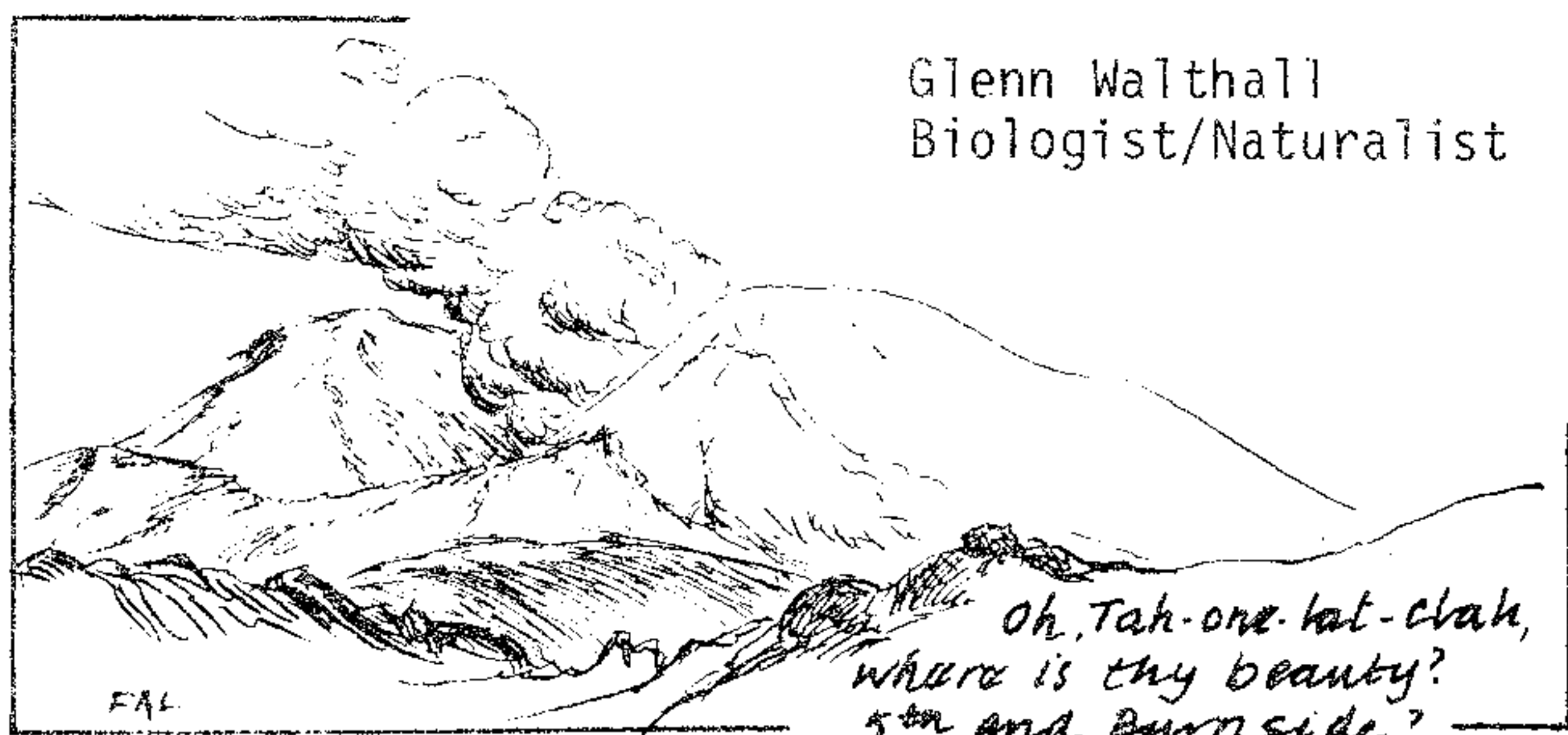
No obsidian geologically is very old. It is high in silica (glass or  $\text{SiO}_2$ ), plus micro amounts of calcium, sodium, feldspars, pyroxene (magnesium, iron, silicon oxides). These combined minerals produce hues of green, brown, gray, yellow, to almost black. The ash had a pH (how much acid or alkali is present) between 5.8 and 6.2. This is only very slightly acid. (Lemon juice is 100 times more acid than this. Neutral or distilled water would have a pH of 7.0).

On May 18, the ash was very light gray with flecks of yellow and blue, with the consistency of a glassy froth pumice. Under the microscope and a few simple qualitative analysis tests, it is close to Muscovite (white mica); but again, around 80-90% silica (like ultra-powered glass) plus aluminum, potassium, and sulphur. The pH was 6.0 to 6.4 (getting a completely uncontaminated sample is difficult).

All of the minerals listed here, of course, are essential (in varying percentages) to plant nutrition. The problem is most closely associated with plant suffocation by being inundated or coated with ash. The ash of May 18 and later becomes like cement when wetted. This blocks plant stomata (pores) and prevents gas exchange. It also changes soil porosity.

So what this means is that in Eastern Washington where the heaviest ash fall occurred, and also to a lesser extent in Kelso and Longview, plant suffocation is a real possibility. Therefore, it depends on the amount of ash you have, how it gets dispersed, and how it gets worked into existing soil. I believe we all have an excellent opportunity to become amateur sleuths. Keep good records of plant growth and condition; watch for any changes in how the soil smells, color change, different insects that might appear; measure the soil pH with narrow range Hydrion Paper; observe if the soil develops unusual crack patterns not seen before. (This might be an indication of soil chemistry changes). Watch for any changes in earthworm population, and which birds visit your yard and how frequently.

One other thing I think is obvious here: no one knows what the overall effect of the Mt. St. Helens ash will be, no matter how great or slight the amount. The rain will disperse nearly all of the ash from the vegetation, and of course, the air will evenly disperse the ash by particle size; and what is on the soil very soon will enter into the normal bacterial, photo and soil chemical cycles. I see at least some of this to be beneficial ... depending on your location.



## BOTANICAL PIONEERS

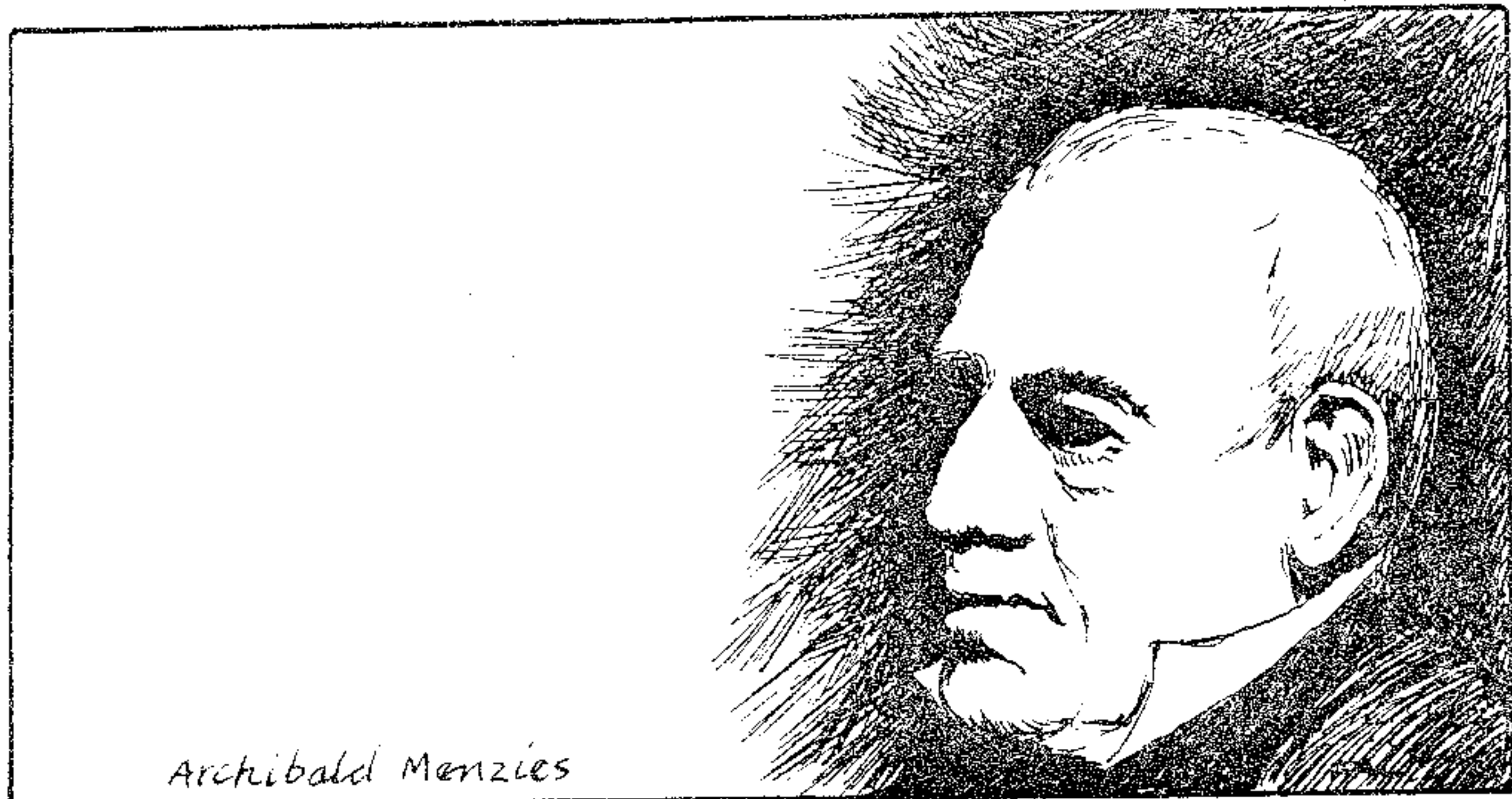
ARCHIBALD MENZIES: VANCOUVER'S GENTLE SURGEON-BOTANIST by Mariana D. Bornholdt ©1980

In the year 1790, after a successful conclusion of the war with Spain, England determined to press claim to the Pacific Northwest lands ceded her in the articles of peace. Accordingly, in November of that year, two vessels were commissioned, the Discovery, a ship of 330 tons, and the Chatham, a brig of 140 tons, and First Lieutenant George Vancouver (1757-1798) of the Royal Navy was promoted to command of the Discovery. Captain Vancouver's specific commissions were to take over Spanish territorial claims in the Pacific and to search for an eastward, "the inland", passage to Hudson Bay.

Vancouver had accompanied James Cook on his second (1772-75) and third (1776-1780) voyages of discovery in the Western Hemisphere, which included two cruises as far north as the Bering Sea. Thus, he was as familiar as any Englishman with the North Pacific Ocean and its shoreline. Further, having served in the Royal Navy since the age of 13, he enjoyed the full confidence of the British Crown and was permitted to select personally the full complement of officers and crew for the Discovery. Included in the ship's muster were Richard Collete, Gunner, who had also been with Cook on his third voyage; John Ewins, "Botanist's Lieutenant"; and Archibald Menzies, a Scotchman, who had just returned from a five year tour of duty on a private merchant ship.

Archibald Menzies (1754-1842) was born at Styx, ancestral home of the Menzies of Culdares, in Perthshire, and received his early education locally at Weem Parish School. Following the traditional family occupations, botany and gardening, his first horticultural lessons were in the gardens of Castle Menzies. Later, he was to enlarge the gardens with exotic trees brought back from his extensive travels. As a youth, Menzies went as a botanical student to the Royal Botanical Garden at Edinburgh, joining his elder brother William. Here he also enrolled in classes at Edinburgh University Botanic under Dr. John Hope and concurrently undertook studies for the medical profession as well. In 1778, at the age of 24, he made a botanical tour through the Highlands and the Hebrides. He then took an assistant surgeons'hip at Carnavon. Later, Menzies, saw several years of combat sea duty in the Royal Navy as an assistant surgeon, being assigned to Halifax Station, Nova Scotia, in 1782 when peace was declared.

Though assigned to sea duty on the Assistance, out of Halifax, Menzies apparently had ample opportunity to pursue his botanical interests ashore. He initiated correspondence with the eminent Sir Joseph Banks at Kew Gardens, sending over botanical reports and seed packets. In August, 1786, when the Assistance arrived in England, Menzies brought Sir Joseph a box of Acadian plants for the Kew collection. These rarities, together with a warm letter of introduction from Dr. John Hope, his mentor at Edinburgh, aroused Sir Joseph's interest in Menzies as a botanical collector.



When Menzies shortly thereafter secured appointment as ship's surgeon on the Prince of Wales under Captian Colnett for a worldwide merchant expedition in pursuit of furs, Sir Joseph intervened on Menzies' behalf to permit botanical collection for Kew Gardens in addition to his regular duties. The voyage of the Prince of Wales around Cape Horn to the North Pacific Ocean occupied nearly three years. It was on this voyage that Menzies twice landed in western North America in 1787 and 1788, first in Canada and then at Nootka, a small island west of Vancouver Island. Here he made the acquaintance of several members of the resident Indian tribe.

During the course of the voyage with Colnett, Menzies had sent home a consignment of plants and botanical reports, principally from South America. Upon his return to England in 1790, a highly pleased Sir Joseph immediately secured Menzies' appointment as naturalist with Vancouver's expedition. Early in the voyage, Vancouver appointed Menzies as surgeon on the Discovery, as a replacement for the original surgeon who had become ill. Though in the preface to his journal, Vancouver was to commend Menzies' skill as a physician, "as not one man died from ill health during Menzies' tenure" as ship's surgeon, this double assignment was to present recurring difficulties for Menzies during the balance of the voyage.

Menzies' formal instructions from Sir Joseph included investigation of the natural history of all countries visited, with particular emphasis on soil quality and whether it would support crops grown in Europe. All trees, plants, shrubs, grasses, ferns, and mosses were to be listed by their scientific names as well as those species used by the natives. Dried specimens of interesting or valuable plant material were to be brought home as well as living specimens and seeds. Menzies was to search for metal ores and other minerals. He was also to note such animals, birds and fishes as would provide food sources or have commercial value, with particular attention to sea otters, seals, whales, and wild sheep. He was to learn about the customs, language, and technology of the natives, and to collect specimens of their foodstuffs and implements. Further, he was to keep a journal of all daily occurrences. Finally, upon his return, he was to deliver up all collections and the journal to an official representative of the government.

Further, Vancouver was also officially enjoined to "assist" Menzies in every way possible, since Menzies' duties comprised "some of the most important objects of the expedition." On more than one occasion, Vancouver was to disregard these instructions. He demanded Menzies' journal, which Menzies refused to surrender until permission was received from England. Vancouver reassigned the gardener who tended Menzies' plants in their glass frame on the quarter deck and arrested Menzies for "insolence and contempt" when he complained. Menzies

had been forewarned of Vancouver's autocratic disposition by Sir Joseph and soon resolved the issue in his characteristically mild manner.

Leaving England in 1791, the Discovery sailed north along the coast of California from April 8 to April 23, 1792, and took four more days to reach the mouth of the Columbia River. Proceeding north along the Washington coast, the expedition reached the "Juan de Fuca's Straights" on April 29. On April 30, according to Menzies, the ships sighted the Olympics, and Mt. Baker was named after the officer who first observed it. On May 1, Menzies landed on what was to be named Protection Island near the entrance to Port Discovery, Jefferson County, Washington, encountering Valerianella congesta (seablush) in full bloom.

To be con't

#### FIELD TRIP TO DOG MOUNTAIN

On Saturday, May 10, four intrepid native plant enthusiasts from the Portland chapter ascended Dog Mountain, risking hypothermia on the summit. They were: Nancy Russell, Charlene Holzwarth, Virginia Diegel, and Louise Godfrey.

The usual Dog Mountain rattlers were not out; it was far too rainy, windy, and foggy for them, but there were flowers in abundance which included the following; Senecio integerrimus, var. ochroleucos, Balsamorhiza deltoidea, Fritillaria lanceolata, Phacelia linearis, Scutellaria angustifolia, Corallorhiza striata, Disporum hookeri, Anemone deltoidea, Nemophila parviflora, Lithospermum ruderale, Collomia heterophylla, Dicentra cucullaria, Castilleja hispida, Rosa gymnocarpa, Erythronium grandiflorum, Brodiaea howellii, Claytonia lanceolata, and many more.

Charlene Holzwarth made a list of 83 species, including some not in bloom.

Nancy N. Russell

#### FIELD TRIP TO FINLEY REFUGE

On May 10 thirteen members of the Willamette Valley Chapter visited the Finley Refuge in southern Benton County. The day was cloudy and the grass damp but there was no rain. Clin Urey did a fine job of guiding us over the trails and bridged swampland, and among huge Quercus garryana draped in hoary shrouds of many varieties of lichen. We heard many interesting bird songs and observed several gliding raptors.

Flowers peeped at us all along the trail. Calochortus tolmiei stared at us with purple frosted sockets along much of the way. Ranunculus orthorhynchus and Geum macrophyllum glowed among the grasses. Orthocarpus pusillus was just starting to bloom. Cardamine pendiflora and Veronica americana along with Veronica serpyllifolia were enjoying the wet places. Variety in the show was provided by Sidalcea virgata, Lomatium utriculatum and Saxifraga oregana.

Out on the nearby prairie we found masses of Myosotis macrosperma mixed with Camassia quamash and Camassia leichtlinii. Here we were delighted to find Delphinium menziesii var. ochroleucum and a fine display of Lupinus polyphyllus.

To wind up an interesting day we made a short visit to Peavy Arboretum to study some of its exotic trees and we dispersed for home just as the rain started to fall.

Jack R. Bailey

## PLANT FAMILY PROFILES

By Herm Fitz

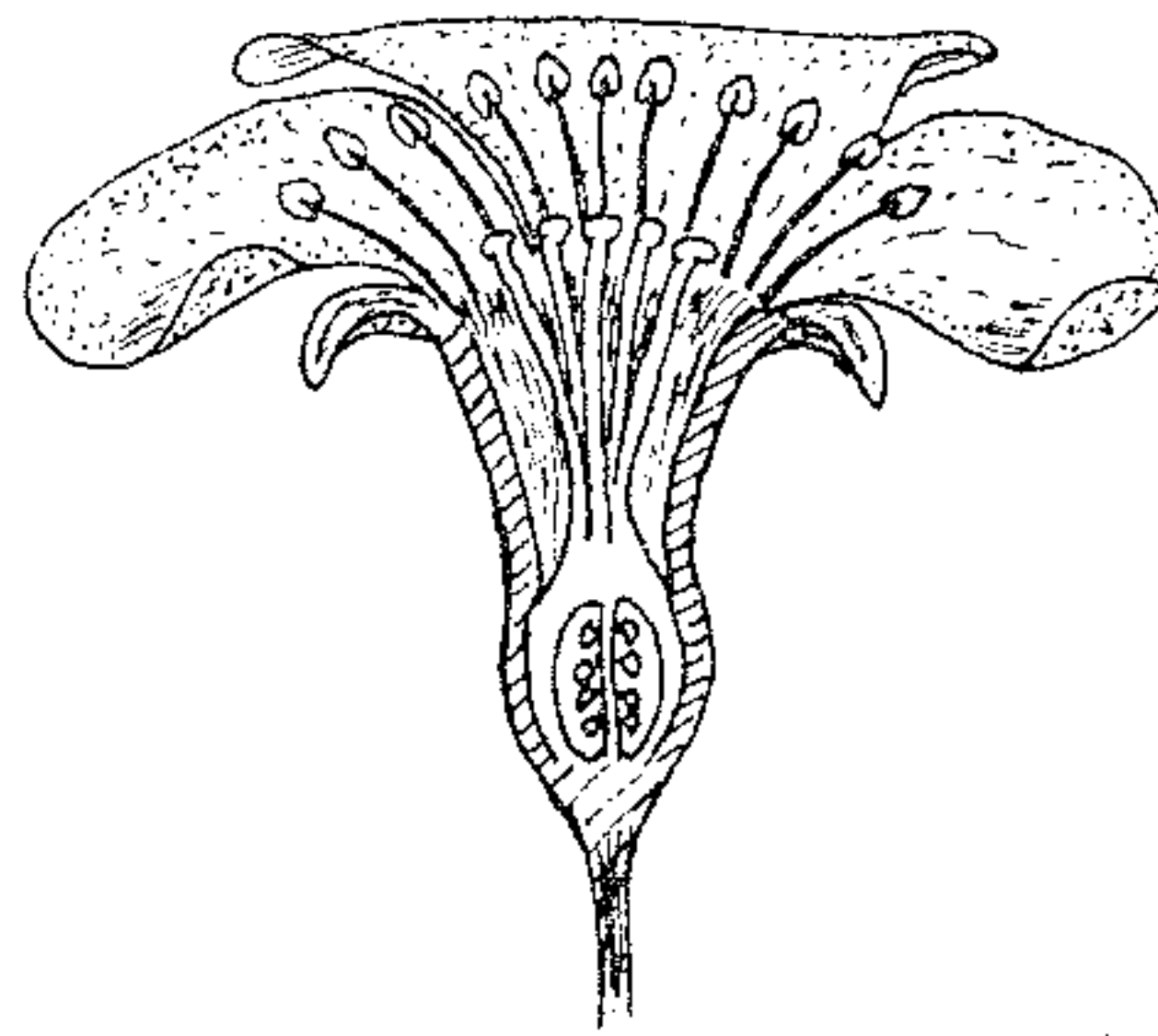
## The Rosaceae - ROSE FAMILY

My students, in response to a final exam question, "What is your favorite plant family? Why?," overwhelmingly choose the Rose Family (8 out of 12 in this year's taxonomy class)! One student, Tracy Demaris, replied in typical fashion, "Rosaceae, because it has a lot of yummy fruit in it and the flowers are pretty." True enough, apples, cherries, plums, peaches, pears, raspberries, strawberries and other fruits are produced by this family, as are almonds and many cultivated ornamentals. The family consists of some 100 genera and 2000 species of herbs (these mostly perennials) woody shrubs and subshrubs, and trees of worldwide distribution, mostly in north temperate regions. In Oregon are found about 120 species in 30 of these genera. Largely on the basis of fruit characteristics, four subfamilies are recognized:

Spiraeoideae - Spiraea Subfamily - The fruit is a follicle (single chambered, dry, dehiscent - "splitting" - along one suture at maturity) or a capsule formed from a follicular cluster (akene in *Holodiscus*). Flowers tend to be tiny and clustered in large terminal panicles. Well known are the shrubby *Spiraea* (*Spiraea*) and Ninebark (*Physocarpus capitatus*) of lakeshores, streambanks, swamps, bogs and moist meadows and Indian Arrow Wood or Ocean Spray (*Holodiscus*) familiar from coastal bluffs or desert valleys to mountain woods at medium elevations. Goatsbeard (*Aruncus sylvestris*), a dioecious member of the family, is found in woods especially along streams. In the deserts and desert canyons, or lava beds, of eastern Cascades grows the Fern Bush or Desert Sweet (*Chamaebatiaria millefolium*). Rock-Spiraea (*Petrophytum caespitosum*) is widespread from foothills to alpine summits, entirely on rock-faces and ledges, rooting in crevices, while Partridge Foot (*Luetkea pectinata*) prefers sandy soil in sub-alpine to alpine habitats.

Rosoideae - Rose Subfamily - The fruits are clusters of akenes or drupelets, or modifications thereof: The accessory (as in a strawberry, many akenes embedded in a fleshy swollen receptacle), aggregate (as in blackberries and raspberries, several-to-many drupelets clustered about an elongate receptacle), or hyp (as in Wild Rose, many bony akenes surrounded by the fleshy, urn-shaped receptacle and hypanthium).

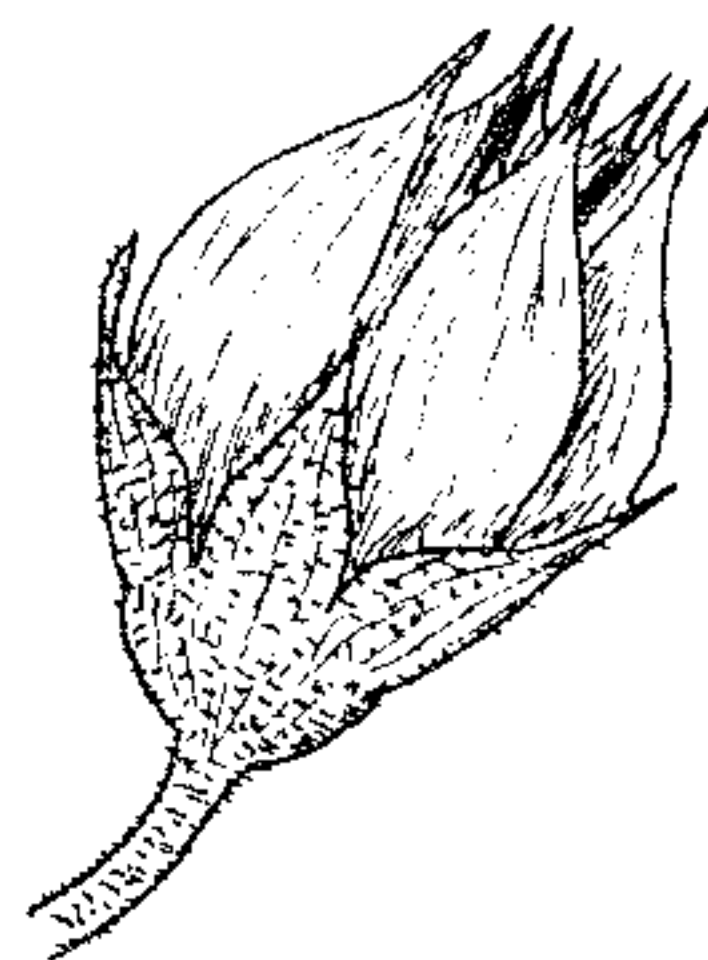
The Wild Rose (*Rosa*) is common in woods and along fence-rows. Wild Strawberry (*Fragaria*), coastal to montane, provides tasty fruits; the alien Indian Strawberry (*Duchesnea indica*), a garden escape west of the Cascades, produces unpalatable fruits. Many brambles, blackberries, raspberries, thimbleberries, salmonberries (*Rubus*) are widespread in many habitats. Avens (*Geum*), generally in moist to boggy situations, and Mountain Avens (*Dryas*), in cirques, rocky ridges, talus slopes and other alpine habitats, and the widespread, numerous (38 in Oregon) species of Cinquefoil (*Potentilla*) are all close relatives within this group. An offshoot line of small perennial herbs showing reduction in stamen number includes Horkelia (*Horkelia*) of open flats in western valleys or widespread on rocky slopes, the unusual Ivesia (*Ivesia*) from rocky ridges and talus slopes to lower elevation floodplains, and Sibbaldia (*Sibbaldia procumbens*) of alpine slopes and meadows. Species of Burnet (*Sanguisorba*) either in grassy flats and sagebrush or woodlands on both sides of the Cascades or of montane bogs and swamps, Tall Hairy Agrimony (*Agrimonia gryposepala*) of moist woods and thickets from the Rogue River Valley northward, and the Western Ladies Mantle (*Alchemilla occidentalis*), a low spreading weedy annual of open fields and woods (probably native of Europe) are three closely related forms. Queen-of-The-Forest (*Filipendula occidentalis*) or Meadow Sweet, may be found in rock crevices just above high water



Diagrammatic cut-away longitudinal section through a typical pomaceous flower. Note the 5 separate styles, the apparently inferior ovary, and numerous stamens. (Pomoideae).

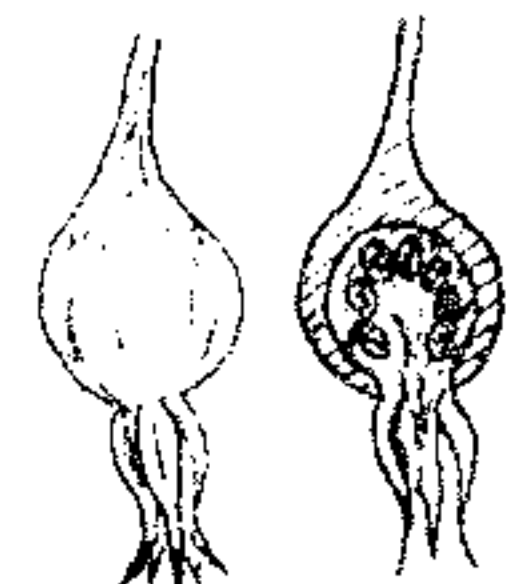


Flower cluster in Western *Spiraea* (*Spiraea douglasii* - Spiraeoideae). Note the tiny flowers in dense clusters.



Fruit of Ninebark (*Physocarpus capitatus*). Note the cluster of 5 follicles, each dry, dehiscent along the inner suture. (Spiraeoideae).

Fruit of Wild Rose (*Rosa gymnocarpa*). A hyp, consisting of many bony akenes contained in an urn-like hypanthium. (Rosoideae).



Fruit of Wild Strawberry (*Fragaria vesca*). An accessory fruit of many akenes embedded in the swollen fleshy receptacle (Rosoideae). Note also the secondary sepal-like bracts characteristic in Rosaceae.



Leaf, flower and fruit of Western Blackcap (*Rubus leucodermis*). Note the compound leaf, small flower, and aggregate fruit, a cluster of small drupelets, each resulting from a single pistil (Rosoideae).



level along the Tillamook, Trask, and Wilson Rivers of northeastern Oregon. Antelope Bush or Bitter Brush (*Purshia tridentata*) prefers eastern Oregon grasslands, sagebrush deserts, juniper woodlands or ponderosa pine forests. Finally Mountain Mahogany (*Cercocarpus*) occurs in the rocky soil of desert foothills and mountains in drier parts of Oregon.

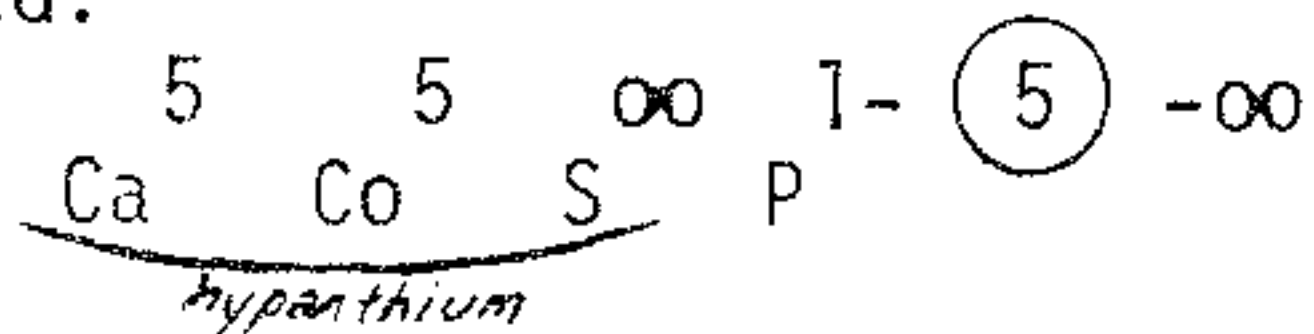
Prunoideae - Peach Subfamily - The fruit is a drupe (a fleshy single seeded fruit with a bony covering around the pit) or a cluster of 1 to 5 drupes. From coastal bluffs through moist woods to the banks of watercourses in desert areas are found Wild Chokecherry and Bitter Cherry (*Prunus*), two wild members of this "stone fruit" genus. Our only other representative is Indian Plum or Osoberry (*Oemleria cerasiforis*), an attractive and early-blooming dioecious shrub along streambanks from the coast to the west slope of the Cascades.

Pomoideae - Apple or Pear Subfamily - The fruit is a pome (containing 2-5 papery carpels, joined together and ultimately surrounded by the swollen and fleshy receptacle and calyx). A native Oregon Crabapple (*Pyrus fusca*) of moist areas west of the Cascades is a wild relative of the quince, apple and pear. Serviceberry (*Amelanchier*) grows in open woods, in canyons or on hillsides throughout a wide altitudinal range, and there is a species of the eastern deserts. Hawthorn (*Crataegus*) is a familiar tree along watercourses; Mountain Ash (*Sorbus*) is widespread. Squaw Apple (*Peraphyllum ramosissimum*) is a rigidly branching shrub of the sagebrush deserts and ponderosa-juniper woodlands east of the Cascades.

Members of the Rose Family typically bear alternate leaves, simple (Pomoideae) to mostly compound, with stipules. Some are armed with branch thorns (some *Prunus*, *Crataegus*) or surface prickles (*Rosa*, some *Rubus*). Flowers are often showy, pollinated by insects, and bisexual (dioecious in *Aruncus* and one species of *Rubus*). A distinctive feature of the flower is the presence of a hypanthium, a bowl-shaped structure, arising from the receptacle, which supports the sepals, petals and stamens (the hypanthium is found in just a few families, and is worthy of note). The calyx consists typically of 5 sepals (4 in *Sanguisorba*) subtended by a smaller whorl of 5 alternating sepal-like bracts. The corolla is regular and consists of 5 separate petals (absent in *Alchemilla*, *Cercocarpus*, and *Sanguisorba*). Stamens are typically numerous and whorled, mostly some number times the number of petals, occasionally reduced to 10 (*Horkelia*), 5 (*Ivesia*, *Sibbaldia*) or 4 or less (*Alchemilla*, *Sanguisorba*).

Pistils are often numerous and free, but may vary from 1 (*Prunus*) to more, or may be joined (Pomoideae). The ovaries are always superior, within the surrounding hypanthium (flowers are then said to be perigynous - "around the ovary") except in Pomoideae, where the ovary is tightly enclosed by the hypanthium and calyx, becoming inferior (flowers are then said to be epigynous - "on top of the ovary"). Fruits, as noted, are diverse, but characteristic.

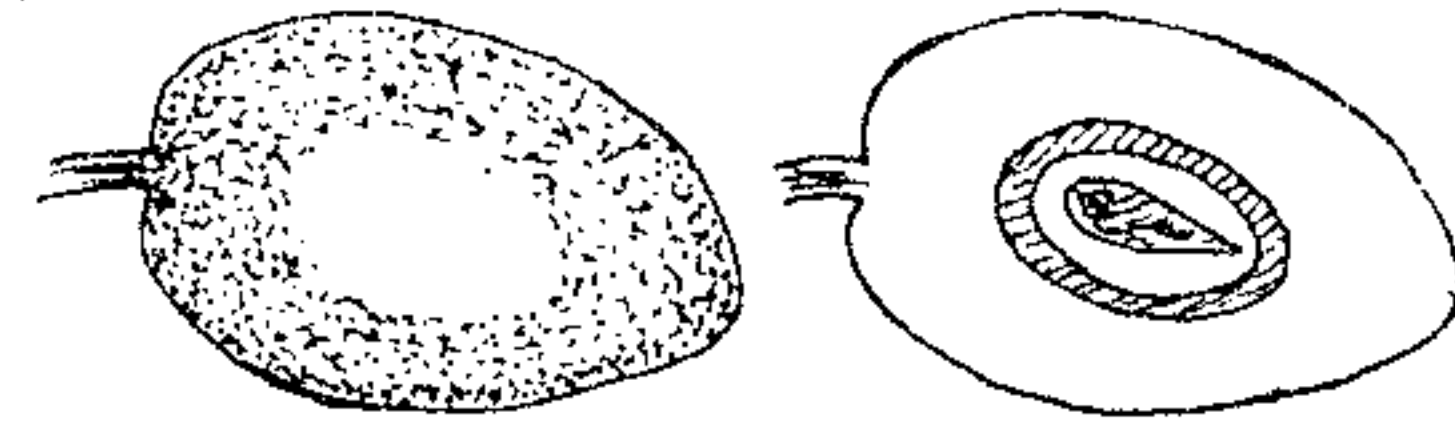
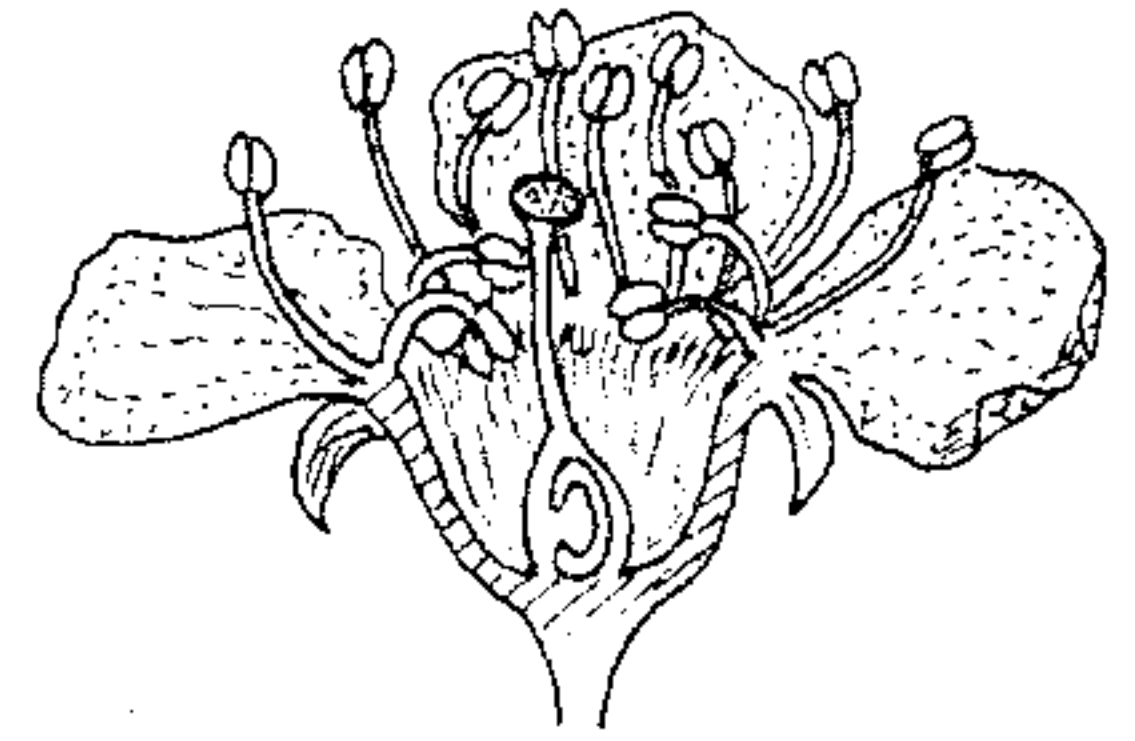
The floral formula for the entire family may be generalized:



bearing in mind there are several exceptions!

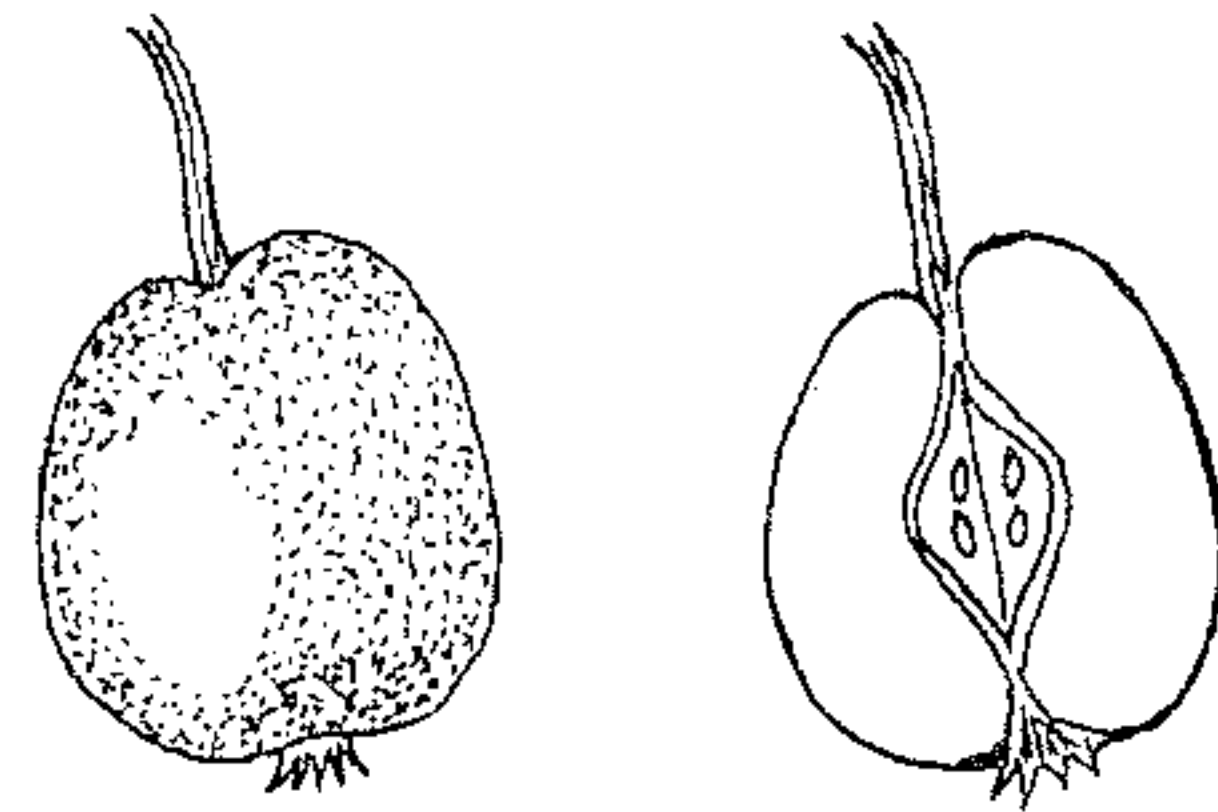
Though considerable variation within the family exists, if you discover a 5-parted flower on some herb, shrub or tree - and notice numerous stamens (more than 10), numerous free pistils that appear to be embryonic akenes, follicles, or drupelets (or a single pistil of a single carpel, or 5 united carpels), compound leaves (or simple), and most important, the presence of a hypanthium, you should begin to look toward that favorite, the Rosaceae - the Rose Family.

Diagrammatic cut-away longitudinal section through a typical flower in Prunoideae. Note the hypanthium, numerous stamens, and single pistil which will develop into a drupe.

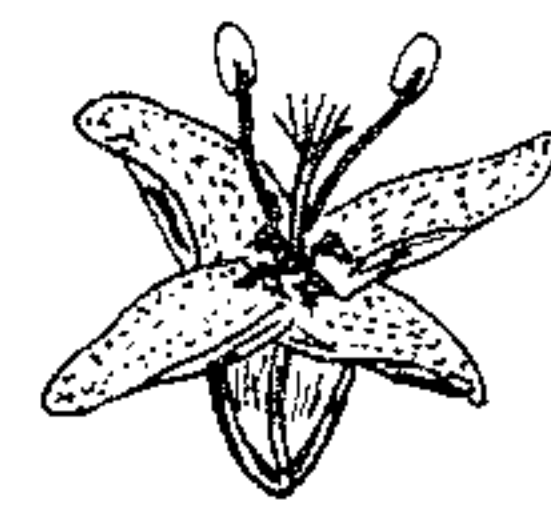


Fruit of Bitter Cherry (*Prunus emarginata*). A typical drupe. Cut-away section shows outer fleshy layer surrounding bony sheath containing pit (seed). (Prunoideae).

Flowers of Western Serviceberry (*Amelanchier alnifolia* - Pomoideae).



Fruit of Oregon Crabapple (*Pyrus fusca*). A typical Pome. Cut-away section shows papery carpels surrounded by swollen fleshy receptacle and calyx. (Pomoideae).



Flower of Burnet (*Sanguisorba occidentalis*). Note the 4-parted corolla, lack of petals, reduction of stamen number to 2 - all features unusual in Rosaceae.

## CHAPTER CALENDARS

## WILLAMETTE VALLEY CHAPTER

Field Trips -- Unless otherwise noted all trips depart from the parking lot at Front & Court Street in Salem at 8:00 a.m.

Sat. July 12 -- Lauder Mountain, Winnie and Jack Bailey, leaders. Leave at 7:00 a.m.; meet leaders at 10:00 a.m. at Echo Camp southeast of Cougar Dam.

Sat. July 19 -- Wildcheat Meadow, Bill and Lois Egan, leaders.

Sat. August 9 -- Canyon Creek and/or Head of Jack Creek, Vi and Tony Sobolik, leaders. Leave 7:00 a.m.

## SISKIYOU CHAPTER

Meeting -- No meeting in July or August.

Field Trips -- Sun., July 6 -- Miller Lake and Whisky Peak, Andy Kier, leader. High Applegate flora and unique tree species. Meet 8:00 a.m. Ashland Bi-Mart and 8:30 a.m. Medford K-Mart. Information, call 482-9403.

Sat. July 12 -- Sphagnum Bog, Cynthia Roberts, leader. Very unusual ecosystem for our part of the world. Highly specialized plants. Flat trail, 2 1/2 miles one way. Meet 8:00 a.m. Ashland Bi-Mart, 8:30 a.m. Medford K-Mart. For information, call 482-0899.

Sun. July 27 -- Symposium Field Trip, Dr. Tom Atzet, leader. You should be pre-registered to attend this trip to Mt. Ashland, Red Mountain, and Dutchman's Peak. All day, 7:00 a.m. to 6:30 p.m. For information, call 482-6341.

Sat. Aug. 2 -- Crater Lake, High Cascades, Gordon Larum, leader. Subalpine flora. Meet 8:00 a.m. Ashland Bi-Mart, 8:30 a.m. Medford K-Mart. For information, call 772-1685.

Sat. Aug 16 -- Greyback Mountain, Wayne Rolle, leader. See Gentiana setigera, campanulas, anemones. Trail is 2 1/2 miles uphill, one way. For information call 773-2524.

## PORTLAND CHAPTER

Field Trips -- Fri. and Sat., July 4 and 5 -- Century Drive and Alder Springs. Shep Wilson, leader. Meet in Meadow Forest Camp picnic area two miles west of Deschutes N. F. boundary on Cascade Lakes highway out of Bend 11:45 a.m. Fri. On Sat. meet at Emporium restaurant, Tumalo, 9:30 a.m. Consult Shep or Joyce Beeman about arrangements. Driving distance from Portland 175 miles.

Sat. July 12 -- Monument Peak. Ruth Hansen, leader. Meet 10:00 a.m. just off highway 22 near the heart of downtown Gates. Carpool 8:30 a.m. in the K-mart parking lot, Tualatin, exit 289 off I-5.

Sat. July 19 -- Tillamook Bay Area Salt Marsh. Dr. Janet Hohn, leader. Meet 10:00 a.m. in front of the Pioneer Museum in Tillamook. Carpool 8:15 a.m. in the OMSI parking lot.

Fri., Sat., Sun. July 25, 26, 27 -- Ashland, T & E Symposium.

Sat. Aug. 2 -- No trip scheduled.

Meeting -- July 14, 7:00 p.m., Multnomah County Library 801 SW 10th Avenue. Program -- Plants of Stanley Basin, Idaho, by George Lewis. For my members and friends who attended the Portland Chapter Campout in Stanley Basin last July this program should bring back happy memories. For those who didn't attend, George Lewis' beautiful color slides of the flowers of the area and his masterful presentation will almost transport you there.

Do come and bring a friend.

No meeting in August.

## WELCOME TO NEW MEMBERS

## Emerald Chapter:

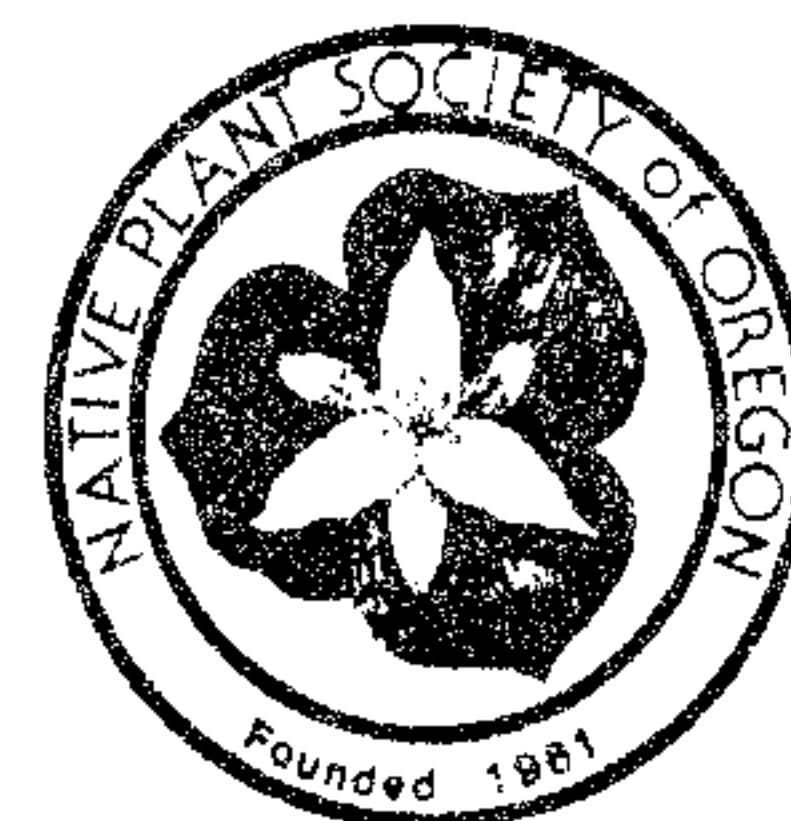
Chris Luneski, Eugene  
Robert D. Clark, Eugene  
Barbara Warner, Springfield  
Marie Knudsen, Eugene

## Willamette Valley Chapter:

Eleanor E. Clayton, Salem

## Portland Chapter:

Jackson A. Davis, Portland  
Terence O'Donnell, Portland  
JoAnn Wiser, Portland  
Bonnie Heidel, Portland  
John Morrison, Portland



## CHANGE IN BY-LAWS REQUESTED

In our quest for tax exempt status the Board of Directors at our May 18, 1980 meeting approved submitting the following amendment to the By-Laws for a mail ballot by the membership.

## ARTICLE II - PURPOSE

This corporation is formed for charitable, educational, and scientific purposes.

The present Article II MEMBERSHIP becomes Article III, etc.

Please submit this ballot to:

The Editors,  
NPSO Bulletin  
Department of Biology  
Southern Oregon State College  
Ashland, Oregon 97520

by August 15th, 1980. Ballots will be counted on this date.

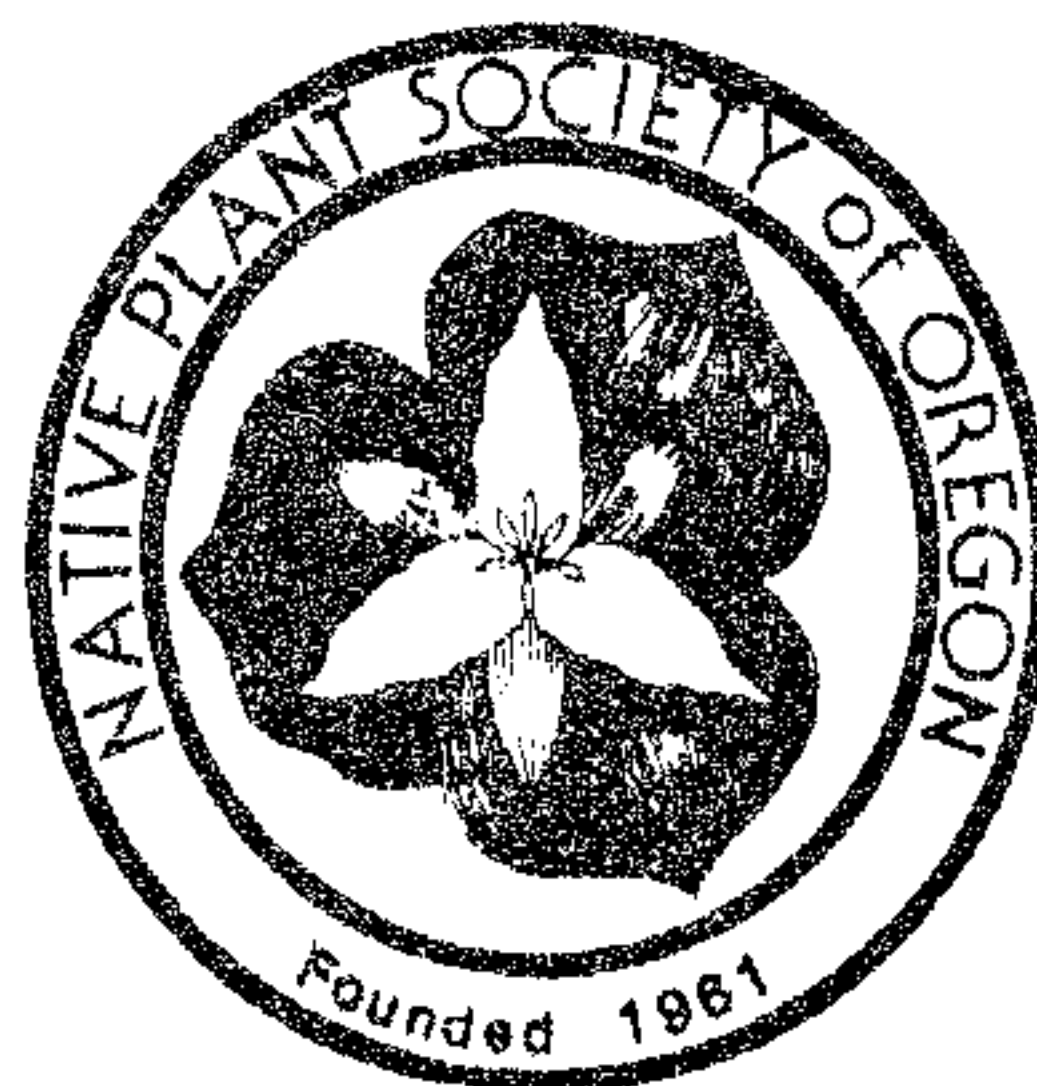
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 BALLOT

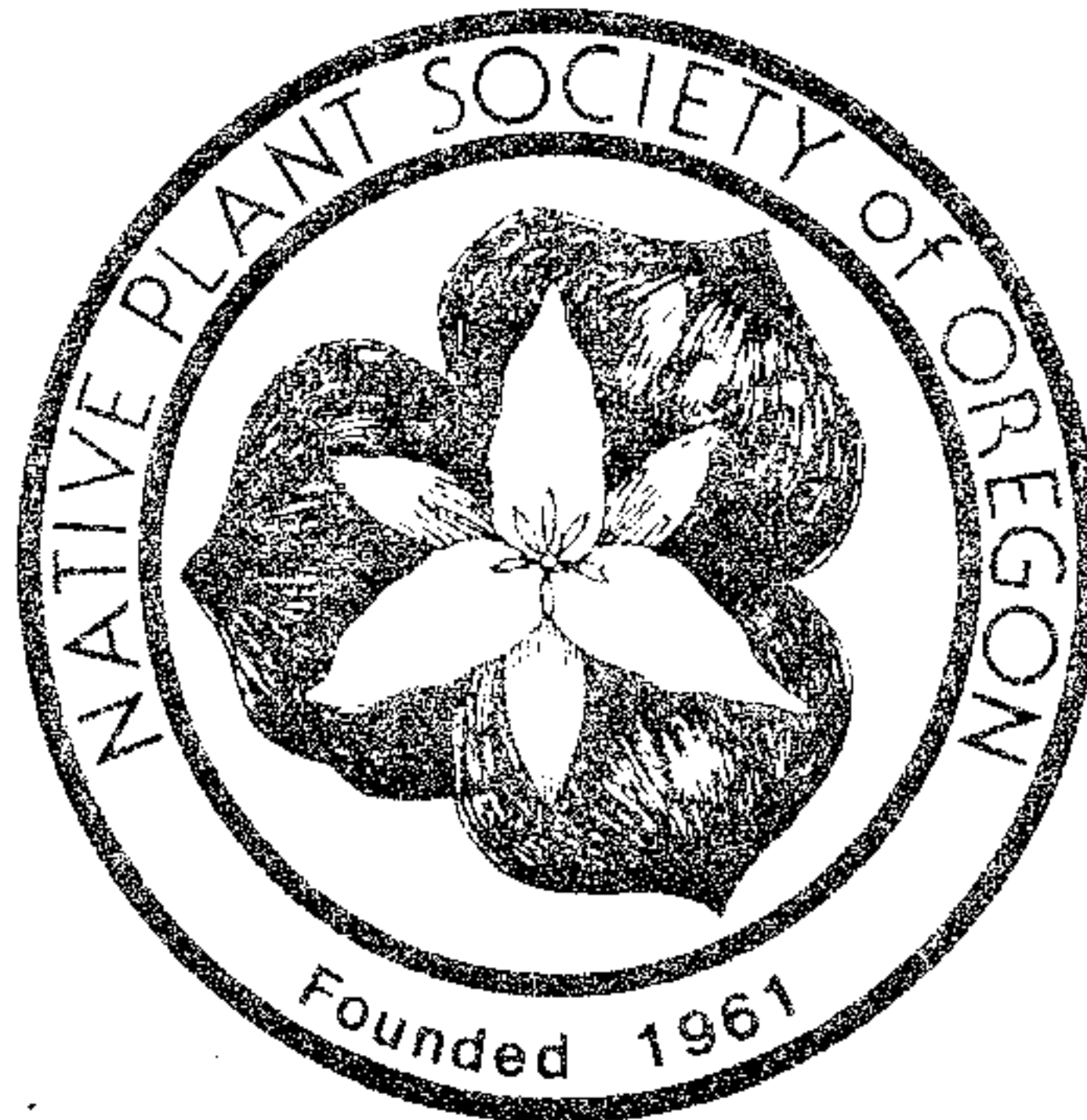

I approve the proposed change in the By-Laws, Article II PURPOSE. This corporation is formed for charitable, educational and scientific purposes.



I disapprove of the proposed change in the By-Laws.



The NPSO Bulletin is published monthly by the Native Plant Society of Oregon incorporated under the laws of the State of Oregon. You are invited to join. Membership includes Bulletin subscription. Dues are regular member \$7.50, Sustaining member \$25.00, Patron \$100.00, Life member \$500.00. Others are welcome to use material from the NPSO Bulletin. Courtesy pleads, however, that credit be given to the author and to the Bulletin.



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For change of address or information on membership, contact your nearest chapter or Mary Falconer, 1920 Engle Ave., NW, Salem 97304

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