The Bulletin of the NATIVE PLANT SOCIETY OF OREGON

Vol. XIV No. 4 April 1981

ALL WELCOME TO THE NPSO ANNUAL MEETING

The annual meeting will be at the Mosier Grange in Mosier, Oregon, at 6:30 pm on May 9, 1981. The cost will be $6.00 per person, and reservations should be in our hands by May 1. Please, send reservations to Keith Chamberlain, POB 217, Mosier. It is very important that we receive the reservations so that the cook can order supplies for everyone.

The following accommodations are avilable in the area:

Memaloos State Park, 3 miles east of Mosier
phone 478-3336
Vagabond Motel, 407 Westcliff Drive, H.R.
phone 386-2992
Hood River Inn, Hood River Village
phone 386-2200

Other motels are available in Hood River and The Dalles.

Carl Urban will be our speaker for the evening. He is an instructor at Blue Mountain Community College, and he will show slides and discuss some of the rarer plants of the Steens, Blue, and Wallowa Mountains. The exact title is not known at this time.

Saturday's field trip will leave from the Grange Hall at 10:00 am. It will be in the Mosier area. Astragalus hoodianus and Lomatium suksdorfii will be some of the rarer plants to be seen.

Sunday's Directors meeting will be in The Dalles. The location will be announced Saturday night. A shorter field trip to the Washington side of the river will follow this meeting. The Exact route of this trip will depend upon how the season advances; details will be announced at the banquet.

Send reservations by May 1.

Keith Chamberlain

AMENDMENT TO THE BY-LAWS

Because of the importance of the editor of the NPSO Bulletin and the state membership chairman the Board of Directors is proposing the following change in the By-Laws.

Article 7: Section 1
Insert "elected" between "the" and "officers"

Section 7: (a new section)
The state membership chairman and editor of the society bulletin shall be appointed by the president, with the approval of the Board of Directors. Duties of these offices will be proscribed by the Board of Directors. Both shall be ex-officio members of the Board of Directors.

The vote on this amendment will be held at the annual meeting in Mosier, Oregon on May 9th.

LEGISLATIVE UPDATE

A proposed draft for an endangered species protection bill, based upon one adopted by the state of Michigan, has been submitted to 5 members of the Environment and Energy Committee of the Oregon House. Tom Throop (Bend), Gretchen Kafoury (Portland, Larry Campbell (Eugene), Rick Bauman (Portland), and Wayne Fawbush (Hood River) have agreed to read the bill and consider its introduction by their Committee during this session. Introduction by the Committee requires sponsorship by 4 Committee members. NPSO members living in any of the above-mentioned districts are encouraged to contaet their representatives to urge support of this measure. Corinne: Sherton of the Willamette Valley cahpter is acting as our liaison in Salem.

Ann Whitmyer

WELCOME TO NEW MEMBERS

Portland Chapter
Mrs. Elved P. Walker, Portland
Oregon Natural Heritage Program, Portland
Clair F. Stahl, Portland
Mr. & Mrs. Victor Paschal, Beaverton
Ruth J. Douglas, Portland
Alise Augenstein, Portland

High Desert Chapter

Allan R. Chambers, Bend
Scott Sweet, Bend
Ron Halvorson, Prineville
Suzanne Crowley, Prineville

Siskiyou Chapter

Dr. James Payne Smith, Jr., Arcata, CA
Dr. Louise Antz, Ashland

CHAPTER CALENDARS

HIGH DESERT CHAPTER

Field Trips

Sat. April 18 -- Steelhead Falls in the Deschutes River Canyon, which is being considered for wilderness designation in the BLM Review, will be our destination. This will be a joint trip with the Sierra Club. Meet at the Bend MacDonalds at 8:30 or Redmond Big-O lot at 9:00 and bring a sack lunch. Leader is Stuart Garrett (382-2681).

Sat. May 2 -- An update of the Metolius River Preserve Plant list will be the object of this outing. Bring a sack lunch and meet at MacDonalds lot at 9:00. Leader is Joyce Bork (389-5657).

SISKIYOU CHAPTER

Meeting

Thurs. April 7, 7:30, Rm. 171, Science, SOSC Ashland. Oregon Caves N.M. and Bigelow Lake, Vern Crawford, speaker. We will see slides of scenery, forest, plantlife, and wildlife, from this beautiful area of southwestern Oregon. Do you know someone who would enjoy our chapter? Now's a good time to invite them.

Field Trip

Sat. April 25 -- Agate Desert, Lisa Hirsch and Shelley Tanquary, leaders. Meet 8:00 Ashland Bi-Mart or 8:30 Medford K-Mart.

EMERALD CHAPTER

Meeting

April 6. Plant Photography. Chris Luneski, prize winning photographer and arranger of slide/sound programs, and Malcolm Manley, photographer and Emerald Chapter member, will team up to present a session on equipment, techniques, materials, and "tricks of the trade" for successful nature photography. Meet at 7:15 pm, Eugene City Library.

May 4 -- Dr. Franklin "Herm: Fitz, biology instructor McKenzie River High School, Emerald Chapter member, and author of NPSO Bulletin "Plant Family Profiles", will share some of his experiences and frustrations of putting together a Flora of the McKenzie drainage area. Herm will show slides illustrating his research and discuss the mechanics of preparing herbarium specimens. Meet at 7:15 pm, Eugene City Library.

Wildflower Classes

Beginning March 31, 7-10 pm, Charlene Simpson, Emerald Chapter President, will teach the Lane Community College adult education (non-credit) class on Northwest Wildflower. Refer to the LCC Spring Schedule of Classes for further details.

Linda Johnson, Emerald Chapter Vice President, will teach a wildflower class sponsored by Lane Community College and Willamalane Parks and Recreation Dist. in the Thurston area, Thursday evenings, 7-10 pm, beginning April 2. Refer to the LCC Spring Schedule of Classes for details.

Rhoda Love, Emerald Chapter member, will teach a field course in Wildflower Identification through the Eugene Parks and Recreation Department. The class will meet Wednesdays, 9-12 am beginning April 15, at the Amazon Recreation center. Watch for Eugene Parks and Recreation Spring publication for registration info.

Wildflower Walks

Dr. Dave Wagner, Director of the U of O Herbarium and NPSO President, nominee, leads a weekly wildflower walk through Alton Baker Park beginning March 5 thru June 11. Meet at the north end of the footbridge over the Willamette River near Autzen Stadium at 12:30 every Thursday -- Rain or shine. Call 686-3033 for further information.

Linda Johnson will lead a weekly wildflower walk from Hendrick's Bridge Wayside beginning April 1 (Wednesdays) from 5:30-6:30 pm.

Wildflower Show

The Emerald Chapter will sponsor a table of wildflower bouquets, R,T & E photographs, and membership promotional at the Eugene Garden Club Show, Saturday and Sunday, April 11 and 12 in the Valley River Mall, Eugene.

WILLAMETTE VALLEY CHAPTER

Field Trips

Sat. April 11 -- Cold Trail, Cascade Head, Wally Eubanks, leader (581-9569).

Sun. April 26 -- Coast Range Scoliopus/ Larry Scholefield, Mariana Bornholdt, leader (585-2057).

Sat. May 2 -- Rickreal Ridge/Morris Johnson, Clint Urey, leader (743-2802).

Sat. May 9 -- 4-H Center/Audubon Nature Trail, Gus Rockafellar, leader (581-5866).

Contact trip leader for details.

Next Meeting

Third Monday in September, details to be announced in August Bulletin.

PORTLAND CHAPTER

Meeting'

Mon. April 13, 7:00 pm, Central Library, 801 S.W. 10th, Portland, Notes on Plant Communities of Sycan Marsh. The program deals with the Oregon Natural Heritage Program inventory of the Nature Conservancy's 28,000 acre Sycan Marsh Preserve located NE of Klamath Falls. Slides and talk will be presented by Lynn Cornelius, botanist for Natural Heritage Program, and John Hoffnagle, Oregon Land

Steward for the Nature Conservancy.

The focus of our field trip program will be changing a bit this year:

First of all, we plant to use some of the outings to explicitly search after some of Oregon's 400+ "rare" plants. This alone is not a striking departure from past field trips, but we hope to carry this one step further - to occasionally look for plants which are no longer known to exist here. For instance, Bob Mienke will lead a trip into Finley Wildlife Refuge on 25 April in search of Castilleja levisecta which has not been sighted (in Oregon) for 40 years. There are no guarantees, but our knowledge will grow even if we fail to find the targeted plant. Our long range goal is to eventually create some kind of pulbication about Oregon's rare plants. This year's field trips can be an important part of that work.
Secondly, some of our field trips will be especially designed to encourage beginning botanists and other interested people to join us. It is important that we all do our part to help these guests feel welcome and to ensure they get all the ecological and botanical information they want. Your help is appreciated. Roger Yerke is leading the first of these trips into Oneonta Gorge on 16 May.
And lastly a bookkeeping matter -- In response to rising fuel costs, we have adjsuted the rate of driver compensation to 4¢ per mile per person.

Sat. 11 April -- Three Lynx Area, Clakamas River Drive. George Jeffcott, leader. Meet 9:30 am, at Tri-Met's Handyman Park and Ride lot at 15550 SE McLoughlin Blvd. and Risley Ave. in Oak Grove.

Sat. 18 April -- Shaniko Flats. George Lewis, leader. Carpool at State Motor Vehicles Department parking lot (NE 60th and Glisan) at 6:30 am or meet at the junction of Highways 97 and 197 at 9:00 am. George plans a 3-4 mile hike to find Claytonia umbellata, Collomia macrocalyx, and Talinum spinescens (all rare).

Sat. 25 April -- Willamette Valley Praireland/ Castilleja levisecta. Bob Mienke, leader. Carpool at Tri-Met's Barbur Blvd. Transit Station (9750 SW Barbur Blvd.) at 7:00 am or proceed to Finley National Wildlife Refuge, south of Corvallis on Highway 99W. Meet at grassy parking area near Park Service restroom approximately 3/4 mile after entry. Bob, who is investigating rare plants of the Willamette Valley for the US Fish and Wildlife Service will continue his search for the Castilleja, but will also show us Lomatium bradshawii, Sidalcea campestris, Sidalcea nelsoniana and Mimulus tricolor (all rare). Bob recommends waterproof boots, as parts of the refuge are likely to be wet.

Sat. 2 May -- Flower Show-No field trip.

Sat. 9 May -- NPSO Annual Meeting/Mosler Area. Keith Chamberlain, leader. Meet at the Mosier Grange at 9:00 am. Keith will take us up past Wasco Lookout to see rare plants (including Astragalus hoodianus and Lomatium suksdorfii) in that area.

Sun. 10 May -- NPSO Annual Meeting/North Bank Columbia Keith Chamberlain, leader. The details of this trip have not been determined. Keith will adjust the trip as the season dictates. The meeting place is in The Dalles (and will be announced at the annual meeting). Keith hopes to go to Glenwood, Washington and Convoy Lake.

Sat. 16 May -- A Beginner's Guide to the Ferns of Oneonta Gorge. Roger Yerke, leader. Meet at State Motor Vehicles Department parking lot (adress above) at 9:00 am. Roger, who is working on a book about ferns will lead this short hike (about 3 miles) and if time allows will contrast the south bank environment with the north bank by crossing the river and continuing on at an undetermined location. This trip will be a good introduction to the Columbia Gorge, its plants and the Native Plant Society.

FIELD TRIP REPORTS

PORTLAND CHAPTER

A light rain was falling, at McClay Park, March 7, 1981, but a number of joggers and hikers were observed on the trail below the parking lot. Finally 9 of us, let by Ruth M. Hansen, started down the Wildwood Trail and since identification of native plants we was new to the majority of our small group, many stops were made to inspect early spring growth of trees, shrubs, herbaceous plants and some mosses. Few plants were in flower: however Osmaronia cerasiformis (Oemlaria), Rubus spectabilis, Berberis nervosa, Ribes sanguineum, Petasites frigidus and Trillium ovatum were observed along this trail.

Before crossing roadway a large shrub of Salix scouleriana was practically out of bloom, but a seedling Prunus was spectacular with myriads of white flowers. Across Cornell Rd. we proceeded along upper wildwood trail and keeping to the right finally came down again to the roadway and parking lot, thus making a loop. This upper trail presents a somewhat drier habitat and under the tall firs Viola glabella and a number of Trillium ovatum were in bloom. Altogether, this was an interesting and most rewarding hike.

PHOTOGRAPHERS: TAKE NOTE

Have you ever noticed the excellent photographs on the cover of your white pages telephone directory? Pacific Northwest Bell has a yearly contest for the cover photo. Application blanks and ground rules are to be issued by the company in April.

NPSO has some outstanding photographic talent among its membership, and this is an excellent opportunity to toot our horn. It is also a priceless opportunity for us to educate each person who uses the telephone directory about our endangered flora. So now is the time to start looking through your photographs or to get out in the field to take some high quality photographs of our endangered flora (or non-endangered, if you be so inclined). Please contact the telephone company or me for details.

Annie Kowalishen

BOUNTY FROM THE SEA Part II
Mariana D. Bornholdt c 1980

The brown algae (phylum Phaeophyta) common to our shores include the kelps. The name "kelp" is Middle English in origin and means "ash", referring to the ancient European practice of burning brown algae for its potash, to be used for fertilizer, in soap-making and other industrial processes.

The giant Pacific Kelp (Macrocystis integrifolia), which forms extensive forests in exposed intertidal and subtidal waters 7 to 10 meters deep from Alaska to California. Its branches rise hundreds of meters on blade bearing floats from a rhizome-like base. This single species alone accounts for the extensive reddish-brown kelp beds lying off the coasts. Macrocystis is harvested commercially on a large scale for use in the food and drug industry and in agriculture. Cut several times a year to about 1 meter below the surface of the ocean, the great biomass of the fast growing Macrocystis is a truly renewable resource. Very tough, its principle use as a direct food source has been as a condiment, as a sweet-sour pickle relish made from sections of stem and bladder, or as a jelly-like confection.

Laminaria species (L. setchelli, L. sacchar-ina, and L. greenlandica), found growing on rocks, wood, and shells in sheltered waters between high and low tide lines are also kelps. Particularly rich in iodine and iron, they too are important items of commerce, both to the drug and food-processing industries and as food. Laminariae are the beloved Kombus of Oriental cuisine and are sundried, smoke-dried, ground, bundled, or slivered for the produce market. Kombu is widely used in Japan as flavoring for soups, stews, and other dishes or rinsed, boiled and eaten as a vegetable. It is pickled and candied; it is also served as a tea-like beverage. Some Kombu species contain natural taste-enhancing sodium glutamate.

Desmarestia species, also brown algae, are the only algae on our shores which are considered poisonous. The cells of all Desmarestia species contain esters of sulphuric acid, which is released when the plant is bruised or subjected to heat, bleaching and dissolving any algae which it contacts. Desmarestiae along our coast (D. ligulata, D. viridis) mature in early summer, then lose their foliage, but stalks persist through the winter. In the spring, new blades develop from the margin or midrib of old blades. As might be expected, it has a sour taste, but ingestion is not recommended.

The red algae (phylum Rhodophyta) are the most varied in color of the marine plants, occuring in pinkish-red, purplish-red to brownish-red and olive species. Some are so dark as to appear nearly black when dried. Generally samller than the brown algae, there are more species of red marine algae in the oceans than any other phylum, with more than 265 species in Pacific Northwest waters. They also have the broadest range of habitat of all the algae and are the most varied in form. Some are found as calcareous or coralline coatings on surfaces in rocky intertidal areas. Others are branched, feathery, warty, or sheetlike in habit of growth. They become progressively more abundant below the tide lines and are the dominant floral species of deeper waters. This is due to their red pigment which is able to use the blue-violet end of the visible spectrum to carry on the plant's photosynthesis. Most Rhodophytae are regularly utilized for food, as storms rip these relatively delicate species loose from their holdfasts and carry them in to shore where they can be easily gathered.

Porphyria perforata (purple laver or nori) is common along both Western and Eastern Pacific shores. Its deeply lobed single-celled sheets grow on rocks from a tiny discoid holdfast. It often appears steel gray, dull purplish or oily in appearance when seen in intertidal pools. When exposed to the air between tides, it darkens and becomes stiff, rubbery, or brittle in texture. Easily gathered and fast-growing, it is harvested worldwide for the table. Expecially in the Orient, it is a favorite delicacy, used in soups, stews, and in many rice dishes.

Palmaria palmata forma mollis (sea lettuce or dulse), a bright red or brownish-red seaweed is fairly common on rocky shores along both the Atlantic and Pacific coasts. Collected during the summer and sun-dried, it is a traditional food item for North Atlantic shoredwellers. It is commonly served with dried fish, butter and potatoes. Of leathery texture, it is also used as a substitiue for chewing tobacco and for cattle food.

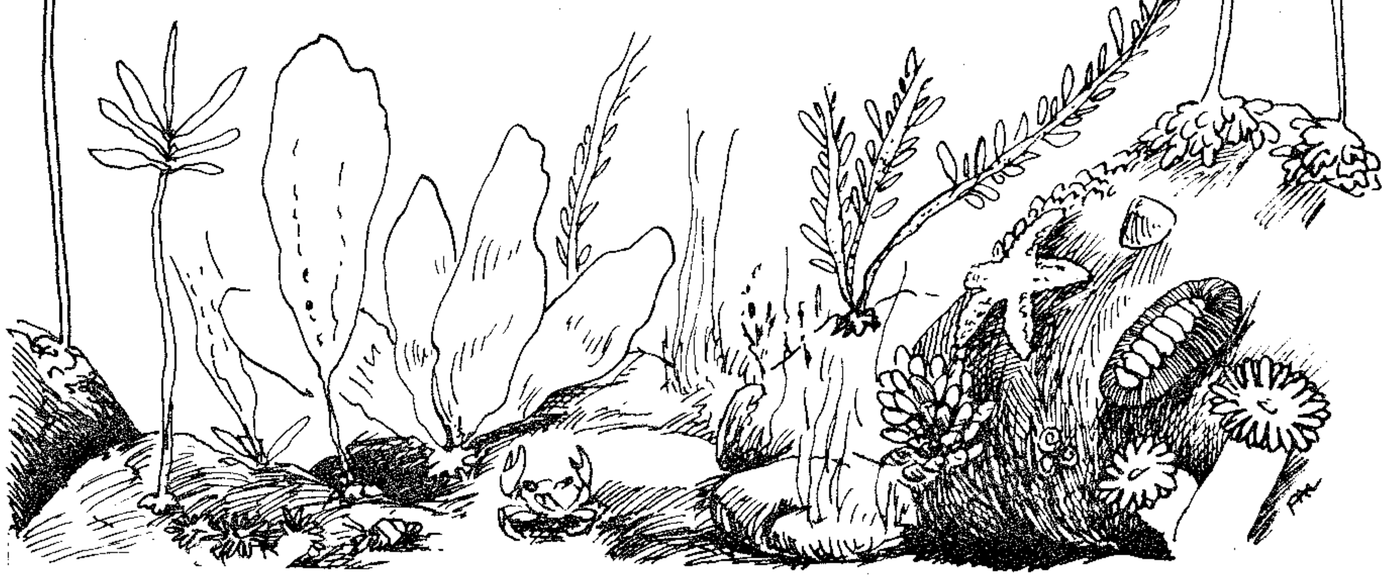
It is interesting to note that botanical field guides to our region generally omit our native marine plants, as do most survival handbooks. We look to the sea as a source of protein, for its fish and shellfish, and for raw materials, such as alginates, mucilage, potash, iodine, and salt, but we seldom view it as a vegetable source. The next time season or weather thwarts your yen for botanizing native plants, head west to the running ocean tides, to the wet sands and the dark rocks. There are adventures in leaning and in good eating to be found in the fresh seaweed mats tossed up by the waves and growing on the rocks or in tidepools. High in vitamins, minerals, starches, and simple sugars, untouched by poison sprays or human hands, and unregulated by governments, the larger algae we call seaweed have excellent nutritional value, unique gastronomic appeal, and the price is right!
Bon appetit!

For further information, the following inexpensive paperbacks are recommended:

Kozloff, Eugene N. Seashore Life of Puget Sound, the Strait of Georgia, and the San Juan Archipelago. Seattle, WA; University of Washington Press, 1974.

Madlener, Judith Cooper. The Seavegetable Book: Foraging and Cooking Seaweed. New York: Clarkson N. Potter, Inc., 1977.

Waaland, J. Robert. Common Seaweeds of the Pacific Coast. Seattle, WA: Pacific Search Press, 1977.



PLANT FAMILY PROFILES
By Herm Fitz

The Nymphaeaceae - WATER LILY FAMILY

The Nymphaeaceae is a small family of only 90 species in 9 genera; however, its representatives are spread everywhere throughout the world's ponds, streams and lakes. Many species are showy, and cultivated as aquatic ornamentals: the sacred Lotus (*Nelumbo*), the spectacular Queen Victoria Water Lily (*Victoria amazonica*), white water lilies (*Nymphaea*) and Yellow Pond Lilies (*Nuphar*). Two native species occur in Oregon, the Water Shield or Water Target (*Brasenia schreberi*) and the Western Yellow Pond Lily (*Nuphar polysepalum*).

Members of this family are aquatic perennial herbs with submerged, floating or sometimes emersed and often large leaves, frequently cordate (*Nuphar*) or peltate (*Brasenia*) and with entire margins. The flowers are solitary, emergent on long pedicels, quite showy in the Yellow Pond Lily, but small and purplish-red in the Water Shield. Sepals (green or colored) and petals are generally indefinite in number (3 each in *Brasenia*) and poorly differentiated, spirally arranged and gradually intergrading from one to another - characteristics that are considered primitive. The stamens are also indefinite in number, also spirally arranged and poorly differentiated from the petals, which may be inconspicuous. The pistil may be single and of several carpels (*Nuphar*), or flowers may have an indefinite number of separate, single carpellary pistils (*Brasenia*). These flowers are pollinated by beetles.

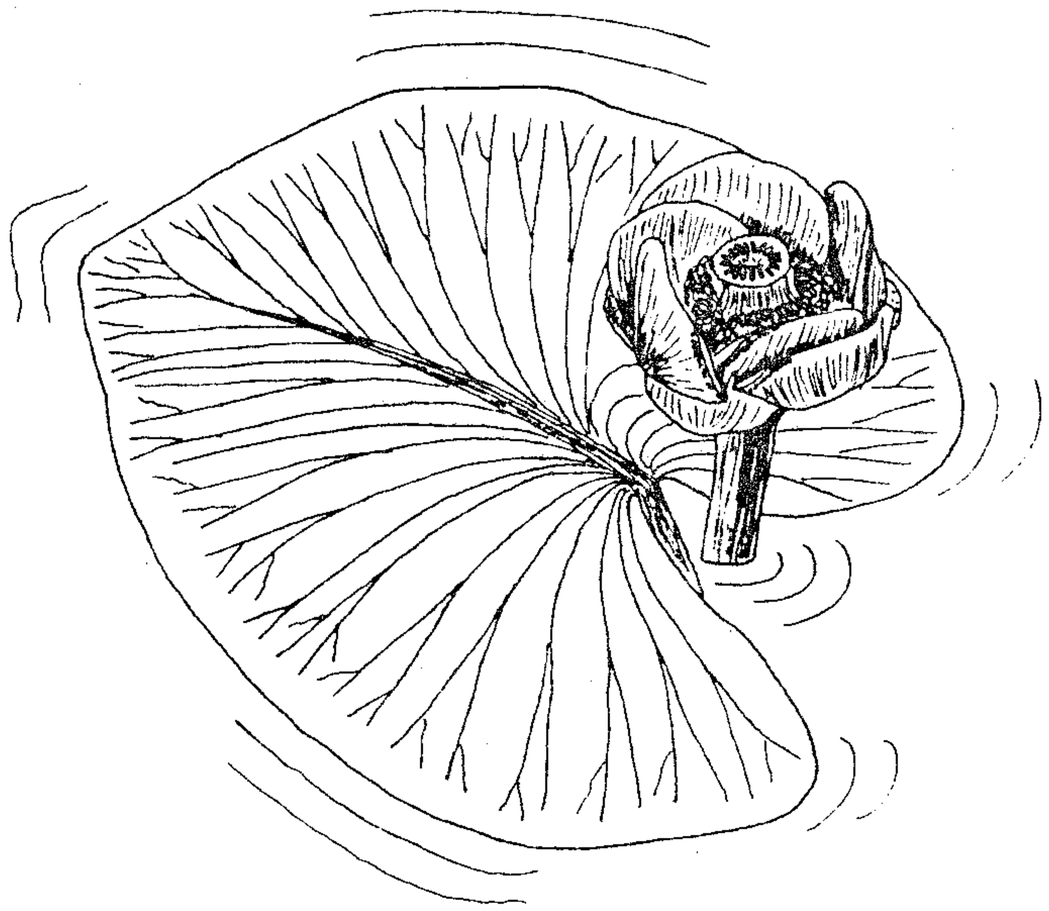
In fall as the pistils ripen, seed pods of the Western Yellow Pond Lily become large and greenish, each containing hundreds of small brown seeds in a pulpy white membrane. These nutty-flavored seeds were important as food for the Klamath Indians of southern Oregon as potatoes, rice, or wheat are to other cultures. After due ceremony, the Indians would gather hundreds of pods from the lilies, separate the seeds (called *spokwas*) and dry them for winter use -- either to be ground into a meal (*wokas*) or roasted like popcorn (*lolensh*). A few patient persons, mostly of Indian descent, still go to the marshes and ponds in fall to harvest the lily seed. In other parts of the world, edible rhizomes and seeds of the white water lilies (*Nymphaea*) are harvested for food.

The family floral formula in this case reflects the primitive indefinite nature of the numbers of parts:

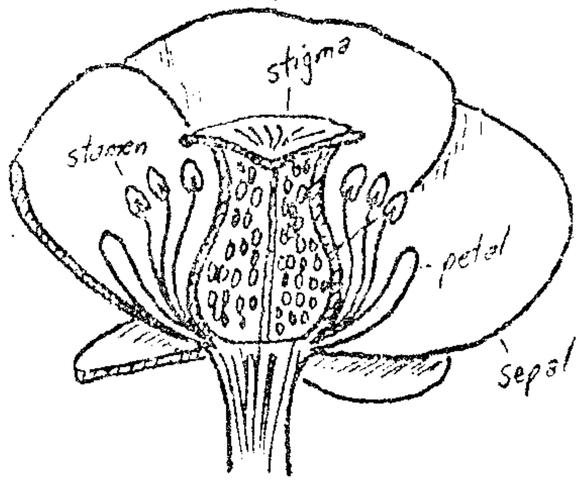
$Ca^{3-6}\ Co^{3-oo}\ S^{oo}\ P^{oo}$ (united or free)

(where oo means some indefinite number)

This family is hard to miss! You may encounter an aquatic herb in some pond, ditch, lake or sluggish stream somewhere, and notice the long-petioled, floating peltate or cordate leaves. The flowers will be single, and have an indefinite number of spirally arranged, intergrading floral parts - and you will know you have found a member of the Nymphaeaceae - the Water Lily Family.



Leaf and flower of the Western Yellow Pond Lily (*Nuphar polysepalum*). Notice the large floating cordate leaf and showy solitary emergent flower with spirally arranged parts.



Longitudinal section through blossom of *Nuphar*. Note the large (yellow) sepals, inconspicuous petals and numerous stamens, all intergrading, and the multi-locular ovary which matures many brown seeds.

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