



1984

P.O. Box 8-737 Anchorage, Alaska 99508

# SPRING HAS SPRUNG!

APRIL MEETING-----8 PM in Grant Hall on the APU Campus---APRIL 2nd, the first Monday.---Please note change of location for this month.

BOARD OF DIRECTORS MEETING--7 PM, one hour prior to General Meeting. The Board members are:

President-----	Verna Pratt-----
Vice-President-----	John Wenger-----
Secretary-----	Cheryl McCaffrey-----
Treasurer-----	Larry Haller-----
General Programs-----	Beverly Bridger-----
Educational Programs-----	Debbie Clark-----
Field Trips-----	Frank Bogardus-----

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## MEETING INFO

The program for April will be a lecture & slide presentation by Nancy Lethcoe--"A Smorgasbord of The Plants of Prince William Sound." (Nancy will also be leading an early Spring Field Trip to Whittier on Sat. May 19th.)

The Iridaceae (Iris) family will be discussed this month, with Debbie Clark leading the discussion. Vicki Wilbur provided the newsletter with the following info: Members of the Iris family are monocots (have one cotyledon or seed-leaf), have parallel leaf venation, and flower parts in 3s or multiples thereof. They are perennial herbs from rhizomes, bulbs, or corms. Flowers are bisexual with 3 stamens and a gynoecium of 3 united carpels inferior to the other flower parts. The pistil is single with a 3-cleft style, and the fruit is a capsule which dehisces by opening into a central cavity.

## PLANT QUIZ--M. Barker

I am a small perennial plant common to wet meadows throughout the State and Arctic tundra. For those who search for flowers early, I am likely the first showy one you will find. My bright yellow flowers are compared to "pats of butter on the ground".

Like most of my arctic and alpine friends, I survive Winter by dying to ground level. In early Spring, I produce a group of basal leaves. Each leaf is simple with 3 to 5 lobes--sometimes my lobes have lobes. I produce a flower at the tip of each flowering stem, and all of me, except for my flowers, is covered with brown hairs.

I have 5 sepals covered with brown hairs, 5 bright yellow shiny petals--with no hair, many stamens and many carpels. By the middle of Summer, my fruits ripen, each flower produces 40 to 50 tiny achenes (small, dry, one-seeded fruit) in an elongated cluster.

SPECIAL NEWS ON A BOOK SALE FROM MAD RIVER PRESS:

The textbook used for the plant taxonomy class at ACC last year is on sale for \$6.35 (+ .50 for shipping/book). It is entitled VASCULAR PLANT FAMILIES by James P. Smith Jr. This book covers all plant families which are represented in the native flora of North America. The book is well illustrated.

To obtain a copy, sent to: Mad River Press  
Rt.2, Box 151-B  
Eureka, CA 99501

Several other books are also on sale, including coverage of mushrooms, lichens, grasses and seashore guides, 43 different books in all. A brochure describing all of these will be at the April meeting. Anyone wishing to go in on a joint order must place their order at the April meeting and pay at that time.

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**SEED EXCHANGE**

At the Feb. meeting, Doug Tryck suggested a wildflower seed exchange. If you would like to participate, and have some wildflower seeds, bring them to the April meeting. Be sure that they are labeled. Doug will organize a committee to package them. Anyone interested may purchase the packaged seeds at the May meeting.

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**PLANT DRAWING**

**QUIZ**



**TRY THIS !**

For an early touch of Spring, force some birch or high-bush cranberry branches into leaf & bloom. If they are placed in a container of warm water and put into a sealed dark plastic bag, they will leaf out in a few days. It will either cure your Spring Fever or make it worse!

**BALLOTS**

IF YOU HAVEN'T RETURNED YOUR BALLOT YET, PLEASE DO SO. WE NEED EVERYONE'S VOTE.

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**PUSSY WILLOWS-J.Wenger**

Pussy willows are a sure sign of the approaching Spring season. They also may be a reliable sign of determining direction. Pussy willows are catkins or aments, a cluster of 1-sexed flowers with no petals. On willows (Salix) the plant has either all-male or all-female flowers, which botanists term dioecious.

Anyway, a couple of years ago, while leading a class to study the flora & fauna of Denali Nat. Park, I noticed a red hue from shrub willows in the distant tundra. Upon closer inspection, we could tell the red color was from the anthers of the male catkins and these anthers were, generally, all pointing South.

I concluded that the heat of the sun aids in developing the anthers with its pollen. Since the heat is most intense at noon (or shortly after) and that is South, one could determine by noticing where the **earliest** developing anthers are pointed.

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**PUSSY**  
(cont'd)

**WILLOWS**

With time, the now ripened anthers will have yellow pollen on the South & red anthers will migrate around on the East & West sides, ending up eventually on the North side. When that stage occurs, the South side anthers will have withered. As long as you can still find the earliest stage left on the male catkin, direction may be determined.

I would like to hear of your observation if you would like to help study this phenomena. There are a few things to keep in mind. The male catkin must be upright for the sun's rays to be most perpendicular with the axis of the catkin, read the general direction of numerous catkins rather than record an individual, note the species (if you can determine it), and the dates, times, etc.

Good luck, and don't get lost!

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**MARCH MEETING**

The March meeting was one of the best yet. Dr. David Murray, from the Univ. of Alaska, Fairbanks, gave an extremely interesting presentation on plants and geological features of the North Slope region. He is compiling a list of range extensions for Hulten's "Flora of Alaska and Neighboring Territories"; and indicated the list would be published, hopefully, this Spring. If you discover a new plant or range extension, please let him know for inclusion in the next update. He needs a sample of the plant for verification.

Dr. Murray is a recognized authority in the field of botany, and he very graciously offered to help our members with any problems of plant identification. If you have consulted Hulten's and/or Anderson's texts, and are still having difficulty with a plant identification, by all means write to: Dr. David F. Murray, Univ. of Alaska Museum, Fairbanks, Alaska 99701. (Be sure to include a plant sample).

**QUIZ ANSWER**

*Ranunculus nivalis* L. (snow buttercup)

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**LOTIONS, NOTIONS  
AND POTIONS**-by Old Doc

Now, Dear Readers, settle into a comfortable chair and we will get a little lecture material out of the way. As much as I dislike textbook type discussions, I feel this one is essential to our understanding of just how dangerous some plants can be. Now that it's getting near that time when we will be going afield in search of plants, we must be aware of just what we are dealing with. So we must learn a little about alkaloids.

Alkaloids are basic substances found in plants. Chemically they are amines and hence may be looked upon as ammonia derivatives. Alkaloids probably occur in plants as waste products in their metabolic processes. They represent nitrogenous waste and may serve to protect the plant, because of their poisonous nature, from being used as food by animals. Pharmacologically the alkaloids of medicinal plants are very active substances. Generally the medicinal virtue of a plant containing one or more alkaloids resides in these constituents. The chemical structures of these compounds enjoy a wide variation; so do the pharmacologic actions which they evoke. Thus morphine, from opium, produces a depressant action on the central nervous system, and strychnine, from *nux vomica*, strongly stimulates the central nervous system, producing convulsions and death. Atropine, from belladonna, with remarkable specificity depresses the parasympathetic division of the autonomic nervous system, whereas pilocarpine, from *pilocarpus*, stimulates these same structures and this antagonizes the action of atropine.

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## LOTIONS (cont'd)

Many of the alkaloids are violent poisons. Strychnine and nicotine will produce death in exceptionally small quantities. The death produced by alkaloids, as a class of pharmacologic agents, is devoid of anatomical lesion in the victim. This differs from deaths caused by salts of heavy metals, caustic alkalies, and strong acids. Deaths caused by alkaloidal intoxication are due to excessive stimulation or depression of one or more physiologic systems of the body.

Now, let's see.....what prompted this discussion, anyway. Oh, yes, elsewhere in this newsletter we had a little plant quiz about the ranunculaceae. Not to be taken in by the pretty buttercup, Dear Readers. The Tall field buttercup is known to produce a juice that can blister your skin. I understand that buttercups can be eaten as a source of emergency food, but only after cooking in several changes of water until all bitter taste is gone. I think that I would look for something else myself; perhaps the related plant, the marsh marigold which can be eaten. Two other Ranunculaceae that we should mention are: Monkshood (aconitum) which contains the powerful cardiac depressant alkaloid, aconitine; and, Larkspur (delphinium) which contains ajacine and ajaconine and acts in a similar manner.

*provided it is cooked.*

Next month, a listing of what we should be careful of as we wander afield this beautiful Summer.

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ALASKA NATIVE PLANT SOCIETY