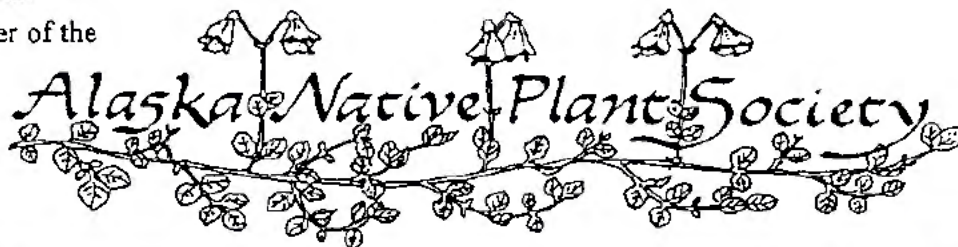


Borealis

the newsletter of the



PO Box 141613, Anchorage, Alaska

February – March 2015

Ethnobotany in Alaska

Join us at our Next Meetings!

Monday, Feb. 2, 7:00 p.m

Main Topic: "Flora of Iceland"

Speakers: Annie Nevaldine, Julie Riley

Plants of Scree and Talus: *Astragalus nutzotineus* and *aboriginum*

Leader: Dennis Ronssee

Mini-Ethno-Botany: Plantain, Fireweed

Presenter: Glenn Brown

ALSO: Election of Board Members

Monday, March 2, 7:00 p.m

Main Topic: "Chugach Treeline"

Latest research on changes in shrub distribution and abundance above treeline in the Chugach Mountains. Read up on the study [here](#).

Speaker: Christina Rinas

Plants of Scree and Talus: *Crepis nana* and *Saxifraga bronchialis*

Leader: Mike Monterusso

Mini-Ethno-Botany: Devil's club, Bull Kelp

Presenter: John Trent



For the latest information about ANPS events and field trips, go to www.aknps.org/

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Adventures in Ethnobotany, or Who's teaching who?

Carolyn Parker, University of Alaska Museum Herbarium

When first asked to be involved with the new Ethnobotany Certification Program, supported by a USDA grant and administrated by the UAF Kuskokwim Campus, (<http://www.uaf.edu/drumbeats/ethnobotany/>), I was sure there was a misunderstanding. As a thoroughly western-trained botanist, how could I contribute to this endeavor? However, Program Coordinator Rose Meier was convincing in that I might be helpful for bridging the gap between western and local, or indigenous, ways of knowing and communicating about plants, so I agreed to the challenge.

One of the Program's first efforts was to bring together several Yup'ik Elders from the Yukon-Kuskokwim region for a series of meetings in Bethel, Alaska, to gather their collective knowledge of the plants they use for food, medicine, and for the construction of traps, sleds, utensils, etc. My primary role was to bring different species to pass around among the Elders and let each person share both their local Yup'ik names for them, and the various uses they knew of. Often the discussion was in Yup'ik, but all our gatherings were recorded or videotaped for later translation. Meanwhile, I jotted down the Latinized (scientific) names for each plant discussed. Although various Yup'ik plant names and uses were offered by the Elders, coming from different regions of SW Alaska, there was no argument among them as to which names or uses were 'correct'. Acceptance of all shared knowledge was not only given, but often generated more interest among the Elders. They seemed as eager to learn from each other as we were to learn from them.

At the end of final session in Bethel, I found myself running out of plants to show them before our time together was over. So I asked if there were any plants they used and considered important that I hadn't asked about yet. The quick unanimous response was tobacco and tea, leading to a long and lively discussion that ran overtime. This was a clear reminder for us 'western' humans that our concept of 'traditional' knowledge cannot be held as being totally 'static' over time or place, but should be understood as an ongoing process. Knowledge and 'tradition' have always evolved as new resources or tools (including plants, or technology!) became available, and the use of them is shared. This process of change should be considered as a critical part of any ethnobotanical study undertaken.

(Continued on Page 2)

Adventures in Ethnobotany, continued from page 1

This first effort of the Program has been compiled by KUC's Ethnobotany Professor Kevin Jernigan and now exists as a working draft that can be viewed at http://www.uaf.edu/anlc/resources/yk_ethnobotany/YK_Ethnobotany.pdf

My next challenge was to put together a class manual, covering aspects of the western knowledge of plants (taxonomy, morphology, anatomy, biochemistry), for the Introduction to Ethnobotany summer field class that the Program would be offering (<http://www.uaf.edu/drumbeats/ethnobotany/>).

Given that our students would be coming to us with a very wide range of backgrounds with respect to both plants and college-level classes in general, I knew I would have to tone down some of the technical terms and concepts used in our 300-level class in Fairbanks, and to include information that was relevant to plant use by humans. We have used this manual for several years now, and I still consider it a working draft as I get constructive feedback from students.

Co-teaching this introductory summer class has been the most rewarding part of the program for me. Classes have been taught in Bethel, Quinhagak, Chevak, Hooper Bay, Nome, Kotzebue, Sadie Creek (LaVonne's Fish Camp), Sitka, and Nash Harbor on Nunivak Island. Interactions with different landscapes and floras, the very broad diversity of students, each of whom bring their own unique background to the class, and the frequent distractions (read 'opportunities!') that arise whenever such ventures are undertaken, provided a constant challenge to be flexible at all times in all ways. Our syllabus would suggest each day was 'planned out', but if the weather was good, we went outside; if very good, we planned a long hike to find a greater diversity of plants. If the weather was bad, it was time for indoor classes that included everything from cooking, eating, or preserving plants already harvested, or talks on plant morphology, identification, and on general ethnobotanical topics. If a student had knowledge or a story to tell about a plant we encountered, we all gathered to listen. If elders showed up to visit, everything stopped for their visit. If a van was available, we took a road trip.... if there were roads. If a fish net was full, class was postponed until all the salmon was processed. No teachable moment could be passed up, and the teacher vs. student role constantly rotated among all.

My first summer teaching will possibly remain my favorite. Ten students, co-instructor Anore Jones (her book 'Plants We Eat' remains one of our text books) and I boated westward from Mekoryuk to Nash Harbor, on Nunivak Island. The people living on Nunivak Island are Cup'ig Eskimo, a part of the western Alaska Yup'ik Eskimo family. Nunivak Island is rich in subsistence resources and although all residents now live in Mekoryuk, the island once supported a much larger population consisting of several small villages, including Nash Harbor, scattered along the coast. In addition to our 'class work', we fished with our host family, learned to make fry bread, tried to follow the coastal trails (linking ancient village sites) that were still faintly visible or evidenced by stone markers on the tundra, enjoyed a welcome steam bath (maqi) on cooler evenings, and helped our camp archaeologist by manning 'the screen' as he excavated a house site having occupation levels ranging from the mid-1900's downward to pre-historic times. Our Cup'ig Elder taught grass harvesting and basic weaving using three different beach species (*Leymus mollis*, *Poa eminens*, and *Calamagrostis canadensis*), and favorite foods included marsh marigold, or wivlut, wivlug in Cup'ig, (*Caltha palustris*, must be cooked first) and *Draba grandis* (the best fresh coleslaw ever!). Valerian, teptukuyak in Yup'ik, (*Valeriana capitata*) was harvested and dried for later testing by some for its effect on sleeping and dreams. Anore and I referred to our time there as 'ethno-summer camp', as there seemed no sensible way that the many aspects of learning about the human history and knowledge of a landscape can be partitioned up into separate components.

I have also co-taught classes at Nome and Kotzebue with Kevin Jernigan (KUC) and Anore Jones. Being 'in town' has some advantages such as running water, power point, internet searches, stores for unanticipated needs, road trips, and ready access to a sizable local population. However, being in a town has a few distractions and disadvantages as well. Students would scatter for shopping, visiting, lengthy Facebook sessions, and more, so many teachable moments were lost. Collecting plants for consumption or medicinal use close to any town can be discouraging due to road dust, fuel spills, and other urban sources of contamination, so we needed to get some distance away for serious harvesting for use, an issue that even our Elders acknowledged.

(Continued on Page 3)

However, our class last summer (2014) at LaVonne's FishCamp, S of Kotzebue on the Chukchi Sea coast (http://fishcamp.org/photo_gallery/photos.html), was a close tie to our Nash Harbor trip as a favorite for me.

Co-instructor Sunshine Brosi, Professor of Ethnobotany from Frostburg State University in Maryland, joined us, bringing fresh ideas and insights on teaching the class from her several years of teaching in Appalachia. The UAF Chukchi Campus staff in Kotzebue coordinated the administration and logistics we needed and made sure we had a steady flow of Iñupiat

Elders visiting, supplementing our two resident Elders who were with us each day. In addition to good food and a beautiful location, FishCamp offered several vegetation and landscape types within walking distance, a large kitchen table for processing our harvests, cozy cabins for bunking and class meetings, and an active set net site out front to keep us well supplied with fresh salmon. Favorite plants gathered here for food included salmon berry, the first berry to ripen on the tundra, aqpiq in coastal Iñupiat (*Rubus chamaemorus*, or cloudberry to many of us), sourdock quagaq (*Rumex arcticus*), and beach greens atchaaqtuk (*Hanckeya peplaides*). These harvested plants graced our dinners at LaVonne's, along with fresh salmon, many evenings. Medicinal salves were made from stinkweed sargiq (*Artemisia tilesii*) and wild celery root or ikuusuk (*Angelica lucida*) to help with a wide variety of uses including sore muscles, digestion, and minor skin problems.

For their independent class projects, two of our students focused on artistic and construction uses of plants; alder (*Alnus viridus* subsp. *crispa*) for dyeing hides (the bark) and smoking salmon (the wood),



Tundra Above LaVonne's Fish Camp near Kotzebue

cottonwood ninnuq (*Papulus balsamifera*, as driftwood from the beach) for carving, and white spruce napaaqtuq (*Picea glauca*, harvested upriver) and paper birch urgiliq (*Betula neaalaskana*, also harvested up river) for construction of kayaks, utensils and traps. From my reading of traditional plant uses by other northern circumpolar people, the Alaskan uses of all of these common plants are also documented wherever these species occur, though exact uses may vary regionally.

What additional lessons have I confronted during my experience with this program? Diplomacy: quietly and openly listening to others and giving them a chance to share their perspective and collective knowledge. Staying flexible: always being alert to teachable moments; be it spending time with Elders or students, this is a cherished time to share, listen and learn from each other. Watching with open eyes: although I did not always 'see' another's point of view at first, I felt I needed to respect it, absorb it, learn from it, and infuse it into my way of thinking. Learn to put aside or dissolve mental and intellectual boundaries; try to view the world in a different way. All these lessons have been reinforced as I watched our students and their respective, local Elders interact with each other, and with us, the 'instructors'. It has truly been an experience of learning from each other, or... "who's teaching who?"

THINK SUMMER - THINK FIELD TRIPS!!



Even as we bask in the first real snow of our winter season, it is time to begin to plan for summer field trips. Do you have a favorite spot for checking out native plants? How about sharing it with our group? Please go to the ANPS Website at www.aknps.org and look for the forms for setting up field trips. Don't feel you have to be a botanical expert in order to organize a trip. There are almost always people along who will be able to identify plants that others may not know. Everyone gets stumped at times – and that, too, can be a learning experience as the group can work together to make an identification. Those are sometimes the best remembered plants! We'd like to have all the completed forms returned by April 15th, so we can put together and distribute the Field Trip Calendar in early May.

MYSTERY PLANT

This woodland plant is circumpolar and is generally found in boreal forests, below treeline. Its maximum height is usually about 5 inches. The thick flowering stem is mostly naked with a small bract sometimes present. The obvious petiolate wintergreen leaves are replaced with new leaves each spring. They are small, round, thick, and glossy, and form a basal rosette. The spiral of small flowers have short curved stems, giving the flowers a nodding appearance. They have five small sepals, five greenish-white petals, ten stamens and a curved protruding style.

Answer on Page 6 – no peeking!



IT WORKS!

**ANPS HAS ALREADY EARNED OVER \$70
FROM JUST 9 MEMBERS SHOPPING AT
FREDDY'S! WON'T YOU JOIN US?**

Fred Meyer is donating \$2.5 million per year to non-profits in Alaska, Idaho, Oregon and Washington, based on where their customers tell them to give. Here's how the program works:

- Sign up for the Community Rewards program by linking your Fred Meyer Rewards Card to (non-profit) at www.fredmeyer.com/communityrewards. You can search for us by our name or by our non-profit number **90390**.
- Then, every time you shop and use your Rewards Card, you are helping (non-profit) earn a donation!
- You still earn your Rewards Points, Fuel Points, and Rebates, just as you do today.
- If you do not have a Rewards Card, they are available at the Customer Service desk of any Fred Meyer store.
- For more information, please visit www.fredmeyer.com/communityrewards.

Borealis
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ALASKA NATIVE PLANT SOCIETY

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Plant Family	Dennis Ronsse
Mini-Botany	Dennis Ronsee
Field Trips	Marilyn Barker

Newsletter ("*Borealis*")

Editor	Ginny Moore
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Borealis is published bi-monthly, fall through spring. Articles may be sent to Ginny Moore, _____, Anchorage, AK 99516. Phone or FAX: _____, E-mail: elfinwood@gmail.com

SUMMER ANPS FIELD TRIP TO DUTCH HARBOR WITH SUZI GOLODOFF

(Suzi is the author of "Wildflowers Of Unalaska Island-A Guide To The Flowering Plants Of An Aleutian Island" —now out in 2nd Edition, March 2014.)



Dates: July 19-21, 2015 - Limited to 12 persons

Costs:

- \$40 per day for Suzi Golodoff
- Share cost of van and gas
- Lodging: grand aleutian hotel will give us a discount—rates not set for 2015 yet
- Travel:
 - Ferry out-plane back or
 - Flight both ways: (cheaper way—use airline miles or use Alaska Airlines \$99 companion fare and split the ticket with someone)
 - You will be responsible for making your own transportation and lodging plans but do not do so until your class reservation is confirmed.
- Food: We will buy group food for lunch makings; on your own

Timing is essential – airline and ferry reservations for summer fill up early – fishing and tourists are big deals!

If interested, please contact Beth Baker for more details and to make sure space is available:

daisymae@mtaonline.net

or

call _____ and leave a message

DON'T MISS THIS AWESOME TRIP NOT LIKELY TO BE REPEATED BY ANPS IN THE NEAR FUTURE!

Welcome New ANPS Board – Big Thanks to Those Retiring!

At the December meeting of the Alaska Native Plant Society a new slate of officers were elected to the Board.

Beth Baker is the new President; Dennis Ronsee will assist as Vice President; Mike Monterusso is Secretary. Bernadine Raiskums has agreed to continue her incredible job as Treasurer until someone steps forward.

Please join us in a big round of applause and heartfelt thanks to the outgoing members for all of their hard work and dedication as they have done an outstanding job of coordinating events and moving us forward into the electronic age: Anjanette Steer as President, James Sowerwine, Vice President, Beryl Wardlaw, Secretary. Beth Baker coordinated the mini-botany and plant family segments of the meetings. Special thanks go to past presidents Verna Pratt and Marilyn Barker for their unfailing service and continuing support of the organization by overseeing seed sales, field trip calendars, leading numerous field trips and work parties as well as Verna coming up with that mystery plant each month!

Officer duties were transferred at the Board meeting on January 8, 2015. At that time, the Treasurer's Report indicated an end of year balance of \$ 4,483.08. The Fred Meyer Community Rewards Program had brought in \$63.95. There were 100 dues-paying members.

The Board plans to focus on increasing membership by encouraging all attendees to become members and renew memberships and by reaching out to more members of the community. We haven't had membership drives and we haven't raised membership rates, but we encourage all of you to help us maintain our organization and its mission. Your membership strengthens the ANPS's role as a voice for our native plants.

FROM OUR BOOKSHELVES



How the Earth Turned Green: A Brief 3.8-billion year History of Plants

By Joseph E. Armstrong
University of Chicago Press, 2014

“Practicing or apprenticing botanists, plant biologists, agronomists, and horticulturists need a detailed understanding of the evolution of plants for a correct perspective on the organisms they study and use, but the current general textbooks provide an inadequate watered-down history. In *How the Earth Turned Green*, through the knowledge, skill, and friendly writing of Armstrong and the wisdom of the University of Chicago Press, we finally have a book to fill this gap. Its eleven chapters—the final two about the flowering plants—tell the whole story, backed up by a detailed and illustrated appendix on fossil and living ancestors going back to the green algae and cyanobacteria. An essential book for plant students and professionals.” (David Lee, Florida International University author of *Nature's Palette: The Science of Plant Color*)

Using an evolutionary framework, *How the Earth Turned Green* addresses questions such as: Should all green organisms be considered plants? Why do these organisms look the way they do? How are they related to one another and to other chlorophyll-free organisms? How do they reproduce? How have they changed and diversified over time? And how has the presence of green organisms changed the Earth's ecosystems? More engaging than a traditional textbook and displaying an astonishing breadth, *How the Earth Turned Green* will both delight and enlighten embryonic botanists and any student interested in the evolutionary history of plants.

The primary novelty of the 576-page book is based on several things. First, it's the whole history of plants. Second, the book is a narrative. Third, it is intended for a more general readership. Fourth, along the way it attempts to explain how things are known and how science works.

Armstrong is the director of the Laboratory for Plant Identification and Conservation and head curator of the George S. Vasey Herbarium at Illinois State University.



The Drunken Botanist

By Amy Stewart

You might already be a fan of Amy Stewart, the botanist/author of a number of books with quirky plant themes: *“Wicked Plants”*, *“The Earth Moved: On the Remarkable Achievements of Earthworm”* *“Flower Confidential: The Good, the Bad, and the Beautiful in the Business of Flowers”*. In *The Drunken Botanist*, she explores the dizzying array of herbs, flowers, trees, fruits, and fungi that humans have, through ingenuity, inspiration, and sheer desperation, contrived to transform into alcohol over the centuries.

Sake began with a grain of rice. Scotch emerged from barley, tequila from agave, rum from sugarcane, bourbon from corn. Thirsty yet? Of all the extraordinary and obscure plants that have been fermented and distilled, a few are dangerous, some are downright bizarre, and one is as ancient as dinosaurs--but each represents a unique cultural contribution to our global drinking traditions and our history.

This fascinating concoction of biology, chemistry, history, etymology, and mixology--with more than fifty drink recipes and growing tips for gardeners--will make you the most popular guest at any cocktail

Wintergreen / Pyrolaceae family

Pyrola chlorantha, Small Green Pyrola

Answer to Mystery Plant (Page 4)

From What We Gather – around the web for free!

The Internet provides so much useful material! Check out the site: www.freebookcenter.net for a wealth of free downloadable e- books and guides on Botany. Some are treatises by early scientists, like Asa Gray. Others include Master Gardening Manuals from various states. Here are a few more titles available at that site:

Elements of Structural and Systematic Botany by Douglas Houghton Campbell; March 2013

Description

This structural botany text has been supplemented by enough classification to make clear the relationships of different groups, and the principles upon which the classification is based, as well as enable the student to recognize the more common types of the various groups they meet. The aim of this book is not, however, merely the identification of plants.

Sturtevant's Edible Plants Of The World by U. P. HEDRICK

Description

Gleaning edible plants from herbals, botanies, travel books, cultural histories, and experiments in scientific farming, Edward Lewis Sturtevant (1842-1898) compiled notes for the largest and most accurate work on edible plants, cultigents, and secondary food sources ever written. 2,897 species with comments from over 560 ancient and modern sources virtually cover the entire field. The range is from the oldest known foods, the mallow and asphodel, through newcomers like the tomato and celery, to wild foods which become important under certain circumstances.

Another site, www.digitalbookindex.org, offers a number of titles from every era on a variety of botanical issues, including medicinal plants and herbals, orchids, flora of North America, Europe, Britain, India, China and Latin America. They are offered in various formats, including pdf, on-line html, and Kindle versions.

X-Rated Botany in the Late 18th Century – For some it was too embarrassing!

Carl Linnaeus based his system of plant taxonomy on their reproductive organs – class was determined by the number and length of stamens (husbands), order by the pistils (wives). “The flowers’ leaves. . . serve as bridal beds which the Creator has so gloriously arranged, adorned with such noble bed curtains, and perfumed with so many soft scents that the bridegroom with his bride might there celebrate their nuptials with so much the greater solemnity ..”. His system became universally accepted until modern scientific analysis has been able to use more precise ways to classify plants based on their DNA. This “sexual system,” as Linnaeus called it, became extremely popular, though certainly not only because of its practicality but also because of its erotic connotations and its allusions to contemporary gender relations. It had its detractors as well – specifically those who found these connotations too embarrassing.

Botany For Gentleman: Erasmus Darwin and the Loves of the Plants by Janet Browne explores botany’s role in the sexual politics of the 1790’s. It is a hilarious look at the relationships between science and culture, and is available as a from Harvard’s website: (http://dash.harvard.edu/bitstream/handle/1/3353945/Browne_Botany.pdf?sequence=2) .

A companion article, “**Carl Linnaeus, Erasmus Darwin, Anna Seward: Botanical Poetry and Female Education**” addresses the problems of representation facing literary women who practiced the sexual system of botany and demonstrate how women struggled to give voice to a subject which was judged improper for women. It focuses on the work of Anna Seward, who created a new genre of women’s writing – the botanical poem with scientific notes.

http://www.academia.edu/5565879/Carl_Linnaeus_Erasmus_Darwin_Anna_Seward_Botanical_Poetry_and_Female_Education

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

- | | | |
|--------------------------|-------------------|------|
| <input type="checkbox"/> | Full-time Student | \$12 |
| <input type="checkbox"/> | Senior Citizen | \$12 |
| <input type="checkbox"/> | Individual | \$15 |
| <input type="checkbox"/> | Family | \$20 |
| <input type="checkbox"/> | Organization | \$30 |

Name _____
Address _____
City: _____ State _____ Zip _____
Telephone: (Home) _____ (Work) _____ E-Mail _____

Membership is on a calendar year basis.

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Renew NOW to stay linked in to ANPS all year! Sign up a new member for only \$10!

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