



CALYPSO CHAPTER  
Coeur d'Alene, Idaho

## *Calypso Companion*

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The Calypso Chapter of the Idaho Native Plant Society meets on the first Wednesday of March, April, May and October. The Chapter schedules field trips during the spring, summer, and fall. The Calypso Chapter of the INPS was founded in 1991. We continue our efforts in promoting interest in native plants and native plant communities, collecting and sharing information on all phases of botany concerning this flora. Membership is open to all interested in the native plant community.

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### **Next Meeting**

The next meeting is **Wednesday Oct 3, 2018** at 7:00 p.m. at the **Idaho Fish and Game Building** at 2885 W Kathleen, Coeur d'Alene, directly across from US Forest Service Nursery on the west end of Kathleen Avenue near Atlas Road.

**DUES ARE DUE for 2018.**

### **Agenda**

Business meeting

    Treasurer's report

    Old business

New business

**Upcoming Calypso Chapter Events:** Wednesday, Oct 3, Calypso Chapter Meeting 7 PM, Idaho Fish and Game Office, 2885 W Kathleen Ave, Coeur d'Alene. Presentation: "Ferns and Their Anatomy" by Derek Antonelli



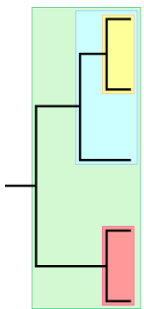
**Meeting Notes of May 2, 2018** Derek announced INPS 2018 dues are due. You may pay on the website. Annual Meeting plans are being made for 2018 hosted by our chapter to be held at Bumblebee Campground on the CDA River. Dave Nobel has completed maps and directions and Pat Bentley will help with printing and distribution. Several members will come early to set up for registration. Registration for the 2018 Annual Meeting is available on the INPS website. Derek announce that Laura Asbell has volunteered to serve as Calypso treasurer to replace longtime member and former State President, Janet Benoit who recently passed away. Upcoming events and plant hikes Steptoe Butte, Tall Pines, and Deception Creek Experimental Forest were discussed. The May Featured Plant *Salix Discolor* was reviewed with photos shown. Karen volunteered to host a potluck at her residence after the April 28 Mineral Ridge Plant Hike. Later plant hikes are TBA.

### **Bumblebee Citizen Science project by IDFG's Kristina Boyd:**

Certain habitats such as forested lowlands, cool air refugia, depressional wetlands and spring and groundwater dependent wetlands and the wildlife that exists there have been targeted by the Idaho Dept. of fish and Game as under threat due to our changing climate, loss of genetic connectivity, and invasive and noxious weeds. The grizzly bear, burbit, and western bumblebee, *Bombus occidentalis*, a host to the Suckley's bumblebee are in serious decline. Volunteers are needed to monitor bee populations at selected habitat sites and to gather flower seed such as native thistle, fireweed and yarrow to be used for site improvement. A training session will be held July 15 with the location TBA. For more information contact Kristina at (406)890-4353 or [BombusAmbrosia@gmail.com](mailto:BombusAmbrosia@gmail.com).

### **Program: "Speciation, An Arbitrary Art or Science" by Laura Asbell**

Species are not as distinct as textbooks would have us believe. Due to self-fertilization, asexuality and hybridization characteristics of plants, there may be extreme form differences as well as minimal form differences among species. Isolation, weather, ecology, pollination timing make it difficult to assess genetic data. We learned a basic grouping of organisms is based on a study of diversity in linages may be represented as a "clade", a group of organisms with a common ancestor. In the figure below each colored rectangle represents a clade. Differences can occur thru mutation, ecotype differences such as soil types, or random genetic drift or even viruses. However, in plants the most likely speciation process is hybridization. Most plants are polyploid, having more than two copies of chromosomes which gives plants great diversity and allows them to produce fertile offspring. A new species may be created by plants adding chromosomes due to hybridization. Hybridization can produce intermediate



characteristics, a mosaic of each parent, or **new** character combinations. Rosaceae, *Potentilla* and *Vaccinium* are all known for hybridization. Morphology classifications

do not include how plants (or their fruits) taste. In the next example *Tragonpogon pratensis* hybridizes to form *T. porrifolius*.



“Evolution is an ongoing process, with lineages splitting or rejoining at their own pace. Exploring a living, ever-evolving world of life means finding and accepting fuzziness.” (From The Fuzzy Art of defining species, Science News).

### Field Trips 2018

May 12-Steptoe Butte Bio- Blitz Fascinating because of the number and diversity of the plants and how they varied by microenvironment and physically challenging because of the severe ground angle of Steptoe Butte. The angle probably historically decreased the destruction of the habitat. Photos courtesy of James Riser.



### May 19-Tall Pines

On our two mile plant hike we encountered the Idaho State noxious weed Houndstongue, a field of false hellebore and a woman walking with her goats who told our group of her concern about a proposed housing development in the area.





Our Group



Goat Encounter



*Cynoglossum officinale*



False Hellebore

June 16- Deception Creek Experimental Forest

We needed to scout this field trip for the upcoming Annual Meeting. We used GPS to find the site, not an easy task. We waded the Creek to access the trail and found it to be overgrown with many large blowdown conifers. We ended the day visiting our Annual Meeting Campsite.







### August 18-Stevens Lake

A challenging late summer hike of several miles resulted in many blooming native plants, monkshood, rattlesnake plantain, and pleated gentian. We explored an abandoned mine along the way and enjoyed a relaxing lunch by the lake.



*Columbian monkshood*





*Aconitum Columbiana*



*gentiana affinis*



Exploring the Past



American Rockbreak Fern



At the Lake

June 29-July 2 -Annual Meeting at Bumblebee Campground

Calypso volunteers checked in participants who traveled from around the state. Folks signed up for plant hikes to several areas.

**Twin Crag**- A long bumpy drive and challenging hike was rewarded by fantastic views and diverse flora. Author and historian Jack Nesbit and BLM botanist LeAnn Abel were our guides.





Mountain High



Jack and Blm's Rich Merkle discover snow



Remains of a White Bark Pine



Mirror Lake



Rich and LeAnn point out area landmarks

AT BUMBLEBEE CAMP

Chefs Bill and Derek  
At the BBQ







Historian and author Jack Nesbit



Putting it all together



Steve reviews the days plants



Time to Relax

### Graham Creek Hike

With field trip leader Jill Roche, former Rare Plant Specialist with the USFS, we explored this North Fork tributary, discovering bog orchids, exploding puff balls, heart-leaved tway blades and other interesting flora. We brought along waders if needed for stream crossings.





## Featured Plant for October

American Rockbrake or American Parsley Fern-*Cryptogramma acrostichoides*

**General:** A small, fragile looking, frilly green herbage found in noncalcareous(not on limestone) cliff crevices, talus slopes and at rock bases.

**Leaves:** Two kinds of fronds are present: a narrow-leafleted, spore producing one and; a broad-leafleted form looking very much like parsley. Last year's brown dried-out fronds will hang below the new fronds.

**Sori:** *Cryptogramma* sori occur in a continuous line tucked into a fold created by the frond's margin curving under itself forming a long margin-flap on the frond's undersurface. The silvery, swollen zones along the pinnae's (leaflet) margins are the folded-under leaf margins, with sori hidden inside them. Spores will easily escape through the folds' midrib-facing slits.

**Ecology:** It is distributed fairly widely in mountainous western North America as far east as Michigan and New Mexico, plus in Asia.

**Notes:** The word "American" appears in both its common names because the species is practically identical to one in Europe and for a long time ours was regarded as a subspecies of the European one. However, now it's known that our species has 60 chromosomes while the European one has 120. That means that the two populations can't interbreed, so by definition they are separate species no matter how much alike they look. \*(See May 2018 newsletter about speciation).



American Rockbrake



Rockbrake sori

