THE CALYPSO

NEWSLETTER OF THE DOROTHY KING YOUNG CHAPTER
CALIFORNIA NATIVE PLANT SOCIETY

Volume 2025 Apr - Jun

The Rescheduled DKY Annual Potluck

YOU ARE INVITED Please come to our chapter's Annual Potluck lunch.
When: **Sunday April 27th**, noon to 3 p.m. Lunch at noon. Brief business meeting at about 1 p.m. before guest speaker.
Where: Greenwood Community Center in Elk, California. 6129 Hwy 1, go down the driveway that is half a block south of the Elk Store.
Bring a dish to share, utensils, dishes, &your choice of beverage.
Guest Speaker: ***Terra Fuller!***

Topic: *Restoration Progress of Two Northern California Dune Systems by the Natural Resources Program of the Mendocino Sector Sonoma-Mendocino Coast District*

Senior Environmental Scientist Terra Fuller of California State Parks will provide an overview of the Program, focusing on dune restoration efforts in MacKerricher State Park's Inglenook Fen-Ten Mile Dunes Natural Preserve and at Manchester State Park and Preserve.

Fuller, a Senior Environmental Scientist with California State Parks, leads the Natural Resource Program for the Mendocino Sector in the Sonoma-Mendocino Coast. Terra received a B.S. in Natural Resources, Watershed Management and a M.S. in Wildlife Management from Humboldt State and Cal Poly. Prior to State Parks, she worked for various agencies surveying high elevation lakes and mountain streams for amphibians, reptiles, and fish. She also worked for the Department of Fish and Wildlife where she reviewed timber harvest plans, streambed alteration permits, water rights and coastal development permits.

Three Salt Point Wildflower Walks

Upcoming Milo Baker CNPS Chapter-led Salt Point Wildflower Walks

April 27 & May 4 10:30am – 2:30 contact: Ann Howald annhowald@vom.com (preferred) or 707-721-6120. Must pre-register. https://chapters.cnps.org/milobaker/

DKY sponsored Salt Point Wildflower Walk with Karen Wilkinson & friends

June 8 9:30 to about 2:30

We're excited to have Karen Wilkinson lead our chapter's walk. Karen is an educator with the Exploratorium in San Francisco. She travels widely and is always observing and learning about the natural world and encouraging others to join in.

Karen says, "Salt Point is a favorite springtime destination that promises wildflowers in abundance along a spectacularly sculpted stretch of California coast. Join us for an out-and-back hike along the bluff where we'll venture up into a few rock outcroppings (you'll want to wear sturdy shoes or boots).

We're likely to find a dazzling array of color along the bluff, including regular crowd pleasers like Paintbrush, Lupine, and Sea thrift, along with more unusual finds like Brownie thistle, *Cirsium quercetorum*, and two star tulips, *Calochortus tolmiei* and *C. uniflorus*. Among carpets of Meadowfoam, *Limnanthes douglasii*, and Goldfields, *Lasthenia californica*, we might get to see the equally vibrant American Goldfinches snacking on their seeds.

After a few hours focusing on the bluff and rock outcroppings there, we'll break for lunch before heading into the woods east of Hwy 1 to look for perennial favorites found there: Little Pipsissewa (*Chimaphila menziesii*), Labrador Tea, Coast Lilies, Gnome plant, *Hemitomes congestum*, and the fantastical Sugarstick, *Allotropa virgata*."

Meet at Gerstle Cove entrance ($10 parking fee). Rain cancels. No dogs allowed in state parks.
See page 7 for more activities.

President's Column

By Nancy Morin

We have much to look forward to in the next several months. Finally we will have our in-person annual potluck lunch, Sunday, April 27, 2025, at the Greenwood Community Center in Elk. Wonderful Terra Fuller, who has done so much to understand and protect the flora of our coastal State Parks, will talk about the Natural Resources Program of California State Parks. Our state agencies will be more important than ever in the current decimation of all the federal agencies charged with protecting natural resources. We are so privileged to have unique ecosystems in our chapter's area—Inglenook Fen and Ten Mile Dunes, MacKerricher State Park, in the north and Manchester State Park in the south to mention just three. This is an opportunity to learn more about these special areas.

There will be great opportunities to see native plants up close and personal, at the Ford House, now to May 31st, at the Anderson Valley Wildflower Show in Boonville, April 26 and 27, and on wildflower hikes. Our Wildflower Show, which will be Memorial Day Weekend, is always a great way to interact with others who enjoy learning about our local native plants. Local botanists will be on hand to answer questions. We need help for this great annual event—people to collect plants, to help set up and take down, and to help answer questions. Do you have property with native plants growing on it? Our knowledgeable botanists would love to take a look and collect some flowers for the show—we need only a few for each species. Please let me know if you would be willing to help: president@dkycnps.org.

We are sad to say that Natasha Lekach, who did such an outstanding job of organizing the last two plant sales, has had to step away from doing another sale this year. If you would like to help organize, or are able to grow plants, or pick them up from growers, or help with setting up and taking down, please let me know, We'll have an organizational meeting soon. Several people have already been collecting seeds and cuttings and we have folks who could lead a workshop in propagation. This is a terrific way to learn how to grow our local native plants as well as help the chapter. We do two sales each fall, one in Mendocino and one in Gualala, generally in October.

Work obligations have made Rhiannon Korhummel unable to organize field trips this year. Thankfully, Lori Jirak has stepped in to do this. Do you have some neat places on your property or near you that you'd like to have Chapter folks see? Do you have a favorite walk you'd be willing to share? Let us know.

Hoping to see you at an event or wildflower walk this spring!

Annual Wildflower Show

By Susan Wolbarst & Nancy Morin

Coast Life Support District's Bill Platt Training Center meeting room

Saturday, May 24th and Sunday, May 25th
10 a.m. to 4 p.m.

The CNPS DKY chapter will hold its annual Wildflower Show on Saturday, May 24th and Sunday, 25th, from 10 am to 4 pm each day at the Coast Life Support District's Bill Platt Training Center meeting room (38901 Ocean Drive in Gualala, across the street from Redwood Coast Medical Services). There will be dozens of species to see, your wildflower-loving friends to talk with, and great books and posters for sale. Great parking, lovely views there from the top of the hill.

Photo Nancy Morin

Volunteers are needed to set up the show on Friday, May 23rd after 2 pm and to tear down the show after 4 pm on May 25th, as well as gather wildflowers and label them with appropriate identification cards. During the show, volunteers are needed to answer questions about wildflowers and membership in CNPS. Please contact Nancy Morin, President@dkycnps.org, if you can help.

Remove These Invasive Plants While the Ground is Still Wet!

This is the perfect time to eradicate these ubiquitous invasives (and others): Broom (*Cytisus scoparius & Genista monspesullana)*, gorse (*Ulex europaeus)*, jubata grass, aka purple pampas grass (*Cortaderia jubata*), and other invasive species. Be sure to remove all of the stems, and the roots. Broom and gorse will re-sprout from any left behind, making it harder to remove in the future. Discard, including any seed heads. For more information plant photos, and removal techniques visit the California Invasive Plant Council's website https://www.cal-ipc.org/plants/

French Broom: *Genista monspesullana* photo Katy Pye

Spotlight on the First Garcia River Estuary Monitoring Report's Coverage and Omissions on Rare Plants and Invasive Vegetation **Part 2** (see part 1 in the Oct-Dec 2024 issue of *Calypso*)

Text and photos by Peter Baye, CNPS-DKY Conservation Chair

WHAT IS THE GARCIA RIVER ESTUARY SALMONID HABITAT ENHANCEMENT PROJECT?

The salmonid habitat enhancement project was constructed in the channel bed and banks, tidal marsh, and floodplains within the Point Arena-Stornetta unit of the California National Monument Lands managed by the federal Bureau of Land Management. It consisted mostly of large, fixed bolted wood structures deeply embedded in the channel, banks, and marsh island and gravel bar heads and flanks, most reaching well above the highest flood levels. The project also installed some shallow ponds and channels in the high tidal floodplain marsh. Extensive wood revetments covered former marsh and gravel island banks, and "engineered log jams" many times larger than natural ones capped their heads. Some pioneer gravelly marsh islands were filled and raised high with excavated sediment.

The salmonid habitat "enhancement" project proposed by The Nature Conservancy copied conventional engineered large wood designs from non-tidal, freshwater stream projects aimed primarily at wintering habitat, but applied to a fully tidal estuary. This approach was used three decades ago in the lagoon of the Mattole River by practitioners who worked primarily in non-tidal freshwater stream and riparian habitats. The Garcia project did not claim to be "nature-based" estuary habitat restoration for salmonids. Salmonid refuge and rearing habitats in riverine North Coast and Pacific Northwest estuaries are primarily tidal brackish to freshwater marsh sloughs, marsh plains, ponds, aquatic vegetation – all providing lots of thick perennial vegetation cover, shelter, and food. As research in Oregon estuaries has shown, large wood habitat in tidal marsh occurs overwhelmingly above Mean High Water, and is seldom trapped or aggregated naturally in channels for long, unlike freshwater streams in forests.

As of fall, 2024 the first CEQA-exempted habitat restoration project in California, Garcia River Estuary Salmonid Habitat Enhancement Project's first monitoring, performance and ecological objectives report remained uncirculated online. Given no online reference to the mandatory, permit-required monitoring report, I contacted the state lead permit agency, the North Coast Regional Water Quality Board to track it down. The lead RWQCB staff promptly provided the monitoring report and supporting documents.

From a CNPS:DKY conservation perspective, it was important to evaluate that this first project for the new "Cutting the Green Tape" initiative (eliminating CEQA procedures for any qualifying "habitat restoration" project) addressed observed project impacts to rare plants, sensitive native vegetation, invasive non-native vegetation, and marsh erosion. While not addressed in the project plan, these impacts were evident in the field from two years of independent reconnaissance surveys by kayak and on foot.

A summary of the monitoring report shows limited findings and especially surprising omissions of data normally required by CEQA and rare plant monitoring guidelines by CDFW and CNPS. Impacts to wetlands and rare plants would be mandatory subjects of any CEQA-required monitoring report, whether a habitat project or for development. I focused my first monitoring report review on the fate of two special-status rare plants and tidal marsh plant communities impacted by project grading, filling and installation of extensive permanent log structures in wetlands.

Rare plant impacts were only documented in an appendix, not in the main report. Humboldt Bay owl's-clover, *Castilleja ambigua* subsp. *humboldtiensis*, Lyngbye's sedge, *Carex lyngbyei*, and shining angelica or sea-watch, *Angelica lucida* were assessed by reporting simple census counts and descriptions through 2023.

Humboldt Bay owl's clover, *Castilleja ambigua* subsp. *humboldtiensis*

The monitoring report appendix disclosed that no Humboldt Bay owl's-clover recolonized within the project area, despite mitigation measures for protection and re-seeding with salvaged seed. The authors concluded, without ecological explanation, that the absence of this rare annual plant was probably due to high scouring river flows. It did not assess the obvious direct project impacts on the population, which included gravel fill and excavation of its occupied habitat. It also failed to account for the project's indirect effect on erosion of marsh banks, caused by the intentional erosional scour design of the project log structures to form deeper juvenile salmonid pool habitat.

The report's conclusion that local extinction was due to a natural flood event was inconsistent with the persistence of this rare plant population through past high, and even larger, river flood events. Even more extreme high streamflows also occurred in 2019, but were followed by years of a booming, multi-year exponential

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DKY Conservation Update, cont'd from page 3

population increase of the rare owl's-clover in the high marsh and the pioneer marsh of intertidal gravel bars.

Studies on the ecology of seed banks of many tidal marsh plants indicate they are often stored in marsh upper sediment layers, especially where channels flow over marsh channel banks and natural levees, and are later released and dispersed by bank erosion. Unaddressed in the monitoring report were the potential significant indirect effects of engineered log jam structures on seed-dependent, annual rare plant seed bank resilience in marsh banks. Log structures had the stated design function to induce erosional scour for salmonid pool habitat at marsh bar heads. These structures also trigger dramatically accelerated marsh bank erosion downstream, accelerating marsh erosion and depleting stored, rare plant seed banks. Log armoring also acts as bank stabilization for fringing marsh, which can prevent release of seed banks and dispersal to new habitat.

Essentially, all relevant marsh plant ecology related to this species was omitted in the monitoring report. This omission is important because normal CEQA evaluation process requires accounting for indirect as much as direct significant impacts to rare plants and their habitats, in assessment, mitigation, and monitoring. The monitoring report's explanation for failing to meet minimum conservation objectives for Humboldt Bay owl's-clover is ecologically unsound and inadequate.

The rare annual population showed no signs of recovery after the monitoring report was prepared. In 2024, I detected no owl's-clover in the project area or formerly occupied, erosional marsh banks downstream of the project site. I found only one apparently new, small colony on an unstable marshy, young gravel bar near the tidal inlet. The future of the population, if they in fact remain, will depend on recruitment from remaining dormant seed banks in tidal marsh that has not already eroded.

Lyngbye's sedge, *Carex lyngbyei*

The monitoring report's assessment focused on the total area directly occupied within the project's direct impact footprint area before and after the project, but not sedge bank habitat downstream where erosional marsh bank failure has apparently intensified in scale and rate. The assessment also did not include any ecologically meaningful measurement of sedge vegetation structure - density, cover, height – or rate of vegetative spread. It just estimated the area at least somewhat occupied by the species. This crude metric does not meet standards for rare plant monitoring guidelines by CNPS or CDFW.

The omission of any assessment of indirect downstream erosional impacts, or the length of marsh bank sedge habitat permanently converted to artificial wood revetments, fails to provide equivalence for CEQA monitoring standards. The monitoring report provided no before-and-after comparison of fish use of the thick, persistent fringing sedge marsh and the native submerged aquatic vegetation beds of *Ruppia cirrhosa* below it. In the Pacific Northwest, Lyngbye's sedge marshes of slough banks provide important feeding and shelter habitat for juvenile salmonids.

Sea-watch, *Angelica lucida*

For the southernmost population of sea-watch, *Angelica lucida*, the monitoring report stated that 10 plants were impacted, thus were salvaged and replanted at wetland edges as mitigation. As for monitoring, "Individual plantings were not tracked individually", qualitatively observing their presence in 2023 immediately adjacent to the affected areas, and "appeared robust. The population appears stable relative to 2022." This crude, cursory assessment makes no reference to indirect effects from dramatically increased marsh bank erosion downstream of engineered wood structures, where some *A. lucida* populations occur. CEQA monitoring, in contrast, requires accounting for direct, indirect, and cumulative effects on rare plants, not just direct impacts and compensatory mitigation.

Invasive non-native vegetation and island conversion to non-wetland habitat

The monitoring report failed to disclose impacts of filling brackish marsh gravel bars and converting them to weedy upland floodplain mounds behind logjam structures. These lost wetland gravel bars had been dotted with pioneer brackish marsh plants like hairgrass, *Deschampsia cespitosa*, sea-plantain, *Plantago maritima*, coast or springbank clover, *Trifolium wormskioldii*, and also the rare Humboldt bay owl's clover. Where the bars were filled with coarse alluvium above the high tide line, they rapidly converted to weedy masses of non-native pasture grasses, ox-eye daisy, Harding grass, bristly ox-tongue, and bull thistle – common in the adjacent cow pastures. Converting intertidal wetland into weedy uplands is a significant CEQA impact that would be mandatory for a compliant monitoring plan.

Estuarine ecology: fair trade-offs for plant impacts?

What about the overall estuarine ecological enhancement objectives of the project, to put plant impacts in context, or offset them? One of the primary stated objectives of the project was to "provide high-flow refugia, winter rearing habitat, and rich feeding areas for juvenile salmonids and California red-legged frogs in the middle estuary." The monitoring report provided no survey data or even qualitative observations about federally and state-listed red-legged frogs. It focused only on salmonid surveys and project structural performance.

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Even for salmonids ecological assessment, the monitoring report provided zero data on the habitat effects of the oversize log structures on frequency of fish predator use as perches for cormorants, kingfishers, and ospreys, preying on juvenile salmonids. These predators are now generally present all year on the structures. The effect of the log structures and excavated deep alcoves on trapping and retaining massive drifting masses of estuarine algae was not identified nor discussed in the report. Pre-project, emergent flooded marsh filtered floating algae out of alcoves where small fish could forage. After "enhancement" removed marsh, floating algal mats jammed the alcoves in summer, where they decompose, form sulfidic, oxygen-depleted aquatic habitats, suitable for gobies but hostile to juvenile salmonids.

Did endangered juvenile salmonid populations actually benefit as a whole as a result of the project? The report's sampling design precludes this analysis, because juvenile surveys were limited only to the project's bank structures, and do not include the natural sloughs and marsh banks of the estuary, pre- or post-project, which are difficult to survey by snorkel and seine methods, and require advanced technical methods to track tagged salmonid movements.

The erosional susceptibility of marsh banks to added stress, after years of weakening by years of drought and high salinity that degrade root strength, were not assessed. No pre-project and post-project measurements of marsh bank erosion were included in the monitoring program. Similarly, the unprecedented mass slope failure of ancient native coastal bluff vegetation directly downstream of the channel flow "deflection" wood structure was not assessed for potential contribution to direct or indirect destabilization by amplified height or velocity of deflected flood discharges.

Conclusions

The CEQA-exempt Garcia Estuary monitoring report was clearly deficient in its assessment of rare plant habitat and population changes from pre-project to post-project conditions, and assessment of direct and indirect project impacts after mitigation. The standards of CNPS and CDFW rare plant monitoring guidelines were simply not cited nor applied in equivalent form. The omissions of the monitoring report with respect to indirect impacts of the project on rare plants and sensitive wetland and other coastal vegetation overlooked or breezily dismissed, without explanation, many potential significant impacts, including local extirpation of a rare plant.

- The obvious: Monitoring plans for CEQA-exempted ecological restoration projects should comply with CDFW and CNPS guidelines for rare plant and vegetation monitoring.
- Ecological restoration, regardless of good intentions, can have complex and often off-target or unexpected outcomes, depending on how well the ecosystem is understood, and how well project designs interact with unpredictable climate events or pre-project conditions in flux.
- CEQA exemptions for habitat restoration should be limited to low-risk projects or highly degraded to collapsing ecosystems where the cardinal rule of "do no harm" can be confidently applied.
- Sensitive, complex ecosystems like the Garcia River Estuary that would normally require EIRs for engineering projects in endangered multi-species habitats should be excluded from blanket CEQA exemptions.
- Single-species focused "habitat enhancement" projects based on design analogies with other ecosystems rarely work as intended, especially when interdisciplinary scientific review is limited to target species.
- Rigorous interdisciplinary expert scientific review, not centered narrowly on a few focal species, should be required for ecological restoration projects in complex, sensitive ecosystems.

Ecological monitoring is not just a narrow project performance report card or checklist. Without basic assessment of direct, indirect, and cumulative ecological effects on essential components of the estuary affected by the project, it cannot provide resource agencies or the public a meaningful account of the project's success or impacts. Will CDFW reform its Statutory Exemption for Restoration Projects to avoid these preventable pitfalls?

BEFORE project: *Left* - Gravel bar before "restoration"supported brackish marshand rare *Castilleja ambigua* ssp. *humboldtiensis* now, it appears, extinct at the site.

AFTER project: *Right* - The gravel bar that formerly supported brackish marsh and the rare *Castillejs ambigua* and other native plants, was filled, turning it into an upland habitat of competitive, weedy species.

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BEFORE: This natural pre-project alcove was dominated by native brackish marsh with *Carex lyngbyei,* which naturally filtered out floating algal mats.

AFTER "restoration," the alcove brackish marsh was excavated to deeper water with no marsh to filter out floating algae, which fills it in summer. Marsh banks were replaced by log crib walls holding up the weedy upland gravel fill on the bar.

BEFORE: Pre-project '21. Lush healthy *Carex lyngbyei*, a rare sedge, stabilized the south bank ofthe project area, above a zone of native submerged vegetation.

AFTER: Former healthy, lush *Carex lyngbyei* fringing marsh and submerged aquatic vegetation bed were excavated and replaced with artificial log bank structures.

AFTER: Downstream of project's log structures, installed at the head of a marsh island, marsh bank erosion accelerated and intensified, causing loss of both native wetlands and project fill. Marsh erosion was not monitored in the project design nor report.

AFTER: Log structures designed to provide refuge for salmonids also attract salmonid fish predators: cormorants, kingfishers, osprey, and bald eagle. These also predate other animal species. Avian fish predator activity was not monitored before or after the project.

BEFORE: Humboldt Bay owl's clover *Castilleja ambigua* ssp. *humboldtiensis,* colonized the project area before site preparation and project implementation.

AFTER: Despite attempts at recolonization with seed collected pre-project from the site, *Castilleja ambigua* ssp. *humboldtiensis* failed to remain or return. It is considered extinct in the area.

Upcoming Events: a Plant Sale, Other Wildflower shows and Walks, the Byrophyte Foray, and Jepson Lichen Course

April 25 & 26: ***Mendocino College Plant Sale*** (Ukiah Campus) 9-3 both days.

April 1 to May 31st: ***MendoParks Ford House Annual Wildflower Display*** (Mendocino) 11-4 daily

May 3 and 4th: ***Anderson Valley Wildflower Show*** (Boonville at the Fairgrounds) 5/3 and 5/4 10 -5

Upcoming Walks

Always dress for the weather. Longer walks, bring snacks, lunch, water, hat, sunscreen; hiking boots often best. Walking poles for non-level terrain or if you use generally use them. Consider bringing cell phone or camera, loupe, nature journal or binoculars, to further enhance your experience.

Cirsium quercetorum, Brownie thistle, a lovely, low bloomer along the coast. Look down so you don't miss it! Photo: Karen Wilkinson

Salt Point State Park - Milo Baker CNPS chapter's Stump Beach Spring Wildflower Walks

April 27 & May 4 10:30am – abt. 2:30pm Must pre-register. https://chapters.cnps.org/milobaker/

Point Cabrillo Lightstation State Historic Park with nature author and DKY Vice President, Katy Pye

June 1st 11- about 12:30 45300 Lighthouse Road Mendocino Come learn about native coastal prairie and coastal scrub plant species along with some of their pollinators with Mendocino Coast.

Less than a mile of easy walking on flat, but narrow trails. Meet at the front door of the lighthouse at 11am. Arrive early to make the half mile walk downhill from the parking lot to the lighthouse.

Salt Point State Park - Stump Beach Spring Wildflower Walk with Karen Wilkinson (see page 1 for details)

June 8 9:30 to about 2:30. Meet at Gerstle Cove entrance

Manchester State Park South, a walk to the Garcia River Estuary, with DKY Conservation Chair, Peter Baye

July 19 11:00 to about 3:00

Meet at Stoneboro Road parking lot at the trailhead.

Per Peter: "Walk themes: multi-year trends of native foredune & beach vegetation regeneration, including north coast pink sand verbena and beach wildrye/"American" dunegrass (misnomer), beach saltbush. Isolated range-limit population of California saltbush; dune tansy, gravel bar pioneer salt marsh, and hopefully some Humboldt Bay owl's clover. Bald eagles a bonus."

29th So Be Free - Bryophyte Foray
May 30 to June 2
Mattole River

West Coast forays started in 1966 by the Bryolab at UC Berkeley. The main focus is on bryophytes, but we also encourage experts on other groups to come along and smell the liverworts. We welcome specialists and generalists, professionals and amateurs, master bryologists and rank beginners.

Accommodations: the Mattole Camp and Retreat Center: https://mattolecamp.com/, along the Mattole River between Honeydew and Petrolia. Field trip details will be emailed in the days leading up to the conference and available on paper after you arrive.

Check-in on Friday starts at 4:00 p.m.; dinner and an evening presentation. Saturday and Sunday: field site excursions, time for socializing and microscope study in the evenings. Monday morning, breakfast, with check-out and departure.

For full information and to register, visit:

https://chapters.cnps.org/bryophyte/wp-content/uploads/sites/24/2024/08/SO-BE-FREE-29.pdf

Lichens of Mendocino – Jepson Workshop Series

Instructors: Klara Scharnagl and Teresa Sholars

Mendocino Community College, Mendocino Campus

https://ucjeps.berkeley.edu/workshops/
Scroll down the website list to find workshop details and the link to enroll.

Friday May 16 noon to noon Sunday May 18.
In class lectures and field trips.

Lichens are cryptic yet charismatic symbiotic organisms that can be found growing on the surfaces of rocks, trees, and even on the ground. Lichens are particularly abundant and diverse in fog-fed coastal habitats such as in Mendocino, California. This three-day workshop will introduce you to "What is a lichen?"; "Characteristics used to identify lichens"; and "Common Lichen Species in Mendocino."

Remembering Sonya Popow by Julia Larke

I knew Sonya Popow through mutual interest in native plants, in gardening, and in reading and discussing books of all sorts. She was knowledgeable about the local flora and especially focused on native species occurring in the redwood forest and forest edge habitat on her property. She participated in DKY Chapter events and volunteered for many years at the chapter's Fort Bragg Fall Plant Sales. In her garden were many native plants she tended with a green thumb.

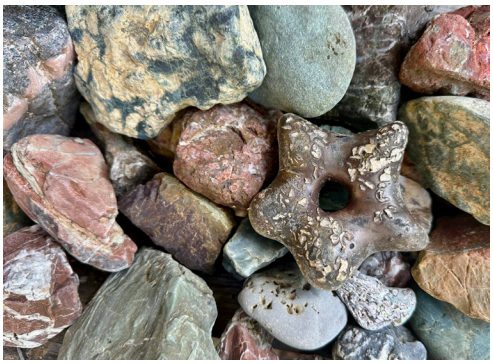
This photo shows Sonya with a famous grand fir, *Abies grandis*, known as the Octopus Tree. It was a favorite photo taken by Jim Gibson on a 2018 field trip to Cape Vizcaino that was organized by Rhiannon Korhummel.

I also knew Sonya as a studio potter and sculptor. For over sixty years she, "had her hands in clay", a phrase she used that describes her lifelong affair with everything to do with clay: making it, experimenting with glazes, building and firing kilns…always developing her skills as an artist in clay. Her interest and awareness of nature is reflected in many of her sculpture pieces, large and small. She is one of the artists featured in Larry Wagner's book, Artists of the Mendocino Coast, Volume 2, 2008. It is available at the Fort Bragg Library.

Sonya in her garden with one of her kilns

The lovely pot is an example of Sonya Popow ceramic art. Every year in the winter holidays she had an Open Studio weekend sale of her current work that was especially popular with her friends and neighbors.

Sonya was concerned that her beloved redwood grove might be logged and to protect it she donated her property as a legacy to the Mendocino Land Trust. I'm glad to have known her and will miss exploring the woods with her and sitting in her garden having tea discussing plants and books.



One year Sonya made hundreds of small sculptures, a series that began as a symbolic Buddhist 'mala' of 108 prayer beads (note the star shape among the rocks). Her beads are palm-sized!

Memorial

A Potluck and Silent Auction will be held as a memorial for Sonya at the Caspar Community Center on May 4, 12-4 pm.

https://casparcommons.org/calendar/index.php#May4

Obituary

• The Fort Bragg Advocate News published a very nice obituary with many interesting details of Sonya's life:

https://www.advocate-news.com/obituaries/sonya-kaye-popow-fort-bragg-ca/

Art Show

• Saturday, April 12 thru Sunday, May 4. Mendocino Arts Center exhibit will include some of Sonya's ceramic art.

CNPS DKY Botanical Gems

By Peter Baye

Veratrum fimbriatum A. Gray

FRINGED CORN-LILY, FRINGED FALSE HELLEBORE

Of all the rare plants that are endemic to CNPS DKY territory, the distribution of fringed corn-lily (*Veratrum fimbriatum*), one of our largest and most spectacular wetland wildflowers, almost delineates our traditional geographic boundaries. The conspicuous and distinctive, almost exotic-looking fringed corn-lily can be mistaken for no other plant in our region. The name corn-lily is indeed suggested by the tall, stout green stem (up to 6 ft.) and large, wide ovate or elliptic lower leaves that narrow to lance-shaped towards the apex. The distinctly pleated, ridged sheathing leaves, and huge panicles of fall-blooming lacy, fringed, 6-parted, white flowers, instantly distinguish it at a glance from any other plant in our local flora.

Veratrum fimbriatum is a very slow-growing perennial wetland plant. It is as highly poisonous as it is valued for its pharmacological properties, like other species in the genus. Much of what is known about the growth and reproduction of *Veratrum* species, including our endemic *V. fimbriatum*, was developed by decades of research on cultivation for extraction of its distinctive steroidal alkaloids that affect heart function and blood circulation. The phytochemistry of *Veratrum* species is well-studied because its alkaloids can induce bradycardia (slow heartbeat) and hypotension (low blood pressure) to helpful or to lethal levels. Acute lethal poisoning can occur by ingesting small amounts of *Veratrum* tissue. No doubt ranchers on our coast regarded rare *Veratrum fimbriatum* as a noxious weed in wetland swales that otherwise provided attractive green forage to livestock in summer. The cure for *Veratrum* poisoning, ironically, is atropine – the poison from *Solanum*, *Atropa*, and *Datura* species.

The growth and reproduction traits of *Veratrum fimbriatum* are key to understanding its natural rarity and distribution. Most populations are primarily small old clones regenerating vegetatively from thick, black rhizomes; the Latinized genus name means "true black". The rhizomes are very slow-growing, adapted for local persistence rather than rapid spread. Seed reproduction is highly constrained by the fleshy, watery, succulent seeds that cannot tolerate drying, and must disperse in water or wet soil. Seeds look more like small bulbils, or "viviparous" seeds like those of some garlic and onion cultivars. They can germinate green in less than a few hours, but tolerate very little burial by marsh sediment or detritus. Long-distance dispersal was probably long abandoned in the evolution of this species, in favor of persistence and slow growth, like redwood saplings.

The wetland habitat range of *Veratrum fimbriatum* is actually much wider than descriptions in any single flora. Its habitat type was originally described by W.L. Jepson as "bogs and springs of the Mendocino White Plains west of the redwood belt", which is accurate, but not complete. It occupies a diverse range of wetlands within or close to the marine terraces from the vicinity of Fort Ross, Sonoma County, to the vicinity of Inglenook north of Fort Bragg, Mendocino County. Mature colonies also grow in seasonally flooded dark redwood swamps of the lower Gualala River, forested seasonal wetlands, sag ponds and forested swales, wet coastal prairie and creeks, roadside ditches, in deep shade to partial sun. Seedling habitats are not well known, but are very likely more dependent on shade and constant moisture than adult habitats.

Veratrum fimbriatum propagation is feasible, and is actually well-studied because of its pharmacological research history. The fleshy seeds can be collected fresh and fleshy from the capsules that are green at maturity. Seedlings can be propagated by wetting and chilling the seed, and sowing with a thin, light, loose cover of constantly wet fine sand or peat. Rhizome propagation can be damaging to the parent plant, and should generally be avoided. Successful cultivation requires permanently wet, saturated, or very moist soil in at least partial shade. Prepare for at least a decade or more of slow growth to flowering size, like growing a forest tree from seed. Or, better yet, hunt out, visit and appreciate old, established, obscure wild colonies of *V. fimbriatum* while they are in flower in public parks with wetlands on the Mendonoma Coast.

Environmental Partnership Potluck Highlights

By Nancy Morin

Nicolet Houtz, Director of Stewardship at Mendocino Land Trust, received the Matt Coleman Environmental Service of the Year award for her excellent work over the past 10 years in Mendocino. Conrad Kramer, Executive Director of MLT, presented the award. He noted that MLT has now protected over 50,000 acres of land in Mendocino County, with 20 access sites.

The 2025 Environmental Partners meeting and potluck was held at Mendocino High School in Mendocino March 22; more than 50 people attended. Representatives from each Partner reported on activities of their organization.

Among other projects, Sid Garza-Hillman, executive director of Mendocino Parks, said MendoParks had Whale Festival events, hikes, and has been collaborating with a local writers' group.

Molly Barker, Executive Director or the Mendocino Coast Botanical Gardens noted that their vegetable garden produces 7—8 thousand pounds of produce the Food Bank each year. The Gardens welcome 80,000—100,000 visitors each year who are encouraged to connect with nature through observation. "Come for the flowers, leave with a little bit of earth" is their new watchword. Molly introduced Sarah DeAngelo, Administrative Coordinator, to talk about the "Sprouts" program for kids; participants receive a backpack with fun and informative information.

Nancy Morin, DKY Chapter president, said that our chapter tends to provide expertise about the plants and plant communities of our area. She also announced the upcoming annual potluck and wildflower show. Erica Fielding, new Executive Director of Jug Handle Farm park and nature reserve said they were working on plant propagation programs and Pomo programs and camps. Tim Bray said that the Mendocino Coast Audubon Society continued its bird walks at MCBG and seabird trips. They have a scholarship program with Mendocino College.

Lorrie Lagasse, Board member of the Pacific Environmental Education Center, said they were creating future stewards in 3—8th graders and have programs at MacKerricher sand dunes and tide pools as well as Jughandle Farm trips. Speaking for the Noyo Center for Marine Science, Sarah Grimes said that over 100 volunteers and 90 interns working with them.

DOROTHY KING YOUNG CHAPTER OFFICERS 2025

Please use Contact form to reach officers or committee chairs:
https://dkycnps.org/dkycontact.html

PRESIDENT: Nancy Morin,

VICE PRESIDENT: Katy Pye

SECRETARY: OPEN Katy Pye (temp)

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MEMBERSHIP APPLICATION — DOROTHY KING YOUNG CHAPTER

Membership in the California Native Plant Society is open to all. The tasks and mission of the Society are to increase awareness, understanding, and appreciation of California native plants. The challenge is to preserve their natural habitat through scientific, educational, and conservation activities. Membership includes subscriptions to CNPS *Flora* and *Artemisia*, plus our chapter's newsletter, *The Calypso*.

Name_____
Address _____
City_____ Zip _____
Tel. _____ Email _____

Please choose the chapter you wish to join; CNPS will make the assignment if none is specified by applicant.

I wish to affiliate with the DKY Chapter _____
or, other chapter_____

MEMBERSHIP CATEGORY

Student/Fixed Income	$25
Individual	$50
Plant Lover	$120
Supporter	$500
Patron	$1,000
Benefactor	$2,500

Make check to: California Native Plant Society & mail to:
Bob Rutemoeller, Membership DKY Chapter, CNPS PO Box 577 Gualala, CA 95445.

Next Board Meeting: information: contact the President. All members are welcome to attend Board meetings. Calypso newsletter: please send items to the President. If you want to receive the snail mail version of the newsletter, contact Membership via the online form or Bob Rutemoeller bobrutem@gmail.com. (707)884-4426 View issues of *Calypso* at www.dkycnps.org