

CALIFORNIA NATIVE PLANT SOCIETY MARIN CHAPTER

October 2023 Newsletter



Baccharis pilularis - coyote brush, seed heads dispersing at Limantour Beach PRNS photo by Ann Elliott

Marin Chapter October 2023 Meeting

"Wildscaping for Songbirds"

Guest Speaker: **Veronica Bowers**

Monday, October 9 @ 7:30 pm

Your garden is your outdoor sanctuary. With some careful plant choices, it can be a haven for native birds as well. Landscaped with native species, your yard, patio, or balcony becomes a vital recharge station for migratory birds passing through and a sanctuary for nesting and overwintering birds.

Each patch of restored native habitat is just that – a patch in the frayed fabric of the ecosystem in which it lies. By landscaping, or wildscaping, with native plants, we can turn a patchwork of green spaces into a quilt of restored habitat. More native plants mean more choices of food and shelter for native birds, native pollinators and other wildlife.

"Wildscaping for Songbirds" will demonstrate the importance of restoring nature in our communities, one garden patch at a time. From a birds-eye view, learn how to create wildlife-friendly gardens that help combat the loss of open spaces and create green corridors that link your wildscape to larger natural areas by providing habitat for songbirds and supporting biodiversity.



Songbird Sanctuary
Photo by Veronica Bowers





Veronica Bowers is the Director and Founder of [Native Songbird Care and Conservation](#) Located in Sebastopol, California, NSCC is a state and federally permitted wildlife rehabilitation facility devoted exclusively to the care of native passerines. Native Songbird Care & Conservation cares for approximately 1,000 songbirds each year.

Veronica has a passion for songbirds and has been working exclusively with this diverse and challenging group of wildlife since 1999. Veronica became an accidental gardener nearly 18 years ago when she began learning about the vital connection between our native plants and native songbirds. Since then she has fallen in love with native plants and has created the Songbird

Sanctuary Gardens on the grounds of Native Songbird Care & Conservation. The gardens include 1.5 acres of songbird habitat comprised mostly of native plants and support over 70 species of songbirds throughout the year.

[Register for this Zoom meeting here.](#)

Marin Chapter Field Trips

Field Trip Guidelines:

- **Email Susan Schlosser** scschlosser52@gmail.com to sign up for a field trip, as participants are limited.
- **Electronically sign** the CNPS Liability waiver for the trip (Susan will provide the link.)

North-Facing Slopes of Mt. Tamalpais

Saturday, **October 21, 2023** - 10 am to 2 pm

Leaders: **Susan Schlosser and Bonnie Gosliner**

This field trip is on the “other side of the mountain,” a north facing slope of Mt. Tamalpais. We’ll make a loop along the Deer Park Trail, the Worn Springs Fire Road, Yolanda Trail, Six Points Trail, and Deer Park Fire Road. This route is about 3 miles with approximately a 600-foot gain in the first mile or so. The route follows moderately difficult, single-track trails except the easy return along the Deer Park Fire Road.

We’ll see views of the north slopes of Mt. Tam, late season wildflowers, fruits, nuts, and berries. Habitats along the way include grasslands, oak, buckeye, and bay forests. Deciduous shrubs and trees may add some fall color. Among the wild flowers we may see are Kellogg’s Yampa (*Perideridia kelloggii*), large flowered twiggy wreath (*Stephanomeria virgata* ssp. *pleurocarpa*), and yellow hayfield tarplant (*Hemizonia congesta* ssp. *lutescens*). Shrubs with berries or flowers may include coyote brush (*Baccharis pilularis* var. *consanguinea*), California honeysuckle (*Lonicera hispidula*), and snowberry (*Symphoricarpos mollis* and *S. albus* var. *laevigatus*).

Directions: We meet at the Deer Park School at the end of Porteus Road in Fairfax. From downtown Fairfax, take the Fairfax-Bolinas Road until it starts uphill. Go left on Porteus Road until the end. There is a parking lot at the school.



Symphoricarpos mollis - creeping snowberry
Photo copyright National Park Service



Hemizonia congesta ssp. *lutescens*
yellow hayfield tarplant, north of Mt. Tamalpais
Photo by Bruce Homer-Smith



Our Fall 2023 Native Plant Sale

It's almost here - the best planting time in the calendar year! We have an amazing array of beautiful plants for our October sale.

- Online ordering opens: Thursday, **October 12 at 6 pm**
- Online ordering closes: Monday, **October 16 at 6 pm**

Customers can collect their prepaid orders on Saturday, **October 21** at Bon Air Shopping Center from 10:30 am to 1:00 pm.

We will have the hard-to-get white-flowered form of two well-known plants:

- *Ceanothus rigidus* 'Snowball' (White Monterey Lilac): low form, gets wider than it is tall, smothered in white blooms in late winter
- *Ribes sanguinum* var. *glutinsum*, white form (White-flowered Currant); to about 7 ft., likes part shade, spring blooms

Items we are offering for the first time:

- *Cercis occidentalis* (Western Redbud): this does better when it has cold winters and hot summers, not near the coast.
- *Cornus sericea* (Creek or Red Osier Dogwood); known for its bright red stems. Takes any exposure but will spread if it has moisture year round.
- *Arctostaphylos* 'John Dourley' (John Dourley manzanita); stays under 3 feet, makes a great understory plant
- *Dudleya* Frank Reinelt (bluff lettuce); a beautiful native succulent with silver leaves that blush rose-purple with winter chill
- *Penstemon palmeri* (Parry's Penstemon); tall with pink flowers, likes it hot and dry
- *Penstemon spectabilis* (Showy Penstemon); blue to lilac to pink tubular flowers, likes it hot and dry

Two new choices that you really need if you have a habitat garden:

- *Euthamia occidentalis* (Western Goldentop): An upright perennial to about 4 feet with yellow-orange clusters of flowers that turn into tan puffballs when in seed. Tough as nails. Full sun but likes some irrigation. Butterflies love it.
- *Grindelia camporum* (Central Valley Gumplant): Gumplant puts out bright yellow blooms from spring to fall which the bees love. This variety is from the Central Valley which means it takes full sun and very low water. When other things have gone to seed, this



Euthamia occidentalis - western goldenrod
Photo by Native Here Nursery

[Plant Sale page.](#)

CNPS Marin Board - Call for Nominations and Chapter Election

Our December membership meetings are also official annual meetings during which our members vote on a slate of officers for the Marin Chapter Board of Directors. We have space on the Board for more members. Help us plan celebrations for the Chapters 50th anniversary year - 2024.

If you are interested in serving, please contact Kristin at 650-608-1274 or akristinjakob@gmail.com before Nov 25.

The tentative proposed slate for 2024 is:

Co-President: David Long

Co-President: Kristin Jakob

Vice-President: Open

Treasurer: Kate Wing

Recording Secretary: Woody Elliott

Directors:

Eva Buxton

Harriet Casserly

Paul da Silva

Bayley Elenzweig

Ann Elliott

Carolyn Longstreth

Laura Lovett

Eddie Robertson



Sambucus Mexicana - blue elderberries in Indian Valley OSP
Photo by Stacey Pogorzelski

Native Plant Gardening Group

Mary Kyle opened her home last week to members of the Marin Gardening Group for a Seed Sharing event. About 24 members and friends came with all kinds of native seeds, a few plants, and tips on how to get them started

We enjoyed wine and cheese in the garden. Laura updated everyone on upcoming events and volunteer positions with CNPS. Folks took home all sorts of new species to try in their gardens. It was a pleasure to meet in person for a change. We look forward to hearing about everyone's results come spring. If you would like to join the Marin Gardening Group, please answer this [short survey](#).



Garden group participants choose seeds from a wide array collected and brought by other members.
Photo by Rob Badger

Hard Life in a Saltmarsh

Saltwater and Plants

“Would you consider watering your garden and house plants with saltwater? If not, why not?” I asked a group of my friends those questions.

They all said, “No, it would kill the plants!”

“But then, have you ever stood next to a saltmarsh with acres and acres of a 100-percent vegetative cover?”

Why do we seem to know instinctively that saltwater would kill our garden and house plants, yet saltmarsh plants thrive in a saltwater habitat? Is it because we have a vague recollection of the high school or college lecture about the process called osmosis? In simple terms, osmosis involves the movement of molecules (salts, water) from a region of higher concentration to one with lower concentration until the concentrations become equal on either side of a semi-permeable membrane (in the case of plants, the cell wall).

The reason our garden and house plants would die if watered with saltwater is that water inside the cells of the plant would flow out of the cells to equalize the concentration on the outside, i.e., the saltwater side. Because the saltwater is saltier than the inside of the cell, a process called plasmolysis (the shriveling up of the cells) would occur. When this happens, our garden and house plants will wilt and eventually die. Conversely, if the salt concentration is greater on the inside of the cell and we water with tap water (without many salts), water will flow into the plant cells and our plants are “happy” as the cells become turgid (swollen).

Some plants are adapted to living in an environment that is high in salt content. Called halophytes, these plants live along the seashore or in salt flats and saltmarshes.

Bothin Marsh

Bothin Marsh is a tidal, coastal saltmarsh located between uplands and an estuary with brackish water. Adjacent to Richardson Bay (part of San Francisco Bay), Bothin Marsh is regularly flooded by tides. On September 5 this year, a day of very high (6 ft) and very low (0.5 ft) tides, I noticed that the entire marsh was a lake at 3 pm. Then at 9 pm, it was completely drained; even the several natural channels found in the marsh had exposed mud bottoms. It was truly amazing to see the landscape change in six hours!

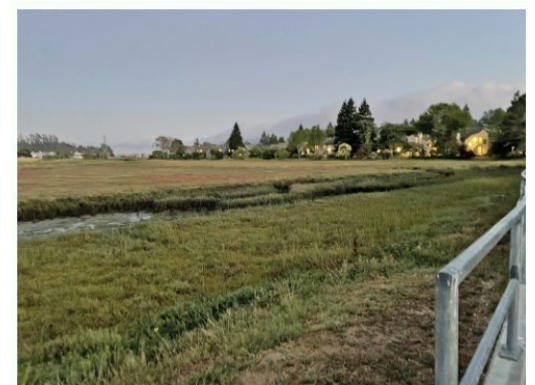
Bothin Marsh is dominated by dense stands of halophytes. These saltmarsh plants play important roles in the aquatic food web of the marsh and also support some terrestrial animals. Since moving from the Tiburon Peninsula with its large areas of “inhospitable” serpentine outcrops and soils and now living next to Bothin Marsh in Mill Valley, I am constantly amazed of the many ways that plants cope with harsh conditions of one kind or another.



Grindelia stricta - marsh gumplant
Photo by Neal Kramer



6ft High Tide at Bothin Marsh - Photo by Eva Buxton



0.5ft Low Tide at Bothin Marsh - Photo by Eva Buxton

Halophyte Stressors

Life in a saltmarsh is stressful for plants, and few families and genera in California have evolved adaptations to cope with the stresses. The halophytic plants adapted to a salty habitat grow in zones according to their ability to manage the stressful conditions. The major stressors are salts, waterlogged soils, low oxygen levels, and usually some combination of these.

Substrate - Saltmarshes are “marshy” because the soil is “waterlogged.” The substrate is composed of deep mud and peat; the peat is often several feet deep, consisting of decomposing plant matter. Tides carry in nutrients that stimulate plant growth in the marsh and carry out organic material that feeds fish and a host of other organisms. Over time, saltmarshes accumulate organic material in the dense peat layer. An elevational change of a couple inches will alter the substrate enough so that it then supports different species of halophytes.

Salt - Halophytes use several mechanisms, pathways, and metabolic processes to deal with salts, primarily sodium chloride (NaCl). These include preventing salt from entering root cells (exclusion), removing salt from the leaves through glands (excretion), and concentrating salt in vacuoles (sac-like structures) within the cells of the leaf or stem, which are later dropped from the plant.

Flooding - Saltmarsh plants can be submerged underwater part of the day or can be rooted in a substrate that is flooded at least part of the month! When flooded, plants have limited access to the sunlight needed for growth (photosynthesis). Saturated soil has less available oxygen, needed for respiration in plant roots.

An adaptation to cope with living in flooded places is the formation of aerenchyma tissue, a spongy tissue that forms spaces and air channels in the leaves, stems, and roots of halophytes. This tissue helps exchange gases between the roots and the upper portion of the plant. Another adaptation is the growth of adventitious roots, special roots that can form from stems above the substrate to partly avoid long-term flooding and low oxygen levels.

Oxygen - Because salt marshes experience flooding and contain a lot of decomposing plant material, oxygen levels in the peat can be extremely low, a condition called hypoxia. When oxygen levels are low at the roots of a plant, the root cells are limited in performing necessary metabolic processes such as uptake of water and nutrients from the substrate. You have likely experienced the rotten-egg smell from a marsh when the tide is out. The smell (hydrogen sulfide gas – H₂S) is caused by the growth of bacteria in anaerobic conditions, i.e., in the absence of oxygen. Most decomposers need oxygen to survive; without it, there is little decomposition. This slowed decomposition is the advantage of vacuum-packed food and storing food in sealed plastic bags and jars.

Some Plants in Bothin Marsh

Cordgrass (*Sporobolus foliosus* (syn *Spartina foliosa*) (Grass family) is the most prevalent halophytic plant in the lowest-lying portions of Bothin Marsh. It tolerates almost continuous inundation and low soil oxygen levels, thus grows in the wettest portions of the marsh and in and near the channels. Because of its height, up to 1.5 m, the reproductive parts are not inundated. Cordgrass contains aerenchyma tissue and can grow adventitious roots to cope with stresses. It excretes salts from salt glands on its leaves.

Pickleweed (*Salicornia pacifica*) (Goosefoot family), the dominant plant in terms of area in the saltmarsh, is a succulent subshrub with stems that are jointed. The barrel-shaped joints are 1-2 cm long. When the plant



Cordgrass at low tide -
Photo by Eva Buxton



Pickleweed - Photo by Eva
Buxton

takes up saltwater, it has the “ability” to concentrate salt in vacuoles within the cell. In late summer and fall, the senescent (dying) portions of the stem turn bright red and fall off, thereby ridding the plant of stored salt. There is also an annual pickleweed species (*S. depressa*).

In parts of Europe, pickleweed has a history as a food plant, eaten raw or pickled. (I always eat a couple of joints when in a saltmarsh!) In the 1700s, pickleweed was a source of soda ash for early glass making, hence the name Glasswort.

Saltmarsh dodder (*Cucuta salina*) (Dodder family). This bright orange, threadlike plant parasitizes mostly pickleweed by attaching itself to the stems with haustoria. Haustoria are slender projections from the roots of the dodder that penetrates the tissue of the host plant and absorbs the nutrients and water it needs for its metabolism. It needs no chlorophyll, hence the orange color!

Jaumea (*Jaumea carnosa*) (Sunflower family) is a fleshy, prostrate, perennial plant common in Bothin Marsh. It is interesting to see the yellow flower heads completely submerged during high tides, as if they were “oblivious” to the fact that they are inundated!

Saltgrass (*Distichlis spicata*) (Grass family) is another grass that survives being inundated some of the time but also grows along edges of the salt marsh. It is easily identifiable by the very characteristic leaves: stiff, short, and alternate. It absorbs saltwater but can concentrate the salt in glands on the leaf surface. On a sunny day, you can see the salt crystals glitter on the leaves.

Alkali heath (*Frankenia salina*) (Frankenia family) grows at a slightly higher elevation, as well as on marsh edges that are not flooded every day. As its name implies and as a halophyte, it also grows in alkaline habitats. It is a subshrub with small pink flowers. The somewhat succulent leaves have salt glands that concentrate the salt and release it to the leaf surface.

California sea lavender or **Marsh rosemary** (*Limonium californicum*) (Leadwort family) is a perennial plant that also grows in the higher marsh. Most of the time, California sea lavender appears bluish-purple because of the showy calyces (sing. calyx) that retain their color even when dry. The small flowers are white and can be slightly malodorous. It is closely related to the horticultural plant *Statice* (*L. sinuatum*).

Marsh gumplant (*Grindelia stricta*) (Sunflower family) is found on higher and dryer ground within the saltmarsh, such as on mounds or natural levees that form alongside tidal channels. It flowers from spring to late fall; its bright yellow flowerheads bringing color to the otherwise somewhat drab-looking saltmarsh vegetation. The white “gum” covering immature flowerheads was used medicinally by indigenous people.



**Dodder on Pickleweed -
Photo by Eva Buxton**



**Jaumea carnosa - Photo by Vernon
Smith**



Limonium californicum - Photo by Terry Gosliner



**Grindelia stricta var angustifolia - Photo by Vernon
Smith**

Fat-hen (*Atriplex prostrata*) (Goosefoot family) occurs singly or in small patches in the high marsh. There are native and introduced species of *Atriplex* in Marin County. The reddish foliage (the leaves being triangular with two spreading lobes at the base) provides a sprinkling of color in the marsh.

Point Reyes bird's-beak (*Chloropyron maritimum* ssp. *palustre*) (Broomrape family). The Bothin Marsh supports a large population of this annual, special-status plant. It is a CNPS Rank 1B species, indicating that it is rare and threatened or endangered throughout its range. It is found sparingly from southern Oregon, around Arcata Bay, south to one population in Santa Clara County. The greatest distribution is in the SF Bay Area.



Chloropyron maritimum ssp. *palustre* - Photo by Vernon Smith

Non-native Species There are relatively few non-native species in a saltmarsh compared to an upland community. However, two sea lavenders (*Limonium duriusculum* and *L. ramosissimum*) have invaded wetlands around SF Bay, including Bothin Marsh. Saltwort (*Salsola soda*) has also invaded upper margins of the Bothin Marsh. Two cordgrasses (*Spartina alterniflora* and *S. densiflora*) have been almost eradicated over the last couple of decades through efforts by the Invasive Spartina Project (ISP). <https://www.spartina.org/>

Walk Along the Bay Trail

If you are a beginning plant identifier, walking along the Bay Trail in Bothin Marsh is rewarding because there are relatively few plant species to identify. Bring the list above and you will be able to identify most of the plants you see. The [Bothin Marsh Scavenger Hunt](#) (available from One Tam) has maps, pictures, and diagrams of marsh features, plants, and animals.

Restoration

[Marin County Parks](#) and [Golden Gate National Parks Conservancy](#) are working to enhance the resilience of Bothin Marsh and maintain public access in preparation for sea-level rise.

Upcoming Marin Chapter Events

- **10/9 7:30 pm** Chapter Meeting: [Wildscaping for Songbirds](#), Guest Speaker: **Veronica Bowers**
- **10/12 6 pm** [Fall Native Plant Sale](#) opens. **10/16 6 pm** online sales close. **10/21 10:30 am - 1 pm** is plant pickup.
- **10/21 10 am - 2 pm** Field Trip: [North-Facing Slopes of Mt. Tamalpais](#), Leaders: **Susan Schlosser & Bonnie Gosliner**



Symphyotrichum chilense -
CA aster at Limantour Beach, PRNS
Photo by Ann Elliott

Other Activities in Marin and Nearby

- 10/7 9 am - 3 pm [Napa Fall Native Plant Sale](#)
- 10/8 10 am [Family Walk: Bahia](#) at Rush Creek Preserve
- 10/9 7 pm [It's not just another fish! Native Fish and Native Plants: How they interact Webinar](#), North San Joaquin Valley Chapter
- 10/12 7:30 pm [The building blocks to resilience of CA's grasslands to fire and drought](#) Yerba Buena Chapter
- 10/14 10 am - 1 pm [Milo Baker Chapter Plant Sale](#)
- 10/14 10 am - 2 pm [Willis Jepson Chapter Plant Sale](#)
- 10/14 10:30 am -12:30 pm [Mycoblitz Mushroom Foray](#) at Paradise Beach Park
- 10/15 9 am - noon [Bothin Marsh Restoration](#)
- 10/28 8 - 10 am [Marsh Walk](#), Santa Venetia Marsh
- 10/28 [Home Ground Habitats Nursery Fall Open House](#)
- 10/29 10 am - 2 pm [Deer Island Oaks](#) nature walk
- 11/4 9 am - noon [Broom Busters of Old St. Hilary's](#)
- 11/5 9 am - 1 pm [CNPS Garden Ambassador Seasonal Garden Visits](#)
- 11/5 10 - 11:30 am [Senior Stroll: Hamilton Wetlands](#)
- 11/9 7:30 pm [What is a mushroom anyway?](#) Yerba Buena Chapter
- 11/13 7 pm [Arranging CA Native Plants in Bouquets, Garlands, and Wreaths for the Holidays](#)
- 11/15 10 am - 2 pm [Devil's Gulch](#), Samuel P. Taylor SP
- 11/19 9 am - noon [Restoration at Hal Brown Park](#)



fall mushroom along Bay View Tr., Pt. Reyes NS
Photo by Robert Lundstrom

Be sure to periodically check [CNPS.org/events](https://www.cnps.org/events) for interesting talks and field trips sponsored by CNPS Chapters and staff throughout the state.

Share if you dare?

Join the fun. Send your photographs, art, events, and articles to be included in our newsletter. See your name in print!

Ann Elliott, Newsletter Editor

annonfire@gmail.com



CNPS Field Trip to Abbott's Lagoon
Photo by Paul Barnett

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