

CALIFORNIA NATIVE PLANT SOCIETY MARIN CHAPTER



Croton setiger - turkey mullein or doveweed

Photo by Ann Elliott

September 2025 Newsletter

Marin Chapter Meeting

"Stewarding Homestead, 2015-2025"

Guest Speaker: **Marabeth Grahame**

Monday, **September 8 at 7:30 pm**

Marabeth Grahame's family has lived in Mill Valley's Homestead neighborhood since 1962. Following her parent's example as one of the founders of the [Homestead Valley Land Trust](#), Marabeth has spent the last decade working to enhance biodiversity on the land they helped to protect.

Believing that people only care for what they know - and leveraging her software engineering background - she started with a website and trail map for the Land Trust to encourage exploration of their wilderness next door, published a Blooming Now blog to document Homestead's wildflowers as they bloomed and led wildflower walks.

Most impactful though, were her many habitat restoration projects around the valley that tackled invasive brooms, ivy, cotoneaster, thistles, grasses and more in biodiversity hotspots.

Marabeth will discuss stepping up to help biodiversity in her backyard, learning how to pick her battles in the weed-rich environment of a wildland urban interface and the abundant rewards of tending the wild.

Land Trust website: <https://www.hvlt.org/>

Blooming Now blog: <https://www.hvlt.org/blooming-now/>

[Read more. . .](#) [Join us! Register for this Zoom meeting here.](#)



Marabeth Grahame at Homestead
Photo by Kristin Jakob

Marin Chapter Field Trips

- Sign up for field trips using [Meetup.com](https://www.meetup.com) or the [Meetup app](#). Signups usually begin the first of each month at 8 am.
- Sign the [Waiver for Marin Chapter 2025](#), if you have not done so already. Tambien [Renuncia del participante](#) en Espanol.
- Practice clean trail etiquette. [Pocket Guide – Every Step Counts](#) and [Cleanliness Tips for Hikers](#).
- Contact the leader(s) with any questions.



Abbots Lagoon from bridge
Photo by Ann Elliott

Summer Exploration of Abbots Lagoon, Point Reyes National Seashore

Friday, September 12, 2025 9:30 am to 1 pm

Leaders: **Ann Elliott & Stacey Pogorzelski**

Abbots Lagoon holds interest year-round. We will pass through extensive coastal scrub (great bird habitat). We will check out the plants in the two marshes and along the trail to the brackish lagoon.

Depending on timing we will continue into the dunes to see what is blooming there. We give no promises on specific flowers; just come to enjoy a special spot in cooler coastal weather.

[Read more. . .](#) [Meetup Registration Link](#)



Heliotropium curassavicum - coast heliotrope
Photo by Ann Elliott

Stewardship Opportunities

Habitat Restoration at Mt. Burdell

Leader: **Greg Reza**, Marin Co. Parks & Open Space

Coordinator: **Stacey Pogorzelski**

Thursday, **September 4, 8:30 to 10:30 am**

Join a community of habitat restorers! Marin CNPS is partnering with Marin County Open Space District staff to remove invasive species and improve native habitat at Mt. Burdell. Located at the northern edge of Novato, Mt. Burdell has serpentine grasslands with rare plants, an incredible array of oaks, and seasonal streams that support milkweed, the critical host for monarch butterflies.

During this workday we will focus on removing invasive species that threaten the wild narrow-leaf milkweed population including pennyroyal, Himalayan blackberry, and various non-native thistles. This work will help prepare the area for planting native plant species this winter.

[Read more including directions. . .](#) [Meetup Registration Link](#)



CNPS Marin volunteers and Marin Co. Parks staff bagging invasive weeds on Mt. Burdell

Stinson Beach Native Seed Collecting with Pollinator Partnership

Leaders: **James Hart**, Pollinator Partnership Conservation Manager & **Caroline Christman**, Marin CNPS

Wednesday, **September 10, 9:30 - 11:30 am**

Location: **Lower Dipsea Trail, near Stinson Beach**

Join Pollinator Partnership in collecting local native wildflower seed! We will be gathering seed from several species along the lower portion of the Dipsea Trail near Stinson Beach to help support habitat restoration in a nearby monarch butterfly overwintering site. We will be looking for bush monkey flower, California goldenrod, Pacific aster, pearly everlasting, and perhaps some other species along the way. There are different techniques used for collecting these different species, so we will spend time discussing each as we come across them.



Anaphalis margaritacea - pearly everlasting
Photo by Ann Elliott

Pollinator Partnership staff will guide participants in proper seed collecting techniques, including sanitary protocols to ensure ecologically sound collecting. This seed collection event is part of Project Wingspan: Golden State, an initiative of Pollinator Partnership funded by the National Fish and Wildlife Foundation. Seed collected through this event will be grown into live plants and used for habitat planting in the area. You can learn more about Project Wingspan on our [website](#).

[Read more including directions. . .](#)

[Meetup Registration Link](#)

Volunteer Workday at Marin County Parks & Open Space District Native Plant Nursery

Leader: **Aja Wylder**, Marin County Parks Nursery Manager; **Stacey Pogorzelski**, Marin CNPS

Tuesday, **September 16, 10 am - noon**

Location: **Marin County Native Plant Nursery in San Rafael**, near the Marin County Civic Center

Join us for a fun morning of pruning and transplanting native plants at the Marin County Parks and Open Space District Nursery. Set in a lovely, shaded garden, the nursery grows native plants to be used in habitat restoration projects throughout parks and natural preserves in Marin. Aja will provide a tour of the nursery, demonstrate nursery methods, and describe how the plants being grown will be used in restoration projects. Volunteer activities may include pruning, potting up seedlings, transplanting plants into larger pots, pot washing, or working in the native plant garden.



Volunteers potting up CA Fuschia seedlings at Marin Co. Native Nursery - Stacey Pogorzelski

[Read more including directions. . .](#)

[Meetup Registration Link](#)

Novato Baylands Invasive Plant Removal

Leader: **Stacey Pogorzelski**

Friday, **September 26, 9 - 11:30 am**

Location: **Novato Baylands, near South Hamilton Park, Novato**

We've worked at the Novato Baylands nursery, now let's get into the field! Join Point Blue staff to remove invasive plants in the South Seasonal Wetlands, part of the Hamilton Baylands restoration area. We will weed oppositeleaf Russian thistle (*Salsola soda*) and stinkwort (*Dittrichia graveolens*), both pull up nicely by hand, or using tools such as shovels or trowels. It's a great opportunity to see the Bay Trail, seasonal wetlands, bird life, and possibly some recent planting areas.



Dittrichia graveolens - stinkwort
Photo by Vernon Smith

[Read more including directions. . .](#)

[Meetup Registration Link](#)

Save the Date!

2025 Fall Native Plant Sale

- Online sale: **October 9 - 13** at shop.cnpsmarin.org
- In-person sale and online order pick-up:
Saturday, **October 18**
- Location: Bon Air Shopping Center, Greenbrae



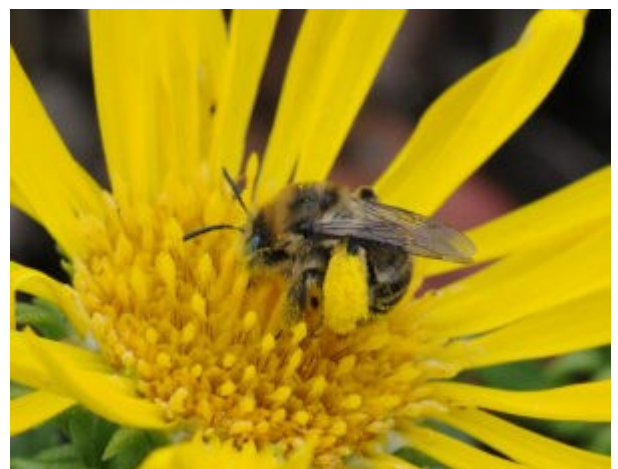
CNPS Marin Native Plant Sale boxed orders
Photo by Ann Elliott

Pollinator Partnerships

Paul da Silva, Educational Committee Chair

Why do flowers have the forms, colors and scents that they do? It's not to please us! That is only an accidental side-effect of our sense organs' similarities to those of certain other members of the animal kingdom. The floral features we appreciate are in fact part of an intriguing solution to a very important challenge faced by the plants that produce them: flowering plants must accomplish sexual reproduction while remaining rooted to the ground. Somehow they have to get genetic material from male parts (stamens) to female parts (carpels, often several fused into one pistil).

Furthermore, not just any male and female parts and any genetic material will do. Although individuals of many plant species have both stamens and carpels, their positions, times of functioning or chemical incompatibility mean that they do not interact often or effectively with each other. As in human societies, inbreeding is discouraged. This means that most plants must outbreed for healthy reproduction. How can they do this without moving around? The flowering plants have enlisted certain animals to carry their



Melissodes bee with pollen grains

genetic material around for them. They have managed to get them to take the right kind of pollen from the anthers of one flower to the stigmas of another flower. If the pollen is of the same species but not too closely related, the pollen will germinate into a tube that will grow until it reaches a waiting ovule. There it will produce and insert the sperm into the egg, fertilizing it to produce the embryo, which in turn will become the central part of the seed. Pollination is the movement of the correct kind of pollen to the correct place on the correct kind of plant. Even at its simplest, this is rather specialized work. Not any animal can or will do it. In short, effective pollinators need to have certain minimum qualifications for each pollination job. Then they must be recruited and rewarded appropriately for their work. How the plants and the animals have cooperated to accomplish pollination is the story of a marvelous partnership that began long before humans were around. but one which is greatly threatened by our activities at present.

How It All Began

The first seed plants produced pollen, but no flowers, just as our pines and redwoods do today. They relied on the wind to carry the pollen. However, just as nutritious food attracts modern animals, around 150 million years ago some beetles or flies discovered that pollen was good to eat and began seeking it out, possibly in the direct ancestors of the flowering plants. As the insects moved, they transferred some pollen from the male to the female parts, benefiting the plants as well as themselves. Eventually, the plants that benefited from pollinators discovered that it was worthwhile to advertise the pollen they produced. Certain parts became larger and brightly colored, especially those we now call petals. The first flowers were wide and open, with many copies of the principal parts, and they produced copious amounts of pollen. California buttercups (*Ranunculus californicus*) have relatively unspecialized flowers reminiscent of those of ancient times. California poppies (*Eschscholzia californica*), whose flowers are slightly more advanced, still are wide open, produce much pollen, and attract many insects. These unspecialized flowers allowed many kinds of unspecialized insects access to the pollen, improving the chance that some insect would move some pollen somewhere. The first insects may have bumped into the flowers, eaten some pollen (and perhaps some of the flower parts as well), and by chance carried away some pollen. This process worked, but it had the disadvantages of wasting much pollen, both that which was eaten, and that which ended up on flowers of different species or of the same individual plants, where it failed to effect fertilization.

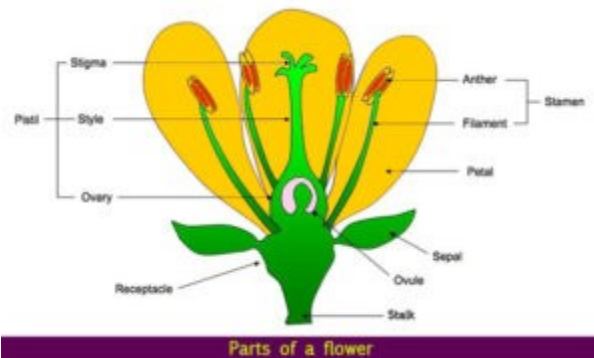
Increasing Efficiency

As the process of pollination continued to evolve, there was a trend toward greater specialization and efficiency in pollen transfer. This is what produced a veritable explosion in the diversity of flowering plants. Flowers began to produce nectar, which is cheaper for plants to produce than pollen, but whose sweetness is very attractive to animals. The plants also began to hide their floral rewards, most often by putting them at the ends of narrow tubes. They thus restricted access to insects that “fit” these particular kinds of flowers; this also facilitated contact between the insects’ bodies and the sources of pollen. Flowers became smaller, but with special colors, forms and

scented that signaled the presence of nectar and pollen to those insects who could understand the signals. Pollen became stickier, all the better to attach to the visitors. On their side, the insects began to evolve beaks, tongues, and general body streamlining that allowed them to access nectar, as well as specialized sense organs that helped them find it. Many also grew fuzzier, becoming better pollen carriers. Parallel evolutionary changes can be seen in different lineages of insects, which all experienced increases in diversity rivaling those of the plants. Those insects with the longest beaks and tongues had less competition in accessing nectar in flowers of the longest tubes, and some began to devote their undivided attention to them. The different lineages of insects that became effective pollinators evolved different characteristics that paralleled those developed by different groups of flowering plants. Although the full spectrum of variation is immense and has not even been fully documented, it is traditional to group the partnerships into several “pollination syndromes,” based on characteristics of groups of insects and the kinds of flowers that attract them—see the handout, *What Might be Pollinating My Plants?*

Exceptions to the Overall Trend.

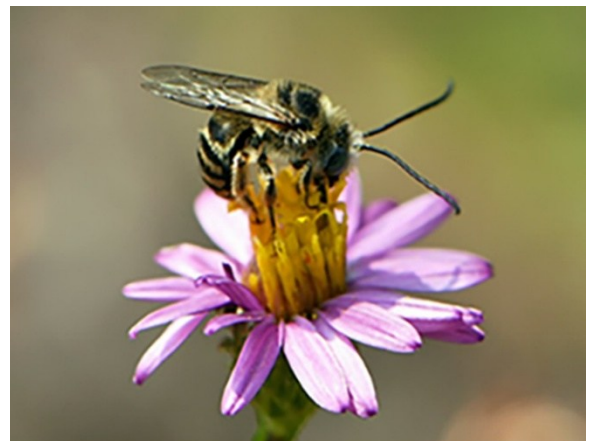
Although a general trend of increased specialization between flowers and the animals that pollinate them is the big story of the last 100 million years, the path of evolution has had its starts and stops and its twists and turns. Extreme specialization, although very efficient while it lasts, is very risky over the long term, because loss of one



partner likely leads to the loss of the other. This risk of going out of business forever probably acted as a brake on over-specialization. Perhaps it can even explain the apparent contradiction that many members of the daisy family (Asteraceae), usually considered very advanced flowering plants, seem to rely on constantly varying groups of generalist pollinators. It may also explain why large groups of flowering plants, almost certainly descended from insect-pollinated ancestors, have reverted to wind pollination. The grasses and oaks are good examples. No longer needing colors, scents or conspicuous size to attract anybody, their flowers have become small, green, and often have their male parts massed in waving clusters to facilitate the release of pollen to the air. Yet there are even exceptions to the exceptions, because willows, which do have this kind of flowers, also attract many insects and may be insect pollinated. Even among the normally insect-pollinated flowers, pollination is often a changing free-for-all. Floral structures that are expected to restrict access to only certain insects may be circumvented by nectar and pollen “thieves” who break floral tissue to enter spaces otherwise denied to them. The same species of plant may be effectively pollinated by one group of pollinators in one place and at one time, but these may be replaced by others elsewhere in its range or in different years. For their part, some pollinators may shift their preferences as floral abundances change. These may be understood as responses to changes in labor supplies and supply-chains. Just as there is probably a constantly changing tension between generalization and specialization, there are probably a constantly changing suites of pollinators and pollinated. From the beginning, pollination has been opportunistic, and it continues to be so today. However, it is important to recognize that this opportunism has always existed within constraints. Certain plants and animals have long lived in proximity to one another within ecosystems characterized by certain moisture levels, soil qualities and climate. We humans are altering the world so quickly that it is likely that many pollination partnerships that have taken advantage of their inherent opportunism to develop and change over millions of years simply will not be able to adapt to the rapidly accelerating pace of change. Mass extinction and climate change threaten to overwhelm the flexibility of many pollination processes. A worldwide depression of effective pollination activity is likely to eliminate many plants and their pollinators from any future existence on earth. Furthermore, we know so little about most pollination relationships throughout the world that we are not able to predict reliably exactly which ones are at highest risk.

The Big Question

This brings us to the big question: “what pollinates this flower?” To be honest, the correct answer in most cases is “nobody knows.” Of all of the species and individuals of flowering plants, very few have been subjected to the study necessary to identify their effective pollinators. However, rather than being a discouraging answer, this can be considered an encouraging one. It means that anyone can make new contributions to our knowledge by beginning this type of study on any flower in any place. The first step is observation. Simply sit and watch which animals visit which flowers and note which come into contact with the male and female flower parts. Sometimes it is possible to figure out whether the visitor is taking nectar or pollen. If counts of the different visitors are made at different times, this can yield good estimates of the relative importance of potential pollinators. The next step is simple in concept, but a little more difficult to carry out. It involves separating plants of the same species into two groups. The most likely pollinator is then excluded from one group but not the other. Mesh or netting with appropriate-sized openings is often used to accomplish this. At the appropriate time, seeds are collected from the two groups, counted and tested. If one group of plants produces a large quantity of viable seed, while the other did not, this is strong evidence that the most likely pollinator is in fact the most effective pollinator.



Longhorned bee on aster

Photo by Marc Kummel

Helping All the Helpers

Of course, it is not necessary to know what the most effective pollinator is for each plant in order to help all of them. Planting a large variety of plants that have flowers with different features and which bloom at different times of the year is a great first step. Providing alternate food sources is the second step. Many insects and other animals that feed on floral resources also require other food either at the same time or at different times in their life cycles. Butterflies and moths often require larval food plants that are different from their adult food plants. Bee flies, some hoverflies and many wasps are carnivorous as larvae and need other insects to hunt or parasitize, and these in turn may depend on still other animals and plants. Hummingbirds also need to eat insects to gain protein that

complements the carbohydrates in nectar. Shelter is the next main need for pollinators. Many of our native bees are ground-nesting or cavity-nesting. It is important to have bare ground with soil particles of appropriate sizes and twigs or logs that either have holes of the right sizes or tissue soft enough so that the bees can make their own holes. Hoverfly lagoons furnish the moist habitat that the larvae of these insects require, as well as the decomposing organic matter some of them need as food. Hummingbirds must also have their preferred nesting sites and nesting materials nearby. In general, animals that work part-time as pollinators and part-time as predators or decomposers can be seen as working multiple jobs and providing multiple benefits to ecosystems. The success of even the best habitat garden depends on a nearby source of the animals it is designed to attract, including pollinators. Gardens that are close to parks, preserves and open space are most likely to receive immigration from them. Next most likely are gardens that may be further away from such sources but connected by good corridors to them. For this reason, habitat gardening works best when it is carried out on a neighborhood or wider scale. Also critical is remembering the larger-scale events that are hurting pollinators and much other wildlife—climate change, habitat loss and pesticide use. In order to be effective in our efforts, we must address these issues as well, both globally and locally. Whether you improve your home garden or help with public lands, whatever steps you take to help our native animals and the native plants they depend on will increase their survival, helping to conserve biodiversity and promoting the continuation of essential ecosystem services we all depend on, including pollination.

Compiled by Paul da Silva for Marin CNPS, July 2025

For Further Study

If this brief overview has raised more questions than it has answered, fear not! There are many sources that can be consulted to help answer them. The following is a brief annotated list.

- Buchmann, S.L. and G.P. Nabhan. 1996. *The Forgotten Pollinators*. Island Press, Covelo, CA and Washington, D.C., 292 pp. This is the book that stimulated much of the current interest in pollination and is a great place to start.
- LeBuhn, Gretchen. 2013. *Field Guide to Common Bees of California, Including Bees of the Western United States*. University of California Press, Berkeley, Los Angeles and London. 173 pp. This is the best short guide to our local bees, which comprise one of the most important groups of pollinators.
- Frankie, G.W., R.W. Thorp, R.C. Colville and B. Ertter. 2014. *California Bees and Blooms: A Guide for Gardens and Naturalists*. Heyday Press, Berkeley, CA., 296 pp. This is a more in-depth look at our local bees. It also includes much information on plants that attract bees and how to plant a garden that provides for bees.
- Proctor, M., P. Yeo and A. Lack. 1996. *The Natural History of Pollination*. Timber Press, Portland, OR., 479 pp. This is slightly out of date and based on information mostly from the British Isles. However, it gives more detailed information on more kinds of plants and animals than most other recent books.
- Bauer, Nancy. 2012. *The California Wildlife Habitat Garden: How to Attract Bees, Butterflies, Birds and Other Animals*. University of California Press, Berkeley, Los Angeles and London. 248 pp. This has chapters with examples of different gardens and appendices on different groups of plants and animals.
- Another great source of general information about the animals that use different plants is calscape.org. In addition, many of the journals specializing in botany, entomology or ornithology have articles on specific pollination studies that are very readable. Internet searches that include the common or scientific names of plants or animals, together with the term “pollination” can yield interesting and useful results.

Save the Date!

February 5-7, 2026

Workshops & Field Trips:
February 4, 2026

Riverside Convention Center
Registration Opens Fall 2025

[Read more...](#)



Broom Service - Follow Up

Broom Service has made so much progress tackling invasive French and Scotch broom in and around San Geronimo Valley. They are now headed back to areas where they have pulled before.

[Invasive Plants of California's Wildlands](#) reports that French broom can produce over 8,000 seeds per year which are viable for at least 5 years. The [Cal-IPC](#) Inventory profile for Scotch broom indicates that it "[has a seedbank that can remain dormant for up to 80 years.](#)"

[Contact Mel Wright](#) for more information about Broom Service and to join their Thursday morning work parties.



Broom Service revisits Maurice Thorner Preserve to tackle Scotch broom 2-year regrowth - Mel Wright

CA Coastal Cleanup Day

Be part of California's largest volunteer event on **Saturday, September 20, 2025** at any one of the organized cleanup sites in Marin! Come together to celebrate and share in the appreciation of our fabulous coast, bays, and waterways.

Open this [interactive map](#) of Marin County cleanup locations. Click any one of the sites to sign up!



Coastal Cleanup Day Sept. 20, 2025
Photo by Sarah Killingsworth

Become a California Naturalist This Fall at Point Reyes.

This California Naturalist Program field-based lecture series is a partnership of the [University of California Environmental Stewards](#) programs and the [Point Reyes National Seashore Association](#) and takes place over the course of five separate Saturdays from Sept 27 to Nov 1. The mission of the program is to foster a diverse community of naturalists and promote stewardship of California's natural resources through education and service.



Upcoming Marin Chapter Events

- 9/4 8:30 - 10:30 am [Habitat Restoration at Mt. Burdell](#) Leaders: Greg Reza & Stacey Pogorzelski
- 9/8 7:30 pm Chapter Meeting: [Stewarding Homestead, 2015-2025](#) Speaker: Marabeth Grahame [Register here.](#)
- 9/10 9:30 - 11:30 am [Stinson Beach Native Seed Collecting](#) Leaders: James Hart & Caroline Christman
- 9/12 9:30 am - 1:30 pm Field Trip: [Abbotts Lagoon, Point Reyes](#) Leaders: Ann Elliott & Stacey Pogorzelski
- 9/16 10 am - noon [Volunteer Workday at Marin County Native Nursery](#) Leaders: Aja Wylder & Stacey Pogorzelski
- 9/26 9 - 11:30 am [Novato Baylands Invasive Plant Removal](#) Leader: Stacey Pogorzelski



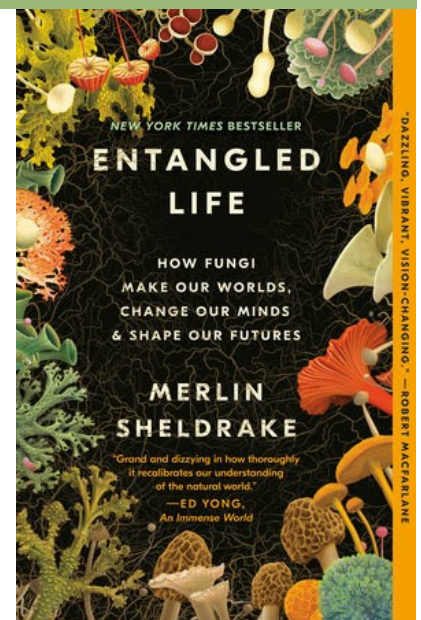
Diplacus aurantiacus - bush monkeyflower Photo by Ann Elliott

Other Native Plant Activities in Marin, Nearby, or Virtual

- 9/4 10 am to 2 pm [Thursday Weeders at Abbotts Lagoon](#)
- 9/5 to 9/7 CNPS [Chapter Council Meeting](#) hosted by Milo Baker Chapter in Sebastopol. All CNPS members can register to attend the meeting and associated tours and field trips.
- 9/11 7 pm [New Calflora Tools: plants in your garden & in the wild](#) Speaker: Cynthia Powell. Zoom and in-person, hosted by Yerba Buena Chapter
- 9/18 6 pm [CNPS Central Sierra Chapter Book Group "Entangled Life"](#) by Merlin Sheldrake

Also checkout:

- [CNPS.org/events](#) for interesting talks and field trips sponsored by CNPS Chapters and staff throughout the state.
- [Events Calendar for Marin County Parks](#). They host a variety of local hikes, service projects, and presentations.
- [Regional Parks Botanic Garden](#) hosts talks (some online), workshops, tours and plant sales.
- [SPAWN Turtle Island Restoration Network volunteer opportunities](#).
- [Point Reyes Nature](#) has great ideas for exploring the Point Reyes National Seashore.
- [The Soul of the Earth](#), exploring the world flower by flower, Betsey Crawford's monthly essay series.



Eric Teegelar, Marin Co. Parks volunteer, helps Broom Service Photo by Mel Wright

Part of Appreciating Nature is Caring for Our Habitats

Our stewardship committee and cooperating partners offer us many opportunities for giving back this late summer. It is the perfect time for collecting late summer seeds, propagating plants for fall & winter planting, and pulling weeds before they set seed.

- Post your flower, seed, and weed adventures on our Facebook group [Marin Native Plants](#).
- Check out news and events at our Facebook group [California Native Plant Society - Marin Chapter](#).
- Follow us on Instagram [marincnps](#).
- Post anywhere with the hashtag #marinnativeplants.

[Ann Elliott](#), Newsletter Editor & Field Trip Committee



Volunteers at Marin County Native Plant Nursery



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