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Do you dream of a wildflower meadow in your backyard? Are you seeking a sustainable landcover that supports pollinators and other wildlife?

If so, you're not alone. Many residents of San Juan County want to grow local, native wildflowers for these reasons and more. These plants have beautiful blooms. They have evolved to thrive in our climate, requiring little water, tending, or soil amendments. They offer the best possible food and habitat for all manner of native insects, birds, and mammals. Growing native plants strengthens our connection to the rich natural heritage of the islands.

You don't need a lot of space to grow these species. A few feet of garden bed, a neglected patch of lawn, or even a pot on a sunny deck can become native habitat.

However small or large your project, a little advance planning is well worth the effort. This guide will help you get on the right track. You'll find directions on starting a meadow from seed as well as gardening with purchased plants. There's information on site preparation, species selection, maintenance, and a healthy dose of inspiration—all specific to San Juan County.

Let the planting adventure begin!

About Our Local Wildflowers

What is a wildflower? The term wildflower usually refers to herbaceous, flowering plants—not ferns, trees, shrubs, or grasses. Here, we focus on local wildflowers and a few grasses that favor sun and part-shade habitats. For other types of native plant guides, you'll find a few suggestions on page 14.



For thousands of years, Coast Salish people used fire and other practices to sustain the plants they relied on for food, medicine, and other purposes. This led to an abundance of wildflower-rich habitats.

Today we call these habitats by a variety of names including Garry oak savannahs, grasslands, prairies, and rocky balds. In this guide, we'll refer to such habitats loosely as "meadows." Once common throughout the islands, native meadows are now rare.

Plant local! When possible, plant wildflowers that are native to the San Juan Islands region or nearby. These plants are a critical part of local food webs and will offer the best possible support for wildlife. They have unique adaptations to local conditions, even in the face of climate change.

Wildflowers through the seasons

April to June is the peak bloom time for wildflowers in the San Juan Islands. From mid-summer through early fall, when drought conditions prevail, most of our native wildflowers cease blooming. Some die back to the ground until spring. Because of this summer "rest" period, it's helpful to design meadows to include grasses and other plants and features that offer interest year-round.

Canada goldenrod is one of our few native wildflowers that blooms in late summer.





Meadows like this, lush with great camas and chocolate lily, were tended by Coast Salish families for generations.









What's your wildflower vision?

Maybe you aim to replace lawn with a wild-looking meadow that you establish by sowing seed. Perhaps you'd like to add a few showy native flowers to an existing garden bed. Or, do you dream of designing a living roof of native plants?

Whatever you envision, consider experimenting with a small patch of



ground as a first step. You'll benefit from starting small and learning as you go. Every site is unique, and it's worth getting to know yours throughout the seasons. Does it have problematic weeds? Are native species already present? What is the soil like?

If you don't own land yourself, a close look around your community is likely to reveal potential project sites. Public parks and the grounds of libraries, schools, or other civic buildings can all be prime locations for creating habitat.

Native sedums are a perfect match for this rocky path.

Gumweed is abuzz with insects in August at the Family Resource Center in Friday

A sea of camas blossoms adorns this living roof in April.

Harbor.

Western columbine, sea blush, and Roemer's fescue combine naturally alongside

a garden shed.

Potentially suitable sites:

- A mostly sunny lawn that dries out in summer
- A raised garden bed
- A parking strip (land between the sidewalk and street)
- A living roof
- An old farm field

Unsuitable sites:

- A heavily shady forest
- A wet area with frequently saturated soils
- The shady north side of a building



Patient advocacy can often convince local authorities to support native landscaping, benefitting the whole community.

Here's what to look for in choosing a site:

Sun or shade? The species covered in this guide do best in full sun to partial shade. A heavily shaded site is not suitable.

Soil and Moisture Well-drained soils that dry out in the summer are best for

most of the plants discussed here—see page 14 for details about individual species. Local plants are adapted to summer drought conditions and rarely need supplemental watering.

Fertility Native meadow plants are generally adapted to low-nutrient conditions. A rich, fertile site can actually be more challenging to maintain, because our slow-growing native species can be quickly overtaken by fast-growing, nutrient-hungry weeds and grasses.



Wooly sunflower is sun-loving and deer-resistant.

What about deer?

Deer enjoy eating many of our native plants, and deer populations in the islands are extremely high. While some deer-resistant natives can be grown in the open, many species will require protection. If you're lucky enough to have a project area that's fenced to exclude deer, you'll have a wonderful opportunity to experiment with plants that have become uncommon in the wild due to relentless browsing.

Preparing Your Site

Thoughtful site preparation that removes weeds and competing vegetation will give your plants and seeds the best possible chance of success. Consider one or more of these techniques:

Purchase Soil For a single bed or small area, purchasing soil from a landscaping supplier can be a good option. "Two-way" topsoil blends are a mix of commercial compost and sand and should be free of seeds. Be cautious with "three-way" blends which include actual soil and may contain the seeds of weeds or other unwanted plants. For planters and pots, commercial potting soil usually works quite well.

Tarping Tarping is a great technique for converting lawns to meadows.

Cover the area with landscape fabric or a similar material to smother existing vegetation, fastening it down well.

Black landscape fabric is nice because it is permeable to water and air. During hot, sunny weather, it will heat the soil surface, potentially killing weed seeds. Leave the tarp in place for at least several months during the warm season. A year or two is even better.

Sheet mulching First, mow down grass and other vegetation as low as possible. Cover with one or two overlapping layers of cardboard, followed by a few inches of woodchips or mulch to hold it down. Sheet mulching works well for potted or bare root plants, especially larger species and shrubs.

It can also be effective for direct seeding if installed in fall and topped with several inches of weed-free soil.

Sod-removal Another approach, applicable to lawns, is to physically strip and remove the top layer of sod, leaving bare ground below. This is labor-intensive but offers quick results and removes seed present in the top inch or so of soil.

Tilling Tilling can be useful for preparing large areas but it has some disadvantages. Typically, it has to be repeated twice or more to get rid of tough grasses and perennial weeds. It will also stir up seeds in the soil, stimulating a flush of weed germination.

Removing dense stands of woody species Many of our native meadow habitats have been taken over by very dense stands of young Douglas-fir trees or thickets of blackberry. As a result, the wildflowers and other ground-level plants have been shaded out. If young trees and shrubs are cut and removed, and needle litter roughly raked away, this can create a great opportunity to seed and plant with meadow species again. To be clear, this technique is intended for restoring open meadows that have recently become overgrown. It is not a call to clear and replace mature, healthy native forest.

Herbicide

Though herbicides are often used to prepare sites for large-scale habitat restoration, we do not recommend them for home use due to the potential for misuse and impacts to other organisms.



A small lawn at the Land Bank's office is being tarped with black landscape fabric that will be left in place for a full year.





Sheet mulching with heavy carboard and a woody mulch will smother the grass below.





Young Douglas-fir trees are cut from a native meadow, preserving existing wildflowers and making space for more.

Starting a Wildflower Meadow From Seed

Growing Camas

Camas (Camassia quamash and C. leichtlinii) used to be common in the islands.
Camas bulbs were a staple food for Coast Salish people who tended camas meadows using fire, digging, planting, and weeding. Camas is a natural choice for gardens. It can be grown from seed, if you're not in a hurry, or planted as bulbs. Scatter seeds about an inch apart in October in bare ground, covered lightly with soil.

Don't let weeds take over during the winter. Tiny shoots will emerge in February, then wither to the ground in late spring, but don't worry! Your patch now contains mini camas bulbs that can survive the summer drought. The following February, shoots will reemerge a little larger. Your patience will pay off in 3-4 years when your camas plants bloom, and bees and butterflies visit.

These instructions will work for many other bulb-forming plants, too, including chocolate lily, fawn lily, and tapertip onion.



Starting a wildflower meadow from seed is a wonderful project, but most native species are slow to grow, and it does take time for the plants to become established. Success will depend on adequate site preparation. You'll need to create bare ground as well as minimize competition with plants and seed that's already in the soil. Take the time to get your site ready as described in the previous section.

What seed should I use? There's no shortage of so-called "native wildflower" mixes on the market, but many contain species from other places. Look for a mix prepared by local or regional nurseries featuring species native to North Puget Sound or the coastal Pacific Northwest. These plants

great camas

will provide the best habitat for our local insects, birds, and other species. A well-rounded mix should include a wide variety of perennials, annuals, and grasses.

Sow in the fall For best results, sow in September or October, or about when the fall rains begin. Some species will germinate immediately and overwinter as tiny plants. Others require weeks or even months of cold, wet weather to trigger their germination. Planting in the fall ensures that these varieties will be ready to grow when spring arrives.

If your site has been covered by a tarp or other material, remove the tarp. Don't rake up or till the soil. Ground disturbance will stir up weed seed already present in the soil. Do gently rake off debris such as dead grass, woodchips, and other deep litter but try to leave the soil surface undisturbed.

How to seed Now the fun begins!
First, it's wise to mix your seed with a "carrier" such as diatomaceous earth or vermiculite, to enable more even distribution of seed. Use about 3 times as much carrier as seed. Then, walk through your site repeatedly, scattering the mix sparsely until it's all used up.

Cover your seed very lightly with a weed-free material such as straw or potting soil (not woodchips). Use a light touch so that most of the seed is just barely covered from view. An alternative approach is to spread a couple inches or more of coarse, angular sand over the soil surface prior to seeding. The sand will serve as a nice clean seed bed into

which to gently rake your seed, without disturbing the soil below.

When will my seeds grow?

If you sowed in the early fall, you might notice native seedlings as soon as 2 weeks later. Many species, however, will wait to germinate until early spring. If you notice weeds showing up, you'll be wise to pull or hoe them out so they don't compete with your tiny seedlings.



In the first spring after sowing, the annuals in your seed mix will provide a welcome burst of color. Native perennials, however, are notoriously slow to establish, rarely blooming in their first year. Some species can take 3 years or more to bloom, so try to be patient!

As summer heats up, many meadow plants will turn brown or wither to the ground. This is normal. They should revive in the fall or next spring. Don't be discouraged if your planting looks rather sparse its first season—it will fill out with time.



- **1.** Fill a pot with commercial potting soil mix.
- 2. Sow seablush seed in October or March and cover lightly with soil just so the seed is hidden.
- **3.** If rains don't keep the soil moist, provide water.
- **4.** Look for blooms and bumblebees in April/May.
- 5. Seablush is an annual species that dies after blooming but it will resow itself into bare ground and return the next year.



Wooly sunflower, farewell-to-spring, and California oatgrass at the Land Bank office meadow in June.

Container, Bare-root, and Bulb Plants

Purchasing plants is a great option if direct seeding wildflowers sounds daunting. You could create a small rock garden, a native perennial border, or fill a few clay pots. Plants can also be added to a seeded meadow to give it a boost and provide more flowers in the first couple of years.

Choosing plants

See page 13 for a plant selection guide featuring many of our local meadow species. A few winning combinations of plants are suggested on page 11.

How to plant

Plants can be purchased as bulbs, bare-root, plugs, or pots. Since there are relatively few native plant nurseries it's a good idea to plan ahead where you'll get your plants and determine whether they need to be pre-ordered in advance. See page 14 for a list of some regional native plant nurseries.

Bulbs are easy to plant and usually bloom in their first spring. Planting depth varies from just an inch or two deep (harvest brodiaea, tapertip onion, chocolate lily) to 4 inches or more (camas, fawn lily).

A dramatic pairing of nodding onion and native rock.

(I to r) Dibbler tool, plant plug, and the plug container from which it was removed. without soil. Keep their roots moist at all times and plant as soon as possible. Dig a hole slightly larger than the plant, spread out the roots, gently fill with soil all around the roots, and water well. Position the crown (where the stem meets the root) at or just below the soil surface.

Plugs are small plants that come in long, narrow, flexible plastic containers. Plugs are economical and can be planted with limited ground disturbance by using a dibbler, a special tool that punches a perfectly plug-sized hole in the ground, or a narrow trowel. Squeeze the container to loosen the roots, and pop





goldenrod

Useful

camas

Bulb Plants

chocolate lily

Columbia lily

fool's onion

harvest brodiaea

tapertip onion

fawn lily

ioto: Shaun Huk

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the plant out, poking it from the bottom if needed. Put the plant in the hole and push it in firmly.

Potted plants are the most expensive option but are easy to handle and familiar to most gardeners. Dig a hole slightly larger than the pot size, remove the plant from its container, and position it in the hole. Firm up around the plant with soil, then water well.

When should I plant? It's best to plant in the fall when the ground is moist, watering once right after planting to help the roots settle in. For spring planting, supplemental water will likely be required during the first season of growth.

Spacing One foot apart is a good average distance between plants. Small, low-growing species such as sea thrift can be planted more closely, while tall, spreading plants such as Canada goldenrod can be positioned farther apart. Cluster individual species for visual impact and to better attract pollinators.

Mulch or no mulch? Mulch isn't required but it can be useful in controlling weeds and conserving soil moisture. An inch or two of sand or pea gravel mulch is a good option for smaller, sun-loving species. For large, robust species, you can plant directly into sheet mulching using a sharp tool to cut through the cardboard.

Enhancements for year-round interest You can improve wildlife diversity in your wildflower garden by adding a variety of habitat features. Small piles of rocks create shelter and

Some winning plant combinations:

Low-growing plants for dry, thin soils including rock gardens and living roofs:

Broadleaved and lance-leaved sedum, tapertip onion, harvest brodiaea, common camas, wooly sunflower, field chickweed, spring gold, satinflower, long-stolon sedge, sea thrift, seashore lupine

Tall, robust, spreading
plants for deep, relatively moist soil:
Canada goldenrod, pearly everlasting, Douglas aster, fireweed

Deer-resistant plants for average, well-drained soil:

Yarrow, Idaho blue-eyed grass, Roemer's fescue, western buttercup, field chickweed, wooly sunflower, prairie woodrush, wild strawberry, blue wild-rye

Part shade, such as a dappled woodland:

Western buttercup, chocolate lily, fawn lily, great camas, western columbine, Henderson's shooting-star, prairie woodrush

Pots and planters:

Most low to medium height, drought tolerant species do well in planters. A few of the many good options include nodding onion, common and great camas, harsh paintbrush, Puget Sound gumweed, blue-eyed grass, and yellow-eyed grass

trap warmth. Rotting wood offers insects habitat and shade. Patches of bare dirt, gravel and sand are important for ground-nesting insects such as native bees. Leaf litter creates habitat for over-wintering insects. Pools of water are utilized by many animals.

The more structural and material diversity in your planting, the more micro-habitats it will contain, and the more life it will support. A large rock, an interesting piece of wood, a bench, or shrub can also add visual interest, particularly when no plants are blooming.









Wildflower meadows can look messy!

Remember that your planting supports an abundance of life even when it's not in bloom so try to resist the urge to clean things up too much. Old flower stalks, seed pods, and leaf litter offer food and physical cover to many tiny creatures. Seed-eating birds-like the dark-eyed junco pictured above-benefit from seed heads left in place for the winter.

As Time Goes By

Long-term maintenance

Remember that our native wildflowers tend to grow slowly. It will probably take 2-3 years before your planting looks nicely filled in. You'll almost certainly have some non-native, weedy plants show up, too. Any time you can spare to remove weeds, especially in the first year, will be worth it, making more room for the things you planted.

While it's good to leave some spots undisturbed for wild creatures, meadows benefit from a little tending. You can selectively cut back vigorous species to make space for more slow-growing plants. Choose a few areas to rake away patches of thatch and dead plant materials, allowing light to reach small seedlings. Strike a balance by cutting back and tidying up only part of your habitat in a given year, always leaving some portions messy.

Many gardeners are learning to appreciate that a little disorder has big benefits for wildlife, and can be beautiful, too.

Don't forget to take time to appreciate what you've created. Native plants support an abundance of life to observe and enjoy. While some plants may do poorly, others will thrive and spread. Insects that you've never seen before will show up for the habitat you've made. Every year is a little different as your creation takes on a life of its own.

There's so much to see and learn from wildflowers. Watch to discover which creatures pollinate your plants. When do their seeds ripen? Will you collect seeds from your habitat patch? How about sharing seeds and your growing knowledge with a friend?

The adventure continues!



Plant Selection Guide

Scientific name, folowed with common name	Bloom time	Flower color	Sun	Soil	Height	Deer resistance
ANNUALS						
Clarkia amoena farewell-to-spring	June	pink	sun	dry-average	6–18 inches	somewhat
Collinsia parviflora blue-eyed Mary	April-May	blue, purple	sun to part shade	dry-average	< 6 inches	somewhat
Lupinus bicolor bicolor lupine	April-May	blue, purple	sun	dry	< 6 inches	yes
Plectritis congesta sea blush	April-May	pink	sun to part shade	dry-moist	4–10 inches	somewhat
Trifolium willdenovii tomcat clover	May	pink	sun	dry-average	4-12 inches	somewhat
GRASSES & GRASS-LIKE PLANTS						
Danthonia californica California oatgrass	June-July	_	sun to part shade	dry-moist	12 inches	yes
Elymus glaucus blue wild-rye	June-July	_	sun to part shade	dry-moist	1-4 feet	yes
Festuca roemeri Roemer's fescue	June-July	_	sun to part shade	dry-moist	12-24 inches	yes
Luzula subsessilis prairie woodrush	April-May	_	sun to part shade	dry-average	8-12 inches	yes
Melica subulata Alaska oniongrass	May-June	-	part shade	dry-average	12-24 inches	yes
PERENNIALS						
Achillea millefolium yarrow	June-Sept.	white	sun to part shade	dry-average	12-24 inches	yes
Allium acuminatum tapertip onion	May-June	pink	sun	dry	< 6 inches	somewhat
Allium cernuum nodding onion	May-June	pink	sun to part shade	dry-average	10–18 inches	somewhat
Anaphalis margaritaceae pearly everlasting	July-Sept	white	sun	dry-moist	12–24 inches	yes
Aquilegia formosa western columbine	April-May	red	sun to part shade	average-moist	18–36 inches	somewhat
Armeria maritima sea thrift	May	pink	sun	dry	< 6 inches	yes
Brodiaea coronaria harvest brodiaea	June	purple	sun	dry	< 6 inches	yes
Camassia quamash common camas	April-May	purple	sun to part shade	dry-moist	12 inches	somewhat
Camassia leichtlinii great camas	April-May	purple	sun to part shade	dry-moist	12–36 inches	somewhat
Castilleja hispida harsh Indian paintbrush	April-May	red	sun to part shade	dry-average	12–18 inches	no
Castilleja miniata giant Indian paintbrush	April-May	red	sun to part shade	dry-average	12 – 18 inches	no
Cerastium arvense field chickweed	April-May	white	sun	dry-average	6–12 inches	
Chamaenerion angustifolium Fireweed	June-August	deep pink	sun	average-moist	2–6 feet	yes
Delphinium menziesii Menzies' larkspur	May-June	purple	sun to part shade	dry-average	12–36 inches	somewhat
Dodecatheon hendersonii	Way-Julie	pulpie	son to pair stidde	ury-average	12-30 litelies	Somewhat
Henderson's shooting-star	April-May	pink	sun to part shade	dry-average	6-10 inches	yes
Eriophyllum lanatum wooly sunflower	May-June	yellow	sun	dry-average	10–20 inches	yes
Erythronium oregonum fawn lily	March-April	white	part shade	dry-average	6–12 inches	no
Fragaria virginiana Virginia strawberry	May	white	sun to part shade	dry-average	< 6 inches	
Fritillaria affinis chocolate lily	April-May	brown	sun to part shade	dry-average	10–18 inches	yes
Grindelia integrifolia entire-leaved gumweed	June-July,	DIOWII	son to pair stidde	ary-average	10- 10 IIICHES	no
Cinidena inieginona enine-leavea guniweea	Oct-Nov	yellow	sun	dry	12-24 inches	yes
Lilium columbianum Columbia lily	June	orange	sun to part shade	dry-average	12–24 inches	no
Lomatium nudicaule barestem lomatium	April-May	pale yellow	sun	dry	6–18 inches	yes
Lomatium utriculatum spring gold	March-May	yellow	sun	dry	6–12 inches	yes
Micranthes integrifolia prairie saxifrage	March-April	white	sun to part shade	dry-average	6–18 inches	no
Olsynium douglasii satinflower	FebApril	deep pink	sun	dry-average	6–10 inches	no
Prunella vulgaris var. lanceolata self-heal	June-July	purple	sun to part shade	average-moist	12–18 inches	somewhat
Ranunculus occidentalis western buttercup	April-May	yellow	sun to part shade	dry-average	6–18 inches	yes
Sedum lanceolatum lance-leaf sedum	June-July	yellow	sun	dry	< 6 inches	yes
Sedum spathulifolium broad-leaf sedum	May-June	yellow	sun	dry	< 6 inches	yes
Sisyrinchium idahoense Idaho blue-eyed grass	May-June	purple	sun	average-moist	6–10 inches	yes
Solidago lepida	Triay Julie	porpio		avorage moisi	5 TO MICHOS	, 00
var. salebrosa Canada goldenrod	July-Sept	yellow	sun	average-moist	1-4 feet	somewhat
Symphiotrichum subspicatum Douglas aster	July-Sept	light purple	sun	average-moist	12–30 inches	somewhat
Triteleia hyacinthina fool's onion	May-June	white	sun	dry-average	6–18 inches	somewhat
Viola adunca early blue violet	April-May	purple	sun to part shade	average	< 6 inches	no
Hold daulted early bloc violet	/ ipiii-iviuy	Porbie	son to pair stidde	average	O IIICHES	13

Suppliers + Resources

Seed

The Center for Natural Lands Management

Inside Passage Seeds.

Northwest Meadowscapes

The Pacific Rim Institute

Satinflower Nurseries - in Canada

Salish Seeds Project



Sweat bee enjoying gumweed.
Photo: Cynthia Bormann

Plants

Biodiversity Nursery-containers

Ecotone Nursery—containers

Fourth Corner Nursery—bare root and bulbs

Oxbow Farm-containers, plugs

Pacific Rim Institute—plugs, bulbs, containers

Plantas Nativas-containers

Salish Seeds Project—plugs, bulbs, containers

San Juan County Master Gardeners plant sales—bulbs, bare root, containers

We acknowledge the countless generations of Coast Salish people who tended meadows in this region. We are grateful for their legacy of plants and plant knowledge.

In creating this guide, we relied on information generously shared over many years by native plant nurseries, gardeners, scientists, land managers, and other authorities.

The sources listed here are provided as a resource and are not an endorsement, nor intended to exclude other suppliers of native plants.

Among the written references we consulted, these were standouts:

Establishing Pollinator Meadows from Seed. Xerces Society, 2013

xerces.org/publications/guidelines/ establishing-pollinator-meadowsfrom-seed

Northwest Meadowscapes website, northwestmeadowscapes.com

Selecting Plants for Pollinators: A Guide for Gardeners, Farmers, and Land Managers in the Eastern Vancouver Island Region. Pollinator Partnership Canada

pollinatorpartnership.ca/assets/ generalFiles/E.Vancouver.Isl.2017.pdf

Saanich Ethnobotany. Nancy J. Turner and Richard Hebda, 2012. Published by the Royal BC Museum, Victoria, Canada.

A small selection of other useful guides and websites:

Designing and Planting a Native Hedgerow. Satinflower Nurseries, 2023

satinflower.ca/blogs/learn/designingand-planting-a-native-hedgerow

Rain Garden Handbook for Western Washington. WA State Dept. of Ecology, 2013.

apps.ecology.wa.gov/publications/publications/1310027.pdf

The Washington Native Plant Society website has a wealth of information on selecting, sourcing, and growing native species.

www.wnps.org

The Garry Oak Gardeners Handbook. Garry Oak Ecosystem Recovery Team, 2011.

goert.ca/wp/wp-content/uploads/ GOERT-Gardeners-Handbook-2011.pdf



After self-heal flowers fade, lovely seed heads develop.



A concrete foundation forms a backdrop for fool's onion.

viola adunca

Notes

The wildflower meadow at the Land Bank's office in April.







A joint program of the San Juan County Conservation Land Bank and the San Juan Preservation Trust