

Xerces Monarch and Pollinator Kits: California

Thanks for your interest in creating habitat for Monarchs and other pollinators in California. This handout is intended to accompany the Interest Form (<https://forms.gle/ZWYUTMB4x9DrCHW37>), in order to provide you with more information about the kits. Please read it over carefully before completing your form. If you have questions, please email us at: centralvalleypollinators@xerces.org. You can also find more information about our Habitat Kit Program on our website: (<https://xerces.org/pollinator-conservation/habitat-kits>).

Many insect pollinators are declining in California, including bees and butterflies. The Western monarch population has declined 95% since the 1980s, likely due to multiple factors including habitat loss and degradation, pesticides, and climate change. One important step we can take to protect these important animals is to increase the amount of habitat available to these species. To this end, The Xerces Society is offering habitat kits that contain climate-smart native plants to project partners who are willing to provide the time, labor and land to develop habitats that support monarchs and other pollinators in California.

Who can apply?

Kits are intended to be used to create or enhance monarch and pollinator habitat on working lands or public lands, with landowner or land manager collaboration. This includes farms, ranches, tribal land, urban farms or gardens, city parks, school gardens or other public areas. *The kits are not intended to be used in home gardens.* We have kits available for the Central Valley, Sierra Nevada Foothills, Central Coast and Coastal Foothills, or Southern California (see map on last page).

We encourage private landowners of working lands to partner with their local Resource Conservation District (RCD) or other technical liaison on their projects.

Past applicants or recipients of this program are welcome to re-apply.

Please note that you are responsible for picking up your kit(s) when ready in Oct/Nov. Kit pick up locations are as follows:

- Central Valley / Sierra Foothills: USDA NRCS Lockeford Plant Materials Center, Lockeford CA
- Central Coast: TBD (likely Monterey county or adjacent county)
- Southern California: Moosa Creek Nursery in Valley Center, CA.

How to fill out the Notice of Interest Form:

Completing the form does not guarantee that your project will be selected. The form is your opportunity to demonstrate that your project is well designed and carefully thought out. Land managers can apply directly, or RCDs or other technical liaisons can apply on behalf of land managers. Please note that the name and email that you enter when you fill out the form is the default main point of contact for this project. *You are responsible for notifying us if the project plans or point of contact change at any time.*

Single kits are not designed to be divided into multiple projects, and we are not able to provide partial kits or to customize kits for specific projects. Participants must be able to use the entire kit/ minimum order in one project but it can be divided up within the area. For example, several plantings within one county park, or several areas on a farm or ranch. If applying for kits for multiple projects, please fill out a separate application for each project.

If you are interested in receiving a kit(s), please complete the interest form by EOD April 15, 2022. Partners will be notified by the end of May, 2022 if they will be receiving a kit. Kits will be available for pick-up in late October/early November of 2022.

This year, we are offering several different kit types and sizes. Please take a minute to look through the different kit descriptions as well as the associated geographic regions, so you can determine which kit would be most appropriate for your project. All kits are comprised of native plants that have been identified as having high value to monarchs and other pollinators and are grown without the use of systemic pesticides that may be harmful to pollinators. *Please note that kits are not certified organic.*

Kits available for the Sacramento Valley, the San Joaquin Valley, the Central Coast and Coastal Foothills, and the Sierra Nevada Foothills include (pick-up in locations in Lockeford, CA and the Central Coast TBD):

Wildflower Grassland Kit. This kit contains 480 small herbaceous transplants ('plugs'), including milkweed, as well as some native grass seed. Each kit will cover approximately 4,320 ft² if planted on 3 ft. spacing. Minimum order of 1 kit / project. Additional kits can be requested for larger projects.

Riparian Wildflower Kit. This kit contains 480 small transplants ('plugs'), including milkweed and other plants used by monarchs and pollinators, and native grass seed. This kit contains plants that do well in riparian areas and can tolerate some seasonal flooding. Each kit will cover 4,320 ft² if planted on 3 ft. spacing. Minimum order of 1 kit / project. Additional kits can be requested for larger projects.

Hedgerow Kit. This kit contains 85 woody and herbaceous transplants (including milkweed) and native bunch grasses, which will provide 500 ft of linear hedgerow or 3,060 ft² when planted on 6 ft spacing. Container sizes range from tree band to 1 gal. Minimum order of 1 kit / project. Additional kits can be requested for larger projects.

Riparian Hedgerow Kit. This kit contains 85 woody and herbaceous transplants (including milkweed) and native bunch grasses, which will provide 500 ft of linear habitat or 3,060 ft² when planted on 6 ft spacing. This kit contains plants that do well in riparian areas and can tolerate some seasonal flooding. Container sizes range from tree band to 1 gal. Minimum order of 1 kit / project. Additional kits can be requested for larger projects.

Garden Kit. This kit contains 32 herbaceous transplants (including milkweed) and native bunch grasses, which will cover approximately 512 ft² when planted on 4 ft spacing. Container sizes range from tree band to 1 gal. Minimum order of 1 kit/ project. Additional kits can be requested for larger projects.

Kits available for Southern California (pick-up in Valley Center, CA):

Southern California Garden Kit. This kit contains 32 plants, including 4 shrubs, 8 milkweed plants, and a mix of native grasses and forbs. Each kit will cover approximately 512 ft². Minimum order of 1 kit / project. Additional kits can be requested for larger projects.

If you need assistance filling out the application form, have questions about your project's suitability or for requests for technical guidance on your project, please email us at:

centralvalleypollinators@xerces.org

What's in the kits? Below are the species lists, region information and additional technical information for each kit. Exact species and numbers are dependent on nursery availability and may change.

Kits that are within 5 miles of the coast will not include milkweed, but will have the same total number of plants. For more information on why planting milkweed near the coast is not recommended, please see <https://monarchjointventure.org/resources/faq/i-live-near-the-california-overwintering-grounds.-should-i-be-planting-milk>.

Table 1. Tentative plant list for Hedgerow kits, Riparian Hedgerow Kits and Garden Kits. Kits within 5 miles of the coast will not contain milkweed. Exact species composition dependent on nursery availability. Most species will be included as tree-band to 1 gal sized transplants.

| Plant Species | Riparian Hedgerow Kit: Sacramento Valley/Central Coast/Sierra Foothills | Riparian Hedgerow Kit: San Joaquin Valley | Hedgerow kit: Sacramento Valley | Hedgerow Kit: and Joaquin Valley | Hedgerow Kit: Central Coast/Sierra Foothills | Garden Kit: |
|---|---|---|---------------------------------|----------------------------------|--|-------------|
| Indian hemp (<i>Apocynum cannabinum</i>) | X | X | X | X | X | |
| Manzanita (<i>Arctostaphylos densiflora</i> McMinn) | | | X | X | X | |
| Indian milkweed (<i>Asclepias eriocarpa</i>) | | | | | X | |
| Narrowleaf milkweed (<i>Asclepias fascicularis</i>) | X | X | X | X | X | X |

| | | | | | | |
|---|---|---|---|---|---|---|
| Showy milkweed (<i>Asclepias speciosa</i>) | X | | X | | X | X |
| Coyotebrush (<i>Baccharis pilularis</i>) | | | X | X | X | |
| Mulesfat (<i>Baccharis salicifolia</i>) | X | X | | | | |
| California lilac (<i>Ceanothus</i> 'Concha' or 'Frosty Blue') | | | X | X | X | |
| Buttonbush (<i>Cephalanthus occidentalis</i>) | X | X | | | | |
| California buckwheat (<i>Eriogonum fasciculatum</i>) | | | X | X | X | X |
| Toyon (<i>Heteromeles arbutifolia</i>) | | | X | X | X | |
| Deer grass (<i>Muhlenbergia rigens</i>) | X | | | | | |
| California phacelia (<i>Phacelia californica</i>) | | | | | | X |
| Hollyleaf cherry (<i>Prunus ilicifolia</i>) | | | | | X | |
| Golden currant (<i>Ribes aureum</i>) | X | X | | | | |
| Arroyo / Sandbar willow (<i>Salix lasiolepis</i> or <i>exigua</i>) | X | X | | | | |
| Black Sage (<i>Salvia mellifera</i>) | | | | | | X |
| Goldenrod (<i>Solidago velutina</i> <i>ssp. californica</i>) | X | X | X | X | X | X |

| | | | | | | |
|--|---|---|---|---|---|---|
| Purple needlegrass (<i>Stipa pulchra</i>) | | | X | | X | X |
| Alkali sacaton (<i>Sporobolus airoides</i>) | | X | | X | | |
| Pacific aster (<i>Symphyotricum chilense</i>) | X | X | X | X | X | X |
| Western vervain (<i>Verbena lasiostachys</i>) | | | | | | X |

Table 2. Tentative plant list for the Wildflower Grassland Kit and Riparian Wildflower Kits (pick-up in locations in Lockeford, CA and the Central Coast TBD). Kits within 5 miles of the coast will not contain milkweed. Kits that include showy milkweed will receive rhizomes of that species. All other species will be included as transplants. Exact species composition dependent on nursery availability.

| Plant Species *seed; all others transplants | Wildflower Grassland Kit: Sacramento Valley | Wildflower Grassland Kit: San Joaquin Valley | Wildflower Grassland Kit: Central Coast/Sierra Foothills | Riparian Wildflower Kit: Sacramento Valley/ Central Coast/Sierra Foothills | Riparian Wildflower Kit: San Joaquin Valley |
|--|--|---|---|---|--|
| Yarrow (<i>Achillea millefolium</i>) | X | X | | | |
| Indian milkweed (<i>Asclepias eriocarpa</i>) | | | X | | |
| Narrowleaf milkweed (<i>Asclepias fascicularis</i>) | X | X | X | X | X |
| Showy milkweed (<i>Asclepias speciosa</i>) | X | | X | X | |
| Bur marigold (<i>Bidens laevis</i>) | | | | X | X |
| Western goldenrod (<i>Euthamia occidentalis</i>) | | | | X | X |
| Red fescue* (<i>Festuca rubra</i>) | | | | X | |
| Coyote mint (<i>Monardella villosa</i>) | | | X | | |
| California phacelia (<i>Phacelia californica</i>) | X | X | X | | |
| Goldenrod (<i>Solidago velutina ssp. californica</i>) | X | X | X | X | X |
| Purple needlegrass* (<i>Stipa pulchra</i>) | X | | X | | |

| | | | | | |
|--|---|---|---|---|---|
| Alkali sacaton* (<i>Sporobolus airoides</i>) | | X | | | X |
| Pacific aster (<i>Symphyotricum chilense</i>) | X | X | X | X | X |
| Western vervain (<i>Verbena lasiostachys</i>) | X | X | X | X | X |

Table 3. Tentative plant list for the Southern California Garden Kits (pick-up in Valley Center, CA). Kits within 5 miles of the coast (1 mile south of Santa Barbara) will not contain milkweed. All other species will be included as transplants. Exact species composition dependent on nursery availability.

| Common Name | Scientific Name |
|------------------------|--|
| Narrow leaf milkweed | <i>Asclepias fascicularis</i> |
| Indian milkweed | <i>Asclepias eriocarpa</i> |
| McMinn manzanita | <i>Arctostaphylos densiflora</i> 'Howard McMinn' |
| California lilac | <i>Ceanothus</i> 'Skylark' / 'Wheeler Canyon' |
| Buckwheat | <i>Eriogonum fasciculatum</i> |
| Coast sunflower | <i>Encelia californica</i> |
| Deerweed | <i>Lotus scoparius</i> |
| Bush monkeyflower | <i>Mimulus aurantiacus</i> / <i>puniceus</i> |
| Willow leaf monardella | <i>Monardella linoides</i> |
| Black sage | <i>Salvia mellifera</i> |
| Purple needle grass | <i>Stipa pulchra</i> |

Figure 1. Kit Regions and pick-up locations for the California Habitat Kits

