MIRIDAE | LIVING LABS

with the

Sacramento River District

SEED PILE PROJECT

MIRIDAE + UC DAVIS + THE RIVER DISTRICT

www.miridaelivinglabs.org/seedpileproject

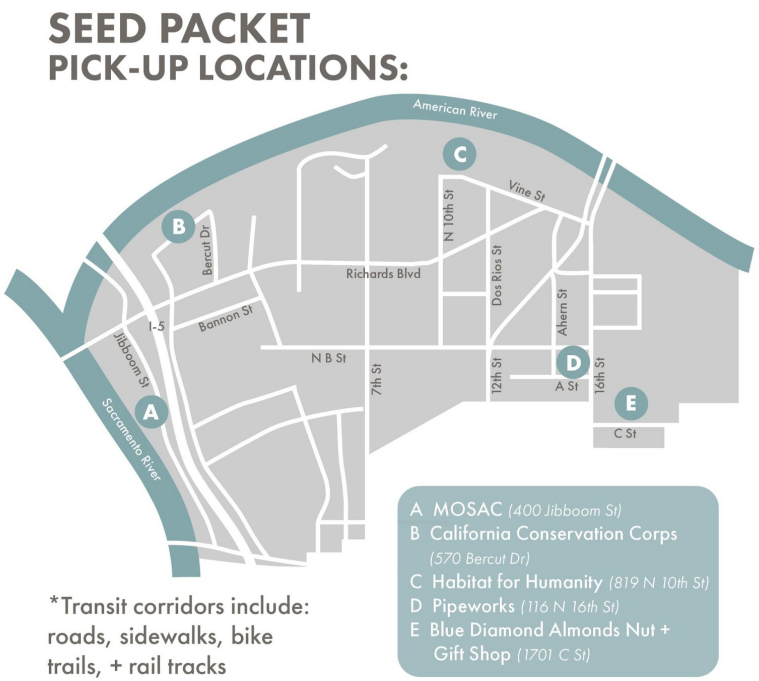
SOUND LIKE FUN? Grab a packet + sign up with this link!

Data Identifiers

These fields of information will help us link your seed pile location data to your survey answers in the future!

First & Last name:_____

Email address:_____



Data Form 1:
River District Seed Pile Location

Thank you for joining the third year of the **Seed Pile Project**! The goal of this project, a collaborative effort between **UC Davis** and **Miridae Living Labs**, is to better understand the dynamics of seed dispersal of native plants in human-dominated landscapes and in transportation corridors in particular. This year, we are excited to be partnering with Sacramento's **River District**! All seed piles will be placed within the River District and seed packets have been distributed through River District community organizations and businesses.

This first data form is to collect data on where seed piles are placed and what types of surfaces they are on. Future data forms will collect information on the number, types, and locations of any seedling that do (or don't!) pop up around the pile location in subsequent months. **Please have your Seed Pile dropped before January 31st.**

Instructions - Please read before proceeding!

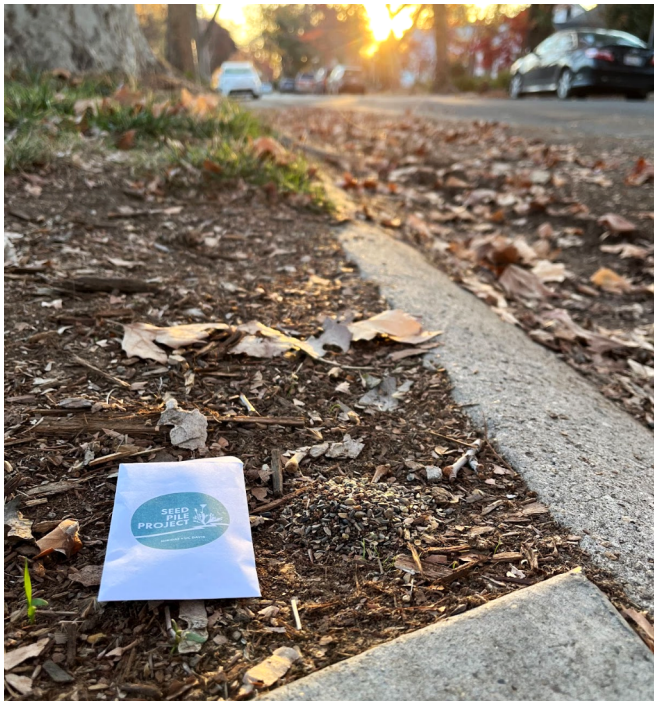
1. Read through the project information and instructions on our website: www.miridaelivinglabs.org/seedpileprojectforms

2. Set down your seed pile along a transit corridor. Dump the entire packet at once in a single pile - please don't scatter it broadly. Examples of great transit corridor locations include:
   - Along a road
   - Along a bike path
   - Along a sidewalk
   - Along a rail track
   - In a parking lot

3. Do NOT place your pile:
   - In your garden
   - In a known irrigated location
   - Within 1.25 miles of agricultural fields, especially cultivated sunflower fields
   - Somewhere where you will forget its location
   - Somewhere you will not be able to visit monthly

4. Make a note of where your pile is so you can easily return to it (e.g. a pin in google maps or a note in your phone).

Example of a Seed Pile near a transit corridor (road)



Seed Pile Location Information

You can document the location of your seed pile in multiple ways -- choose one (or multiple) of the two options below:

Option 1: Tell us the address, or nearest address, to your seed pile.

Option 2: Tell us the GPS coordinates (latitude and longitude) of your seed pile. You can estimate this using google maps or similar apps.
If you need help finding your GPS coordinates, here is a short video that will guide you:
https://www.youtube.com/watch?v=yFavIeiWmO8

Describe the location of your seed pile as best you can
(e.g. along the east side of the Sacramento River Bike trail 100 feet south of the MoSAC; by the fire hydrant on the median by my office).

Data Forms 2 - 6 Instructions
Please read before proceeding!

1. Read through the project information and instructions on our website https://www.miridaelivinglabs.org/seedpileprojectforms.

2. Visit your pile in January (please have your Seed Pile dropped and Data Forms 1 & 2 complete before January 31st). Have our **Seedling Guide** ready to consult! You can view it online or download it for offline viewing.

3. We recommend looking for one plant species at a time, in the order of the Seedling Guide (and the questions below).

4. Look in a 5 foot radius around your pile. How many of that type of sprout do you think you see?

5. Choose the most common growth stage you see (seedling, flowering, or set seed).

6. Repeat for each species. This should take about 15 minutes. It will go more quickly as you get familiar with the plants and as fewer seedlings make it to maturity.

7. If you don't see any sprouts at all - that's ok! No data is still data, and it's important to keep filling out data forms.

Please use our **Seedling Guide** (www.miridaelivinglabs.org/seedlingguide) to do your best guesses and estimates about any seedlings popping up around your pile.

Data Forms 2-6 EXAMPLE: Seed Pile Data

Seedling Quantity

Common Yarrow, *Achillea millefolium* *IIII*
Elegant clarkia, *Clarkia unguiculata* *II*
California poppy, *Eschscholzia californica* *~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~*
Great valley gumweed, *Grindelia camporum* *IIII*
Sunflower, *Helianthus annuus* *III*
Baby blue eyes, *Nemophila menziesii* *II*
Rock phacelia, *Phacelia californica* *~~IIII~~ ~~IIII~~ ~~IIII~~ II*
Lacy phacelia, *Phacelia tanacetifolia* *N/A*
Vinegar weed, *Trichostema lanceolatum* *~~IIII~~ III*

Common Growth Stage and Additional Notes

(seedling, flowering, or set seed)

Common Yarrow, *Achillea millefolium* *3 seedlings, 1 flowering*
Elegant clarkia, *Clarkia unguiculata* *2 seedlings*
California poppy, *Eschscholzia californica* *12 seedlings, 6 flowering, 2 set seed*
Great valley gumweed, *Grindelia camporum* *4 seedlings*
Sunflower, *Helianthus annuus* *2 seedlings, 1 flowering*
Baby blue eyes, *Nemophila menziesii* *2 flowering*
Rock phacelia, *Phacelia californica* *11 seedlings, 6 flowering*
Lacy phacelia, *Phacelia tanacetifolia* *N/A*
Vinegar weed, *Trichostema lanceolatum* *7 flowering, 1 set seed*

Data Form 2:
January Seed Pile Data

Seedling Quantity	Common Growth Stage and Additional Notes (seedling, flowering, or set seed)
Common Yarrow, *Achillea millefolium*	Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*	Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*	California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*	Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*	Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*	Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*	Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*	Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*	Vinegar weed, *Trichostema lanceolatum*

Data Form 3:
February Seed Pile Data

Seedling Quantity

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Common Growth Stage and Additional Notes

(seedling, flowering, or set seed)

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Data Form 4:
March Seed Pile Data

Seedling Quantity

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Common Growth Stage and Additional Notes

(seedling, flowering, or set seed)

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Data Form 5:
April Seed Pile Data

Seedling Quantity

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Common Growth Stage and Additional Notes

(seedling, flowering, or set seed)

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Data Form 6:
May Seed Pile Data

Seedling Quantity

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*

Common Growth Stage and Additional Notes

(seedling, flowering, or set seed)

Common Yarrow, *Achillea millefolium*
Elegant clarkia, *Clarkia unguiculata*
California poppy, *Eschscholzia californica*
Great valley gumweed, *Grindelia camporum*
Sunflower, *Helianthus annuus*
Baby blue eyes, *Nemophila menziesii*
Rock phacelia, *Phacelia californica*
Lacy phacelia, *Phacelia tanacetifolia*
Vinegar weed, *Trichostema lanceolatum*