

Santa Cruz Waldorf School 8th Grade Class of 2019/2020: Year-Long Pollinator Project



Overview: The SCWS 8th grade class set a goal to research, design and install a pollinator habitat on our school campus. The project was to include the following:

- Research project about a specific local pollinator
- Fundraising at the Winter Faire
- Study of Monarch Butterflies and Honeybees
- Research Project about specific pollinator plant
- Landscape Design
- Building bug hotels, mason bee houses, hummingbird feeders, and bug baths (cancelled due to covid-19)
- Presentation at Earth Day Festival (Cancelled due to covid-19)
- Fundraising at the May Faire (Cancelled due to covid-19)
- Landscape Installation (Postponed due to covid-19)

Research of a Local Pollinator: The students each chose a specific local pollinator to Research and completed a report and presentation about their new friend. The goal of this activity was to get them excited about beings whose importance is often overlooked or misunderstood. Reports included information about the life-cycle, habitat needs at different stages, range and host plants/ plants pollinated. Presentations of their reports were given to their classmates. Here are the pollinators that were chosen:

Blue Orchard Mason Bee (*Osmia lignaria*)
Anna's Hummingbird (*Calypte anna*)
Long-Horned Bee (*Melissodes* spp.)
Soldier Beetle (*Chauliognathus* spp.)
Great Golden Digger Wasp (*Sphex ichneumoneus*)
California Bumblebee (*Bombus cal.*)
Silvery Blue Butterfly (*Glaucosyche lygdamus*)

Pallid Bat (*Antrozous pallidus*)
White-lined Sphynx Moth (*Hyles lineata*)



Fundraising at the Winter Faire: Students made hand-painted monarch butterfly earrings, and the cover art from their reports was used to print notecard sets. The fundraiser brought in \$145 which was set aside to purchase plants and seeds for the project.

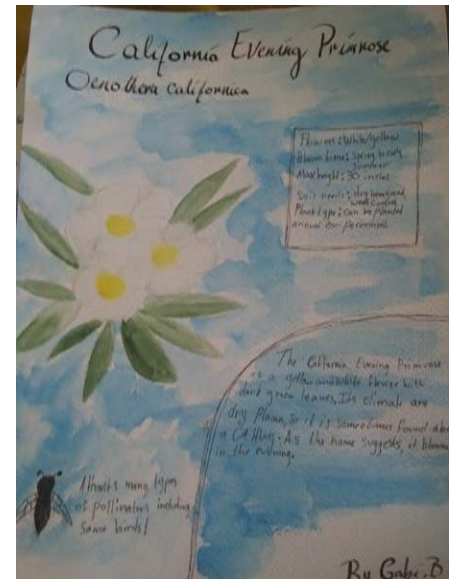
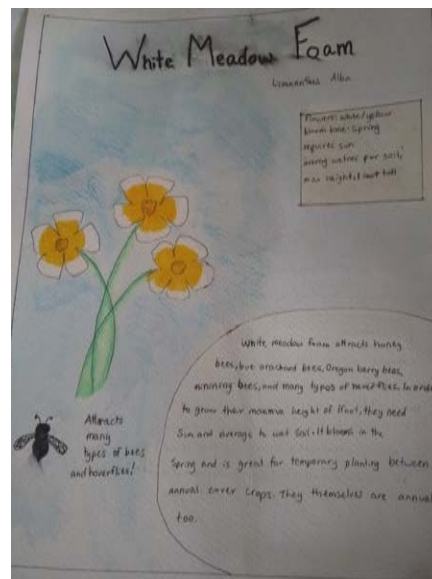
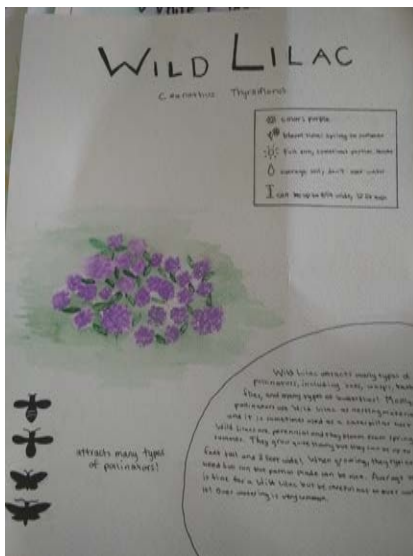
Study of Monarch Butterflies and Honey Bees: In fall/winter, the students learned about and observed the Monarch lifecycle and propagated milkweed (*Gomphocarpus physocarpus*) seeds for the habitat. Seeds were also saved and packaged to be given away/ sold at the Earth Day Fair and May Fair fundraiser. In early spring, a local beekeeper came to discuss European honeybees and to prepare students to install and maintain hives in the school garden. These hives, including a flow hive are still being established.



**Research
of a Pollinator
Plant: Students**

chose a local pollinator plant to study. They were to focus on plants that we would be able to include in our habitat. Students created a plant profile for their plant which included flower color, bloom time, size, soil/ water needs and pollinators that the plant supports. Here are the plants that were chosen:

- California Evening Primrose (*Oenothera cal.*)
- White Meadow Foam (*Limnanthes alba*)
- Wild Lilac (*Ceanothus thyrsoiflorus*)
- Giant Hyssop (*Agastache foeniculum*)
- Pacific Aster (*Aster chilensis*)
- Golden Currant (*Ribes aureum*)
- Bearberry (*Agastache uva-ursi*)
- California Goldenrod (*Solidago cal.*)
- California Yarrow (*Achillea millefolium*)





Landscape Design: Students observed an existing area in need of improvement and were to establish a plan for the installment of their pollinator habitat. This included removal of invasives, assessment of existing plant life, discussion about drainage issues, raising or lowering soil levels, installing irrigation, and planning for features like bug hotels, bug baths and hummingbird feeders. Students drew up their plan for location of new and existing plants. Students were able to remove some chasmanthe and to observe the site, however shortly after this process began, on-site work was cancelled due to school closure.

Students continued their study of plants and planned their landscape design from home.

Landscape Installation: Though some of our plans were either cancelled or put on hold for the time being, it is my hope that installation of the habitat can be done once social distancing restrictions are loosened. Plants were purchased, seedlings are growing in the greenhouse, and the site is being prepared for planting by the gardening teacher. Ideally the students would at least be able to come and help with planting and installing irrigation. As the site is quite large it is likely that this project will be repeated with the next 2 graduating classes.

