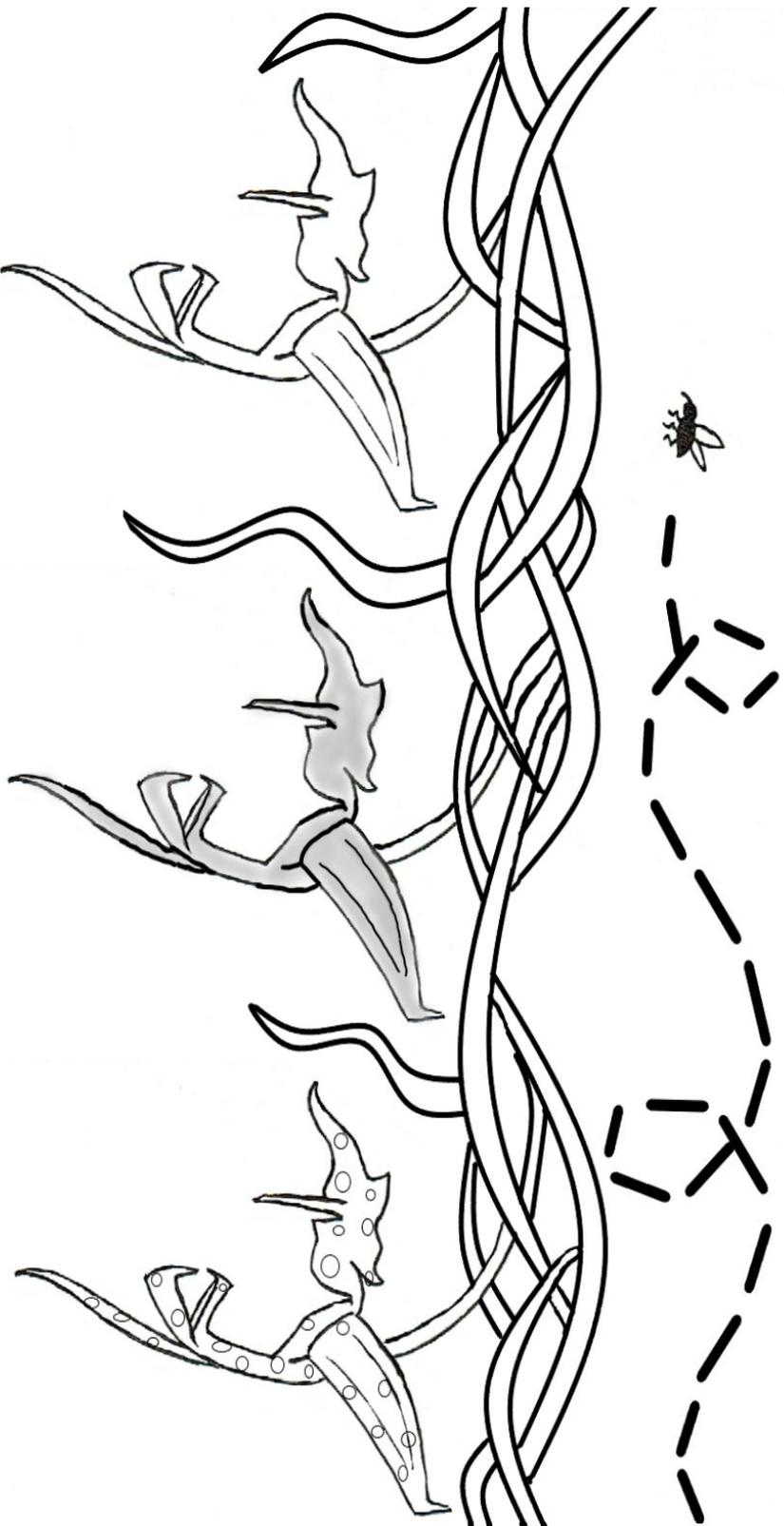


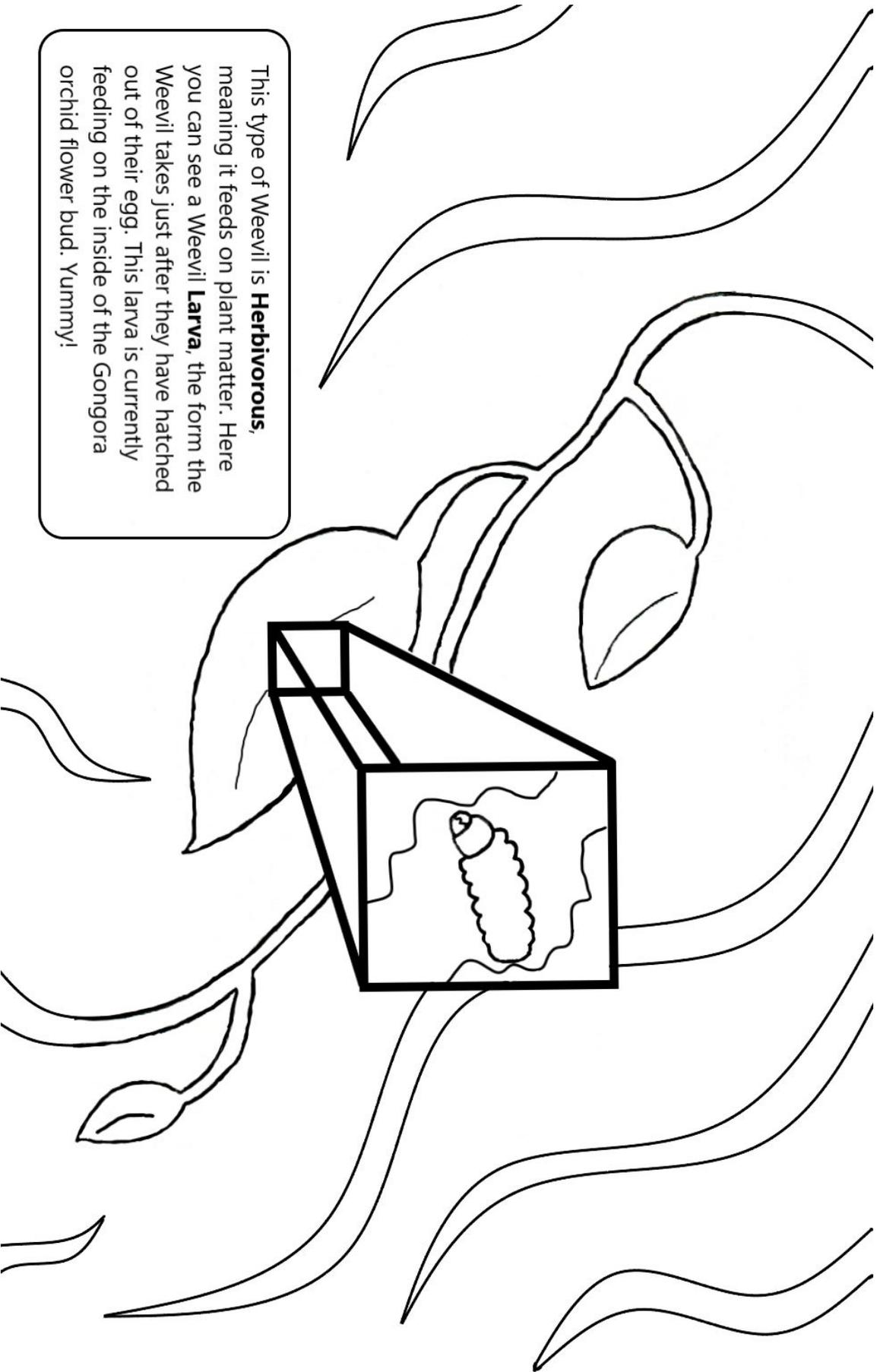
UC Davis Museum Day 2021

The Ramírez Lab's Plant-Insect Interactions Coloring Book

By Molly Barber, Fernanda Guízar, Collin Gross, and Jasen
Liu

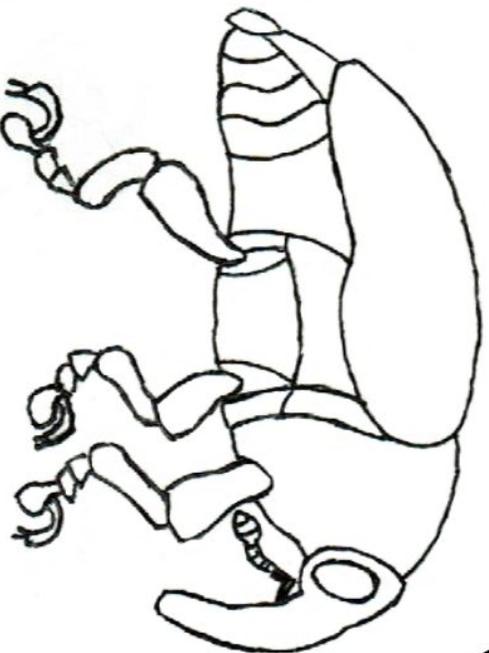


This Weevil is able to feed on at least these 3 variations, also known as **Chemotypes**, of Gongora Orchid. One Chemotype is pink, one is a deep red, and one is yellow with speckles, though you may color them as you please. Here you can see a Weevil in the process of **Host Selection**, where they must choose which flower to use as food as well as a place to find a mate and eventually lay their eggs. What an important choice!



This type of Weevil is **Herbivorous**, meaning it feeds on plant matter. Here you can see a Weevil **Larva**, the form the Weevil takes just after they have hatched out of their egg. This larva is currently feeding on the inside of the Gongora orchid flower bud. Yummy!

MALE



FEMALE



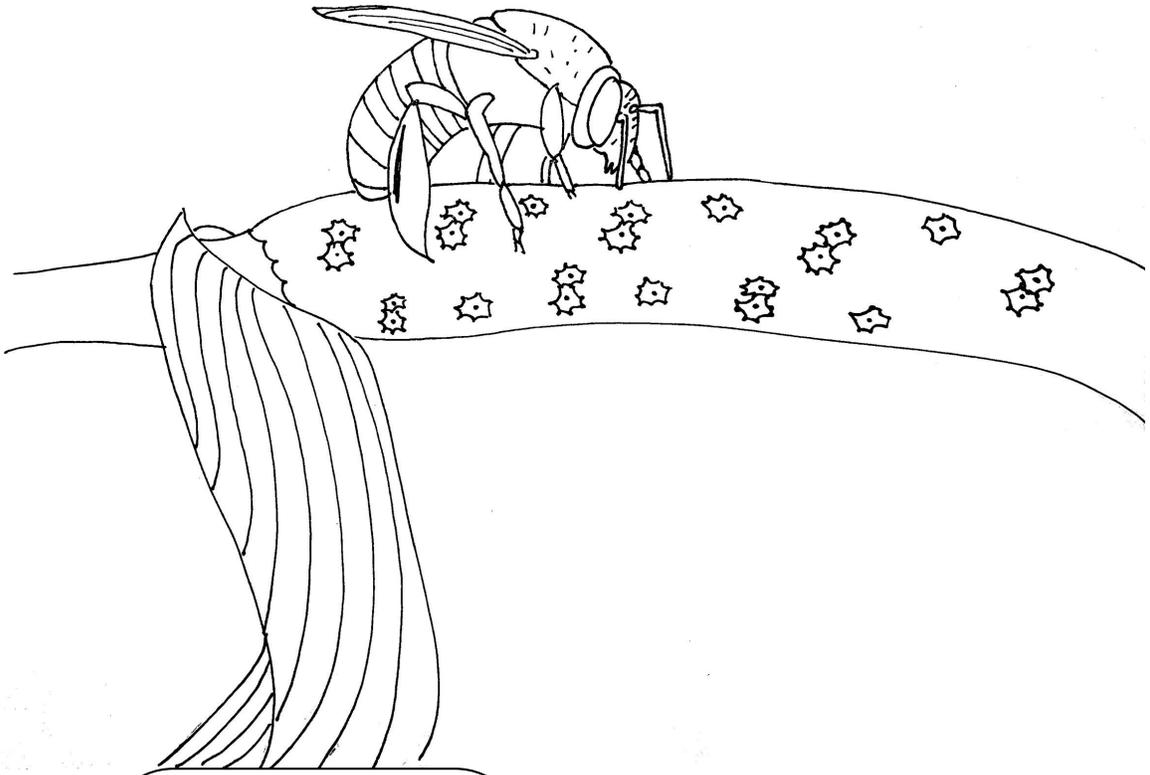
Here you can see an example of a male and female Weevil from this species. If you look closely you will see that they have different looking trunks, also known as **Rostrums**. This is an example of **Dimorphism**, where individuals of the same species may follow one of two variations in body shape, size, or color. In this case the male Weevil has a shorter rostrum, while the female's rostrum is much longer. But I think both are equally cute!



This is the flower of an orchid. Orchids are a big family with many many plant species. Most of them have beautiful flowers that attract all kinds of pollinators.



Some orchid flowers produce perfumes. The scent of these flowers attracts pollinators such as orchid bees. However, scent can also attract herbivores!



Flowers come in different shapes, colors and sizes. A **spadix** is a type of inflorescence that consists of many little flowers clustered together in a spike.

Captions for the next 3 pages

1. Not all flowers reward their pollinators!
Shown here is the **California Pipevine**, who attracts **fungus gnats** by producing a smell similar to that of mushrooms.
This bizarre plant is only found in California, and can be seen flowering between February and March around Putah Creek.
 1. A cross-section of the flower. Gnats fly in but are confused by the curved tunnel-like shape. While trapped in the flower, they transfer pollen trying to escape.
 2. Close up of a fungus gnat. These gnats are tiny and up to 40 can be present in a single flower at a given time!
 3. If pollination is successful, beautiful hanging fruits are produced that eventually dry up to release winged seeds into the wind.
2. Flowers have evolved ways to make sure that their pollinators are the only ones that can visit them.
For example, **nectar spurs** (hollow modified petals) have evolved in many plant species that allow only pollinators with proper adaptations, such as long beaks or tongues, to reach the nectar at the bottom of the spurs.
Shown here are 3 different columbines that have evolved spurs to match the mouthparts of their respective pollinators (from left to right: bumblebee, hummingbird, and hawkmoth)
3. Bats are important pollinators in many parts of the world!
Shown here is an amazing plant called a **Marcgravia**.
The bats drink nectar from bowl-like nectaries hanging underneath the flowers and transfer pollen from their foreheads while they do so.
The cup-shaped leaves above the flowers reflect the sonar of bats, allowing for them to easily home in on the plants.

