## Plants (food)

- ▶ Provide pollen, nectar, and host plants, including trees and grasses, from spring through fall. Plan for a succession of bloom times using native plants.
- ▶ Plant "clumps" of same-flowering plants. Design the area with multiple types of plants to provide a variety of colors and flower shapes for maximum attraction.
- ▶ Avoid modern hybrids, especially those with "doubled" flowers. These plants may not have pollen, nectar, or fragrance for pollinators.
- ▶ Include larval host plants in the landscape for caterpillars, which turn into butterflies and moths. However, be aware that insects will eat them.
- Ensure that plants are insecticide-free.





# Insect mouthparts determine what types of flowers the insect feeds from:

- ▶ Tubular Butterflies and moths, some bees, and hummingbirds.
- ▶ Ray/flat Beetles, bees, and flies. These can also serve as resting places for butterflies and moths.
- ► Umbels (flat-topped clusters of tiny funnel-shaped flowers) Bees, flies, wasps, small butterflies and moths, and beetles.
- ▶ Others (funnel, whorled, bilabiate, and shallow bell shapes) Bees, flies, wasps, and some beetles.

### **Host plants**

- ▶ Essential for survival of certain butterfly and moth species
- Specific to individual species

#### Helpful resources are found at:

- https://agrilifeextension.tamu.edu/solutions/butterfly-gardening/
- www.wildflower.org/collections/
- http://xerces.org/milkweed-seed-finder/
- https://www.fs.fed.us/wildflowers/pollinators/documents/ AttractingPollinatorsEasternUS\_V1.pdf





## Water

## Provide easy access to water for insects without the chance of drowning.

- Water dishes
- Drippers
- Puddling dishes
- ► Mud baths







- ▶ Create a damp salt lick for bees and butterflies. Use a drip hose or irrigation line, or place a birdbath or dish on the ground. Add soil, a bit of sea salt or wood ashes, and water to make the area damp.
- Add a nectar source with a hummingbird feeder, filling it with 4 parts water to 1 part sugar. Clean the feeder regularly to avoid mold.
- ▶ Insects need resources other than nectar—some like foodstuffs such as moist animal droppings, urine, and rotting fruits. Add overripe bananas, citrus, or other fruits to a suet feeder and hang it in a tree.
- ▶ Place a sponge in a dish of water that is lightly salted with sea salt to see which insects come to investigate.









## Shelter

- ▶ Plant in layers by mature height. (i.e., canopy such as trees, lower canopy, shrubs, grasses, and herbaceous plants such as herbs, vegetables, and flowers)
- ▶ Leave a little "mess"—logs, snags, twig bundles, and leaves can create nesting areas for native bees.
- ▶ Place rocks or logs for basking areas.
- Leave bare (unmulched) soil for ground-nesting native bees.
- ▶ Add handmade or "artificial" habitats. (NOTE: These should be sheltered and east- to southeast-facing.)









