

Station 1, Pollination Syndromes Answer Key

Overall guide:

Hummingbird: tend to be red, usually have elongated nectar spurs or petals fused into a long tube to hold nectar (in order to fit the beak). Hummingbirds don't land when they feed, so flowers are usually positioned in a way to be easily accessed by hovering birds.

Fly: Tend to be red & mottled, have a foul odor- tricks flies into thinking flowers are rotting meat so they land looking for food and pollinate the flower! (ie no rewards provided for the fly)

Bee: Flowers provide a landing platform or footholds for the bee, contain ample pollen and/or nectar rewards. Sometimes petals will have patterns to guide bee to center of the flower where the pollen is.

Hawk Moth: tend to be white since moths pollinate at dusk (don't need to waste energy making bright colors if no one is going to see them). Flowers are usually heavily scented so moths can find them at night, and have long floral tube containing nectar reward to accommodate long proboscis.

Wind: flowers highly reduced: no showy petals, anthers protrude so pollen can catch the wind, unscented and don't provide nectar reward.

Life Sciences Outreach Faculty Speaker Series for High School Biology Teachers
How Biologists View Structure and Function
Fall 2018

Station 1, Species Key:

Hummingbird:

Tillandsia “Spirit”
Pentas lanceolata “Ruby Glow”
Fuchsia boliviana
Aquilegia canadensis

Fly:

Anthurium “Red”
Trillium erectum
Symplocarpus foetidus
Aristolochia macrophylla

Bee:

Abutilon “Miss Marmalade”
Chrysanthemum spp

Hawk Moth:

Brugmansia “Angel’s Summer Dream”
Streptocarpus “Maasen’s white”
Aquilegia coerulea

Wind:

Quercus ilicifolia
Poa laxa

Easy-to-find spring plants if you want to recreate this workshop:

Hummingbird: *Fuchsia*, *Aquilegia canadensis*

Bee: sunflower, clover, Echinacea, Andromeda bush

Fly: *Trillium erectum*, skunk cabbage (*Symplocarpus foetidus*)

Moth: white petunias, *Aquilegia longissima*

Wind: Most grass, sedge, oak, maple, and birch species are wind-pollinated