

HOW TO PLANT A POLLINATOR GARDEN

Tetlin National Wildlife Refuge Tok, Alaska



What's the buzz about pollinators?

It has been estimated that animal pollinators are needed for the reproduction of 90% of flowering plants and one third of human food crops! We depend on these pollinators to provide us with the foods we eat, the flowers we enjoy, the plants we need for medicinal and health reasons, and the overall health of our ecosystems. Without pollinators, most of our natural ecosystems would collapse. Unfortunately, pollinators are in decline. Habitat loss, invasive species, pesticides, diseases, parasites, and climate change are all taking their toll on these important animals. Some plant species are even endangered due to diminished pollination!

“A garden is only as rich and beautiful as the integral health of the system; pollinators are essential to the system—make your home their home.”

—Derry MacBride National Affairs and Legislation Chairwomen, Garden Club of America

The Pollinators!!

Bees & Wasps – Bees are the champion pollinators. Both bees and wasps have very high energy needs that must be met for survival. Pollen and nectar from flowers are the resources that provide them with this needed energy. In the U.S there are over 4,000 species of native bees and there are at least 95 species in Alaska alone! Bees and wasps prefer flowers that are brightly colored, full of nectar, and are sweetly aromatic.

Butterflies – Butterflies are not quite as effective pollinators as bees, though still very important. In Alaska there are over 85 species of butterflies! They are active mostly during the daytime and visit a variety of flowers. Butterflies drink nectar as an energy source and prefer flat or clustered flowers that provide a landing platform for them.

Moths – Moths are the night pollinators. They prefer nocturnal flowers in white or dull colors. They also rely on nectar as an energy source and will often hover above the flowers they visit. They also prefer flat or clustered flowers that provide a landing platform.



Beetles – Beetles are the largest group of pollinators. Beetles will often eat their way through leaves and petals of flowers and so can be viewed as undesirable in the garden even though they are such important pollinators. They prefer flowers that are dull white or green colored with a strong fruity fragrance.

Flies – Flies are a very important group of pollinators and many are specially adapted to pollinate particular plant species. They prefer flowers that are pale, dull, dark, or drab, with a strong putrid aroma.

Ants – Ants are probably the least effective pollinators. Their busy lives demand high amounts of energy that they satisfy with flower nectar; however they don't seem to be involved in actual cross pollination of most plant species. Ants are thought to act more like flower guard dogs, keeping away unwanted pests. Ants prefer flowers that are low growing and have small inconspicuous flowers.

What to do



- ❖ Plant native plants in your garden which are adapted to your local climate and soil conditions. These plants provide more energetic rewards for pollinators than domestic horticulture species. These plants also do not require fertilizers or pesticides, and need less maintenance overall. Native plants will provide shelter, food, and act as larval host for native wildlife species. Native plants promote biodiversity and ecosystem health and they also decrease the risk and problems associated with invasive species.
- ❖ Plant your plants in an open area that gets lots of sunlight, many pollinators require the warming power of the sun to be active.
- ❖ Plant your plants in clusters instead of single flowers, clusters will help the pollinators find the plants they need.
- ❖ Plant a variety of plants that bloom at different times and are different colors and shapes. This will help to attract a variety of pollinators throughout the growing season.
- ❖ Plan on your garden taking a few years to get established. You may collect seeds throughout the year and plant them in the fall for the next season. You can also transplant plants. Try to transplant the plant before it has started to flower, this will increase its

chance of surviving the process. Make sure to loosen the soil before you dig up a plant and be sure to extract the whole root system. Keep the roots in water until you replant the plant in your garden. A transplant will need lots of water immediately after planting and for the next several weeks.

- ❖ Leave a natural area for ground nesting pollinators such as bees. Provide water for species in shallow puddles or pools. Mud can be used by bees and wasps as home building material and also provides important minerals for butterflies.
- ❖ **Don't** use pesticides and herbicides, these chemicals are harmful to pollinators and may even kill your native plants. They also kill the natural predators of the pests that you are trying to get rid of!
- ❖ **Do** tend to your garden. Weed out unwanted species, water as needed, and landscape your area. Rocks provide resting and warming spots for pollinators. Logs, lumber, limbs, etc., with holes drilled in them, also provide nesting sites for many pollinator species.

Pollinator Traits Table (From http://www.pollinator.org/Resources/Pollinator_Syndromes)

Flower Trait	Pollinator						
	Bats	Bees	Beetles	Birds	Butterflies	Flies	Moths
Color	Dull white, green or purple	Bright white, yellow, blue, or UV	Dull white or green	Scarlet, orange, red or white	Bright, including red and purple	Pale and dull to dark brown or purple; flecked with translucent patches	Pale and dull red, purple, pink or white
Odor	Strong musty; emitted at night	Fresh, mild, pleasant	None to strongly fruity or fetid	None	Faint but fresh	Putrid	Strong sweet; emitted at night
Nectar	Abundant; somewhat hidden	Usually present	Sometimes present; not hidden	Ample; deeply hidden	Ample; deeply hidden	Usually absent	Ample; deeply hidden
Pollen	Ample	Limited; often sticky and scented	Ample	Modest	Limited	Modest in amount	Limited
Shape	Regular; bowl shaped – closed during day	Shallow; have landing platform; tubular	Large bowl-like, Magnolia	Large funnel like; cups, strong perch support	Narrow tube with spur; wide landing pad	Shallow; funnel like or complex and trap-like	Regular; tubular without a lip

For more information about pollinators and gardens, visit these websites: <http://www.pollinator.org> – <http://pollinator.org/nappc> – <http://www.fws.gov/pollinators> – <http://www.fs.fed.us/wildflowers>

