

## USDA Forest Service Celebrating Wildflowers

### Ant Pollination

Ants form a great group of social insects that are great lovers of nectar. These busy insects are often observed visiting flowers to collect energy rich nectar. Ants are wingless and must crawl into each flower to reach their reward. Ants are more likely to take nectar without effectively cross-pollinating flowers.



Researchers have discovered that some ants are not important pollinators, even though they visit flowers and may have pollen grains attach to their bodies. These scientists discovered that some ants and their larvae secrete a natural substance that acts as an antibiotic. This secretion protects ants from bacterial and fungal infections. Unfortunately for the flowers which are visited by these ants, this secretion also kills a pollen grain very rapidly when it comes in contact with this natural antibiotic.

Ants visit inconspicuous, low-growing flowers positioned close to the stem. Examples of ant-pollinated plants in North America include Small's stonecrop (*Diamorpha smallii*), alpine nailwort (*Paronychia pulvinata*), and Cascade knotweed (*Polygonum cascadenense*).

### Ant Flowers

The flowers that are visited by ants are typically:

- Low growing
- Have small inconspicuous flowers
- Have flowers that are close to the stem



Sometimes flowers supply nectaries outside the flowers to attract ants that keep other insects from stealing the nectar (by entering the flower from the side) forcing them to enter the flower in a way that is more conducive to pollination. Photo by Beatriz Moisset.



Low lying plants like this spurge may be pollinated by ants. Photo by Beatriz Moisset.



Ant on penstemon. Photo by Grant Lau.

### For More Information

- [Ants as Pollinators, National Biological Information Infrastructure \(NBII\)](#)

### Fun Fact

Many tropical plants have nectar outside of the flowers to attract ants. These plants rely on the defensive capabilities (biting and stinging) of the ants to protect them from various kinds of attack from other insects including nectar robbers.

Many tropical plants have floral structures that make it difficult for bees and other

pollinators to access internal nectar. Thus, it is tempting for such insects to simply pierce the flowers from the outside. Plants that secrete nectar on the outside of the flower and on their leaves have "ant-guard" system that prevents other insects from robbing nectar. These plants apparently have a chemical deterrent to keep the ants from entering the inside of the flower while rewarding them for protecting the outside of the flower.

Location: <http://www.fs.fed.us/wildflowers/pollinators/ants.shtml>  
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