

Bats are Beneficial!

Bats are often killed out of fear or superstition and are hurt by habitat loss, but bats are really helpful. There are over 1,300 species of bats worldwide and over 1,000 of them are endangered.



Bats are Protectors

Bats consume millions of insects every night, including mosquitoes, saving billions of dollars in pesticide use and reducing insect damage to crops.



Bats are Pollinators

Bats spread pollen as they visit flowers to drink nectar. Wild bananas, avocados, saguaro cacti, and agaves are among the hundreds of plants that depend on bats for pollination.



Bats are Dispersers

Fruit bats eat many tropical fruits and pass the seeds as they fly. Many rain forest plants grow from seeds dispersed by bats.



A brown long-tongued bat (*Glossophaga commissarisi*) pollinating a *Trichanthera gigantea* flower in Panama. ©Merlin Tuttle

BATS ARE BENEFICIAL!

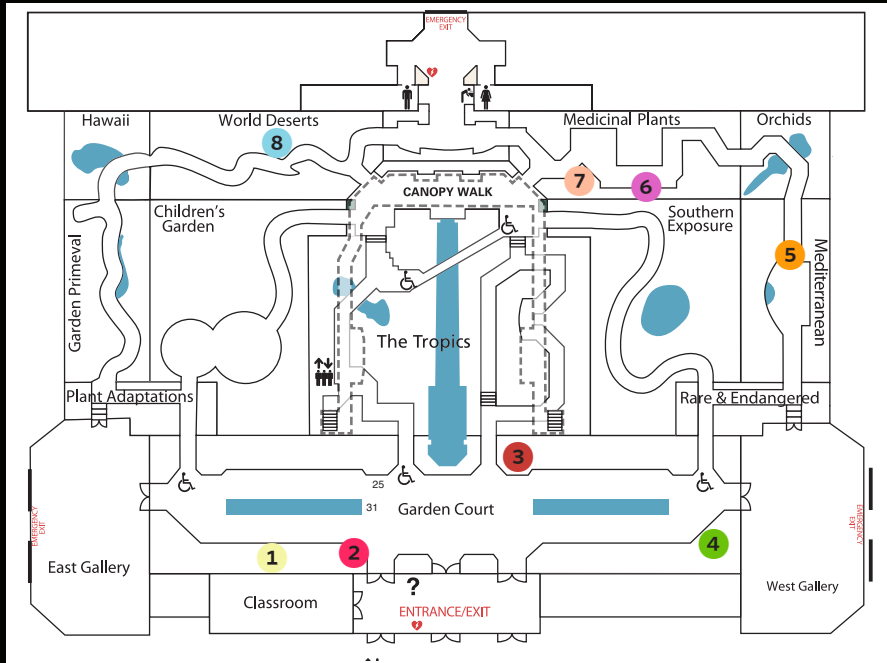


A dawn bat (*Eonycteris spelaea*) pollinating a wild banana (*Musa* sp.) flower in Thailand. ©Merlin Tuttle



UNITED STATES BOTANIC GARDEN

Bats are pollinators, protectors, and seed dispersers. Use the map below to find plants in our Conservatory that depend on bats.



1 **Bananas** (*Musa* spp.) are one of the world's most important food crops. Wild bananas are pollinated by several species of bats, including the dawn bat (*Eonycteris spelaea*).

2 **Coffee** (*Coffea arabica*) is cultivated in more than 70 countries. Insectivorous bats substantially reduce populations of the insect pests of coffee plants.

3 **Cacao** (*Theobroma cacao*) trees are the source of chocolate. The fruits of this tree are a favorite food of many species of fruit-eating bats, which disperse the seeds throughout tropical forests.

4 **Sugar Cane** (*Saccharum officinarum*) is the world's largest crop, grown in nearly half of all countries. Bats help sugar cane by eating its insect pests.

5 **Citrus** (*Citrus* spp.) has been cultivated since ancient times. Bats, such as the Mexican or Brazilian free-tailed bat (*Tadarida brasiliensis*), eat the insect pests of citrus.

6 **Cotton** (*Gossypium* spp.) pests are numerous and many of the insect pests are eaten by bats like the Mexican or Brazilian free-tailed bat (*Tadarida brasiliensis*).

7 **Papaya** (*Carica papaya*) is eaten by a wide variety of bats that disperse its seeds across large areas.

8 **Saguaro cacti** (*Carnegiea gigantea*) first flower when they are 8 feet tall (40-75 years old in the wild!). Bats feast on the flowers' nectar and pollen, and in the process act as pollinators.



Lesser long-nosed bat (*Leptonycteris yerbabuena*) pollinating an organpipe cactus (*Stenocereus thurberi*) in Mexico.
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