

Pollination and environmental change

Threatened partnerships?

Careful observations – spanning time and space – alert scientists and policymakers to important changes in our environment. Vigilant beekeepers were the first to identify recent crashes in honeybee populations. Volunteer birders have tracked changes in avian pollinators through annual Christmas bird counts. Yet many of the most important pollinators for desert plants go unmonitored. They need your help!

Insecticides:

Chemical insecticides provide humans with unblemished produce and manicured landscapes, but can have deadly consequences for pollinators. Even if chemicals don't kill insects directly, non-lethal doses affect bee foraging, learning, and colony immune function. Insecticides also affect bat and bird pollinators that rely on insects for protein.

Climate change:

Climate change may cause current high-elevation habitats and the pollinators living there to vanish from the Sonoran Desert. The seasonal timing of life events is likely to change for many species, creating mismatch between pollinator migration and the timing of flower production.

Invasive species:

Invasive plant species, such as wind-pollinated buffelgrass, can outcompete pollinator food plants. Invasive grasses create continuous blankets across the landscape, removing bare ground nest sites for many native desert bee species. Non-native honeybees compete with native pollinators and could reduce native species diversity in some locations.

Habitat degradation:

Loss of predictable water sources in the desert could impact pollinators. Honeybees, for example, depend on constant water supplies to keep hives at the right ambient temperature. Loss of desert water sources could impact the locally adapted endemic bee species, as well.

