

DoD: Partnering for Pollinators

Why Pollinators are Important

Birds, bees, bats, and other pollinators are in significant decline across the country and around the world. Yet, nearly 80 percent of the world's crops require pollination, including fruits, vegetables, chocolate, and tequila. Without pollinators, there would be no tomato salads, no strawberry smoothies, no Hershey's Kisses™, and no margaritas. One out of every three mouthfuls of food we eat and beverages we drink is the result of pollinator activity. In the United States alone, insects pollinate crops that produce \$40 billion worth of products annually!



Fort Indiantown Gap, PA

In 2011, 50 Boy Scout, Girl Scout, and school group volunteers grew and planted native plant species, collected and grew seeds, and added mulch around the Range House Museum. These native plant species will provide the native Regal Fritillary butterfly food and nectar sources.



National Public Lands Day

- National Public Lands Day (NPLD) is coordinated by the National Environmental Education Foundation (NEEF) in Washington, DC.
- The goal is to engage the public through a powerful network of trusted professionals who can help Americans make everyday choices for a healthy life and healthy environment.
- Thousands of civilian and military volunteers have participated in NPLD projects on military lands.

For more information on NPLD, visit <http://publiclandsday.org>.

NPLD and the U.S. Department of Defense

- In 1999, the DoD Legacy Program received a Hammer Award from then Vice President Gore for joining the NPLD network. Since that time, the DoD Legacy Resource Management Program has funded over 360 NPLD projects on DoD installations across the country.
- Resource managers at DoD installations can request up to \$6,500 per project for materials, equipment, and supplies to implement NPLD efforts.
- In 2011, the DoD Legacy Program funded 42 NPLD projects across 23 different states. Of these, 27 projects focused on pollinators, resulting in a total benefit of over \$190,000 for on-the-ground habitat creation and restoration-related efforts.

Why Pollinators are Important to DoD

DoD manages over 29 million acres of land. These lands encompass a wide variety of habitats, including many that are now rare and unique. Healthy landscapes are vital to carrying out the military mission. Diverse, native plant communities are resilient to impacts from DoD activities, such as erosion from tank maneuvers, fire, and other stresses, including drought and invasive species.

Plant communities also comprise the landscapes our soldiers depend on for realistic training and testing activities. Pollinators are essential to these vital habitats, and play a key role in keeping landscapes healthy. Restoring natural plant communities can help protect imperiled species, protect soldier well-being, and save money.

DoD lands present opportunities to restore habitats for pollinators and contribute to plant diversity and food security. To meet both its readiness and stewardship obligations, DoD cares about pollinators and works to benefit their populations. For example, native plants are better adapted to their environment so they use less water and require fewer chemicals to manage than non-native species. Some non-natives, such as Giant Hogweed and Yellow Star Thistle, can injure soldiers. For example:

- Giant Hogweed sap can cause severe skin inflammations and if even small amounts of sap get in the eyes, it can cause temporary to permanent blindness.
- Yellow Star Thistle blossoms are ringed with long, sharp spines that can puncture soldiers' skin and damage equipment.

DoD Pollinator Workshop Website



The DoD Legacy Program sponsored the *Pollinator Habitat Restoration Workshop* at the 2009 National Military Fish and Wildlife Association (NMFWA) Annual Meeting. The workshop provided information on the status and plight of pollinators, hands-on exhibits, and tools that DoD's land managers can use at their installations. Many participants subsequently applied for and received NPLD funding for pollinator projects.

Demonstrating Pollinator Conservation

The following are four specific demonstration projects, one each for the four Military Services, that received DoD Legacy Program funding in FY2010:

- Native Species Habitat Maintenance and Invasive Species Removal*, Fort Lewis, Halverson Creek, WA. Volunteers constructed and installed nest boxes for western bluebirds, wood ducks, saw-whet owls, northern pygmy owls, purple martins, and bats. The bat boxes provide homes for 11 different bat species found on Fort Lewis, all of which are at-risk of being listed for protection under the Endangered Species Act.
- Invasive Species Removal, Pollinator Habitat Restoration and Mangrove Planting*, Cape Canaveral Air Force Station/Patrick Air Force Base, FL. Volunteers removed invasive Brazilian pepper plants, and planted over 500 native mangroves and native wildflower seeds. Once these native wildflower seeds sprout, they will provide additional habitat for pollinator species such as bees, birds, bats, and insects, and reduce the need for mowing.
- Butterfly Garden Maintenance and Native Plant Vegetation*, Naval Air Station Key West, FL. Volunteers created an educational park with a butterfly garden, planted approximately 100 trees, added native vegetation, and removed debris in an area threatened by invasive plants and exotic trees, which allowed Servicemen and women to train in a safer, more realistic environment.
- Pollinator Habitat Maintenance*, Marine Corps Air Ground Combat Center, 29 Palms, CA. Volunteers developed a Cultural Heritage Interpretive Garden to teach visitors about native plants. The garden also supplements a nearby existing nectar garden by providing additional food and habitat for pollinator species, such as hummingbirds and butterflies.



Malmstrom Air Force Base, MT

In 2010, Boy Scout, Girl Scout, and active duty volunteers prepared a butterfly garden, removed and recycled 40 t-posts from an abandoned field, cleared tire debris from a deactivated all-terrain vehicle training course, removed 40 pounds of debris at Pow Wow Park, and assembled bird boxes.



What You Can Do to Help



Gardens and other landscapes can feed and shelter pollinators, especially in developed and degraded areas. Here are some tips for small actions that can have a huge collective impact:

- Plant native species in your garden or create patio gardens with potted native plants. Avoid hybrids (e.g., tea roses), sterile non-natives (e.g., tulips), and invasives.
- Reduce or eliminate chemical fertilizers, especially those that are aerially dispersed.
- Visit your farmer's market and buy locally grown, organic products.
- Buy organic bananas and other organic products at the grocery store.
- Buy shade-friendly coffee.
- Relinquish mosquito zappers.
- Reduce lawn grass area, since grass provides nearly no ecological benefit.
- Plant native shrubs and flowering plants. They use less water than non-natives, are low maintenance, are aesthetically pleasing, and provide great habitat for pollinators.

If you have the time and live near public lands, consider participating in a National Public Lands Day event. It's a great way to help not only pollinators but wildlife and habitats in general.



For more information, please contact Peter Boice at peter.boice@osd.mil or the Booz Allen Natural Resources support team at DoDNRCConservation@bah.com.

For more information on pollinators, please visit www.dodpollinators.org

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