

Native seed collection project lays the groundwork for habitat restoration projects in the Sonoran Desert

Black, Meredith C

GS0301 - Public Affairs Specialist

Story by Peter DeJongh, Wildlife Biologist; and Kate Miyamoto, Public Affairs Specialist. Photos courtesy of Maya Canapary and Beatrice Lincke, botanists contracted from the Chicago Botanic Garden.

Under the hot California desert sun, two botanists are picking their way across the Sonoran Desert hand collecting native seed and plant materials.

Maya Canapary and Beatrice Lincke, botanists contracted from the Chicago Botanic Garden, are at the helm of the first of a five-year native seed collection project for the BLM California El Centro Field Office. Since March 2022, the two botanists have been chasing the spring seeding cycle for important native plant species across two major ecoregions in the 1.4-million-acre field office: the Sonoran Basin and Range and the southern California mountains.



Botanist Maya Canapary makes an exciting plant discovery.

The collected seeds will be used to restore wildlife habitat for the desert pupfish, desert tortoise, peninsular bighorn sheep, and flat-tailed horned lizard. They will also be used to restore areas burned by wildfire or damaged by unauthorized recreation or development. Habitat restoration recovers disturbed areas, camouflages and protects cultural resources, and encourages sustainable recreation on public lands.

The native seed collection project is important for restoration because the plants collected are genetically adapted to the conditions and stressors of the region, giving them a greater chance of success in establishment and growth. The El Centro Field Office lacked native, locally sourced seeds for restoration and was purchasing materials with the risk of planting seeds poorly adapted for local conditions. BLM California wildlife biologist Peter DeJongh identified the need for native seeds and sprang into action with the help of BLM California state botanist Christina Lund. They contracted botanist Rachel Hosna to write proposals, obtain funding, and start the project. The seed collection project is the first in the El Centro Field Office since 2013 and will provide the best adapted seeds and plants to use in the right place at the right time.



Maya Canapary harvests native *Ambrosia* seed in the shade of a Creosote bush.



Fouquieria splendens, Ocotillo, in bloom.

Since March, Maya and Beatrice have been collecting seeds, camping in remote areas, planning, and scouting for a list of about 40 native species, including white bursage, burrobrush, desert croton, desert willow, and big saltbush. The unpredictable climate of the region, combined with historically low rainfall and a multitude of public land uses, make it difficult to identify viable populations of plants. Maya and Beatrice are battling inclement weather and rough terrain while they track down plant populations.

Despite the challenges, the two botanists have already completed several large collections as well as smaller conservation-scale collections for research and development. They are exceeding expectations and setting an incredible pace to continue collecting through August 2022.

“This project builds the foundation for years of future restoration projects and gives them the best chance to succeed,” said DeJongh. “Beatrice and Maya have done an incredible job, during an extremely challenging year, and it’s going to make a big difference.”

Although the El Centro Field Office is a hub for recreation and development, it experiences noxious weed invasion and drought. This native seed collection project ensures the field office has the tools and resources to create healthy, diverse ecosystems that support local wildlife and provide outstanding opportunities for the public to explore and recreate on public land for years to come.



Encelia farinosa, Brittlebush, blooming in the desert.

Today, BLM California is excited to have received almost \$3 million from the Bipartisan Infrastructure Law for vegetation and national seed strategy projects. This will enable the field offices throughout the state to continue and expand on ecosystem restoration projects that will have a large impact on the health of the habitats they manage.