

# CONSERVATION IS ESSENTIAL

Wildlife conservation has looked different in 2020 — social distancing, face coverings and small groups working in the field have become the norm — but it hasn't stopped. That's because conservation is essential.

**A**s Arizona, along with the rest of the world, looked at how to proceed as safely as possible in response to Covid-19, wildlife biologists pivoted and got creative. While plans changed, the Arizona Game and Fish Department's mission to conserve and protect wildlife did not.

The team at Arizona Game and Fish continued to work statewide and

on numerous projects impacting the state's 800-plus species.

These photos provide a glimpse into the essential work that has continued this year, and they showcase the diversity of the roles at AZGFD and the people who are dedicated to ensuring Arizona's wildlife is around for future generations to enjoy.

Biologists spent many early mornings surveying the population of cactus ferruginous pygmy-owls in southern Arizona. While the project was originally planned to include surveys of the owl's historic range in Mexico, the team pivoted in response to Covid-19 and worked with fellow AZGFD staff and partner organizations to survey historic nest sites and their adjacent areas in Arizona.

Throughout March, April and May, there were about 40 mornings of fieldwork that paid off in a big way: The department located 52 unique territories. In recent years, there were as little as 10 nesting territories on the watch list. Read more about pygmy-owls and the population survey on page 24.



The Mexican wolf recovery effort got a genetic boost when biologists from the Arizona Game and Fish Department, New Mexico Department of Game and Fish, and Mexican Wolf Species Survival Plan, with logistical support from the U.S. Fish and Wildlife Service, worked to cross-foster 20 genetically diverse wolf pups from captive facilities across the U.S. into litters of wild wolf packs. Over a six-week period in April and May, 12 pups were fostered into four packs in eastern Arizona and eight were fostered into three packs in western New Mexico. Wildlife technician Emily Schafsteck (top) and wildlife biologist Genevieve Fuller contribute to this conservation effort.



Acoustic detectors were installed to monitor for lesser long-nosed bats following the species' removal from the federal list of endangered and threatened wildlife in 2018. The project is funded by the U.S. Fish and Wildlife Service, and acoustic monitoring will determine when the bats arrive and depart at several maternity and post-maternity roosts across Arizona. Wildlife specialist Bradford Milbrandt was part of the team that moved this initiative forward.

Working at the Sonoran pronghorn captive breeding pen involves a combination of animal husbandry and general maintenance. "We currently have about 104 animals inside our pen that need to eat and drink," says Noah Ratliff, who supervises the Sonoran pronghorn program in Ajo. The animals at the pen, which is located at the Cabeza Prieta National Wildlife Refuge, are fed alfalfa bales and pellets to supplement their diet. Daily observations of the pronghorn are done most mornings from a nearby hill to monitor their health.



Conservation education was arguably more important than ever, as Arizonans headed out in unprecedented numbers to explore trails and the outdoors. AZGFD reminded the public that 13 of Arizona's more than 800 species are rattlesnakes and what to do if one is encountered. Amy Burnett was interviewed for a news story about rattlesnake awareness and safety to help spread those important messages.





The riparian bird survey crew practiced social distancing during field training. The department hired bird tour guides who were out of work due to the Covid-19 pandemic. "It's a shame they can't get out doing their normal line of work, but we are lucky to have them to help with this year's project," says permits biologist Chrissy Kondrat-Smith.

AZGFD completed its sixth year of southwestern speckled rattlesnake mark-recapture surveys in early May in the Tinajas Altas Mountains of Yuma County. Mark-recapture involves capturing as many snakes as possible and permanently marking individuals over several years. "By conducting these surveys, we are able to learn about the age structure and calculate population size, survivorship and mortality of the snakes in this population," says Ashley Grimsley-Padron, senior research biologist. "We measure, weigh, determine the sex, photograph, permanently tag and mark the rattle of each individual captured to allow us to learn more about the population and how to manage the species."



The annual survey of Fossil springsnail sites took place in mid-May along Fossil Creek in the Irving area. Jeff Sorensen, invertebrate wildlife program manager, joined biologists from Coconino National Forest and the Arizona Department of Environmental Quality on their site visit to conduct a macroinvertebrate and water quality survey of the creek. They drove separately, maintained a six-foot distance from each other, and caught and released a native black-necked gartersnake during the survey.

Due to Covid-19 restrictions, the Heritage Sanctuary Zoo in Prescott had to halt volunteer assistance and cut its staff to one-third. To help the zoo during these difficult times, AZGFD personnel from the Kingman region assisted zoo staff with care of the animals. Wildlife manager Jesse Baker's work included cleaning up after pronghorn and feeding lemurs.



Aquatic wildlife specialist Andy Stites stocked speckled dace and desert suckers into Penitentiary Canyon. While there, it was observed that last year's fish not only survived, but also successfully spawned.



Bill Henak, regional assistant for Kingman, and his son, Bryce, installed a water sensor on the Castaneda Wash water catchment. Read more about how sensors are used on water catchments on page 12.



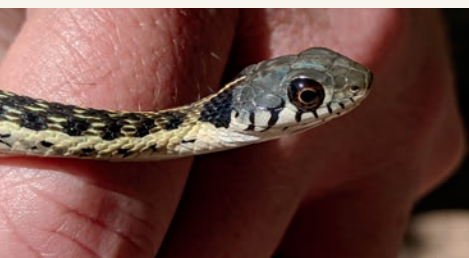
Wildlife managers Nick Thompson and Seth Sheer completed repairs at the Little Black wildlife water catchment.

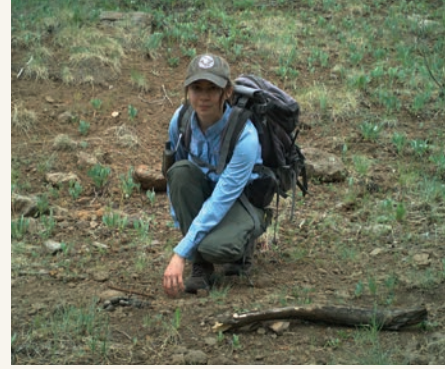


Aquatics specialist Gregg Cummins installed fish structures at Lynx Lake near Prescott.



Watercraft patrols continued at lakes throughout Arizona. Wildlife managers Debra Groves (above) and Dave Daniels patrolled Roosevelt Lake, which saw an increase in visitors.





A recently launched study aims to determine the feasibility of using camera traps to estimate Mexican wolf abundance in Arizona. Wildlife biologist Jacob Mesler, along with wildlife technicians Michelle Crabb and Brianna Russo, conducted fieldwork over the spring. From left: Crabb added scent bait in front of a camera, Russo checked on the functionality to ensure the cameras were capturing movement correctly, and Mesler collected photos from the cameras.

With the help of numerous groups including the U.S. Forest Service and Trout Unlimited, along with a few pack llamas, staff from the Kingman region and Native Trout and Chub program moved 196 Gila trout upstream after observing the fish in a part of Grapevine Creek that typically goes dry in the summer. In 2019, Gila trout eggs were introduced into the creek, and the eggs hatched and the fish were doing well. The relocation of the fish to the uppermost reaches of the perennial water was a proactive move to support the population.



In May, the gartersnake crew worked in the Santa Maria River. On the first day of trapping, the team caught its target species, the northern Mexican gartersnake. It also captured a large gopher snake on the banks of the river, shown with senior research biologist Sarah Baker (left), and lowland leopard frogs, such as the one pictured with wildlife technician Patrick Teetsel (above right).



Customer service teams ensured business continued in a way that was safe for everyone. Watercraft registrations allowed Arizonans to keep getting out on waterways to enjoy the outdoors. The fall hunt draw application process was completed online, allowing hunters to apply from the comfort of their homes.



Wildlife technician Stephanie Serritello tracks a Gila trout near the Water Wheel day use area on the East Verde River as part of a project that's researching recreational angling opportunities for native species. AZGFD is interested in switching from rainbow to Gila trout in some streams where there's historical evidence for their existence. The multiyear study on the East Verde River aims to gain information on the movement and survival of stocked Gila trout, as well as angler metrics like catch rates, effort and satisfaction.



A survey to assess the status of native fish and monitor for the presence of nonnative species was completed in May on Bear Canyon. A Little Colorado River sucker, held by biologist Allen Zufelt, was a rare find in the area because Bear Canyon has limited available habitat for large adults of this species.



Most AZGFD employees transitioned to working from home when they weren't in the field or helping customers. For example, biometrician Matt Clement (right) continued his work on novel statistical methods to estimate abundance of animals from passive recording units like bat detectors and camera traps, which are a growing tool in wildlife management. And Nathan Fyffe (left), a wildlife technician, processed photos from the Mexican wolf camera trap study from his home office.



AZGFD photographer George Andrejko covered many miles in Arizona taking photos of wildlife at water catchments, on-the-ground conservation work and sheltering in blinds as the ultimate form of social distancing.

The flat-tailed horned lizard interns worked on the conservation and management of the state-protected species throughout the summer. Jose Herrera holds a flat-tailed horned lizard during a day of fieldwork in June, and Alexa Duran-Granillo poses next to the speed limit sign that's meant to protect the lizard on the Barry M. Goldwater Range.



Fish culturist Sam Simmons stocked Gila trout on the East Verde River in late May. An angler spoke with him about the program from a distance.