

SAGUARO: A tall columnar cactus (*Carnegiea gigantea*) native to Arizona and Mexico that bears white flowers and may attain a height of up to 50 feet.

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MARCH 2021

SAGUAROS

The Green Giants of the Sonoran Desert

Location: Tonto National Forest



A member of the Tucson Cactus and Succulent Society's Cactus Rescue Crew works to remove a large ocotillo from a Tucson site slated for development.

SALVAGE OPERATION

Although we don't have shipwrecks in the Sonoran Desert, we do have bulldozers, which have been scraping away large swaths of land to make way for new homes, roads and sewer lines. Among the casualties of the buildout are saguaros and other native plants. There's hope, though, thanks to a group of volunteers who stand ready to swoop in and save what they can.

BY ANNETTE MCGIVNEY • PHOTOGRAPHS BY EIRINI PAJAK

THEY'RE READY TO DEPLOY AT A MOMENT'S NOTICE, and they never know when the next call will come. But these good Samaritans will drop everything for a rescue, because they're committed to saving as many lives as possible. They grab their fluorescent safety vests and head into the desert, often in triple-digit heat. There, they team up with others who are just as devoted to the same mission.

They also carry heavy leather welding gloves. And shovels.

Since 1999, the nonprofit Tucson Cactus and Succulent Society (TCSS) has run a volunteer salvage program that gets out in front of bulldozers to save saguaros and other native plants facing certain death. As a fast-growing metropolitan area, Tucson has experienced record development over the past two decades, and large swaths of desert have been bladed to make way for new

houses, roads and sewer lines. But the TCSS' Cactus Rescue Crew, some 400 members strong, is tamping down the environmental impact of this rapid development by digging up cactuses and succulents in the Tucson area and replanting them in the same region. To date, more than 104,000 plants have been saved.

The group is the largest of several cactus salvage programs in the state. Those programs play a critical role in protecting Sonoran Desert biodiversity — and in making native plants available for landscaping around private homes and public spaces.

It's October, and the Cactus Rescue Crew is hard at work on the site of the Rocking K Ranch development, where the desert is being cleared to build roads, utilities and the first phase of homes. The new, 5,000-acre master-planned community is adjacent to Saguaro National Park East and encompasses a rich swath of the Sonoran Desert. Formerly a historic cattle ranch, it's slated to become the site of more than 3,600 homes. But as the first roads went in, Rocking K still harbored a wild, biodiverse plant community nearly as rich as the national park next door.

"We have taken out about 600 to 700 plants so far from Rocking K," says the TCSS' longtime president, Richard Wiedhopf. The October visit is one of the group's several visits to the developments. For this one, volunteers get 24 hours' notice before the bulldozers roll. "We're used to working fast," Wiedhopf says. "We pride ourselves on being able to get everything done without holding up the developer."

Most of what the Cactus Rescue Crew removes from development sites are barrel, pincushion and hedgehog cactuses. They also take saguaros under 7 feet tall, ocotillos and agaves. Tucson plant conservation laws require developers to save some native trees and large cactuses for replanting in the same area. While conserving the small stuff is not economically viable for most developers, the Cactus Rescue Crew has the benefit of an unlimited supply of volunteer hours to save as many plants as they can get their hands on.

On this warm fall day, about 30 volunteers are at Rocking K to clear plants from a road construction site. Bulldozers are parked on a hill, ready to roll in the next day or two. Wearing wide-brimmed sun hats, long-sleeved shirts, fluorescent safety vests and welding gloves, the crew works most of the day digging up barrels, hedgehogs, powder puffs and ocotillos. The south-facing side of each plant is marked with white-out so it can be replanted in the same orientation to avoid sunburn and improve odds of survival.

Protected by the impenetrable gloves, volunteers gingerly lift the uprooted cactuses into a wheelbarrow, then shuttle the heavy plants to a staging area, where they're tagged by other volunteers. Every plant removed from the site requires a tag from the Arizona Department of Agriculture. The cost of the tags, paid by the TCSS, is anywhere from 50 cents to \$8.

As the sun beats down, the crew's pickup truck bed is filled with bare-rooted barrels, hedgehogs and other plants waiting to be transported to the TCSS cactus yard in the middle of Tucson. Every volunteer is allowed to take home a plant of their choice, as long as they pay for the tag. But that's hardly the reason most volunteers are out here sweating in the sun.

"The last thing any of us needs is another plant," says Wiedhopf, who's been a member of the TCSS since 1970. Like many

members, he long ago ran out of space for more cactuses in his yard. "We are doing the rescues because we believe it is important to save these plants and encourage others to respect native species," he says. "Our Sonoran Desert plants are what give the Tucson area its unique character."

Most of the salvaged plants are sold during public events held about five times a year at the cactus yard, where prices are significantly lower than at commercial nurseries. For example, saguaros go for about \$35 per foot, as opposed to \$75 per foot at nurseries. When the sales began resembling Black Friday mobs at big-box stores, the group implemented a numbered entry-ticket system.

Money from the sales pays for the state salvage permits and tags, but it also supports the group's conservation activities and K-12 educational programs. The TCSS provides grants to schools and informational materials to teachers, with the hope of giving children an appreciation for native plants. It also invites area nurseries to sell plants at the TCSS sales, as a way to encourage cooperation, rather than competition. "It's a win-win," Wiedhopf says. "Our program has never been about members building their collections. It's about saving native plants."

That philosophy has guided the TCSS since its founding in 1960. It now has nearly 1,400 members and might be the largest organization of its kind in the world. "From the beginning, our club was different from other cactus groups," Wiedhopf says. "Some clubs only want to show off their plants. But we had an unwritten rule, from the beginning, that we did not want to just go out and collect plants for ourselves. We want to conserve them in their habitat."

But the group is equally respectful of developers' needs. The Cactus Rescue Crew makes it easy for a developer to participate with no strings attached. In addition to promising to never slow down a project, the TCSS provides the salvage services at no cost to the developer and assumes all liability for its members doing the arduous work.

While many of Tucson's private developers have come to

Jessie Byrd, manager of Pima County's Native Plant Nursery, partners with the Cactus Rescue Crew to save desert flora. She's pictured here with Frank, the nursery dog.



rely on the Cactus Rescue Crew, the group is also vital to Pima County's native plant salvage program. In 2001, the county began implementing its Sonoran Desert Conservation Plan, which seeks to balance environmental protection with economic growth. A large part of the program revolves around preserving native plants and encouraging their use for landscaping, especially in public works projects.

"We had a mandate to use native plants for landscaping roadways, but 20 years ago, you couldn't buy a creosote bush or cholla anywhere," says Jessie Byrd, manager of Pima County's Native Plant Nursery. "Native desert plants weren't in style back then."

In an effort to alleviate its dearth of landscaping options, Pima County established its own nursery, with the goal of growing native plants from seed. But cactuses mature slowly, often growing an inch or less a year. So the county also started a salvage program to save mature native plants from construction projects on public land. But who was going to do all this dirty work? The TCSS came to the rescue.

"I only have three employees," says Byrd, who has managed the nursery for the past seven years and is also a longtime Cactus Rescue Crew volunteer. "There is no way I could do it all without the help of the cactus club."

The crew jumps into action when it gets a call from Byrd. Most salvage projects are for road widening and sewer line construction. And, as with private development, there's rarely much notice before the bulldozers roll.

For most of 2019, Byrd and several Cactus Rescue Crew volunteers worked almost every Friday on the Kolb Road widening project in northeast Tucson. But then time ran out. "The bulldozers were about to come," Byrd says. "So, we got the entire crew out there and we sucked up the cactus as fast as we could. When we don't have much notice, it is awesome to know there are all these people on standby to help."

Plants that are salvaged as part of the county's program go to the Native Plant Nursery, where Byrd and her staff place them in the shade and help them recover from the trauma of being dug up. The county doesn't sell the plants, but uses them for landscaping at public sites or replants them in their original location once a project is completed. And plants that are too big, or old, or special for replanting along a roadside are given a "forever home" at the county's 7-acre Pima Prickly Park. Otherwise, Byrd says, most salvaged plants do well after spending a few months or years at the nursery.

"One of the reasons we are so successful is that cactus is very easy to transplant," she says. "Right after they are dug up, we leave them sitting in the shade with roots exposed, so any wounds can heal. Then we put them in a pot until they are replanted someplace like a school or library or roadside."

The Desert Botanical Garden in Phoenix also does cactus salvage for road construction and other projects. In the sum-

mer of 2018, the garden's staff scientists went to great lengths — and depths — to save the rare Arizona hedgehog cactuses that were in the path of a new bridge being built over Pinto Creek on U.S. Route 60 between Globe and Superior. The plant is on the federal endangered species list and endemic to only Arizona's Pinal and Gila counties.

"We had to rappel down more than 100 feet into the canyon to get to the plants," says Steve Blackwell, the garden's conservation collections manager. "We swaddled them like a baby in burlap and then hoisted them up in a box or carried them on our backs. They were spiky as heck."


The team rescued 22 hedgehogs that now are planted on the garden's grounds. Blackwell anticipates the cactuses will be returned when the bridge project is complete. "This cactus



From left, the Cactus Rescue Crew's Edie Campbell, Alan Cook, Joseph Frannea, Douglas Rowsell and Robert Ellis look over barrel cactuses as they're loaded into a truck. The group has rescued more than 104,000 desert plants.

species is really special to our state," he says. "It was already threatened by mines in the area, so we wanted to do what we could to mitigate impacts from the bridge." And he adds that an Arizona hedgehog that has adapted to grow in Pinto Creek Canyon is different from the same plant growing atop a ridge in another location — and preserving that genetic diversity is critical to saving the species.

The month after the visit to Rocking K Ranch, the TCSS holds a public sale to unload the plants from the rescue. More than 300 barrels and 300 hedgehogs are on sale, with the hope that they'll soon return to Tucson's native plant ecosystem. And the Cactus Rescue Crew is ready for the next call.

"I am so proud that we have been able to keep all these plants alive," Wiedhopf says. "I want my grandchildren's grandchildren to be able to enjoy cactus as much as I do." 

For more information about the Tucson Cactus and Succulent Society and the Cactus Rescue Crew, call 520-256-2447 or visit tucsoncactus.org.