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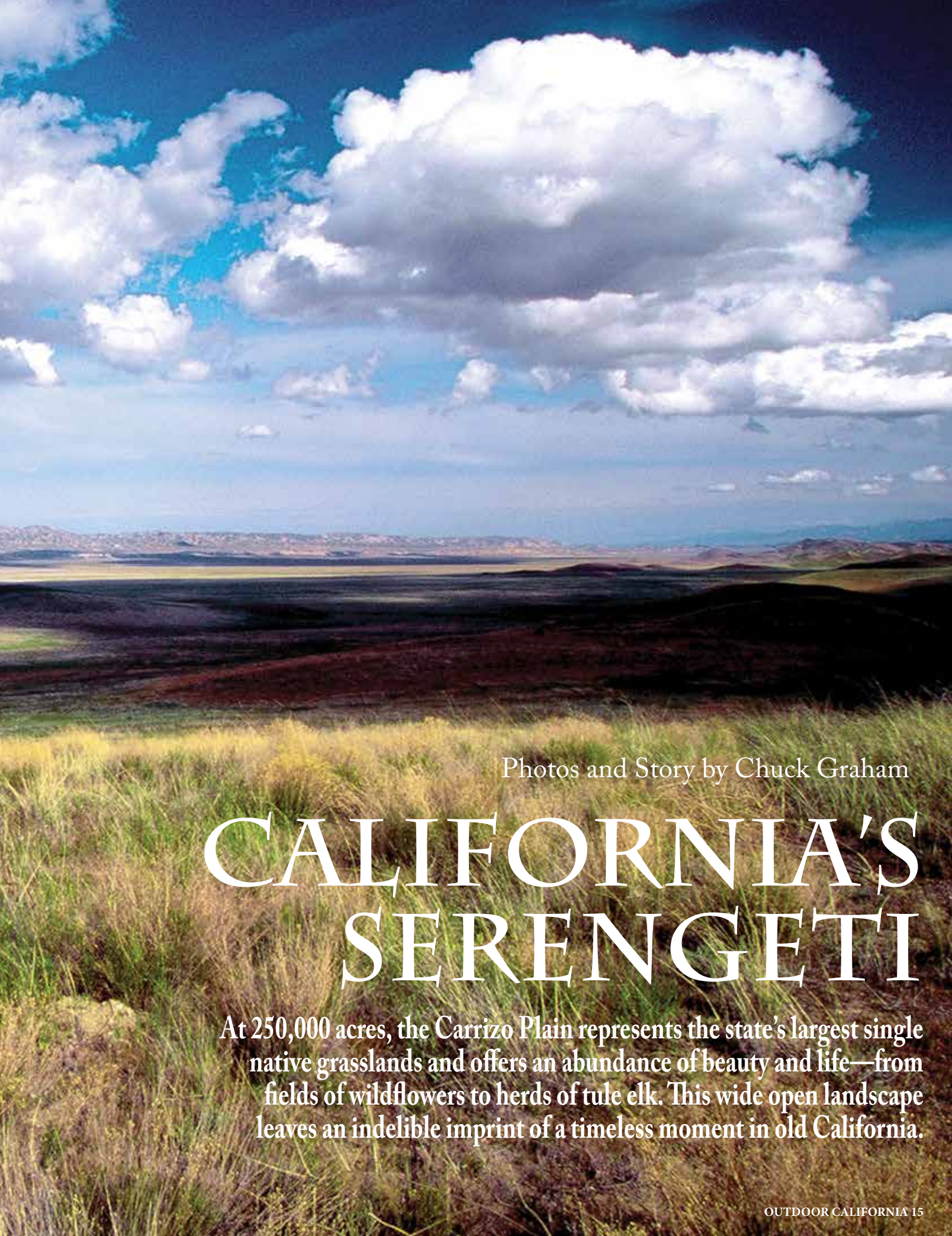
Carrizo Plain: A Timeless Moment in Old California

Savior Spawn Restoring Coho Population



Photos and Story by Chuck Graham

CALIFORNIA'S SERENGETI

At 250,000 acres, the Carrizo Plain represents the state's largest single native grasslands and offers an abundance of beauty and life—from fields of wildflowers to herds of tule elk. This wide open landscape leaves an indelible imprint of a timeless moment in old California.

On previous page, low-stage cumulus clouds cast deep shadows across portions of the open Carrizo Plain. Far beyond the expansive grassland can be seen woodland habitats and mountain ranges that will reach more than 5,000 feet in elevation. This page, rock art attributed to the American Indian tribe Chumash depicts the image of an elk. Next page, while the region has more than its share of endangered species, it serves as home to a healthy population of tule elk. Here, about 40 tule elk move across the foot of the Caliente Range.

At dawn, I lit out on a lonely trail toward Painted Rock. The natural sandstone cathedral remains a vital meeting and ceremonial venue for American Indian tribes like the Chumash and Yokut on the Carrizo Plain National Monument in Central California. Entering Painted Rock, shadows retreated across the sweeping valley floor as the sun rose above the Temblor Mountains to the east. Remnants of elaborate rock art cling to the canvas of gritty sandstone. Lofty alcoves are found inside the massive, horseshoe-shaped rock outcropping, and the east wall is cloaked in multi-colored lichen. Reds, oranges, yellows and earthy browns smother the broad sandstone slab, and perched high on its face sit two barn owls soaking in the morning sun. Their feathers blend in perfectly where they roosted overlooking the Carrizo Plain.

As the morning grew warmer, I watched from inside of Painted Rock while a small herd of pronghorn antelope rose from where they had bedded down the night before. They shook off the dew from scruffy coats and began to graze. The animals moved across the grasslands from east to west, wide open spaces abounding before them.

"It's a unique, beautiful area," said Johna Hurl, resource manager of the Carrizo Plain National Monument for the U.S. Bureau of Land Management. "It's a place where you can go without seeing or hearing anyone."

COMING TOGETHER

Back in 1988, The Nature Conservancy partnered with BLM and the California Department of Fish and Wildlife to first acquire and then to manage and protect this breathtaking expanse of land. The initial parcel was 82,000 acres, but today it encompasses 250,000 acres.

In 2001, then-President Bill Clinton deemed the largest single native grasslands remaining in California a national monument, thus preserving the Carrizo Plain for future generations.

The panoramic landscape is the biggest protected habitat along the Pacific Flyway, making it a birder's paradise. Besides the expansive grassland, it also includes woodland habitats, mountain ranges reaching up more than 5,000 feet in elevation, Soda Lake, the largest natural alkali lake in the state and surrounding vernal pools. The Carrizo Plain also harbors more endangered species than anywhere else in the Golden State.

"It is one of the primary core recovery areas for a whole suite of endangered species," said

From left: In the spring, the spectacular landscape with its rolling hills come alive in a painter's color-filled pallet of blooming wildflowers. The Carrizo Plains hold a higher concentration of endangered species than any other location in the state. Nevertheless, this particular San Joaquin kit fox appeared unfazed by the distinction that it's considered an endangered species by both the federal and state governments. The kit fox, joined by a sibling from a nearby burrow, enjoyed the warmth of the sunny day before scampering off with other plans. A BLM map shows the layout of the land, 50 miles long and nearly 15 miles wide, in San Luis Obispo County about 100 miles northwest of Los Angeles.

Bob Stafford, a senior environmental scientist for California Fish and Wildlife. "It also has one of the larger tule elk herds in the state."

CALIFORNIA'S SERENGETI

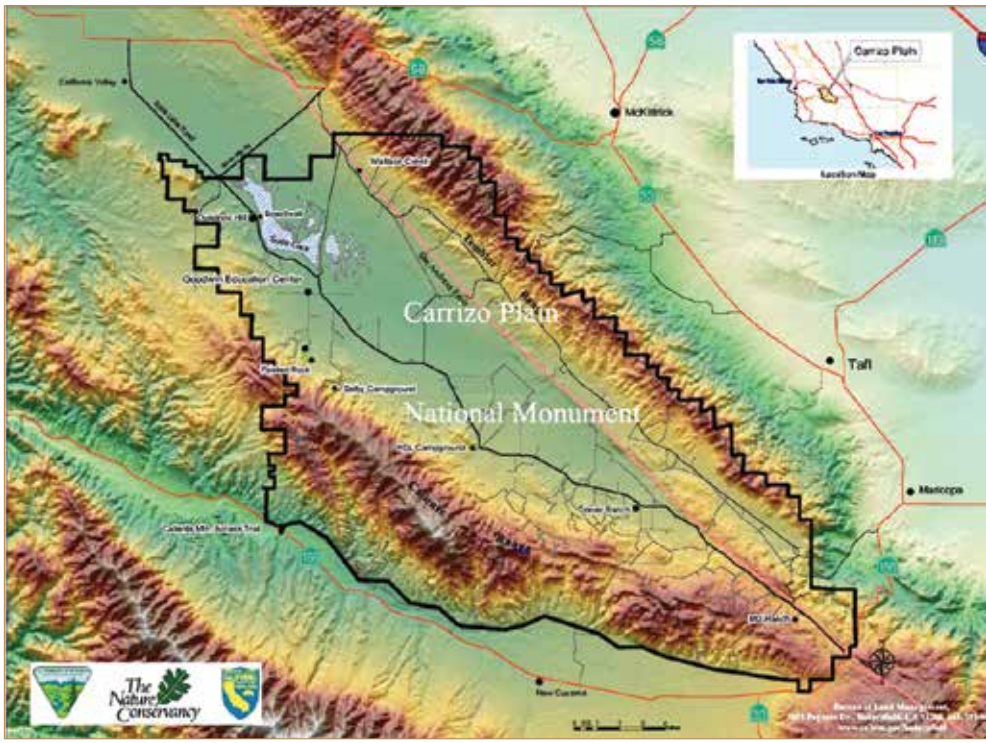
Scanning with high-powered optics, I panned across the Carrizo Plain from the foothills of the Caliente Range in search of ungulates, such as tule elk and pronghorn antelope. It's not until late morning when a single file procession of tule elk, maybe 40 animals, can be seen moving gradually to the west. A mixture of cows and calves followed close together across a field of wildflowers, where a carpet of tidy tips and owl's clover brightened the plain.

California's Central Valley once teemed with animals like tule elk and pronghorn antelope. Loss of habitat, disease from livestock and overhunting took its toll on massive herds of ungulates leaving places like the Carrizo Plains void of such wildlife. But in the late 1980s, the wildlife managers from the Department embarked on changing a lifeless landscape. Herds of tule elk were moved to the Carrizo Plain in 1988. Pronghorn antelope were restored to the plain in 1990.

Yet, each species' populations are today heading in divergent paths. Tule elk, being generalist feeders, have been able to adapt to perpetual drought conditions, able to sustain themselves on dry grasses. Pronghorn antelope, on the other hand, are specialist feeders requiring flat, wide open spaces while foraging for forbs. A survey performed by the U.S. Geological Survey in November 2013 concluded that of the 42 different plant species consumed by pronghorn, 26 were forbs. The other plants consumed were species of grasses and shrubs.

"We have seen some dramatic fluctuations in most populations depending on weather conditions," said Stafford, who has worked on the Carrizo Plain for 17 years. "Long term trends would be an increase in tule elk numbers and a decrease in pronghorn numbers."

According to the most recent aerial surveys, Stafford said there are somewhere between 350



to 400 tule elk and 60 to 70 pronghorn in the greater Carrizo Plain ecosystem and surrounding ranchlands. Tule elk were expected to continue their stabilizing trend because they're able to occupy and do well in a greater variety of habitat conditions whether it's the grasslands or the surrounding mountain ranges. Pronghorn however are on the cusp of sustainability, but the CDFW is in the process of curbing this trend.

Water troughs have been part of the Carrizo Plain for some time, but additional troughs have been added to aid declining pronghorn numbers. Stafford said the troughs are hooked up to water tanks in the existing system. CDFW has also provided supplemental food sources for pronghorn. However, the population numbers are so low that any negative fluctuations in their habitat could prove detrimental.

"Pronghorn numbers have dropped to levels where any negative environmental factors will have serious impacts on the herds," he said. "Moving more animals into the area without addressing the reasons for their decline would not be considered an option."

If pronghorn numbers continue to decline and fall below a certain point, a wide variety of environmental events could work against the remaining animals to keep the numbers down.

"The summer and fall forage are the primary factors," Stafford said. "Fall forage plants—morning glory—commonly grow in late summer in cultivated fields. While taking these lands out of cultivation is a definite positive for most of the Carrizo species, it decreases habitat value for pronghorn."

SURVEY SAYS

Defined by its perpetual silence and solitude, I've been coming out to the Carrizo Plain for close to 10 years. The landscape has served as an escape to experience a piece of old California. It's also a great place to see wildlife if you're willing to drive slowly on its maze of dirt roads, hike cross country and simply watch quietly for movement.

"You have to be patient and look closely,"

Here a small herd of pronghorn antelope rise, and with a low sun rising on the horizon, shake off the dew from their coats and begin to graze. While the Plain once teemed with large herds of wild animals, a combination of loss of habitat, overhunting and disease from agricultural stock cut into populations. It wasn't until 1990 that the California Department of Fish and Wildlife was able to restore the population of pronghorn antelope.

The last significant rainfall that occurred on the Carrizo Plain was in 2009. Since then the land bakes in its arrid condition. Water troughs are placed across the open landscape, hooked up to The California Department of Fish and Wildlife water tanks in the existing system. More troughs are being added to help pronghorn antelop numbers.

said Hurl. "Turn your car off and hear the sounds of nature all around you."

Wildlife, like the San Joaquin kit fox, badger, desert cottontail rabbit, jackrabbit, antelope ground squirrel, coyote, blunt-nosed leopard lizard and roughly 200 bird species blend in well with the arid landscape.

Once, about 300 feet off Soda Lake Road between the Selby and KCL campgrounds, I saw a pair of kit foxes sunning themselves out in the open near one of their den sites. They had flattened themselves against the warm ground. When I stopped my truck, the female dove into their den, but the male didn't budge. It allowed me to belly crawl to within 50 feet of it, and at one point it became so relaxed that it fell asleep. It was a great look at one of the Carrizo Plain's most elusive residents.

"Kit fox populations are definitely down," said Stafford of the Carrizo Plain population. "We do surveys of kit foxes pretty much year-round."

Spotlight surveys typically take place in March, June, September and December as long as the weather holds up. CDFW surveys cover roughly two separate 35-mile routes. Like most wildlife on the Carrizo Plain, weather has been a key factor in the fluctuation of kit fox populations. Since 2000, Stafford and his team have counted 2,471 kit foxes covering 109 kilometers of dirt roads in the Carrizo Plain. The highest number counted came in the summer of 2005, with 1,788 kit foxes. The lowest count was 65 kit foxes in the fall of 2014.

"Kit foxes are the primary focus, but we also count all carnivores and try to get an estimate of prey species," he said. "We've even seen kit foxes follow badgers as they dig up small mammals."

The last significant rainfall on the Carrizo Plain was the winter of 2009. Since then, environmental scientists have noted a reduction in small prey populations like antelope ground squirrels and giant kangaroo rats. Because of that, kit foxes are experiencing some lean times on the plain.

"Giant kangaroo rats are basically the key

Wildlife, like the San Joaquin kit fox, badger, desert cottontail rabbit, jackrabbit, antelope ground squirrel, coyote, blunt-nosed leopard lizard and roughly 200 bird species blend in well with the arid landscape.

species in the entire Carrizo web," Stafford said. "As they go, so do a lot of the other endangered species."

There are many predators in the Carrizo Plain that not only rely on giant kangaroo rats as a food source, but also for their burrow sites. Everything from kit foxes, burrowing owls and badgers to snakes and long-tailed weasels take over and modify giant kangaroo rat dens.

"The burrows are also used by blunt-nose leopard lizards, and the California jewel flower is often associated with the burrow systems," he added.

As the name implies, the giant kangaroo rat is the largest of the 21 species of kangaroo rats native to the San Joaquin Valley. They are arguably the most important animal on the Carrizo Plain. At this point giant kangaroo rats are a big unknown on the Carrizo Plain because of the continuing drought conditions. The tiny, nocturnal rodents—with their big feet, almond-shaped eyes and long tails—work like little lawnmowers on the grasslands, virtually mowing down huge swaths of grasses surrounding their burrowing sites. The most effective way for Stafford and his team to locate and count giant kangaroo rat populations is by flying over their sites with aerial surveys.

Even with degraded habitat, this keystone species can thrive in what's remaining, with an average of 69 individuals for every 2.5 acres. These busy tunnel diggers can transform huge swaths of habitat by building extensive burrow mounds up to 30 feet in diameter and 3 feet underground.

"They mow down the area around their burrows. We'd fly transects overhead and then map the areas that they'd mowed down," explained Stafford. "Problem is, if we don't get any growth they have nothing to mow and we have nothing to survey. Therefore, we haven't been able to do any surveys since 2011."

GRASSLAND CANVAS

In the spring of 2014, I saw and photographed one wildflower on the Carrizo Plain. The state flower, a lonely California poppy appeared out of place on an otherwise uninspiring landscape on the way up to an empty Selby Campground. Average rainfall on the Carrizo Plain is seven to 10 inches. But, similar to elsewhere in California, the last several years have seen little rainfall. In 2014, the grasslands received a mere 3.4 inches of rain.

The last great wildflower season came in the spring of 2010, when the 50-mile-long Carrizo Plain transformed into a palette of pinks and reds, yellows and oranges and purples and blues. It appeared as if someone had come to the plain with a giant paintbrush and splashed bright colors across the grasslands, the Temblor and Caliente ranges. The fragrance of the bush lupine hung thick in the air. Massive fields of tick seed coreopsis swept across from the east side of Soda Lake almost to the base of the Temblors above the Elkhorn Plain. Massive fields of tidy tips were so dense that when I laid down in them they shaded me from the sun. Between Traver Ranch and Elkhorn Road there appeared to be a lake, but actually it was a broad field of deep bluish-purple phacelia.

"There are a couple of endangered plants on Carrizo—the California jewel flower in particular," said Stafford. "However, the general long term trend has been an increase in native plants compared to the 1980s, since large portions of Carrizo were still in cultivation at that time. It is a mixed bag as for importance of native vegetation. Giant kangaroo rats, tule elk and pronghorn have no problem consuming nonnative plants."

I made several trips to the Carrizo Plain those two weeks in late March and early April of 2010. As spectacular as that wildflower bloom was, a significant bloom is so fleeting. It's gone before you know it. There hasn't been a bloom like it since.

"April is typically the busiest month," said Hurl. "The spring of 2010 was a banner year for wildflowers."

During one of those trips I drove out toward the north entrance of the Carrizo Plain, turned west on a nameless dirt road and soon found myself in a hypnotic field of vibrant owl's clover. There was a pair of huge pronghorn antelope bulls loping side by side across green hillsides covered in the magenta-colored blooms before vanishing over the next saddle, North America's fastest land mammal leaving its indelible imprint on the Carrizo Plain, a timeless moment in old California.

Chuck Graham leads kayak tours at the Channel Islands National Park, lifeguards on the beach in Carpinteria and writes and photographs for national publications. He makes several trips a year out to the Carrizo Plain National Monument.