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Blending the past, future to manage wildlands

State Parks looks to preserve Año Nuevo Native American culture site, adapt to climate change

By Samantha Weigel Daily Journal staff Aug 26, 2017

Scientists and archeologists with California State Parks are looking to ancient Native American land management techniques to bolster a coastal cultural preserve against climate change.

The Quiroste Valley Cultural Preserve could be one of the first places in California where State Parks officials will try a new collaborative approach of working with Ohlone descendants to manage its land. The preserve is part of Año Nuevo State Park, and accounts for 220 acres east of Highway 1 along the southern San Mateo County coastside.

The goal is to slowly restore the site to how it would have been hundreds of years ago when members of the powerful Quiroste tribe lived off the land, said Mark Hylkema, a State Parks archeologist who has conducted extensive research at the site.

Now, State Parks is taking archeological discoveries and working with a tribal band of Native Americans to inform ecological stewardship of the preserve. The goal is two-fold — reduce fire hazards and enhance cultural opportunities for tribal members.

“This is the first large-scale management plan we’ve done for tribal benefit anywhere. It’s because we’re starting to realize that native land practices were methods that created the diverse landscape that Europeans first saw,” Hylkema said. “We always talk about creating native landscapes. Well what is that? Native landscapes has native people in it, it’s when the two coexist.”

After years of surveying the land and gathering ecofacts, they developed a clearer picture of what “native” looked like in Quiroste Valley. One important discovery was that Native Americans used controlled burns, meaning some of the earliest inhabitants actively managed their habitat, Hylkema explained.

With the area now overgrown with poison oak, fire-sensitive Douglas firs and invasive species, State Parks is in the process of planning to jump-start a reboot. The plan is to return it to more native grasslands by removing 10,000 small- to medium-size diameter Douglas firs and invasive shrubs over the next five years, said Tim Hyland, an environmental scientist with State Parks. While tree removal may seem counterintuitive to a restoration project, Hylkema and Hyland noted the project aims to more closely replicate how the site was before western intervention.

“I think that people have the misconception that you cannot manage land, that if you do nothing it will not change, if you put a fence around it it will stay the same. But these lands are dynamic, they’re constantly changing,” Hyland said. “So it’s really just a choice of what to manage them for and State Parks’ mission is to preserve the extraordinary biological diversity of the state of California. That’s what we’re trying to do, is manage this land to enhance and preserve the biodiversity that exists there and you can’t preserve that by sitting on your hands and doing nothing.”

History uncovered

State Parks acquired the lands in 1984 and essentially ceased hundreds of years of prior practices. Even after the Quiroste were driven from the land they managed by burning trees and shrubs, the valley was maintained as more open grasslands for cattle the Spanish brought, and eventually American dairy operations took over, Hylkema explained.

In 2008, the valley received a cultural preserve distinction following archeological work at the site that’s best known for a monumental encounter between the Quiroste and early Spanish explorers. In 1769, the Portola Expedition encountered the tribe at what is now Año Nuevo State Park. If it weren’t for the Quiroste taking in the lost and starving explorers, the Spanish expedition might have perished and never went on to discover Monterey Bay, Hylkema said.

Now, State Parks is drawing from the valley’s history to consider its future.

Scientists were able to look back in time and piece together what the preserve would have been like through archeology as well as surveying plant DNA. Those studies found many of the plants were indeed affected by repetitive burns initiated by the Quiroste, Hylkema said.

To help maintain the preserve going forward, State Parks is partnering with a tribal band of Native Americans who'd like to help manage the site and use it for traditional practices such as extracting medicine or gathering natural materials, Hylkema said. The tribal group has also acquired 80 acres adjacent to the cultural preserve and the lands will be used to foster stewardship programs for youth and create a place where Native American descendants can fulfill their spiritual heritage, he said.

But to reboot the land, they won't use controlled burns. Instead, State Parks will remove 10,000 Douglas fir trees as well as shrubs with cranes, chain saws and by hand. Hyland emphasized many of the existing trees will remain, but this five-year thinning will help mimic what would have otherwise occurred over time.

"Prior to anthropogenic (human-caused) burning, there were also large herbivores that would have eaten [trees] but, for the last 14,000 years or so, they've been kept in check by either natural or human-lit fires," Hyland said.

While trees are being removed, Hylkema said State Parks is engaging the Amah Mutsun, a tribal band, to bring native descendants back to the land to help steward the land moving forward.

Adapting to the future

Aside from getting to welcome tribal descendants, another major component of the effort is to address global changes. Hyland said one reason this project is important is Douglas firs are a fire-sensitive species that aren't well adapted to warming temperatures.

"All of the climate models show our area getting hotter and dryer and there being more intense fires. So if you let the firs grow to this point, they build up fuel and they can act to fuel a catastrophic fire," Hyland said.

Such a widespread fire could further affect other species such as oaks, and other woodlands typically more resistant to burning, Hyland said.

Most of the trees slated for removal are less than 25 years old with trunks smaller than the size of a coffee can; many are also saplings, Hyland said.

But before they can get started State Parks is working to secure approvals from San Mateo County officials who have regulatory oversight.

As a state agency on a tight budget, this \$250,000 project has taken time to develop but could become a model to inform future land management decisions. The multi-faceted approach of addressing climate change while combining a social component has Hyland and Hylkema hopeful.

"It's trying to preserve our grasslands and manage for a mosaic of habitat that supports the greatest diversity," Hyland said. "With our budget, we're only able to manage a very small portion of our lands, so a great deal of our lands are going ahead and doing what they're going to do. ... But in these particularly valuable areas, we try and manage them in a way that will make them more resilient to climate change and preserve the diversity that's there."

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