## **Restoring Kohala**

http://westhawaiitoday.com/sections/news/local-news/restoring-kohala.html

On Kohala Mountain's leeward side is a 13-acre preserve aimed at restoring the native Hawaiian dry forest that once graced its slopes.

At the Koaia Tree Sanctuary, native koaia, iliahi, mamane and other flora have taken root, providing a glimpse of the native forest that existed before the Hawaiian woods were harvested, pastures created and nonnative species, including cows and plants, introduced in the 1800s. Outside the fenced-in parcel is open pasture covered by dry, non-native grasses with the occasional tree, or remnants of a tree, jutting from the landscape.

Waimea Middle School sixth-grader Kuulei Hashimoto-Ruis, looking over the landscape, said she is sad the slopes have lost their blanket of forest canopy. She hopes that one day the native dryland forest reclaims the mountain.

That is what the 11-year-old said inspired her to spend Saturday pulling invasive weeds, planting native saplings and building steps at the Kohala Mountain Road site.

"We need to be taking care of the land because there's barely anything like this left," she said while taking a quick water break. "Everyone should be doing this because it's fun to help the land."

Hashimoto-Ruis was just one of nearly 20 Waimea Middle School students and dozens of other volunteers from various organizations who took part in nonprofit Kohala Watershed Partnership's Malama Aina Day held at the sanctuary. The workday was held in conjunction with Make a Difference Day, a national day of community service.

The state Division of Forestry and Wildlife parcel is one of the last remnants of dryland forest on the mountain, said Melora Purell, director of the partnership, which since 2009 has assisted the state in efforts there. Some of the koaia acacia trees within the sanctuary are an estimated 500 years old and an ohia, located near Waiakamali Stream, is thought to be 1,000 years old, she said.

Acacia koaia is an endemic species listed by the United Nations as a "species of concern," which means it is not yet considered endangered, Purell explained. One of two koa variety in Hawaii, acacia koaia is smaller than the forest koa, or acacia koa, more drought tolerant and prefers a lowland dry habitat.

"Koaia used to be the predominant tree across this area," Purell said. "This mountain was once dominated by forest."

Deforestation of Kohala Mountain began in the 1800s with the sandalwood trade and introduction of ungulates, Purell said. The hooves of cattle and goats destroyed the shallow-rooted native trees.

The sanctuary was created in the 1950s after Territorial Forester L.W. Bryan requested a survey of the area that found the mountain had lost most of its native cover, Purell said, noting none of the data was documented. The 13-acre area was subsequently fenced to protect the handful of remaining trees situated along the stream.

Today, native trees and plants, and some invasive species, cover much of the landscape. The area, though, is parched because of extreme drought. The area, which normally sees 30 to 40 inches of rainfall annually, has received about 7 inches in the past 12 months, Purell said.

"It's been really, really bad," she said. "Seven months there has been no rain at all."

Kacie DeCotio, another Waimea Middle School sixth-grade student, hopes the work volunteers did on Saturday will help the mountain through the drought and return it to its former glory.

"I hope all these native plants grow, and the land gets more green," she said. "It should be all green."

The Kohala Watershed Partnership was established in 2003. It is modeled after previous successful watershed partnerships across the state. The partnership includes nine private and state landowners. Public lands account for about half of the 70,000 acres included in the agreement.

The partnership's primary goal, according to its 2007 management plan, is to "show improvements in water and environmental quality ... while maintaining the integrity and protecting (the watershed's) economic, socio-cultural and ecological resources."

The organization operates with a handful of staff on an annual budget of about \$800,000 derived from federal and state grants and private contributions, Purell said. It relies heavily on volunteers for most of its projects.