

Golf Goes Green: Environmental Stewardship of Punawai Pond

As the first Jack Nicklaus course on the Big Island, the Hualalai Golf Course has taken its place as one of the most revered golf experiences in the world, continuously topping polls in golf and leisure publications. Most recently, the course helped propel Hualalai Resort to the #1 position in *Condé Nast Traveler's* 2007 Golf Poll for "The Best in Course Design" and #2 for "Top 100 Overall." Yet there is one award that may simultaneously bring the most pride and best embody the guiding values of Hualalai Resort — a citation from the Environmental Protection Agency.

To the unknowing golfer, the 2.5-acre Punawai Pond is simply an eye-catching water feature that contrasts beautifully with the emerald fairways along challenging Hole #5 on the Ke'olu Golf Course. But what these players are really looking at is a complex living machine.

Punawai Pond, which means "source of spring water" in Hawaiian, is a 3-million-gallon ecosystem with thriving wetland vegetation, native birds and bountiful sea life. The 10-foot-deep lake is lined with a foot of gravel and has two floating islands of plants. Bacteria and micro-organisms introduced into the root systems and gravel remove impurities.

"We have basically built a micro-ecosystem to keep the pond clean and remove waste from the water," says David Chai, Director of Natural Resources at Hualalai Resort.

David and his team of five have gone way beyond the original goal of creating an attractive water feature that could also clean marginal wastewater from the resort. Punawai Pond is home to a variety of species, including *mōi* (threadfish), *'ama'ama* (mullet), *kāhala* (amberjack), *'opae* (shrimp), *awa* (milkfish) and *'ōlepe* (oysters). The pond is also a working aquaculture farm, producing approximately 30 *mōi* and between 15 and 20 pounds of Pacific shrimp every week that are served in the resort's restaurants.

"We're very proud of our aquaculture activity," says David. "We harvest fish almost year-round. It takes some juggling, as we must move fish in various stages of the growing cycle from pond to pond. But you can almost always order fresh seafood raised right here at Hualalai."

It is this intersection of commerce and ecology that garnered the attention of the Environmental Protection Agency (EPA). David Chai and the Natural Resource Department's efforts at Punawai Pond were only one of two awards cited in Hawai'i. Officials from the EPA noted that Punawai Pond is a worthy example of how a business can interact with the environment, benefiting both operations and natural resources.

"We're a resort, but something like this can be easily duplicated in a lot of places," says David. "It's really a matter of integrating development with the natural features, wherever you are. It's about knowing that you're trying to do things the right way." ■



Hualalai Resort's Director of Natural Resources, David Chai, is one of the world's foremost experts on anchialine ("near the sea") ponds. Reestablishing Hualalai's pond system has been a labor of love.

More than an eye-catching water feature, Punawai Pond is a living entity, filtering runoff water, as well as producing fish and shellfish served in Hualalai's restaurants.

