

MidWeek

Declaring War On Alien Algae

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By Lisa Asato



Rebecca Most photo

A bed of fast-growing 'gorilla ogo' in full bloom

About 100 volunteers gathered near the western wall of the Waikiki Natatorium two Saturdays ago in quest of ogo - not the good-tasting *limu manauea* that's popular in poke, but rather its thicker, chunkier relative dubbed "gorilla ogo," an alien species threatening Hawaii's nearshore marine ecosystem.

The outing marked the fourth anniversary of the alien algae cleanup, and volunteers came armed with ocean gear and good intentions. "I'm really hoping to learn more about alien algae," says Shelsey Katsutani, a 23-year-old University of Hawaii student who came to help in the water and had her Morey Boogie board in tow. "I didn't know what it looked like until I looked on that (display) board. I'm really glad to help the community by doing this."

Another UH student, marine biologist Heather Spalding, had the task of teaching

volunteers gathered around sorting tables some Alien Algae 101.

"The gorilla ogo is what we're going to leave on the tables," she says, holding a sample. "I'll take this apart and pass it around. It's very plasticky feeling. This species was accidentally introduced to Hawaii, and it grows really well. So all these little pieces can then grow into new plants and it can double its size in a few days to weeks. It grows super, super fast. We're trying to get it out of here and give other species a chance to grow."



Tad Tamura photo

Kaliko Thomas, 9, in a bed of seaweed



Spalding got some "wows" and laughs when she described the mini sea creatures that were to be sorted for return to the sea. She warned about "very small" manta shrimp that will "want to whack you" with its two front appendages, sea cucumbers, starfish and baby morey eels "so small they can't even get their mouth around your fingers."

As the first burlap sacks of algae arrive at the tables from the water, farmers Paul and Charlie Reppun of Waiahole wait in the bed of their 1966 Ford pick up for tarp-



Tad Tamura photo
Heather Spalding

fulls of gorilla ogo that will be used to fertilize their sweet potato, taro and corn crops. "This corn right here is grown with the limu," Paul says, referring to bags of corn selling for \$3. "We just spread it right on the field and till it in with a tractor. It's easy."

His older brother Charlie adds:
"Hopefully we won't get (the algae)
for very long. They'll get rid of all

this stuff,



Tad Tamura photo
Paul and Charlie Reppun take the bad algae to fertilize their farm



Jennifer Smith photo
This 'collector urchin' actually feeds on alien seaweed species

hopefully. It's bad."

Volunteer Cindy Fujioka of DoubleTree Alana Hotel says she liked that nothing was going to waste. "It's not so much that we're not adding to the landfill," she says. "We're actually doing something really good, taking something that is so negative and turning it into something positive."

Hawaii has 24 types of alien algae and at least five, including gorilla ogo, are invasive, referring to a rapid growth rate and ability to smother and kill coral and algae. In Kihei on Maui, another type of alien algae "costs the county \$20 million a year because their beaches are just piled high with rotting algae," says UH botany professor Celia Smith. "No one wants to sit on the beach with that stink."

That scenario doesn't apply to gorilla ogo, whose worst case scenarios could involve island-wide distribution "with loss of corals in shallow areas," creating a high-energy coastline and "fewer fish for you to look at in the longer term," she says.

A leading theory has it that gorilla ogo, or *Gracilaria salicornia*, first came to Hawaii, at Hilo, aboard 19th or 20th Century ships on ballast rock. More recently, it was brought to Waikiki and Kaneohe Bay in the 1970s by UH researchers to study aquaculture.

The algae took hold "because they were out of their native

environment and weren't subject to the same competition and predation," says Cynthia Hunter, a UH marine biology assistant professor. "They invented actually new ways of growth here. They don't form these kinds of mats in their native environments because they're chewed on. ...

"(This) is something that nobody could predict, which shows that we need to take a precautionary approach to our science."

The cleanup started four years ago as a project of the Hawaii Marine Algae Group, an association that also manages projects like the super sucker, an underwater machine that with a crew of five can perform algae removal at a rate equal to 200 people. It's also studying Collector urchins as an algae predator. HIMAG is comprised of The Nature Conservancy of Hawaii, the state Department of Land and Natural Resources Aquatic Resources Division, the University of Hawaii and the Coordinating Group on Alien Pest Species.

In four years, 100 tons of gorilla ogo have been removed from Waikiki. "There's definitely less algae than there used to be," but it's too early to say "we're the reason for that," says Signe Opheim, the cleanup coordinator. An upcoming study is expected to shed light.

For diver Nadiera Sukhraj, who's on the front lines stuffing alien algae into burlap bags, the changes she's seen over two years are encouraging: less algae and more fish and plate coral. "When we're down there trying to put the algae in the bags now the fish they swim up to you. You kind of have to swat them away to get the algae in the bags," she says. "That's good."

The next cleanup will be held from 8 a.m. - noon Nov. 18 at the Natatorium. A light lunch will be served. For information, email Opheim at opheim@hawaii.edu.



Tad Tamura photo
UH students Mami Gotoh, Ayaka Nakaji and Lou Suzuki

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