

Hawai'i is Fighting a Battle Against Harmful Sunscreen Chemicals, and You Can Help!

By Lila Luthy

Coral reefs are a key ecosystem in Hawai'i. They are integral to the existence of marine life on the islands and help to mitigate erosion from sea level rise, serving as an important wave buffer. The loss of coral reefs would spell disaster in Hawai'i, not only from a biodiversity standpoint but economically as well, as both the tourist and fishery industries are dependent on the continued health of the marine ecosystem.

A major threat to coral reef ecosystems is sunscreen chemicals. Sunscreen chemicals are divided into two different categories: synthetic and mineral. The majority of sunscreens contain harmful synthetic chemicals that build up in coral tissue, making corals more susceptible to diseases and other stressors that increase their mortality. However, while sold in lesser quantities, mineral based sunscreens, composed of either zinc-oxide or titanium-dioxide, do not harm the reefs in this way and thus are a reef safe alternative. I spoke with Christopher Teague, a marine biologist with the Hawai'i Department of Land and Natural Resources to discuss the state's attempt to ban all non-reef safe sunscreen and other sustainability practices to protect marine life.

Teague's department is responsible for marine monitoring of coral reefs. "We do a lot of scuba diving, doing fish counts and coral cover estimates. Beyond that, we're also responsible for anything and everything that has to do with marine natural resources. We deal with protected species, address coral damage, and respond to other sources of natural resource issues and concerns."

With there being many threats to coral survival, including poor water quality, climate change, ocean acidification, and overfishing, it can be hard to determine what issues to prioritize addressing. While Teague doesn't think sunscreen should be the central focus of coral conservation work, he said "I think it is a pressing enough issue that it's worthwhile to have a discussion to push for better legislation on it. You know, there are some places in Hawai'i where you go to the beach, and you can smell the sunscreen in the air. It's pervasive enough that you realize it's there. I think just for that reason it's worthwhile to deal with it in whatever way that we can."

While both oxybenzone and octinoxate, two sunscreen chemicals found in especially high levels in coral samples, have been banned statewide, most sunscreens sold in Hawai'i still contain other synthetic chemicals that cause ecosystem harm. However, there is hope as the movement to ban synthetic sunscreen chemicals in the state gains momentum.

In addition to the implementation of synthetic chemical sunscreen bans, there have been other steps taken to encourage a shift to mineral based products.

Teague says one solution "is to put sunscreen dispensers at every public beach." Already, "there's been a couple pushes on Hawai'i island through community groups and other environmental advocacy groups to install these. However, while two or three dispensers have now been installed along this coast recently, a bigger statewide push will require the legislature agreeing to it and funding it."

Another approach is tourist education. During a coral spawning event last year, Teague said “State parks closed off one of their beaches up north [to encourage successful coral reproduction] and we went up there to talk to people about why we were closing it and what was going on with the corals. Then we used that as an opportunity to talk about sunscreens as well and we have some educational materials around sunscreens that we hand out. We talk to people about using mineral based sunscreens or even better, just covering up rather than using any kind of synthetic sunscreen.”

While education remains central to Teague’s approach, he acknowledged that debates around ecosystem conservation have been altered by the pandemic.

“There’s a lot of anger that popped up during the pandemic. People saw what it was like without tourists here. And they wanted more of that. But the flip side is that when we had a huge drop in tourism revenue, and consequently we also had a huge drop in the budgets for the services that the government is able to provide. So I think it’s a two way street and we need to find some sort of compromise. But I think it’s possible. It’s a matter of properly educating people when they come here and doing other small things that can have really big, outsized impacts.”

One new change Teague highlighted is the implementation of “a conservation use fee, which is a per head fee for charter activity. When someone goes on a dive tour, or a fishing tour then they get charged an extra fee per trip, and that goes directly into a special fund that helps us do our work. Things like that allow us to leverage the money that’s coming in here to go directly towards resource management. It will also help us to educate tourists on how they can make their trips more sustainable and more ecosystem friendly.”

This interview was edited and condensed for clarity