‘Bigger And Stronger Waves’ Are Perilous For Visitors

In the middle of the Pacific Ocean, Hawaii’s unique topography, currents, winds and water conditions often catch tourists off guard.

ABOUT THIS STORY BY NATHAN HOLCER

Sitting on a beach, watching the waves break, life is good.

The view in Hawaii might not be all that different from other beaches around the world, but Hawaii waters are distinct — something that may not be evident until you enter them.

The way the surf pounds and rip currents pull can be deceiving, experts say. Visitors who are unfamiliar with Hawaii’s unique ocean conditions take risks without even realizing it.

Chip Fletcher, associate dean at the University of Hawaii’s School of Ocean and Earth Science and Technology, says there are “too many” tragic stories of tourists dying in Hawaii.

“A very classic situation is a family that has been tempted to come to Hawaii — to condescend to come to Hawaii — because of its beautiful beaches with those tranquil white sands with palm trees,” he said.

“Those families get on image in their head, an attitude in their head that this is a lovely, peaceful and therefore safe setting — so we lose them right down to the water’s edge with this fantasy.”

In Fletcher’s hypothetical yet all-too-real scenario, a family parks up one morning at their hotel in Waikiki and goes to the famous Hanuma Bay on the west side of Oahu. But it’s Tuesday and the snorkeling area is closed — or maybe it’s a different day and the parking lot is full.

The next beach heading north around the curving highway is Sandy Beach Park, which Fletcher says is arguably the most dangerous beach in Hawaii.

“The kids are wild, they just want to get there,” he said. “So they take a quick look. If there happens to be a lull, they don’t look at it again and run right into the water.”

“Various versions of this story happen at beaches everywhere here.”

The Hawaiian archipelago is the most isolated and maze in the world. Unlike California or the eastern coast of the United States, there’s no continental shelf to dissipate wave energy before it reaches the shore, he said.

The water can be 2,000 feet deep less than a quarter-mile offshore in Hawaii.

“This allows for very strong ocean wave energy much closer than you would find on a continent,” Fletcher said.

As an island state, Hawaii also has waves approaching from all directions. The general rule of thumb is that the surf is bigger in the winter on the north shores and in the summer on the south shores, but there are exceptions — storms and winds that change conditions.

“Go on any one particular beach you can get several different types of waves depending on what time of year it is and what the conditions are,” Fletcher said.
A woman struggles in the pounding waves at Sandy Beach where the shore break is one of the most treacherous in the state.

At Sandy's or Oahu or Hayama on the Big Island, where there's little in the way of a shallow reef offshore, waves break directly on the beach.

"It doesn't take a very large wave to become a potentially fatal situation if it's breaking right on the beach," Pitcher said. "And anyone can wade down to the water's edge."

When the waves are crashing farther offshore, it takes some skill to reach them.

"There's a natural filtering process in terms of who's exposed to the waves that are breaking," he said. "If waves are breaking right on the beach, like at Sandy's, it can expose anyone to a fatal other effect of picking up the human body and slamming it down on the beach, especially head first."

The oceanographic and topographic conditions at Kauai's Beach on Kauai make it one of the most deceptive — and treacherous.

Cary Kawanami, who has been working in the field of ocean safety for the past 21 years on Maui and is now the county's ocean safety supervisor, said the on-shore topography and other conditions set Hawaii apart.

"We're in the middle of the Pacific Ocean," he said. "In California, the beaches kind of slope gradually and are wider. You can walk 30 feet out and be in waist-deep water."

"In Hawaii, it drops off really quickly and that has an affect on the waves," he said. "They're bigger and stronger, and there's a stronger rip current. The topography of the land makes a difference, plus we've prone to the trade winds and some currents."

Further complicating non-residents' understanding of Hawaii's waters are the Juls between waves, which can range between 30 seconds and 15 minutes.

The swells also affect rip currents, not just shore breaks. Rip currents aren't unique to Hawaii, but their power can be.

In California, rip currents might not be in the same place each day because they're often formed by sandbars. They're change with low and high tides, making it a challenge to predict where they'll be ahead of time, Pitcher said.

That type of rip current exists in Hawaii, too, at places like Kahului Beach, he said, but there are also rip currents in the islands flowing through channels in the reef.

These topographically fixed rip currents are easier to locate, but the strength of the water flowing through the rips can be harder to predict.

"Those can be especially strong, especially if the channel is deep and focused," Pitcher said, noting as an example the right side of Menehune on the north shore on Oahu. "It can flow like the Mississippi River and can be impossible to handle other than just to go with the flow."

His recommendation: Go to Beaches with Life Guards, and ask them about where it's safe to be in the water. Also, check JawsBeachInfo.com for local conditions.