

Studying And Surfing The Ocean's Monster Waves

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Weekend Edition Saturday



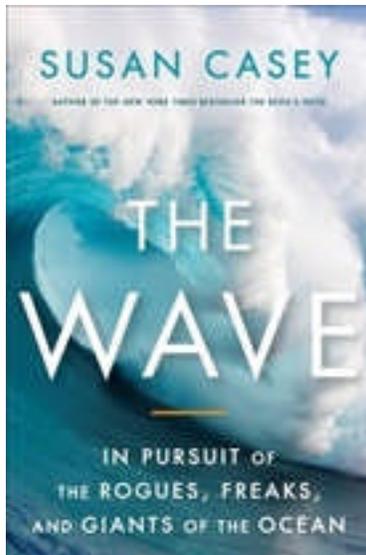
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Surf's Up: About 70 percent of the Earth's surface is covered by water — and humans have long been fascinated by the mysteries of the ocean — a source of food, transportation ... and fun. Above, Ryan Hardy of Australia rides a large wave on the North Shore of Oahu, Hawaii.

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One-hundred-foot-tall waves can be nightmarish ship-swallowing monsters — or seductive sirens that tempt the adventurous. But it wasn't until 15 years ago that scientists were even able to prove that such giant rogue waves actually existed.

Susan Casey, whose book *The Wave* tells the story of great waves and those who seek to solve and ride them, says people were skeptical of 100-foot waves because weather patterns don't seem to predict them.



The Wave
By Susan Casey
Hardcover, 352 pages
Doubleday

Casey says she first became interested in learning about monster waves after hearing a story about the British research vessel *Discovery*, a 230-meter-long ship that became trapped in a vortex of giant waves for several days. The waves, Casey says, ranged from 60 to 100 feet tall and were not predicted by weather models.

"I just wanted to find out more about that, and yet there had been nothing written," she tells NPR's Scott Simon. "So I began to investigate."

'Avalanches Of Water'

Casey says that physics principles don't seem to allow for huge waves to exist in certain sea conditions. Yet, "for decades and even centuries, boats had been disappearing, and mariners had said, 'You know, there were these incredibly big waves, and we just escaped,' and nobody believed them."

"It was only in 1980 that we got satellites, and it was 15 years after that that it was proved that there are these 100-foot waves that can actually appear in, say, a 38-foot sea," Casey says. "But that made no sense at all."

The number of super-large waves is likely on the rise, Casey says, as a result of more climatic extremes, which in turn lead to feistier seas, tougher ocean conditions and bigger storms. The waves form as a result of these large storms, and the inherent instability of the waves — the steepness of the face — lead them to "sort of freaking out and becoming these rogue waves that are very unstable," she says.

In order to ride monster waves like this one, surfers need to be towed in from a Jet Ski, a technique pioneered by Laird Hamilton. Above, Shane Desmond surfs a wave off the coast of Half Moon Bay, Calif.



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In order to ride monster waves like this one, surfers need to be towed in from a Jet Ski, a technique pioneered by Laird Hamilton. Above, Shane Desmond surfs a wave off the coast of Half Moon Bay, Calif.

"They're almost like avalanches of water, where one wave will all of a sudden grab the energy from, say, three or four waves around it and become this teetering monster that doesn't act like a normal wave."

Waves 'Going To Waste'

While some people fear these waves, others want to get as close to them as possible.

"I was very interested in anybody who had been in a position to tell me more about waves this size," Casey says. She found such people in "a very rarefied group of extreme surfers who seek them out."

Chief among them is Laird Hamilton, who invented a special kind of surfing just to tackle these mega waves. At some point, Casey says, the waves move too fast for anyone to be able to paddle into them. "The best waves in the world were going to waste," she said Hamilton once told her.

So Hamilton and some surfing friends began tinkering and came up with a technique involving jet skis and water ski ropes that enabled surfers to ride large waves.

Hamilton insists he's not nuts: "I would think [I'm] more on the sane side than most of the people that live in cities. And really, I'm doing it — not only because we're able to — but because for us, it's like an exploration. What can we do? How far can we go?"



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Susan Casey is also editor-in-chief of *O, The Oprah Magazine*.

Hamilton says his pursuit of giant waves really has to do with developing a "more intimate" relationship with the ocean. Being in the presence of a giant wave, he says, is to "experience something that is unexperienced by normal man or by any man."

Trying to describe the experience of surfing a huge wave is as difficult as trying to describe a color, Hamilton says. "It's something all-consuming. It's an experience that changes who you are. I just feel so alive from doing it. I feel like I get such great power."

And to wipe out?

"It's the moment where you totally relinquish any true control over what you're doing," he says. "There's no place really in life that does it quite like that — when you do fall and you do get hit by [the water], you're just at the mercy of the wave and it dictates. And sometimes those are the most thrilling rides of all. Unfortunately."

About 70 percent of the Earth's surface is covered by water, but so little is known about the oceans, Casey says. "This is, to me, the amazing thing: This spectacular force of nature, these rogue waves that can take out an 850-foot ship were, up to 15 years ago, considered not to exist. The most important thing about the ocean is that we explore it. It's our own planet — it's spectacularly beautiful, and it's really, really powerful."