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U.S. scientists shed light on monster sea waves

"Ocean waves as tall as an eight-story building, once dismissed as maritime folklore, can be studied using waves of light, offering hope of predicting where these monsters may appear, U.S. researchers said on Wednesday."

"These giant waves have been featured in many famous literary works from the Odyssey to Robinson Crusoe, but they were just thought to be the subject of myth for a long time," said Daniel Solli of the University of California, Los Angeles, whose study appears in the journal Nature."

"These rogue or freak waves can appear out of nowhere on an otherwise calm sea. 'Even modern ships are not immune to damage from these things,' Solli said in a telephone interview."

"Scientists thought these were just sailor's yarns," Solli said, until they spotted one in the mid-1990s off an oil platform in the North Sea. Now they are studying how they form. Solli thinks the answer may be found by studying light waves, which behave similarly to water waves."

"Solli was studying the properties of light waves traveling in glass when they discovered optical rogue waves, freak brief pulses of intense light similar to the freak water waves."

"Solli, a physicist, knew the same physical effect could occur in different physical systems. He began looking at possible explanations and found a stark resemblance between the mathematical equations that describe rogue water waves and his rogue light waves."

"The more we looked into this, the more it became clear that what we were seeing was the optical counterpart of the same effect," he said."

"Essentially there is a sweet spot or tickle spot we found. If you tickle the wave on this particular spot, it develops into one of these rogue waves," he said."

"It is highly likely a similar effect is at work in the water waves," he said."

"If he is right, the finding could allow scientists to study these rare monster waves in a table-top experiment."

"We hope it may be possible to develop more complete models and learn new ways to predict them," he said."

This story was widely circulated and picked up by ABC News, Yahoo News, MSNBC, AOL News, Scientific American, and many other news services.