

Tsunami - Newcastle Morning Herald 18th August 1998

Tsunami (plural) are for real. They arise from earthquakes, like the one which last month claimed thousands of lives in New Guinea, and from cosmic impacts, like the one depicted by the blockbuster movie "Deep Impact". So if you live close to the coast do you have tsunami insurance? How likely are we to suffer a gigantic ocean wave, like the movie whopper that washed away the city of New York and penetrated far inland? The chances of such a large one are remote, but one could strike even as you read these words. Small tsunami, like the recent one in New Guinea, are much more common.

Over the past two millennia there have been more than two hundred recorded instances of devastating tsunami. Not all would have been from earthquakes. In fact earthquake-induced tsunami occur most often near the boundaries of tectonic plates, in places like Japan where one drowned 27,000 people in 1896.

We are well away from a plate boundary so a tsunami hitting the coast of New South Wales may be more likely to rise from a cosmic impact than an earthquake. Evidence has been found for several hitting our coast within the last few millennia. Geologists Ted Bryant and David Price from Wollongong University have studied the many different signatures tsunami leave, such as deposits laid where they shouldn't be, sculptured marks in bedrock, and so on. Using well-established dating techniques they have identified more than a dozen over the past seven millennia, the latest occurring just before European settlement.

Evidence near Shoalhaven indicates that a tsunami penetrated 10km inland for at least one event and reached a height of 100 metres on cliffs at Jervis Bay. Along the northwest coast of Western Australia there is good evidence that a fairly recent tsunami swept more than 30km inland. So this continent is not immune from tsunami, as may be guessed from the number of known meteorite craters in the outback. Had any of these crater-forming meteorites landed instead in the sea just off our coast the tsunami devastation might have exceeded that resulting from a cratering impact.

I think I had better take a closer look at the fine print on my insurance policy.

<http://www.bom.gov.au/tsunami/about/atws.shtml>