On April 12, 2017, the residents of New Zealand braced themselves for a potentially devastating weather event: the incoming ex-tropical storm called Cyclone Cook. At the time, the North Island and parts of the South Island were still recovering from being hit by the leftovers of ex-tropical Cyclone Debbie. From April 4 to April 6, 2017, Debbie had brought widespread heavy rain and gale force winds, and caused floods, landslips and a great deal of property damage. The entire town of Edgecumbe had been evacuated after the Rangitaiki River breached its stop banks, and some residents were also evacuated in Whanganui (Hutching et al., 2017).

Now, the forecasters warned of the potential for another bout of heavy rain, damaging gales, enormous storm surges and widespread flooding. In anticipation, Civil Defence issued a national warning for an ‘extremely serious weather event’. The Thames-Coromandel District Council declared a civil defence emergency. Waikato Civil Defence warned residents to stock up on enough food and water for seven days, and Aucklanders were advised to prepare for savage winds and avoid travel (NZ Herald, 2017).

The experts warned us that Cyclone Cook could be as bad as Cyclone Giselle, which hit New Zealand in April in 1968 (NZ Herald, 2017). From April 9 to April 15, 1968, New Zealand was pounded by heavy rain, strong winds, destructive wind gusts, high seas, flooding and landslips. On April 10, 1968, the inter-island ferry Wahine was wrecked as it entered Wellington Harbour. This was the most destructive storm event to strike the country since European settlement (NIWA, 2016). Understandably, in April 2017, people were right to be concerned.

Cyclone Cook made landfall in New Zealand in the Bay of Plenty on April 12, 2017. It brought heavy rain, strong winds, 6 m coastal waves, landslips, floods, power failures and travel disruptions and there were more evacuations. No lives were lost. Fortuitously, the storm had weakened as it approached, was compact and fast moving, and had not tracked across any of our largest cities (Kenny, 2017).

Cyclone Cook was not another Giselle—but it could have been. New Zealand remains vulnerable to extreme weather events. One way to better understand the potential risk to life and property, is to learn about our past disasters.

Richards: Book review: New Zealand’s Worst Disasters. True Stories That Rocked a Nation

sinking of the Wahine. Graham Hutchins has written a considerable number of non-fiction books, mostly dealing with railways, rugby, the New Zealand way of life, but also the history of floods in New Zealand (Hutchins, 2006). Russell Young published a history of the town of Te Kuiti in 2013.

New Zealand’s Worst Disasters addresses 31 disasters that have featured large in New Zealand’s history since European settlement. These include fires, mine disasters and transportation accidents, but also natural events, such as earthquakes, volcanic activity, floods and storms. The book does not deal with incidents involving epidemics, or with enemy action during wartime.

Hutchins and Young begin with the Wellington earthquake of 1855 (“The big one”, Chapter 1), and conclude with the Carterton ballooning tragedy in 2012 (“Sky high”, Chapter 31). The 7.1 magnitude earthquake in Christchurch in 2011 is included (“On shaky ground”, Chapter 30). However, the 7.8 magnitude Kaikoura earthquake in November 2016 occurred after the book’s publication date.

There is much in New Zealand’s Worst Disasters to interest those who enjoy reading about meteorology and the impact of extreme weather events. Roughly a third of the disasters are strongly associated with severe weather conditions. However, weather plays some role in about half of the events addressed in the book.

Chapter 2 (“Of shipwrecks and flooding”) deals with the Great Storm of 1868. This caused at least 40 deaths, 12 shipwrecks and the widespread destruction of roads, bridges, crops and livestock. The east coast from Christchurch to Dunedin bore the brunt of the storm, but it caused floods and shipwrecks as far north as Thames and Hokianga Harbour. It was deemed to be the worst storm in New Zealand history since the 1840s, until Cyclone Giselle arrived in 1968.

Overnight on March 18, 1918, a massive bushfire destroyed forest, sawmills, farms and villages on the Central Plateau, North Island (“For as far as the eye could see”, Chapter 10). Most residents were able to flee, or found refuge in waterways, and only three lives were lost. Weather conditions played an important part. Raetihi village was only engulfed when the north-east gale changed to a northerly. Ohakune was saved by a change in wind direction and, later, heavy rain. The wind carried the smoke pall south: it was too dark to work in Palmerston North and Masterton, the ferry from Lyttleton couldn’t find Wellington harbour, and dawn was delayed in Christchurch.

The story of the Kopuawhara flash flood of 1938 was a new story for me (“A wall of water”, Chapter 13). A Public Works camp had been built beside the Kopuawhara Stream for workers building the Napier-Gisborne railway. After torrential rain, a wall of water 5 m tall swept down the valley. It arrived at the camp on the river flats soon after 3:30 am, and carried away huts, tents, vehicles and people. The death toll from the flood was 21. Roads and bridges were damaged downstream, thousands of sheep and cattle swept away, and farmers were still dealing with silt and water six months later.

Say ‘tornado’ and I am more inclined to think Oklahoma, USA, before I think of New Zealand. However, we do get them and fairly frequently. Most of our 30 or so tornadoes per year are small and/or in sparsely populated areas. Fatalities are rare. The Frankton Tornado of 1948 (“Out of a black sky”, Chapter 17) lasted 10 minutes. Three people died, 80 were injured, and 150 houses were destroyed or badly damaged. Fatalities occurred also in Taranaki in 2004 (3 people) and Auckland in 2012 (3 people). NIWA reports that tornado activity has increased since 2000, so risks may increase in future years.

New Zealand is renowned for its beautiful mountains and intrepid mountain climbers. Many of our alpine
areas are accessible and are suitable for day-trips, during clement weather. In July, 1953, a group of Auckland nurses went on a guided climb to the summit of Mount Egmont, now more commonly known as Mt Taranaki ("Because it was there", Chapter 20). All 31 in the group made it to the summit, albeit rather late in the day. While descending, the weather deteriorated, the snow surface turned to ice, and seven climbers roped together fell over a bluff. Darkness had fallen—it was 6:30 pm on a winter evening—and by the time rescuers reached them, it was blizzard conditions. Four of the seven who fell died on the mountain, one later in hospital. What became known as 'the nurses' accident' helped to drive the establishment of an official Search and Rescue service in New Zealand. It is a poignant reminder that lack of time, inexperience and inadequate equipment can conspire with harsh weather, with tragic consequences.

Cyclone Giselle is addressed in Chapter 24 ("Any port in a storm"). Its association with the sinking of the Wahine is so strong, that the event is commonly known as 'The Wahine Storm'. In April, 1968, a deep depression from the north developed into a hurricane and met a cold front approaching from the south in an “unlikely, hellish confluence” (Hutchins and Young, 2016, p166). The outcome was nationwide storm damage and New Zealand’s worst modern maritime disaster (NIWA, 2016). On the morning of April 10, 1968, 734 people—610 of them passengers—were on the Wahine as it entered Wellington heads. In severe winds, huge seas and poor visibility, the ship went onto Barrett’s Reef. It was badly damaged, the engines failed, and the ship started taking on water and listing to the side. Eventually, fearing that the ship would sink with a great loss of life, the Captain gave the order to abandon ship. Most people made it to shore alive, albeit in great physical and emotional distress. More than 50 people died: 51 on the day, and two more at later dates.

I enjoyed reading this book. It was hard to not feel a personal connection. I used to live in Ohakune, close to the location of the 1918 Raetihi Bushfire (Chapter 10). My cousin was born during Cyclone Giselle—after the roof came off her parents’ house (Chapter 24). In Dunedin in 2015, I saw the musical Seaciff: The Demise of Ward 5, written by Renee Maurice about the 37 women killed in the 1942 Seaciff Fire (Chapter 14). And all of us can relate to stories from Erebus, Cave Creek, Pike River and the Christchurch Earthquake (Chapters 25, 27, 29 and 30).

I have only a few minor criticisms. I would have loved to see larger photographs on the book’s cover. A timeline of events could have been included. And I did cringe at some of the ‘cute’ chapter titles, for those chapters that describe recent fatalities. Those ‘fun’ titles just seemed a little bit insensitive.

New Zealand’s Worst Disasters. True Stories That Rocked a Nation is well written. There are abundant and crisply reproduced images, mostly photographs, and a comprehensive index. Hutchins and Young balance nicely
historical facts, people's anecdotes, science and social issues. The stories are fascinating, without dwelling on the gruesome. It is a 'popular history', but meaty enough to be very satisfying. It should appeal to many scientists, teachers, students and general readers who enjoy New Zealand history, science, natural disasters and reading about the weather.

**References**


Figure 1: HEAVY TOLL OF LIFE IN RAILWAY CAMP FLOOD DISASTER (upper) The scene of tragic desolation after the river, transformed by the cloudburst into a raging torrent, had swept away the single men’s quarters (situated on the right) at the Kopuawhara No. 4 Public Works Camp. (centre right) Salvage work among the wreckage of the huts. (lower left) The No. 4 camp at Kopuawhara, on the East Coast railway, before the disaster. The portion of the camp which was swept away appears on the right. (lower right) Miraculously escaped death in the tragedy: From left, Mr. Harold Cameron, sen., Harold Cameron, jun., Mrs. Cameron, Joan Cameron and Mr. H. McCorquodale. Harold Cameron, jun., risked his life in dragging a heavily-built man to safety. Source: New Zealand Herald, Volume LXV, Issue 22968, 21 February 1938. Retrieved on 19 July 2017 from https://paperspast.natlib.govt.nz/newspapers/new-zealand-herald/1938/2/21/8. Reproduce from digital image supplied by the National Library of New Zealand under a Creative Commons New Zealand BY-NC-SA licence.