



## Average number of days wind speed exceeded storm force (Beaufort Scale 10)

### Title

Average number of days wind speed exceeded storm force (Beaufort Scale 10)

### Creator

Environmental Reporting, Ministry for the Environment and Statistics New Zealand

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### Description

The ocean storm index estimates the number of days in a year when wind speeds exceed gale and storm force on the Beaufort Scale. In a gale, sea conditions are rough and waves can be over six metres high. In a storm, waves can be over 10 metres high. To put this into context, on land a near gale would make walking difficult, and a storm would cause some damage to roofs, chimneys, and trees. Climate change could lead to changes in the frequency and intensity of storms. More frequent and intense storms will likely be a stressor for habitats and species. The ocean storm index estimates the number of days that wind speeds exceed gale and storm force on the Beaufort Scale. The Beaufort Scale is a widely used international classification that rates sea conditions from 0 (calm) to 12 (hurricane). We report on estimated wind speeds broken down to: - gales – measure 8 on the scale, have rough sea conditions with wind speeds of approximately 62–74 km per hour and wave heights of 5.5 metres - storms – measure 10 on the scale, have wind speeds of approximately 89–102 km per hour and wave heights of 9–11.5 metres (McDonald & Parsons, 2016). This dataset relates to the average number of days wind speed exceeded storm force (Beaufort Scale 10) from 1979–2015.

### Source

Source: University of Canterbury Method: Wind gust information is from the ERA-Interim reanalysis project (Dee et al, 2011), which uses observational data and model results. The wind data was for the years 1979 to 2015 and covered the New Zealand exclusive economic zone (EEZ), divided into six oceanic regions and scaled to the area covered. To calculate the ocean storm index, the number of three-hour time periods during which estimated wind speeds exceeded one of the thresholds are summed. The total hours are then divided into the number of days where the relevant wind speeds were reached, for each year. We were unable to assess the data for a trend because of the high variability between years. Data may have limits including high inter-annual variability and the occurrences of strong individual events that may influence results. For more information on the methodology covered please see the Ocean Storm Index report (McDonald & Parsons, 2016).

### Coverage

-60.0 150.0 -20.0 -160.0

### Identifier

<https://data.mfe.govt.nz/layer/53463-average-number-of-days-wind-speed-exceeded-storm-force-beaufort-scale-10/>

Language

| eng

Subject

| New Zealand

Subject

| MARINE

Subject

| MARINE-Biology

Subject

| FAUNA-Vertebrates

Subject

| ECOLOGY-Habitat

Subject

| BOUNDARIES

Subject

| environment