



Annual sea surface temperature difference from normal, 2014

Title

Annual sea surface temperature difference from normal, 2014

Creator

Environmental Reporting, Ministry for the Environment and Statistics New Zealand

Date

2017-10-19

Description

The oceans store most of the excess energy accumulated due to increased greenhouse gases in the atmosphere warming the surface layer. These long-term increases in temperature caused by climate change are in addition to natural variability where ocean temperatures change in response to climate oscillations like the El Niño Southern Oscillation. Changes in sea-surface temperatures can affect marine processes, environments, and species. Some species may shift range or find it hard to survive in changing environmental conditions. Warmer water also takes up more space, which contributes to sea-level rise. More information on this dataset and how it relates to our environmental reporting indicators and topics can be found in the attached data quality pdf.

Source

Source: NIWA Method: We used NIWA's sea-surface temperature archive which is derived from the Advanced Very High Resolution Radiometer (AVHRR) satellite data it receives from the US National Oceanic and Atmospheric Administration. The archive provides high spatial (approximately 1km) and high temporal (approximately 6-hourly in cloud-free locations) resolution estimates of sea-surface temperatures over the New Zealand region, dating from January 1993. Uddstrom & Oien (1999) and Uddstrom (2003) describe the methods used to derive and validate the data. Our data extends from about 30°S to 55°S, and from 160°E to 170°W and is grouped into five areas: the exclusive economic zone (EEZ), the Chatham Rise, northern subtropical waters, subantarctic waters, and the Tasman Sea.

Type

grid

Language

eng

Subject

New Zealand

Subject

OCEANOGRAPHY-Physical

Subject

environment