

## **New Zealand weather and climate news**

*Courtesy of MetService Library*

### ***MetService***

#### **What's causing these warm summer days without much sun?**

MetService meteorologist Tom Adams says the cloudiness is the result of moist, tropical air being dragged over New Zealand for the next few days by a slow-moving low pressure west of the country.

<https://www.stuff.co.nz/national/109281357/whats-causing-these-warm-summer-days-without-much-sun>

#### **Mixed bag of weather in run-up to Christmas**

"A low-pressure system moves in from the Tasman Sea on Tuesday through Thursday, producing showery conditions and possibly a period of rain for northern areas," MetService meteorologist Tui McInnes said.

[https://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=12174793](https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12174793)

#### **Tropical cyclone remnants set to hit New Zealand days before Christmas**

The remnants of a tropical cyclone nearing Australia will hit New Zealand just days before Christmas, WeatherWatch warns.

[https://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=12175297](https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12175297)

#### **Volcano alert**

National Geohazards Monitoring Centre opens at GNS Science

The newly-opened National Geohazards Monitoring Centre will lead to a safer and more resilient New Zealand, according to its hosts, GNS Science.

<http://www.scoop.co.nz/stories/SC1812/S00012/national-geohazards-monitoring-centre-opens-at-gns-science.htm>

#### **Extreme weather (and other news) – Australia and Pacific**

**Extreme weather on the way as tropical cyclone, southern low pressure system develop in the east**

Two weather systems are coming together to create a deluge that is set to pummel much of the eastern seaboard in the coming days, with the Bureau of Meteorology issuing severe weather warnings in several states.

<https://www.abc.net.au/news/2018-12-12/bom-issues-severe-weather-warning-as-major-storms-forecast/10610060>

### **Cyclone Owen to bring wild weather to Queensland over coming days**

Destructive winds, possible flooding and wild weather is expected to batter much of Queensland over the coming days as the Bureau of Meteorology (BOM) predicts Tropical Cyclone Owen will intensify into a category-three system by tomorrow.

<https://www.abc.net.au/news/2018-12-12/tropical-cyclone-owen-to-cross-queensland-coast/10609798>

### **International news and research**

#### **Utilities to cover power lines, expand weather monitoring**

SACRAMENTO, Calif. (AP) — California utilities plan to insulate power lines, increase inspections and build new weather stations in areas at high risk for wildfires in an effort to combat increasingly destructive blazes.

<https://www.sfgate.com/news/article/California-utility-to-cover-power-lines-to-reduce-13455747.php>

#### **Centennial recognition for 'Memories of Weather'**

The World Meteorological Organisation (WMO) has officially designated six Met Office observing sites across the UK as 'Centennial Stations'. They join a global network of sites that have been recognised by the WMO for recording reliable observations for over 100 years.

<https://www.metoffice.gov.uk/news/releases/2018/centennial-weather-stations>

### **ECMWF**

Three new ECMWF Fellowships awarded

ECMWF has appointed three scientists working in the fields of data assimilation, atmospheric physics and hydrometeorology to its Fellowship programme.

<https://www.ecmwf.int/en/about/media-centre/news/2018/three-new-ecmwf-fellowships-awarded>

## **WMO**

### **FY-2H and FY-3D meteorological satellites are officially delivered - China Meteorological Administration**

On November 30, FY-2H and FY-3D satellites have been officially delivered to China Meteorological Administration (CMA). These two satellites have crystallized the latest achievements made in China's independent scientific innovation, which will further enhance the integrated observation and application service capabilities of China's meteorological satellites. In the meanwhile, as the member of global earth observation operational satellite sequence, they will play an instrumental role in serving "Belt and Road" Initiative and building a community with a shared future for mankind.

[Read more here](#)

### **Inaugural Leadership and Management Programme for Senior Management of NMHS in RA II and RA V - Meteorological Service Singapore**

Developing leadership and management skills of senior management of NMHS has been identified as a priority of WMO. In support of such training needs, the Meteorological Service Singapore (MSS) sponsored and conducted the inaugural Leadership and Management Programme for Senior Management of NMHS in RA II and RA V in Singapore on 10 – 14 September 2018. The Programme was organised in collaboration with the WMO Regional Office for Asia and the South West Pacific and the WMO Education and Training Office (ETO).

[Read more here](#)

### **Side event showcases IG3IS**

Levels of heat-trapping greenhouse gases in the atmosphere have reached another new record high and emissions are expected to rise this year. Climate action to reduce emissions is therefore more urgent than ever and requires more tools at national and sub-national level to support effective and efficient actions.

[Read more here](#)

## **Energy and Mining**

### **Greater transparency sought in gas sector**

The government is reviewing information disclosure requirements in the gas industry following the extended shutdown of part of the Pohokura field.

<https://www.newsroom.co.nz/2018/12/11/359111/greater-transparency-sought-in-gas-sector>

## **Farming/horticulture/Aquaculture**

Salmon farms proposed off Otago coast

King Salmon wants to test two 3600ha Otago ocean sites for the viability of offshore salmon farming.

<https://www.odt.co.nz/business/salmon-farms-proposed-otago-coast>

## **Health**

Climate change and allergy in Australia: an innovative, high-income country, at potential risk

6 Dec 2018

[Paul Beggs](#)

## **Public Health Research & Practice**

Objectives: The impacts of climate change on allergens and allergic diseases are important and potentially serious in Australia. Australia is highly vulnerable to such impacts because of its very high prevalence of allergic diseases such as asthma and allergic rhinitis, and allergic sensitisation to environmental allergens such as certain pollens and fungal spores. This article aims to review published research on the impacts of climate change on allergens and allergic diseases from an Australian perspective.

<http://apo.org.au/system/files/209001/apo-nid209001-1062186.pdf>

## **Tourism**

### **Cruise tourism to contribute \$695m to economy by 2019**

The latest report on cruise tourism's economic contribution was released today by New Zealand Cruise Association, showing that cruise is a valuable and fast-growing part of the New Zealand tourism industry, spreading wealth and supporting thousands of jobs in communities across the country.

<http://www.scoop.co.nz/stories/BU1812/S00331/cruise-tourism-to-contribute-695m-to-economy-by-2019.htm>

## **Climate change / global warming / sea level rise**

### **Extreme events in the context of climate change**

6 Dec 2018

Sarah Perkins-Kirkpatrick, Andy Pitman

Public Health Research & Practice

By definition, extreme events are rare. Socio-economic and human systems have not experienced adverse extreme events frequently enough to develop resilience, whether this be physical, economical or structural. Humans are vulnerable to extreme events because of our physiology and because we build thresholds into our socio-economic and human health systems. When these thresholds are exceeded the consequences can be devastating. This perspective will discuss changes in heat, drought and heavy rainfall extremes in the context of climate change.

<http://apo.org.au/system/files/209021/apo-nid209021-1062206.pdf>

### **Answer to South Dunedin lies far below**

South Dunedin's future could be determined by what scientists find 70m below the surface.

A drilling programme is being developed by the Otago Regional Council and GNS Science which will help create a more detailed model of how climate change and sea level rise will affect the area.

<https://www.odt.co.nz/news/dunedin/answer-south-dunedin-lies-far-below>

### **We can't know the future cost of climate change. Let's focus on the cost of avoiding it instead**

As delegates at the UN climate summit in Katowice, Poland, discuss the possibility of restraining global warming to 1.5°C, it might sound like a reasonable question to ask how much money it will cost if they fail.

[Read more here](#)

### **NZ aims to share knowledge at climate talks**

New Zealand's delegation to climate change talks in Poland is looking for a "triple win" of increased agricultural productivity, reduced greenhouse gas emissions and strengthened resilience to climate change impacts, Climate Change Minister James Shaw says.

<https://www.odt.co.nz/news/national/nz-aims-share-knowledge-climate-talks>

### **Emergency preparedness / disaster planning / resilience**

**Research guides disaster communication with Auckland's Pacific Island peoples.**

Disaster messaging is only effective if the population it is intended for embraces it. It can be particularly hard to engage societies with rich cultural and linguistic diversity, such as Pacific Island peoples.

<http://www.scoop.co.nz/stories/SC1812/S00011/research-guides-disaster-communication-with-pacific-islands.htm>

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Welcome to AMS News You Can Use.

### **Climate change made these 17 extreme weather events radically worse**

December 10, 2018 - Mashable

The 100-page report assessed 17 extreme weather events from 2017 — including floods, droughts, and heat waves — and determined global warming either significantly boosted the odds of these events, or simply made such extreme, often deadly events possible in the first place.

[Read MORE](#)

### **Climate change is not only influencing extreme weather events, it's causing them**

December 10, 2018 - CNN-US

For the second year in a row, the annual report from the American Meteorological Society found weather extremes that could not have happened without human-caused warming of the climate.

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### **Why Power Plants Are Acting Like Giant Snow Machines**

December 11, 2018 - Forbes

There have been several recent cases of industrial plants producing their own snow. Why is that happening?

[Read MORE](#)

### **Crowdsourcing Snow Depth Data with Citizen Scientists**

December 11, 2018 - Eos

A new project harnesses the power of the winter backcountry recreation community to gather data that are vital to understanding snow, from winter hazards to water resources.

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### **The 3 Highest-Volume U.S. Rainfall Events on Record Have Happened in the Last 3 Years**

December 11, 2018 - Weather Underground

Preliminary research found that the three highest-volume U.S. rainfall events in the last 70 years were Hurricane Harvey in Texas/Louisiana in 2017, Hurricane Florence in North Carolina in 2018, and a March 2016 storm in Louisiana.

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### **The Race to Understand Antarctica's Most Terrifying Glacier**

December 11, 2018 - Wired

Within the small community of people who study ice for a living, Thwaites Glacier has long been the subject of dark speculation.

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### **The Startling Thing Hurricanes Are Doing to Puerto Rico Watersheds**

December 11, 2018 - Forbes

Puerto Rico is no stranger to hurricanes, but new research reveals something surprising and of concern.

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### **Freshwater Is Getting Saltier, Threatening People and Wildlife**

December 11, 2018 - Scientific American

Road de-icing, industrial activity and other culprits are pushing salt levels in rivers and streams to alarming levels.

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### **Scientists unsure if there is an upper limit to snowflake size**

December 10, 2018 - UPI.com

"The exact shape of the final snow crystal is determined by the precise path it took through the clouds," according to physicist Kenneth Libbrecht.

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### **'Better than before': Puerto Rico's recovery is nearly complete**

December 10, 2018 - Chicago Tribune

"New Orleans took eight years to recover," said Dean, referring to the period after Hurricane Katrina. "Puerto Rico can't wait eight years."

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### **Looking Back at the 2018 Atlantic Hurricane Season**

December 9, 2018 - WDRB 41 Louisville

The 2018 Atlantic hurricane season officially concluded on November 30, and will be remembered most for hurricanes Florence and Michael. In total, the season produced 15 named storms.

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### **Software Glitch Adds to Issues for NOAA's Newest Weather Satellite**

December 7, 2018 - Nextgov

Technicians have identified a software glitch in the GOES-17 weather satellite it launched in March.

[Read MORE](#)

### **Penn State scientists among leaders in carbon cycle assessment**

December 6, 2018 - Penn State University

The report found that the burning of fossil fuels continues to be the largest source of atmospheric carbon dioxide. The planet's ecosystems, such as forests and oceans, remain a net sink, removing and storing almost half the carbon dioxide produced each year.

[Read MORE](#)

### **Atmospheric scientists find causes of firenado in deadly Carr Fire**

December 6, 2018 - ScienceDaily

Atmospheric scientists have documented a rare firenado, finding a number of factors that combined at just the right time and place to catalyze the deadly Carr Fire in Northern California.

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### **Getting a grip on space weather**

December 6, 2018 - Phys.org

An international group of scientists has developed a new method for analyzing the sun's energy outbursts, which can help better understand and predict extreme space weather phenomena that directly affect the operation of engineering systems in space and on Earth.

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### **First 'Piggyback' Kit for Monitoring Space Weather Launched**

December 6, 2018 - Electronic Component News

On top of its own ordinary weather-monitoring mission, the South Korean satellite has taken on a passenger from the European Space Agency (ESA), which includes sensors built at Imperial College London.

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### **Coastal Warning: An Unwelcome Messenger on the Risks of Rising Seas**

December 6, 2018 - Yale Environment 360

Marine scientist Orrin Pilkey has long been cautioning about sea level rise and the folly of building and rebuilding along coastlines.

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### **Design for flooding: How cities can make room for water**

December 5, 2018 - Phys.org

Science is clearly showing that the world is shifting towards a more unstable climate. Weather events like the flash floods in Sydney last week will be more frequent and extreme, while the intervals between them will become shorter.

[Read MORE](#)

**The 2018 hurricane season taught us some important lessons—so let’s not forget them**

December 5, 2018 - Popular Science

Too often, the public forgets a harrowing hurricane season until the next is rattling our shutters. We learned quite a few lessons during the 2018 Atlantic hurricane season, and hopefully, we can use this year as a guide to get ready for storms in the future.

Read MORE

**The fire-and-flood cycle returns with a vengeance in Los Angeles with fierce rain and mudslides**

December 6, 2018 - Los Angeles Times

Mudslides closed roads in the Malibu burn zone Thursday as rain pounded the area. Authorities have warned that storms could bring mudslide dangers to areas burned in the massive Woolsey fire.

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**As Climate Talks Stutter, Africa Suffers The Impact Of A Warming World**

December 10, 2018 - Voice of America

Efforts to boost global action against climate change are stuttering, as several key nations have objected to a key United Nations-backed report on the impacts of rising temperatures at the COP24 talks in Poland.

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