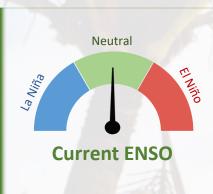
The Island Climate Update

ENSO Watch September 2018



ENSO (El Niño – Southern Oscillation) neutral conditions persisted in the tropical Pacific during August 2018.

Sea surface temperatures in the central Pacific continued to warm in August 2018.

The Southern Oscillation Index (SOI) was negative at -0.9 (i.e. on the El Niño side).

65%

chance for El Niño conditions to emerge during September - November 2018.

Chance for El Niño conditions during March – May 2019 78%



ENSO situation summary

For the fifth consecutive month, ENSO-neutral conditions persisted across the tropical Pacific. However Sea surface temperatures (SSTs) in the vicinity of the Dateline continued to warm during August 2018. Preliminarily, the NINO4 Index is now on the El Niño side of neutral at +0.61°C (was +0.45°C last month) but the NINO3.4 Index remained in the neutral range at +0.28°C (was +0.47°C last month). Like the past several months, warming during August was focused toward the Dateline, a signal that the upcoming ENSO event (and its impacts) may be of the so-called "Modoki" flavour (i.e. a type of El Niño where the maximum SST anomalies are located in the central rather than the eastern Equatorial Pacific).

In the subsurface ocean (within the first 150 metres of the ocean), the warm anomalies that were present in the eastern equatorial Pacific during July gave way to cooler than average conditions during August. The warm pool retracted westward, as an area of +2.0°C anomalies is now found at 100-150m depth from 170°E to 160°W and +1.0°C anomalies extend to the near-surface from 160-175°E.

The Southern Oscillation Index (SOI) was negative (i.e. on the El Niño side) with a preliminary value of -0.9 for August 2018. Trade winds during August were weaker than normal over much of the tropical Pacific west of 120°W.

In summary, atmospheric indicators became aligned with oceanic indicators during August, for a climate system that is gradually moving in the direction of El Niño. This is consistent with the consensus from international models, which forecast a transition toward El Niño over the next three-month period (65% chance over September – November 2018). The probability for El Niño conditions being established reaches a peak during early 2019, with a 78% chance for El Niño conditions over March - May 2019.

The Island Climate Update bulletin is currently being produced by NIWA in association with the Pacific Island Meteorological Services and other supporting meteorological organisations.

The Island Climate Update is prepared as soon as possible following the end of the month, once the data and information are received from the Pacific Island meteorological services. Delays in data collection and communication occasionally arise. While every effort is made to verify observational data, NIWA does not guarantee the accuracy and reliability of the analysis and forecast information presented, and accepts no liability for any losses incurred through the use of this advisory and its contents.

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