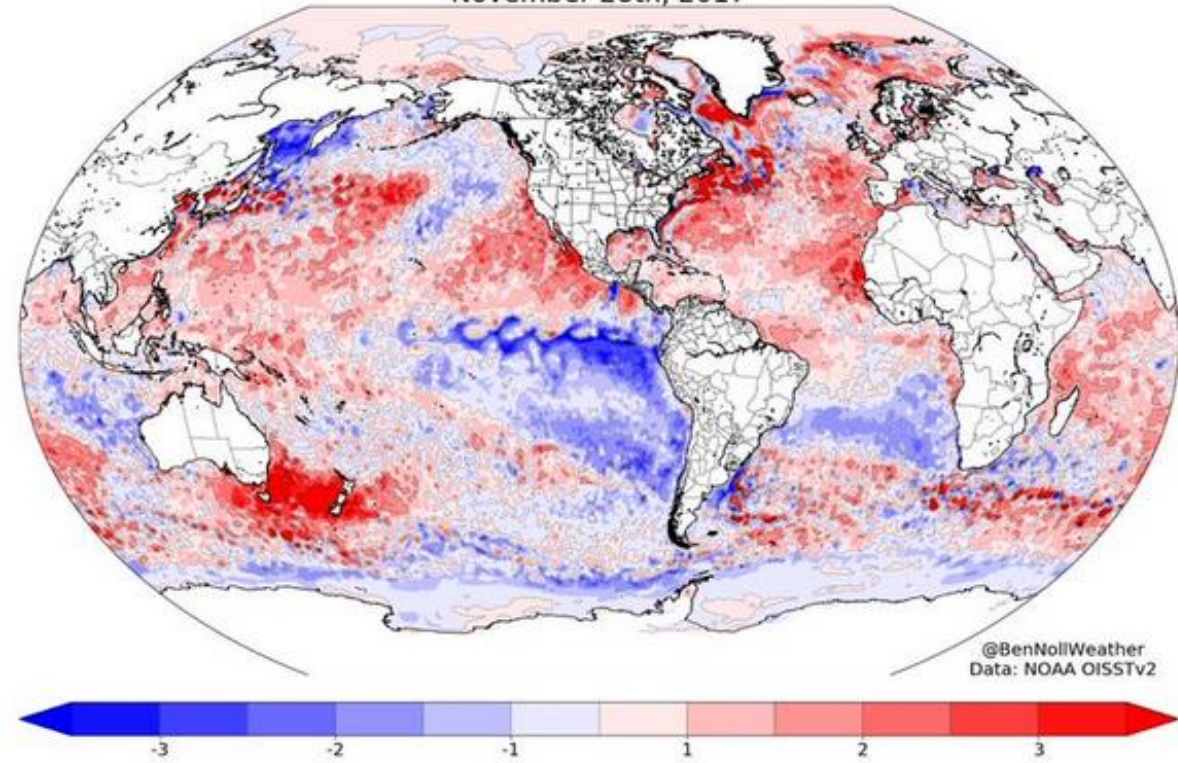


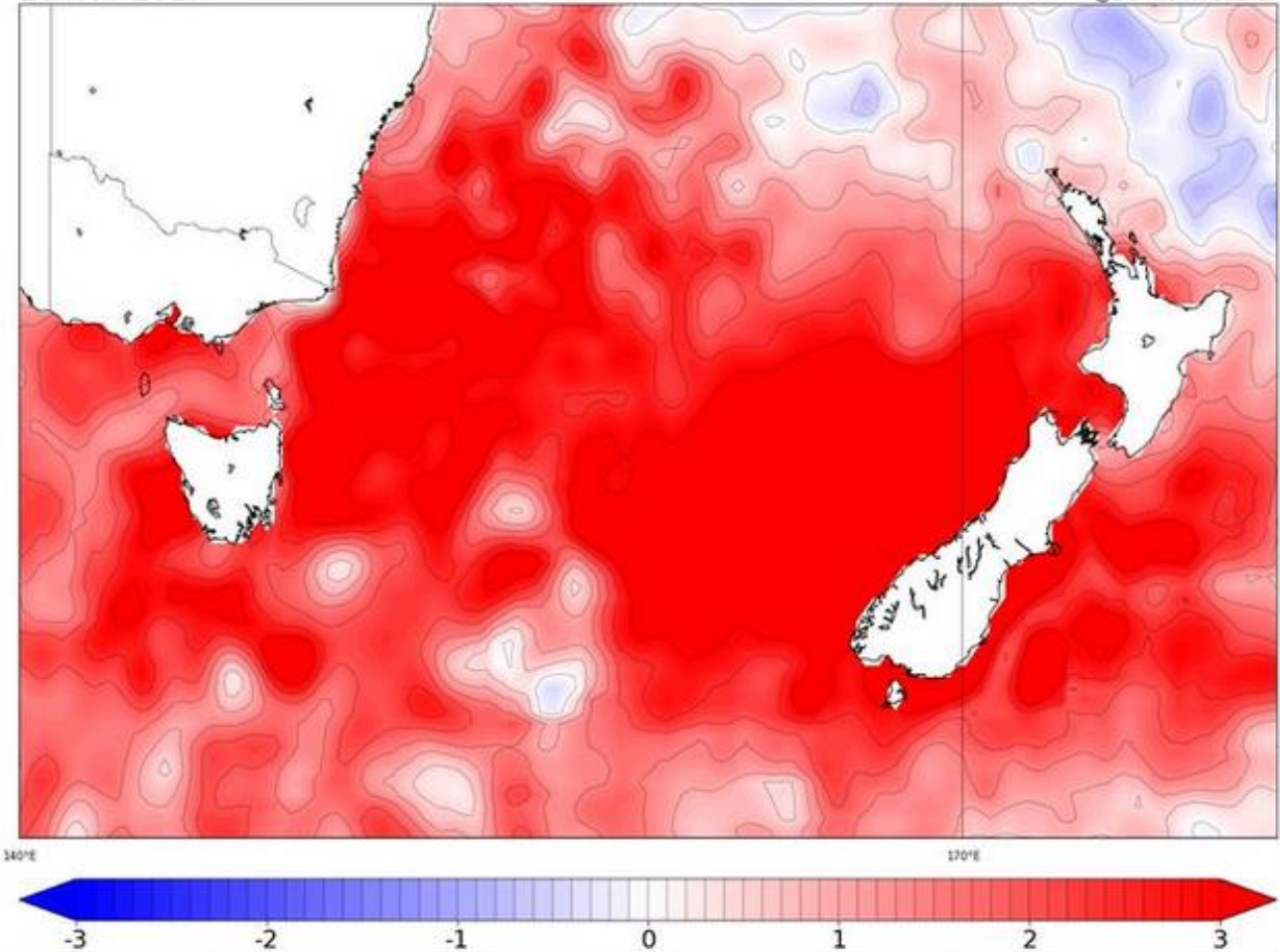
Kaschner et al. (2011) Figure 4. Validation with empirically observed marine mammal occurrences (56x56 cells, 1990–1999). A. Predicted species richness of all cetaceans.

Sea Surface Temperature Anomaly (°C)  
November 28th, 2017



# Tasman Sea temperature 'snapshot' 28<sup>th</sup> Nov. 2017

Sea Surface Temperature Anomaly (°C)  
28 Nov 2017

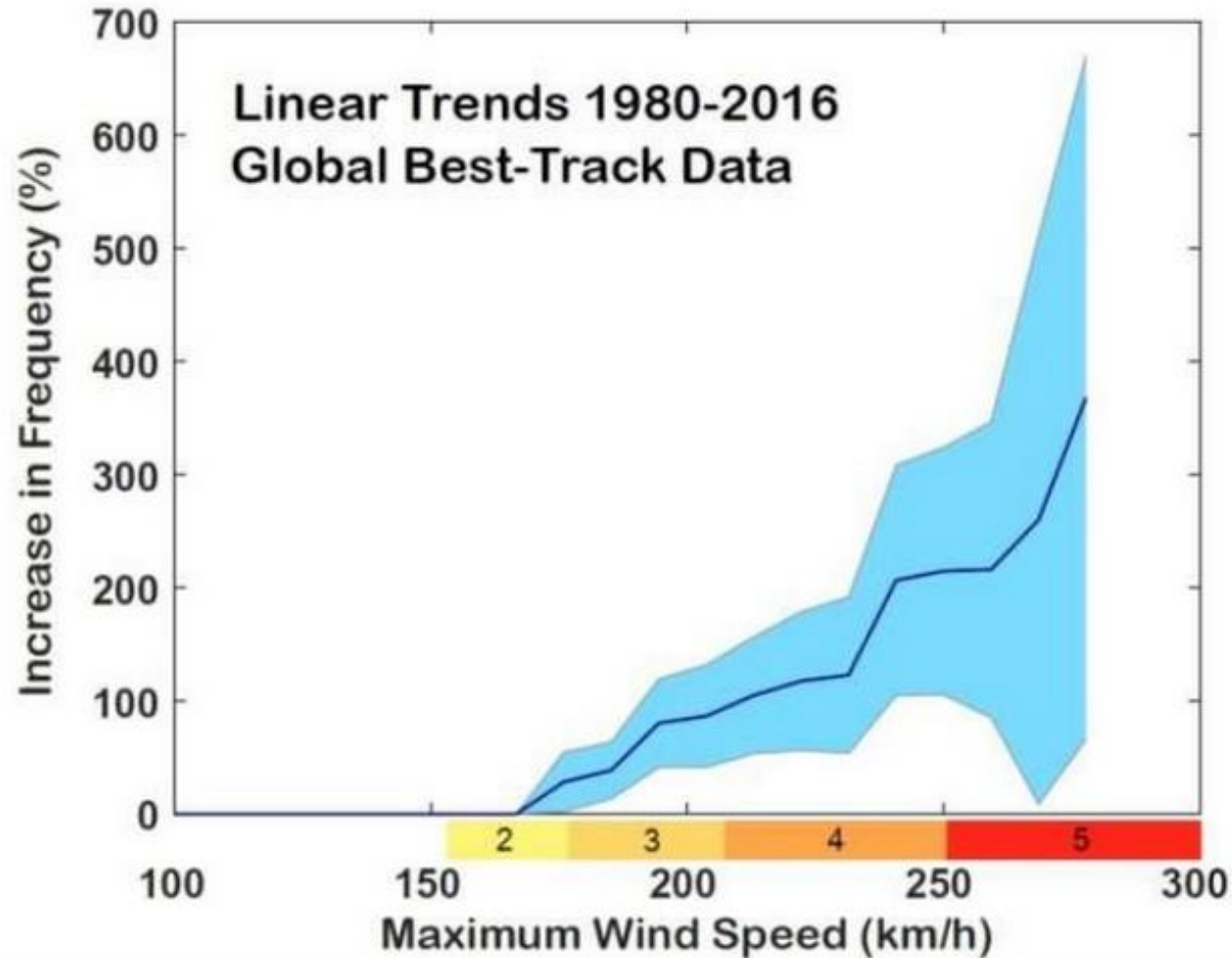


Record-breaking sea temps  
have cascading effects on food  
webs (eg. 'drastic reduction in  
krill biomass', Johnson et al.  
2011)



30<sup>th</sup> May  
2018

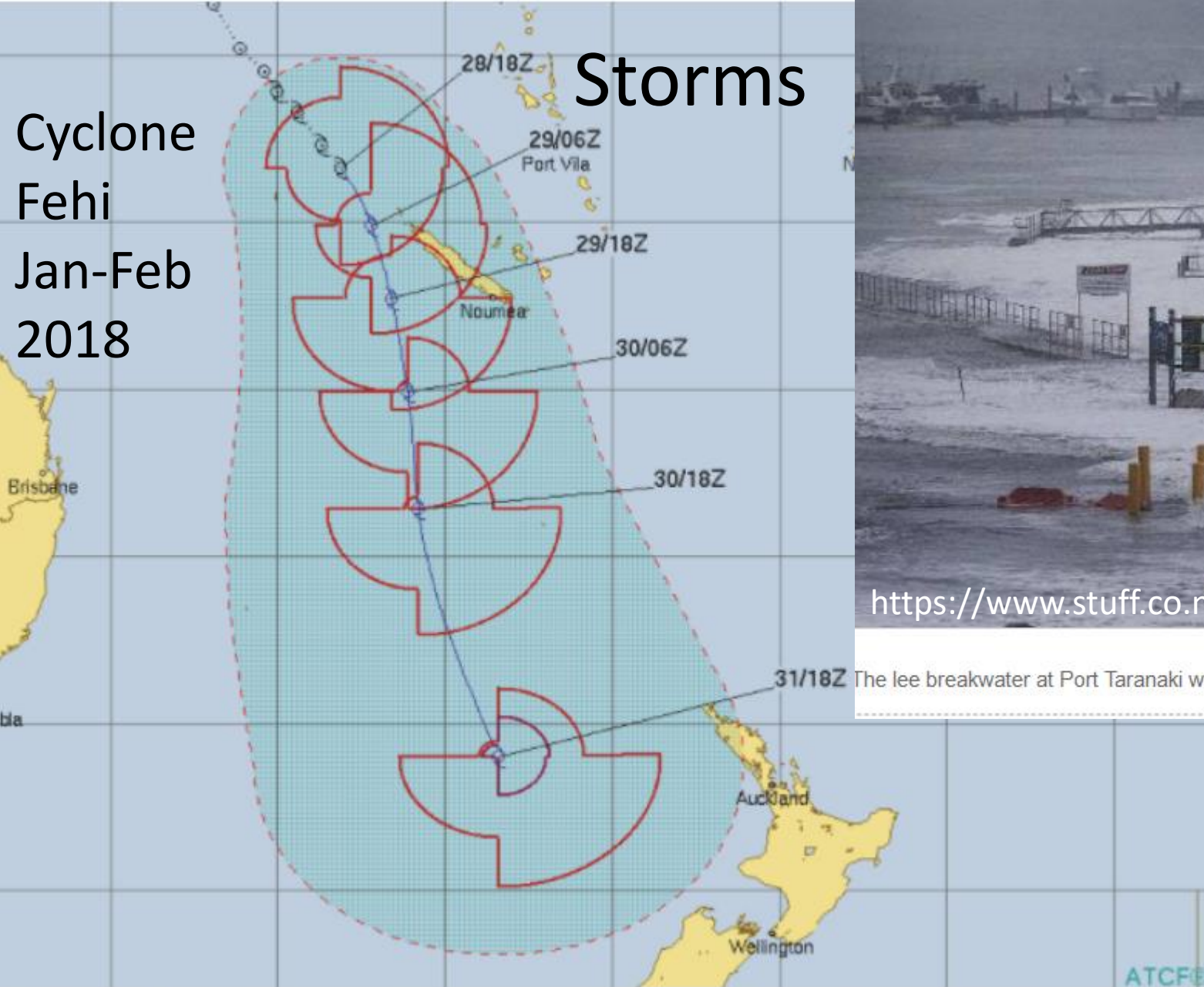
“Global warming is making tropical cyclones stronger”, renowned climatologists conclude



“Especially storms of previously unobserved strength.” Very bad news for the insurance industry, and all who live in cyclone belt.

# Storms

Cyclone  
Fehi  
Jan-Feb  
2018



<https://www.stuff.co.nz/taranaki-daily-news/news/101148777/> (3/2/18)

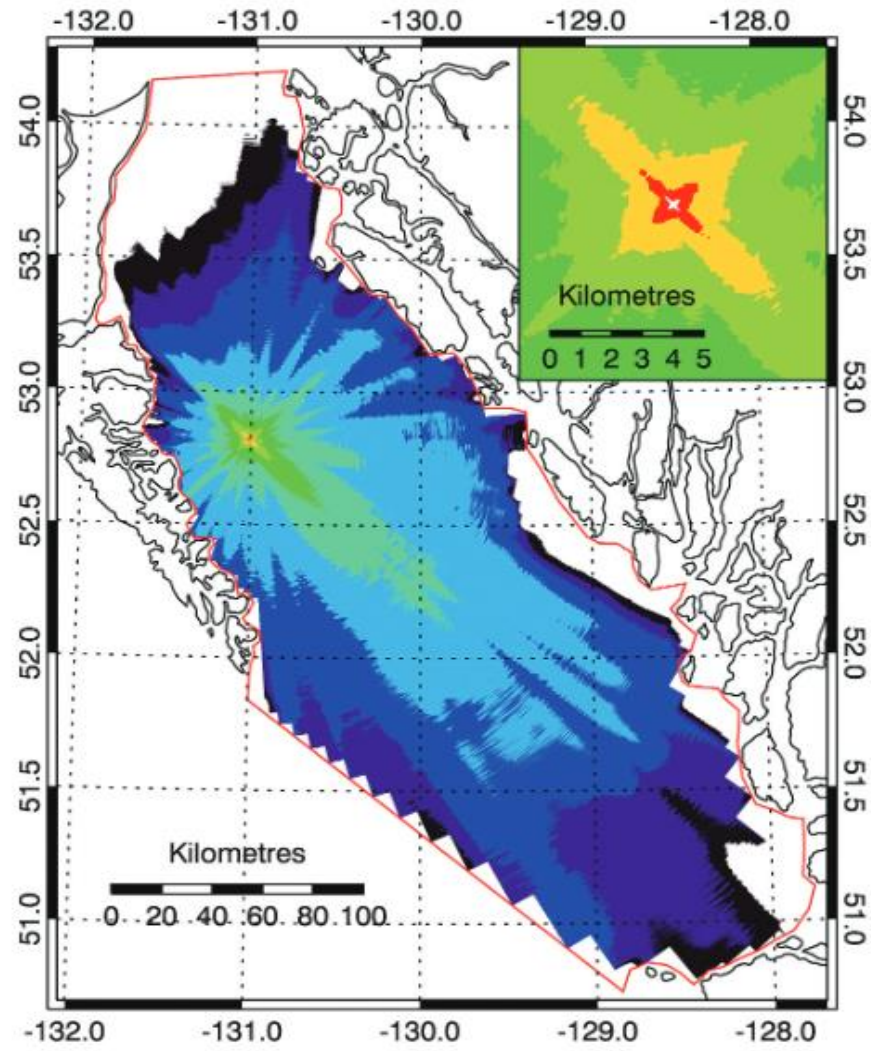
GRANT MATTHEW/STUFF

The lee breakwater at Port Taranaki was hammered by king tide swells on Thursday.

Increased risks to aging O&G infrastructure, Huge decommissioning costs (est. \$800 million to NZ govt).

Tracking and the 'cone of uncertainty' (ie, the centre of the low may track anywhere in the shaded area) / Joint Typhoon Warning Center (US Government)





*Photo: The Amazon Warrior's path of destruction, from Google Earth KMZ*

# Cumulative impacts

