

Improving predictions of extreme sea levels around Australia

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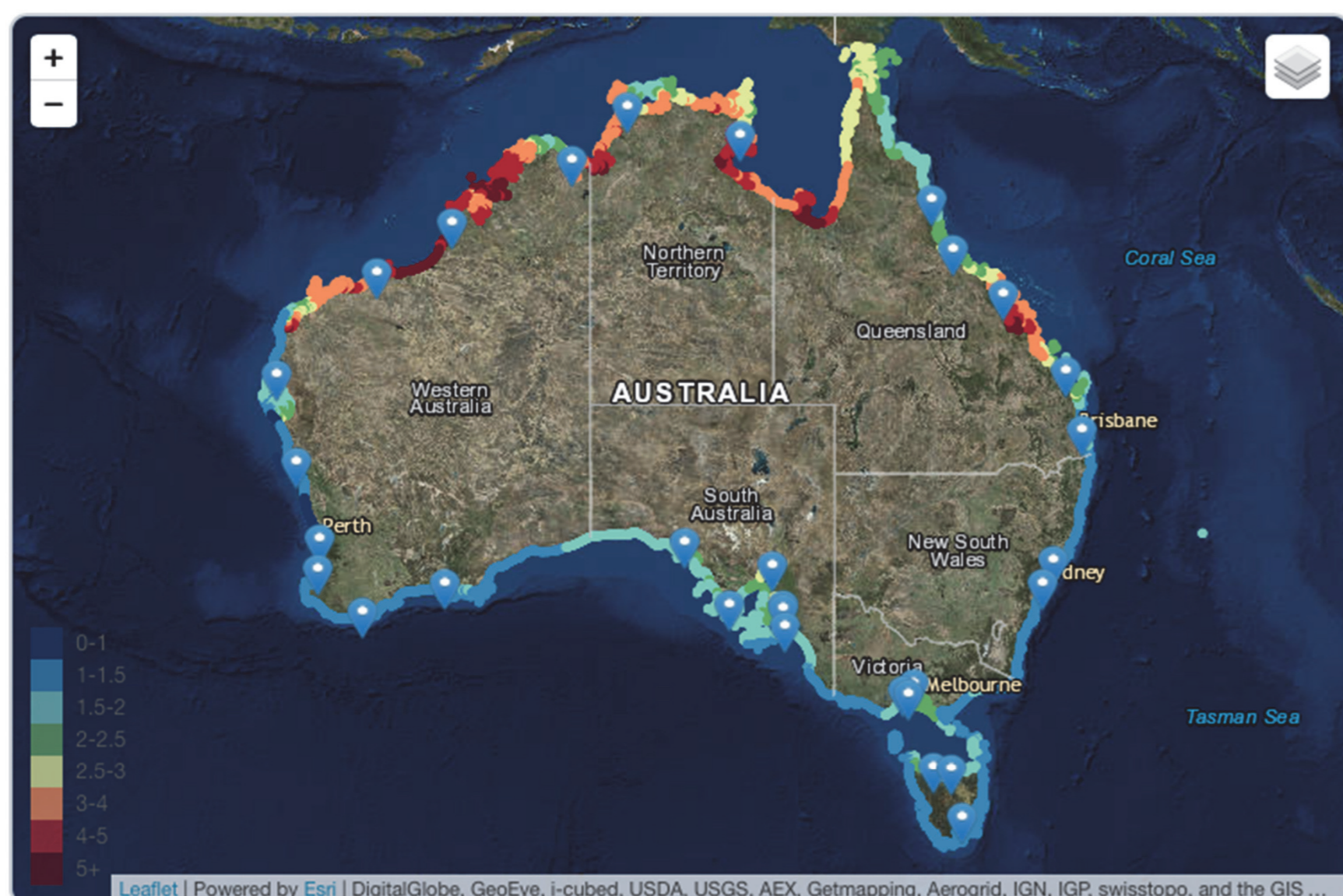
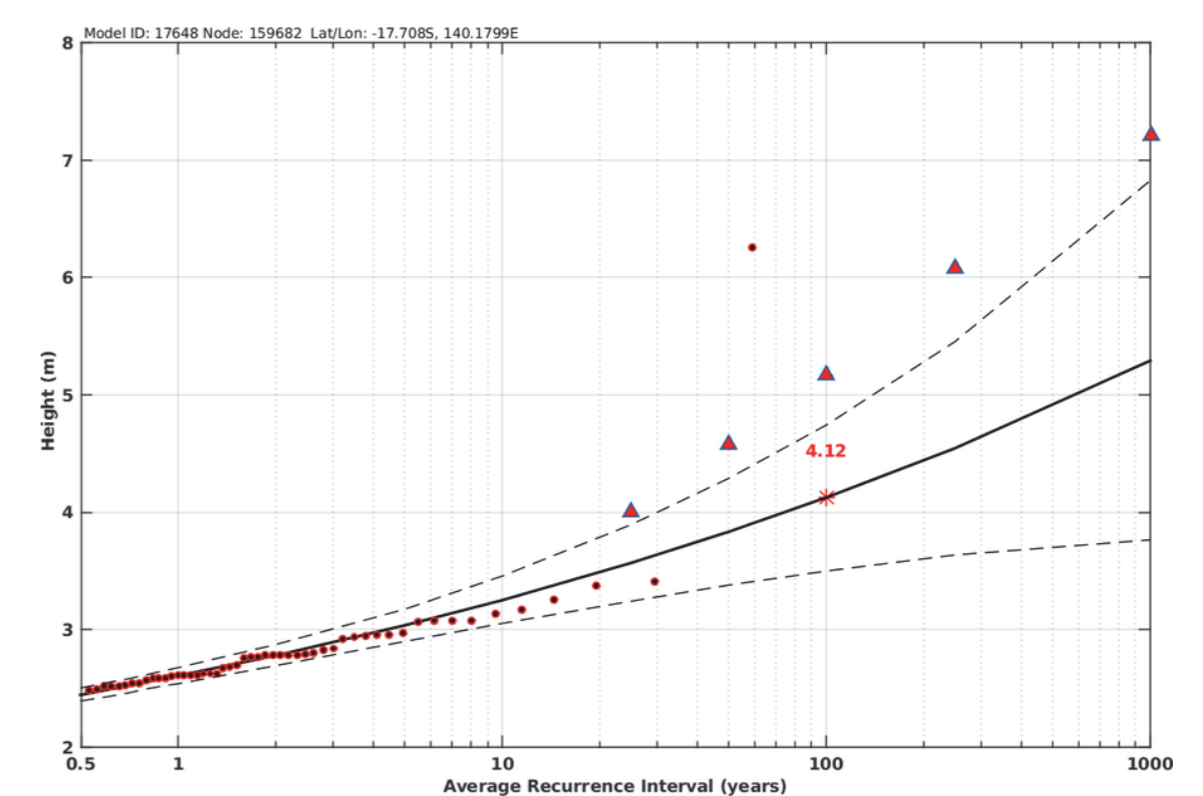
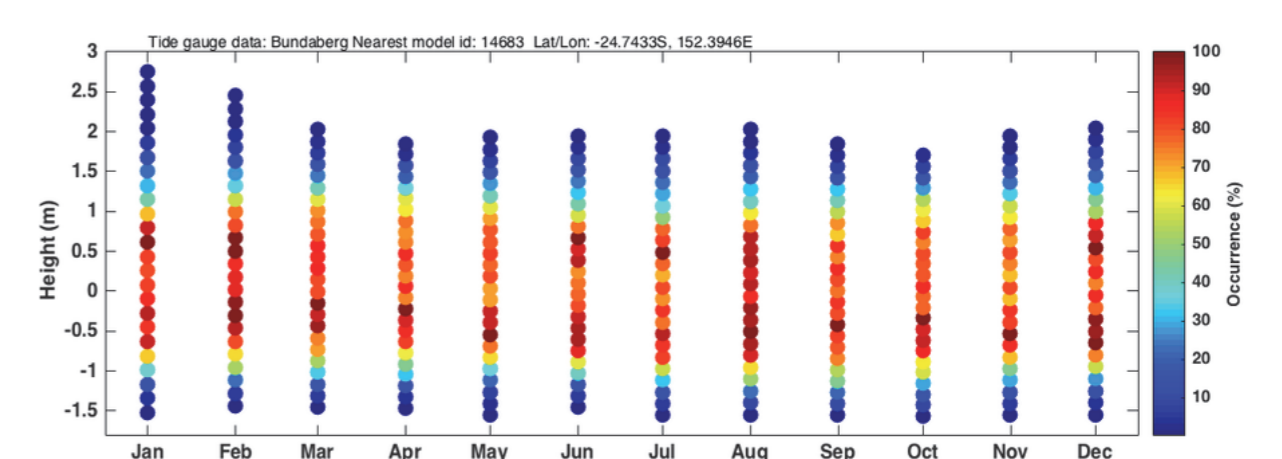
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The UWA/BNHCRC project has developed a *high-resolution hydrodynamic model for all Australia that was used to simulate sea levels at 1 km resolution over the past 59 years. Extreme value theory was applied to these data to derive sea level statistics, including 100 year Average Recurrence Intervals (ARI), and ARI (Return Period) curves. The results have been made available to the public through an interactive web portal (www.ozsealevelx.org) where you can access detailed extreme sea level information for every beach in Australia.*

WEBSITE:

- ▶ 59 year (1958-2016) hourly sea level time series data for 31,479 sites (every 2 km)
- ▶ Average Recurrence Intervals (ARI) for sea level extremes
- ▶ Seasonality
- ▶ Tidal characteristics

EXTREME SEA LEVELS IN AUSTRALIA



Predicted extreme sea level statistics around Australia

Click on coastal data points to access the statistics, including present day 100 year Average Recurrence Interval (ARI) levels, historical and seasonal variability derived from the numerical model. Blue markers contain data derived from measurements at 29 tide gauge sites.

Colour scale: 100 year ARI in metres above Australian Height Datum (AHD)

'An improved understanding of the likelihood and severity of extreme water level heights along the coast as a national dataset remains a high priority issue.'

— **Miriam Middleman-Fernandez**, lead end-user from Geoscience Australia

* Simulated monthly max sea level near Karumba

