The impact of wave climate on Sydney’s small pocket beaches

The response of beaches to severe storms and longer term variations in wave climate (e.g. El Nino/La Nina cycles) has received considerable attention in recent times. While much is understood about the long term cycles of erosion and deposition, as well as post-storm recovery on Sydney’s beaches, most studies have focussed on larger embayed beaches. Very little work has examined the dynamics of small pocket beaches.

MacKenzies Beach, near Tamarama, is an ephemeral pocket beach that provides a significant recreational amenity when it exists. Over the last 20 years, there have been at least 6 cycles of appearance/disappearance of MacKenzies. The patterns of these cycles seem to be very different than those of larger embayed Sydney beaches. This project will examine wave and climatic conditions associated with the existence and disappearance of MacKenzies Beach and other similar small pocket beaches in the Sydney region.

This project will suit a highly motivated and independent student who is prepared to source archival information from a range of sources about MacKenzies Beach over the last 60+ years. An opportunity may exist to conduct simple field observations for the duration of the honours project. Students will be based at UNSW. Any student with a background in earth sciences or marine science is suitable for this topic.

BEES Contacts: Dr Rob Brander (rbrander@unsw.edu.au)