

## FRASER ISLAND: deep secrets and the River of Sand

Hosted by the Fraser Island Defenders Organisation (FIDO) and the Royal Geographical Society of Queensland (RGSQ),

Assoc. Professor Ron Boyd will present a talk on

**'River of Sand: the formation of Fraser Island and its marine dunes and canyons'**

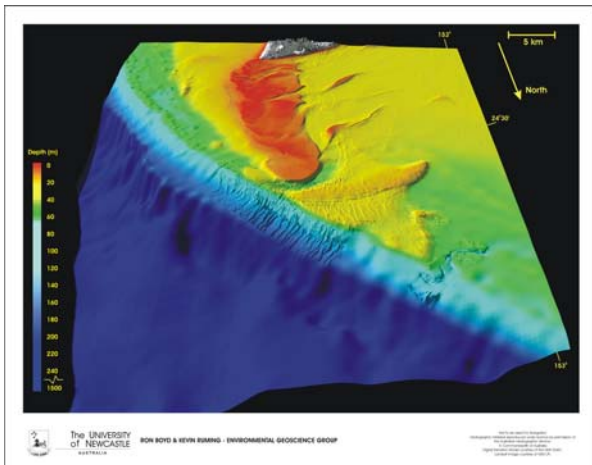
at the RGSQ's Gregory Hall, 237 Milton Road, Milton Wednesday, 27 April 2005 at 6.30pm.

It sounds like an adventure, and it is.

Fraser Island, incomparable jewel of the Queensland coast, is the world's largest sand island. We all know that – but it doesn't stop there. Assoc/Prof Ron Boyd of the University of Newcastle uses high resolution multibeam and seismic surveying to look further, into a secret world of giant submarine dunes and canyons.

Researching the geology of Fraser Island, Assoc/Prof Boyd likens the southeast Queensland coast to a 'river of sand'. Eroded from the Blue Mountains and Great Dividing Range, sand is transported by longshore currents up the east coast at rates of half a million cubic meters per year.

The process has built up the largest coastal sandy barrier in the world. Seen from land, it appears to culminate in Fraser Island, but that's just the top of the story.



Just beyond Fraser Island, at Breaksea Spit, the sand continues piling up on the shallow continental shelf. It forms fields of submarine dunes as high as 12m. These migrate to the edge of the shelf then collapse down the continental slope through a network of 35 submarine gullies up to 40 m deep and 300 m wide. Finally, 40 km offshore, the sand settles into a major gully and canyon system 4000 m under water, joining other beach sands which still contain mangrove roots and the shells of tiny creatures that once lived in coastal estuaries.

Assoc/Prof Boyd's 3D computer graphics bring this astounding process vibrantly alive, with implications for how we manage our precious and dynamic coastline.

Hosted by the Fraser Island Defenders Organisation (FIDO) and the Royal Geographical Society of Queensland (RGSQ), Assoc/Prof Boyd will present a talk on 'River of Sand: the formation of Fraser Island and its marine dunes and canyons' at the RGSQ's Gregory Hall, 237 Milton Road, Milton Wednesday, 27 April 2005 at 6.30pm.

An Associate Professor in the School of Environmental & Life Sciences, University of Newcastle, Ron Boyd received his PhD and BSc from the University of Sydney and has taught and researched at the Royal Australian Navy Research Labs, Louisiana State University, Dalhousie University, Geomar Institute Kiel, PanCanadian Petroleum Calgary and the University of New Hampshire. He was a featured speaker at the recent conference 'A 2020 Vision for Fraser Island'.