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Geomorphic evidence for mid Holocene higher sea level from southeastern Australia

A.D. Switzer (1), C.R. Sloss (2), B.G. Jones (3), and C.S. Bristow (4)

(1) Department of Earth Sciences, The University of Hong Kong, Hong Kong SAR, China. (aswitzer@hku.hk), (2) The School of Natural Resources, Queensland University of Technology, GPO Box 2434 Brisbane, 4001, Queensland, Australia. , (3) School of Earth and Environmental Sciences, University of Wollongong, NSW 2522, Australia., (4) Department of Earth Sciences, Birbeck College, University of London, UK.

An elevated sheltered pocket beach sequence at Batemans Bay, NSW, Australia, composed of shelly fine- to medium-grained sand provides geomorphological evidence of higher than present sea level during the mid-Holocene. The sequence is composed of a sand facies with variable amounts of shell and contains a number of well-defined dipping reflectors identified in GPR profiles indicative of a small prograded beach system. This beach succession is overlain by storm or tsunami deposits. This beach deposit probably accumulated between 2500-5000 years ago under relatively high energy conditions within a more open immature estuary during a period of higher sea level. Both deposits have been preserved by a low energy mangrove facies that accumulated after the recent fall in sea level cut off ocean wave activity from the area. The beach sequence adds complementary geomorphic evidence for the mid Holocene sea level highstand previously identified along other parts of the southeast Australian coast.