



Peat Formation on Minjerribah (North Stradbroke Island), subtropical eastern Australia

Patrick Moss (1), John Tibby (2), Cameron Barr (2), Chagi Weerensena (1), Allen Gontz (3), and Lynda Petherick (4)

(1) The University of Queensland, School of Geography, Planning and Environmental Management, Brisbane, Australia (patrick.moss@uq.edu.au), (2) University of Adelaide, Department of Geography, Environment and Population, Australia, (3) University of Massachusetts-Boston, School for the Environment, USA, (4) Xi'an Jiaotong-Liverpool University, Department of Environmental Sciences, China

Minjerribah (North Stradbroke Island) is the second largest sand island in the world and contains extensive peat dominated wetlands, comprising ~20% of the total area of the island. These wetland systems include large areas of estuarine swamps [mainly mangrove forest (~16% of the island's wetland area)], freshwater swamps [both herb (~58% of the island's wetland area) and tree dominated (~20% of the island's wetland area)] and numerous lake systems [both perched and window lakes (~2% of the island's wetland area)]. This presentation will examine peat formation processes at four wetland sites: a late Holocene prograding beach system (Flinders Beach); a 150,000 year lacustrine system (Welsby Lagoon 1), as well as a late Holocene lacustrine/palustrine system (Welsby Lagoon 2); and a late Quaternary lacustrine/palustrine system (Tortoise Lagoon), as well as discussing broader environmental characteristics of Minjerribah's nationally and internationally important wetland systems.