

Natural Resources Modelling and Simulation Group

Annual Report 2007

The main focus of the research Group is the modelling of spatial and temporal data . Current projects include the spatio-temporal modelling of prawn and scallop catch rates, cancer incidence and mortality in WA, HIV/AIDS in Ghana and the modelling of mining data. The mathematical techniques employed cover geostatistics and time series analysis.

Personnel

A/Prof Jim Cross
Dr Ute Mueller
Mr J Dickson

PhD Students

Ms R Robertson
Ms A Denham
Ms E Bandarian
Mr Patrick Aouagye-Sarfo
Ms Changying Shao

MSc Students

Mr P Savory
Mr R Dunn

Honours Students

Mr J Dickson

Completions

Mr J Dickson, Honours in Mathematics
Ms T Baharthah, MSc (Science and Planning)
Mr Paotjai Vonglao, PhD (Mathematics)

Research Outputs

Conference Publications

Ute Mueller, Mervi Kangas, John Dickson and Errol Sporer (2007) Simulation of the scallop density distribution from survey data: A case study, 16th International Pectinid Workshopn, Halifax Nova Scotia, Canada May 11-18, 2007

Research Reports

Mueller, U., Kangas, M., Dickson, J., Denham, A., Caputi, N., Bloom, L., Sporer, E.(2007) *Spatial and temporal distribution of western king prawns (*Penaeus latisulcatus*), brown tiger prawns (*Penaeus esculentus*), and saucer scallops (*Amusium balloti*) in Shark Bay for fisheries management*, Edith Cowan University, Natural Resources Modelling and Simulation Research Group.

Mueller, U., Dickson, J., Denham, A., Kangas, M., Caputi, N., Sporer, E., (2007). *Development of an Integrated Space-Time Model for the Percentage of Tiger Prawn Catch Distribution*, Perth, Western Australia: Edith Cowan University, Natural Resources Modelling and Simulation Research Group.

Mueller, U., Dickson, J., Kangas, M., Caputi, N., Sporer, E., (2007). *Spatial analysis of the Shark Bay scallop fishery logbook data for the 2003, 2004 and 2005 fishing seasons*. Perth, Western Australia: Edith Cowan University, Natural Resources Modelling and Simulation Research Group.