

**Natural: Vegetation,  
broad & shallow  
channel**

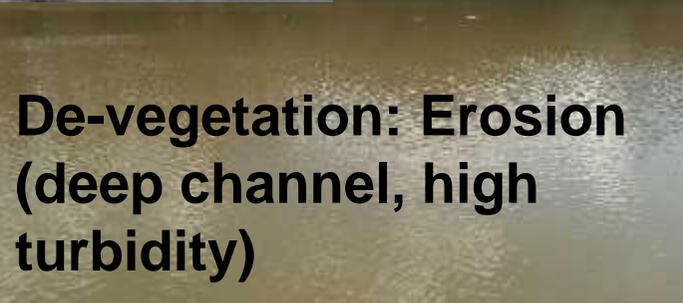


# Coastal N<sub>2</sub>O emissions – Can one model fit all systems?

**Naomi S. Wells**, Damien Maher, Dirk Erler, Vera Sandel, Badin Gibbes, Matt Hipsey, James Udy, Bradley Eyre



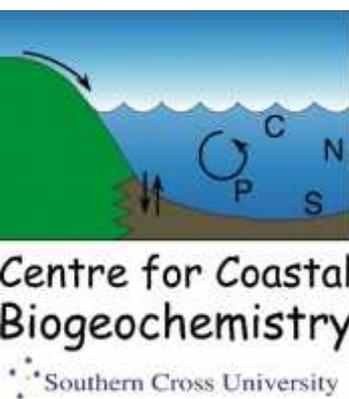
**Canals: Deep channels, no  
vegetation**



**De-vegetation: Erosion  
(deep channel, high  
turbidity)**



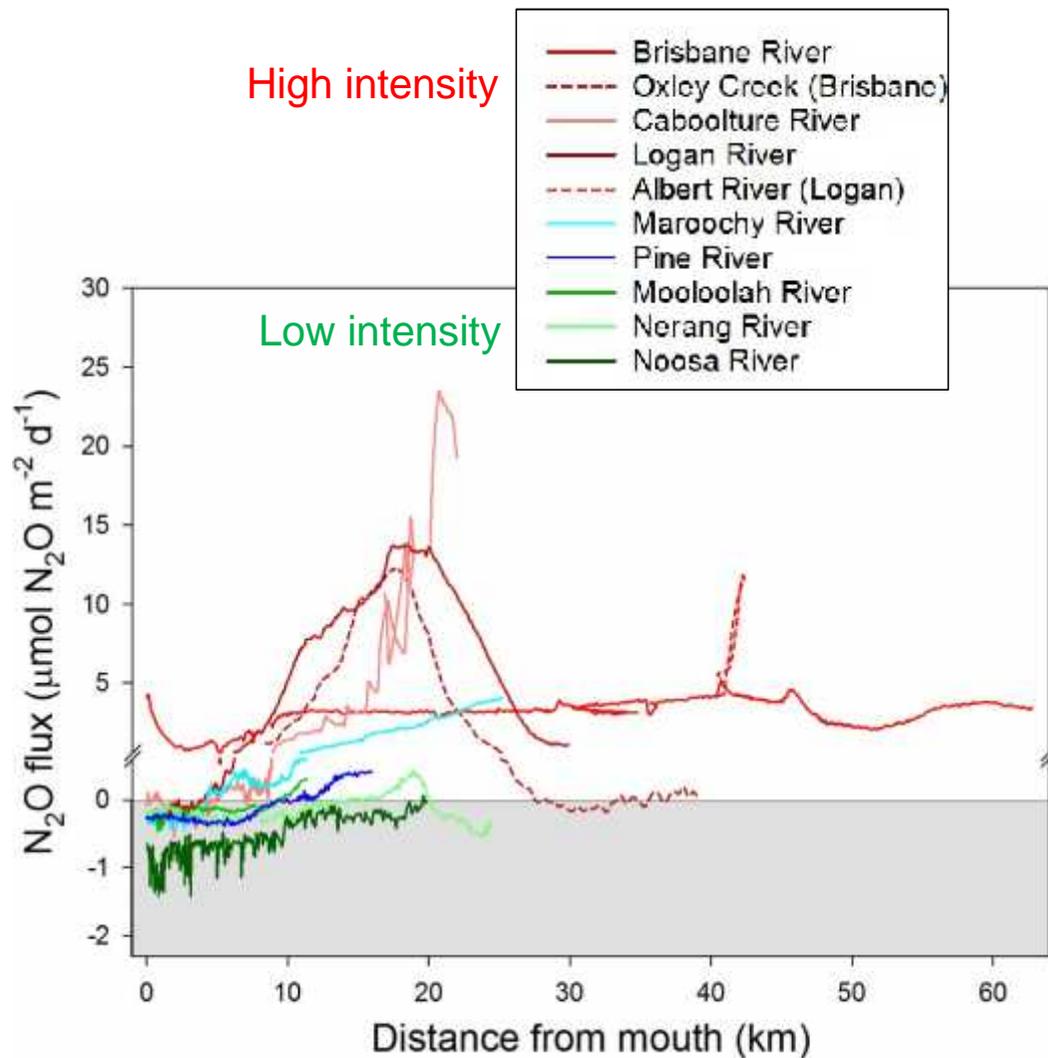
**High nutrients (point  
& diffuse sources)**



Centre for Coastal  
Biogeochemistry

Southern Cross University

# N<sub>2</sub>O fluxes from sub-tropical estuaries



## Catchment N loads

10 – 30 kg NO<sub>3</sub><sup>-</sup> N d<sup>-1</sup>

0.1 – 0.6 kg NO<sub>3</sub><sup>-</sup> N d<sup>-1</sup>

# What makes an estuary an N<sub>2</sub>O source v. sink?

