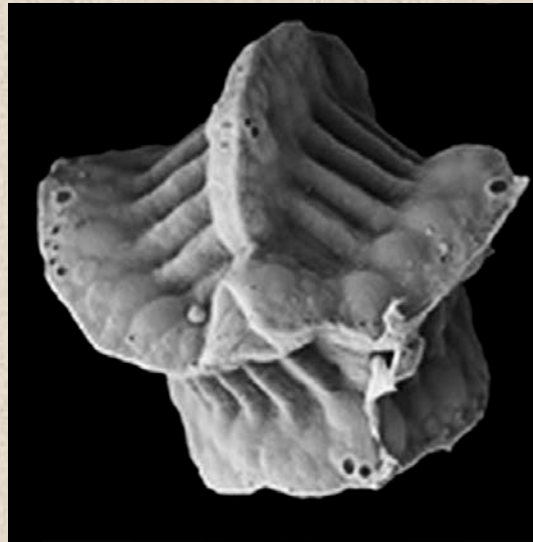


Aquatic fauna of the seasonal wetlands in Wandoo National Park

Adrian Pinder, Jim Lane, Mike Lyons and David Cale
Wetlands Conservation Program
Parks and Wildlife



Government of Western Australia
Department of Parks and Wildlife



Existing studies

Three Parks and Wildlife projects have collected biological and physical /chemical data on wetlands in the Wandoo NP

- **South West Wetlands Monitoring Program (SWWMP) 1977-**

Jim Lane et al. in Busselton

Depth, salinity and pH, Sep and Nov each year

DPaW State Salinity Strategy

- **Wheatbelt wetlands monitoring project (1996 – 2015)**

Fauna and vegetation monitoring at 25 wetlands

David Cale, Mike Lyons et al.

DPaW State Salinity Strategy

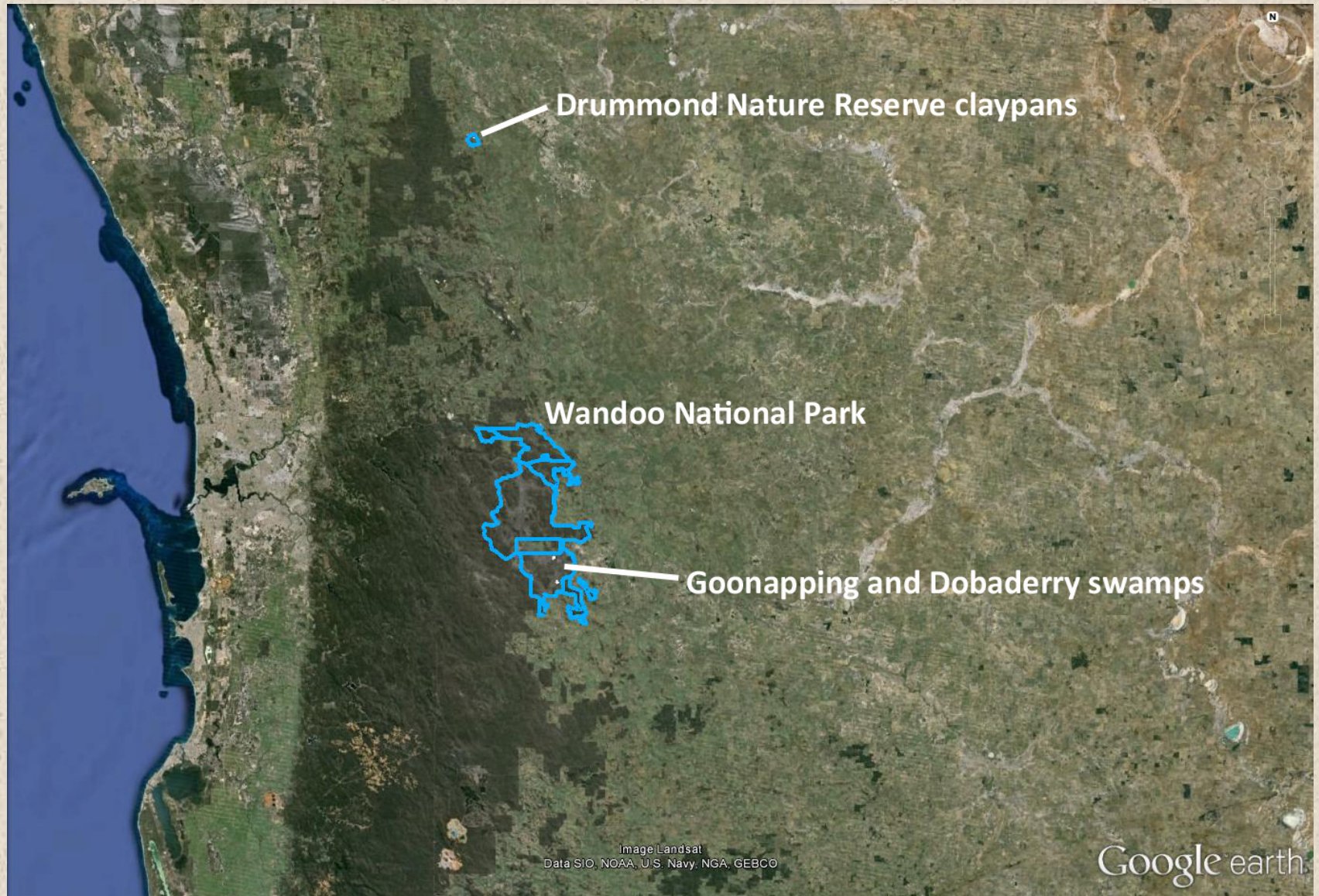
- **Avon Baseline Project (2007-2009)**

Susan Jones et al.

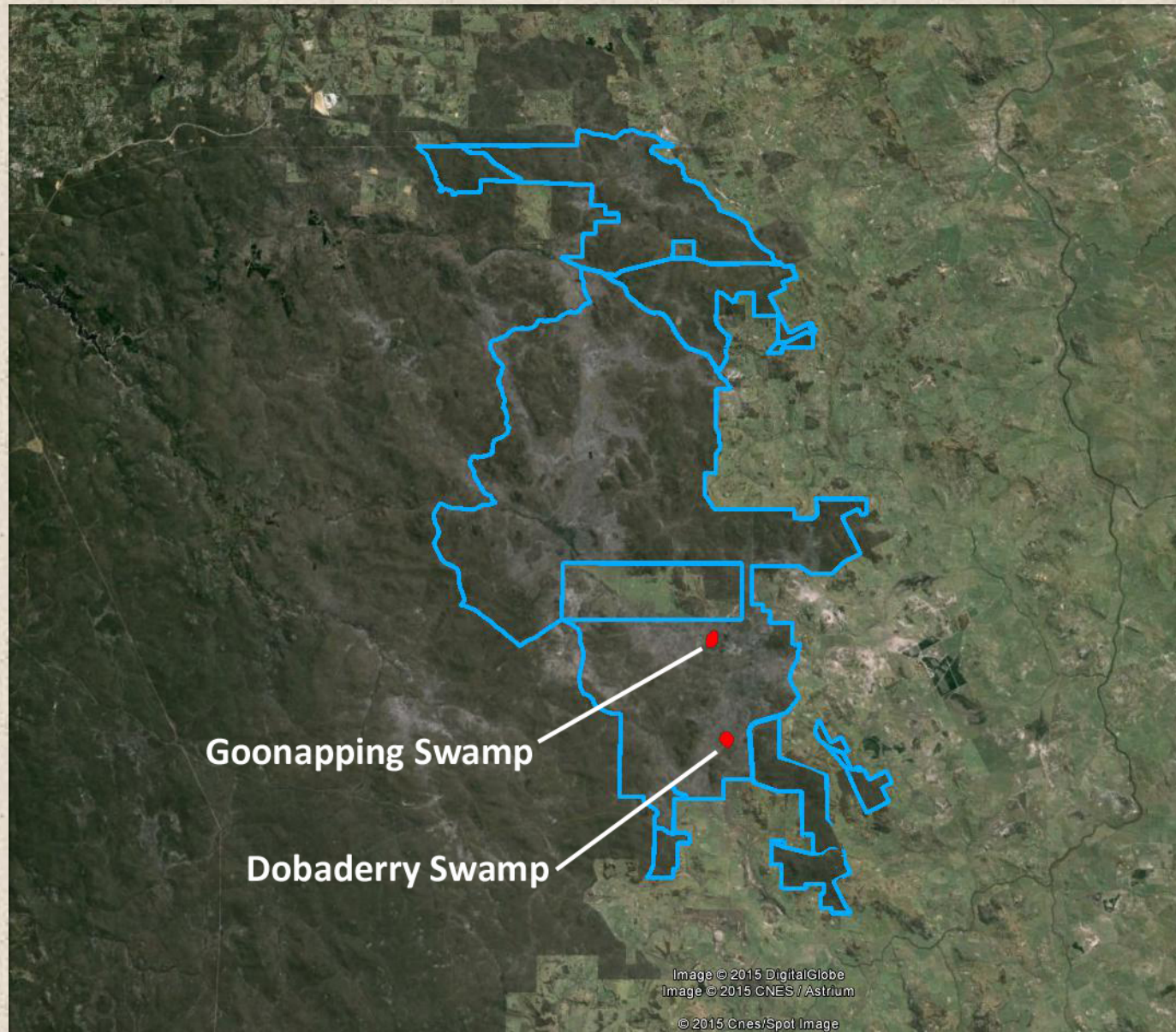
Avon NRM (Wheatbelt NRM)

Wetland mapping and developed wetland assessment methodology

Locations



Wandoo National Park claypans



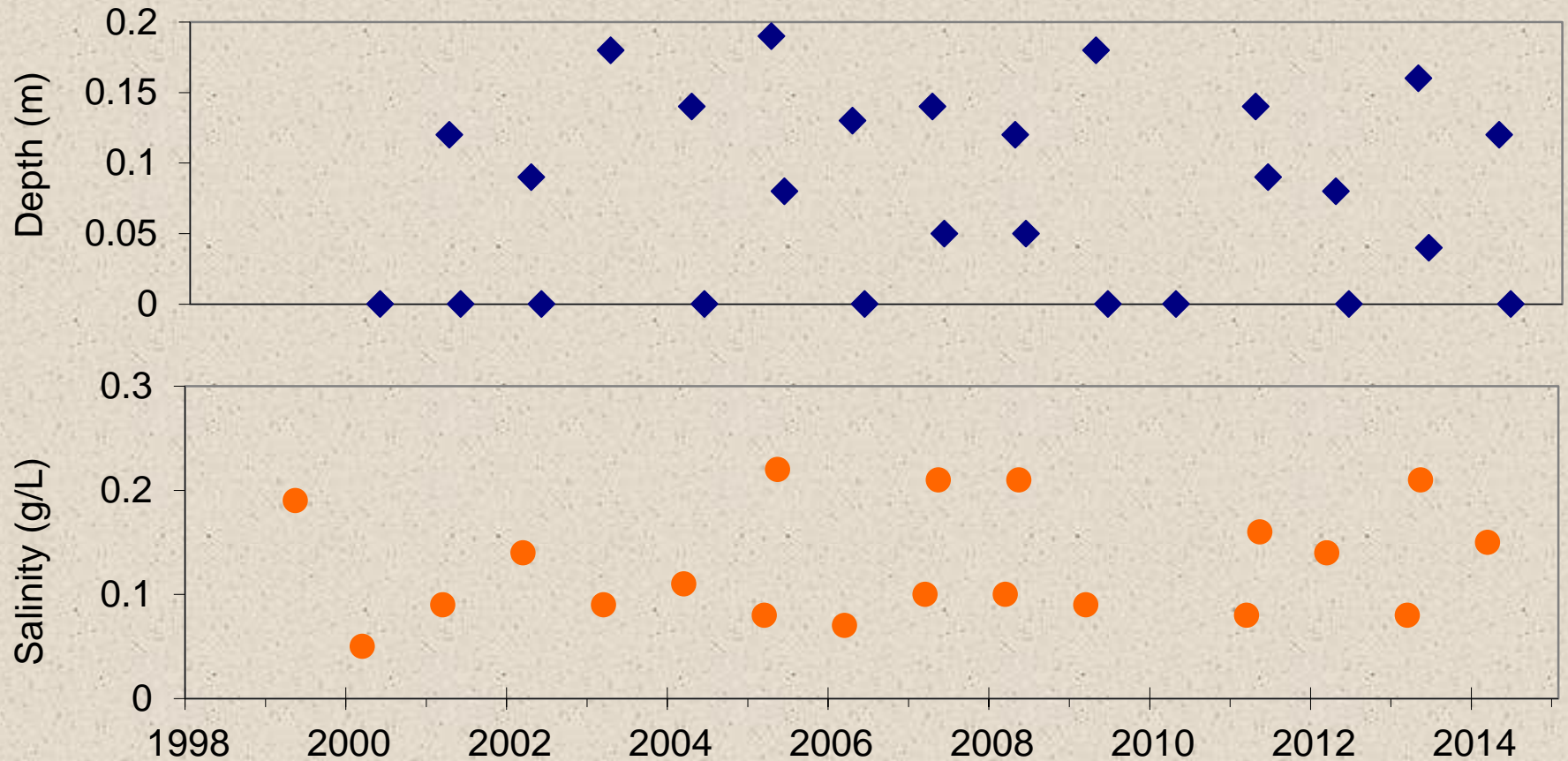
Dobaderry and Goonaping Swamps



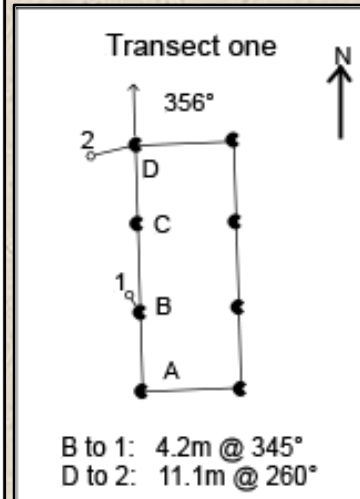
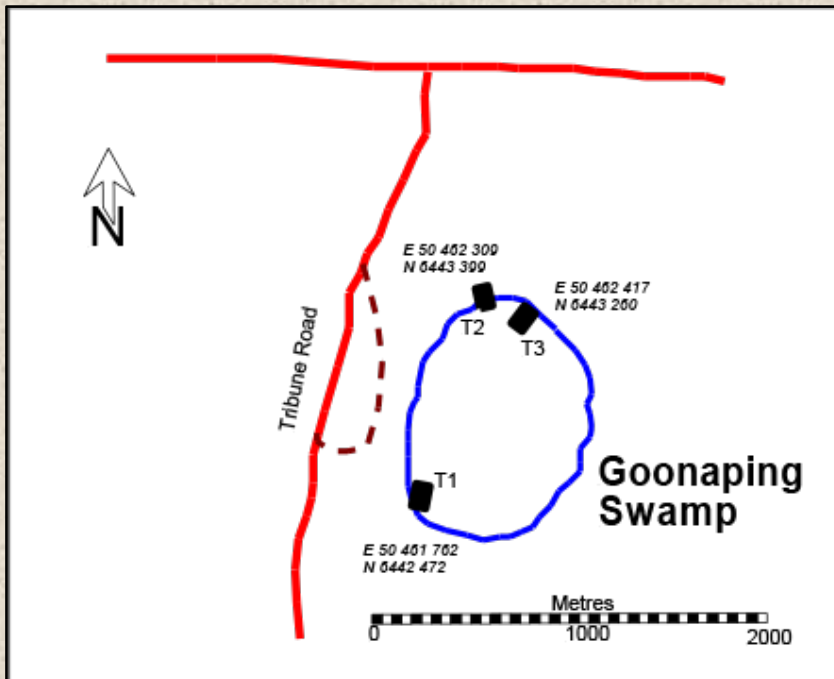
- Shallow: < 80cm
- Clay based
- Seasonally inundated and perched
- Dominated by *Melaleuca*
- Fresh: salinity <0.2 g/L at Dobaderry and < 0.5 g/L at Goonaping
- Clear, unless shallow

Goonaping depth and salinity

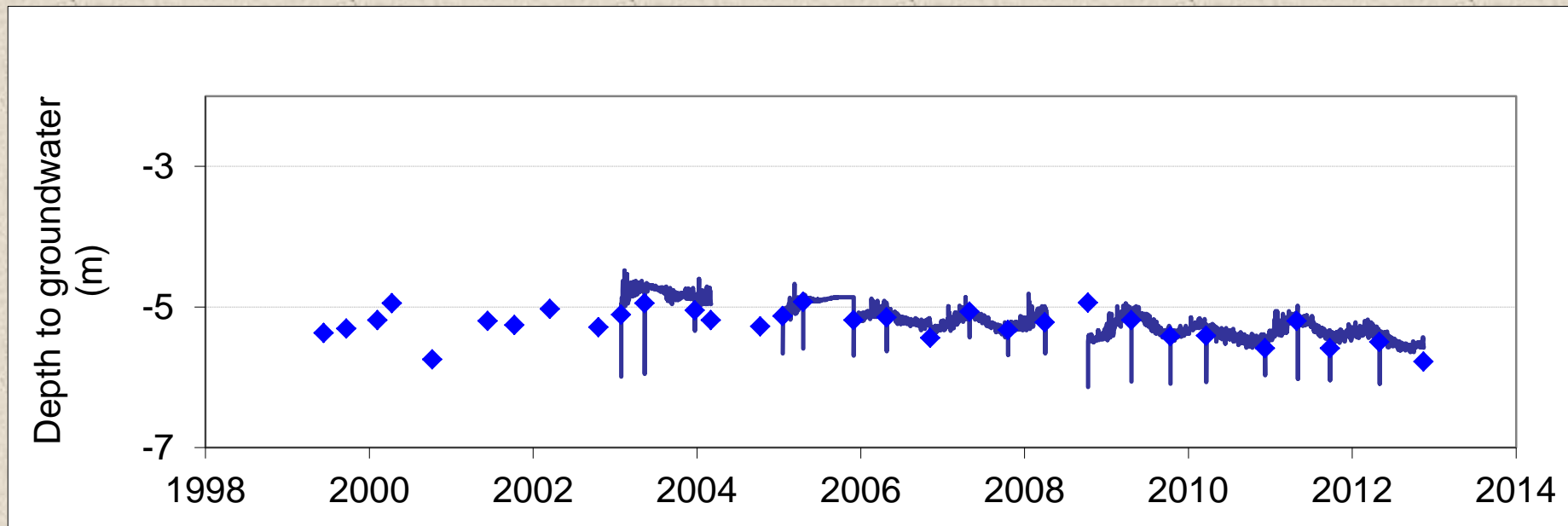
Sep and Nov depths from SWWMP (excluding sump depths)



Goonaping groundwater

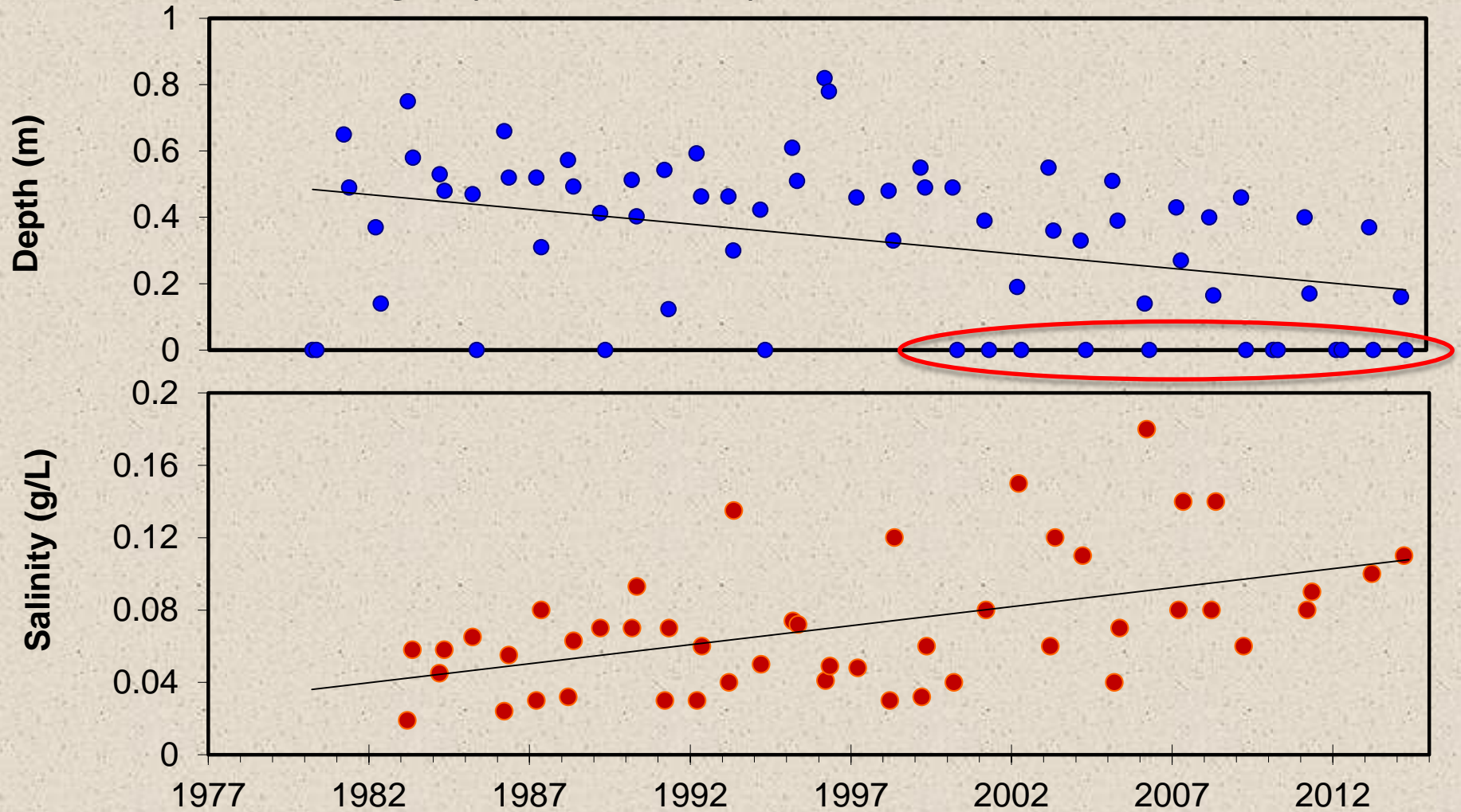


Transect 1 bore 2 depth to groundwater



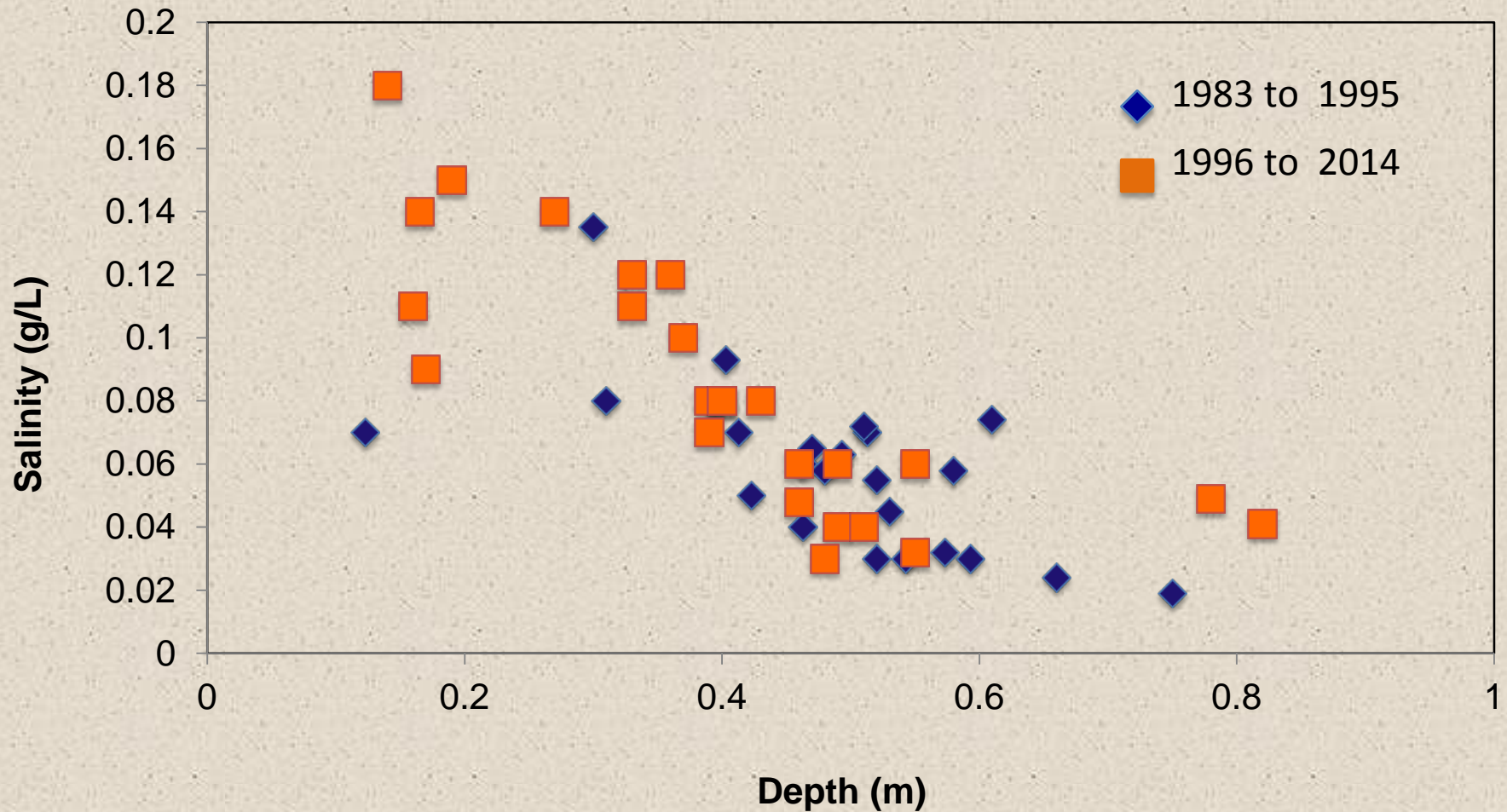
Dobaderry depth and salinity

Declining Sep and Nov depths (from SWWMP)



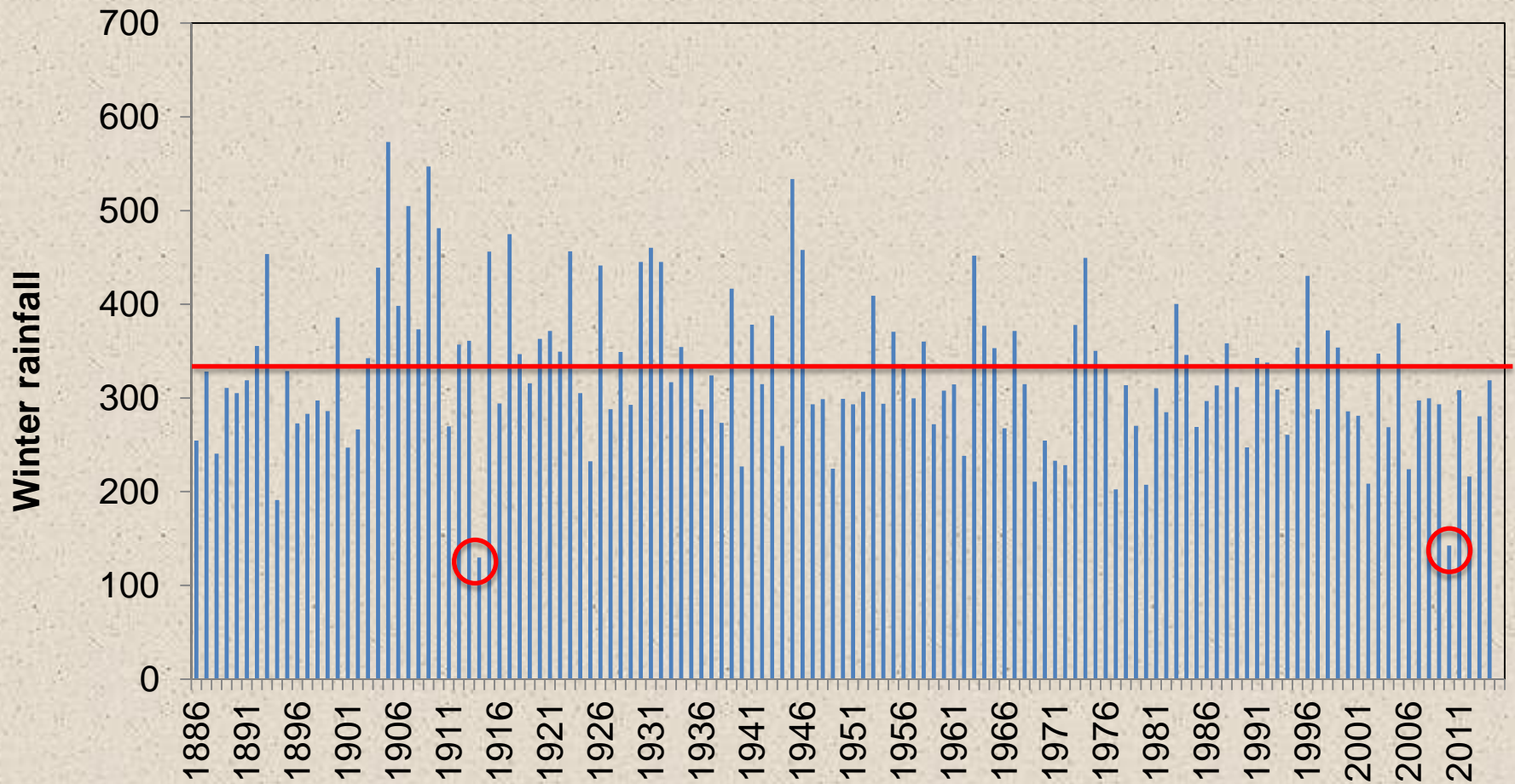
Dobaderry depth and salinity

Depth – salinity relationships unchanged



Rainfall

Winter (April – September) rainfall at Beverley



Dobaderry *Melaleuca* decline

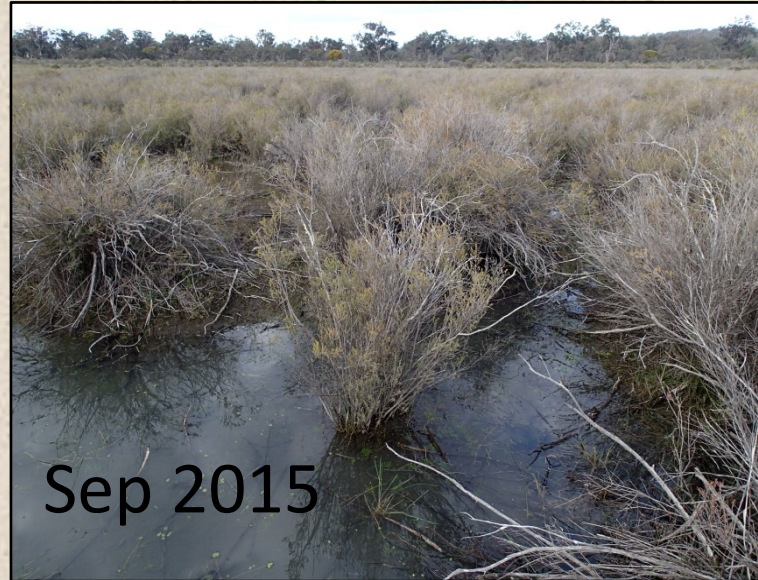
Nov 2008



Nov 2010



Sep 2015



Invertebrates of Dobaderry and Goonaping wetlands

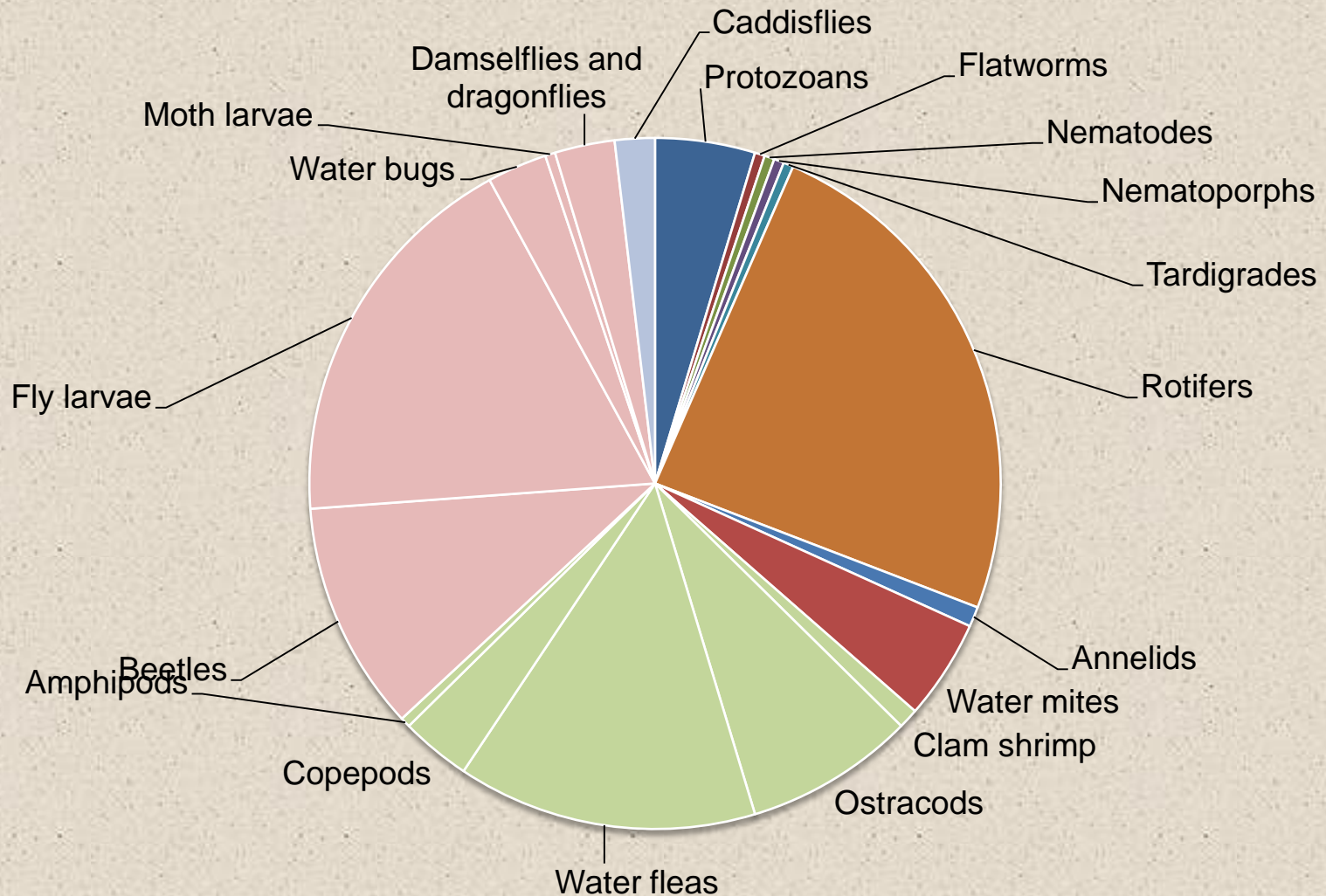
220 taxa recorded to date

65 in Dobaderry (1 sample)

205 in Goonapping (11 samples)

36 to 77 species per sample in Goonaping (average 59)

Invertebrates of Dobaderry and Goonaping wetlands



Invertebrates of Dobaderry and Goonaping wetlands

Species of conservation significance

Rotifers: *Notommata cyrtopus* - Goonaping and 1 other Wheatbelt wetland in WA
Lindia deridderae – Goonaping and Noobijup Swamp in WA
Tetrasiphon hydrocora – Goonaping only record in WA
Plationus n. sp. (known only from Goonaping)

All probably widespread in Australia and overseas



Tetrasiphon hydrocora



Notommata cyrtopus

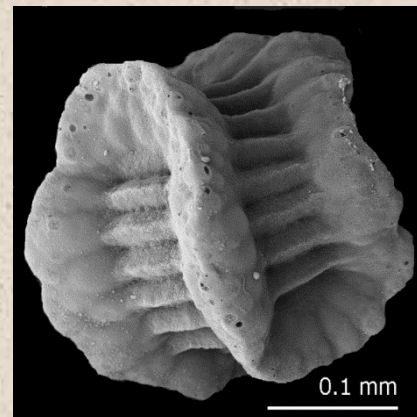
Invertebrates of Dobaderry and Goonaping wetlands

Species of conservation significance

Insulodrilus bifidus – Gondwanan oligochaete, unusual to find in a clay-based wetland

Paralimnocythere sp. 262 ostracod (few freshwater swamps in SW)

Eulimnadia vinculuma – Clam shrimp first collected at Goonaping by David Cale but now also known from a few sites between Gingin and the Muir wetlands



Photos Brian Timms
University of Newcastle

Invertebrates of Dobaderry and Goonaping wetlands

Species of conservation significance

Orthoclad midge sp. 'D' – Goonaping, Drummond and two other sites in southwest

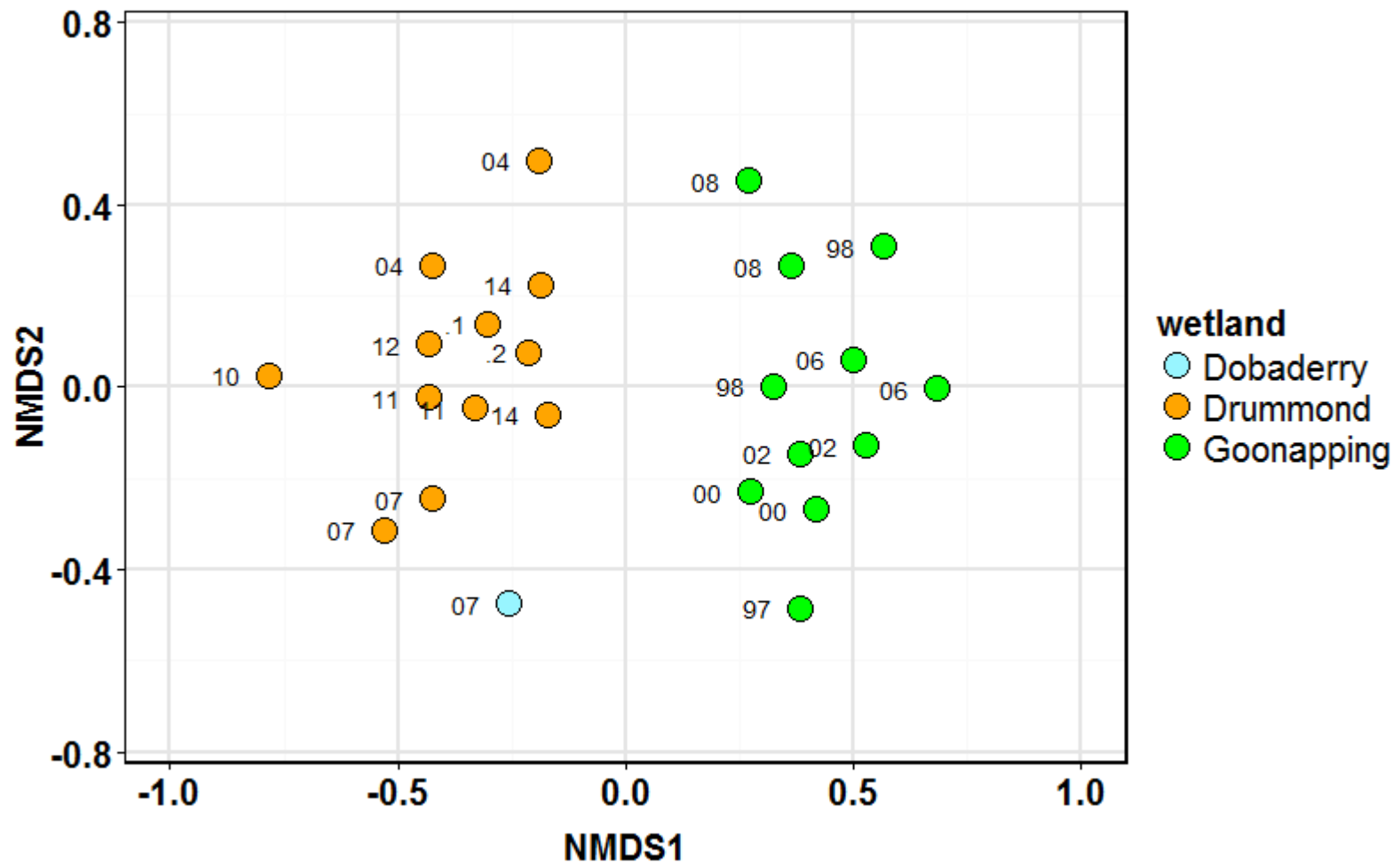
Rak n. sp. water flea (Goonaping and Lake Cronin)

Aedes sp. 'dobaderry' – mosquito otherwise known only from Drummond wetlands



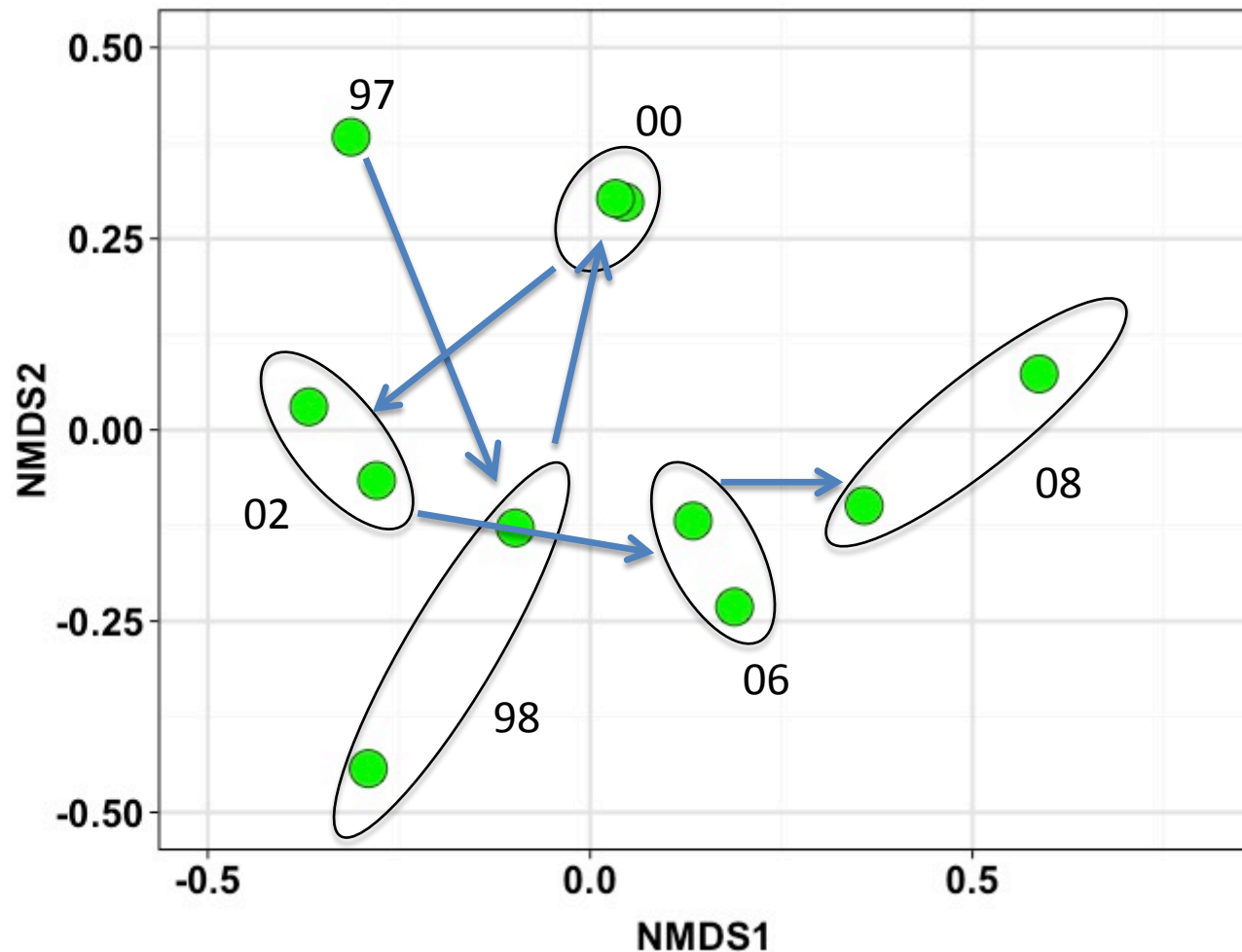
Aedes sp. 'dobaderry'

Invertebrates of Dobaderry, Goonaping and Drummond wetlands



Invertebrate composition in Goonaping Swamp 1997 to 2008

October sampling



October invertebrate richness in Goonaping Swamp 1997 to 2010

