Progress Report SP 2014-025

Taxonomy, zoogeography and conservation status of aquatic invertebrates

Wetlands Conservation

Project Core Team

Supervising Scientist	Adrian Pinder
Data Custodian	Adrian Pinder
Site Custodian	Adrian Pinder

Project status as of Aug. 16, 2017, 9:36 a.m.

Approved and active

Document endorsements and approvals as of Aug. 16, 2017, 9:36 a.m.

Project Team	granted
Program Leader	granted
Directorate	granted

Taxonomy, zoogeography and conservation status of aquatic invertebrates

A Pinder, K Quinlan

Context

The Wetlands Conservation Program undertakes research into aquatic invertebrate biodiversity, including spatial patterning and trends over time in relation to threats. Over half of the species dealt with are not formally described, but they are consistently named across departmental projects through maintenance of a voucher specimen collection. As opportunities and skills allow, program staff undertake systematics studies (primarily species descriptions and genetic analyses), sometimes with specialist co-authors. This allows formal naming and description of Western Australian endemics that would not otherwise occur and allows species to be consistently identified by external research groups. Tools allowing consistent identification of aquatic invertebrates will also be produced.

Aims

- Undertake aquatic invertebrate systematics to improve descriptions of Western Australian aquatic invertebrate biodiversity and allow more consistent identification of specimens by departmental and external researchers.

Progress

- A paper describing a new species of *Boeckella* copepod from a claypan on Matuwa (ex Lorna Glen) was submitted and is currently being revised.
- A book chapter on Australian and New Zealand aquatic oligochaetes is nearly complete.
- Genetic barcoding of selected invertebrates was undertaken for various projects.

Management implications

- The description of a new species of *Boeckella* copepod will allow consistent identification across the Goldfields region and therefore assist with environmental impact assessment.
- Biodiversity conservation planning advice is based on more comprehensive and consistent biodiversity analyses as a result of genetic barcoding of difficult to identify invertebrates.

Future directions

- Undertake similar taxonomic work as required.