Pilbara Region Biological Survey 2002-2007

An environmental silhouette for the future

GOVERNMENT OF WESTERN AUSTRALIA

DEPARTMENT OF Conservation AND LAND MANAGEMENT

Pilbara Biological Survey

- From 2002 to 2007, a $12.5 million biological survey will be undertaken.
- More than 20 Conservation and Land Management staff will conduct the survey.
- Survey funded by WA Government, primarily through the Department, with assistance from WA Museum.
- Support will be sought from corporate sector.

Why do we need a survey?

- Develop a framework to guide sustainable land-use and conservation planning in the Pilbara;
- Appraise the region's conservation reserve system;
- Improve the environmental impact assessment process for developments;

more >>>

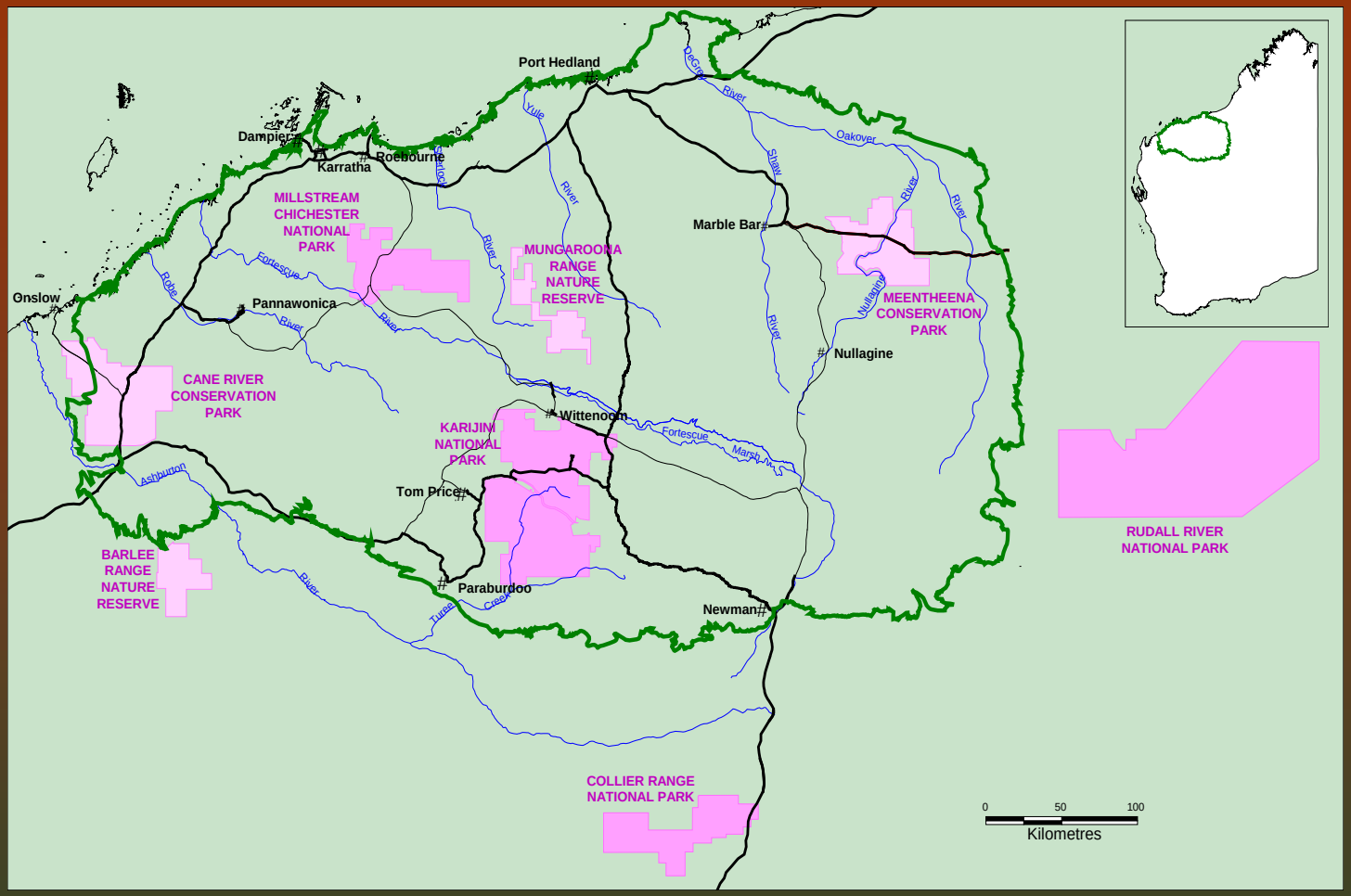
Why do we need a survey?

- Verify distributional information on threatened species and ecological communities;
- Provide detailed information on small underground water creatures - stygofauna;
- Document new information about plants, reptiles, frogs, mammals, bats, birds, spiders, scorpions, insects and aquatic invertebrates.

The Pilbara

- 180,000 sq km bordered by the Indian Ocean (west), Ashburton region (south) and sandy deserts (east and north).
- Largely Unallocated, pastoral and Aboriginal land.
- Renowned for wildlife, geology and minerals.
- Landforms include tidal flats, mangroves, grassy savanna, mountain ranges, gorges, and tropical woodlands.

Pilbara Region

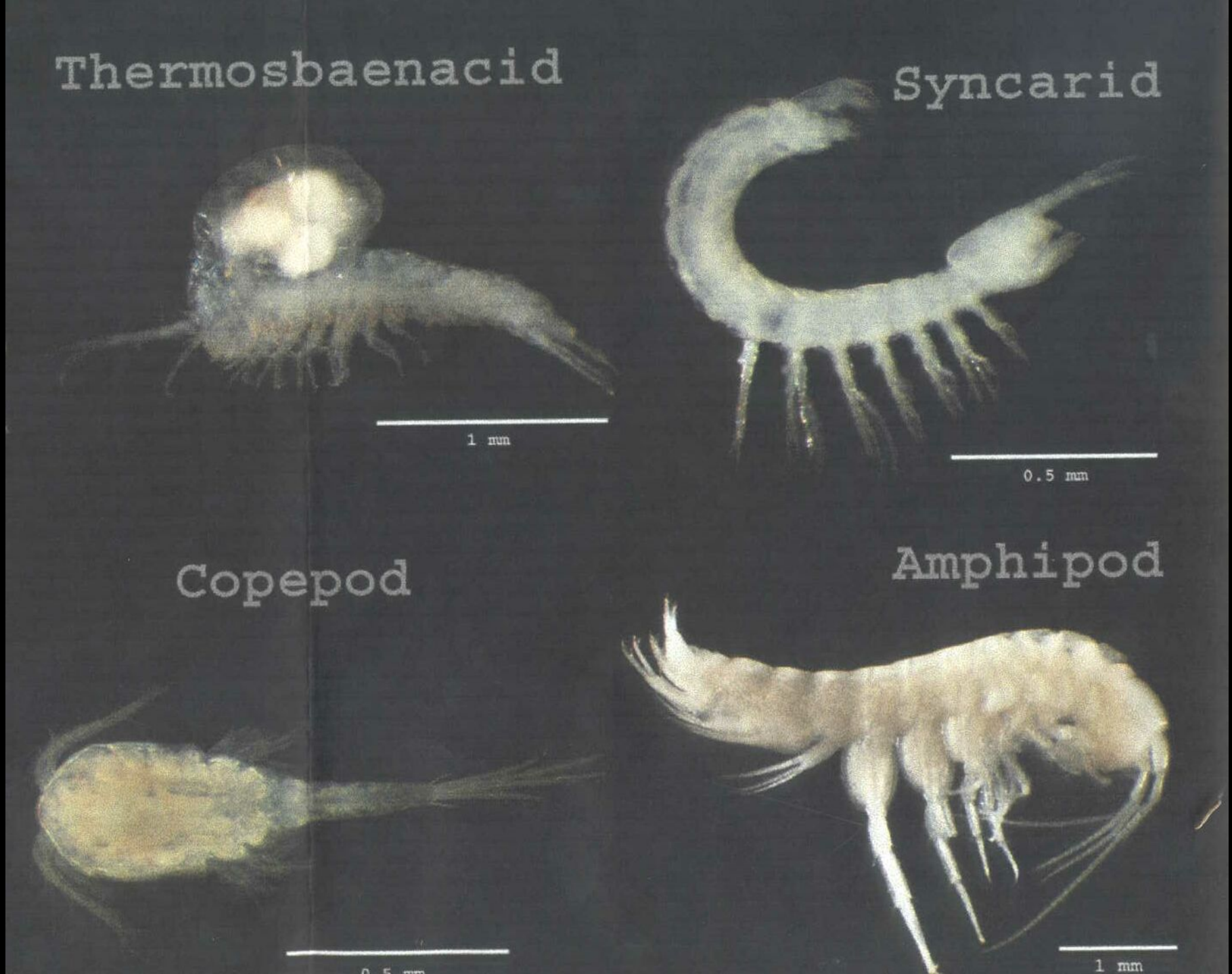


How will we carry out the survey?

- ~800 sites to represent a cross section of soils, landforms, climate and vegetation types.
- Many sites will be on pastoral leases.
- Staff will contact landholders before sites are accessed to provide lessee/land owner with information and ensure no disruption to existing operations.

What will be surveyed?

- Plants
- Mammals
- Reptiles
- Frogs
- Birds
- Insects, Spiders and other arachnids
- Aquatic organisms
- Stygofauna


Thermosbaenacid
1 mm
Syncarid
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Copepod
0.5 mm
Amphipod
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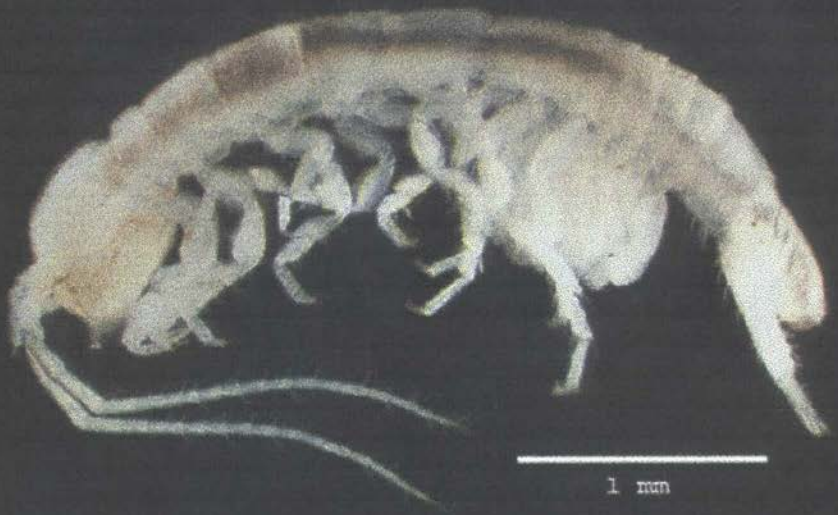
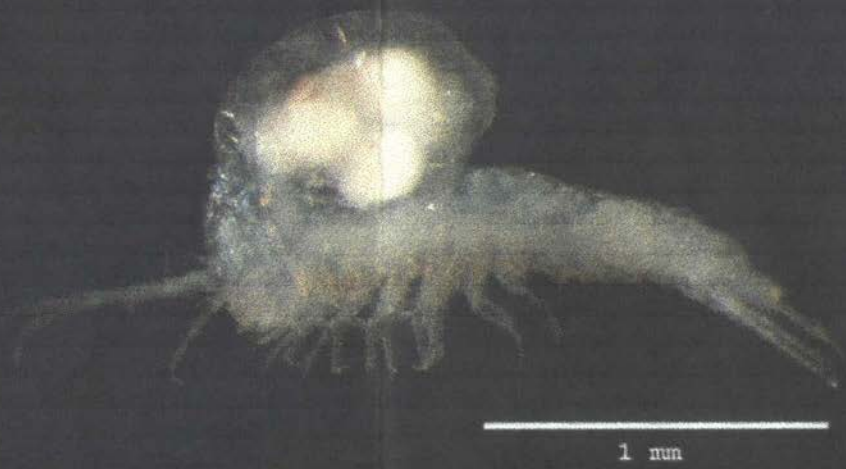
Isopod

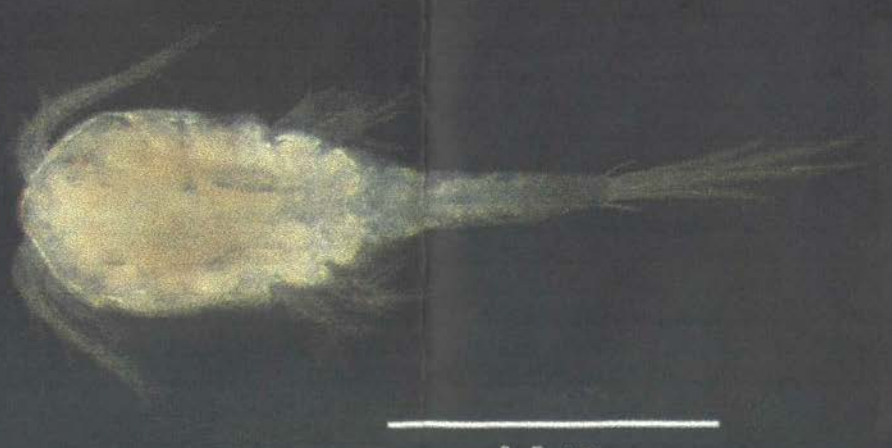


Thermosbaenacid



Ostracod

Copepod



When will this happen?

- Stygofauna (underground water creatures) surveys began in November 2002
- Landholders were contacted in January 2003 about access to boreholes, and from March 2003 about access to land sites.
- Fieldwork will continue from early 2003 until late 2006.

Operations

- 300 land sites to study terrestrial biodiversity.
- 50 sites to study sub-fossil mammals.
- 450 sites to study aquatic biodiversity and stygofauna.

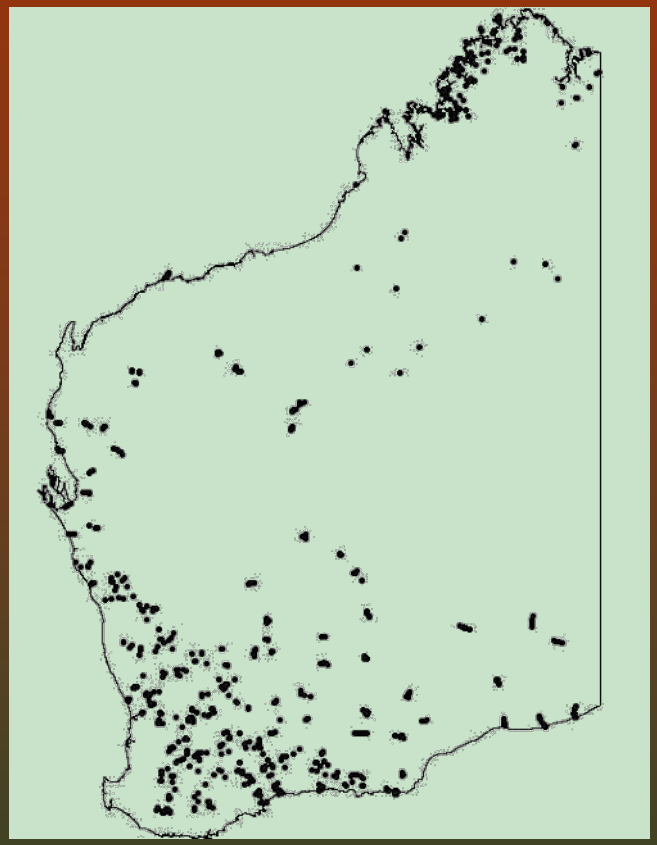
Biodiversity knowledge

- New species are still being discovered.
- More is still being learnt about the region’s biodiversity pattern.
- Little is known about invertebrates and aquatic organisms such as stygofauna.

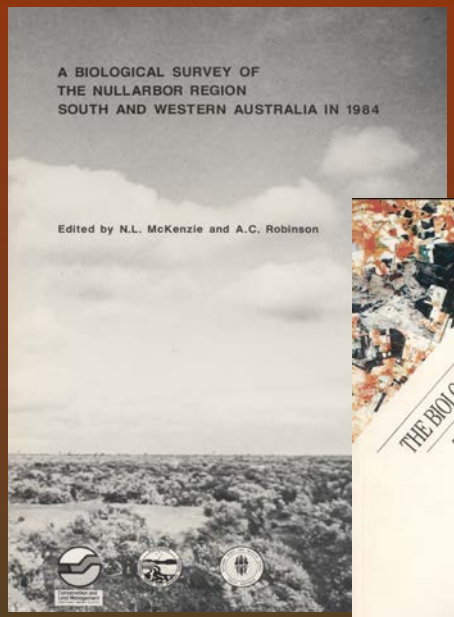
Commitment to conservation

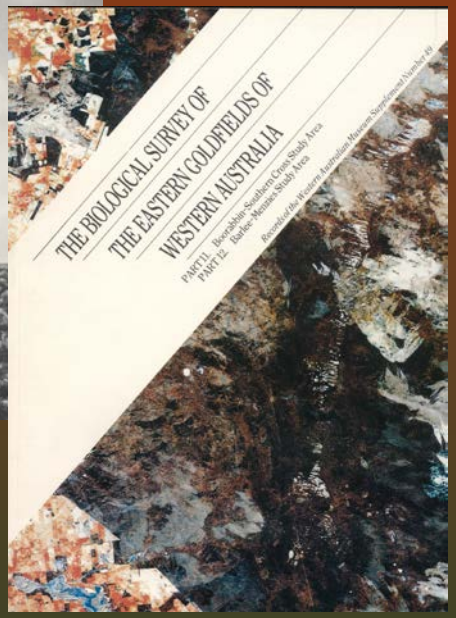
- The Department has a long standing commitment to biogeographical surveys of Western Australia.
- Previous surveys on the Nullarbor, and in the Kimberley, eastern Goldfields and southern Carnarvon Basin.

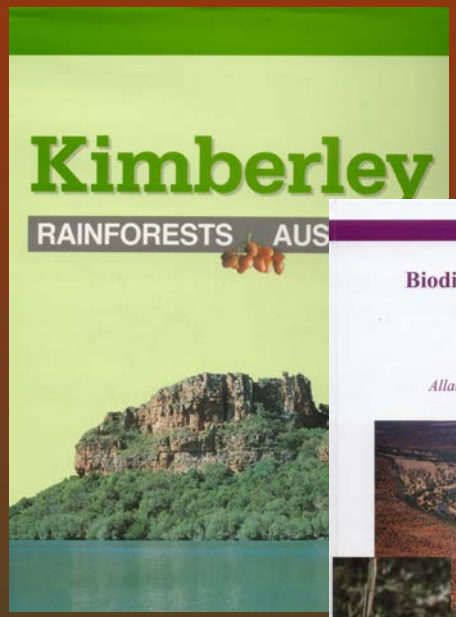
Biogeographic survey sites since 1979

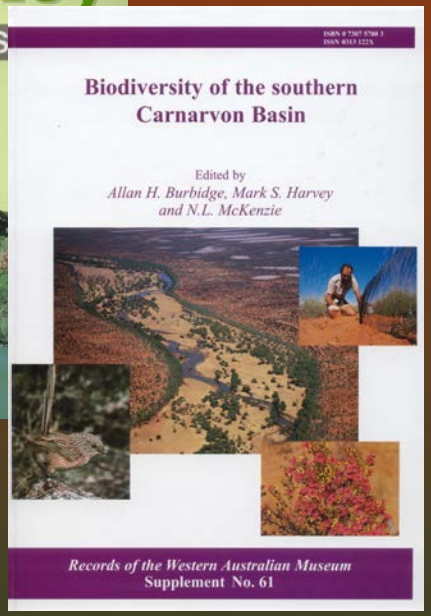


Publications from major surveys







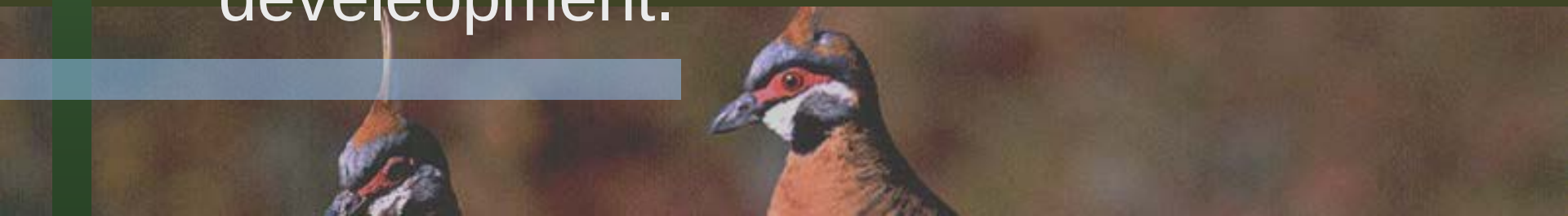


Benefits of the study

- Data obtained about flora, fauna, invertebrates and aquatic organisms.
- Improved knowledge for environmental assessments of development proposals.
- Local surveys can be interpreted in a regional context.
- Species numbers and distribution can be predicted throughout the region.

Benefits of survey

- Link the region’s biodiversity to the National Reserve System.
- Enable reliable lists of threatened species and ecological communities to be developed.
- Better information for recovery and management planning.
- Better information for sustainable develeopment.



Further information

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