

BIOSTRATIGRAPHY AND PALEONTOLOGY

REPORTS

Geological Survey of Western Australia (GSWA) paleontology reports consist of two types:

Legacy (1962–2000)

- recently rescanned and keyworded
- kept as original, i.e. no corrections made
- originally prepared as informal internal reports
- contain much of the basic biostratigraphic and taxonomic data used in past GSWA mapping projects

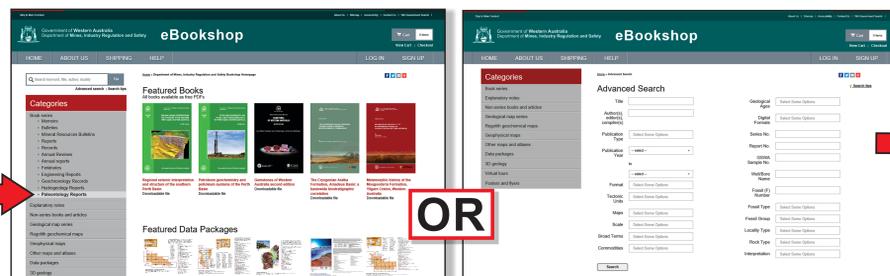
The reports are a great resource for regional studies across Western Australia.

New series (2016 onwards)

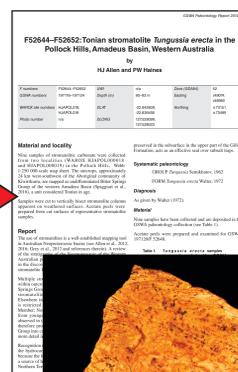
- fully edited in line with other GSWA publications
- rapid communication of new discoveries, basic data, and brief reports unrelated to larger projects
- will be written on an ad hoc basis

Fossil materials described in many reports are held within the GSWA Paleontology or Petroleum Relinquishment collections, allowing for further studies.

Spatial searchability will be available via **GeoVIEW.WA** in the near future.

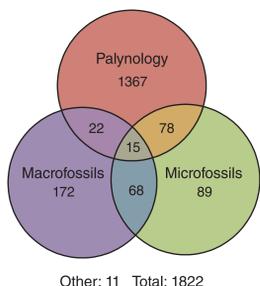


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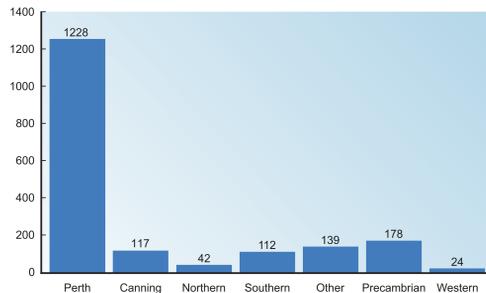


Both legacy and new series paleontology reports are available free at:
www.dmp.wa.gov.au/ebookshop

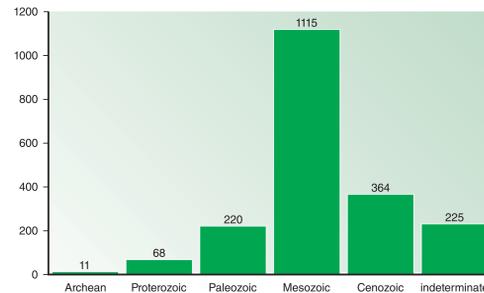
BY FOSSIL TYPE



BY BASIN



BY AGE



- Reports cover a wide range of:
- map sheets
 - basins
 - fossil groups
 - geological ages

CURRENT RESEARCH PROJECTS

Paleontology forms an active part of GSWA's mapping and basin studies, providing biostratigraphic and paleoenvironmental data for sedimentary units across the state.

Carnarvon Basin
Early Permian macrofossils and paleoenvironments (in conjunction with UWA)

Brachiopod (left) and Dimotopyge sp (right), Bulgadoo Shale

Canning Basin and embayments
Paleozoic macro- and micropaleontology and ichnology.

Bergstroemognathus extensus
Sa element, Olympic 1, Lower Ordovician, Nambheet Formation, Canning Basin

Cruziana rugosa, in association with fish macrofossils, Cobb Embayment, Canning Basin

Cruziana rugosa, in association with fish macrofossils, Cobb Embayment, Canning Basin

Amadeus, Officer and Murraba Basins
Neoproterozoic biostratigraphy. GSWA Record on the Aralka Formation (in conjunction with NTGS) is available now; GSWA Report documenting a biostratigraphic scheme for the latest Neoproterozoic – early Cambrian of the western Centralian Superbasin (including the Amadeus, Officer and Murraba Basins) due 2020.

Linella avis, Amadeus Basin

Anumberia sp., Murraba Basin

Anumberia sp., Murraba Basin

Tumblagooda Sandstone
Reassessments of biostratigraphy, ichnology and regional correlation. External publication due end 2019.

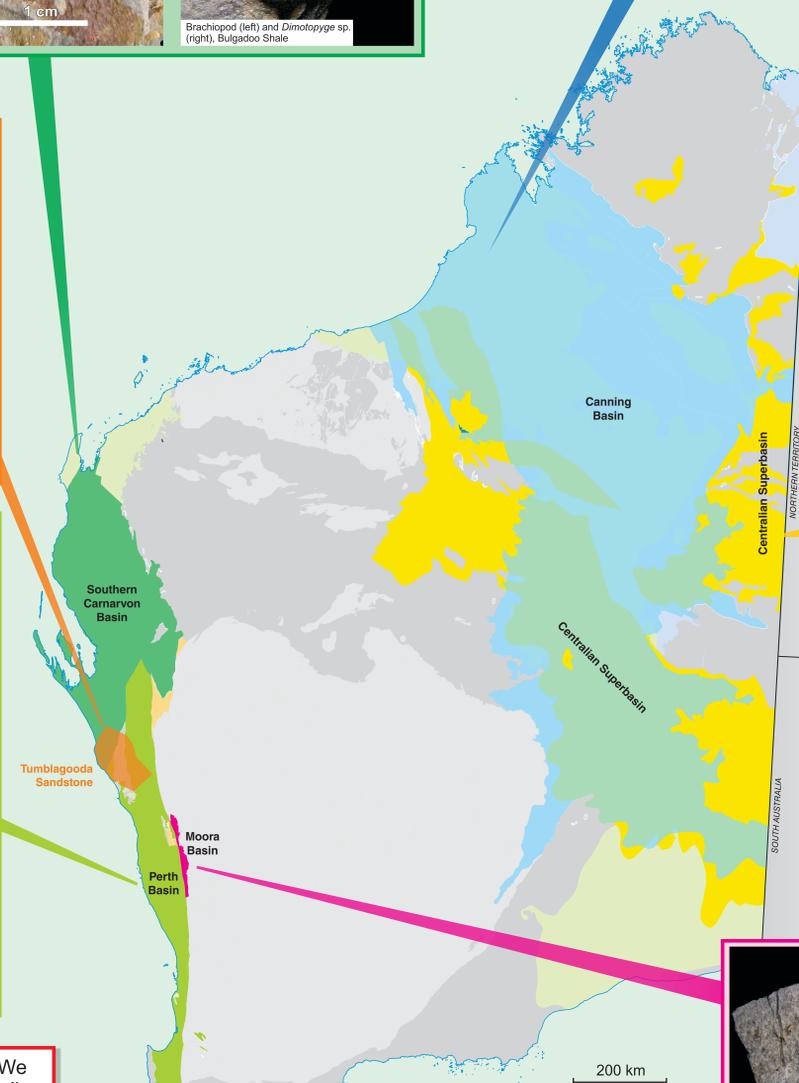
Left: Diplichnites gouldi trackway, Natures Window. Right: Daedalus burrows, Kalbarri

Perth Basin
Macro- and micropaleontology studies. Includes ongoing research into unusual depositional environments of the Kockatea Shale (in conjunction with UWA)

Spinnicaudatan, Lower Triassic, Kockatea Shale

Southern Perth Basin
Reassessment of historic palynological data. GSWA Report 174 on the data between Mandurah and Bunbury is available now. Data from Bunbury south to follow in 2020.

Dingodinium cerviculum, F12421/1, HS41, southern Perth Basin



Precambrian paleontology
Field reassessment of potentially biogenic features

'coral' pseudofossils, Moora Group

Contact us for fossil identification and expert advice. We can also provide a point of contact for Western Australian, Australian, or worldwide paleontological specialists.

COLLECTIONS

GSWA maintains a range of historical and modern paleontological materials, stored in two separate collections:

- GSWA Paleontology Collection
- Petroleum Relinquishment (including the Core Library)

Palynology and microfossils

- Outcrop samples, and non petroleum (mineral, water, engineering boreholes (Paleontology Collection); petroleum well samples (Relinquishment and Core Library) collections, searchable through WAPIMS)
- Slides and residues
- Non-petroleum material has an emphasis on biostratigraphy of the Perth Basin Mesozoic and the Canning Basin Devonian

Macrofossils and stromatolites

- Trace and body fossils
- Hand samples, SEM stubs, section slides, acetate peels
- Emphasis on Proterozoic biostratigraphy, Devonian of the Canning Basin, Permian of the Carnarvon Basin

The Paleontology Collection also contains type and figured specimens of both macrofossils and microfossils, extending back to the 1890s.

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Abbreviations: NTGS, Northern Territory Geological Survey; UWA, University of Western Australia

Loans

Loan of non-type materials is permitted to most geoscientific organizations, including researchers and consultants.

Type material cannot be loaned, but may be viewed upon request. Microscopes and photographic equipment are available at the Carlisle Core Library site for use in examination.

