

PHANEROZOIC

CENOZOIC

Unassigned

QUATERNARY



**Sheetwash units**

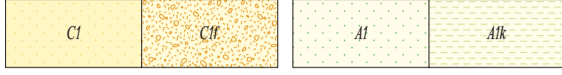
- W* Sandy and clayey distal sheetwash and slope deposits, no clearly defined drainage
- Wf* Low gradient sheet deposits of ferruginous sand, silt, and gravel
- Wi* Silt and sand; surface is characterized by shallow depressions aligned perpendicular to the slope; supports banded mosaic vegetation (tiger bush)

**Alluvial unit**

- Ad* Unconsolidated, fine-grained deposits in alluvial drainage depressions, claypans, perennial lakes, and swamps; low-lying areas with internal drainage; typically thickly vegetated

**Sandplain unit**

- S* Quartz sand of mixed origin; includes residual and eolian sands



**Colluvial units, third generation**

- C1* Quartz and rock fragments in an unconsolidated silt and sand matrix; includes ferruginous deposits
- C1f* Unconsolidated ferruginous rubble and scree

**Alluvial units, third generation**

- A1* Silt, sand, and gravel in active drainage channels and floodplains; includes ferruginous deposits
- A1k* Carbonate-rich silt, sand, and gravel in active drainage channels and floodplains



**Colluvial units, second generation**

- C2* Quartz and rock fragments in a partly consolidated silt and sand matrix
- C2f* Partly consolidated ferruginous rubble and scree

**Alluvial unit, second generation**

- A2* Partly consolidated silt, sand, and gravel; partly dissected by present-day drainage



**Colluvial units, first generation**

- C3* Quartz and rock fragments in a weakly cemented and compacted silt and sand; deeply dissected valley-fill deposits
- C3f* Ferruginous rubble and scree in a weakly cemented and compacted silt and sand matrix
- C3fn* Manganiferous ferruginous rubble and scree in a weakly cemented and compacted silt and sand matrix; partly dissected

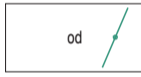
**Alluvial units, first generation**

- A3* Weakly cemented and compacted silt, sand, gravel; deeply dissected by present-day drainage lines
- A3f* Weakly cemented silt, sand and minor gravel in older floodplains adjacent to older drainage



**Residual or relict units**

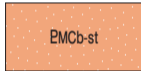
- Rf* Ferruginous deposits, including lateritic, ferruginous, and manganiferous duricrust
- Rfn* Manganiferous ferruginous deposits, including manganiferous ferruginous duricrust
- Rk* Calcrete developed in, and adjacent to, alluvial channels; carbonate and vuggy opaline silica; dissected by major present-day drainage



Dolerite dykes, sills, or plugs; fine- to medium-grained dolerite; age uncertain

**Mulka Tectonic Event (c. 570 Ma)**

**Edmundian Orogeny (1030–955 Ma<sup>1</sup>)**



**BACKDOOR FORMATION:** thin- to thick-bedded sandstone and minor siltstone

**Mutherbukin Tectonic Event (1280–1250 Ma)**



**NARIMBUNNA DOLERITE:** dolerite and gabbro sills intruded into Edmund Group

COLLIER BASIN

MESOPROTEROZOIC

c. 1465 Ma

c. 1460 Ma



**ULLAWARRA FORMATION:** siltstone; subordinate fine-grained sandstone, dolostone, and chert; locally intruded by numerous dolerite sills



Sandstone and siltstone



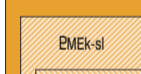
**DEVIL CREEK FORMATION:** laminated dolostone and dolomitic siltstone; local thick-bedded dolerite



Siltstone, dolomitic siltstone, and dolostone



**DISCOVERY FORMATION:** massive or laminated chert, silicified mudstone, and siltstone; local silicified sandstone and conglomerate



**KIANGI CREEK FORMATION:** siltstone, mudstone, and thin to very thick bedded quartz sandstone; minor dolostone and conglomerate



Siltstone; minor fine-grained sandstone



Ferruginous siltstone; minor fine-grained sandstone; commonly manganiferous



Dolostone, siltstone, and sandstone



Sandstone and siltstone



Medium to very thick bedded quartz sandstone and siltstone



Silicified, feldspathic quartz sandstone, siltstone, and minor conglomerate



Thin- to very thick-bedded sandstone and conglomerate



**IRREGULARLY FORMATION:** stromatolitic and non-stromatolitic dolostone, dolomitic siltstone, quartz sandstone, and conglomerate



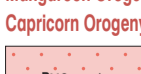
Siltstone and thin- to very thick-bedded sandstone; minor dolostone



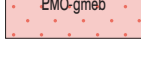
**Woodlands Member:** thick-bedded quartz sandstone; minor siltstone



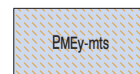
Siltstone, sandstone, and dolostone



Sandstone and siltstone; minor dolostone



**YILGATHERRA FORMATION:** sandstone; subordinate siltstone, conglomerate, and dolostone



**YILGATHERRA FORMATION:** psammitic schist; quartz-feldspar-muscovite schist

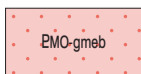
EDMUND BASIN

PALEOPROTEROZOIC-MESOPROTEROZOIC

<1620 Ma

**Mangaroon Orogeny (1680–1620 Ma<sup>2</sup>)**

**Capricorn Orogeny (1820–1770 Ma<sup>3</sup>)**



Massive, equigranular to sparsely porphyritic, biotite monzogranite; medium and coarse grained; minor muscovite in places; includes some granodiorite and minor leucocratic tonalite

Mooranarie Supersuite

GASCOYNE PROVINCE

Bengemall Supergroup

Edmund Group

Collier Group