

EVOLUTION OF AUSTRALIAN BIOTA

Chapter 2 The evolution of Australian flora and fauna

Evidence of the evolution of Australian flora and fauna in fossils

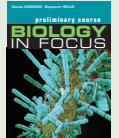
- gather information from secondary sources to describe some Australian fossils, where these fossils were found and use available evidence to explain how they contribute to the development of understanding about the evolution of species in Australia

Fossils of Australian fauna and flora

Examples of some fossils of Australian animals are summarised Table 2.2.

Table 2.2 Fossils of Australian animals

| Period of time (million years ago) | Where found | Fossil name | Animal group | Description |
|------------------------------------|------------------------------------|--|--------------|--|
| 345–280 | Clarencetown, New South Wales | Brachiopod (lamp shells) | Brachiopod | Small organisms, only shell visibly preserved, grooves prominent in shell, semi-circular shell shape |
| 230 | Bellambi Colliery, New South Wales | Labyrinthodont | Amphibian | Five narrow toes (unlike dinosaurs that possess three toes) with thin sharp claws, only footprint of organism preserved |
| 225–190 | Hornsby, New South Wales | <i>Cleithrolepsis</i> | Fish | Small size (relative to a coin), tail fin and upper and lower rear fin are prominent, head structure clear, very clear side-on view of fossil detail |
| 110 | Lightening Ridge, New South Wales | <i>Steropodon galmani</i> (steropodon) | Mammal | Only fossilised jaw preserved with three molar teeth |



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Table 2.3 Fossils of Australian plants

| Period of time (million years ago) | Where found | Fossil name | Animal group | Description |
|---------------------------------------|-----------------------------------|---|--------------|---|
| 410–345 | Mt Pleasant, Victoria | <i>Baragwanathia longifolia</i> | Club moss | Swamp plant with small, thin, feathery-type leaves protruding from a long main stem; only leaf and stem structure are preserved |
| 280–225 | Hunter Valley, New South Wales | <i>Glossopteris</i> (refer to Fig. 1.4 on page 240) | Tree fern | Tongue-shaped leaves with a midrib and net venation, found in swampy habitat; only leaf structure preserved |
| 225–190 | Beacon Hill, New South Wales | <i>Dicroidium</i> | Tree fern | Forked-frond seed fern; good clear outline of structure of frond preserved |
| 190–120 | Gulgong, New South Wales | <i>Pentoxylon</i> | Pine | Kauri pine with small, long narrow leaves; only remnants of stems with leaves preserved |

Note: For photographs of fossils listed in Tables 2.2 and 2.3 see Mary E. White's *Australia's prehistoric plants and their environment*, Methuen, 1984.