

**Late Permian-Early Triassic palynology of the Bowen and Sydney basins: more CA-IDTIMS isotopic ages**

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Palynology is the principle biostratigraphic tool employed to correlate thick fluvial to shallow marine successions of the Permian-Early Triassic of the Bowen and Sydney basins of eastern Australia. The regional palynofloras can be utilised for intra-continental comparisons but are only broadly correlative across Gondwana and rarely applicable as stage or sub-stage level global tie-points. High-precision CA-IDTIMS dating of Middle Permian-Early Triassic ashfall tuffs in these basins has provided a unique opportunity to confidently tie the endemic fossil biota to the international timescale. Carbonaceous siltstones and coals bracketing the tuff beds have been processed for their plant microfossil content thus enabling precise chronometric ages to be assigned to the identified palynozones. Tying these biozones to the internationally accepted Geologic Timescale will greatly enhance correlation to areas outside of Australia, allowing specific global events to be recognised. Results from the Sydney Basin, previously published, suggested significant modifications to the ages currently assigned to some of the Late Permian and Early Triassic palynozones. These results are now coupled with results from the Bowen Basin to provide a regional synthesis of eastern Australian basin palynofloras.