



MACROFOSSILS FROM THE CABBAGE TREE FORMATION, MIDDLE ARM GORGE, NEAR BEACONSFIELD, TASMANIA.

by

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### GEOSCIENCE FOR AUSTRALIA'S FUTURE

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## Macrofossils from the Cabbage Tree Formation, Middle Arm Gorge, near Beaconsfield, Tasmania

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Sample Locality

Samples totalling about 7kg of medium grey-green lithic sandstones containing several fossils were collected by the author and Dr C. Calver of Tasmania Development and Resources during field work in October, 1995. The samples come from a road cutting about 150m E of the bend in the road on the southern side of Middle Arm Creek where it passes through the gorge between Salisbury Hill and Cabbage Tree Hill (GR 85600 36650, Beaconsfield 1:25,000 sheet). The samples are therefore from near the top of the outcrop of the Cabbage Tree Formation in Middle Arm Gorge.

#### Sample Preparation

Included in the sample are sparse, poorly preserved brachiopods, fragments of trilobites and echinoderm ossicles. The fauna is preserved as moulds and were mechanically excavated using a compressed air powered vibrotool.

#### Interpretation

The fauna from this locality includes the following:

Hintzeia sp. (pliomerid trilobite) indeterminate asaphid trilobite indeterminate small orthoid brachiopod echinoderm ossicles

At the present state of knowledge, the echinoderm ossicles are of no use biostratigraphically, particularly given the poor preservation in these samples. The orthoid brachiopod is usually represented by small disarticulated valves in which details of the musculature and mantle canal systems are not preserved. Little can be done with such specimens. The asaphid trilobites are relatively small fragments of quite large individuals and their affinities cannot be determined.

The pliomerid is represented by one complete, and one partial cranidium and is very similar to a species of *Hintzeia* from the *Kayseraspis* cf. *brackebuschi* Assemblage Zone in the Emanuel Formation in the Canning Basin (Laurie & Shergold in press a, b; Shergold et al., 1995a, b). This Assemblage Zone also contains trilobites which are very similar to species found in the Pontoon Hill Siltstone Member of the Florentine Valley Formation by Jell & Stait (1985) and are probably of a similar age. The *Kayseraspis* cf. *brackebuschi* Assemblage Zone is correlated with the Lancefieldian La2-La3 Zones of the Victorian graptolite sequence by Nicoll & Webby (in Young & Laurie, 1996, chart 2). This is consistent with the conodont age given for the Cabbage Tree Formation by Kennedy (1971) and Banks & Burrett (1980).

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