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Geological Survey of Victoria

PLANT REMAINS.

NEPEAN BORE 37

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Plant remains. Nepean bore 37.

Bore core from the 1269.6 - 1272 m interval in the Nepean bore 37 contains black carbonaceous compressions of stem, leaf and root fragments.

IDENTIFICATION

All the remains identified belong to the Order Coniferales, and there are at least two, and possibly four species present.

Large, linear spatulate leaves of Bellarinea barklyi are shown in fig 1.

A possibly distinct plant is shown in fig 2. This is the most common fossil in the collection, and belongs to the form genus "Podozamites". This is a misleading name, because it implies relationship to the Order Cycadales, but this is not so. There is the possibility that both plants discussed are portions of dimorphic foliage of one natural species, or that fig 2 represents juvenile foliage.

Fig 3 probably represents a third conifer.

Fig 4 certainly represents a distinct plant, known under the name Elatocladus mcCoyi.

COMMENTS

The collection is strikingly similar to that from coal search shafts sunk at Bellarine about 1680. This collection contained Bellarinea barklyi, Elatocladus mcCoyi and another undetermined Elatocladus.

In Douglas 1969 the stratigraphical position of the Bellarine beds was not firmly established, but subsequently (Geological Survey 1971; Dettmann and Douglas 1976) these have been regarded as Zone D or Coptospora paradoxa Zone, a very late Early Cretaceous Assemblage.

The Nepean collection under investigation is thus regarded as originating from a Zone D assemblage, even though none of the conifers present have been nominated as key fossils.

The assemblage contrasts greatly with that from Sunnyside Beach further north on the Mornington Peninsula. This originates from Zone B and is on the other (upthrown) side of the major Selwyns Fault structure.

REFERENCES

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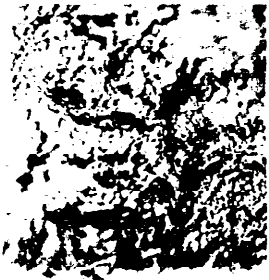
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1



4



2



3