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COMMONWEALTH OF AUSTRALIA.

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**DEPARTMENT OF NATIONAL DEVELOPMENT.**

BUREAU OF MINERAL RESOURCES

GEOLOGY AND GEOPHYSICS.

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**RECORDS.**

1957/64

# FOSSIL PLANTS FROM THE SOUTH WEST CANNING BASIN, WESTERN AUSTRALIA

by

Mary E. White

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Plant fossils were collected in the South West Canning Basin by A. Wells from four localities. A determination of the age of three of the four fossil-bearing horizons is possible from a study of the flora.

1. Locality Rn 63, situated 360 miles S.E. of Port Hedland, at Lat. 23°13'S. long. 123°20'E. Runton four mile sheet F51/15, airphoto 3/5037.

   Specimens Nos. F21609.

   The following plants have been identified from this locality:-

   (a) A frond of the fern Stenopteris tripinnata (Walk) (Figure 1, Plate 1). The range of this fern is not known. It occurs in Middle Triassic beds in the Ipswich series in Queensland. (C.P.C. 2840).

   (b) Numerous single leaves of Linguifolium denmeadi (Jones & de Jersey). These are well preserved and details of the characteristic venation are clearly seen. The type specimen for this species occurs in the Ipswich Coal Measures. The upward range of the species is not recorded. Other species of the genus occur in Jurassic strata. The age of this species can therefore be stated to be Triassic or younger. (Figure 2, Plate 1). (C.P.C. 2841).

   (c) Numerous fragments of Elatocladus planus (Taxites plana Feist.). The range of this type of frond is Rhaetic-Jurassic and younger.

   (d) Fragments of Ptilophyllum (Williamsonia) pecten Phillips. This type of frond is very common in Jurassic strata in many parts of the world. It ranges from the Upper Triassic.

   (e) Fragments of frond of Dictyophyllum or Hausmannia sp. These ferns occur in Rhaetic and Jurassic strata.

   (f) Fragment of leaf of Taeniopteris sp.

   (g) Casts of small round seeds of the Carpolithus circularis type.

   The age of the flora in the specimens from Rn 63 is Late Triassic or Jurassic.

2. Locality Rn 65, situated 2.8 miles N.E. of Rn 63, at Lat. 23°12'S, Long. 123°22'E. Runton four mile sheet F51/15. Airphoto 3/5037.

   Specimens Nos. F21610.

   The plant remains in these specimens are largely indeterminate but leaf fragments referable to Ptilophyllum pecten and Elatocladus planus are present denoting a Late Triassic or Jurassic age.

3. Locality Rn 66, situated 1.5 miles N.N.E. of Rn 63.

   Specimens Nos. F21611; C.P.C. 2842, 2843. Plate 1 Figure 3; Plate 2, Figure 4.

The following plants can be identified:-

(a) Very large numbers of fronds and detached fragments of Elatocladus planus (Feist) occur throughout these specimens.

(b) Fronds of Ptilophyllum pecten Phillips. Characteristic of Upper Triassic and Jurassic strata.

(c) Portions of leaves of Taeniopteris cf. elongata Walk. Range mainly Rhaetic - Jurassic.

(d) Bennetitalean Flower Bracts and squamae. Cycadolepsis sp. Age Upper Triassic - Jurassic.

(e) Casts of small round seeds of the Carpolithus circularis type. Age indeterminate.

There are Annelid tracks among the plant fossils in these specimens.

The age of the flora in the specimens from Rn 66 is Late Triassic or Jurassic.

4. Locality T 17, situated 3 miles south of Well 27 on the Canning Stock Route, approximately 365 miles S.E. of Port Hedland, at Lat. 22°49'S, Long. 123°38'E. Tabletop four mile sheet, airphoto 12/W/C/5208.

Specimen No. F21612. Contains only indeterminate stem and root impressions.

## CONCLUSIONS

The age of the beds containing plant fossils at localities Rn 63, Rn 65 and Rn 66 is Upper Triassic or Jurassic. It is not possible to determine the age of the fossil horizon in T 17.

## REFERENCES

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PLATE 1

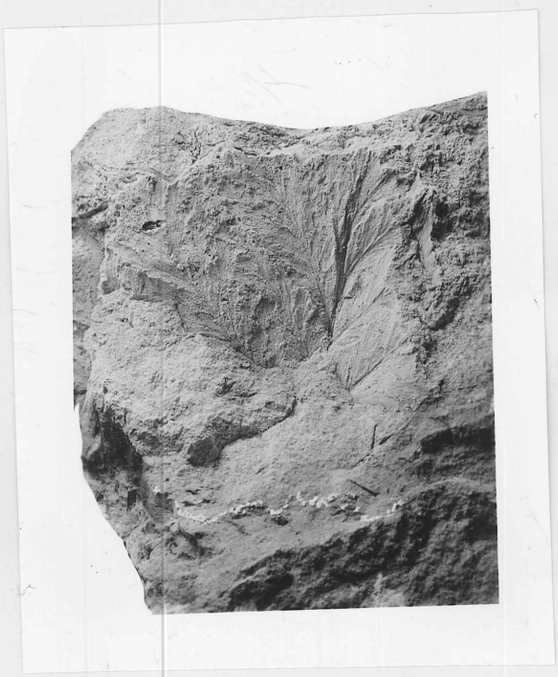

Fig. 1 : Stenopteris tripinnata (Walk.) C.P.C. 2840.

Fig. 2 : Linguifolium denmeadi Jones & de Jersey. C.P.C. 2841.

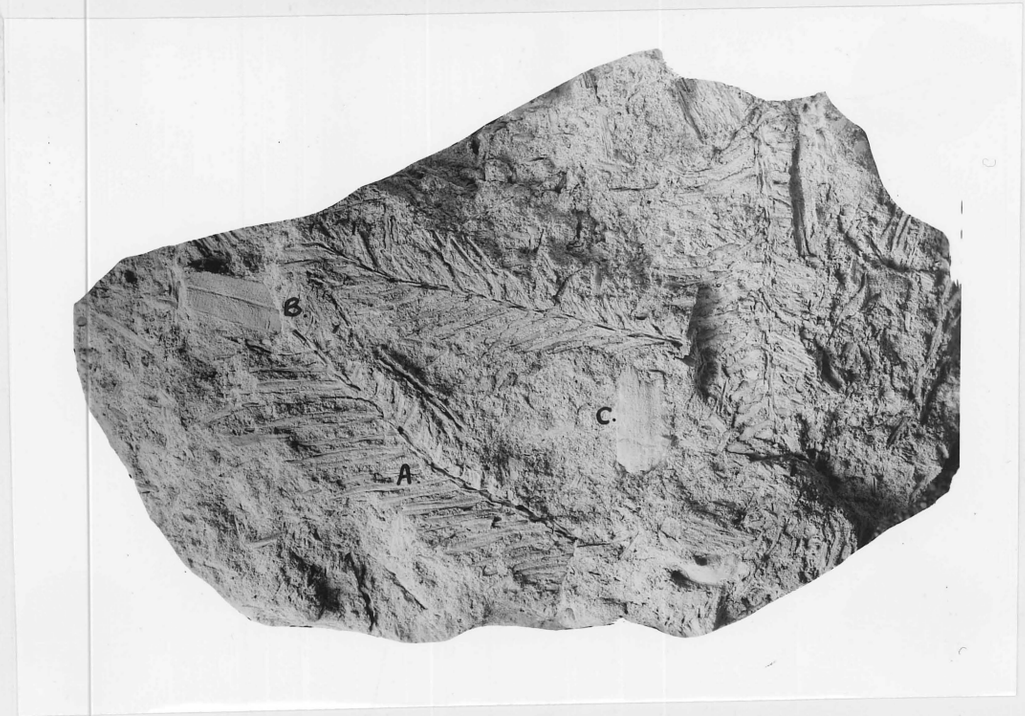


Fig. 3 : A. Elatocladus plana (Feist)
B. Taeniopteris cf. elongata Walk.
C. Cycadolepis. Bennetitalian flower bract.
Specimen No. C.P.C. 2843.

PLATE 2


Fig. 4 : A. Elatocladus plana (Feist).
B. Taeniopteris cf. elongata Walk.
D. Ptilophyllum pecten Phill.
E. Annelid track.

Specimen No. C.P.C. 2842.
Half natural size.