

**SUMMARY AND CONCLUSION:**

The present dissertation includes the results of an investigation on the fossil flora of Chinna-Ganjam present in Prakasam district of Andhra Pradesh. The plants are preserved as impressions on fine grained yellowish-red sandstones. They belong to Ptilophyllum flora indicating Upper Gondwana period. The floristic composition reveals plants belonging to various groups such as Bennettitales, Coniferales, Pteridosperms and Inertae Sedis. The locality Chinna-Ganjam is a newly discovered place and the work reveals the information for the first time regarding the flora of the place.

1. Introduction is the first chapter and it deals with the classification of Gondwana System in India and floras developed in different stages in the Upper Gondwana period. It is given on pp. 1 to 7.

2. Chapter II is previous work and it deals with earlier research work on various Upper Gondwana localities in India. It helps us to understand relations between flora developed in the East Coast and that in the outer localities having similar age from India. It is given on pp. 8 to 36.

3. In Chapter III, pp. 37-40 gives the material and methods used in the present investigation.

4. The geology and topography of the area under

investigation has been described to understand the occurrence of fossil plants in this area. It is given in Chapter IV on pp. 41-43.

5. Chapter V is descriptive. It is given on pp.44-87.

Flora found here consists of following groups -

- 1) Bennettitales
- 2) Cycadales
- 3) Coniferales
- 4) Pteridosperms
- 5) Incertae sedis

Bennettitales is the largest group here having following genera -

- a) Ptilophyllum
- b) Pterophyllum
- c) Dictyozamites
- d) Otozamites

Among this group the genus Ptilophyllum is quite dominant and it is represented by 9 species. Genus Dictyozamites is another common plant here having 4 species. Genus Pterophyllum is represented by 3 species. While Otozamites is not so rare here represented by 4 species.

Cycadales are represented by genus Tacniopteris having a single species.

Next important group is the coniferales, consists of following 3 genera - (1) Elatocladus, (2) Brachyphyllum and (3) Pagiophyllum. Elatocladus and Brachyphyllum are quite common in here and they are represented by 5 species each. While Pagiophyllum is represented by only 2 species.

Pteridosperm is a small group and consists of (1) Dicroidium and (2) Pachypteris. Both are represented by a single species.

The group Incertae Sedis includes genus Desmiophyllum having one species only.

6. Chapter VI is general consideration. It consists of the observations about occurrence of several genera described here and in other parts of India. On the basis of plant assemblage, age of the locality is discussed. It is given in pp. 88 to 109.

7. Summery and conclusion is Chapter VII. It includes brief contents on different chapters of the dissertation which is given on pp. 110 to 112.

8. Chapter VIII gives references to the literature cited in this dissertation. It is given on pp. 113 to 132.

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