

**CHAPTER - VII**

**SUMMARY AND CONCLUSIONS**

The thesis embodies the results of studies on the Upper Gondwana fossil plants from East Coast of India. The plant fossils were collected from Vemavaram and Uppugunduru present in Prakasam district of Andhra Pradesh and Sriperamatur from Tamil Nadu. The plants are preserved as impressions on yellowish-white sand stones. Major part of the collection is made from Vemavaram and Uppugunduru, while few plants were collected from Sriperamatur. The plant assemblage includes members of Bennettitales, Cycadales, Coniferales, and Ginkgoales. The locality Vemavaram is a well known place, while Uppugunduru is a new locality, from which plants are collected.

- (1) Chapter I is Introduction. It is given on pp.1-3 It deals with classification of Gondwana system in India and various floras developed in the Gondwana period.
- (2) Chapter II, pp. 4-11 deals with the previous work on various Upper Gondwana localities in India. This is intended to enable to visualise the relation between flora developed in the East Coast and that in the other localities of the similar age found in India.
- (3) Chapter III, pp. 12-14 gives the material and methods used in the present investigation.

- (4) The Geology and Topography of the localities has been described to enable to appreciate the fossil plants found in this area. It is given in Chapter IV, pp. 15-17.
- (5) Chapter V is descriptive. It is given on pp.18-38. The plants collected are described under four main groups. (1) Bennettitales, (2) Cycadales, (3) Coniferales and (4) Ginkgoales. Bennettitales include following genera (i) Ptilophyllum, (ii) Pterophyllum, (iii) Dictyozamites and (iv) Otozamites. The genus Ptilophyllum is quite dominant here. It is represented by three (3) species. The genus Dictyozamites is also quite common here and represented by four (4) species. The genus Otozamites is represented by a single species. Cycadales are represented by the Genus Cycadites. It is represented by a single species here. Coniferales are represented by following two genera (1) Elatocladus and (2) Brachyphyllum. The genus Elatocladus has two species, while Brachyphyllum has a single species here. Ginkgoales are represented by the Genus Ginkgoites which has a single species here.
- (6) Chapter VI is general considerations. It includes the observations about occurrence of genera described here in other parts of India. On the basis of floral assemblage age of these localities is discussed. It is given on pp. 39-51.

- (7) Chapter VII is Summary and Conclusions. It consists of brief contents of different chapters of the thesis. It is given on pp. 52-54.
- (8) Chapter VIII gives references to literature cited in the thesis. It is given on pp. 55-71.
- (9) In conclusion, the author wishes to express his gratitude and sincere thanks to Dr. B. A. Vagyanı for his sustained interest and guidance throughout the course of investigation.