

## FLORISTIC STUDIES IN ORISSA

H. O. SAXENA

*Regional Research Laboratory, Bhubaneswar*

The flora of Orissa is quite interesting because its diversified topography and variable climatic conditions and natural surroundings have endowed it with a varied vegetation. The State has several hill ranges from sea coast line to high peaks exceeding 1500 metres in height. There is an extensive plateau in the interior with a foreground of wide coastal plain. The forest area is extensive, constituting about 43% of the total land area of the State, though the actual wooded forests may be only 25% of the total area. The forests are broadly of five types :

1. The Northern Tropical Semi-Evergreen,
2. The Northern Tropical Moist Deciduous,
3. The Northern Tropical Dry Deciduous,
4. The Southern Tropical Moist Deciduous
- and 5. The Southern Tropical Dry Deciduous.

In addition, there exist various subsidiary types and seral types to a limited extent due to various edaphic, biotic and local climatic factors. The chief among them are the Tidal forests and the Coastal sal forests. The State is the Southern most limit of sal, which is completely replaced by miscellaneous species from near Malkangiri in Koraput district. It is also the meeting place of sal and teak.

Phytogeographically also the flora, is quite interesting, especially those of the hills like Mahendragiri where occur a number of Himalayan species.

Haines' Botany of Bihar and Orissa (1921-25) covered the former province of Bihar and Orissa together with the Orissa

Feudatory states and also the states of Jashpur and Sarguja. Since that time, the boundary of the newly constituted province of Orissa has widened with the inclusion of Koraput and Ganjam districts in the Southern region of the State. Mooney (Supplement to the Botany of Bihar and Orissa, 1950) has not taken into account these changes in the political boundaries and is restricted to the territory covered by Haines. He has reported 153 additional species to the Botany of Bihar and Orissa. Haines visited many parts of Orissa and was supplied with notes and materials by the Divisional Forest officers and collections by Grieve and Cooper. But for such an extensive area it was inevitable that many places remained unexplored or under-explored; several such localities have been mentioned by Mooney in the introductory note to his Supplement.

Since the publication of Haines' Botany of Bihar and Orissa (1921-25) and Mooney's supplement (1950), a number of papers on the flora of Orissa have been published. (Banerjee and Das 1972, Jain 1975, Kapoor 1964, Nair 1975, Panigrahi *et al.* 1964, Pattnaik 1956, Pattnaik and Patnaik 1956, Paul 1975, Raizada 1948, Raju 1964, Rao & Banerjee 1967, Saxena 1973, 1974, 1976, Singh 1964, and Srinivasan & Subba Rao 1961). Casual references to the collections from "Ganjam" (which had wider area than the present Ganjam of Orissa) and from Koraput region is found, in Gamble's Flora of the Presidency of Madras.

Floristic studies in Orissa have not received proper attention in the universities, though some cytotaxonomic and floristic work is in progress at the Utkal University and the Berhampur University. At Ravenshaw College, Cuttack which at one time was an active centre for floristic study in Orissa currently now there is no activity in this field. There is a herbarium consisting of about 4000 specimens, comprising of the collections of Prof. Parija, D. B. Mukherjee, P. Misra, H. Pattnaik, C. M. Bastia and others. Some of these specimens have been cited by Mooney in his supplement. The Botanical Survey of India conducted several tours in the State and published a number of papers. These collections are mostly present in the Central National Herbarium, Howrah, (CAL) and in the Eastern Circle Herbarium at Shillong (ASSAM).

The Regional Research Laboratory, Bhubaneswar started work on the flora of Orissa in the year 1971. Since then, the collections have been made in Simlipal, tidal forests of Mahanadi and Brahmani rivers, Puri, Dhenkanal, Sambalpur and Ganjam districts. The main concentration has been in the Ganjam dist. with a view to work out the flora of the southern Orissa, so as to meet the immediate need of supplementing Haines' flora. The herbarium consists of over 3000 specimens arranged according to Bentham & Hooker's System of classification.

Preparation of a comprehensive flora of Orissa is long over due especially for a better knowledge and utilization of the vast plant resources of the region. And for this, the collections already present in various herbaria of India have to be critically examined and the scattered information available in the published literature compiled, while explorations in the under-explored localities should continue.

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