

CHAPTER - IX

Discussion and Summary

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### DISCUSSION & SUMMARY

The present floristic studies cover approximately half of the Alibag Taluka of the Raigad District. The area presents a broad spectrum of vegetation ranging from coastal mangrove community to the forests of the hill tops.

9.1. i) The climatological conditions of the area indicate that the forest should be of semi-evergreen type (Champion & Seth, 1968). Presence of members like Careya arborea Roxb.; Terminalia bellerica (Gaertn.) Roxb.; Bridelia squamosa Graham; Garuga pinnata Roxb.; Malotus philippensis Muell.-Arg.; Memecylon umbellatum Burm.; Holarrhena antidysenterica A.DC.; Nagatea spicata Dalz. is the evidence for its semi-evergreen nature. However, presence of members like - Tectona grandis L.; Adina cordifolia (Roxb.) Hook.f.; Bombax ceiba L.; Helicteres isora L.; Bauhinia vahli W. & A.; Calycopteris floribunda (Roxb.) Lamk. point out towards its moist deciduous nature. Abundance of Caryota urens L. and Alseodaphne semicarpifolia Nees which are the characteristic members of evergreen forest makes the situation still more puzzling. Thus the forest of the Kanakeshwar area is of its own peculiar type.

Within this small area, the vegetation shows

variations from place to place. In the neighbouring Karli Khind, the dominant member of the forest is Tectona grandis L. On the Kanakeshwar Hills, it occurs only on western slopes. The chief lianas namely Gentum ula Brongn. and Bauhinia vahli W. & A. are totally absent in Karli Khind vegetation.

Siddheshwar Hills located on the south-east face of Karli Khind and having continuation with it however, shows much similarity with that of Kanakeshwar except for abundance of Euphorbia nivulea Buch.-Ham. and Sterculia urens Roxb. Butea superba Roxb. is the unique climber of this area, not at all found in the adjoining hilly regions.

Dominance of Euphorbia nivulea Buch.-Ham. on the slopes of Siddheshwar indicated that it is a start of secondary forest development, Euphorbia scrub is the pioneer stage of it.

ii) Species like - Tinospora malabarica Miers.; Medecca palmata Lamk.; Cynoctonum mitreola (L.) Karst Britton.; Ipomea longifolia R.Br.; Amorphophallus bulbifer (Roxb.) Blume mentioned as rare by Cooke occur in abundance at the Kanakeshwar Hills. This may be regarded as local endemism.

The unique member of the vegetation on the plains

is Hyphaene indica Becc. on the shore of Sattad. The species is reported to be endemic to some of the localities on the coast, Sattad being one of them.

9.2. i) The R.C.F.'s Thal-Wayshet Project is fast progressing towards completion. It is expected to go in production by 1984. The development of township, roads, rail siding has already destroyed the vegetation cover at the foot of Kanakeshwar and Karli Hills. Deforestation rate is very fast. If it continues with the same speed, it is likely that the forest at the Kanakeshwar Hill top will vanish soon. Further, the by products particularly the gases released from the project are definitely going to affect the vegetation of the Kanakeshwar-Karli sector.

ii) In order to prevent at least deforestation of the area, Casuarina plantation on the neighbouring sandy beaches is one of the solutions. This project has been already undertaken by the Forest Department of the Government of Maharashtra at several places along the coast. The plan is a multifarious one and is of economic as well as of ecological importance.

iii) The famous teak, Tectona grandis L. occurs on western slope of Kanakeshwar. The plants are not of their magnificent dimension. This is on account of the ruthless cutting. But it indicated that the barren slopes

are quite suitable for Tectona plantation under proper protection. The Karli Khind forest already support the valuable teak trees. In addition, on its slopes Terminalia crenulata <sup>Roth</sup> ~~K.~~., grows luxuriently. "Ain" as it is locally called, is equally important timber tree. This area therefore needs only better and effective management of "Ain" forest as there is unlicensed, ~~xx~~ unlimited wood cutting.

iv) During the botanical exploration of the area, number of plants that are promising in the field of pharmacognasy, have been located. Costus speciosus (Koenig) Smith; Urginea indica Kunth.; Strychnos nuxvomica L.; Datura metel L.; Gloriosa superba L.; etc. require further investigation for their large scale cultivation.

Present work gives a general idea of the vegetation and flora of the area under consideration. Unfortunately the forests are being cut indiscriminately by nearby inhabitants for their fuel, timber, shelter etc. These factors along with socio-economic strains on the vegetation are causing desolation of the landscape of the area, for which there is no record in the earlier botanical work. A timely account of the existing vegetation and flora, as attempted in this work has, therefore, great significance. The thesis encompasses many allied fields of nature

conservation. It may briefly be stated that the present investigations suggest a line for future work in socio-economic field.

#### Summary

The present studies cover approximately half of the Alibag Taluka of the Raigad District which represents botanically unexplored region in old literature. The area possesses varied type of vegetation. Extensive exploration was carried out for nearly six years which amounts to a grand total of 663 species of Angiosperms belonging to 461 genera under 121 families. Besides this taxonomic account, the survey was carried out on Casuarina plantation of the adjoining coastal area, the results of which are presented over here. The project further enlightens a new idea of shore gardening.

It is earnestly hoped that the present work will contribute a much better understanding of the taxonomy and floristics of the area.