A Brief Summary of Results

The botanical exploration of the area has resulted in the enumeration of 671 angiospermic plants. Out of the 671 angiosperms, 531 belong to dicotyledons and 140 to monocotyledons.

The Gujarat coast from the head of Gulf of Khambhat to Umargam is irregular in its outline, broken by the estuaries of Mahi, Narmada, and Tapi. The coast of Gujarat with exception of South Saurashtra, is generally characterized by tidal flats and saline wastes.

Botanically the area is least explored. The present study, therefore, has added considerably to our knowledge of the flora and vegetation of coastal areas of Gujarat from Khambhat to Umargam in particular and Gujarat in general. A research paper was read at the 66th Session of the Indian Science Congress Association held at Hyderabad from 3 to 7 January, 1979. In addition to the other aspects of vegetation, the coastal vegetation (the strand vegetation, Estuarine and Salt-marsh vegetation and semi-arid coastal plain) have been described in detail.

During the course of the work, few plants which were earlier not cited from the erstwhile Bombay State (now separated into Gujarat, Maharashtra and part of Karnatak) have been recorded. A number of plants for which Gujarat has not been cited as a locality by Cooke in his "Flora of the Presidency of Bombay"

(1901-1908) are reported here thereby adding to our knowledge regarding the distribution of the species in the entire region. Some new, rare and noteworthy plants among them are : Pulicaria crispa (Forsk.) Oliv., Solanum purpureilineatum Sabnis & Bhatt, Solanum roxburghii Dunal, Euphorbia perbracteata Gage, Desmodium neomexicanum A. Gray., Dalechampia scandens Linn. var cordofana (Hochst.) Muell.-Arg., Indigofera astragalina DC., Suaeda maritima Forsk., Sonneratia apetala, B. Ham., Bruguiera gymnorhiza Lam., Hyphaene indica Becc., Rhizophora mucronata Lamk., Heliotropium curassavicum Linn., Zoysia matrella (L.) Merr., Cassytha filiformis Linn., Excoecaria agallocha Linn., Spinifex littoreus (Burm. f.) Merr., Pandanus odoratissimus Linn., Ceriops candolleana Arn., Oryza coarctata Roxb. etc.

Solanum nigrum Complex was submitted to a critical scrutiny with the help of computer based taxonomic study of Heiser, Jr. and others (1965). The analysis revealed the presence of Solanum nigrum Linn., S. roxburghii Dunal and S. purpureilineatum Sabnis and Bhatt.

The preparation of the thesis gave me an opportunity to work in the field, laboratory and the herbarium under the expert guidance of my teachers. It also brought me in closer contact with experts in the field of taxonomy of angiosperms, whose unwavering help and constant guidance have made me confident of tackling even more exacting jobs than the one on hand.

The data presented here, in this thesis, are of value being first hand and reliable and will, to a great extent, solve

the problem of the students of Botany in this part of the country. If they find it useful for their day-to-day work, my efforts, I feel, are amply rewarded.

The thesis is respectfully submitted to the Maharaja Sayajirao University of Baroda towards the degree of Doctor of Philosophy in Botany.