Brief Summary of Results

The area, though botanically unexplored, is floristically very rich. It primarily supports a deciduous forest with the plains and even low hillocks having various degraded stages. A complete account of the various forest types has been presented in the thesis.

The botanical exploration has resulted in the enumeration of 738 angiospermic plants, 592 belonging to the Dicotyledons and 146 to the Monocotyledons. Among them are a number of new or noteworthy plants such as, Cochlearia cochlearioides (Roth) Santapau & Maheshwari, Hibiscus hirtus Linn. var. talbotii Rakshit, Melhania futteyporensis Munro ex Mast., Indigofera astragalina DC., Crotalaria pusilla Heyne ex Roth, Milletia auriculata Baker, Campanula dimorphantha Schweinf., Argyreia strigosa (Roth) Santapau & Patel, Nicotiana plumbaginifolia Viv, Bacopa procumbens (Mill.) Greenm., Lindernia multiflora (Roxb.) Mukerjee, Mazus japonicus (Thunb.) Kuntze, Alternanthera paronychioides St. Hill., Alternanthera pungens H. B. & K., Euphorbia prostrata Ait., Dioscorea belophylla Voigt., Amischophacelus cucullata (Roth) Rolla Rao et Kammathy etc..

Line drawings made to scale of all the interesting 'finds' have been included to add to the value and authenticity of the work.

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 S. roxburghii Dunal, S. nigrum Linn. and S. purpureilineatum Sabnis and Bhatt.

A number of plants growing in the area exhibited morphological variability probably because of the peculiar geological formations. Different populations of some of the more conspicuous of them were studied following Hutchinsons polygraph method, modified by Love & Nadeau (1961). In all, different populations of eight plant species were studied following this method.

In addition to the routine keys to the families, genera and species, special keys based on simple, macroscopic characters have been prepared to facilitate identification of the trees, shrubs and woody climbers. It is expected to satisfy the needs of the forest department personnel, for whom the floristic work is really intended. The keys have been amply illustrated with the help of line drawings and photographs of actual specimens. Artificial keys leading directly to the species of Fabaceae and Asteraceae will, to a certain extent, ease the work of identification of the members of these difficult groups.

A phytogeographic analysis of the flora has been incorporated with a view to studing the composition of the flora from the view point of its origin. The composition of floristic elements

reveals the dominance of eastern element over the western. The present analysis is compared with those of Pavagadh and Ratan Mahal. The affinities of the flora of the area with those of adjoining areas have been briefly discussed.

As the area is essentially tribal, special attempts were made to record data regarding the local uses of plants for food, medicine etc. from the local tribes. In all 120 entries have been made in the local use index-cards. The more important ones have been presented in a separate chapter of the thesis.

The work is based on author's personal observations in the field and laboratory. It is fully illustrated with 47 line drawings and 19 colour photographs depicting the various aspects of vegetation.