

### IX. ORGANISATION OF THE BOTANICAL SURVEY OF INDIA

From the new (quarto 2-column) journal "Bulletin of the Botanical Survey of India", initiated to supplement the 'Records' and 'Annual Reports' and to be cited as Bull.Bot. Surv.India, we are now informed about the shape of the studies of the Indian flora, since the reorganisation in 1954-55. Three numbers have been received: vol.1 no 1, Inauguration Number, dated October 1959: 149 pp.; vol.2 nos 1-2, dated 1960: 273 pp.; vol.3 no 1, dated 1961 and published on April 1, 1962: 104 pp. All these were received in August 1962. It is not clear why they came so late.

The contents are certainly worthwhile and it seems that there is a great deal of progress to be observed, the Botanical Survey of India obviously being well on the way to become a most important instrument for the preparation of the future flora of India. An astonishing number of botanists is now attached to it, pure systematists as well as botanists of affiliated branches of botany. Most of the news to follow has been derived from the introduction in the Inauguration Number on the past, present and future of the Botanical Survey of India, by Dr. J.C.Sen Gupta, and further news from a scanning of the pages of the 3 volumes published till now.

The Botanical Survey of India has its headquarters in Calcutta; both the Herbarium and Botanic Garden have been transferred from the Government of West Bengal to the Government of India under the Ministry of Scientific Research & Cultural Affairs. There is also a Botanical Museum called the Industrial Section of the Indian Museum. Botanical Survey of India has been divided into 4 circles and recently one more circle has been added called the Central Circle. Each circle is

headed by a Regional Botanist and other staff members and has regional herbarium of its own. The Northern Circle has its centre in Dehra Dun, the Western Circle in Poona, the Southern Circle in Coimbatore, the Eastern Circle in Shillong and the Central Circle at Allahabad. A Library is gradually being built in each circle. Most of the type specimens are located in the Central National Herbarium at Calcutta. There is a Reviewing Committee installed for the inspection of needs, progress and desiderata. Each of the Circles is explored regionally and lists of plants, reports of trips, description of rare plants are published in the Bulletin. Regional Floras are anticipated.

Originally the Head of the Survey with the title 'Chief Botanist' was Dr. H.Santapau; he was temporarily replaced by Dr. J.C.Sen Gupta, but at present Dr. Santapau holds again this office. Dr. K.Subramanyam is the Deputy Chief Botanist. Further at the Headquarters there are other officers like Dr. T.A.Rao (Ecologist), Dr. R.K.Arora (Assistant Ecologist), Mr. K.R.Agarwal (Soil Chemist), Dr. P.C.Maity (Plant Chemist), Dr. J.Ghatak (Systematic Botanist), Dr. G.M.Oza (Scientific Officer), and Messrs. C.R.Das, R.K.Basak, B.M.Wadhwa, J.N.Vora are the Botanists. The Headquarters Organisation serves as an administrative centre and clearing house for identification and for the editing of publication of the Annual Reports, Records, and the Bulletin of the Botanical Survey of India.

The Keeper of the Central National Herbarium at the Indian Botanic Garden, Shibpur is Dr. S.K.Mukerjee; the Systematic Botanist is Dr. J.K.Maheshwari and Curator is Mr. K.Thothathri; in addition the following botanists also work in the Herbarium: Messrs. B.V.Shetty, G.Sen Gupta, N.P.Balakrishnan, and D.C.S.Raju. Dr. J.Sen is the Superintendent of the Indian Botanic Garden; the other officers of the Garden are: Mr. S.N.Mitra (Assistant Botanist), Mr. K.D.Mukherji (Curator), and Mr. S.K.Basu (Assistant Curator).

In the Industrial Section of the Indian Museum there is good collection of the economic plant products of India exhibited in a proper manner. Mr. K.S.Srinivasan is Curator and Mr. V.S.Agarwal is the Assistant Curator.

The Central Botanical Laboratory, which was in Allahabad till June, 1962, has been transferred over to Calcutta. Dr. R.P.Patil is the Botanist and Dr. J.K.Chowdhury and Dr. S.K.Jain are the Plant Physiologist and Economic Botanist respectively in this organisation. The Bio-chemist is expected to join soon. In this Laboratory plants are studied in relation to their systematics, physiology and utility to the nation. The Botanical Survey of India maintains a liaison officer at Kew; in October 1961 Mr. M.Parameswaran Nayar was appointed to the post as the Botanist at Kew.

The Eastern Circle at Shillong covers Assam, including N.E.F.A., Tripura, Manipur, Bhutan and Sikkim. Dr. D.B. Deb is the Systematic Botanist in charge of the Circle and Mr. G.V. Subba Rao is the botanist. A herbarium, museum, and laboratory and the National Orchidarium are situated in Woodlands, Shillong.

The Western Circle at Poona covers the states of Gujerat, Maharashtra, Laccadive Islands and major portion of the Mysore extending up to Hassan and Bangalore; the herbarium, laboratory and museum are located at 7, Koregaon Road, Poona. Further, there is also an experimental garden attached to this circle. Mr. R.S. Rao is the Regional Botanist and Dr. A.S. Rao and Mr. R. Sundarraghavan are the Systematic Botanist and Botanist respectively.

The Northern Circle at Dehra Dun comprises the States of Jammu and Kashmir, Punjab, Delhi, Himachal Pradesh and more than half of Uttar Pradesh. The circle is situated at 63, Rajpur Road, Dehra Dun. Dr. M.A. Rau is the Regional Botanist, Dr. N.C. Nair is the Systematic Botanist and Dr. U.K. Bhattacharya is the Botanist.

The Southern Circle at Coimbatore has under its jurisdiction the States of Andhra Pradesh, Madras, Kerala and the regions of Mysore state below Hassan and Bangalore and the Andaman and Nicobar Islands. Dr. K.M. Sebastine is the Regional Botanist and Mr. J. Joseph is the Botanist. The herbarium, laboratory and museum are located in the Nirmala Buildings, R.S. Puram, Coimbatore. The well-known Madras Herbarium of the Agricultural College and Research Institute is also a part of the Southern Circle of the Survey.

The newly started Central Circle is comparatively large and includes the entire Madhya Pradesh, eastern portions of Uttar Pradesh and Rajasthan. Dr. G. Panigrahi is the Regional Botanist of this Circle.

Exploration work in the States Bihar, Orissa and West Bengal is carried out under the direction of the Central National Herbarium and the Headquarters Organisation of the Botanical Survey of India.

One of the subjects has been the reprinting of the old standard floras like: Flora of the Presidency of Madras by J.S. Gamble & C.E.C. Fischer; Flora of the Presidency of Bombay by T. Cooke; Flora of the Upper Gangetic Plain by J.F. Duthie; Botany of Bihar and Orissa by H.H. Haines and Bengal Plants by D. Prain; except the last, which is expected to be out soon, these books are on sale. These are printed on one size and have a new pagination. They are available at the office of the Chief Botanist, Botanical Survey of India, 14, Madan Street, Calcutta 13, India.

Reviewing the contents of the three numbers, it appears that they contain notes, some revisions (of Calophyllum, for

instance), exploration reports, vegetation analyses, and a news chronicle about symposia, congresses, personalia, research schemes, exhibitions, etc., in a refreshing variety. There are also a number of papers with plants listed from tours. Whether it is worthwhile to continue such lists seems doubtful to me; one could better confine oneself to real noteworthy species found. In vol.2 there is a very large list of medicinal plants, but the use of this list is not very clear.

Dr. S.K.Mukerjee has started a succinct enumeration of Indian Flowering Plants with three small instalments of Ranunculaceae. What is the guiding basis for the acceptance of certain names is not clear and remains unexplained although this is obviously meant as a working list for a future flora of India. I miss, for example, Naravelia laurifolia Wall.ex Hook.f. Each name is provided with the name, synonyms (both with references) and brief outline of distribution, without comments. No reference is made to Eichler's revision of the Malaysian Ranunculaceae (this Bulletin p.673) which should have been cited in a few instances.

Nomenclaturally, there are also notes, but whether these are all correct seems not certain. Das & Majumdar make a new combination for A.punduana Wall. Cat. 1189, nomen, by commenting "nomen, therefore name invalid", replacing it by A.khasyana (Voigt, as Pavia khasyana) Das & Majum. It is not so easy to dispose of Wallich's Catalogue names, because it is well possible that some other botanist has between 1830 and 1851 given a description of the Wallichian name, thereby validating it. And obviously no complete synonymy is given, as in Index Kewensis but not here: Aesculus assamica Griff. Not. 4: 540 is given as a synonym.

Thanks are due to Dr. H.Santapau for the corrections he kindly made in the MS.

C.G.G.J.van Steenis.

#### VARIA

A botanist in the tropics  
is faced with various topics ...  
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Adaptations pure  
In the gardens of hydroptics.