



सत्यमेव जयते

Report

OF THE

Botanical Survey of India

FOR

1951-52.

ANNUAL REPORT OF THE BOTANICAL SURVEY OF INDIA SYSTEMATIC DIVISION FOR THE YEAR 1951-52

The Superintendent, Indian Botanic Garden, Sibpur supervised the work of the Systematic Division at the Herbarium located at Sibpur.

Various teaching and research institutions in India availed themselves fully of the opportunities and facilities presented at the Herbarium at Sibpur for their work, and among them may be mentioned the Council of Scientific and Industrial Research, New Delhi ; Sugar-cane Breeding Station, Coimbatore ; the Dacca University and the Presidency College, Calcutta.

The routine work of mounting, repairing, incorporating, replacing the genus and species covers, numbering and identification of specimens for the various institutions was continued quite satisfactorily. The herbarium also received 707 specimens either by gift or on exchange basis (*vide* Appdx. I).

The herbarium drew as usual a good number of visitors and among the most distinguished visitors may be mentioned, the Prime Minister of India, and some leading scientists from the United Kingdom, Russia and Japan.

Two botanical tours were conducted by the Superintendent to the Eastern Himalayas and about 2000 specimens were collected from forests in the Darjeeling District.

Information on both scientific and economic aspects, relating to the vegetable resources of India, supplied to various research workers and industrialists in India and abroad *inter alia* included notes on nomenclature, distribution and availability of plants and their raw materials, floristic accounts and others (*vide* Appdx. II). In addition materials by way of herbarium sheets, specimens, colour drawings and photos were also supplied to various centres in India and abroad (*vide* Appdx. II).

Studies on "Indian species of *Rhododendron*" and "Distribution of *Primulas* in the Sikkim Himalayas" were carried out in collaboration with the Systematic Assistant. A paper on the "Rajputana Desert Vegetation" which was read at the Symposium organised by the National Institute of Sciences, Delhi, in March, 1952, is also being completed for publications.

A systematic survey, regarding the location of various centres of rose cultivation, climatic conditions prevailing therein, varieties of roses available and their uses and marketing was carried out with the revival of the scheme on "Rose Investigation" on the recommendation of the Board of Scientific and Industrial Research, New Delhi. Much information was collected on

various aspects referred to in the scheme and the work is also continued on the systematic, ecologic and commercial aspects.

The Superintendent addressed the 15th Annual General Meeting of the Botanical Society of Bengal as its President and the 7th Annual Meeting of the Bengal Pharmaceutical Association as the Chairman of the Reception Committee. The Superintendent also delivered one popular lecture on the "Vegetation of Sikkim".

The following articles written by the Superintendent were published during the year :—

- (1) The role of Arboriculture in Ancient & Modern India. In MARCH OF INDIA, Vol. 3, No. 6.
- (2) Plant materials for Soap Industry. In INDIAN SOAP JOURNAL, Vol. 17 & in AMRITA BAZAR PATRIKA, SUPPLEMENT DATED 7-8-1951.
- (3) Friendship between plants and animals. In HINDUSTHAN STANDARD, PUJA NUMBER 1951.
- (4) Possibilities of Drug Cultivation in W. Bengal. In SOAP & COSMETIC JOURNAL SUPPLEMENT. and in AMRITA BAZAR PATRIKA, PUJA NUMBER 1951.
- (5) A note on Cactus plants in India. In POONA ORIENTALISTS, Vol. 15, Nos. 1-4.

"Bharatiya Banaushadi" a book on Indian Medicinal Plants in Bengal was published during the year, under the joint authorship of Dr. K. Biswas (the Superintendent, Indian Botanic Garden) and Shri Ekkori Ghosh. The authors were the recipient of the Rabindra Memorial Prize.

A preliminary note on the Indo-Burmese species of *Grewia* Linn. by Shri V. Narayanaswami and Shri R. Seshagiri Rao, was published in the Journal of the Botanical Society, Vol. XXIV, No. 4.

The Scientific contributions relating to Indian Botany have been numerous and several species new to India have been published (vide Appdx. III).

The demand for Duthie's Flora of the Upper Gangetic Plain and Records of the Botanical Survey of India has been very encouraging. 65

copies of the former and 17 of the latter were sold out, accruing a total revenue of Rs. 130-14-0.

The revised budget estimate for the Systematic Division of the Botanical Survey of India for the year 1951-52 was Rs. 15,000/- which included provisions under Pay and allowances and miscellaneous contingent expenditure.

APPENDIX I

Salient activities connected with the Herbarium, Sibpur

1. No. of specimens mounted in the Herbarium	...	4,281
2. No. of specimens repaired.	...	6,534
3. No. of specimens incorporated.	...	993
4. No. of specimens for which genus covers replaced.	...	1,485
5. No. of specimens for which species covers replaced.	...	1,485
6. No. of specimens numbered.	...	1,757
7. No. of specimens identified.	...	4,253
8. No. of specimens received as gift from Smithsonian Institute, Washington.	...	600
9. No. of specimens received on exchange from Toronto University, Canada.	...	102

APPENDIX II

Notes on Nomenclature supplied in respect of :—

Ephedra, *Elaeocarpus*, *Dryopteris*, *Dicloea*, *Eurycoma*, *Crotoxylon*, *Euonymus*, *Gleditsia*, and on the preparation of the National Code of nomenclature of plants.

On distribution and availability.

Distribution of plants listed above, and distribution and availability of *Musa*, *Derris*, *Ginkgo*, *Aconitum*, *Lobelia*, *Citrus*, *Ferula*, *Piper*, *Opuntia* and 78 Burmese plants, "Locust-bean", "Locust-gum meal".

On cultivation.

Ipecacuanha, *Pyrethrum* and Cocoa.

Miscellaneous.

On Indian Botany and the botany of the Orient ; comments on "Growth of new plants by cross cuttings" ; "Britons to explore Nepal" ; "Search for rare plants in the Himalayas" to Ministry of Agriculture, Government of India ; historical data and other details regarding reprints of jacks Malayan Plants to E. D. Merrill of the Arnold Arboretum.

Economic enquiries attended.

Economic plants of Lahoul and Spiti, essential oil contents of *Micromeria biflora* Benth. Availability of Alginic acid in *Laminaria* and its places

of occurrence. Name and availability of Wild. Dioscoreas in West Bengal. Cultivation of Grapes of Jaipur. Medicinal plants and their uses, eradication of weeds and other aquatic vegetation in irrigation, resevoirs and canals ; Indian substitutes for Hops.

Materials supplied.

Colour drawings—varieties of *Hibiscus cannabinus* Linn.

H. Subdariffa Linn. supplied to Mr. Haarer.

Photos—One Jasmin , { to the Chairman, Essential Oil
Sketches { Committee, Chalaukud.

Specimens—*Crotoxylon polyanthum*, *Desmanthus irgatus* Willd. flower heads flowers of *Adansonia*, *Pachira* and *Vatica*, fruits of *Abroma*, *Physorrhynchua*, Rhizomes of *Musa*. { to research workers in India and abroad.

Herbarium sheets—*Spondias*, *Mahonia*, *Stephania* and *Hippocratia*.

APPENDIX III

List of new Indian species published

Cordia furcans Johnston.

Anaphalis cavei Chatterjee.

Arisaema sikkimensis Chatterjee.

Gutzlaffia fruticosa Chatterjee.

Delechampia burmanica Mukherjee.

Passiflora assamica Chakraborty.

Passiflora burmanica Chakraborty

Artimesia kurramensis Quzilbash

Hubbardia heptaneuron Bor.

Cocos sahnii Kaul.

Filipedium planipedicallatum (Bor) Raizada et Jain.

Onosma chitralicum Johnston.

Onosma khyberianum Johnston.

Onosma hypoleucum Johnston.

Onosma barbigerum Johnston.

Pittosporum Chatterjeeanum Gowda.

Pittosporum Johnstonianum Gowda and several new species of various general of grasses as *Ischaemum*, *Arthraxon*, *Themeda*, *Apocopsis* and a few others by N. L. Bor (Ref. Kew Bull. Nos. 2, & 3, 1931).

ANNUAL REPORT OF THE BOTANICAL SURVEY
OF INDIA, INDUSTRIAL SECTION, INDIAN
MUSEUM, FOR THE YEAR 1951-52

The post of the Director, Botanical Survey of India being not filled up, his duties were discharged by the Curator, in so far as the Industrial Section was concerned. The Curator also served as the ex-officio Trustee in the Board of Trustees', Indian Museum and as its Honorary Secretary throughout the year.

The Industrial Section, Indian Museum continued to exercise its activities in improving, enlarging and servicing its substantial collections of plants and plant products, identification and supply of authentic specimens for research purposes, and participating in educational enterprises. Throughout the year, the restoration and re-organisation of the public Exhibition gallery and the library continued to be the major interest.

Consistent with the economic policies laid down by Government, the acquisition of specimens for the Industrial Section, and books and publications for the library, have been very moderate and selective. Among the noteworthy acquisitions to the Museum may be mentioned, water colour portraits of Economic plants (225), one model of Palmyra palm, one half-finished mat of superfine quality of about 120 counts woven out of Sedge grass (*Cyperus*) from Tinnevely District in South India; wood carvings, agricultural varieties of millets and other economic raw products such as gums, resins, fibres, oil-seeds and medicinal plants. Arrangements were also made during the latter part of the year for the preparation of a "diorama" on Coir Industry.

During the year 25, 578 exhibits were also treated and redisplayed. 4,178 labels were changed and 671 fresh labels were printed. Bengali and Hindi labels were also introduced to a limited number of exhibits.

Six exhibitions were arranged outside, at the requests of learned societies and educational institutions in Calcutta.

Large number of enquiries were attended to and promptly disposed off. The subject matter dealt with *inter alia* included information on crude drugs, their availability in commercial quantities and on various types of plants of economic and other interests. The beneficiaries were both from India and abroad.

Viable seeds of jute were supplied to the college of Agriculture, Nanking, China through UNESCO Officer in Delhi; strains of *Sorghum*, *Pennisetum typodeum* Rich and *Eleusine coracana* Gaertn. were supplied to Dr. Porteras of Museum National D' Historie Naturelle Laboratoire, Paris. In India, viable seeds of *Pithecolobium saman* were distributed to different Forest Departments in U.P., Assam, Bundelkhand and Sikkim at the instance of Government of India. The Assistant Editor, Botany, Council of Scientific and Industrial Research, New Delhi was rendered all possible help in his work connected with the "Wealth of India" publications. Viable seeds of *Brazilian wax palm* and *Cork-yielding oak* were procured from abroad and distributed to various centres in India for experimental trials with a view to explore the possibility of growing and acclimatizing them in India. In this connection it would be interesting to mention that the seedling of *Cow-tree* raised at Bangalore at our instance, has been reported to be progressing well.

In the Herbarium attached to the Industrial Section, over 2,338 herbarium sheets were prepared of phanerogamic and cryptogamic collections. The previous collections received their usual care and maintenance.

In the Library, 995 publications were added and 1,514 index cards were prepared. The manuscript for the printing of a catalogue of books in the library progressed considerably.

Work on Marine Algal flora of India was continued within possible limits. Two illustrated articles, one on Mosses and Moss-like plants, and another on Medicinal plants were contributed by the Curator to the Tamil Encyclopaedia at the request of the Chief Editor of the work, sponsored by the University of Madras.

Two popular lectures were arranged in the annual series of Museum lectures, sponsored by the Trustees of the Indian Museum. In one, the Curator, Industrial Section, Indian Museum delivered a lecture on "Fungi and some aspects of their economic importance" and in the other, Mr. Percy Lancaster, Secretary to the Royal Agri-Horticultural Society of India, Calcutta delivered a lecture on "How to improve beautiful garden plants".

As usual, one demonstration lecture was also arranged for the Honours and Post-Graduate students of the Calcutta University at their request.

The total budget grant for the Industrial Section for the year 1951-52, after re-appropriation was Rs. 69,739/-. Out of this Rs. 69,054/- was spent.

The Trustees' of the Indian Museum also very generously placed at the Curator's disposal a sum of Rs. 11,136/- for restoration of the Gallery. A major portion of this was utilised for the Gallery.

Government of India were pleased to sanction a sum of Rs. 58/- as grants-in-aid for the provision of amenities to clerical staff for the year 1951-52. Out of this Rs. 48/1/- was actually spent on the recreation club started in May 1950

Sd/- K. S. Srinivasan,
Curator,
Industrial Section, Indian Museum,
Calcutta.

