

PREPARATION OF FLORA URSS

FOREWORD

By PROF. V. H. HEYWOOD

The Hartley Botanical Laboratories, University of Liverpool

THROUGHOUT the world many projects to write *Floras*, large and small, have been undertaken this century. That of the *Flora URSS* is outstanding in many ways. It is one of the largest, both in number of species and in the area covered; but the most remarkable fact about it is that it has been successfully completed, despite the cataclysmic changes that have supervened during the thirty-three year period since 1929 when it was begun.

The publication of the concluding thirtieth volume (actually Volume 29) of *Flora URSS* coincides with that of the first volume of *Flora Europaea*, and it is interesting to note that the number of species described in the Soviet work is approximately the same as that estimated for the European *Flora*. Together the two *Floras* will provide

an up-to-date account of the higher plants which grow in the greater part of the temperate northern hemisphere.

In these days when there is considerable interest, not only in science but also in the ways in which science and scientists organize their work, the following account by Prof. Bobrov of the history and details of the planning and execution of the *Flora URSS*, often under conditions in which sheer survival must have been many scientists' main pre-occupation, constitutes an important and fascinating contribution to the history and sociology of science. The thirty volumes of the *Flora URSS* represent not only a major scientific achievement but also testimony to the courage, foresight and tenacity of Soviet botanists.

FLORA URSS

By PROF. E. G. BOBROV

Botanical Institute of the U.S.S.R. Academy of Sciences

THE completion of the *Flora URSS* is a scientific event of great significance not only to botanists of the Soviet Union, but also to those far beyond the limit of our country.

This work took thirty-three years to complete and involved about a hundred authors. But *Flora URSS* was not created from nothing; such a voluminous work was only made possible by two centuries of zealous work by our predecessors. Of especial importance for later work on *Flora URSS* was the scientific activity of B. A. Fedtschenko and V. L. Komarov, two eminent botanists who were both members of the Botanical Institute of the U.S.S.R. Academy of Sciences. B. A. Fedtschenko was curator of the Herbarium at the Leningrad Botanic Garden for almost thirty years and contributed a great deal both to the accumulation and to the excellent arrangement of the collections which formed the material basis for all the work on the *Flora*. V. L. Komarov, whose pupils formed the majority, as well as the most active, of the authors, provided the progressive method of investigation.

In the 1920's these investigators had at their disposal the excellently written, mid-nineteenth century *Flora Rossica* by K. F. Ledebour, but by then considerably out of date, the complete *Flora of Middle and South Russia*, by I. F. Schmalhausen (1895-97); *Flora of the Altai and of Tomsk Province*, by P. N. Krylov (1901-14); and *Flora of European Russia*, by B. A. Fedtschenko and A. T. Flerov (1910-11). The *Key for the Identification of Plants of Middle Russia*, by P. F. Maevskij, should also be mentioned.

Besides these complete *Floras*, there were several incomplete but well-advanced works, the most important being: (1) *The Critical Flora of the Caucasus* (1901-18), the 45 fascicles of which, issued over eighteen years, covered about 15 per cent of Caucasian plants; (2) *Flora of Siberia and of the Far East of the USSR*, the nine fascicles of which covered a still lower percentage of the plants of that area; (3) *Flora of Asiatic Russia*, the fifteen fascicles of which covered an even lower percentage

of the plants. A feature common to all these *Floras* was that, once begun, they scarcely advanced, and were never completed. Nor were there any prospects for their completion, owing to a lack both of authors and of financial resources, and also, in some cases, of factual information. It should be pointed out, however, that this was true not only of the Russian *Floras* but also of the *Flora of North America*, by a consortium of authors, and of the *Central European Flora* of Ascherson and Graebner. The former, after half a century, was only one-third towards completion, and the latter only two-thirds towards completion.

In addition to complete and incomplete *Floras*, there were in the Russian literature several lists of species, the most important being: (1) the list of Caucasian plants (*Flora of the Caucasus*) by V. I. Lipsky, 1899; and (2) *List of the Plants of Turkestan*, by B. A. Fedtschenko, the six fascicles of which (1906-16) covered about two-thirds of the species of Middle Asia.

Thus at the beginning of the 'twenties, the U.S.S.R. had the excellent but very outdated general *Flora Rossica*, several more or less large, complete, regional *Floras*, also considerably outdated, and several incomplete regional *Floras*, in various stages of progress, but without any hope of completion.

It should be remembered that, in the general life of the U.S.S.R., the middle 'twenties marked the end of the period of restoration of the national economy which had been destroyed during the First World War and the subsequent Civil War. In the realm of botany this period was also marked by a considerable upsurge. In the second half of the 'twenties work was started on the *Flora of Western Siberia* (11 volumes), on the *Flora of the Caucasus* (4 volumes) and, at Leningrad Botanic Garden, on the six-volume *Flora of the South-East*, on the three-volume *Flora of Kamchatka* and on the *Key for the Identification of plants of the Far-Eastern Territory*.

In 1929 the First Five Year Plan was published, in which the task envisaged for the Leningrad Botanic Garden was the "partial elaboration of the taxonomy