

ANATOMICAL AND MORPHOLOGICAL VARIABILITY OF RECENT AND FOSSIL LEAVES OF THE GENUS *FAGUS*

by

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Aim. Biometric investigations of the morphological and anatomical variability of the leaves of 8 species of the genus *Fagus* have been carried out, in particular on the variability of size and shape. The aim of this work is to make possible the determination of *Fagus* species in fossil materials.

Materials and methods. Biometric methods were applied both to leaf morphology and to the anatomical structures (epidermal cells, course of nerves, and shape of leaf margins), 12 morphological characters of leaves and 11 anatomical characters were measured. The material included herbarium specimens of leaves of *Fagus sylvatica* L., *F. orientalis* Lipsky, *F. crenata* Blume, *F. japonica* Maxim., *F. grandifolia* Ehrh., *F. longipetiolata* Seemen., *F. lucida* Rehder. The results of measurements are represented by means of Jentys-Szaferowa's graphical method (3).

Results. The ratio of the arithmetical means of the characters of leaves demonstrated great differences between the leaves on long shoots and those on short shoots in each of the 8 *Fagus* species.

In the genus *Fagus* there are essential differences in the morphology of leaves between 7 species and the European *Fagus sylvatica* L. The leaves of *F. orientalis* and *F. grandifolia* resemble the East Asiatic species in size and shape. The results of anatomical investigations confirm, on the whole, the results of morphological investigations.

References

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