

REFERENCES

- DIEZ, J. L., GONZÁLEZ-FERNÁNDEZ, A., LÓPEZ-SÁEZ, J. F.: Mechanism of mitotic synchronization induced by 5-aminouracil. — *Exp. Cell Res.* **98** : 79–81, 1976.
- GICHNER, T., ONDŘEJ, M., LIM EN SE, VELEMÍNSKÝ, J.: The effects of methyl methanesulphonate on mitosis and chromosomes of excised barley embryos. — *Biol. Plant.* **18** : 397–400, 1976.
- LANDOVÁ, B., ONDŘEJ, M.: The growth of isolated barley embryos under different conditions. — *Biol. Plant.* **21** : 27–34, 1979.
- JAKOB, K. M., TROSKO, J. E.: The relation between 5-aminouracil-induced mitotic synchronization and DNA synthesis. — *Exp. Cell Res.* **40** : 56–67, 1965.
- MIELIN, B. J.: A technique for the sterile culture of germinating barley embryos. — *J. exp. Bot.* **20** : 805–809, 1969.
- NOVÁK, F. J., SCHWAMMENHÖFEROVÁ, K., ČIHÁLÍKOVÁ, J., ONDŘEJ, M.: Partial synchronization of cell division in root meristem induced by 5-aminouracil. — *Biol. Plant.* **21** : 51–56, 1979.
- PRENSKY, W., SMITH, H. H.: The mechanism of 5-aminouracil induced synchrony of cell division in *Vicia faba* root meristems. — *J. Cell Biol.* **86** : 293–401–414, 1965.
- SCHUEERMAN, W., KLAFKE-LOBSTEN, G.: Einfluss von 5-Aminouracil auf einzelnen Stadien des Zellteilungszyklus. — *Ber. deutsch. bot. Ges.* **86** : 293–299, 1973.
- SCHWAMMENHÖFEROVÁ, K., ONDŘEJ, M.: Kinetics of the mitotic cycle of isolated barley embryos. — In: NOVÁK, F. J. (ed.): Use of Tissue Cultures in Plant Breeding. (Proc. Int. Symp. 6. — 11. Sept. 1976, Olomouc, Czechoslovakia). Pp. 607–617. Czechosl. Acad. Sci., Inst. Exp. Bot., Praha 1977.

BOOK REVIEW

VAKHRAMEEV, V. A., DOBRUSKINA, I. A., MEYEN, S. V., ZAKLINSKAYA, E. D. (ed.): *PALAEOZOISCHE UND MESOZOISCHE FLOREN EURASIENS UND DIE PHYTOGEOGRAPHIE DIESER ZEIT.* — VEB Gustav Fischer Verlag, Jena 1978. M 69.—/79.—.

The second edition of the comprehensive palaeo-phytogeographical work by Russian palaeobotanists has been published in German translation in the German Democratic Republic. It brings a detailed analysis of the differentiation of Eurasiatic extinct floras in time and space since the Devonian to the Early Tertiary.

Besides general problems of palaeochronology, palaeoclimatology, sociology and evolution the book contains the characteristics of the main phytogeographical units according to the stages of development, together with a large body of new information (incl. references till 1973) on palaeofloristics in Eurasia. The value of the book lies not only in the large amount of data it gathers but particularly in authors' critical discussions and views which are based on their own experience and intimate knowledge of ancient floras of the U.S.S.R.

Among the necessary preconditions of reliable phytogeographic studies the authors rightly stress a detailed taxonomic research of as many local floras as possible. The situation is so far not satisfactory in some geological periods. The chapters on Permocarboniferous floras, for example, offer far more convincing conclusions than those concerning the Upper Cretaceous, for the taxonomy of early Angiosperms (and also the Conifers of this period) is not yet well understood and needs further extensive revisions. The reasons mentioned above might cause the discrepancies between the suggested phytogeographical schemes of the Upper Cretaceous based on megafossils and those based on palynology.

The authors claim the drift hypothesis as the most logical explanation of the Late Palaeozoic and Mesozoic phytogeography. (In this view it seems surprising that the palaeofloristic regions, provinces and the boundaries are constructed on maps with the present configuration of continents).

The book provides in a concise form a great deal of information indispensable for palaeobotanists and palaeontologists. As a source of reference it will be also of interest to botanists dealing with phytogeography and plant history as well as to geologists working in palaeogeography and palaeoclimatology.

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