

PALAEONTOLOGICAL APPLICATION OF NEW COMPUTERIZED
VALUATING METHODS /DECORANA AND TWINSPAN/

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The present paper introduces two multivariate techniques designed primarily for ecologists and phytosociologists, at present applied by palaeolimnologists all over the world. The author used them in palaeoecological interpretation of diatom assemblages come from bottom sediments of lake Balaton /fig. 1./.

The detrended correspondence analysis /Decorana/ is the improved variation of the earlier reciprocal averaging methods. It gives a spectacular ordination of samples according to their diatom content /fig. 3. a-b./. The species ordination /fig. 4./ can be interpreted together with the other method /Twinspan/.

The two-way indicator species analysis /Twinspan/ is a polythetic divisive method of classification. It's most significant new feature is that the program first constructs a classification of the samples based on repeated dichotomization and then uses this classification to obtain a classification of the species according to their ecological preferences. The result is the arranging data in an ordered two-way table /fig. 5./, shown the two kinds of classification with their quantitative relation.

The introduced methods could be applied well in the other field of palaeontology.