

KADEN, N. N. [Moscow State University, USSR] *Fundamental problems of evolutionary carpology*— . A morphogenetic classification of fruits should reflect the course of development of the fruit, the characteristic organ of angiosperms, and give material for the creation of, and verification of, existing phyla of the phylogenetic systems.

2. Carpological classifications that have been published as genetic are very general ones and do not include all the fruits (Takhtadjan) or keep the artificially separated groups, having carpo-ecological rather than morphogenetic significance (Winkler, Guşuleac, Levina).

3. It is necessary to study the fruits by morphological, ontogenetic, teratological, anatomical and other methods, single out the small carpological types embracing natural groups of forms and present probable ways of evolution of these types.

4. The morphogenetic classification should be based in the first place on the construction of the gynoecium, from which a fruit is formed and, in the second

place, on the adaptive fruit characters for both seed protection and dissemination.

5. The terminology should be correlated with the contemporary problems of carpology. Such names as 'capsule', 'stone-fruit', 'berry' include a great number of heterogeneous fruits and cannot be accepted for a creation of the morphogenetic system. It is necessary to reinstate in carpology terms 'rhegma', 'sterigma', 'coenobion', etc., and to accept the types like 'legumen', 'caryopsis', etc., that cover certain related fruit groups having a common origin.

6. Such terms proposed by A. L. Takhtadjan, as 'inferior paracarpous berry', 'superior syncarpous capsule', etc., may be temporarily preserved, but only until one finds proper names for smaller types including fruit groups similar in origin.