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Proceedings of the  
**AOSA-SCST SEED  
BIOSYSTEMATICS SYMPOSIUM**  
Auditorium Campus Center, University of Massachusetts  
Amherst, Massachusetts  
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# AOSA-SCST SEED BIOSYSTEMATICS SYMPOSIUM

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## INTRODUCTORY REMARKS

*Charles R. Gunn,<sup>1</sup> Chairman*

Even though seeds play a significant role in human lives, morphological characters of seeds and one-seeded fruits generally have been neglected by biosystematists. In floras and monographs, seeds are usually treated briefly, if mentioned at all. This lack of use is surprising, because seed characters are usually stable and little influenced by edaphic factors. This symposium is dedicated to seed analysts who know that seed characters have diagnostic value and who routinely conduct seed identifications.

The following six papers bring together diverse methods of recording and utilizing seed biosystematic data. Dr. Delorit introduces us to the uses of color photography to capture the beauty and intricate external topographic features of seeds. Mrs. Wiseman has selected delicate line drawings to illustrate seeds recently included in the Federal Seed Act. Most of these seeds are poorly known by seed analysts and technologists. Dr. Mulligan depicts seeds of *Brassica* spp. and *Sinapis* spp. at 500 X using the scanning electron microscope. At this magnification, seed coats may be compared and contrasted, using characters unavailable with light microscopy. Dr. Gunn is concerned with nonpictorial identification of seeds. His work with codification and use of seed descriptors in data banking a conversational computer will result in mechanical identifications of isolated seeds. The last two papers are presented by scientists who use seed identification in their research. Dr. Kaplan discusses the use of the flotation method for the recovery of seeds (and other organic remains) from archeological sites. Seeds which often pass through conventional screens provide a new and useful source of data about the people who inhabited these sites. These data are particularly important when one considers the close relationship between humans and seeds. Dr. Tiffney traces lineages of seeds to their origins, using their fossil record. In a remarkable and thorough discussion of fossil seeds and fruits, Dr. Tiffney calls our attention to the need for more comprehensive seed collections and seed biosystematic research.

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