

# THE SOCIETY FOR ECONOMIC BOTANY

**PROFESSOR DANIEL ZOHARY**

**2003 DISTINGUISHED ECONOMIC BOTANIST**



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## **INTRODUCTION**

**BY BARBARA PICKERSGILL**

It is a pleasure and privilege to introduce to you one of the most versatile economic botanists of our generation as the Society for Economic Botany's Distinguished Economic Botanist for 2003. Daniel Zohary defies characterisation. He has researched and published in many of the fields with which our Society is concerned, from crop evolution to plant breeding and from study of past diversity to conservation of the diversity that remains to us.

Professor Zohary has been well placed to make his seminal contributions. Like the late Jack Harlan, another of our Distinguished Eco-

nomical Botanists, with whom he collaborated productively, Daniel Zohary is the famous son of a famous father. Michael Zohary had an unrivalled knowledge of the flora of Israel and its environs. His son took advantage of being based in one of the cradles of agricultural origins to apply himself to the study of cultivated plants and their wild relatives in this botanically rich region.

Daniel completed his undergraduate and Master's studies at The Hebrew University of Jerusalem. He then went to study for a Ph.D. under Professor G.L. Stebbins at the University of California, Berkeley. That must have been one of the most exciting places in the world for a young botanist, just two years after the publication of

Stebbins' classic *Variation and Evolution in Plants*. Daniel learned from his mentor a competence in chromosome cytology and genetics and a fascination with evolution in all its manifestations. Like Stebbins, Daniel Zohary has the ability to throw off ideas like a Catherine wheel throws off sparks, so that conversation with him sends one away with a plethora of ideas for new research projects. Again like Stebbins, Daniel Zohary has remained active in research at an age when lesser botanists have retired. Many septuagenarians have given up attempting to cope with the alphabet soup of RAPDs, AFLPs, SSRs, ISSRs etc. in the rapidly developing field of molecular evolution. But Daniel, in the 3<sup>rd</sup> edition of his immensely useful book *Domestication of Plants in the Old World* (co-authored with the German archaeobotanist Maria Hopf), incorporates the most recent findings from molecular biology. The most lengthy section of his c.v. (other than his extensive list of publications) is the one on "current interest and research activity."

Daniel's Ph.D. thesis was on a polyploid complex in the grass family. When he returned to lecture in Genetics at The Hebrew University of Jerusalem, where he has remained throughout his professional career, it was therefore natural that he should turn to the study of wild and domesticated polyploids in the wheat group. His vision of a modified genome coexisting alongside a conserved genome in each of the tetraploid complexes explained some of the confusing patterns of variation in this group. His ability to study these taxa in the field led to an appreciation of their ecology. He has applied this most valuably to interpretation of the early archaeo-

logical record of both wheat and barley, where the lines between wild, exploited, cultivated and domesticated are often hard to draw. He has engaged in collaborative studies on the population structure and genetic diversity of these wild cereals. These provide vital background to the formulation of programmes for *in situ* conservation. This is a topic currently close to Professor Zohary's heart and one to which he has contributed by collaborating in a catalogue of the wild relatives of cultivated plants native to Europe.

Professor Zohary has extended his studies from the grass family to ornamentals, to fruit trees (where he developed a novel concept of vegetative propagation as a means of instant domestication) and to vegetables (where he helped to develop techniques for seed propagation of that traditionally vegetatively propagated crop the globe artichoke and hence opened the way to its improvement by conventional plant breeding). Along the way, he has found time to publish on many little-studied plants, such as olives and pistachios, and on the role of human selection in the evolution of sheep and goats under domestication.

Others would perhaps pick other highlights from a list of publications spanning exactly 50 years, but maybe this brief tribute is sufficient to demonstrate how well deserved is Professor Zohary's recognition as our Distinguished Economic Botanist for 2003. We are delighted and honoured to have him with us in person to receive this award.

—Barbara Pickersgill, University of Reading,  
P.O. Box 221, Reading RG6 6A5, United Kingdom.  
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