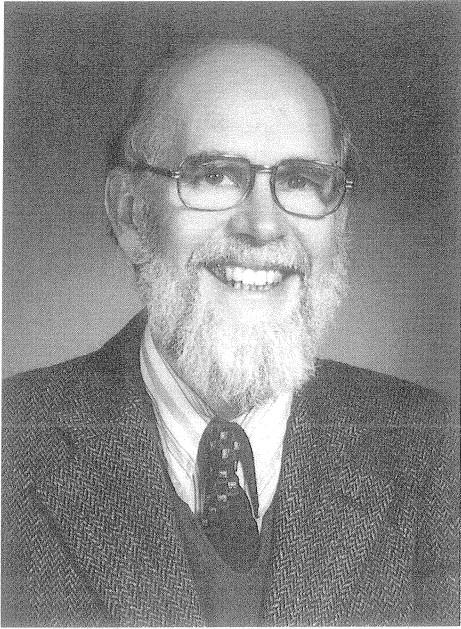


Professor Otto Thomas Solbrig



Date of Birth: December 21, 1930

Nationality: USA

Position: Bussey Professor of Biology,
Harvard University

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Biology, Harvard University
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Education and Career:

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| 1950-1954 | Student of Agronomy, University of La Plata, Argentina |
| 1959 | Ph.D., University of California, Berkeley, USA |
| 1959-1966 | Assistant, then Associate Curator, Gray Herbarium, Harvard University |
| 1966 | Associate Professor, University of Michigan, Ann Arbor |
| 1967 | Professor, University of Michigan, Ann Arbor |
| 1969- | Professor of Biology, Harvard University |
| 1975-76 | Guggenheim Fellow, Carnegie Institution, Stanford, Cal. |
| 1978-83 | Director of the Gray Herbarium and Supervisor of the Bussey Institution |
| 1983-84 | Visiting Professor, Department of Biology, Universidad de Los Andes, Mérida, Venezuela |
| 1984- | Bussey Professor of Biology, Harvard University |

Awards and Distinctions:

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| 1961 | Cooley Prize of the American Society of Plant Taxonomy |
| 1967 | Congressional Antarctic Medal |
| 1974 | Fellow, American Academy of Arts and Sciences |
| 1979 | Willdenow Medal, Berlin Botanical Gardens |
| 1993 | Silver Medal, Universidad Complutense de Madrid |
| 1994 | Leadership Award, IUBS, Paris |
| 1996 | Fellow, Third World Academy of Sciences |
| 1997 | Doctor in Agronomy, honoris causa, Argentina |

Academic Achievements:

Dr. Solbrig has been for over 40 years at the vanguard of research in the fields of biodiversity, plant taxonomy and population biology, and has contributed immensely to the advancement of biodiversity science. His achievements, obtained through keen powers of observation and analysis and highly systematic research approach, have been compiled in numerous original papers and scientific reviews.

Man's modern life style has caused dramatic transformations in the global environment, exerting an overbearing impact on its biodiversity. Dr. Solbrig was among the first researchers to emphasize the importance of a global and integrated approach to this problem. Under the International Biological Program (IBP), planned and organized by the International Union of Biological Sciences (IUBS), Dr. Solbrig conducted research on the "Convergence and Divergence of Ecosystems," comparing ecosystems in North and South America, and directed its following-up "Decade of the Tropics" program, exerting an enormous influence on the development of biodiversity research. Furthermore, Dr. Solbrig provided a conceptual framework for the implementation of DIVERSITAS, an international program of biodiversity science cosponsored by IUBS, the Scientific Committee on Problems of the Environment (SCOPE), UNESCO, International Council of Scientific Unions (ICSU), and other international organizations. In the development and successful implementation of numerous other international research projects as well, his contributions have been immeasurable. Books written and edited by Dr. Solbrig have gone through several editions, translated into different languages, and used as essential reference by various international agencies.

Dr. Solbrig's wide-ranging research in the fields of taxonomy, population biology and ecology led him to realize it inadequate to perceive biodiversity as a mere community or mosaic of species and to, thus, emphasize the adoption of a comprehensive method of research that incorporates all components of biodiversity from the gene level to the individual, population, ecosystem levels. This idea exerted a determinant influence on the development in biodiversity research. Moreover, he pointed out the unpredictability of biodiversity due to the complexity, dynamicity and chaoticity inherent in biological systems. Through his field studies on savanna ecosystems, he found that the structure and function of ecosystems are maintained by the diversity of their component organisms, and thus showed the major role of diversity in the sustaining of ecosystems.

The achievements of his research on savanna ecosystems have had a widespread influence not only on biology itself but on other fields such as agriculture, economics and politics as well. Based on the non-equilibrium theory of species coexistence, which asserts that savanna ecosystems can undergo unpredictable changes as they contain a human component, he has proposed the setting of flexible measures that accord to the unique conditions of specific ecosystems for land use and agricultural cultivation. Further-

more, in a world that is experiencing a transformation from primitive, natural-resource-dependent farming to large-scale modern agriculture, he advocates conservation agriculture through the use of techniques that satisfy the requirements of both high productivity and environmental integrity.

Dr. Solbrig has over the years continuously taken research initiatives on the origin and evolution of plant diversity. Combining field work with theoretically based experimental studies, he has conducted taxonomical, cytological and population biology research on the family Asteraceae and the genus *Viola*, contributing immensely to the advancement of biodiversity science. As the researcher to first apply isozyme analysis to research on genetic variation of plant, he elucidated the processes and mechanisms by which the genus *Taraxacum*, the common dandelion, adapts itself through genetic modifications to different environmental situations. Dr. Solbrig's theoretical and experimental studies on life history strategies and on phylogenetic speculation through various phylogenetic analyses are highly esteemed as "classical" work in these fields. In addition to such highly originaive research, he has also written various textbooks, which offer valuable guidance in the study of the fields of plant taxonomy and population biology. In one of them, he demonstrated a research agenda for pursuing the processes and factors of speciation, the source of biodiversity. This textbook, which has been translated into various languages including Japanese, received acclaim for introducing a totally new approach on taxonomy.

In conclusion, Dr. Solbrig has obtained outstanding achievements in his studies of the relationship between biodiversity and global environmental changes, and between biodiversity and the structure and function of ecosystems. Adopting an integrated, global view of the subject, he has been a leading scientist in international academic circles and has organized and directed various international collaborative projects on biodiversity research.