

Dr. Peter Hamilton Raven



Date of Birth: June 13, 1936

Nationality: American

Address:

Missouri Botanical Garden
P.O. Box 299, St. Louis
MO 63166-0299, U. S. A.

Present Position:

Director, Missouri Botanical Garden and
Engelmann Professor of Botany at Washing-
ton University

Education & Career:

- 1957 A. B. (highest honors), University of California, Berkeley
- 1960 Ph. D., University of California, Los Angeles
- 1960-61 National Science Foundation Postdoctoral Fellow
- 1961-62 Taxonomist and Curator, Rancho Santa Ana Botanic Garden, Claremont
- 1962-71 Assistant, then Associate Professor, Stanford University
- 1969-70 Senior Research Fellow, New Zealand Department of Scientific and Industrial Research
- 1969-70 John Simon Guggenheim Memorial Fellow
- 1971- Director, Missouri Botanical Garden

Scientific Awards:

- 1970 A. P. DeCandolle Prize, Geneva
- 1977 Award of Merit, Botanical Society of America
- 1979 Willdenow Medal, Berlin Botanical Garden
- 1982 International Environmental Leadership Medal, United Nations Environmental Programme

Academic Affiliation:

- U. S. National Academy of Sciences (1977) ; Council, 1983-86
- Governing Board, National Research Council, 1983-86
- Foreign Member, Royal Danish Academy of Sciences and Letters (1980-)
- Foreign Member, Royal Swedish Academy of Sciences (1982-)
- Honorary Member, Royal Society of New Zealand (1984-)
- Foreign Member, Linnean Society of London (1984-)

Representative Works:

Biology of Plants. Worth Publishers, Inc. (with H. Curtis). xi+706pp. 1970. Second Ed., 1976 (with R. Evert & Curtis). Third Ed., 1981. Fourth Ed., 1986.

Coevolution of Animals and Plants. University of Texas Press, Austin and London. xiii+246pp. Gilbert, L. E. and P. H. Raven (eds.). 1975. Revised edition, 1981.

The Genus *Epilobium* (Onagraceae) in Australasia : A Systematic and Evolutionary Study. New Zealand Department of Scientific and Industrial Research Bulletin 216. 321pp. (with T. E. Raven). 1976.

Topics in Plant Population Biology. Columbia University Press, New York. xvii+589pp. Solbrig, O. T., S. Jain, G. B. Johnson, and P. H. Raven (eds.). 1979.

Biology. C. V. Mosby Publishers (with G. Johnson). xxx+1198pp.

(Many others)

Academic achievements of Dr. Peter H. Raven

1. Advancement of taxonomical and evolutionary studies of plants

Through thirty years of studies of the Onagraceae, carried out in conjunction with scientists all over the world, Dr. Raven succeeded in bringing this family a model of plant evolutionary study better known in the information available in comparative morphology, comparative embryology, cytotaxonomy, chemotaxonomy, phytogeography and so on than any family of comparable size. More than 100 papers on this family work towards a multidimensional treatment of the family suitable for making it an evolutionary model on many levels. Current macromolecular studies of him with many collaborators promise to shed even more light on relationships within the family. Dr. Raven consistently advanced the idea that plant populations were effectively very small and that most criteria for species are, therefore, in general, not generally applicable; these theoretical papers have helped to bring about a merger between population biology and plant systematics, evolution, and ecology, and he has been instrumental as well in establishing the new fields of co-evolutionary biology and plant population biology. The evolutionary significance of natural hybridization, catastrophic selection, and pollination ecology, to name but three problem areas, is appreciated today largely as a result of Dr. Raven's studies.

2. Dissemination of plant taxonomy and systematics

Dr. Raven has contributed and is contributing much towards the dissemination of plant taxonomy and systematics through publications and scientific papers, pointing out controversial issues in the contemporary plant taxonomy and exercising favorable impacts on the development in the relevant fields as well as in the biological sciences at large. "Biology of Plants" first published in 1970 (fourth edition, 1986) has been translated into 18 languages and reputed worldwide as a good guide to the actual status of botanical sciences. "Biology" which has just been published in 1986 and introduces the present-day biology from the viewpoint of evolutionary biology is also a good reference for those interested in biology in general.

3. Coordination of individual research activities and administrative services

Equally impressive are his contributions in science administration, the promotion of research in tropical biology, and the conservation of tropical forests. He has served as a spokesman for the significance of herbarium and museum resources for floristic research, and he has assumed a major leadership role in promoting conservation of tropical resources and wise stewardship of the plant wealth of the tropics. His record of collaboration attests to a remarkable ability to engage, motivate, and challenge people in a wide range of productive enterprises.