
Curriculum Vitae Prof. Dr. Sir Peter R. Crane



Name: Sir Peter R. Crane
Born: 19. Juli 1954

Main areas of research: Macroevolution of plants, paleobotany, conservation of biodiversity, strategic planning for non-profit organizations, special museums and botanical gardens around the world

Sir Peter R. Crane is an influential paleobotanist and evolutionary biologist. By making comparisons between fossils and the living plants of today this British researcher was able to obtain fundamental insights into the evolution of land plants and the development of a diversity of species. As the Director of the Field Museum of Natural History in Chicago and the Royal Botanic Gardens in Kew he was actively involved in initiatives to protect biodiversity.

Academic and Professional Career

- since 2016 Founding president, Oak Spring Garden Foundation in Upperville/VA, USA
- 2009 - 2016 Dean and professor for botany, School of Forestry and Environmental Studies, Yale University in New Haven/CT, USA
- 2006 - 2009 Marion and John Sullivan Professor in the Department for Geophysical Sciences, University of Chicago/IL, USA
- 1999 - 2006 Director, Royal Botanic Gardens in Kew, UK
- 1992 - 1999 Vice president, then director of the Field Museum of Natural History in Chicago/IL, USA
- 1991 - 1992 Director of the Department for Geology, Field Museum of Natural History in Chicago/IL, USA
- 1982 - 1992 Curator for paleobotany in the Department for Geology, Field Museum of Natural History in Chicago/IL, USA

1981 - 1982 Postdoc, Indiana University in Bloomington/IN, USA
1981 PhD, Biological Faculty, University of Reading, UK
1978 - 1981 Lecturer for botany, University of Reading, UK
1975 BSc, University of Reading, UK

Functions in Scientific Societies and Committees

2007 - 2009 Board member of the Missouri Botanical Garden in St. Louis/MO, USA
2005 - 2007 Board member of the World Wide Fund For Nature (WWF), UK
2005 - 2006 Member of the international council of the botanical gardens of Singapore
2004 - 2007 Curatorial member of the Royal Parks Agency, UK
2004 - 2006 President of the Palaeontological Association, UK
2002 - 2004 Council member of the Royal Society, UK
2001 - 2006 Council member of the nature conservation organization Plantlife, UK
2000 - 2007 Board member of the Lovaine Trust, UK
2000 - 2006 Member of the international council of the Field Museum of Natural History in Chicago/IL, USA
2000 - 2006 Druce Committee, Department of Plant Sciences, University of Oxford, UK
2000 - 2006 Board member of the Botanic Gardens Conservation International BGCI, UK
2000 - 2003 Council member of the Smithsonian Institution in Washington D.C., USA
2000 - 2002 Council member of DIVERSITAS (International Biodiversity Observation Year IBOY)
1999 - 2006 Board member and chair of the Bentham-Moxon Trust, UK
1999 - 2006 Board member of the Foundation and Friends of the Royal Botanic Gardens, UK
1999 - 2002 Board member of the Royal Botanic Gardens Enterprises, Ltd., UK
1998 - 2009 Council member of the National Museum of Natural History / Smithsonian Institution in Washington D.C., USA; 2003 - 2009: Chair of the Science Committee
1998 - 2000 President of the Paleontological Society in Baltimore, USA
1998 Member of the President's ad hoc Committee, Harvard University, USA
1990 - 1993 Member in the management committee of the Botanical Society of America, USA
1988 - 1993 Deputy chair, Association of North American Paleontological Societies, USA

Project Coordination, Membership in Collaborative Research Projects

- since 2014 National Science Foundation (NSF): "Exceptionally well-preserved Early Cretaceous seed plants from Mongolia" (Co-Principal Investigator)
- 1998 - 2000 National Science Foundation (NSF): "Patterns of Morphological Evolution in Late Paleozoic Seeds" (Co-Principal Investigator)
- 1996 Andrew W. Mellon Foundation: "Rapid Reference Herbarium at The Field Museum: The Development of a Conservation Resource"
- 1997 - 1999 National Science Foundation (NSF): "Assessing Cretaceous Vegetational Change - Palynological, Mesofossil and Macrofossil Evidence"
- 1994 - 1998 National Science Foundation (NSF): "Training for Undergraduates in Collection-based Analysis of Biological Diversity"
- 1991 - 1992 National Science Foundation (NSF): "Major Patterns in the Phylogeny of Flowering Plants - Floral Development and Relationships Among Basal 'Non-magnoliid' Dicotyledons"
- 1990 - 1994 Petroleum Research Fund, American Chemical Society: "Global Patterns of Cretaceous Vegetational Change"
- 1991 - 1993 National Science Foundation (NSF): "Systematics Floral Structure and Reproductive Biology of Mid-Cretaceous Magnoliid Angiosperms"
- 1988 - 1989 National Science Foundation (NSF): "Acquisition of New Scanning Electron Microscopy Facilities at Field Museum of Natural History"
- 1988 - 1990 National Science Foundation (NSF): "Floral Structure and Systematics of Mid-Cretaceous Angiosperms"
- 1987 - 1989 National Science Foundation (NSF): "Support for the Care and Use of the Systematic Collection of Mazon Creek Fauna and Flora"
- 1987 - 1990 National Science Foundation (NSF): "Support for Care and Use of the Systematic Collection of Mazon Creek Fossil Animals and Plants" (Co-Principal Investigator)
- 1984 - 1987 Linnean Society and British Museum: "Fieldwork, southeastern Spain"

Honours and Awarded Memberships

- 2014 International Award for Biology of the Japanese Society for Promotion of Science (JSPS)
- since 2010 Member of the Connecticut Academy of Sciences
- since 2008 Member of the American Academy of Arts and Sciences
- 2006 Centennial Award of the Botanical Society of America

Nationale Akademie der Wissenschaften Leopoldina
www.leopoldina.org

since 2005	Member of the Royal Society of Arts and Science in Göteborg, Sweden
2004	Knighthood by Queen Elizabeth II.
since 2004	Member of the German National Academy of Sciences Leopoldina
2001	Hutchinson Medal of the Chicago Botanical Garden
since 2002	Member of the Royal Swedish Academy of Sciences
since 2001	Member of the US National Academy of Sciences
1998	Henry Allan Gleason Award of the New York Botanical Garden
since 1998	Fellow of the Royal Society
1993	Charles Schuchert Award of the Paleontological Society
1984	Bicentenary Medal of the Linnean Society of London
1983	Presidents' Prize of the Palaeontological Association ("best presentation by a researcher under 30")

Main Research Interests

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Crane's work is guided by the conviction that knowledge of the past is essential for understanding the present – and vice-versa. This integrative approach is especially evident in his studies concerning the evolution of flowering plants ("angiosperms"), the sudden appearance of which in the Cretaceous Period around 140 million years ago had already caused Charles Darwin a great deal of consternation. Crane relied both on fossil plant material as well as living plants of today in order to find basic patterns among all the diversity. Up until then paleontology and comparative morphology were for the most part separate disciplines.

Crane's orientation towards so-called "cladistics" had an enduring effect in that it paved the way for the use of new methods in his field. Cladistics is based on the evolutionary theory of closed descent communities ("clades") and attempts to categorize organisms based on their shared derived characteristics, the search for which includes fossil plants and those of their offspring that are still living today. Even though the question of how flowers, carpels, stamens and other characteristic attributes of angiosperms could take form in such a relatively short period of time cannot be answered to this day, Crane was nonetheless able to provide a much clearer picture of their diversification – even accounting for the immense diversity of plants that comprises around 400,000

species on our earth.

For Crane, actively working for the conservation of natural resources and biodiversity was simply the logically consistent thing to do. He was thus the driving force behind the establishment of the Office of Environmental and Conservation Programs at the Field Museum of Natural History in Chicago. The founding of "Chicago Wilderness", an umbrella organization of more than 200 groups engaged in nature protection and biodiversity conservation, was also a result of his commitment.

Crane's strategic farsightedness could be attributed to his having been named Director of the Royal Botanic Gardens in Kew, one of the most important botanical gardens in the world. Under his leadership, the Kew Gardens were placed on the UNESCO World Cultural Heritage List. The yearly number of visitors increased dramatically, not least because of his intense public relations work. The setting up of electronic databanks allowed researchers from all over the world free access to the Royal Botanic Gardens' existing inventories. Sir Peter Crane was knighted in 2004 in recognition of his vast experience and contributions to botany and to the conservation of biodiversity. He is also sought out for consultation by numerous botanical gardens, universities, and other institutions, not only in Great Britain and the USA but also in, among others, Switzerland, Austria, Italy, The Netherlands, Canada, South Africa, Australia, Japan, Singapore, North Korea and China.