

Emeritus Professor Louis Charles Birch

The honorary degree of Doctor of Science was conferred upon Emeritus Professor Louis Charles Birch by the Chancellor Dame Leonie Kramer AC DBE at the Faculty of Science graduation ceremony held at 4.00pm on 11 May 2000.

Citation

Chancellor, I have the honour to present Louis Charles Birch for the conferring of the degree of Doctor of Science (*honoris causa*).

Professor Birch held the Challis Chair of Biology in the University of Sydney from 1960-1984. From his initial appointment to the University in 1948, he was promoted to a Readership in Zoology, a position he held from 1954-1960. He graduated from the University of Melbourne in Agricultural Science, and with a doctorate in Science from Adelaide University. He also studied at the Universities of Columbia, Oxford and Chicago. He has been a visiting Professor at the University of California (Berkeley), of Zoology at the University of Minnesota, and at Sao Paulo, Brazil.

Charles Birch has made two major and enduring contributions to the science of ecology. Professor Birch's first major insight grew out of his entomological research. He demonstrated that external processes, driven by weather and other types of disturbance, were extremely important in controlling the numbers and distribution of animals. This was a radical challenge to dominant prevailing views that populations were self-regulating and that competition for resources prevented numbers increasing. Birch's contribution culminated in the synthesis developed in his famous 1954 book, written with H.G. Andrewartha of Adelaide, *The Distribution and Abundance of Animals*. This book was a bible for a generation of ecological students and still influences many areas of ecology. He introduced the teaching of animal ecology to Australia in 1954.

His second contribution stemmed from his interests in philosophy and ethics, and particularly his views on pan-psychism. This theory proposes that all types of life share consciousness and, therefore, have considerable intrinsic value. In ecological science, the theory seems to have stimulated Professor Birch to re-examine Darwin's view that all animals live in a web of complex interactions. Thus, every species is influenced in complex ways by all the other species in its environment. Charles Birch's theory was well ahead of its time and has recently been the focus of considerable theoretical and experimental work.

When he was a student, Birch developed an interest in philosophy, in the hope of reconciling his Christian faith with science. At that time, and later at the University of Chicago, he was influenced by the thinking of the philosopher A.N. Whitehead, biologists, including Sewall Wright, and two of the most prominent Protestant theologians of the time, Reinhold Niebuhr and Paul Tillich.

In Sydney, he became Deputy Master of Wesley College and worked for many years with the Reverend Ted Noffs at the Wayside Chapel. Through International House, he assisted in the resettlement of refugees and other immigrants in Australia. In the 1960s, he worked actively against Australia's involvement in Vietnam and the drafting of young men for service in that war.

Charles Birch's science and philosophy came together in pioneering work on economic and ecological sustainability, which led to his becoming Vice Chairman of the Science, Technology and Environment Unit at the World Council of Churches from 1970 to 1984, and his election to the Club of Rome in 1974. He has been an influential writer and speaker in this area ever since.

Professor Birch has been associated with the Center for Process Studies at Claremont, California since its foundation in 1973, and is on the Editorial board for its academic journal, dedicated to the work of Whitehead and Hartshorne. He is a founding member of the Australasian Association for Process Thought.

In 1990, Charles Birch was awarded the Templeton Prize for progress in religion. He donated part of the proceeds of the prize to establish the annual Templeton Lecture at the University of Sydney, under the auspices of the Centre for the Human Aspects of Science and Technology. This generous gift has brought a succession of distinguished speakers to Sydney.

Charles Birch's distinction in research is matched by his outstanding skills as a teacher. His enthusiasm for learning, his provocative views on a range of subjects, and the forcefulness of his exposition of theories and ideas has stimulated and encouraged generations of students. Those qualities are manifested in his many publications, such as *Confronting the Future* (1975), *Genetics and the Quality of Life* (1975), and *The Liberation of Life* (1981).

Through his writing, teaching and public speaking, he has drawn attention to the interaction of science and religion, and their influence in shaping our attitudes to the world about us. He has demonstrated the value

and excitement of scientific thinking to a wide audience through his exceptional skill as a communicator.

Chancellor, I have much pleasure in presenting Louis Charles Birch for admission to the degree of Doctor of Science (honoris causa) and I invite you to confer the degree upon him.