

## Obituary

### Professor E. O. Wilson, nicknamed ‘Darwin’s Natural Heir’ is no more

*“He was a true visionary with a unique ability to inspire and galvanize. He articulated, perhaps better than anyone, what it means to be human”.*

- David J Prent,

Chairman of the Board, EO Wilson Biodiversity Foundation

Professor Edward Osborne Wilson, who passed away recently (Dec 26, 2021) was a path-breaking American entomologist (myrmecologist to be precise). He consistently extended the scope of his theories to cover all organisms including humans. His research has extended deep into other realms of science, sometimes with provocative results. His life and work are an inspiration for all biologists and naturalists, and especially so for entomologists. A summary of his early life and his outstanding contributions are briefly mentioned in this obituary.

Edward Wilson was born on June 10, 1929, in Birmingham, Alabama and grew up in various towns of the Southern United States. His parents divorced when he was just seven and in the same year Wilson blinded himself in one eye in a fishing accident. He did not seek medical treatment and the lens of his right eye had to be removed after a few months due to development of cataract. From childhood, Wilson was deeply interested in the natural world. But damage to his depth perception because of the eye injury, and the onset of partial deafness during his adolescence limited his ability for observing birds. Nevertheless, he

could easily notice small insects in fine detail with his 20/10 vision in the left eye. His natural explorations then drew him to the fascinating world of ants (Ruse, 2021).

Wilson obtained his early training in biology at the University of Alabama (BS 1949, MS 1950). After receiving a doctorate in biology (Taxonomy of ant genus *Lasius*) at Harvard University in 1955, he worked for nearly his entire professional life at the same university. Prof. Wilson was a member of the biology faculty (1956-76), Frank B. Baird Professor of Science (1976-94), Mellon Professor of Sciences (1990-93), Pellegrino University Professor (1994-97) and University Research Professor Emeritus (1997-2021) at Harvard. In addition, he served as curator in entomology at the Harvard Museum of Comparative Zoology (1973-97).

Prof. Wilson described 40 new species of ants and made important discoveries in pheromonal communication in ants. Wilson was a prolific and brilliant writer who wrote more than 30 books. Among his early works was the book, *The Theory of Island Biogeography* (1967), written with Robert H

MacArthur, in which they examined how species rise and fall to attain species equilibrium in isolated islands. *The Insect Societies* (1971) provided a comprehensive picture of the ecology, population dynamics and social behaviour of ants and other social insects.

He extended his theories of insect behavior to cover all organisms in his controversial book *Sociobiology: The New Synthesis* (1975), a systematic study of the biological basis of social behavior in animals including humans. He proposed that such behavior is conditioned by the genes, environment and past experiences. With this seminal work, he founded the new discipline of sociobiology and came to be known as the ‘**Father of Sociobiology**’. The ideas on humans were further explored in his later books- *On Human Nature* (1978) and *Genes, Mind and Culture: The Coevolutionary Process* (1981). The former won him his first Pulitzer Prize for General Non-fiction in 1979.

In 1990, he along with Bert Holldobler produced a comprehensive treatise on the systematics, biology, and behavior of ants entitled *The Ants*, which won him another Pulitzer Prize (in 1991) along with Holldobler and also earned him the nickname of ‘**Ant Man**’. This was followed by another monumental work, *The Diversity of Life* (1992), wherein he sought to explain how the world’s living species became diverse and examined the massive species extinctions

caused by anthropogenic activities. His autobiography, *The Naturalist* (1994) traced the trajectory of his life- from a childhood spent in exploring the Gulf Coast of Alabama and Florida to life as a tenured professor at Harvard.

In his later career, Wilson increasingly turned to religious and philosophical matters. In *Consilience: The Unity of Knowledge* (1998), he strove to demonstrate the interrelatedness of sciences and humanities and ultimately the origins of all human thought. In *Creation: An Appeal to Save Life on Earth* (2006), he developed further the evolutionarily informed humanism he had explored earlier in *On Human Nature* (Famous Scientists, 2021).

Wilson received more than 150 prestigious awards and medals around the world and was an honorary member/ fellow of more than 30 world renowned and prestigious organizations, academies and institutions. Two of his books – *The Insect Societies* and *Sociobiology: The New Synthesis* were honoured with the Science Citation Classic award by the Institute for Scientific Information. The Royal Swedish Academy which awards the Nobel Prize, awarded Prof. Wilson the Crafoord Prize (1990), an award designed to cover areas not covered by the Nobel Prizes. The Council of Scientific Society Presidents conferred Dr Wilson with the Carl Sagan Award (1994) for Public Understanding of Science. Wilson was

recognized as one of the Time Magazine's Most Influential People in America (1995). He was declared as the Humanist of the Year by the American Humanist Association (1999).

The EO Wilson Biodiversity Foundation ([eowilsonfoundation.org](http://eowilsonfoundation.org)) was established in 2005 to honour Dr EO Wilson, one of the most distinguished and recognized American scientists in modern history for his lifetime of pioneering scientific work in biology.

Wilson won the TED prize in 2007 for fulfilling a wish to positively impact life on this planet. Dr Wilson said, "I wish that we will work together to help create the key tool that we need to inspire preservation of Earth's biodiversity the Encyclopedia of Life". The Encyclopedia of Life ([eol.org](http://eol.org)) was launched in February 2008 with 30,000 entries with an aim to create a web page for every living organism on the planet. It now has trait data for more than 1.999 million species and higher taxa.

Professor Wilson proposed the most ambitious biodiversity conservation project called the Half-Earth Project to be implemented by the EO Wilson Biodiversity Foundation. The book, *Half Earth: Our Planet's Fight for Life* (2016) proposes an achievable plan to serve our imperiled biosphere. It calls for devoting half the surface of the Earth to nature to stave off the mass extinction of species including our own.

The Biodiversity Foundation brought together a team consisting of educators, writers, media artists, 3D animators and textbook professionals led by naturalist Edward O. Wilson to create a cultural landmark- a portal that introduces students to the grandest story there is, the story of life on earth. The iBook *E. O. Wilson's Life on Earth* (2014) is authored by Wilson with Morgan Ryan and Gael McGill and is available for free download from the iBook Store (Apple) (E. O. Wilson Biodiversity Foundation, 2021).

On the demise of Prof. Wilson, Paula Ehrlich, President of EO Wilson Biodiversity Foundation and Co-founder of Half-Earth Project described him as "a relentless synthesizer of ideas, his courageous scientific focus and poetic voice transformed our way of understanding and our planet". Several generations of students, researchers and professors have felt inspired by the writings, research and lectures of Prof. Wilson. He always encouraged his students and young researchers to spend time in nature to find researchable problems, which would fascinate them. The best tribute to him would be to work for the fulfillment of his ideas on biodiversity conservation and human advancement.

## References

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