Renowned Oceanographer Walter Munk to Receive Crafoord Prize

Royal Swedish Academy of Sciences to recognize Munk's lifetime of research achievement with geosciences prize

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Scripps Institution of Oceanography, UC San Diego scientist Walter Munk, often referred to as the world's "greatest living oceanographer," added to a long list of career honors today when the Royal Swedish Academy of Sciences announced his receipt of the Crafoord Prize, which is given each spring to researchers who have made major advancements in their branches of science.

The academy recognized Munk "for his pioneering and fundamental contributions to our understanding of ocean circulation, tides and waves, and their role in the Earth's dynamics."

Munk said he found out about the award through a phone call Wednesday evening and described himself as "enormously pleased."

In its citation, the academy noted Munk's contributions to several areas of oceanography, but especially to the understanding of circulation and tides: "The great adventure of exploring the world's oceans took place largely in the latter half of the 20th century, when new technology and novel methods of remote analysis had become invaluable tools for oceanographers. This year's Crafoord Prize Laureate, Walter Munk, is a person who, in his work of explaining ocean circulation, tides and waves, and their role in our planet's dynamics, moved in the absolute forefront of science throughout this period. In particular, Munk's grasp of the tide's significance on various scales is crucial to his scientific oeuvre."

The prize committee also recognized Munk's contributions to other fields such as biology and astronomy that were not even fully appreciated until several decades after he performed his original work.

"In 1960, thanks to his geophysical approach, Munk was able to describe irregularities in the Earth's rotation in a way that was, at the time, entirely new," the academy said. "He discussed polar movement and variations in the Earth's rotation speed on various timescales and was able to show that, over a century or more, the friction of the tide is what most affects the Earth's rotation, by causing its gradual deceleration. Nowadays, the consequent gradual lengthening of the Earth's day is taken into account in the calculation of Coordinated Universal Time (UTC), with the addition of an extra 'leap second' in certain years."

Winners of the Crafoord Prize receive $500,000. The prize fund was established in 1980 by a donation to the Royal Swedish Academy of Sciences from Anna-Greta and Holger Crafoord. The Crafoord Prize was awarded for the first time in 1982 and recognizes achievement in astronomy and mathematics and biosciences in addition to geosciences. Each discipline is recognized annually in rotating fashion. The prize also periodically recognizes achievement in the field of polyarthritis.

The award ceremony will take place in Stockholm on May 11.

Munk received a Ph.D. in oceanography in 1947 from Scripps Institution of Oceanography and has spent his entire professional career at Scripps. In 1947 he became an assistant professor. In 1954 he became a professor of geophysics and also was named a member of the University of California's Institute of Geophysics, and, in 1960, he established a branch of the institute on the Scripps campus in La Jolla, Calif. Until 1982, he served as director of the Scripps branch and as an associate director of the university-wide institute, which was renamed the Institute of Geophysics and Planetary Physics (IGPP). Munk's association with IGPP continues to this day.

Munk has won numerous awards during his research career. He received the National Medal of Science in 1983 and the 1999 Kyoto Prize in Basic Sciences for his fundamental contributions to the field of oceanography, the first time the prize was awarded to an oceanographer. In 2001, he was the inaugural recipient of the Prince Albert I Medal in the physical sciences of the oceans, which Prince Rainier of Monaco created in cooperation with the International Association for the Physical Sciences of the Oceans.

Munk is the first researcher from Scripps Oceanography to win the Crafoord Prize.

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