Owen Brian Toon is a Professor in the Department of Atmospheric and Oceanic Sciences, and the Laboratory for Atmospheric and Space Physics, at the University of Colorado, Boulder. I have investigated the causes of the ozone hole, how volcanic eruptions alter climate, why an asteroid impact caused the extinction of dinosaurs, how ancient Mars had flowing rivers, how Earth remained habitable for four billion years, and the environmental impacts of nuclear war. I have published more than 300 papers in scientific journals, and am one of the most highly cited researchers in Geoscience. I led ten NASA aircraft field missions; received two NASA medals for Exceptional Scientific Achievement; the American Physical Society's Leo Szilard Award for Physics in the Public Interest (for work on nuclear winter); the American Geophysical Union's Roger Revelle Medal; the American Meteorological Society's Rossby Research medal; and contributed to the U.N.'s Nobel Peace Prize for climate change.

I am interested in the mysteries of the natural world. As I have learned more about the Earth, the planets and the universe I have found a growing number of puzzles and surprises. In many ways we are at the peak of discovery. Satellites have now visited all the planets in our solar system, and examine every location on Earth daily. Geologists have told us the ancient Earth is almost as different from the current one as is Mars. Looking forward we expect the Earth and humans to evolve in many ways. Trying to understand the past and predict the future provides endless challenges.