

From Kirkus Reviews (October 1, 2007)

Impey, Chris (a starred review)

THE LIVING COSMOS: Our Search for Life in the Universe

Lively, clear and up-to-date overview of astronomy, cosmology, biology and evolution, specifically as related to the search for extraterrestrial life. Since hard evidence for life on other planets is holding steady at zero, Impey (Astronomy/Univ. of Arizona) follows the accepted course by giving readers a history of almost everything even tenuously relevant. He begins with the Big Bang, describing the formation of the universe and the nature of life itself. Then he recounts the history of life on Earth, moving on to explore the possibility of environments that support earthlike creatures elsewhere in the cosmos and paying special attention to extreme environments that might support odd forms of life. Readers will perk up to learn that living organisms on Earth thrive at freezing temperatures typical of Mars, in settings as hot and dry as Venus and at the bottom of the ocean in the absence of light and oxygen. In fact, the debate over whether life exists elsewhere in the universe now generates only modest controversy, since it turns out microorganisms can live almost anywhere. Scientists expend far more energy arguing about the conditions necessary for complex creatures like human beings. Higher life forms may require less extreme temperatures, a rocky, earthlike planet possessing an atmosphere and a sun not much different from ours-or they may not, the author hastens to add. Anyone fascinated by this subject probably has a layperson's familiarity with science, but Impey is taking no chances. Better-informed readers will probably skim his basic introduction to Einstein, Darwin, DNA and the mechanics of evolution. Despite occasionally succumbing to the "science is really fun!" tendency by including silly educational anecdotes, he does an impressive job explaining an avalanche of information, including such recent major discoveries as the first planets found orbiting distant stars. A skillful account of the universe, the nature of life and where in the universe life might occur.