

1. Record Nr.	UNINA9910253900903321
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Titolo	Species Concepts in Biology : Historical Development, Theoretical Foundations and Practical Relevance // by Frank E. Zachos
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	9783319449661
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XII, 220 p. 5 illus., 1 illus. in color.)
Disciplina	577
Soggetti	Biodiversity Evolutionary biology Biology—Philosophy Environment Evolutionary Biology Philosophy of Biology Environment, general
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to the species problem -- A brief history of species concepts and the species problem -- The metaphysics, or ontology, of species: classes, natural kinds or individuals?-An annotated list of species concepts -- Species concepts and beyond – selected topics relating to the species problem -- Species delimitation: discrete names in a continuous world with fuzzy boundaries -- The practical relevance of species concepts and the species problem -- A brief summary of the book -- Glossary -- References -- Index.
Sommario/riassunto	Frank E. Zachos offers a comprehensive review of one of today's most important and contentious issues in biology: the species problem. After setting the stage with key background information on the topic, the book provides a brief history of species concepts from antiquity to the Modern Synthesis, followed by a discussion of the ontological status of species with a focus on the individuality thesis and potential means of reconciling it with other philosophical approaches. More than 30 different species concepts found in the literature are presented in an

annotated list, and the most important ones, including the Biological, Genetic, Evolutionary and different versions of the Phylogenetic Species Concept, are discussed in more detail. Specific questions addressed include the problem of asexual and prokaryotic species, intraspecific categories like subspecies and Evolutionarily Significant Units, and a potential solution to the species problem based on a hierarchical approach that distinguishes between ontological and operational species concepts. A full chapter is dedicated to the challenge of delimiting species by means of a discrete taxonomy in a continuous world of inherently fuzzy boundaries. Further, the book outlines the practical ramifications for ecology and evolutionary biology of how we define the species category, highlighting the danger of an apples and oranges problem if what we subsume under the same name ("species") is in actuality a variety of different entities. A succinct summary chapter, glossary and annotated list of references round out the coverage, making the book essential reading for all biologists looking for an accessible introduction to the historical, philosophical and practical dimensions of the species problem.

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