

1. Record Nr.	UNINA9910779267703321
Autore	Simpson Stephen J
Titolo	The nature of nutrition [[electronic resource] ] : a unifying framework from animal adaptation to human obesity // Stephen J. Simpson and David Raubenheimer
Pubbl/distr/stampa	Princeton, : Princeton University Press, 2012
ISBN	1-280-49403-4 9786613589262 1-4008-4280-8
Edizione	[Course Book]
Descrizione fisica	1 online resource (260 p.)
Classificazione	ZE 40000
Altri autori (Persone)	RaubenheimerDavid <1960->
Disciplina	612.3
Soggetti	Nutrition Nutrition - Research Animal nutrition Adaptation (Physiology) Bioenergetics Physiology, Experimental Obesity Energy metabolism
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Frontmatter -- Contents -- Acknowledgments -- One. Nutrition and Darwin's Entangled Bank -- Two. The Geometry of Nutrition -- Three. Mechanisms of Nutritional Regulation -- Four. Less Food, Less Sex, Live Longer? -- Five. Beyond Nutrients -- Six. Moving Targets -- Seven. From Individuals to Populations and Societies -- Eight. How Does Nutrition Structure Ecosystems? -- Nine. Applied Nutrition -- Ten. The Geometry of Human Nutrition -- Eleven. Perspectives -- References -- Index
Sommario/riassunto	Nutrition has long been considered more the domain of medicine and agriculture than of the biological sciences, yet it touches and shapes all aspects of the natural world. The need for nutrients determines whether wild animals thrive, how populations evolve and decline, and

how ecological communities are structured. *The Nature of Nutrition* is the first book to address nutrition's enormously complex role in biology, both at the level of individual organisms and in their broader ecological interactions. Stephen Simpson and David Raubenheimer provide a comprehensive theoretical approach to the analysis of nutrition--the Geometric Framework. They show how it can help us to understand the links between nutrition and the biology of individual animals, including the physiological mechanisms that determine the nutritional interactions of the animal with its environment, and the consequences of these interactions in terms of health, immune responses, and lifespan. Simpson and Raubenheimer explain how these effects translate into the collective behavior of groups and societies, and in turn influence food webs and the structure of ecosystems. Then they demonstrate how the Geometric Framework can be used to tackle issues in applied nutrition, such as the problem of optimizing diets for livestock and endangered species, and how it can also help to address the epidemic of human obesity and metabolic disease. Drawing on a wealth of examples from slime molds to humans, *The Nature of Nutrition* has important applications in ecology, evolution, and physiology, and offers promising solutions for human health, conservation, and agriculture.

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