1. Record Nr.	UNINA9910777079803321
Autore	Shipley Bill <1960->
Titolo	Cause and correlation in biology : a user's guide to path analysis, structural equations, and causal inference / / Bill Shipley [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2000
ISBN	1-107-12154-X 1-280-43001-X 9786610430017 0-511-17348-2 0-511-01772-3 0-511-15255-8 0-511-32339-5 0-511-60594-3 0-511-04681-2
Descrizione fisica	1 online resource (xii, 317 pages) : digital, PDF file(s)
Disciplina	570/.1/5195
Soggetti	Biometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references (p. 308-315) and index.
Nota di contenuto	Cover; Half-title; Title; Copyright; Dedication; Contents; Preface; 1 Preliminaries; 2 From cause to correlation and back; 3 Sewall Wright, path analysis and d-separation; 4 Path analysis and maximum likelihood; 5 Measurement error and latent variables; 6 The structural equations model; 7 Nested models and multilevel models; 8 Exploration, discovery and equivalence; Appendix; References; Index
Sommario/riassunto	This book goes beyond the truism that 'correlation does not imply causation' and explores the logical and methodological relationships between correlation and causation. It presents a series of statistical methods that can test, and potentially discover, cause-effect relationships between variables in situations in which it is not possible to conduct randomised or experimentally controlled experiments. Many of these methods are quite new and most are generally unknown to

biologists. In addition to describing how to conduct these statistical tests, the book also puts the methods into historical context and explains when they can and cannot justifiably be used to test or discover causal claims. Written in a conversational style that minimises technical jargon, the book is aimed at practising biologists and advanced students, and assumes only a very basic knowledge of introductory statistics.