

1. Record Nr.	UNINA9910746081603321
Autore	Chen Xinjun <1967->
Titolo	Application of Gray System Theory in Fishery Science // edited by Xinjun Chen
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-9906-35-0
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (175 pages) : illustrations (black and white, and color)
Disciplina	639.2
Soggetti	Freshwater ecology Marine ecology Computer simulation Computer science - Mathematics Freshwater and Marine Ecology Computer Modelling Mathematical Applications in Computer Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 Introduction -- Chapter 2 Processing method of the original data -- Chapter 3 Grey correlation analysis -- Chapter 4 Grey Clustering Analysis -- Chapter 5 Grey System Modeling -- Chapter 6 Grey Prediction -- Chapter 7 Grey decision-making -- Chapter 8 Grey Linear Programming -- Chapter 9 Grey Dynamic Control.
Sommario/riassunto	This book reviews the gray system and combines its latest research results in fishery science. The chapters cover the basic concept and theory of gray system, original data processing and gray sequence generation, gray correlation analysis, gray cluster analysis, gray system modeling, gray prediction, gray decision-making, and gray linear programming. The theory of gray system is a new cross-sectional discipline founded in 1982 by Professor Deng Julong, a well-known scholar in China. In recent decades, it has not only been deepened and expanded in theory but also widely used in the fields of society, economy, ocean, agriculture, fishery, and other fields, and made a series of significant scientific achievements. These have laid the foundation for the important position of the gray system theory. Due to

the great uncertainty of the fishery resources and the fishery environment involved in the fishery science system, which is completely different from the natural resources on the land, the data and information belong to the category of “poor information”, and the variability and uncertainty are greater than other natural resources. As an extremely effective analytical method and tool, gray system theory has been applied increasingly in fishery science. The book is developed based on well-read and practical literature and will help scientists and research units engaged in scientific research and teaching in fishery science and related fields to develop new research methods and tools. .
