

1. Record Nr.	UNINA9911019985603321
Titolo	Geostatistics for estimating fish abundance // J. Rivoirard ... [et al.]
Pubbl/distr/stampa	Oxford ; ; Malden, MA, : Blackwell Science, 2000
ISBN	9786611320935 9781281320933 1281320935 9780470757123 0470757124 9780470756881 0470756888
Descrizione fisica	1 online resource (216 p.)
Altri autori (Persone)	RivoirardJacques
Disciplina	333.95/611 639.2015195
Soggetti	Fish stock assessment Geology - Statistical methods
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 (p. [191]-198) and index.
Nota di contenuto	Geostatistics for Estimating Fish Abundance; Contents; Preface; 1 Introduction; 2 Data Collection and Preparation; 2.1 Survey design; 2.2 Measurement of fish density; 2.3 Preparation of data for analysis; 3 Geostatistical Methods; 3.1 Introduction: basic hypotheses; 3.2 Structural analysis; 3.3 Global abundance, variance and mapping; 4 Case Studies; 4.1 Herring in a fjord system: acoustic survey; 4.2 Young fish surveys; 4.3 North Sea herring acoustic surveys; 4.4 North Sea herring acoustic survey trawl data; 4.5 Cod in the Barents Sea in autumn: trawl survey 4.6 Blue whiting on the continental shelf slope in spring: acoustic survey5 Simulation Studies; 5.1 Robustness of variography; 5.2 An investigation into the effect of fish movement on abundance, variography and variance derived from surveys; 5.3 Comparison of some survey designs; 6 Recommendations and Guidelines; 6.1 Recommendations for survey design; 6.2 Scope of geostatistical

techniques; 6.3 Guidelines; Bibliography; Appendix A: Brief Guide to Literature; Appendix B: Review of Geostatistical Computer Software; Index

**Sommario/riassunto**

Geostatistics is a branch of spatial statistics that was originally developed for the mining industry. The technique is now widely recognised as an important tool for the estimation of the abundance and distribution of natural resources. However, new developments have been required to extend its application to fisheries science, particularly in variogram estimation. This important new title describes the fundamentals of geostatistics in terms more familiar to life-scientists, and uses case studies on seven commercially important fish stocks to demonstrate its application to fisheries survey data.