

1. Record Nr.	UNINA9910830838803321
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Titolo	Geostatistics for Estimating Fish Abundance [[electronic resource]]
Pubbl/distr/stampa	Hoboken, : Wiley, 2008
ISBN	1-281-32093-5 9786611320935 0-470-75712-4 0-470-75688-8
Descrizione fisica	1 online resource (216 p.)
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Disciplina	333.95/611 639.2015195
Soggetti	Fish stock assessment Animal Sciences Agriculture Earth & Environmental Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
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
