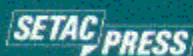


Population-Level Ecological Risk Assessment

Most ecological risk assessments consider the risk to individual organisms or organism-level attributes. From a management perspective, however, risks to population-level attributes and processes are often more relevant than risks to individual organisms. Despite many published calls for population risk assessment and the abundance of available scientific research and technical tools assessing risks to populations, risk assessors worldwide still have difficulty determining how to integrate population level considerations into environmental decision-making. This book is the first comprehensive analysis of available information to improve the quality and interpretation of population-level ecological assessments. Developed by scientists representing academia, government, and industry from 10 countries; it combines a unique breadth and depth of experience.

Population-Level Ecological Risk Assessment establishes a framework for goals, methods, and data needs for different assessment applications and for integrating population-level risk assessment into risk management decisions. Highlighting key considerations needed to improve the quality and interpretation of assessments, this book—

- Offers specific recommendations for using this tool to support environmental management decisions
- Gives clear, explicit, operational population assessment definitions and explains the relevance of density dependence, genetics, and spatial considerations
- Describes a "tool box" of empirical and modeling methods
- Highlights the general approaches, assumptions, data requirements, and strengths and limitations of each method.
- Provides a foundation for designing and conducting population-level ecological risk assessments
- Includes detailed appendices and a supplemental reading list



www.setac.org
Environmental Quality Through Science®

Administrative Offices

SETAC Office
Ave. de la Toison, d'Or 67
B-1060 Brussels, Belgium
T 32 2 772 72 81
F 32 2 770 53 86
E setac@setaceu.org

SETAC Office
1010 North 12th Avenue
Pensacola, FL 32501-3367 USA
T 850-469-1500
F 850-469-9778
E setac@setac.org

53329

ISBN 1-4200-5332-9



9 781420 053329

6000 Broken Sound Parkway, NW
Suite 300, Boca Raton, FL 33487
270 Madison Avenue
New York, NY 10016
2 Park Square, Milton Park
Abingdon, Oxon OX14 4RN, UK

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