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**Book Information** 

# Stable Isotopes in Ecology and Environmental Science

Second Edition

**Edited by:** Robert Michener (Boston University) and Kate LAJTHA (Oregon State University)

Series: Ecological Methods and Concepts

#### Description

This book highlights new and emerging uses of stable isotope analysis in a variety of ecological disciplines. While the use of natural abundance isotopes in ecological research is now relatively standard, new techniques and ways of interpreting patterns are developing rapidly. The second edition of this book provides a thorough, up-to-date examination of these methods of research.

As part of the *Ecological Methods and Concepts* series which provides the latest information on experimental techniques in ecology, this book looks at a wide range of techniques that use natural abundance isotopes to:

- follow whole ecosystem element cycling
- understand processes of soil organic matter formation
- follow the movement of water in whole watersheds
- understand the effects of pollution in both terrestrial and aquatic environments
- study extreme systems such as hydrothermal vents
- follow migrating organisms

In each case, the book explains the background to the methodology, looks at the underlying principles and assumptions, and outlines the potential limitations and pitfalls.

*Stable Isotopes in Ecology and Environmental Science* is an ideal resource for both ecologists who are new to isotopic analysis, and more experienced isotope ecologists interested in innovative techniques and pioneering new uses.

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#### About the Author

**Robert Michener** is the Laboratory Manager of the Boston University Stable Isotope Laboratory and has been running the internationally recognized facility for 18 years. His research interests include aquatic ecology, food web systems, and how stable isotopes can be applied to tracing pollutants, comparing pristine and impacted systems.

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