

# Handbook of Trait-Based Ecology

From Theory to R Tools

**Francesco de Bello**

*University of South Bohemia, Czech Republic*

**Carlos Carmona**

*University of Tartu, Estonia*

**André T. C. Dias**

*Universidade do Estado do Rio de Janeiro*

**Lars Götzenberger**

*Institute of Botany of the Czech Academy of Sciences*

**Marco Moretti**

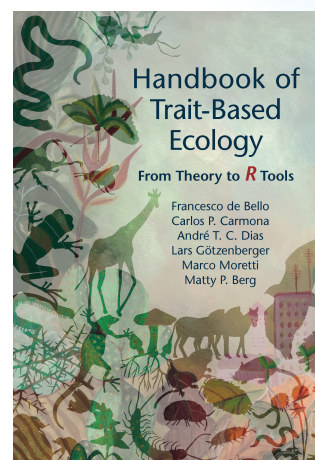
*Swiss Federal Research Institute WSL*

**Matty Berg**

*Vrije Universiteit, Amsterdam*

Functional ecology is the branch of ecology that focuses on various functions that species play in the community or ecosystem in which they occur. This accessible guide offers the main concepts and tools in trait-based ecology, and their tricks, covering different trophic levels and organism types. It is designed for students, researchers and practitioners who wish to get a handy synthesis of existing concepts, tools and trends in trait-based ecology, and wish to apply it to their own field of interest. Where relevant, exercises specifically designed to be run in R are included, along with accompanying on-line resources including solutions for exercises and R functions, and updates reflecting current developments in this fast-changing field. Based on more than a decade of teaching experience, the authors developed and improved the way theoretical aspects and analytical tools of trait-based ecology are introduced and explained to readers.

Preface; 1. General Introduction; 2. Trait Selection and Standardization; 3. The Ecology of Differences: Groups vs. Continuum; 4. Response Traits and the Filtering Metaphor; 5. Community Metrics; 6. Intraspecific Trait Variability; 7. Community Assembly Rules; 8. Traits and Phylogenies; 9. Effects of Traits on Ecosystems Processes and Services; 10. Response and Effect Traits across Trophic Levels; 11. Trait Sampling Strategies; 12. Applied Trait-Based Ecology; References; Index.



## March 2021

244 x 170 mm c.400pp

Hardback 978-1-108-47291-3

Original price	Discount price
£74.99	£59.99
\$99.99	\$79.99

Paperback 978-1-108-46075-0

Original price	Discount price
£34.99	£27.99
\$44.99	\$35.99



[www.cambridge.org/alerts](http://www.cambridge.org/alerts)

For the latest in your field

For more information, and to order, visit:

**[www.cambridge.org/9781108460750](http://www.cambridge.org/9781108460750)**

and enter the code BELLO2021 at the checkout