

A HANDBOOK OF Tropical Soil Biology

Sampling & Characterization of Below-ground Biodiversity

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EDITED BY F.M.S. Moreira,
E.J. Huising & D.E. Bignell

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'This practical manual, written by an accomplished and international team of experts, will help us to unlock further the secrets of the rich tropical soil biota and the generation of tropical soil fertility. It will thereby help us in the conservation and sustainable management of one of the Earth's most valuable assets.'
Goetz Schroth, Conservation International



'This book has been long-awaited...Written by top field researchers, it is almost all-encompassing and of very high quality. It will be the standard handbook for students and practitioners for many years.'
Lijbert Brussaard, professor of soil biology and biological soil quality, Wageningen University, The Netherlands

'A valuable practical teaching resource suitable for universities and research institutions undertaking laboratory and field level studies in tropical soil biology, agriculture and environment. This book will ease a critical shortage of practical handbooks in soil biodiversity in Africa and other tropical areas; a must for teaching and research institution libraries.'
Sheunesu Mpeperekwi, professor of soil science, University of Zimbabwe



This practical handbook describes sampling and laboratory assessment methods for the biodiversity of a number of key functional groups of soil organisms, including insects, earthworms, nematodes, fungi and bacteria. The methods have been assembled and the protocols drafted by a number of scientists associated with the UNEP-GEF funded Conservation and Sustainable Management of Below-Ground Biodiversity Project, executed by the Tropical Soil Biology and Fertility (TSBF) Institute of the International Center for Tropical Agriculture (CIAT).

The methods provide a standardized basis for characterizing soil biodiversity and current land uses in terrestrial natural, semi-natural and agroecosystems in tropical forests and at forest margins. The aim is to assess soil biodiversity against current and historic land use practices both at plot and landscape scales and, further, to identify opportunities for improved sustainable land management through the introduction, management or remediation of soil biota, thus reducing the need for external inputs such as fertilizers and pesticides. The book also contains extensive advice on the handling of specimens and the allocation of organisms to strain or functional group type.

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