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Production: Activities of Heterotrophic Organisms-Microbes;
Introduction
Compounds Being Decomposed Microbial Activities in Relation to
Catabolism in Soil Systems; Microbial Abundance and Distribution in
Soil; Techniques for Measuring Microbial Communities; Direct Measures
of Numbers and Biomass; Indirect Measures of Biomass; Chemical
Methods; The Chloroform Fumigation and Incubation (CFI) Technique;
The Chloroform Fumigation and Extraction (CFE) Technique;
Physiological Methods: SIR Technique; Additional Physiological Methods
of Measuring Microbial Activity; Enzyme Assays and Measures of
Biological Activities in Soils
Direct Methods of Determining Soil Microbial Activity Soil Sterilization
and Partial Sterilization Techniques; Conceptual Models of Microbes in
Soil Systems; Root-Rhizosphere Microbe Models and Experiments; Soil
Aggregation Models; Models: Organism and Process-Oriented;
Summary; 4 Secondary Production: Activities of Heterotrophic
Organisms-The Soil Fauna; Introduction; The Microfauna; Methods for
Extracting and Counting Protozoa; Distribution of Protozoa in Soil
Profiles; Impacts of Protozoa on Ecosystem Function; The Mesofauna;
Rotifera; Features of Body Plan and General Ecology; Nematoda
Nematode Feeding Habits Nematode Zones of Activity in Soil; Nematode
Extraction Techniques; Tardigrada; Microarthropods; Collembola;
Families of Collembola; Population Growth and Reproduction;
Collembolan Feeding Habits; Collembolan Impacts on Soil Ecosystems;
Acari (Mites); Oribatid Mites; Abundance and Diversity of Oribatid
Mites; Population Growth; Oribatid Feeding Habits; Oribatid Impacts on
Soil Ecosystems; Prostigmatic Mites; Mesostigmatic Mites; Astigmatic
Mites; Other Microarthropods; Protura; Diplura; Microcoryphia;
Pseudoscorpionida; Symphyla; Pauropoda; Enchytraeidae; The
Macrofauna
Macroarthropods

Sommario/riassunto

This fully revised and expanded edition of Fundamentals of Soil Ecology continues its holistic approach to soil biology and ecosystem function. Students and ecosystem researchers will gain a greater understanding of the central roles that soils play in ecosystem development and function. The authors emphasize the increasing importance of soils as the organizing center for all terrestrial ecosystems and provide an overview of theory and practice of soil ecology, both from an ecosystem and evolutionary biology point of view. This volume contains updated and greatly expanded coverage of all be
