



Life under the forest: Soil organisms

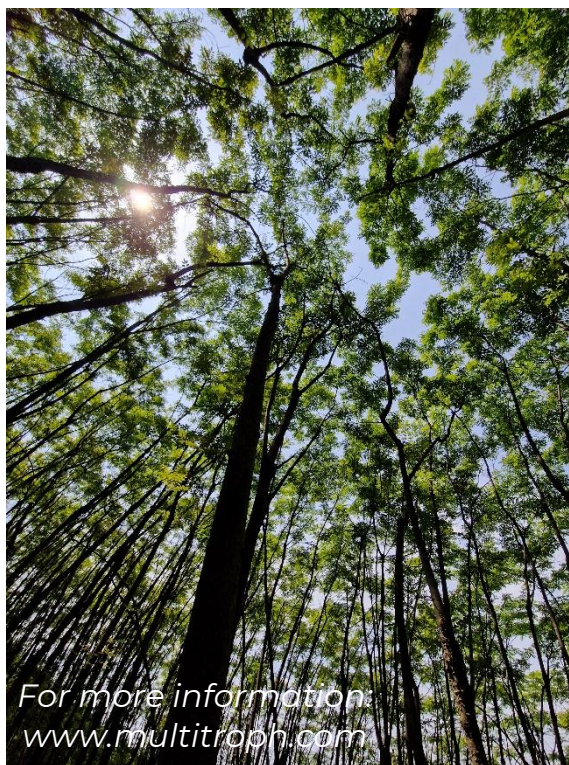
Forest soil is far more than mere dirt beneath our feet, it is a vibrant cradle of life. And countless organisms have evolved intricate relationships to thrive within this hidden world.

With their silent yet essential work, soil-dwelling creatures are indispensable architects of the ecosystem - fostering plant growth, cycling vital nutrients, and sustaining the very foundation of biodiversity.



BEF China

Spanning 50 ha with over 300,000 planted trees, BEF-China is the world's largest biodiversity-ecosystem functioning (BEF) experiment. It is located near Xingangshan, Dexing, Jiangxi Province in southeast China. MultiTroph is a collaborative project uniting researchers from China and Germany to explore how, why and when species loss impacts ecosystem stability across trophic levels.



For more information:
www.multitroph.com

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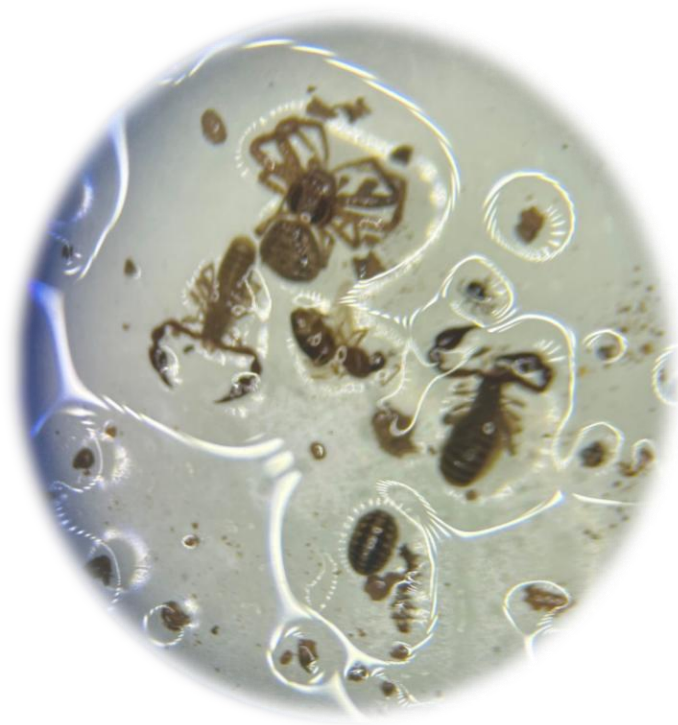
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The great diversity of Xingangshan

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Pseudoscorpions

Pseudoscorpions are named for their resemblance to true scorpions, with well-developed pedipalps ending in pincers. Also known as false scorpions, they differ from true scorpions by lacking a segmented tail and stinger. They are small in size, usually less than 8 mm long, most commonly 3–4 mm. Pseudoscorpions inhabit leaf litter, soil, under bark and stones, and sometimes the nests of mammals. A few species live in caves, and some genera can be found among intertidal seaweed and driftwood. Others may reside between wooden boards or pages of books in buildings.



Fungi, including mushrooms, play a vital role in forest soils. They break down complex organic matter like wood and leaf litter, releasing nutrients for plants. Many form mycorrhizal partnerships with tree roots, enhancing water and nutrient uptake. Fungi are essential decomposers and key players in forest nutrient cycling.



Earthworms are key engineers in forest soils. They feed on decaying leaves, roots, and microorganisms, helping decompose organic matter. As they burrow, they improve soil aeration and structure. Their nutrient-rich castings enhance plant growth, making earthworms essential for nutrient cycling and maintaining healthy forest ecosystems.