

**THE BIOLOGICAL COMPONENT OF SOIL HEALTH: NEMATODES AS FACILITATORS AND BIOINDICATORS. (El componente biológico de salud del suelo: nematodos como facilitadores y bioindicadores).**

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The health of the soil is defined by its physical, chemical and biological characteristics; the three are intimately and intricately interconnected. Soil health is an assessment of the importance of ecosystem services resulting from the biological and behavioral functions of the soil organisms in their current environment. Using nematodes as an example, the three legs of the assessment of the biological component of soil health are: 1. Faunal Analysis - an assessment of habitat quality, soil food web condition, and the nature of ecosystem services available; 2. Metabolic Footprints - assessments of the magnitude of the ecosystem services; and, 3. Functional Diversity - an assessment of the complementarity of ecosystem services across soil microhabitats and of their successional potential in a temporal context. The three assessments of the biological component of soil health are facilitated by the ubiquity and species richness of nematodes, the diversity of their contributions to ecosystem functions, and the ease with which they can be sampled, extracted and identified. Existing datasets will be used to demonstrate potential applications of these assessments. Current and anticipated advances in molecular techniques for determination of nematode abundance, diversity and function will facilitate application of bioindicator-based measures of soil health.