

In: Workshop "Metabarcoding of soil fauna", side-event to the third Annual meeting of *ecoFINDERS*, 10 February 2014, Manchester, UK

### **Metabarcoding in EcoFINDERS: Objectives, current activities and methodological constraints**

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The keystone of the EcoFINDERS rationale is the crucial role of soil biodiversity for the proper functioning of soil ecosystems in order to sustain ecosystem services such as food and fiber production, water retention, and disease control. The project is further unique in recognizing and integrating the fundamental role of both microbes and fauna. Characterizing soil faunal diversity, however, is a true challenge due to the huge number of species and the slow and expert-dependent process of identification of individuals based on morphological characters. One of the objectives of the EcoFINDERS project is therefore to make a significant step forwards towards the establishment of high-throughput molecular assays as a routine for assessing and characterizing faunal diversity. Such approaches (NGS, metagenomics) promise the automated identification of large sets of different groups of soil fauna with a single method. In this workshop we will discuss and assess the state-of-the-art of these methods, their practicalities and pitfalls, their feasibility, their potential of standardization, and their relation to traditional methods of morphological identification.