
Fakultät Umweltwissenschaften, Fachrichtung Forstwissenschaften

Institut für Bodenkunde und Standortslehre, Professur für Bodenressourcen und Landnutzung

Technische Universität Dresden, 01062 Dresden

Topic for MSs Thesis

Soil aggregates as specific microbial habitats

Soil microorganisms play a significant role in aggregate dynamics. On the one hand, they enhance aggregate stability by excretion of extracellular polymeric substances and on the other hand they decompose the organic matter within aggregates important for the sustainability of aggregates. Thus soil microorganisms create physical structure within their habitat, influencing the resultant dynamics of aggregation and are themselves affected by such structure. In this context, the location of microorganisms within the soil matrix seems to be important, especially regarding the formation of microhabitats and their role for the fate of OM. Phospholipid fatty acids (PLFA) are found in living cells and thus are characteristic biomarkers for living microorganisms. The PLFA composition reflects groups of the microbial community.

The task of this MSc thesis will be the identification of microbial community shifts over different aggregate sizes classes.

Supervisor: Cordula Vogel, Prof. Karsten Kalbitz

Contact: Cordula Vogel

cordula.vogel@tu-dresden.de

Tel.: (+49) 35203 38-31805

Prof. Dr. Karsten Kalbitz

Karsten.kalbitz@tu-dresden.de

Tel. (+49) 351 463 31379

Postadresse (Briefe)
Postfach 1117, 01735 Tharandt

Postadresse (Pakete u.ä.)
Piener Straße 19, 01737 Tharandt

Besucheradresse
Sekretariat: Piener Straße 19, 2. Etage, Zi.2.29

Internet
boku.forst.tu-dresden.de/