



Soil fauna – Key to Soil Organic Matter Dynamics and Modelling (KEYSOM)

Workshops, WG and MC Meetings

**Matera, Italy¹
September 24 – 28, 2018**

Meeting Agenda

¹ Adriano Sofo hosting Scuola di Scienze Agrarie, Forestali, Alimentari ed Ambientali, School of Agricultural, Forestry, Food and Environmental Sciences, Università degli Studi della Basilicata, Via dell'Ateneo Lucano n. 10 – 85100 Potenza (Italy)

Sunday, September 23rd

Arrival of participants. A shuttle bus is organized for participants on Sunday evening (departure approximately at 18.00-18.30), considering the arrival times. If you will be more than 8 (cost 15 euros/person) on Sunday afternoon.

For those arriving late there is also local bus company (Autolinee Bucci e Tarantino) operating 365 days/year. Cost is 4 € one-way and it takes 75 min. The bus stop is immediately outside the terminal of arrivals.

Timetable:

From Bari airport (Palese) to Matera (Piazza Matteotti): 9:15 am, 14:40, 15:45, 19:15, 0:30

Form Matera to Bari: 4:55 am, 10:45 am, 13:00, 17:10, 20:35

Monday, September 24th

08:30-09:00 – Welcome and Registration – School of Agricultural, Forestry, Food and Environmental Sciences, Università degli Studi della Basilicata.

09:00-09:15 – Meeting Opening – Juan J. Jiménez & Juliane Filser

Brief update on tasks and activities performed by the four WGs

* Volunteer self-nomination of minute takers for each session, talks and WG meetings

09:15-09:30 – WG1 – State-of-the-art and gap analysis of SOM – soil fauna interactions data – Juliane Filser

09:30-10:00 – WG2 – Soil fauna and SOM interaction modelling (I) – Sébastien Barot

10:00-10:15 – WG2 – Soil fauna and SOM interaction modelling (II) – Gaby Deckmyn



10:15-10:30 – WG3 – Database and metadata on soil fauna and SOM interaction – Davorka Hackenberger & Paul H. Krogh

10.45-11.10 Coffee break

11:30-11:45 – WG4 – Dissemination and knowledge management – Paulo Sousa & María J. I. Briones

11:45-12:25 – Invited speaker talk: “An approach for modelling contribution of soil fauna in soil organic matter formation: model Romul_Hum” – Prof. Oleg Chertov, University of Applied Sciences Bingen, Germany.

12:25-13:00 – Comments, questions and issues raised in the morning session.

13.00-14.30 Lunch

14:30-16:00 – Juliane Filser – KEYSOM field study– Common experimentation protocol (update) –;
– Achievements to date – list of participating institutions; current state of analyses samples (earthworm taxonomy, metagenomics, isotope analyses, NIRS, etc.)
– Limitations and constraints of practical experiences thus far;
– Pending activities and sampling (time table)

15.45-16:05 Coffee break

16:10-17:00 – Aline Frossard – Metacomp experiment linked to KEYSOM (preliminary results).

Tuesday, September 25th

09:00-09:45 – Participant contributions to the different activities

- Briefings from each participant (2 min max) and contributions to the different papers (leading authors and sections) including STSMs;
- STSM call during the 4th period – host institutions, candidates.

09:45–10:00 – Discussion: what needs to be done? next steps.

10.45-11.00 Coffee break

11:00-13:00 – Field experimentation working group meeting (J. Filser and participants involved)

13.00-14.30 lunch

14:30-16:00 – Working groups meeting.

16.00-16.20 Coffee break

16:20-17:20 – Working groups meeting

17:30-19.30 – Guided tour in Matera (geomorphological and anthropological aspects of the Sassi area): Starting point at University of Basilicata – San Rocco (venue of the meeting).
Address: Via S. Rocco, 3, 75100 Matera.



The excursion takes place in the old city of Matera and investigates the impact of the soils over the history and the structure of the city. The area occupied by the old city lays on a thick layer of soft limestone which was easy to dig and at the same time hard enough to get self-sustaining caves and building material. Thus the digging of caves provided at the same time perfect places to store food (thanks to the micro-climate of the caves) and building material to build houses. Below this soft limestone layer (5 to 2 M years old) there is a hard limestone layer dating back to 200 to 65 M years old, too hard to dig. Above the limestone there is a thick layer of clay and conglomerate, which provided water sources and fertile fields for agriculture. During the tour we'll see the clear line dividing each geological layer, we'll learn about the structure of the city, the digging techniques and the building techniques. We'll visit some man-made caves and learn about their constant repurposing, and their use to stock agriculture produce, as churches, as productive facilities and as houses. The excursion will last 2h45m. After the excursion we go directly to the Restaurant.

20.00-21.30. Common dinner. Restaurant Oi Marì. Dinner with typical food from Matera (Sassi Area).

Wednesday, September 26th

Workshop of KEYSOM common experimentation & field study – Advances and preliminary results (whole morning)

- Protocol KEYSOM1 – Soil aggregation – J. Filser
- Protocol KEYSOM2 – Sampling and preserving earthworms and macrofauna bycatch – M.J.I. Briones et al.
- Protocol KEYSOM3 – Stable Isotope Composition (bulk $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) in soil profile – Maarja Öpik & A. Tiunov
- Protocol KEYSOM4 – Near Infrared Spectroscopy (NIRS) – J.J. Jiménez
- Protocol KEYSOM5 – Sampling of soil for eDNA – Paul H. Krogh

10.30-10.55 Coffee break

- Protocol KEYSOM6 - Sampling of undisturbed soil cores – Monika Joschko & Bernhard Illerhaus
- Protocol KEYSOM7 – Bioturbation mesh bag experiment – J. Filser et al.

11:45-12:30 – General discussion. Topics to be covered

1. Preparation of the KEYSOM handbook of methods; downloadable from KEYSOM website.
2. Specification of KEYSOM modeller needs
3. Uploading data to edaphobase by KEYSOM partners
4. Data gathering and analysis from the common experiment – global analysis

12.30-14.00 Lunch



14:05 -15:00 – Invited speaker talk: “Modelling termites role in global C cycle: do we need second or third order SOC decay kinetics?” – Lorenzo Menichetti, SLU, Uppsala, Sweden.

15.30-15.50 Coffee break

15:50 -17:30 – Working groups meeting

Thursday, September 27th

09:00-10:30 – **Beyond KEYSOM Workshop – Opportunities for H2020**. Session on “white paper” (Action Core Group)

10.30-10.55 Coffee break

10:55-12:30 – Session on “white paper” (cont’d)

12.30-14.00 Lunch

14:05-15:45 – Working group meetings (what is missing, deadlines)

15.45-16.05 Coffee break

16:05-17:30 – Working group meetings

Friday, September 28th

09:00-10:30 – Working groups meeting

10.30-10.55 Coffee break

10:55-12:30 – Plenary session. Progress report of all WGs; decisions and forthcoming tasks.

12.30-14.00 Lunch

14:00 -15:30 – MC meeting* (separate agenda for a list of elements)

- Dissemination activities (meetings, webpage information; contributions)
- 3rd KEYSOM Training School – Tartu, tentative dates (4th period) and list of potential trainers;
- Pending STSMs including from ITC: what? who? where? and when? Before 15 March 2019.

Wrap up session

Meeting closing

*If a voting process is initiated by the Action Chair, only MC members are allowed to vote (one country, one vote), except for one country being represented by MC substitute (COST Vademecum rules).