Evolutionary and Systematic Zoology Lab

UNIVERSITÀ DI SIENA
1240

RESEARCHERS
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DEPARTMENT
Life Sciences

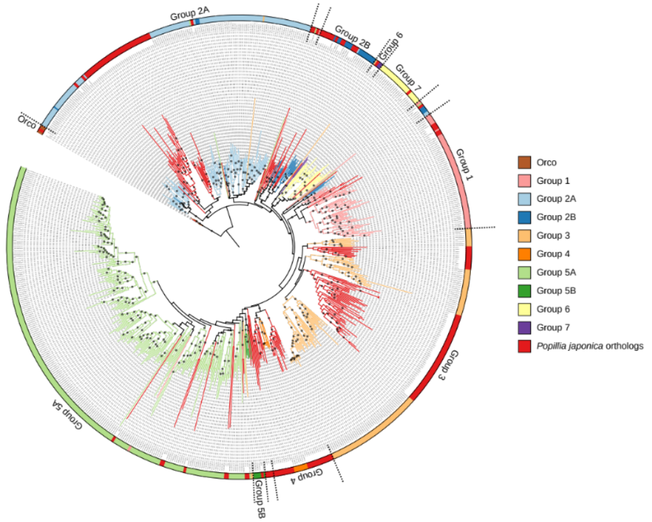
LAB
ESZ_Lab

Research activity

Research interests of the group focus on the study of insects, and soil fauna in general, of naturalistic as well as agricultural interest. Methodologies employed are taxonomy, molecular evolution, evolutionary genetics, population genetics, metagenomics, genomics, bioinformatics.

The most important research projects have lately focussed on the study of antarctic Collembola, biodiversity in natural as well as agricultural soils, genomics and phylogeny of Collembola, the microbiome of plastic-degrading insects, mitochondrial microRNAs, as well as genomics, phylogeography and invasion history of species of agricultural importance, including the olive fly and *Popillia japonica*.

Images


Group 2A
Group 2B
Group 6
Group 7
Group 1
Group 3
Group 4
Group 5B
Group 5A
Orco
Orco
Group 1
Group 2A
Group 2B
Group 3
Group 4
Group 5A
Group 5B
Group 6
Group 7
Popillia japonica orthologs

Technologies and services

Basic laboratory equipment for the study (sequencing) of nucleic acids (thermal cyclers, centrifuges, ultrafreezers, electrophoretic chambers, Nanodrop, Qbit).

Programmable MacFadyen extractor for soil fauna (84 cores).

Phase-contrast microscope Nikon eclipse Ci (up to 1000X) with image analysis software (ToupView).

Stereomicroscope ZEISS Axio Zoom V16 with image analysis software.

Workstation for bioinformatic analyses (128 Xeon 6338 CPUs, 256 Gb RAM).

Possible services to be offered include consulting and support, in a research context, on themes related to insects of agricultural and economic interest, and more generally on themes related to the research interests and activities of the group.

Applications and collaborations

Collaboration with Romana Maceri, a company active in the area of waste treatments, to study plastic-degrading insects, with the long term aim of establishing a bioreactor for the treatment of plastic waste.

Collaboration with PoloGGB, a company providing research services in the area of genomics and bioinformatics, to study the genomics of Collembola.

Collaboration with the wineries Corzano e Paterno and Losi Querciavalle to study soil biodiversity in an agricultural setting.

Within the larger context of the EU project IPM-*Popillia,* collaboration with several european companies on management and control strategies for the coleopteran *Popillia japonica.*

For more information

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For more information

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