

BEEMS

Monitoring Bee Diversity in Natural Systems – Novel Aerial and Classical Ground Methods to Evaluate Biotic and Abiotic Indicators

Bees provide essential pollination services to natural ecosystems and agricultural crops. However, managed and wild (unmanaged) bee populations are in decline worldwide. In order to better manage and restore bee populations, long-term monitoring programs are required.

The project propose to test the cost-efficacy of novel aerial techniques along with classical ground methods to collect biotic and a-biotic indicators of bee diversity and community composition.

It will couple classical ecological monitoring approach with advanced photogrammetric tools, in order to develop a multi-scale and multi-temporal platform for monitoring bees.

To this end, the researchers formed a **complementary, interdisciplinary research group** of a pollination ecologist, soil chemists, environmental engineer, geomatics engineer, and topography surveyor.

The study will include field work in two complimentary study systems in central Israel.

Their findings may be instructive to other insects and plant groups, thus **provide a novel generic approach towards the ecological monitoring of terrestrial systems.**

PROJECT DURATION

30 months
(from 01/08/2019 to 31/01/2022)

PARTNERS

- Politecnico di Torino – DIATI
- The Hebrew University of Jerusalem - The Robert H. Smith Faculty of Agriculture, Food and Environment

FUNDING INSTRUMENT

Bilateral Agreement of Cooperation in the field of Industrial Research and Development, Science and Technology between Italy and Israel.

BUDGET

Total funding: **135,866.5 €**
Funding allocated to DIATI: **67,933 €**

POLITO and DIATI's role:

Politecnico di Torino – DIATI is partner of the Consortium.

Scientific manager for DIATI:
Prof. **Dabove Paolo**

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Ministero degli Affari Esteri
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