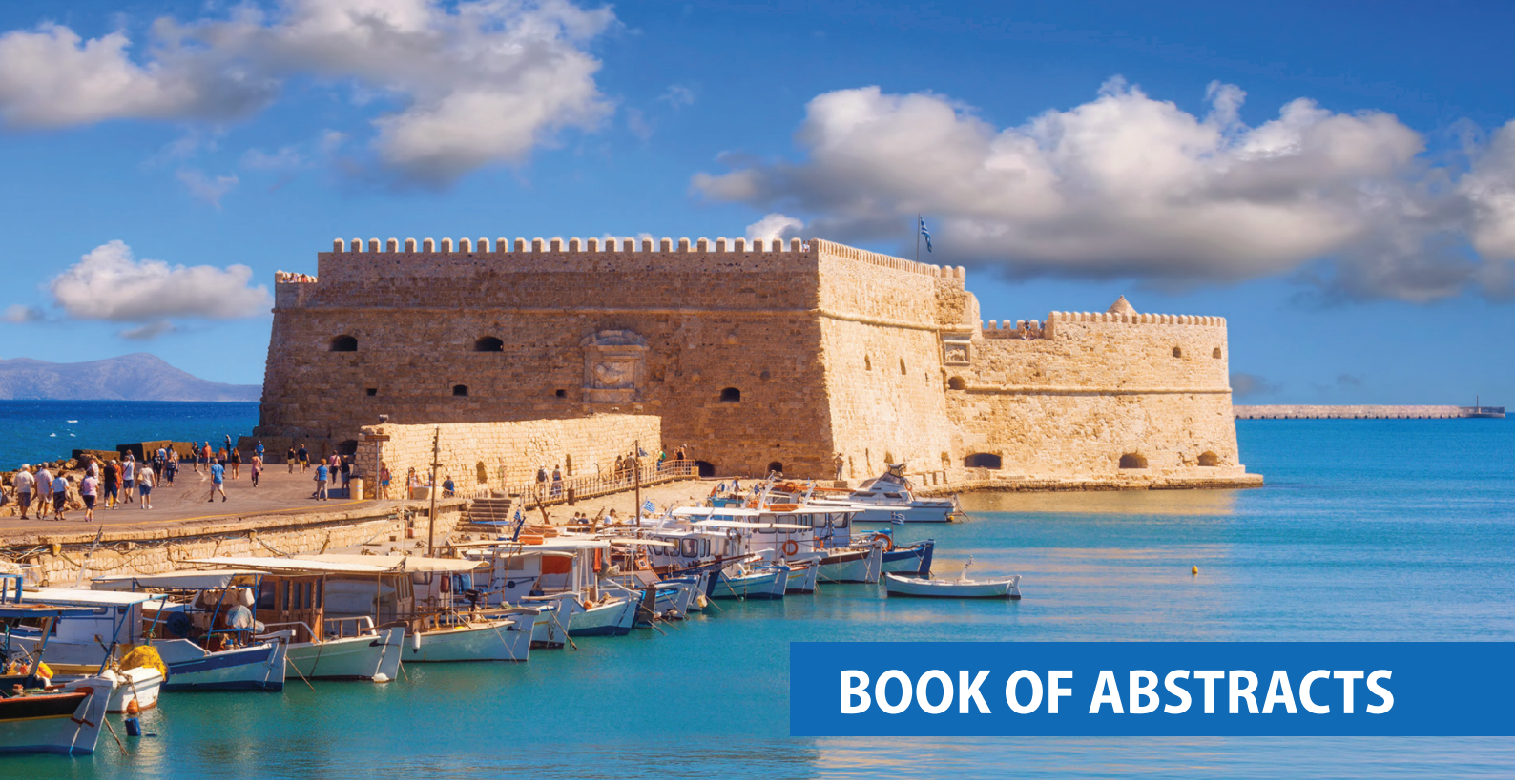

BOOK OF ABSTRACTS

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including 3 sub-replicates) were provided. The surveys covered the spring season involving two sampling periods: the first in mid-spring (April 20-May 6) and the second in late spring (May 25-June 10).
The results showed significant differences according to both sampling period ($P<0.05$) and arboretum type ($P<0.0001$), but not due to the interaction between the two factors. QBS-ar values were significantly lower in the second sampling period than in the previous one, showing that higher temperatures tend to reduce soil moisture and consequently the animal component. Among groves, the largest differences were found between the forest-chestnut grove (average QBS-ar: 219.7 ± 16.4) and the two productive tree systems (QBS-ars ranging from 151.2 - 86.7). Furthermore, the QBS-ar of the vineyard's grassed inter-rows was significantly higher (T1 = 151.2 ± 3.9; T2 = 133.3 ± 27.7) than that of the ungrassed inter-rows (T1 = 131.8 ± 3.0; T2 = 86.7 ± 15.6) and the hazelnut grove (T1: 120.6 ± 7.96; T2: 110.7 ± 10.2), indicating that soil tillage and frequent mechanical activity can negatively affect soil biological fertility.

Keywords: biodiversity, soil fertility, arthropods, QBS-ar, organic orchards

P317. Arthropods as functional biodiversity in different sugarcane agrosystems in Reunion Island: study methods and first results

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Key arthropods present in sugarcane crops were collected and determined in Reunion Island, a French overseas department, using 2 type of traps: at the soil and the plant level on 32 plots across different agricultural landscape and altitude, which give 64 traps to observe and analyze for a period of almost 12 months of sugarcane crop, from the plantation of cutting setts or ratoons to the harvest. These plots are located in the region of Petite Ile which gathers different types of agricultural landscapes, from the lowlands of the region to the highlands at a maximum of 1000 m altitude. The project and the methodology used are presented and described: type of traps, collection of individuals at regular intervals, replacement and refilling of traps, identification of different groups of arthropods present in the containers, etc. All this manipulation in field and laboratory is time consuming and needs the help of taxonomists. Apart from morphological identifications of samples collected whenever is possible, the function of each group was specified as pests, parasitoids, predators, and soil insects. A thorough database is currently under construction to be able to further study the impact of agricultural practices, surrounding landscape, and altitude on the arthropod diversity and abundance in different sugarcane agrosystems.

Keywords: sugarcane pests, natural enemies, functional biodiversity, trapping methods