

ASSESSMENT OF THE SITUATION OF MANAGED POLLINATORS (APIS MELLIFERA SPP.), THREATS, DRIVERS OF CHANGE IN BALKAN COUNTRIES

Manjola Kuliçi, Elena Kokthi

Department of Food and Biotechnology, Faculty of Biotechnology and Food, Agricultural University of Tirana, Tirana, Albania|

mkulici@ubt.edu.al

ABSTRACT

Pollination and pollinators have multiple economic, environmental and socio-cultural values recognized worldwide. Recently, bees have been affected by various pathogens and diseases, and the annual losses of the colonies have been considerable. Our aim in conducting this study is to determine the extent of bee losses and identify the main threatening factors for pollinators. The methodological approach is based on field observations and a structured online questionnaire targeting beekeepers. The questionnaire is structured in four sections: first, demographic characteristics are collected, the second section encompasses the condition of bee families, factors that have led to the loss of these managed pollinators are included in the third section and in the final are asked the possible solutions. The beekeepers who completed this questionnaire were with bee-stabilized parks, distributed in a wide geographical area that includes different districts of Albania, Kosovo, Macedonia and Greece. The results showed losses in 56.2% of the parks included in this study, losses which ranged from 10-60%. The analysis of the results categorized into three groups the main factors that may have caused these losses by negatively affecting productivity and bee health: The first group of threats include pathogens and predators, where *Varroa destructor* and *Nosema Ceranae* were a high threat in 50-60% of parks. The second group of threats includes environmental factors, where it is worth noting that climate change, beekeeping chemicals (antibiotics) and pesticides posed a high threat in 50-70% of parks. The third group of threats includes beekeeping practices where the import of foreign queens (breeds) in Albania, failure to perform all technical services on-time and failure to provide services at the appropriate level posed a high threat in 50% of parks. Additional studies are needed to understand the impact of each of the factors mentioned earlier on honey production and lost income generated in rural households.

Key words: pollinators, honey bees, losses, threatening factors