

Alien bees, wasps and ants of Cyprus: current knowledge, gaps and what's next



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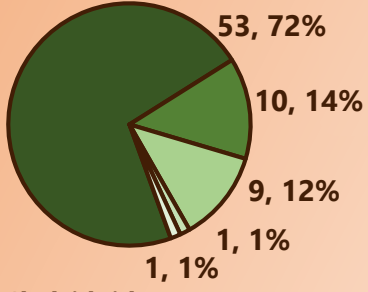
Introduction

- Situated in the Eastern Mediterranean, Cyprus lies at the biogeographic crossroad of three continents (Europe, Asia and Africa). Its geographic position and the increasing movement of people and goods, have led to the introduction of >1,200 alien species.
- Islands are particularly susceptible to invasive species, which can lead to the extinction of endemic species. Thus, early detection and monitoring are vital.
- >3,000 species of alien insects have been introduced to Europe, with a subset negatively affecting native biodiversity as well as human, animal and plant health.
- Hymenoptera represent a "megadiverse" insect order, with >300 alien species introduced to Europe either as biological control agents or unintentionally.



DOCUMENTING ALIEN HYMENOPTERA ON CYPRUS

Latest published checklist: 74 species on the Alien to Cyprus Entomofauna (ACE) database (2022):



WHAT WE KNOW



- Chalcidoidea
- Ichneumonoidae
- Formicoidea
- Vespoidea
- Apoidea
- Apoidea and Vespoidea: "questionable" status
- >1/3 intentionally introduced as biological control agents
- Current number (2023): 91 species (unpublished)

- 2 Darwin Plus Fellowships on the biodiversity of ants and chalcid wasps of Akrotiri Peninsula and Cyprus as a whole
- Study duration: 01/07/2023-30/06/2023

RESEARCH GAPS

- Severe underestimates in species numbers (especially parasitic taxa)
- Gaps in distribution and species interrelationships
- Need to decipher introduction pathways
- Impacts mostly unknown
- Need for management prioritisation

- Development of websites and species checklists
- Detection of new records and new species for science



WHAT'S NEXT

Acknowledgements

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References