

Identification of arthropods of economic and health importance

Description

The correct identification of arthropod species is often a complex and laborious task, especially when lacking the necessary knowledge and tools. Specifically, in applied entomology work, the involvement of specialized personnel is essential to ensure accurate species identification, which is crucial in areas such as pest control, biodiversity conservation, and public health. Many insect species exhibit morphological similarities that can lead to classification errors without the detailed knowledge of a taxonomy expert. Additionally, proper identification always allows for the implementation of the most effective strategies for managing and analysing the populations under study.



How does it work?

The Evolutionary Biology and Conservation (BEC) research group is composed of professors and researchers, including entomologists with extensive experience and expertise in the taxonomy and systematics of certain arthropod groups, particularly those with applied interest.

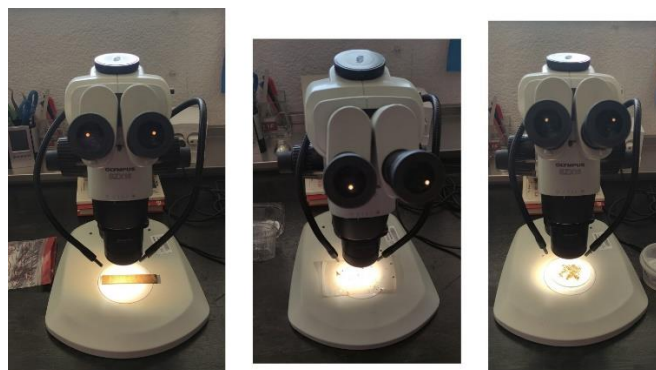
The role of these specialists in entomological studies goes beyond merely determining the species of a given organism. It can also involve providing information on phenology, development, relationships with other species in ecosystems, and potential influences of their presence and activity on health and other applied contexts of interest.

Through this service, we aim to conduct scientific studies of insects in various contexts, always covering their systematics and taxonomy, biology, ecology, behaviour, evolution, and their relationship with ecosystems and humans.

Advantages

Through this service, we offer an effective identification solution for companies and institutions requiring precise and reliable analyses in areas such as pest control, health-related entomology, biodiversity conservation, and scientific research.

Based on its accredited experience in the systematics and classification of certain arthropod groups, the research group employs morphological and molecular methodologies to ensure accurate results. This service offers broad taxonomic identification of insects, arachnids, and other arthropods in agricultural, urban, and forest environments, providing specialized technical reports and expert opinions. Additionally, training services in applied entomology are available for work teams. Accurate species identification is key to decision-making in sectors such as public health, agriculture, the food industry, and environmental studies.





Where has it been developed?

The BEC research group consists of researchers engaged in both basic and applied studies on biodiversity, systematics, ethology, and biogeography of various animal groups, including arthropods. Their track record includes technical studies on fauna associated with human activities, contributing to conservation programs, the sustainable use of biodiversity and the environment, and the management of species of sanitary and economic importance.

One of our most exclusive tools is the Entomological Collection (UCME), the result of the work of all researchers who have been part of our facilities throughout our extensive history. With an estimated three million specimens currently undergoing digitization, it serves as a crucial reference for specimen comparison, an essential step in achieving accurate taxonomic identification.

And moreover...

The BEC research group has experience collaborating with both public and private organizations on various topics related to applied entomology, including conservation, pollinators, and public health.

Furthermore, additional research lines include:

- Pest Control
- Arthropod phylogeny
- Ecotoxicology
- Arthropod paleontology
- Larval stages and life cycle
- Ecology and biology of Hymenoptera
- Insect-plant interactions
- Invasive species
- Public health pests
- Soil fauna
- Science education
- Forensic entomology
- Arthropod ethology
- Urban fauna

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