



Auchenorrhyncha of Iberia & Macaronesia: A Bibliographic Review



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INTRODUCTION

The Iberian Peninsula and Macaronesia are hotspots of diversity and endemism. Despite centuries of study, the literature of Hemiptera Auchenorrhyncha is scattered, limiting research, conservation, and vector management. We reviewed all publications with original taxonomic or distributional data from Linnaeus to the present, providing the first comprehensive historical and geographical survey of Auchenorrhyncha in the region.

Objectives

- Document historical trends, authorship, regional coverage, diversity and publication types;
- Create a curated database as a base for an annotated bibliographic catalogue.

RESULTS AND DISCUSSION

- **Taxonomic Attention:** Continental Portugal and Spain remains poorly studied. Islands receive disproportionately high taxonomic focus relative to size, driven by strong endemism.
- **Temporal trends:** Early work was led by national taxonomists. Activity expanded sharply in the late 20th–early 21st centuries, with recent growth driven by regional entomologists interested on applied studies .
- **Authorship patterns:** More than 500 local authors. A shift occurred from northern European authors to Iberian and Macaronesian researchers. Most species, however, were described by foreign authors (213 authors).
- **Distribution & Endemism:** Endemism is less than 1% in the Iberian Peninsula and 40% in Macaronesia. Five genera contain over ten endemic species each: *Asianidia*, *Cyphopterum*, *Cixius*, and *Issus*.

MOST AND LEAST DIVERSE GROUPS



- Cicadellidae
- Cicadidae
- Aphrophoridae

PUBLICATIONS



- 367
- 142
- 123

FAUNISTIC



- 65%
- 94%
- 41%

AGRICULTURE



- 35%
- 6%
- 59%



- Issidae
- Cixiidae
- Delphacidae

- 124
- 104
- 103

- 85%
- 85%
- 88%

- 15%
- 15%
- 12%

- Dictyopharidae
- Tettigometridae

- 52
- 49

- 94%
- 84%

- 6%
- 16%

CONCLUSION

- Current knowledge of the fauna remains incomplete, and the recent rise in taxonomic activity has been largely stimulated by studies focused on vector species of plant diseases.
- The major factor limiting further progress in species descriptions is the continued scarcity of local taxonomic expertise.

METHODS

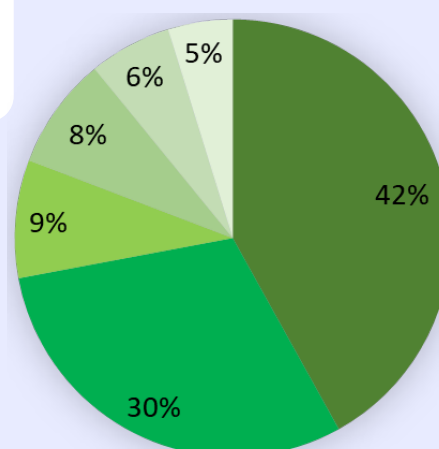
- **Study Area:** 60,000 km²
- **Iberian Peninsula (IP) includes:** Andorra, Spain, Portugal, Gibraltar, Balearic Islands.
- **Macaronesia includes:** Azores, Madeira, Salvages, Canary Islands, Cape Verde.
- **Publication types:** monographs, faunal surveys, species descriptions, catalogues, checklists, applied entomology articles.
- **Standardized data extraction includes:** publication type, authorship, origin, historical period, taxonomic content.

725
PUBLICATIONS
883
SPECIES/SUBP.
18 FAMILIES
27 REGIONS/
COUNTRIES
>250 YEARS

PUBLICATIONS



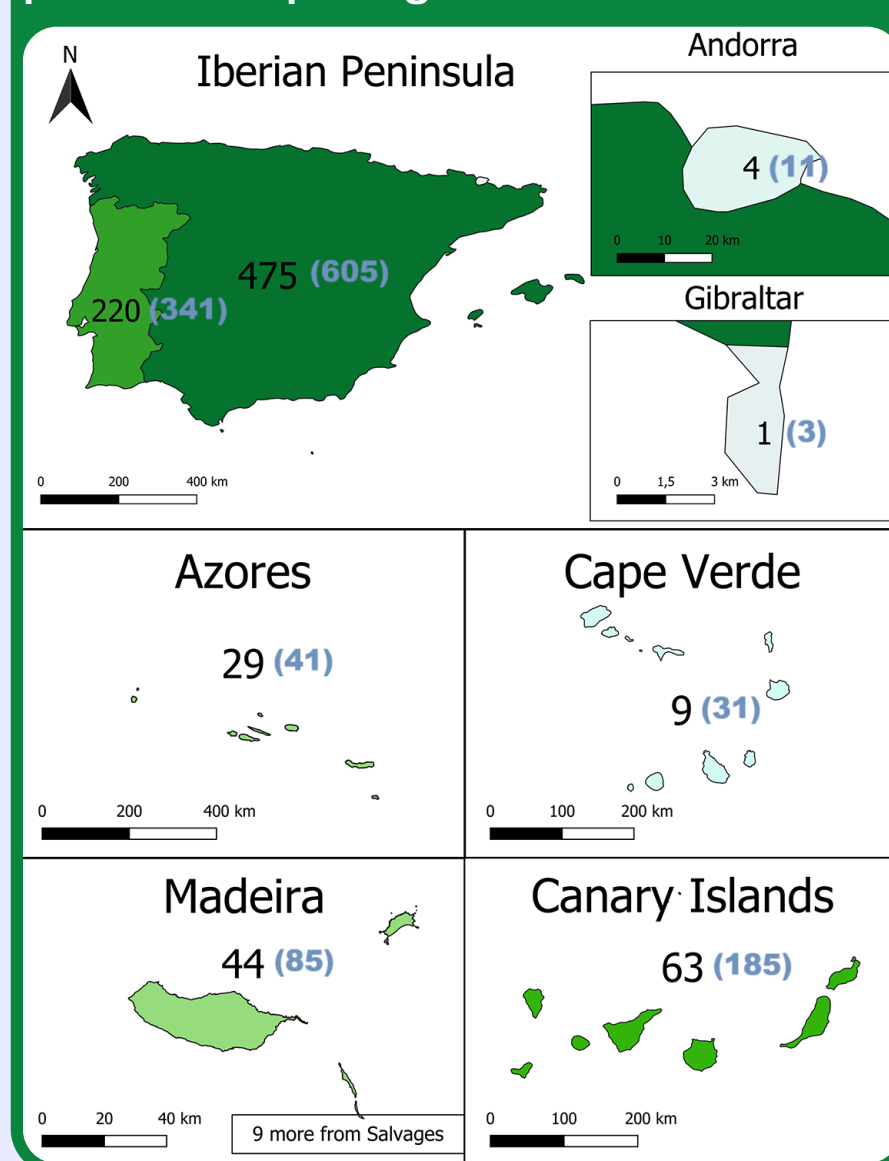
Nationals 360
Foreigners 297
Collaborations 67



14 Endemic genera

Amblytelinus, *Archissus*, *Ciudadrea*, *Makarorysa*, *Lusitanocephalus*, *Histipagus*, *Ibadarrus*, *Pyrenaeibufonaria*, *Ordanolema*, *Mesoliarus*, *Kinnoccia*, *Kinnacana*, *Tilimontia*, *Sestrelicola*

Nº of publications and species diversity (in parenthesis) per region



224 Endemic Species

- Canary Isl.
- Spain
- Portugal
- Madeira
- Cape Verde
- Azores

Historical Trends in Publications on Agriculture and Faunistic Studies (1758-2024)

