

CDF Checklist of Galapagos Earwigs, pincerbugs

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Abstract

This Checklist of Galapagos Earwigs, pincerbugs includes a total of all 7 taxa reported from the Galapagos Islands.

For each name, detailed information is provided: its Galapagos distribution in islands groups or bioregions generated from the specimen records, comments about the taxonomy (especially synonyms), the origin (native and introduced), taxon status (accepted vs. rejected records) and relevant literature references.

Introduction

This publication lists all species of Galapagos Earwigs, pincerbugs currently known.

Earwigs are predominantly a tropical group, with about 1800 species worldwide.

They are elongate, somewhat flattened insects, with characteristic forceps at the end of the abdomen. Most species are nocturnal and feed mainly as predators on insects or as scavengers on dead plant materials, but some may feed on live plant tissue.

Three species in the Galapagos are indigenous to Europe and have probably been transported by humans.

Methods

This checklist of all known Galapagos Earwigs, pincerbugs is automatically generated using the online database of the Charles Darwin Foundation Galapagos Species Checklist.

All CDF Galapagos Species Checklists represent the synthesis of many different records: literature citations, data from previously unpublished reports (grey literature), specimen records of natural history collections located in Galapagos and all over the world. To the best of their knowledge authors of the individual checklists revised all available data. When new information becomes available, the taxonomy of a group changes or new species are discovered, the CDF online database and thus this publication becomes updated.

For many poorly known species groups the higher taxonomic classification still regularly changes according to how our knowledge about species being related changes. In many well known groups the phylogeny is somewhat stable, but to avoid confusion, in particular for groups where taxonomic changes are frequent, all checklists presented here are sorted alphabetical according to genus name and specific epithet. Please refer to the website for the currently accepted taxonomic hierarchy of each group.

Please be aware that the distribution presented here is automatically generated from specimen records and does not always accurately reflect the known distribution for all species.

For marine species, the distribution generally refers to the five main bioregions of the archipelago (Far Northern, Northern, Western, South Eastern and the Elisabeth Bay Bioregion). For the terrestrial species more than 120 islands, islets and small rocks have been

aggregated into Islands Groups, thus, for example, the island group "Santa Cruz" includes smaller islands like Santa Fé, Plaza Norte, Plaza Sur, Baltra, Daphne Mayor, Daphne Minor, and others.

IUCN red-list assessments presented here may deviate from the global IUCN list for the following reasons:

- for well known species groups like vascular plants or vertebrates updates proposed to the IUCN are shown instead of the outdated, but currently accepted status;
- for poorly known species groups (e.g., lichenized fungi) a general assessment is currently not possible and the list presented here is a regional red-list list for Galapagos archipelago.

Numbers of the species included in this list are auto-generated. Adding up the number of species in each category will not always equal the total number indicated. Some species have insufficient data to be categorized while others (e.g., category eradicated) will not be included in the total.

Results

Names of taxa included in this checklist: 7 (6 accepted, 1 new to science).

Origin of the taxa included: 2 accidental, 2 questionable accidental, 1 questionable native, 2 endemic.

1. *Anisolabis maritima* (Bonelli, 1832)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Questionable Native.

Galapagos Distribution: Floreana, Isabela, San Cristóbal, Santiago.

References: Linsley, E.G. et al. (1977), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

2. *Anophthalmolabis sp. nov.*

Taxon status: Unpublished name (Nomen nudum).

This population is thought to be a separate species from that on Santa Cruz because it seems most likely that these two eyeless island populations are reproductively isolated from each other by the sea.

Origin: Native, Endemic.

Galapagos Distribution: Isabela, Santa Cruz.

References: Peck, S.B. et al. (1996), Peck, S.B. et al. (1990), Peck, S.B. et al. (2001).

3. *Anophthalmolabis leleupi* Brindle, 1968

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Native, Endemic.

Galapagos Distribution: Santa Cruz.

References: Brindle, A. et al. (1969), Linsley, E.G. et al. (1977), Peck, S.B. et al. (1996), Peck, S.B. et al. (1990), Peck, S.B. et al. (2001), Peck, S.B. et al. (1986).

4. *Circolabia arcuata* (Scudder, 1876)

Taxon status: Accepted name; taxon occurs in Galapagos.

Brindle (1969: 334) notes that he thought that this species (as *Labia arcuata*) may not be a significant record for the Galápagos, and that it is a "casual." However, it is now widespread on three islands, and occurs in native habitats.

Origin: Introduced, Questionable Accidental.

Galapagos Distribution: Floreana, San Cristóbal, Santa Cruz.

References: Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

5. *Euborellia annulipes* (Lucas, 1847)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Questionable Accidental.

Galapagos Distribution: Floreana, Isabela, San Cristóbal, Santa Cruz, Santiago.

References: Brindle, A. et al. (1969), Desender, K. et al. (1990), Hebard, M. et al. (1920), Linsley, E.G. et al. (1977), Linsley, E.G. et al. (1966), Parkin, P. et al. (1972), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

6. *Labia annulata* (Fabricius, 1793)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Isabela, San Cristóbal.

References: Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

7. *Labia curvicauda* (Motschulsky, 1863)

Taxon status: Accepted name; taxon occurs in Galapagos.

See Brindle (1971a) for key to Neotropical species of *Labia*. Note that Helfer (1963: 17) notes *Labia minor* (Linnaeus), the cosmopolitan least reawig, from the Galápagos. There are no records to verify this. I think the record may represent *Circolabia arcuata*.

Origin: Introduced, Accidental.

Galapagos Distribution: San Cristóbal, Santa Cruz.

References: Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

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References

1. Brindle, A. (1969) *The Earwigs (Dermaptera) of the Galapagos Islands*. Entomologist's Record and Journal of Variation 81(12): 331-334.
2. Desender, K., Baert, L., Maelfait, J.-P. & Verdyck P. (1990) *Conservation on Volcan Alcedo (Galapagos): terrestrial invertebrates and the impact of introduced feral goats*. Biological Conservation 87: 303-310.
3. Hebard, M. (1920) *Expedition of the California Academy of Sciences to the Galapagos Islands, 1905-1906. 17. Dermaptera and Orthoptera*. Proceedings of the California Academy of Sciences, Fourth Series 2(17): 311-346.
4. Linsley, E.G., Usinger, R.L. (1966) *Insects of the Galápagos Islands*. Proceedings of the California Academy of Sciences Fourth Series 33(7): 113-196.

5. Linsley, E.G. (1977) *Insects of the Galápagos (Supplement)*. Occasional Papers of the California Academy of Sciences 125: 1-50.
6. Parkin, P., Parkin D.T., Ewing, A.W. & Ford, H.A. (1972) *A report on the arthropods collected by the Edinburgh University Galapagos Islands Expedition, 1968*. The Pan-pacific Entomologist 48: 100-107.
7. Peck, S.B., Peck, J. (1986) *The Galapagos Islands. Volcanic caves and cave fauna of the Galapagos Islands*. The Canadian Caver 18(1): 42-49.
8. Peck, S.B. (1990) *Eyeless arthropods of the Galapagos Islands, Ecuador: Composition and origin of the cryptozoic fauna of a young, tropical, oceanic archipelago*. Biotropica 22(4): 366-381.
9. Peck, S.B. (1996) *Diversity and distribution of the orthopteroid insects of the Galápagos Islands, Ecuador*. Canadian Journal of Zoology 74: 1497-1510.
10. Peck, S.B., Heraty, J., Landry, B. & Sinclair, B.J. (1998) *Introduced insect fauna of an oceanic archipelago: The Galápagos Islands, Ecuador*. Am. Entomol. 44: 218-237.
11. Peck, S.B. (2001) *Small Orders of Insects of the Galápagos Islands, Ecuador: Evolution, Ecology, and Diversity*. NRC Research Press, Ottawa, Ontario, Canada, 278 pp.

Disclaimer

The Charles Darwin Foundation Galapagos Species Checklist is a continuously updated list of all species currently known from the Galapagos Islands and reflects up-to-date knowledge compiled by scientists of the Charles Darwin Foundation (CDF) in collaboration with experts from around the world. CDF shares this data publicly and invites comments, corrections and additions.

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