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CDF Checklist of Galapagos Cockroaches, Mantids and Termites

Stewart B. Peck, Henri W. Herrera

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Abstract

This Checklist of Galapagos Cockroaches, Mantids and Termites includes a total of all 27 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 Cockroaches, Mantids and Termites currently known.

Cockroaches

Cockroaches are archaic, hardy, and successful insects and are most diverse in tropical countries.
They are usually general feeders and many do well in the presence of humans.

Seemingly only three or four species naturally colonized the Galapagos on their own, by rafting. Considering the rich Neotropical fauna, this seems a surprisingly low number.
Another 11 species were probably brought by humans, some perhaps as early as the first European landing in 1535.

Mantids

There are eight families of Mantids worldwide. Most families, genera, and species are tropical. All are predators on other insects.
While the fauna of tropical America is very rich, there is only one species in Galapagos. They are most often seen at night. Many mantid females are flightless, as is the Galapagos species.

Termites

Termites are social insects which live in colonies in the subtropics and tropics. They feed on dead plant material, especially wood and thus play an important role as detrivores in the regions where they occur.

Methods

This checklist of all known Galapagos Cockroaches, Mantids and Termites 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Species Checklists represent the synthesis of many different records: literature citations, data from previously unpublished reports (grey literature), specimen records of natural history collections located in Galapagos and all over the world.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: 27 (26 accepted, 1 unidentified taxon).

Origin of the taxa included: 11 accidental, 5 questionable native, 7 endemic.

1. ***Anaplecta lateralis*** (Burmeister, 1838)
   Taxon status: Accepted name; taxon occurs in Galapagos.
   Origin: Introduced, Accidental.
   Galapagos Distribution: Isabela, Santa Cruz, Santiago.
   References: Causton, C. et al. (2008), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

2. ***Blaberus parabolicus*** Walker, 1868
   Taxon status: Accepted name; taxon occurs in Galapagos.
   Origin: Introduced, Accidental.
   Galapagos Distribution: San Cristóbal, Santa Cruz.
   References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

3. ***Blattella germanica*** (Linnaeus, 1767)
   Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.
Galapagos Distribution: Española, Santa Cruz.
References: Hebard, M. et al. (1920), Linsley, E.G. et al. (1966), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

4. ***Chorisoneura carpenteri*** Roth, 1988
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Floreana, Isabela, Santa Cruz, Santa Fé, Santiago.
References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

5. ***Chorisoneura cristobalensis*** Roth, 1992
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: San Cristóbal, Santa Cruz.
References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

6. ***Cryptotermes darwini*** (Light, 1935)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Floreana, Isabela, Santa Cruz, Santiago, Wolf.
References: Bahder B.W. et al. (2009), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

7. ***Cryptotermes fatalus*** (Light, 1935)
Taxon status: Accepted name; taxon occurs in Galapagos.
Syn.: Kalotermes occidentalis
Origin: Introduced, Questionable Native.
Galapagos Distribution: Isabela, Santa Cruz, Santiago.
References: Bahder B.W. et al. (2009), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

8. ***Galapagia solitaria*** Scudder, 1893
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Española, Floreana, Isabela, San Cristóbal, Santa Cruz, Santa Fé, Santiago.
References: Hebard, M. et al. (1920), Hickin, N. et al. (1979), Linsley, E.G. et al. (1966), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

9. ***Heterotermes convexinotatus*** (Snyder, 1924)
Taxon status: Accepted name; taxon occurs in Galapagos.
Syn.: Heterotermes orthognathus. Nickle & Collins (1992) list this as Heterotermes aureus convexinotatus for Panama.
Origin: Introduced, Questionable Native.
Galapagos Distribution: Santa Cruz.
References: Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

10. ***Heterotermes orthognathus*** Light, 1933
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: No Data.
Galapagos Distribution: Santa Cruz.
References: Light, S.F. et al. (1935), Linsley, E.G. et al. (1966).

11. ***Holocompsa nitidula*** (Fabricius, 1781)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Questionable Native.
Galapagos Distribution: Isabela, Santa Cruz.
References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

12. ***Holocompsa sp.***
Taxon status: Taxon not identified to species, subspecies, form or variety.
Origin: Introduced, Questionable Native.
Galapagos Distribution: Santa Cruz.
References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

13. ***Incisitermes galapagoensis*** (Banks 1901)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: No Data.
Galapagos Distribution: Santa Cruz.
References: Bahder B.W. et al. (2009).

14. ***Incisitermes pacificus*** (Banks, 1901)
Taxon status: Accepted name; taxon occurs in Galapagos.
Syn.: Incisitermes galapagoensis, I. immigrans. Peck (1996): "Light (1935) states that this species should be considered as a senior synonym of I. tabogae Snyder, 1924, but Nickle & Collins 1992 use I. tabogae as a valid species. I galapagoensis is a supposed endemic species from Islas Wolf and Genovesa. This species cannot be recognized by the descriptions. Cotypes are in the USNM, but Constantino (1998) states that the holotype adult was in CASC, and was destroyed. The distribution of I. immigrans is supposed to be Central Pacific Islands, (Hawaii, Marquesas, Fanning, Jarvis), El Salvador, Panama, and Peru; and widespread in the Galápagos. Light (1935) gives characters of soldiers to separate I. immigrans from I. tabogae (= I. pacificus), but I find both "species" of soldiers in the same colony. I have listed above all island records of Incisitermes as I pacificus, since it is the oldest available name for the Galápagos. My specimens are deposited in the USNM, and these may help solve the questions about the correct application of these names."
Origin: Introduced, Questionable Native.
Galapagos Distribution: Fernandina, Floreana, Genovesa, Isabela, Marchena, Pinta, Pinzón, San Cristóbal, Santa Cruz, Santa Fé, Santiago, Wolf.
References: Bahder B.W. et al. (2009), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

15. ***Ischnoptera peckorum*** Roth, 1988
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Santa Cruz.

References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1990), Peck, S.B. et al. (2001), Roth, L.M. et al. (1988).

16. ***Ischnoptera santacruzensis*** Roth, L. M. 1992
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Isabela, Santa Cruz.
References: Jaramillo, P. et al. (2005), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

17. ***Ischnoptera snodgrassii*** (McNeil, 1901)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Fernandina, Floreana, Isabela, Santa Cruz, Santiago.
References: Desender, K. et al. (1990), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (2001).

18. ***Kalotermes fatulus*** Light, 1935
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: No Data.
Galapagos Distribution: Santa Cruz.
References: Light, S.F. et al. (1935), Linsley, E.G. et al. (1966).

19. ***Kalotermes immigrans*** Snyder, 1922
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: No Data.
Galapagos Distribution: Santa Cruz.
References: Light, S.F. et al. (1935), Linsley, E.G. et al. (1966).

20. ***Nauphoeta cinerea*** (Oliver, 1789)
Taxon status: Accepted name; taxon occurs in Galapagos.
Syn.: Nauphoeta bivittata, N. circumvagans, N. laevigata?
Origin: Introduced, Accidental.
Galapagos Distribution: Floreana, San Cristóbal, Santa Cruz.
References: Hebard, M. et al. (1920), Linsley, E.G. et al. (1966), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

21. ***Periplaneta americana*** (Linnaeus, 1758)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Floreana, Genovesa, Isabela, San Cristóbal, Santa Cruz.
References: Jaramillo, P. et al. (2005), Linsley, E.G. et al. (1966), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (1986), Peck, S.B. et al. (2001), Peck, S.B. et al. (1996), Peck, S.B. et al. (1986).

22. ***Periplaneta australasiae*** (Fabricius, 1775)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Floreana, Isabela, San Cristóbal, Santa Cruz.
References: Hebard, M. et al. (1920), Jaramillo, P. et al. (2005), Linsley, E.G. et al. (1966), Parkin, P. et al. (1972), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

23. ***Periplaneta brunnea*** Burmeister, 1838
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: San Cristóbal, Santa Cruz.
References: Hebard, M. et al. (1920), Linsley, E.G. et al. (1966), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

24. ***Phoetalia pallida*** (Brunner, 1865)
Taxon status: Accepted name; taxon occurs in Galapagos.
Syn.: Leurolestes pallidus (Brunner, 1865)
Origin: Introduced, Accidental.
Galapagos Distribution: San Cristóbal, Santa Cruz.
References: Hebard, M. et al. (1920), Linsley, E.G. et al. (1966), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

25. ***Pycnoscelis surinamensis*** (Linnaeus, 1758)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Española, Fernandina, Floreana, Isabela, San Cristóbal, Santa Cruz, Santiago.
References: Bright, D.E. et al. (1982), 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. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (1986), Peck, S.B. et al. (2001), Peck, S.B. et al. (1986).

26. ***Rhyparobia maderae*** (Fabricius, 1781)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Floreana, San Cristóbal, Santa Cruz.
References: Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001).

27. ***Symploce pallens*** (Stephens, 1835)
Taxon status: Accepted name; taxon occurs in Galapagos.
Syn.: Symploce lita, S. hospes
Origin: Introduced, Accidental.
Galapagos Distribution: Española, Fernandina, Floreana, Genovesa, Isabela, Marchena, Pinta, San Cristóbal, Santa Cruz, Santa Fé, Santiago.
References: McMullen, C.K. et al. (2011), Peck, S.B. et al. (1992), Peck, S.B. et al. (1996), Peck, S.B. et al. (1998), Peck, S.B. et al. (2001), Peck, S.B. et al. (1996).

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