

CDF Checklist of Galapagos Ants

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Abstract

This Checklist of Galapagos Ants includes a total of all 47 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 Ants currently known.

Ants are social insects characterized by their bent antennae and a distinctive node-like body with a slender waist. Ants form colonies that range in size from a few dozen individuals to highly organized ones with different castes such as “workers”, “soldiers”, and other specialized groups. Nearly all colonies have fertile males called “drones” and at least one fertile female called the “queen”.

Ants have colonized almost all terrestrial habitats on Earth except Antarctica.

In Galapagos five subfamilies, 21 genera, and 48 ant species are currently known. Of these 44 species, *Camponotus macilentus*, *Camponotus planus*, *Cyphomyrmex nesiotus*, *Pheidole williamsi* are endemic. As many as 33 species are now known as introduced.

Methods

This checklist of all known Galapagos Ants 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Species Checklists represent the synthesis of many different records: literature citations, data from previously unpublished reports (grey literature), specimen records of natural history collections located in Galapagos and all over the world.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: 47 (37 accepted, 1 unidentified taxon, 2 doubtful, 4 preliminary identification, 1 problematic, 2 new to science).

Origin of the taxa included: 30 accidental, 1 questionable accidental, 3 questionable native, 4 endemic, 2 questionable endemic.

1. *Adelomyrmex myops* (Wheeler, 1910)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Isabela.

References: Causton, C.E. et al. (2008), Herrera, H.W. et al. (2008).

2. *Brachymyrmex heeri* Forel, 1874

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Isabela, San Cristóbal, Santa Cruz.

References: Causton, C.E. et al. (2008), Herrera, H.W. et al. (2008).

3. *Camponotus conspicuus zonatus* Emery, 1894

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

4. *Camponotus macilentus* F. Smith, 1877

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Native, Endemic.

Galapagos Distribution: Fernandina, Floreana, Isabela, Marchena, Pinta, Santa Cruz, Santiago.

References: Jaramillo, P. et al. (2005), McMullen, C.K. et al. (2010), McMullen, C.K. et al. (2011), Stitz, H. et al. (1932), von Aesch, L. et al. (2005).

5. *Camponotus planus* F. Smith, 1877

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Native, Endemic.

Galapagos Distribution: Fernandina, Isabela, Marchena, San Cristóbal, Santa Cruz, Santiago.

References: Jaramillo, P. et al. (2010), Stitz, H. et al. (1932), von Aesch, L. et al. (2005).

6. *Cardiocondyla emeryi* Forel, 1881

Taxon status: Accepted name; taxon occurs in Galapagos.

Cardiocondyla emeryi Forel, 1881: 5 (w.) VIRGIN IS. Andr ©, 1881b: 69 (m.); Forel, 1904f: 422 (q.); Emery, 1909a: 26 (m. ergatoid m., not q.); Arnold, 1916: 201 (q.). Senior synonym of nereis: Wilson & Taylor, 1967: 53; of monilicornis: Baroni Urbani, 1973: 200; of mahdii, mauritia, rasalamae: Bolton, 1982: 312. See also: Smith, M.R. 1944a: 33; Kugler, J. 1984: 3; Seifert, 2003a: 276. Current subspecies: nominal plus fezzanensis.

Origin: Introduced, Accidental.

Galapagos Distribution: Fernandina, Floreana, Genovesa, Isabela, Marchena, Pinta, San Crist bal, Santa Cruz, Santa F , Santiago, Wolf.

References: Lubin, Y.D. et al. (1984), von Aesch, L. et al. (2005).

7. *Cardiocondyla minutior* Forel, 1899

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Fernandina, Floreana, Isabela, Marchena, Pinta, San Crist bal, Santa Cruz, Santiago, Wolf.

8. *Cardiocondyla nuda* (Mayr, 1866)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Santa Cruz.

References: von Aesch, L. et al. (2005).

9. *Crematogaster "JTL-022"*

Taxon status: Identification not yet confirmed.

Origin: Introduced, Accidental.

Galapagos Distribution: San Crist bal.

10. *Crematogaster curvispinosa* Mayr, 1862

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Native, Accidental.

Galapagos Distribution: Santa Cruz.

11. *Cylindromyrmex whymperi* (Cameron, 1891)

Taxon status: Accepted name; taxon occurs in Galapagos.

Syn.: *Holcaponera whymperi* Cameron, 1891: 92, fig. (w.) ECUADOR. Combination in *Cylindromyrmex*: Forel, 1892f: 256. Junior synonym of *striatus*: Emery, 1901a: 54. Revived from synonymy and senior synonym of *schmidtii*, *tibialis*, *williamsi*: De Andrade, 1998a: 596.

Origin: Introduced, Questionable Accidental.

Galapagos Distribution: Isabela, Santa Cruz.

12. *Cyphomyrmex nesiotus* Snelling & Longino, 1992
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, Endemic.
Galapagos Distribution: Isabela.
13. *Cyphomyrmex rimosus* (Spinola, 1851)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Isabela, San Cristóbal, Santa Cruz.
References: Causton, C.E. et al. (2008), Herrera, H.W. et al. (2008).
14. *Cyphomyrmex sp. nov. "hh04"*
Taxon status: Unpublished name (Nomen nudum).
Origin: No Data.
Galapagos Distribution: Isabela, Santa Cruz.
15. *Dorymyrmex pyramicus albemarlensis* Wheeler, 1919
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Native, No Data.
Galapagos Distribution: Española, Fernandina, Genovesa, Isabela, Marchena, Pinta, Santa Cruz, Santa Fé.
References: Wheeler, W.M. et al. (1924), Wheeler, W.M. et al. (1933).
16. *Hypoponera opaciceps* (Mayr, 1887)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Fernandina, Floreana, Isabela, San Cristóbal, Santa Cruz.
References: Peck, S.B. et al. (1994), Peck, S.B. et al. (1994).
17. *Hypoponera punctatissima* (Roger, 1859)
Taxon status: Accepted name; taxon occurs in Galapagos.
Origin: Introduced, Accidental.
Galapagos Distribution: Santa Cruz.
References: Causton, C.E. et al. (2008).
18. *Hypoponera sp.*
Taxon status: Taxon not identified to species, subspecies, form or variety.
Origin: No Data.
Galapagos Distribution: Floreana, Isabela, San Cristóbal, Santa Cruz, Santiago.
References: Lubin, Y.D. et al. (1984), von Aesch, L. et al. (2005).
19. *Leptogenys "jel-san"*
Taxon status: Identification not yet confirmed.
Origin: Native, Questionable Endemic.
Galapagos Distribution: Santa Cruz.

20. *Leptogenys* sp. nov. "hh03"

Taxon status: Unpublished name (Nomen nudum).

Origin: No Data.

Galapagos Distribution: Santa Cruz.

21. *Monomorium destructor* (Jerdon, 1851)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Floreana, Isabela, Santa Cruz.

References: Causton, C.E. et al. (2008), von Aesch, L. et al. (2005).

22. *Monomorium floricola* (Jerdon, 1851)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Española, Fernandina, Floreana, Genovesa, Isabela, Marchena, Pinta, San Cristóbal, Santa Cruz, Santa Fé, Santiago.

References: Causton, C.E. et al. (2008), Linsley, E.G. et al. (1966), Lubin, Y.D. et al. (1984), McMullen, C.K. et al. (2011), Palacios, R.A. et al. (1975), Peck, S.B. et al. (1994), Peck, S.B. et al. (1998), Peck, S.B. et al. (1996), von Aesch, L. et al. (2005), Wheeler, W.M. et al. (1924).

23. *Nylanderia fulva nesiotis* Wheeler, 1919

Taxon status: Taxonomic status unresolved or unrevised.

Prenolepis fulva Mayr, 1862: 698 (w.q.) BRAZIL. Forel, 1891b: 94 (m.); Forel, 1912i: 67 (m.). Combination in Pr. (*Nylanderia*): Forel, 1908b: 67; in *Paratrechina* (*Nylanderia*): Emery, 1925b: 222; in *Nylanderia*: Kempf, 1972a: 166; in *Paratrechina*: Snelling, R.R. & Hunt, 1976: 122; in *Nylanderia*: LaPolla, Brady & Shattuck, 2010a: 127. Senior synonym of *fumata*: Wild, 2007b: 45. See also: Fernández, 2000: 146; Fox, et al. 2010: 795. Current subspecies: nominal plus *biolleyi*, *cubana*, *fumatipennis*, *incisa*, *longiscapa*, *nesiotis*.

Origin: No Data.

Galapagos Distribution: Santa Cruz.

References: Wheeler, W.M. et al. (1933).

24. *Odontomachus bauri* Emery, 1892

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Questionable Native.

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

References: Linsley, E.G. et al. (1966), von Aesch, L. et al. (2005).

25. *Odontomachus ruginodis* Smith, 1937

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Santa Cruz.

26. *Paratrechina longicornis* (Latreille, 1802)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

References: Jaramillo, P. et al. (2005), Linsley, E.G. et al. (1966), McMullen, C.K. et al. (2010), von Aesch, L. et al. (2005), Wheeler, W.M. et al. (1933).

27. *Paratrechina steinheili* (Forel, 1893)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: San Cristóbal, Santa Cruz.

28. *Paratrechina vaga* (Forel, 1901)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, No Data.

Galapagos Distribution: Santa Cruz.

29. *Pheidole "hh01"*

Taxon status: Identification not yet confirmed.

Origin: No Data.

Galapagos Distribution: Isabela, Santa Cruz, Santiago.

30. *Pheidole aff. megacephala* (Fabricius, 1793)

Taxon status: Identification not yet confirmed.

Origin: Introduced, Accidental.

Galapagos Distribution: San Cristóbal, Santa Cruz.

References: Mueller-Dombois, D. et al. (1987).

31. *Pheidole cf. williamsi* Wheeler, 1919

Taxon status: The identification of this taxon or its occurrence in Galapagos is doubtful.

Origin: No Data.

Galapagos Distribution: San Cristóbal, Santa Cruz.

32. *Pheidole flavens* Roger, 1863

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Isabela, San Cristóbal, Santa Cruz.

33. *Pheidole williamsi* Wheeler, 1919

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Native, Endemic.

Galapagos Distribution: Isabela, Pinta, Santa Cruz.

References: Linsley, E.G. et al. (1966), Lubin, Y.D. et al. (1984).

34. *Pyramica membranifera* (Emery, 1869)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Isabela, Santa Cruz, Santiago.

References: Causton, C.E. et al. (2008), Herrera, H.W. et al. (2008).

35. *Rogeria curvipubens* Emery, 1894

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Isabela, Santa Cruz.

References: Causton, C.E. et al. (2008), Herrera, H.W. et al. (2008).

36. *Solenopsis geminata* (Fabricius, 1804)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

References: Causton, C.E. et al. (2006), Causton, C.E. et al. (2012), Causton, C.E. et al. (2008), Causton, C.E. et al. (2012), Causton, C.E. et al. (2008), Heraty, J.M. et al. (1994), Herrera, H.W. et al. (2008), Herrera, H.W. et al. (2010), Hoffmann, B.D. et al. (2004), Holway, D.A. et al. (2002), Lubin, Y.D. et al. (1984), Peck, S.B. et al. (1998), Peck, S.B. et al. (1996), Pezzatti, P. et al. (1998), Plentovich, S. et al. (2011), Plentovich, S. et al. (2010), Roque-Albelo, L. et al. (1999), Tschinkel, W.R. et al. (2006), von Aesch, L. et al. (2005), Wheeler, W.M. et al. (1919).

37. *Solenopsis globularia pacifica* Wheeler, 1919

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Questionable Native.

Galapagos Distribution: Española, Fernandina, Floreana, Genovesa, Isabela, Pinta, San Cristóbal, Santa Cruz, Santa Fé, Santiago.

References: Linsley, E.G. et al. (1966), von Aesch, L. et al. (2005), Wheeler, W.M. et al. (1924).

38. *Solenopsis gnoma* Pacheco, Herrera & Mackay, 2007

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Native, Questionable Endemic.

Galapagos Distribution: Isabela, Santa Cruz.

References: Pacheco, J. et al. (2007).

39. *Strumigenys emmae* (Emery, 1890)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Floreana, Isabela, Santa Cruz.

40. *Strumigenys louisianae* Roger, 1863

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

References: von Aesch, L. et al. (2005).

41. *Tapinoma melanocephalum* (Fabricius, 1793)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Española, Fernandina, Floreana, Isabela, Marchena, Pinta, San Cristóbal, Santa Cruz, Santa Fé, Santiago.

References: Linsley, E.G. et al. (1966), Lubin, Y.D. et al. (1984), McMullen, C.K. et al. (2011), Peck, S.B. et al. (1998), Peck, S.B. et al. (1996), von Aesch, L. et al. (2005), Wheeler, W.M. et al. (1924).

42. *Tetramorium bicarinatum* (Nylander, 1846)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

References: Causton, C.E. et al. (2008), von Aesch, L. et al. (2005).

43. *Tetramorium caldarium* (Roger, 1857)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Floreana.

References: von Aesch, L. et al. (2005).

44. *Tetramorium cf. lanuginosum* Mayr, 1810

Taxon status: The identification of this taxon or its occurrence in Galapagos is doubtful.

Origin: Introduced, Accidental.

Galapagos Distribution: Santa Cruz.

45. *Tetramorium lanuginosum* Mayr, 1870

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

Galapagos Distribution: Española, Floreana, San Cristóbal, Santa Cruz, Wolf.

46. *Tetramorium simillimum* (F. Smith, 1851)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

References: Linsley, E.G. et al. (1966), Lubin, Y.D. et al. (1984), Peck, S.B. et al. (1998), Peck, S.B. et al. (1996), von Aesch, L. et al. (2005), Wheeler, W.M. et al. (1933).

47. *Wasmannia auropunctata* (Roger, 1863)

Taxon status: Accepted name; taxon occurs in Galapagos.

Origin: Introduced, Accidental.

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

References: Causton, C.E. et al. (2006), Causton, C.E. et al. (2005), Causton, C.E. et al. (2012), Causton, C.E. et al. (2008), Causton, C.E. et al. (2012), Causton, C.E. et al. (2008), Fournier, D. et al. (2005), Herrera, H.W. et al. (2008), Holway, D.A. et al. (2002), Linsley, E.G. et al. (1977), Lubin, Y.D. et al. (1984), McMullen, C.K. et al. (2010), Orivel, J. et al. (2009), Peck, S.B. et al. (1998), Peck, S.B. et al. (1996), Peck, S.B. et al. (1986), Peck, S.B. et al. (1996), Peck, S.B. et al. (1986), Roque-Albelo, L. et al. (1999), von Aesch,

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