

# CDF Checklist of Galapagos Cyanobacteria

Angel Chiriboga, Diego Ruiz, Stuart Banks

**Last updated:** 28 Jan 2014

## Abstract

This Checklist of Galapagos Cyanobacteria includes a total of all 8 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 Cyanobacteria currently known.

## Methods

This checklist of all known Galapagos Cyanobacteria 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Species Checklists represent the synthesis of many different records: literature citations, data from previously unpublished reports (grey literature), specimen records of natural history collections located in Galapagos and all over the world.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:** 8 (1 unidentified taxon, 7 preliminary identification).

1. *Aphanocapsa salinarum* Hansgirg

**Taxon status:** Identification not yet confirmed.

Mentioned in Setchell & Gardner (1937): 67, under *Dermocarpa sphaerica* var. *galapagensis*

**Origin:** No Data.

**Galapagos Distribution:** Santa Cruz.

**References:** Appeltans, W. et al. (2010), Setchell, W.A. et al. (1937).

2. *Lyngbya adherens* Setchell & N.L. Gardner

**Taxon status:** Identification not yet confirmed.

**Origin:** No Data.

**Galapagos Distribution:** Floreana, Santa Cruz.

**References:** Guiry, M.D. et al. (2010), Setchell, W.A. et al. (1937).

3. *Lyngbya consociata* Setchell & N.L. Gardner

**Taxon status:** Identification not yet confirmed.

**Origin:** No Data.

**Galapagos Distribution:** Santa Cruz.

**References:** Guiry, M.D. et al. (2010), Setchell, W.A. et al. (1937).

4. *Lyngbya willei* var. *galapagensis* Setchell & N.L. Gardner

**Taxon status:** Identification not yet confirmed.

**Origin:** No Data.

**Galapagos Distribution:** Isabela.

**References:** Guiry, M.D. et al. (2010), Setchell, W.A. et al. (1937).

5. *Microcoleus howellii* Setchell & N.L. Gardner

**Taxon status:** Identification not yet confirmed.

**Origin:** No Data.

**Galapagos Distribution:** Isabela.

**References:** Guiry, M.D. et al. (2010), Setchell, W.A. et al. (1937).

6. *Rhizonema* sp.

**Taxon status:** Taxon not identified to species, subspecies, form or variety.

F. Bungartz: a common photobiont of scytonematoid cyanobacteria in lichens (see Lücking et al. 2009); erroneously classified as a basidiomycete by Index Fungorum (Kirk 2010).

**Origin:** No Data.

**Galapagos Distribution:** Isabela, Santa Cruz.

**References:** Kirk, P. (ed.) et al. (2010), Lücking, R. et al. (2009).

7. *Scytonema guyanense* var. *marinum* Setchell & N.L. Gardner

**Taxon status:** Identification not yet confirmed.

**Origin:** No Data.

**Galapagos Distribution:** Fernandina.

**References:** Setchell, W.A. et al. (1937).

8. *Xenococcus endophyticus* Setchell & N.L. Gardner

**Taxon status:** Identification not yet confirmed.

**Origin:** No Data.

**Galapagos Distribution:** Isabela.

**References:** Guiry, M.D. et al. (2010), Setchell, W.A. et al. (1937).

### Acknowledgements

We are grateful for the financial report received for this project. Please refer to the website ([www.darwinfoundation.org/datazone/checklist/](http://www.darwinfoundation.org/datazone/checklist/)) for a detailed list of all our donors.

This checklist would not be possible without adjunct and collaborating scientists, and volunteers of the Charles Darwin Foundation.

### References

1. Appeltans, W., Bouchet, P., Boxshall, G.A., Fauchald, K., Gordon, D.P., Hoeksema, B.W., Poore, G.C.B., van Soest, R.W.M., Stöhr, S., Walter, T.C., Costello, M.J. (eds.) (2010) *World Register of Marine Species (WoRMS)*. Available online at <http://www.marinespecies.org>.
2. Guiry, M.D., Guiry, G.M. (2010) *AlgaeBase*. World-wide electronic publication, National University of Ireland, Galway. <http://www.algaebase.org>.
3. Kirk, P. (ed.) (2010) *Index Fungorum*. CABI Bioscience, CBS and Landcare Research, available online at [www.indexfungorum.org](http://www.indexfungorum.org).
4. Lücking, R., Lawrey, J.D., Sikaroodi, M., Gillevet, P.M., Chaves, J.L., Sipman, H.J.M. & Bungartz, F. (2009) *Do lichens domesticate photobionts like farmers domesticate crops? Evidence from a previously unrecognized lineage of filamentous cyanobacteria*. *American Journal of Botany* 96(8): 1409-1418.
5. Setchell, W.A., Gardner, N.L. (1937) *The Templeton Crocker Expedition of the California Academy of Sciences, 1932. No. 31: A preliminary report on the algae*. *Proceedings of the California Academy of Science*, series 4, 22(2): 65-98, 1 fig, plates 3-25.

---

### 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.

Please do not hesitate to contact us; your input is very welcome. However, please understand that additions, changes, and corrections will be posted at periodic intervals after thorough cross-referencing of all new data. As an independent international scientific organization, the Charles Darwin Foundation relies on funding from donors who support our work. Please contact us at [datazone@fcdarwin.org.ec](mailto:datazone@fcdarwin.org.ec) if you would like to support the Charles Darwin Foundation Galapagos Species Checklist and help make knowledge of Galapagos biodiversity more widely available.