



Universiteit
Leiden
The Netherlands

Giant barrel sponges in diverse habitats: a story about the metabolome

Bayona Maldonado, L.M.

Citation

Bayona Maldonado, L. M. (2021, April 22). *Giant barrel sponges in diverse habitats: a story about the metabolome*. Retrieved from <https://hdl.handle.net/1887/3160757>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3160757>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle #<https://hdl.handle.net/1887/3160757> holds various files of this Leiden University dissertation.

Author: Bayona Maldonado, L.M.

Title: Giant barrel sponges in diverse habitats: a story about the metabolome

Issue Date: 2021-04-22

Giant barrel sponges in diverse habitats: a story about the metabolome

Lina María Bayona Maldonado

Lina María Bayona Maldonado. 2021. Giant barrel sponges in diverse habitats: a story about the metabolome. Ph.D. Thesis at Leiden University, The Netherlands 2021.

ISBN: 978-94-92597-70-0

Design of covert: Sergio Bayona

Printing and biding: Printsupport4u

This Ph.D. research was made possible with the financial support of:

Science, Technology and Innovation Ministry, Colombian government.

The Dutch Research Council (NWO).

Natural products laboratory, Leiden University.

Giant barrel sponges in diverse habitats: a story about the metabolome

Proefschrift

Ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof.dr.ir. H. Bijl,
volgens besluit van het College voor Promoties
te verdedigen op donderdag 22 april 2021

klokke 16:15 uur

door

Lina María Bayona Maldonado
geboren te Bogotá, Colombia
in 1990

Promotoren

Prof. Dr. Peter G. L. Klinkhamer
Leiden University

Prof. Dr. Nicole de Voogd
Naturalis Biodiversity Center & Leiden University

Co-promotor

Dr. Young Hae Choi
Leiden University

Promotiecommissie:

Prof. Dr. Gilles van Wezel
Leiden University

Prof. Dr. Remko Offringa
Leiden University

Prof. Dr. Nathaniel Martin
Leiden University

Prof. Dr. Shirley A. Pomponi
Florida Atlantic University

Dr. David Overy
Ottawa Research and Development Centre

To Laura

Content

Chapter 1	General Introduction	11
Chapter 2	Recent progress in marine organism metabolomics	25
Chapter 3	Increasing Metabolic Diversity in Marine Sponges Extracts by Controlling Extraction Parameters	59
Chapter 4	Influence of the geographical location on the metabolic production of giant barrel sponges (<i>Xestospongia</i> spp.) revealed by metabolomics tools	77
Chapter 5	Metabolic variation in Caribbean giant barrel sponges: influence of age and sea-depth	117
Chapter 6	Study of the lipid profile of three different genetic groups of the Indo-Pacific giant barrel sponge and possible implications in their response to environmental conditions	141
Chapter 7	Concluding remarks and future perspectives	179
References		189
Summary		213
Samenvatting		216
Resumen		219
Curriculum Vitae		222
List of publications		223

