



39 years, Colombia

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Since my undergraduate studies, I have followed an academic training focused on Marine Biology and Ecology and Oceanography, with focus on biodiversity assessments and the present interactions between human and the ocean. I did several internships which allowed me to get familiar or expert in taxonomy and systematics of marine organisms, aquaculture, bioprospection, benthic population dynamics and marine ecosystems surveys. My experience with field works is complemented by the practices of several key laboratory techniques such as histology and cytology, molecular biology and metabolomics. My PhD thesis defended in June 2017 was an original interdisciplinary which combined these techniques with *in situ* experimental works to analyze the biodiversity of a particular sponge class and its adaptation to living in extreme environments.

Professional experience

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| Mar - Dec 2009
Santa Marta – Colombia | Scientific Assistant
Support for administrative, laboratory, diving and information analysis activities in the Research Project “« Evaluación de la oferta natural y potencial de producción de metabolitos bioactivos de la esponja marina <i>Discodermia dissoluta</i> »
Universidad Nacional de Colombia (Adviser: S. Zea). |
| Aug 2105 – Dec 2016
Marseille - France | Scientific Assistant,
Centre National de la Recherche Scientifique (CNRS), Support for laboratory and diving activities. Institut Méditerranéen de biodiversité et d'écologie marine et continentale (IMBE), Station Marine d'Endoume (Adviser : T. Pérez) |
| 2016 - 2019
Marseille – France | Assistant Professor in Marine Biodiversity course. DESU “biodiversité, villes et territoire” Aix-Marseille Université. 8 hours course per year. The course was addressed to professionals working with environment (protected area managers, guards) and it was focused on Mediterranean marine ecosystems, including definition of biodiversity, remarkable ecosystems, key species. Anthropogenic and biological problems in the sea such as pollution, climate change and invasive species. Advises to policy makers, mitigation and restoration of marine ecosystem |
| Oct 2017 - Aug 2018
Marseille – France | Assistant Professor in Biology and Ecology
(IMBE) Aix-Marseille University. 192 hours. The course third year university students (Licence 3) in aquatic ecosystems. Key concepts in ecology, biodiversity, field methods to study marine and freshwater ecosystems. Focus on eutrophication and anthropogenic disturbances and different methodologies used to restore natural habitats. |
| Oct 2021 - Present
Marseille – France | Post Doctorate
(IMBE) Station Marine d'enodume. Research project title: Characterizing Sponge Exo-metabolomes as sustainable Sources of new AntiMicrobial (SESAM). My principal mission is to stablish experimental protocols for the separation and identification of sponge cells, characterize the microbial community associated to sponge species. |

Education

2003 – 2009 Bogotá – Colombia	Bachelor's degree in Marine Biology Jorge Tadeo Lozano University
2010 – 2012 Marseille – France	Master degree in Oceanography, Marine biology and Ecology Aix-Marseille University
2012 – 2013 Marseille – France	University diploma DU PREDice Aix-Marseille University
2013 - 2017 Marseille – France	Doctor's degree in Environmental Sciences. Thesis title « Apport de la Taxonomie Intégrative à la compréhension des mécanismes à l'origine de la biodiversité des spongiaires dans les grottes sous-marines » Thesis Director : Dr. Thierry PEREZ ; Co-director : Prof. Olivier THOMAS. Thesis presented in Juin 23 2017. Aix Marseille Université
2020 – 2021 Marseille – France	Master degree CCI – Complementary Competences in Informatics Aix-Marseille University

Congress, seminars and Workshops

Oct 2006 La Habana – Cuba	Latino-American congress in Marine Sciences COLACMAR – Cuba. Speaker: Presencia de una poblacion somera de la esponja marina <i>Discodermia dissoluta</i> en Santa Marta, Caribe colombiano.
1 – 5 Apr 2013 Paris - France	Workshop. DNA-Barcoding course. MNHN
1 – 8 Dec 2013 La Martinique	Workshop. Biodiversité des éponges de la Mer Caraïbe : atelier de la Martinique LIA-MARRIO
7 – 16 Sep 2014 Malta	Workshop. Malta 2014: An international Workshop on Marine biodiversity BIODIVMEX
31 – 6 Nov 2016 Rio de Janeiro	Workshop II. Rio de Janeiro 2016: Biodiversité des éponges de la Mer Caraïbe: Speaker conference 1: Homoscleromorpha classification revised through Integrative Taxonomy. Speaker conference 2: Coupling Metabarcoding and Metabolomics to better understand the ecological succes of Homoscleromorpha sponges in underwater caves
26 – 29 Mar 2018 Paris-France	European conference of Tropical Ecology. Speaker: Combining Metabarcoding and Metabolomics to better understand the ecological success of Homoscleromorpha sponges to marine caves
10-15 Sep 2018 Marseille-France	Workshop. 4 th International Workshop on Taxonomy and Systematics of Atlanto-Mediterranean Deep-Sea and Cave sponges. Speaker: Recent advances in the Taxonomy and Systematics of Homoscleromorpha sponges in marine caves under an integrative approach.
1-5 Nov 2018 Kalymnos-Grece	Workshop. Spatial and temporal Adaptation of a traditional Mediterranean fishery facing Regional Change: Combining history and ecology to study past, present and future of sponge harvesting

22-23 July 2021

Virtual Workshop. QIIME2 ISME-LAT. Lectures and practical work covering basics Qiime2 usage and theory: from raw sequence data through publication quality statistics and visualization.

Poster 1: *Present status of Maltese Cave Ecosystem.* Presented in the International conference of the Ecological french society. Marseille 24-27 October 2016.

Poster 2: *Combining Metabarcoding and Metabolomics to better understand the ecological success of Homoscleromorpha sponges in underwater caves.* Presented in the 10th World Sponge Conference, June 25-30. Galway

Publications (10 in total)

RUIZ, C.A, ZEA, S. VALDERRAMA, K. and CASTELLANOS, L. **2013.** Mariculture and natural production of the antitumoral (+)-Discodermolide by the Caribbean marine sponge *Discodermia dissoluta*. **Marine Biotechnology.** 15(5): 571-583

BOURY-ESNAULT, N., LAVROV., D. **RUIZ, C.A** and PEREZ, T. **2013.** Integrative taxonomy applied to Homoscleromorpha. **Integrative and Comparative Biology.** 5 (3): 416-427

RUIZ, C.A, IVANISEVIC, J., CHEVALDONNE, P., ERESKOVSKY, A., BOURY-ESNAULT, N., VACELET, J., THOMAS, O. and PEREZ, T. **2015.** Integrative taxonomic description of *Plakina kanaky*, a new polychromatic sponge species from New Caledonia (Porifera: Homoscleromorpha). **Marine Ecology.** 36: 1129-1143

RUIZ, C., MURICY, G., LAGE, A., DOMINGOS, C., CHENESSEAU, S. and PEREZ, T. **2017.** Descriptions of a new sponge species and genus, including aspiculate Plakinidae, overturn the Homoscleromorpha classification. **Zoological Journal of the Linnean Society.** 179: 707-724

PEREZ, T., Díaz M.-C., **RUIZ, C.,** CONDOR-LUJAN, B., KLAUTAU, M., HAJDU, E., LOBO-HAJDU, G., ZEA, S., POMPONI, S.A., THACKER, R.W., CARTERON, S., TOLLU, G., POUGET-CUVELIER, A., THELAMON, P., MARECHAL, J.-P., THOMAS, O.P., ERESKOVSKY, A.E., VACELET, J. and BOURY-ESNAULT, N. **2017.** How a collaborative integrated taxonomic effort has trained new spongiologists and improved knowledge of Martinique Island (French Antilles, eastern Caribbean Sea) marine biodiversity. **PLoS ONE** 12(3): e0173859

PEREZ, T and **RUIZ C.** **2018.** Description of the first Caribbean Oscarellidae (Porifera: Homoscleromorpha). **Zootaxa** 4369(4):501-514

LAGE, A. MURICY, G. **RUIZ, C** and PEREZ, T. **2018.** New sciaphilic plakinids (Porifera, Homoscleromorpha) from the Central-Western Pacific. **Zootaxa** 4466(1):8-38

GRENIER, M. **RUIZ, C.** FOURT, M. SANTOJA, M. DUBOIS, M. KLAUTAU, M. VACELET, J. BOURY-ESNAULT, N. and PEREZ, T. **2018.** Sponge inventory of the French Mediterranean waters, with emphasis on cave-dwelling species. **Zootaxa** 4466(1): 205-228

GRENIER, M. **RUIZ, C.** LAGE, A. PEREZ, T. **2020.** New cave-dwelling *Plakina* (Plakinidae, Homoscleromorpha, Porifera) from Martinique Island (French Antilles). **Zootaxa** 4729(1):92-104

RUIZ, C. VILLEGAS, M. THOMAS, O. JUNCA, H. PEREZ, T. **2020.** Specialized microbiome of the cave-dwelling sponge *Plakina kanaky* (Porifera, Homoscleromorpha). **FEMS Microbial Ecology** 96(4) :

STILLITANI, D. ERESKOVSKY, A. PEREZ, T. **RUIZ, C.** LAPORT, M. PUCCINELLI, G. CASSIOLATO, C. HARDOIM, WILLENZ, P. MURICY, G. Solving a taxonomic puzzle: integrative taxonomy reveals new cryptic and polymorphic species of *Oscarella* in Southeastern Brazil (Homoscleromorpha: Oscarellidae). *Invertebrate systematics (in press).*

RUIZ, C. ERESKOVSKY, A. PEREZ, T. New skeleton-les Homoscleromorpha (Porifera, Homoscleromorpha) from the Caribbean sea: exceptions to rules are definitely common in sponge taxonomy. *Submitted to Zootaxa 06/01/2021*

Personal competences

Langue's

Espagnol (Maternal language)

Français

Anglais

Professional Diver

Certificat d'Aptitude Hyperbare (CAH) Classe 1B / HSE 30 m

Amateur Diver

CMAS 3 France

Professional and personal references

Dr. Thierry Pérez

thierry.perez@imbe.fr (former Master and Phd supervisor)

Dr. Olivier P. Thomas

olivier.thomas@nuigalway.ie (former Phd co-supervisor)

Dr. Sven Zea

sezeas@unal.edu.co (former internship adviser)

Dra. Nicole Boury-Esnault

nicole.boury-esnault@orange.fr

Dr. Jean Vacelet

jean.vacelet@imbe.fr