

First Name: *Tania*

Last Name: *Hernández Fariñas*

Birth date : 30/12/1985

Nationality : French, Cuban

Driver license

Address : 65, Route de la Jonelière

44300, Nantes, France

Phone number : 00 33 (0) 6 75 66 74 46

Email : tfarinas.hernandez@gmail.com

Skills

- **scientific skills** : marine/plankton ecology, numerical ecology, time-series analysis, modeling, coastal area monitoring

- **computation skills** : statistics, advanced programming/ecological data mining and analysis (R), parallel computing, GIS, MS Office suite, LaTeX

- **professional skills** : project management, multidisciplinary team work, oral and written communication, internship supervisor (master degree), diving experience

Languages

Spanish : Mother tongue

French : Bilingual

English : Full professional proficiency

Education

IFREMER – Nantes University, France

Ph.D: Biological oceanography

2015

AgroCampus Ouest University – Rennes, France

Master degree: Environmental Engineering

Specialization in Resources and Aquatic Ecosystems

2011

Havana University, Cuba

Bachelor in Biological Sciences

Specialization in Marine Ecology

2008

Research Experience

Post-doctoral Research: Mer Molécules Santé Laboratory, University of Nantes

Microphytobenthos as an indicator of ecological status of transitional waters

Juin 2016

-to date

Supervisor : Pr. Laurent Barillé

→ organizing and safely undertake field-based research in mudflats

→ analyze the structure of microphytobenthos communities along a gradient of anthropogenic pressures

→ analyze by satellite remote-sensing the temporal and spatial dynamics of benthic microalgae biofilms covering intertidal sediments

Post-doctoral Research: Biological Station of Roscoff, University of Pierre et Marie Curie, IFREMER – Brest, France

Supervisors : Dr. Raffaele Siano, Dr. Nathalie Simon

→ numerical study of spatial and temporal variability of phytoplankton communities in heterogeneous environments through genetic and pigmentary data

Juin 2015-

April 2016

Doctoral Research: IFREMER – University of Nantes, France

2011-2015

Assessing and modeling long-term changes of phytoplankton populations in coastal areas in response to climatic variations and anthropogenic disturbance

Supervisors : Dr. Cédric Bacher, Pr. Laurent Barillé

- numerical study of the impact of climate variability and human activities on the long-term structure of phytoplankton assemblages
- analysis of the role of environmental factors shaping communities structures
- development of a data analysis strategy and implementation of a toolbox made of statistical using R software

Master Internship: IFREMER – La Seyne sur Mer, France

2011

Adapting indicators of fish populations' diversity to the use of remote underwater video technique

Superviseur: Mr. Marc Bouchoucha

- development of an ecological index based on fish community health
- planning and organization of field-based research, diversity of fish assemblages, taxonomy identification, build an R package for data analysis

Research assistant: Fisheries Research Center – La Habana, Cuba

2008-2010

- Field study of the phytoplankton assemblages, taxonomic identification and cell counting
- Shrimps stock assessment (*Litopenaeus schmitti* and *Farfantepenaeus notialis*). Physico-chemical monitoring of fishing areas. Monitoring of shrimps populations in nursery areas, study of incidental catches, monitoring of water quality

Bachelor Internship: Fisheries Research Center – La Habana, Cuba

2008

Spatial and temporal distribution of epiphytic dinoflagellates associated with ciguatera intoxication

Supervisor: Dr. Gilma Delgado Miranda

- investigate the spatial and temporal dynamic of potentially harmful epiphytic dinoflagellates (*Prorocentrum lima*, *Ostreopsis ovata*, *Coolia monotis* and *Gambierdiscus toxicus*)
- study the association between epiphytic dinoflagellates and macroalgae hosts

Research volunteer: Marine Research Centre – University of La Habana, Cuba

2005-2007

Status and trends of a coral reef ecosystem at Sibarimar

- evaluation of the coral reef health in the northern zones of Cuba, application of the international monitoring programs RECON and Reef Check to coral reef condition statement

Sea turtle monitoring program for the conservation of *Chelonya mydas* and *Caretta caretta* species in the Guanahacabibes

- population monitoring during the nesting season, measure of several biological parameters (number of nesting females, hatching success rates) and participation to tagging studies

Teaching Experience

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|---------------------------------------------------------------------------------------------------|-----------|
| → Assistant Professor : Biostatistics and Modelling – Master degree, University of Nantes, France | 2016 |
| → Teaching intervention : Ecosystem functioning and diversity – University of Nantes, France | 2012 |
| → Instructor: assistant responsibility in zoology laboratory – University of La Habana, Cuba | 2004-2007 |

Award and Grants

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| → Fondation de France /IFREMER (France)- Full scholarship grant | 2011-2014 |
| → COI-AECID-Spanish Institute of Oceanography (Spain)- fellowship and travel grant ~ 3000€ | 2010 |

Publications and Book Chapters

Hernández-Fariñas, T., Ribeiro, L., Soudant, D., Belin, C., Bacher, C. and Barillé, L. Contribution of benthic microalgae life-forms to temporal variation of phytoplankton assemblages in a macrotidal system. (Submitted to Journal of Plankton Research)

Klouch, K., Caradec, F., Plus, M., **Hernández-Fariñas, T.**, Pineau-Guillou, L., Chapelle, A., Schmitt, S., Queré J., Guillou, L., Siano, R. (2016): Heterogeneous distribution in sediments and dispersal in waters of *Alexandrium minutum* in a semi-enclosed coastal ecosystem. -Accepted in Harmful Algae.

Husson, B., **Hernández-Fariñas, T.**, Le Gendre, R., Schapira, M. and Chapelle, A. (2016): Two decades of *Pseudo-nitzschia* spp. blooms and their links with king scallops (*Pecten maximus*) contamination by domoic acid along the English Channel and Atlantic French coast: seasonal dynamics, spatial heterogeneity and interannual variability. -Harmful Algae, 51: 26 - 39.

Hernández-Fariñas, T., Bacher, C. (2015): Biodiversité du phytoplancton: réponses aux changements environnementaux dans les zones côtières. In: Mer et Océan: Diversité et fonctions de systèmes écologiques marins (Eds: André Monaco et Patrick Prouzet.), Volume 05. (English version available)

Hernández-Fariñas, T., Bacher, C., Soudant, D., Belin, C. and Barillé, L. (2015): Assessing phytoplankton realized niches using a French National Phytoplankton Monitoring Network. – Estuarine, Coastal and Shelf Science, 159 (20): 15 – 27.

Hernández-Fariñas, T., Soudant, D., Barillé, L., Belin, C., Lefebvre, A., and Bacher, C. (2014): Temporal changes in the phytoplankton community along the French coast of the eastern English Channel and the southern Bight of the North Sea. – ICES Journal of Marine Science, 71 (4): 821 - 833.

Publications in preparation

Hernández-Fariñas, T., Delmas, D., Christen, R. Madec, L., Siano, R. Picophytoplankton similarity across temporal and spatial scales in North Atlantic coastal ecosystems. In prep.

Simon, N., Manno, M., Rigaut-Jalabert, F., Romac, S., Audic, S., **Hernández-Fariñas, T.**, Guilloux, L., Siano, R., Cariou, T., and Not, F. Annual patterns of plankton diversity revealed using molecular metabarcoding. – Intended to *ISME journal*.

International Conferences and Workshops

- ECSA 53: Estuaries and coastal areas in times of intense change. Shanghai, China 2013
- Temporal changes in the phytoplankton community along the French coast of the eastern English Channel and the southern Bight of the North Sea
- Working Group on Phytoplankton and Microbial Ecology - Annual Meeting. International Council for the Exploration of the Sea (ICES/CIEM). Málaga, Spain 2012
- Time Series Analysis in marine science and applications for industry. Brest, France 2012
- XIII Conference COLACMAR, VIII Congress of Marine Science, Mar Cuba. La Habana, Cuba - Poster 2010
- Spatial and temporal dynamic of potentially toxic dinoflagellates associated to the ciguatera intoxication
 - Structure of phytoplankton communities in the Gulf of Guacanayabo, Cuba

Referees

Name: **Dr. Cédric Bacher**

Former (or current) relationship: PhD Supervisor

Company: IFREMER/Head of DYNECO department

Address: Centre IFREMER de Brest, Pointe du Diable, 29280 Plouzané, France

Phone number: 00 33 (0) 2 98 22 42 15

Email: cedric.bacher@ifremer.fr

Name: **Pr. Laurent Barillé**

Former (or current) relationship: PhD Supervisor

Company: Nantes University

Address: UFR sciences pharmaceutiques et biologiques, 9 rue BIAS, BP 53508, 443035 Nantes, France

Phone number: 00 33 (0) 2 51 12 56 55

Email: Laurent.Barille@univ-nantes.fr

Name: **Dr. Dominique Soudant**

Former (or current) relationship: PhD Supervisor

Company: IFREMER/VIGIES

Address: Centre IFREMER de Nantes, Rue de l'Île d'Yeu, 44980 Nantes

Phone number: 00 33 (0) 2 40 37 41 14

Email: dominique.soudant@ifremer.fr

Name: **Dr. Raffaele Siano**

Former (or current) relationship: Post Doc Supervisor

Company: IFREMER/DYNECO PELAGOS

Address: Centre IFREMER de Brest, Pointe du Diable, 29280 Plouzané, France

Phone number: 00 33 (0) 2 98 22 45 48

Email: raffaele.siano@ifremer.fr