

PERSONAL INFORMATION

Name: Natalia Duque Núñez.

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Nationality: Spanish

Date of Birth: 05/04/1989



EDUCATION

2013-2015: Master's degree in Marine Biology, University of Algarve (Faro, Portugal).

Master's thesis: Comparing *Zostera* and *Spartina* environments in relation to carbon burial: a sedimentary and geochemical approach from Ria Formosa. Qualification obtained: 17.

2007-2012: Bachelor's degree in Marine Science. University of Cadiz (Spain). Quantification obtained 13.

TRAINING

2017: Laboratory waste management. Carmona Company. University of Algarve (Faro Portugal)

2016: Professional formation certificate first aid. Escola de Socorrismo Cruz Vermelha Portuguesa, Lisboa.

2016: Collaboration in the Technical Meeting Conservation of Coastal Carbon Sinks, Malaga, November 2016. With Rui Santos in the work: Carbon sequestration of coastal vegetation (low saltmarsh and seagrass) along a hydrodynamic gradient.

2016: Collaboration in VIII Jornadas de Acuicultura en el Litoral Sur Atlántico. Edición: 16ZV20020101, IFAPA Centro Agua del Pinno en CARTAYA (HUELVA)

2016: Course "*Mendeley*, gestor bibliográfico e de pdf's". Library of University of Algarve (Faro, Portugal).

2015: Course Revolution R: quantitative ecology and special prediction of species distribution. CCMAR, Center of Marine Sciences, University of Algarve (Faro, Portugal).

2013: Course Ocean Solution (online), University of Western Australia (UWA) (1 Month).

2012: III International Symposium of Marine Science. University of Cadiz (Spain).

2008: Diving Course "Open water diver". Tarifa (Spain).

2008: Monographic Course: Operation and Management of Sharks in Large Aquariums. Oceanographic of Valencia.

2009: Monographic course: Management and Maintenance Aquarium. Aquarium of Almuñecar.

2009: Food Handler Course.

WORK EXPERIENCES

2016- 2017: Msc research fellow CCMAR/BI/0006/2016 of the project **CUMARSUR**, "Sea CUcumber as new MARine reSoURce: potential for aquaculture "of Universidade do Algarve, from June 1st 2016 to May 31st 2017.

During the period in which I was assigned the research fellowship CCMAR/BI/0006/2016, under the project CUMARSUR, I performed the following activities:

Laboratory manager: Planning and organization.

Disposal of Laboratory Wastes.

Preparation of reports and protocols.

Inventory and purchase of laboratory equipment.

Equipment calibration.

Chemical organization. Security lockers.

Preparation of material needed for field work.

Sea cucumber sampling by snorkel in Ria Formosa (Portugal).

Determination of chlorophyll, organic matter and granulometry on sediment samples;

Analysis of water samples including pH, dissolved oxygen, nitrates, nitrites, phosphates, amonia;

Maintenance and surveillance of breeders and juvenils of holothuria arguinensis;

Microalgae and diatoms production to feed the different stages of sea cucumbers;

DNA Extractions.

2015: Volunteer research assistant; MARESMA team CCMAR, Universidade do Algarve.

Mesocosms experiment of feeding ecology and growth of juvenile of the sea cucumber *Holothuria arguinensis*.

Feeding and healthcare of juveniles and adults of the sea cucumber *Holothuria arguinensis*.

Sea cucumbes´ tank maintenance.

Microalgae and diatoms culture, maintenance and growth medium preparation.

Water samples analysis: nitrate, nitrite, ammonia, phosphate, using a HI 83200 Photometer Multiparmetric for water.

Sediment granulometry using the digital electromagnetic sieve shaker FTS-0200 (Filtra Vibración).

Determination of organic matter contents in sediment samples by loss of ignition.

Equipment and sampling preparation.

Performance of sea cucumber´ sampling on scuba diving and snorkel in Spain and Portugal.

2012 – 2013: Collaboration with the University of Gambelas (Faro) in the Impact on the stock produced by Shark Fishing.

Preparation of shark´s vertebrates for age estimation.

2011: Internship position at the Roquetas de Mar´s Aquarium (3 Month).

Maintenance and cleaning of aquarium: water quality (pH, nitrate, nitrite, ammonia and dissolved oxygen), filter and tank cleaning.

Aquarium animals feed and care

Aquarium diving skills: maintenance, cleaning and feeding

Thematic educational activities and communication

RESEARCH SKILLS

- Sea cucumber aquaculture experience: feeding, healthcare, tank maintenance and growth estimation.
- Experience in experimental work with HI 83200 Photometer Multiparametric for water samples analysis: nitrate, nitrite, ammonia, phosphate.
- Sediment granulometry by laser counting and sieving. Through Mastersize 2000 model APA of 2000 of ©Malvern Instruments Ltd.
- Diffuse Reflectance Spectroscopy for color determination of sediment. Through Spectrophotometer Colortron™.
- Mineral identification. Through X- Ray Diffractometer “X’pert”.
- Determination of organic matter and carbonate contents in sediment by loss of ignition.
- Determination of elemental composition: OC, IC, ON, IN and C/N. Through Costech 410 Elemental Analyzer.
- Isotopes analysis (N15 and C13).
- Determination of pigment contents. (Chla – fluorometrically and Chlorophylls and carotenoids – Liquid chromatography).
- The buoyant weight method.
- Techniques in molecular biology: DNA, extraction electrophoresis, PCR (Polymerase Chain Reaction).
- Culture, growth and analysis of microalgae biomass for biotechnological application. Faculty of Science and Technology (University of Algarve).

EXPERIMENTAL WORK

- Experimental work in Marine biology Master: Measurements of the growth and calcification rates of the free-living coralline algae *Lithophyllum margaritae*: THE BUOYANT WEIGHT METHOD. Faculdade de Ciências e Tecnologia, Campus Gambelas. Grupo ALGAE, CCMAR (University of Algarve).
- Experimental work in Marine biology Master: Different techniques in molecular biology. Faculdade de Ciências e Tecnologia, Campus Gambelas. Grupo de Investigação Científica FBHRG Centro de Ciências do Mar – CCMar (University of Algarve).
- Experimental work in Marine biology Master: Estudo da acumulação sedimentar na Ria Formosa. UALG, FCT, CIMA (University of Algarve).
- Experimental work in Marine biology Master: Estudo da acumulação de carbono na Ria Formosa. UALG, FCT, CCMAR (University of Algarve).

- Experimental work in Marine biology Master: Effects of CO₂ increase on seagrass *Zostera Noltii*. Faculdade de Ciências e Tecnologia, Campus Gambelas. Grupo ALGAE, CCMAR (University of Algarve).
- Experimental work in Marine biology Master. Growth and biomass analyses of microalgae for biotechnological application. Faculty of Science and Technology (University of Algarve).

LANGUAGE

Spanish:	Mother tongue.
Portuguese:	Four years living in Portugal.
English:	B1 level (reading, speaking and writing).

COMPUTER SKILLS

Windows Operating system.
Microsoft Office Package: Word, Excel, Power Point.
Prezy.
The R statistical Computing.
Bioinformatics tools.

ADDITIONAL INFORMATION

Driving License: B1.
Availability: National and International.

SCHOLARSHIPS AWARDED

2012-2013: Erasmus Exchange Program Scholarship, University of Algarve (9 months).
Spanish Government Scholarship to enroll at university studies: 2007, 2010 and 2012.