

GROUP 1

Topic 1

Organic matter **production.**
**Environmental constraints and biological
optimizations**



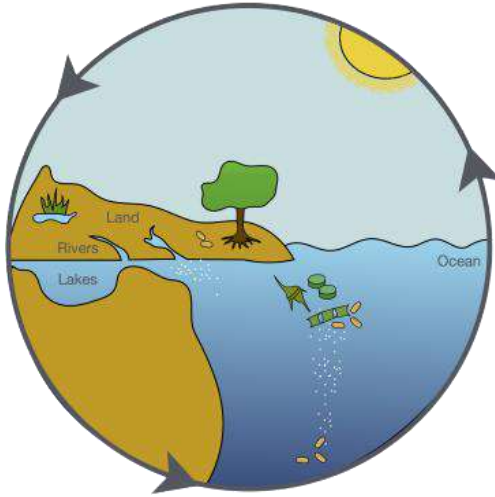


GABRIEL BITTENCOURT FARIAS

I am a Brazilian biologist with a bachelor in Biological Sciences and a Master in Oceanography. Since my graduation I studied planktology working with zooplankton and phytoplankton diversity, biomass and productivity in the tropical south Atlantic.



THE RAMON MARGALEF
SUMMER COLLOQUIA



RESEARCH



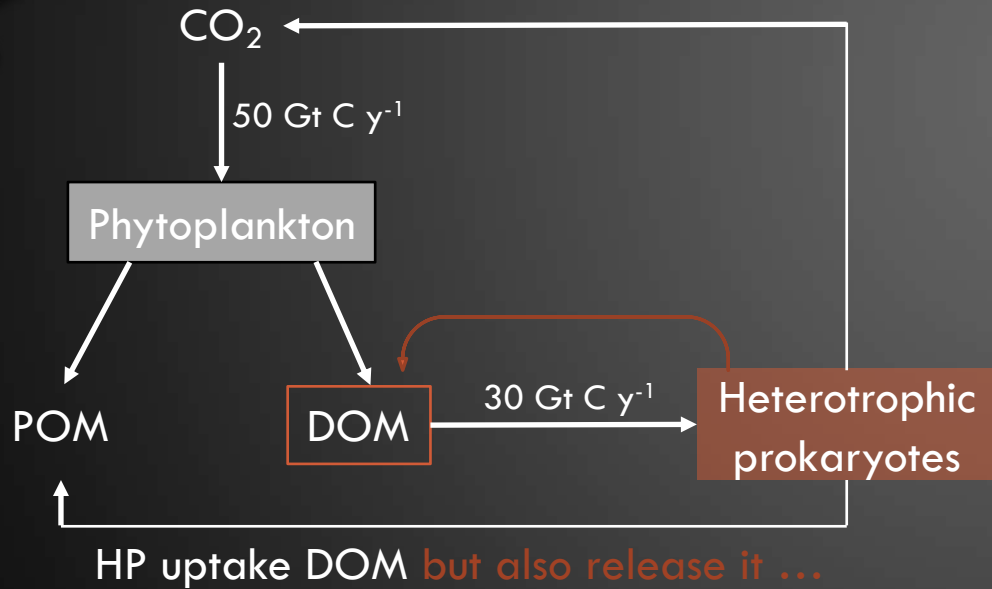
1. Currently in a PhD on Oceanography at the Federal University of Pernambuco (Brazil). The main goals of my PhD research project are study the dynamics of planktonic communities (Phytoplankton and Bacterioplankton) in the tropical south Atlantic.
2. The participation in the VII Ramon Margalef Colloquia will contribute to deepen my plankton, biological and general carbon cycle knowledge.

BOUCHACHI Nawal



- Algerian, doing my PhD in France
- Passionate about Marine sciences
- Travel lover
- Determined and adventurous
- Loves to learn new things

My research



- DOM release by Heterotrophic prokaryotes - microbial carbon pump
- DOM quality and quantity - P limitation
- Experimental work - *in situ* monitoring

My expectations

- Exchange and learn with students and researchers
- Place my work in a broader context



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Michaela de Melo “Mika”

- ❖ Waterfalls
- ❖ Hiking
- ❖ Cooking
- ❖ Macrame
- ❖ Plants
- ❖ My cat Chatou



michaelaldemelo@gmail.com



Research

- ✓ PhD with Microbial Ecology and DOM Amazon
- ✓ Postdoc at UQAM, CarBBAS Lab – Prof. Paul del Giorgio
- ✓ Biogeochemistry of rivers: metabolism, emissions, export, DOM, Microbial Ecology



Interests

- ✓ Research interests
- ✓ Discussion, learning and exchange
- ✓ Interaction and collaboration with early careers

AFONSO FERREIRA

- 28 years old
- Madeira Is., Portugal → Lisbon (currently)
- Marine biologist
- Travelling and nature walks
- Dreams? Good question!
- Picture? When work, travelling and nature aligns.



MY RESEARCH

- Marine Phytoplankton Ecology | Ocean Colour Remote Sensing
- PhD student at the University of Lisbon (MARE – Marine and Environmental Sciences Centre) → Phytoplankton response to climate change in the Northeast Atlantic and the Southern Ocean (broad theme)
- Next: Finish the PhD and continue in academia (hopefully still within remote sensing and phytoplankton)

EXPECTATIONS FOR THE COLLOQUIUM

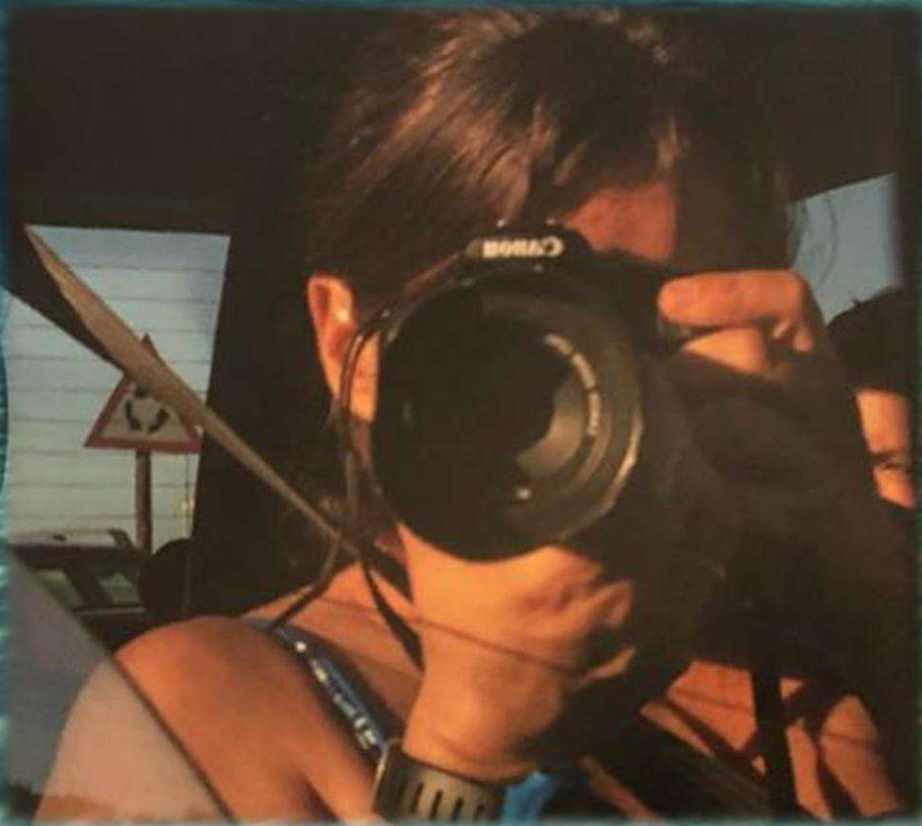
- Very curious about the more discussion-focused format (looking forward!)
- Overall, I hope it becomes a key part of my PhD experience: all the interaction/discussion fills a void left by the pandemic in current PhD students.

LUCIANA/FRAZÃO/LU

- Biologist, Master and Ph.D. in progress in Oceanography in University of São Paulo, Brazil. Over 18 years of experience in environmental and ocean sciences, acting on marine environmental studies and impact assessment for environmental licenses, focused in plankton and marine pollution.

- I love the sea and all its life forms, nature photography and trips to wild places.

- My dreams: Develop research in Antarctica, clean the oceans, better know the African continent, and leave a better world for my children and next generations.



My research has focus on marine microbial plankton, its role on carbon flows in ocean basins and the exchange CO₂ between the atmosphere and the ocean. Due to the pandemic, significant changes were made to my original research. Therefore I am in the project adjustment phase and next steps depend on it.



Expectations: significantly improve my knowledge on global carbon flow, use this knowledge on the development of my research and on promoting actions directed to Decade of Ocean Sciences, on my country.

Xabier López Alforja

Researcher in Marine Sciences, specialized in Marine Microbial Ecology, Bioinformatics and Biostatistics. I am passionate about everything that surrounds the sea and science, both in the field and laboratory.



@XabierLpez2



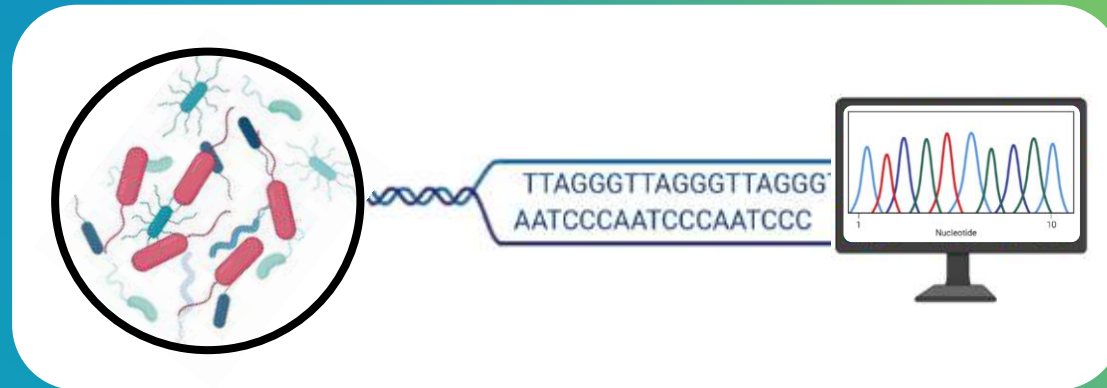
xabilopalf@outlook.es



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Currently starting a PhD within the Marine Microbial Ecology group (ICM-CSIC, Barcelona). My goal is to grow in the field of metagenomics and metaviromics to investigate the relationship between viruses and marine protists.



WHY?

Multidisciplinarity is the key for an overall understanding of marine ecosystems and processes. This colloquium could give me the opportunity to broaden my horizons and develop new skills.



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Inès Mangolte



Picture of the Amazonian rainforest (july 2019)

Grew up in New Caledonia,
higher education in Paris

Very worried about the climate,
biodiversity, etc. crises

Love books (history, fantasy),
horses, and chocolate



Institut
**Pierre
Simon
Laplace**



SCRIPPS INSTITUTION OF
OCEANOGRAPHY

1 year left in my PhD (supervised by Marina Lévy)

Plankton ecology in frontal regions

Interdisciplinary + multiple approaches (complex modelling, simple modelling, in-situ data)

Hope to work in conservation science after

Improve my knowledge on ecology

Interact with people who work on similar topics

Amavi Silva



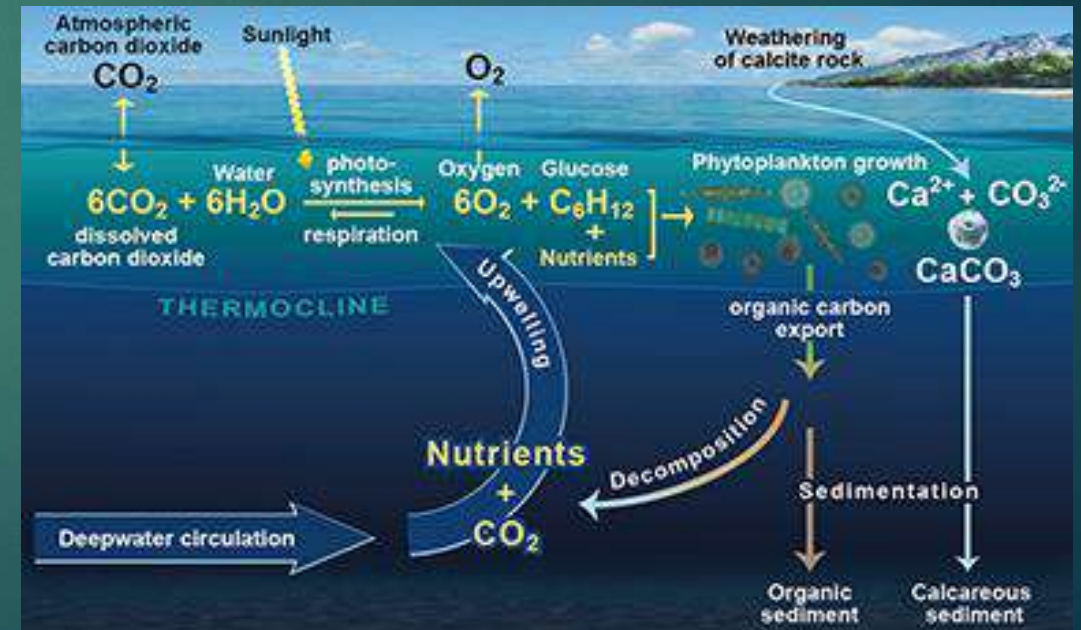
- Sri Lankan
- Writer/Traveller
- Enthusiast in science communication

Research:

- Investigating gas exchange dynamics of CO_2 & O_2 in the global ocean
- PhD candidate (2nd year)
- PhD → Postdoc → Science communication in SL

Why RMSC 2021?

- Integrated platform
- Kindred souls!



GROUP 2

Topic 2

Organic matter decomposition.
**Environmental constraints and biological
optimizations**





Dalida Bedikoğlu, M.Sc., 2020

*Institute of Marine Sciences & Management,
Istanbul University, Turkey*

- **I like to feel free and equal.**
That's exactly how I feel on the sea during research cruises.
- **I hope one day;**
I will participate in research expeditions in the open oceans and high seas..



THE RAMON MARGALEF
SUMMER COLLOQUIA

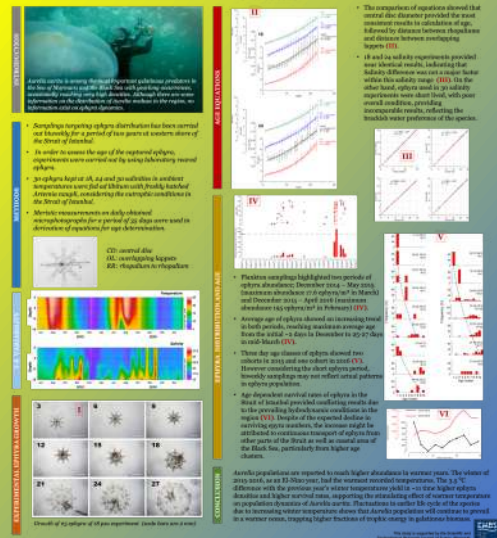
New Goals;

- As a PhD candidate, the research question is;
In a permanently stratified ecosystem, what role does the DVM of zooplankton play in the carbon cycle?
- Afterward, testing climate change and acidification scenarios by experiments and models

Recent Projects;


Growth, adaptation and distribution of *Aurelia aurita* ephyra in the Strait of Istanbul

I. Noyan Yılmaz*, Dalida Bedikoğlu
Department of Marine Biology, Istanbul Kültür University, Istanbul, Turkey

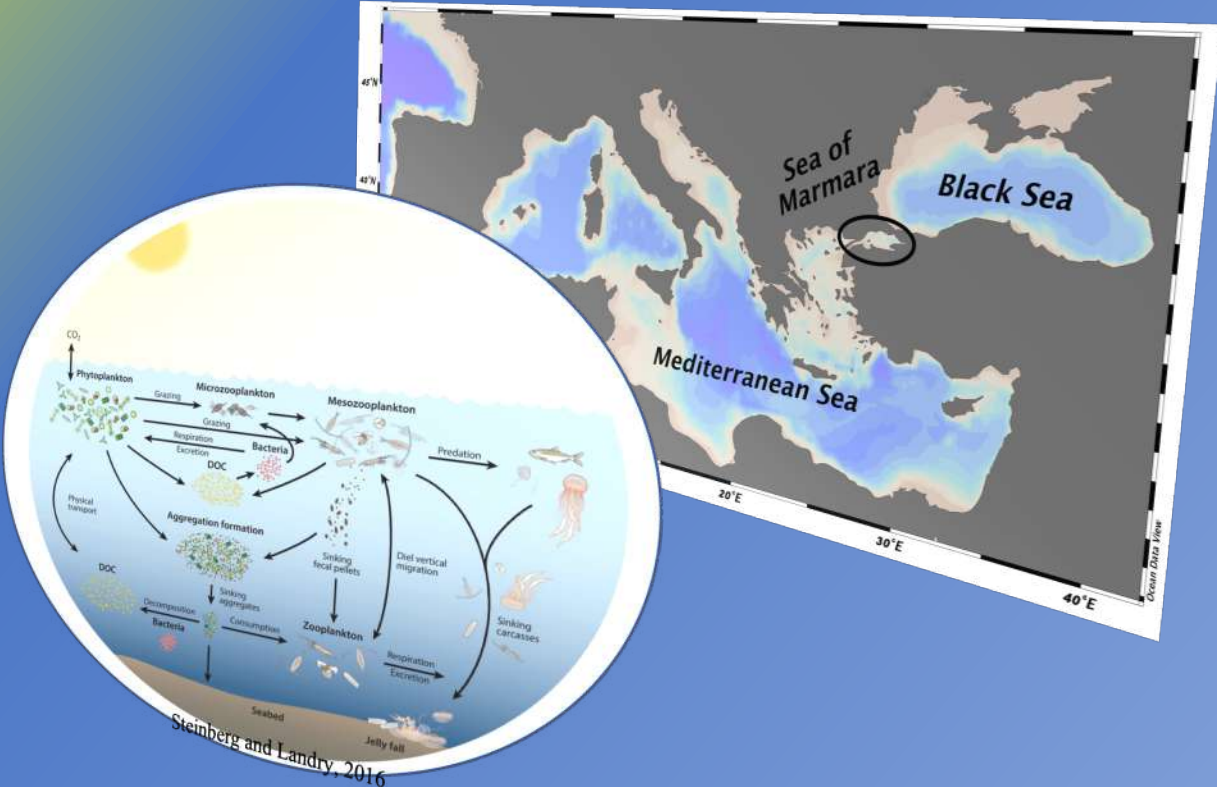


Life history and population of two marine cladocerans

Dalida Bedikoğlu, I. Noyan Yılmaz and Nazlı Demirel



➤ My expectation from Ramon Margalef Colloquia is to better understand the carbon cycle mechanisms in ecosystems, and thus to make up for the deficiencies in my dissertation that I am still planning.



Oscar Beltran



Home



Background



Interest



Hobby



Motivation



Career in science

- Scientific Interest: phytoplankton blooms
- Career stage: PhD candidate
- Plans for the future: continue doing research

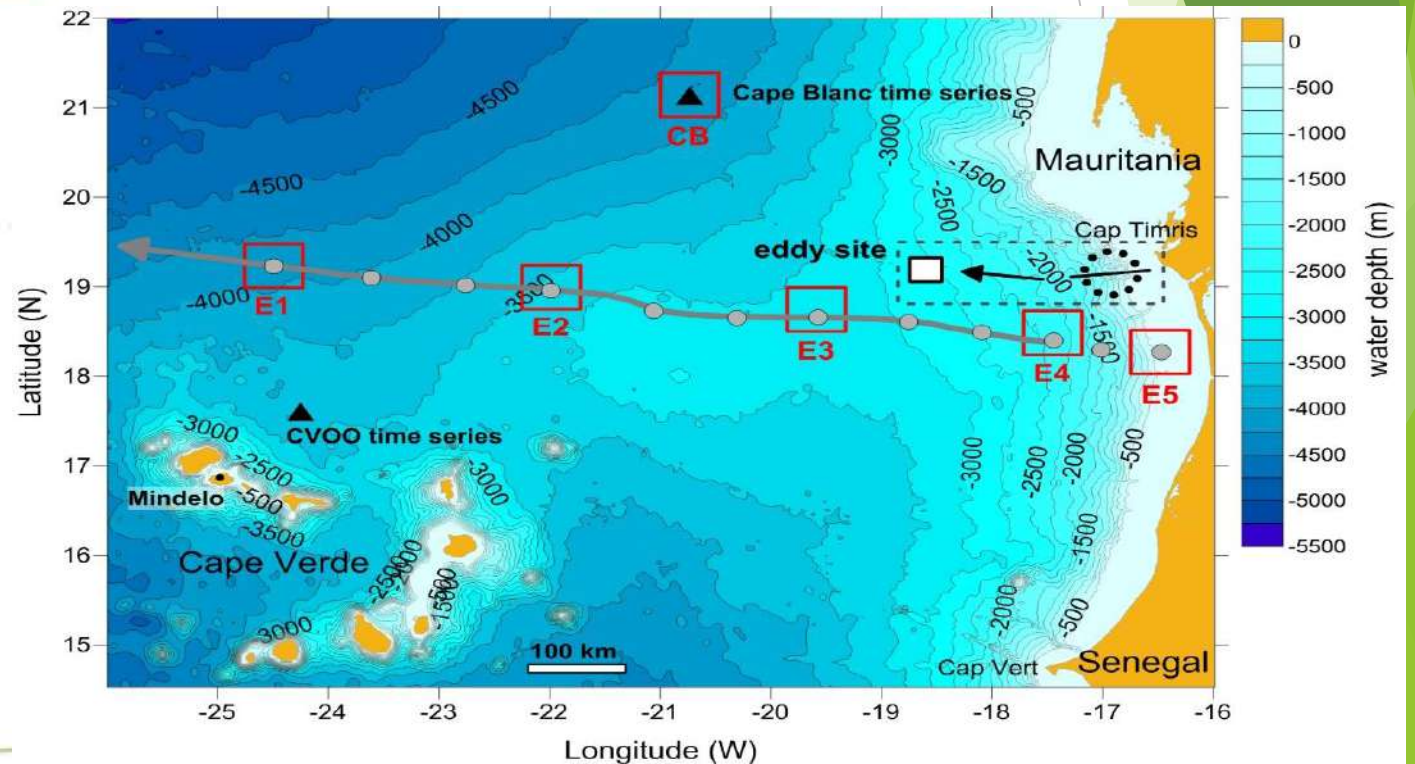
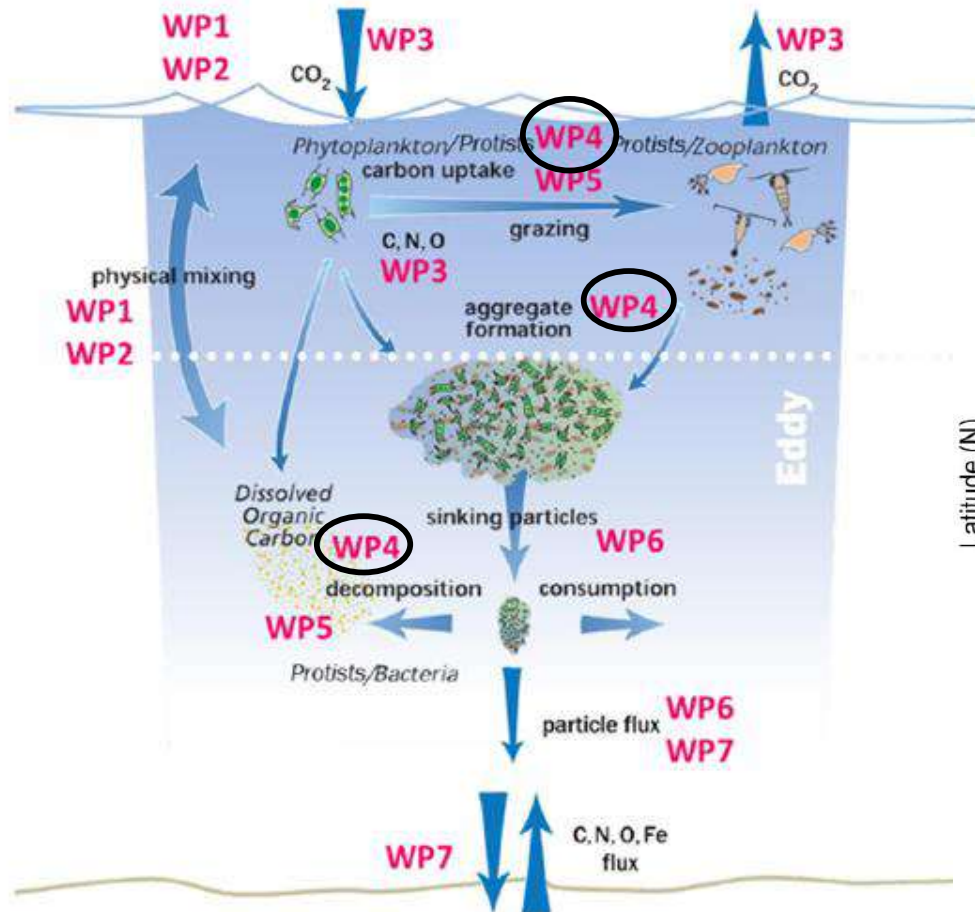
What do I expect from the RMSC 2021?

- Understand the interactions and processes that affect phytoplankton blooms.
- Expand my professional network and establish the basis for a future collaboration.

Quentin Devresse (qdevresse@geomar.de)

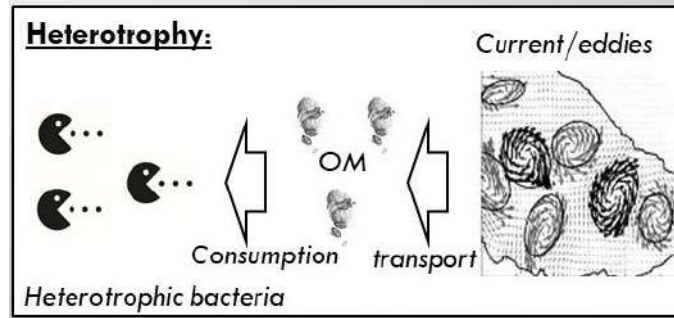
PhD Student at GEOMAR (Kiel, Germany) supervised by Pr Anja Engel

Focus on the role of eddies on the upper ocean organic carbon dynamics (REEBUS project, WP4) in the Canary upwelling system (Cape Verde - Mauritania)

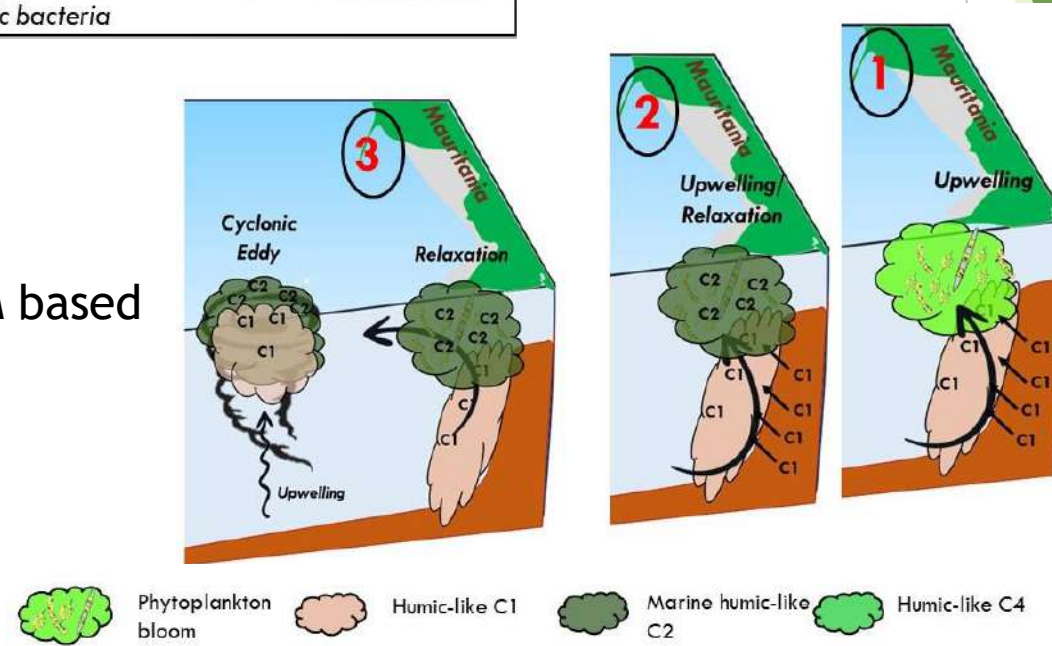


My work focus on the impact of eddies on:

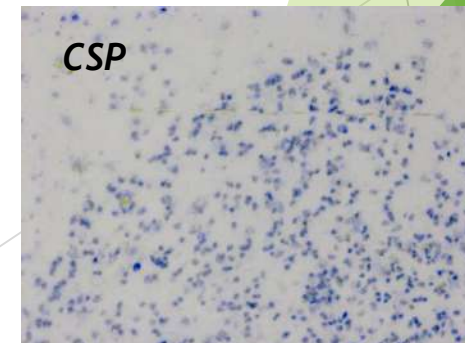
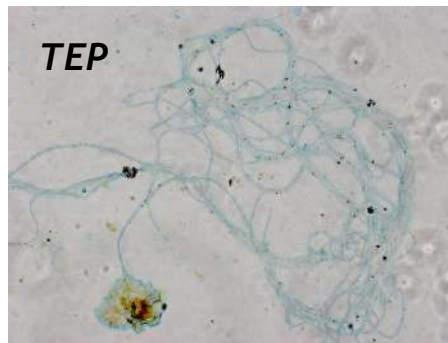
- Bacterial/community respiration



- Transport, production, degradation of DOM based on optical properties (CDOM;FDOM)



- Gel particles (TEP; CSP) agglomeration/distribution





Miquel «Kel» Ferrín

PhD student in Terrestrial Ecology

Ecological response of arthropod communities to global change

Functional biogeography – Community ecology – Soil ecology – Entomology – Metabarcoding

UAB



CREAF

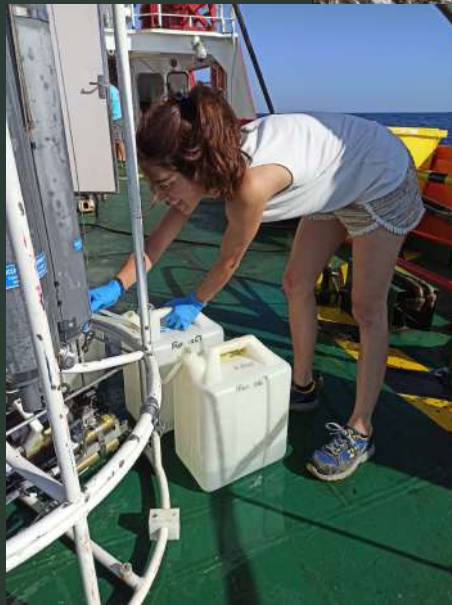


In my first year of PhD research:
Currently working with (1) European
springtails (2) tropical insect, fungi,
bacteria and trees (3) Icelandic
springtail communities.



The RMC can give me a more
integrative and holistic perspective on
terrestrial ecology, namely, biogeochemical
dynamics and how OM are used
by organisms.

▀ QUERALT GÜELL-BUJONS



**From the central catalan countryside.
Lived in Copenhagen, Vienna and
finally back to Barcelona.**

**In love with the Pyrenees and in process
of falling in love with the Mediterranean
Sea.**

**The appetite for learning new things led
to the start of a PhD..**

My research

_Dimethylated sulfur compounds (DMSCs) as infochemicals in marine microbial interactions

_Chemotaxis. Selective grazing. Weak, stressed preys.

_2nd → 3rd year PhD researcher

My expectations

_ Zooming out of my topic and learning to contextualize.

_Connecting different environments by working with scientists from different fields.

_Learning how to lead and participate to scientific discussions.

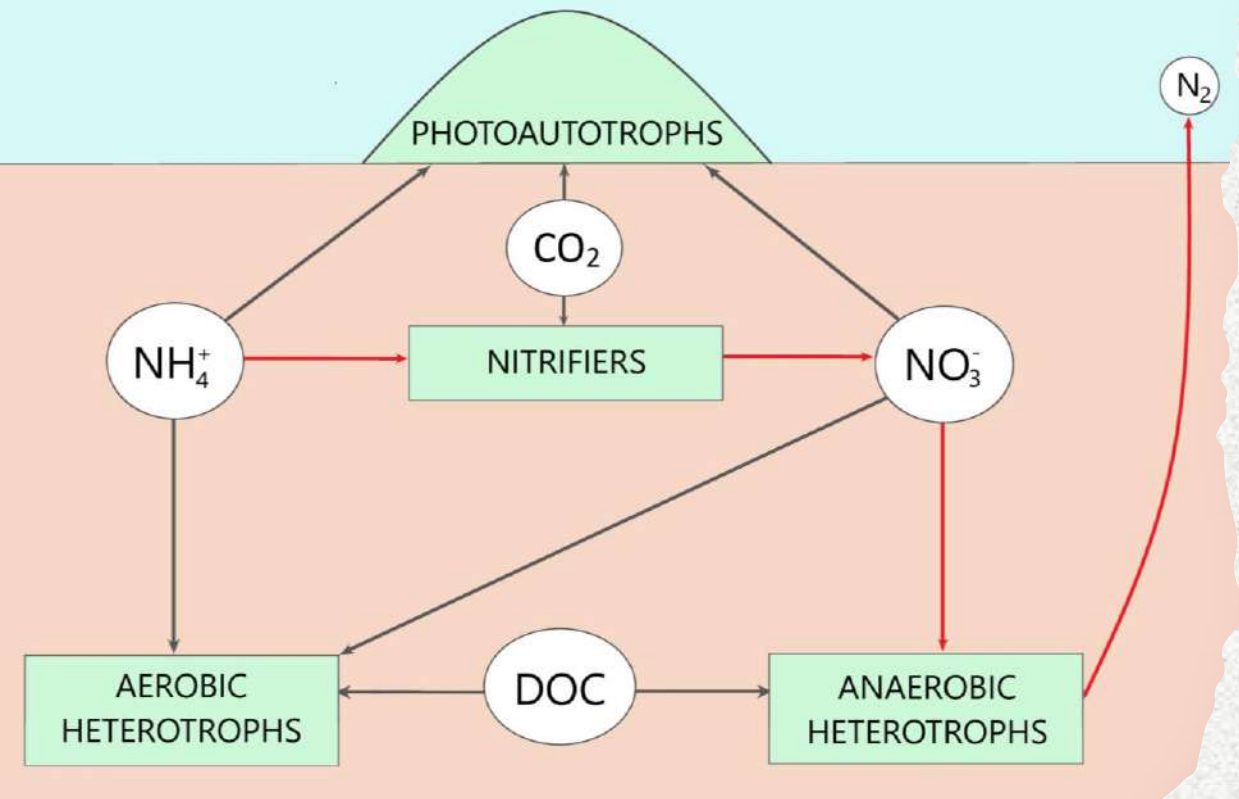


Xavier Peñarroya - Xavi

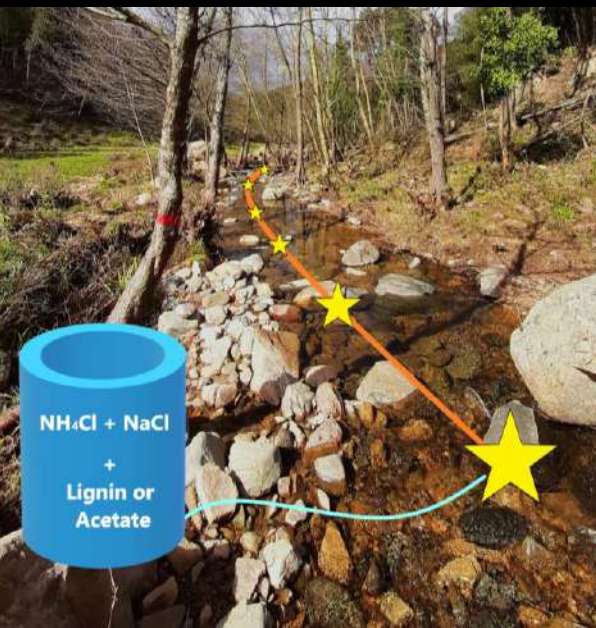
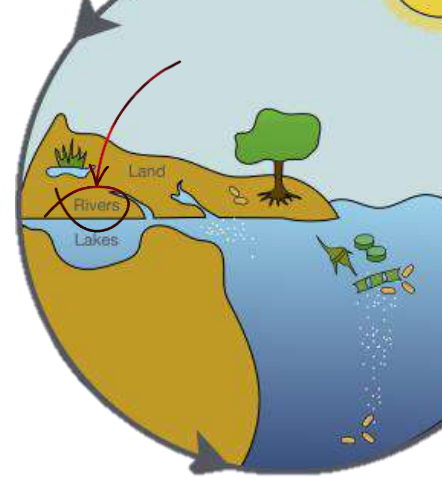
PhD student at CEAB - CSIC



- Environmentalist
- Biology conservationist
- Travel
- Photography
- GIS mapping
- Trekking & Mountain biking

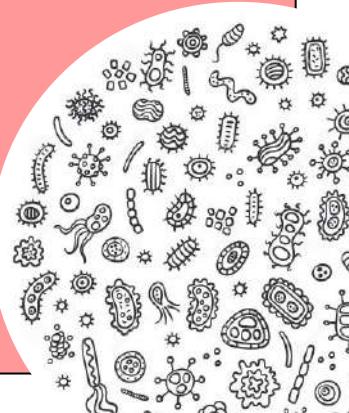


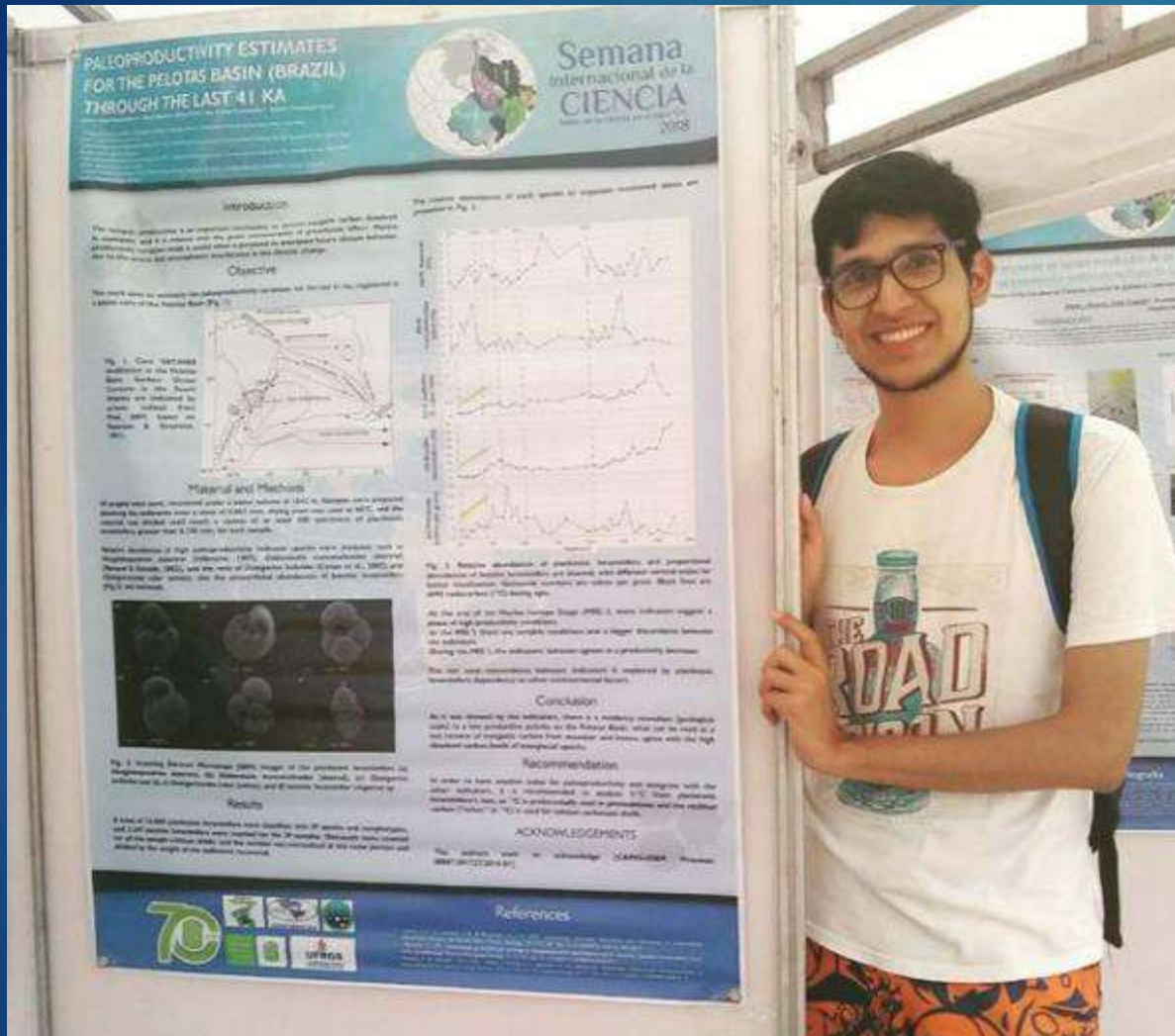
- **Study area:** headwater streams.
- **Research:** links between carbon and nitrogen biogeochemical cycles.
- **Scale:** molecular
- **Experiments:** whole reach & lab incubations



Margalef Colloquia Expectations

- Meet people
- Get new ideas
- Share our findings
- Link knowledge





JAIME

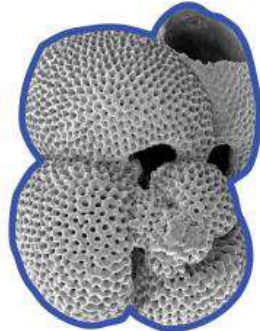
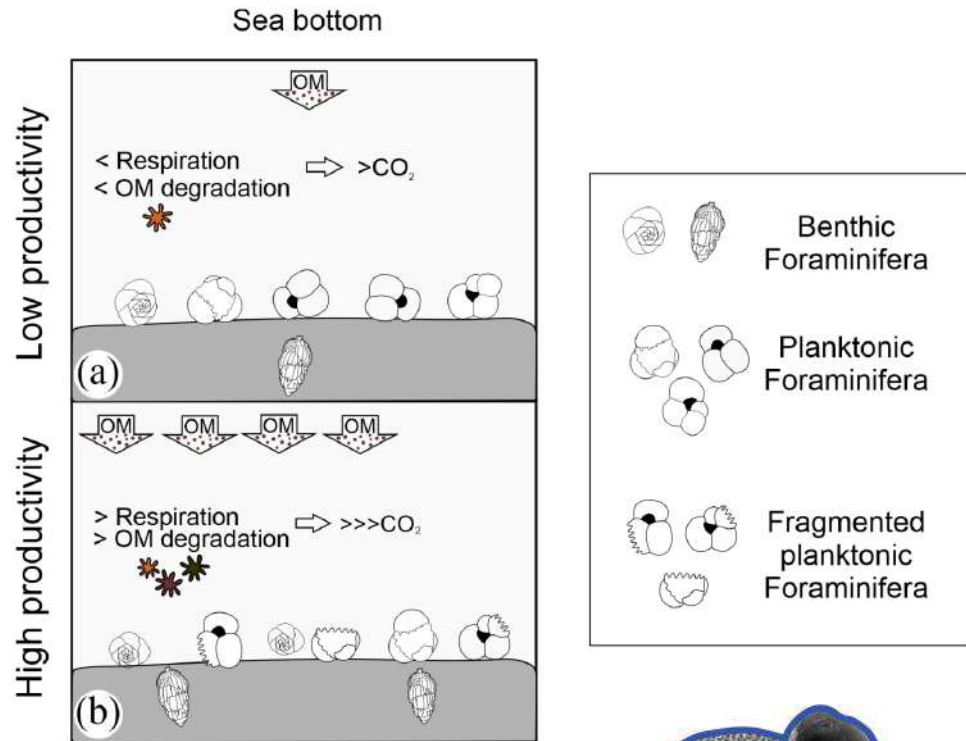
Languages

Cultures

Food

Forams

Professor/Researcher

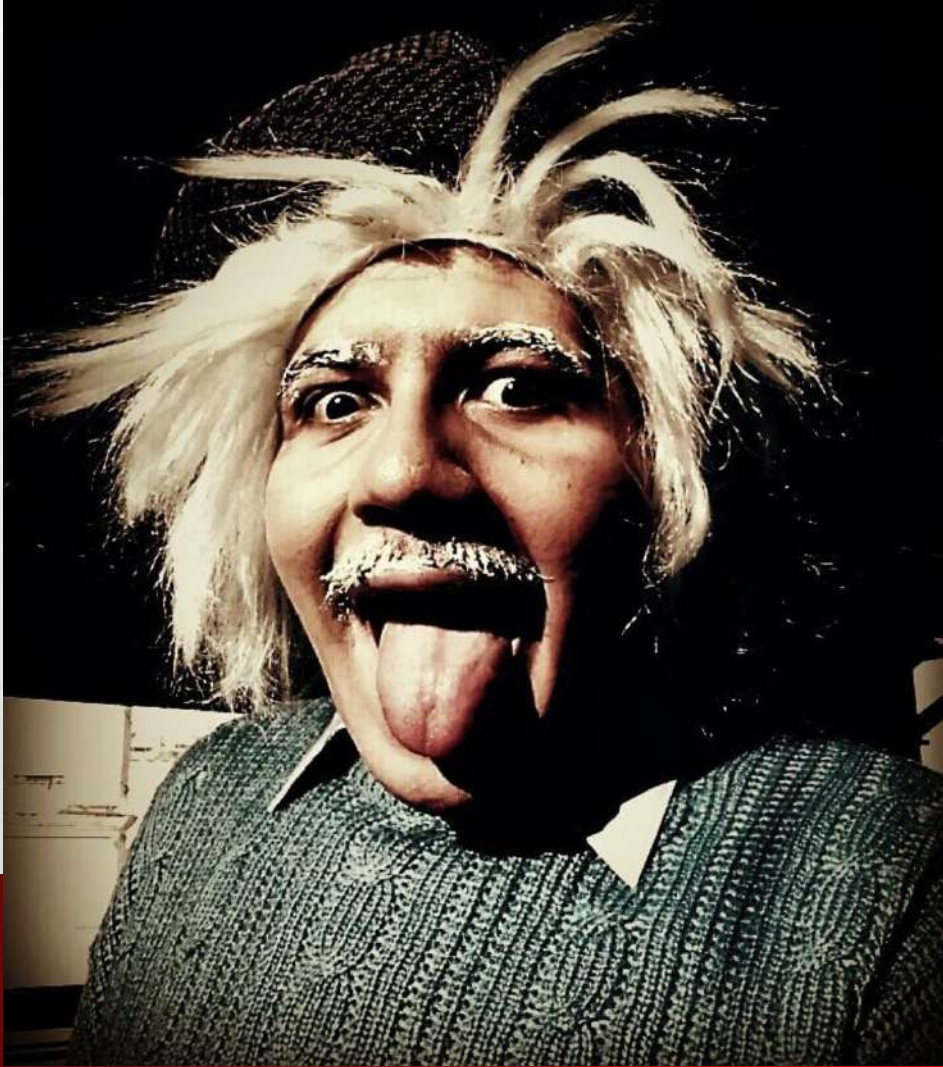


- ▶ Environment \leftarrow impact \rightarrow planktonic foraminifera (MSc)
- ▶ Evolution of planktonic foraminifera in response to environmental changes (PhD)
- ▶ Actual storage of biogenic carbonates (Post-doc) ?

- ▶ Knowledge, training, connections, future opportunities

Biological adaptations (Topic 1)

Carbon sequestration efficiency (Topic 3)



Konstantinos-Marios Vaziourakis/Kon

PhD student in Limnology, Uppsala University, Sweden

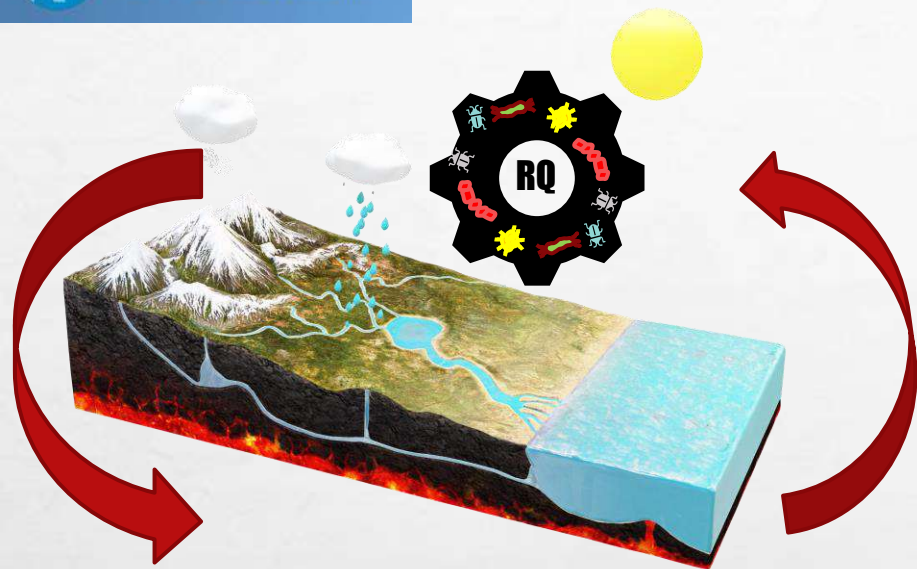
M.Sc. in Environmental Oceanography, University of Patras, Greece

B.Sc. in Geology, University of Patras, Greece

Dreaming a career that combines my love for theater and my passion for science...in other words as Science Re-actor

*The most beautiful thing we can experience is the mysterious.
It is the source of all true art and science.*

Albert Einstein



- ❖ 1st year PhD student in Biogeochemistry and Microbial Ecology
- ❖ Under the umbrella of organic matter (OM) cycling across the aquatic continuum
- ❖ Ongoing project:
Studying the dynamics of Respiratory Quotient (RQ) across various ecosystems, addressing the factors that control OM microbial mineralization in a broad spatial scale.



During the days of RM colloquium, we will try to make a challenging puzzle



Pieces from **different environments** will meet people of **different fields** that try to:



Communicate



Exchange knowledge and perspectives



Build bridges for understanding the complex Carbon Cycle in a variety of ecosystems

GROUP 3

Topic 3

Carbon **sequestration** efficiency in land
and aquatic ecosystems
Geo-engineering approaches



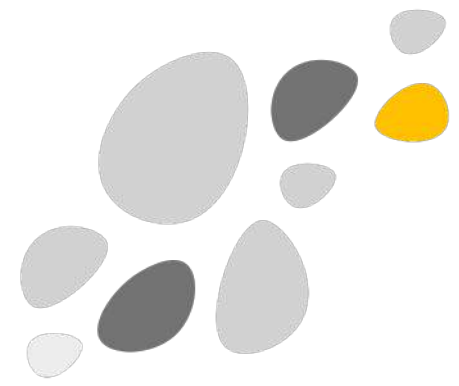
Ramon Margalef

Colloquia 2021

Mona Abbasi



This is Mona



A 2nd year PhD student at limnology in Uppsala University

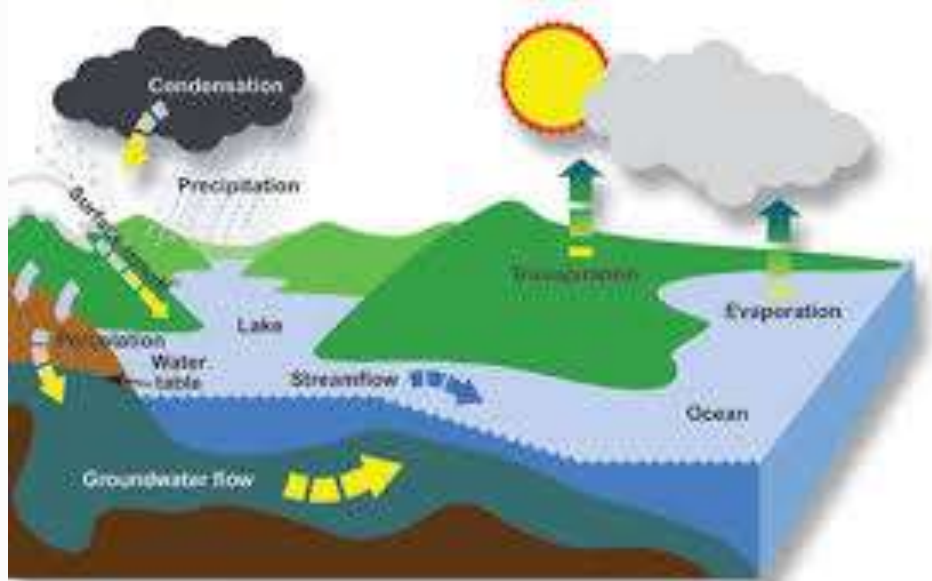
Life-loving, adventurous, a bit idealist
Cooking, yoga

My dream:

‘Every Child Is Free To Be A Child...’



PS: To be able to eat and not gain weight



What's
Next?

My research

Impact of adsorption and desorption processes on the biological reactivity of DOM across a range of different soils and DOM molecular compositions??

Follow my passion on using microscale techniques in my research

Expectations

Communicate with other researchers in different fields

Find similarities and common techniques in other fields and incorporate them into my research domain



Carmen Argenio



- ✓ **Geologist**
- ✓ **Love travelling and nature**
- ✓ **Guitar player**
- ✓ **Books reader**



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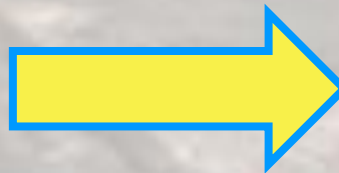


Research activities

- *RESEARCH TOPIC:* Study of calcareous nannoplankton paleo-assemblages to reconstruct the regional surface water circulation patterns and surface paleoproductivity fluctuations involving the Atlantic area during the past 25 ky.
- *CAREER STAGE:* Last PhD Year
- *NEXT STEPS:* PhD Trainig at Salamanca University



THE RAMON MARGALEF
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Knowledge concerning
ecology and global biogeochemical cycles
from experts interaction
on terrestrial, limnetic and marine systems



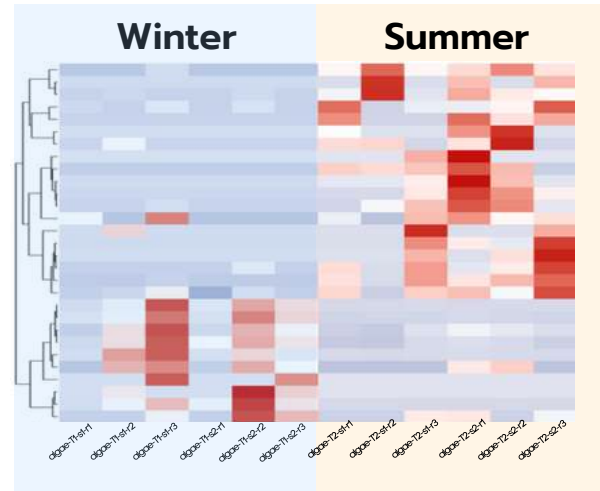
Andrea Bautista

PhD. Student

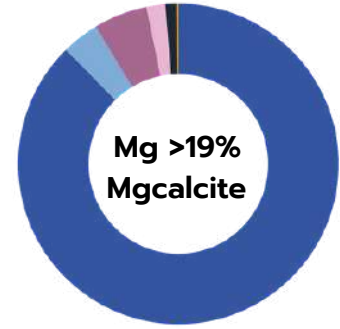
- Mexican
- Master in Marine and Coastal Sciences
- Interested in marine microbial ecology and science communication



Prokaryotic microbiota dynamics



Biomaterial microstructure



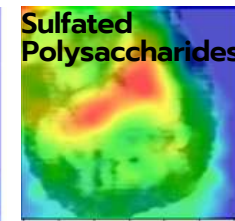
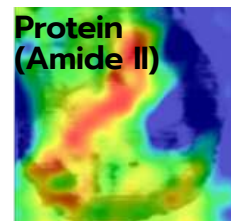
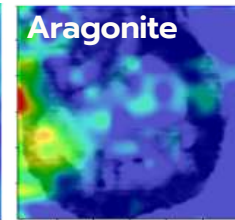
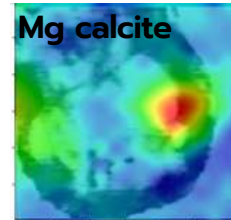
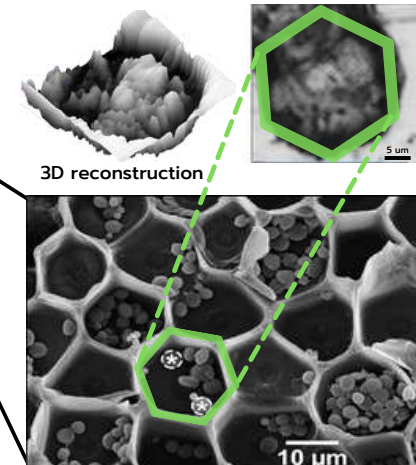
Carbonate minerals

MgCalcite
Aragonite
Ankerite
Siderite

Evaporitic minerals *only in summer*

Sylvite
Bischofite

Peritallus cell



- Interplay of microbial communities with mineral environments in coralline algae and environment.



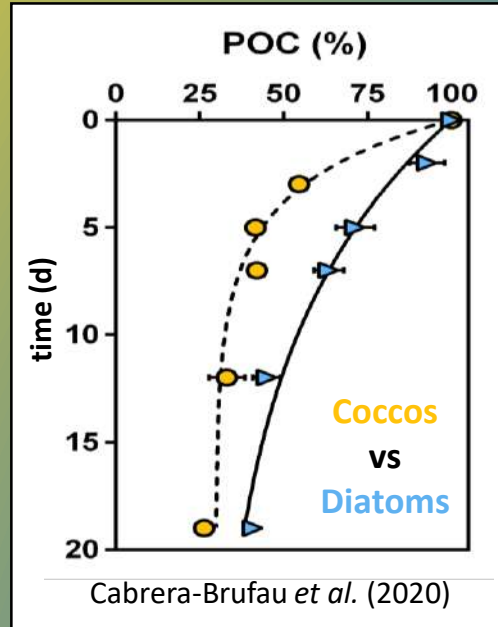
- The interaction with students and researchers as well as the dynamics of the colloquia will allow me a better understanding of the topics and their possible effects in marine environments.



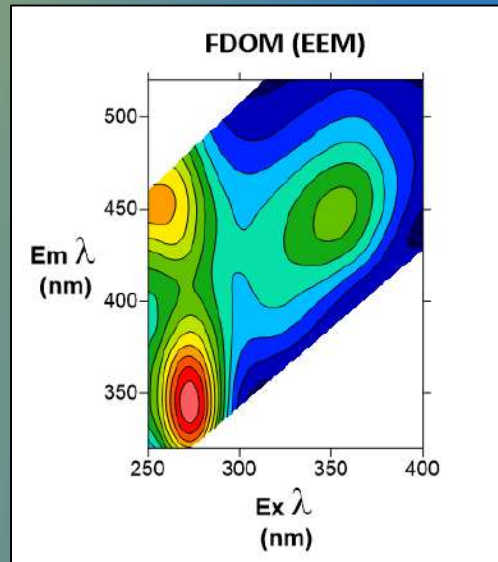
MIGUEL CABRERA-BRUFU

- Salamanca -> Barcelona
- Sailing, Beach-Voley, Surfing
- Guitar

1. POM reactivity



2. DOM composition



Phytoplanktonic OM: reactivity & quality

1. POM reactivity (degradation experiments)
2. DOM composition (spectrofluorimetry)

Last year of PhD in Marine Sciences

RMSC expectations:

- Learn about the terrestrial and limnic side of the field
- Networking

Clément Haëck



(Petit Som, Massif de la Chartreuse)

- Like outdoors
- Also, a big nerd



PhD student at LOCEAN
(Paris) who wants to
continue in academics

The subject

- Effect of sub-mesoscale (10-100km) fronts on phytoplankton growth, from satellite imagery

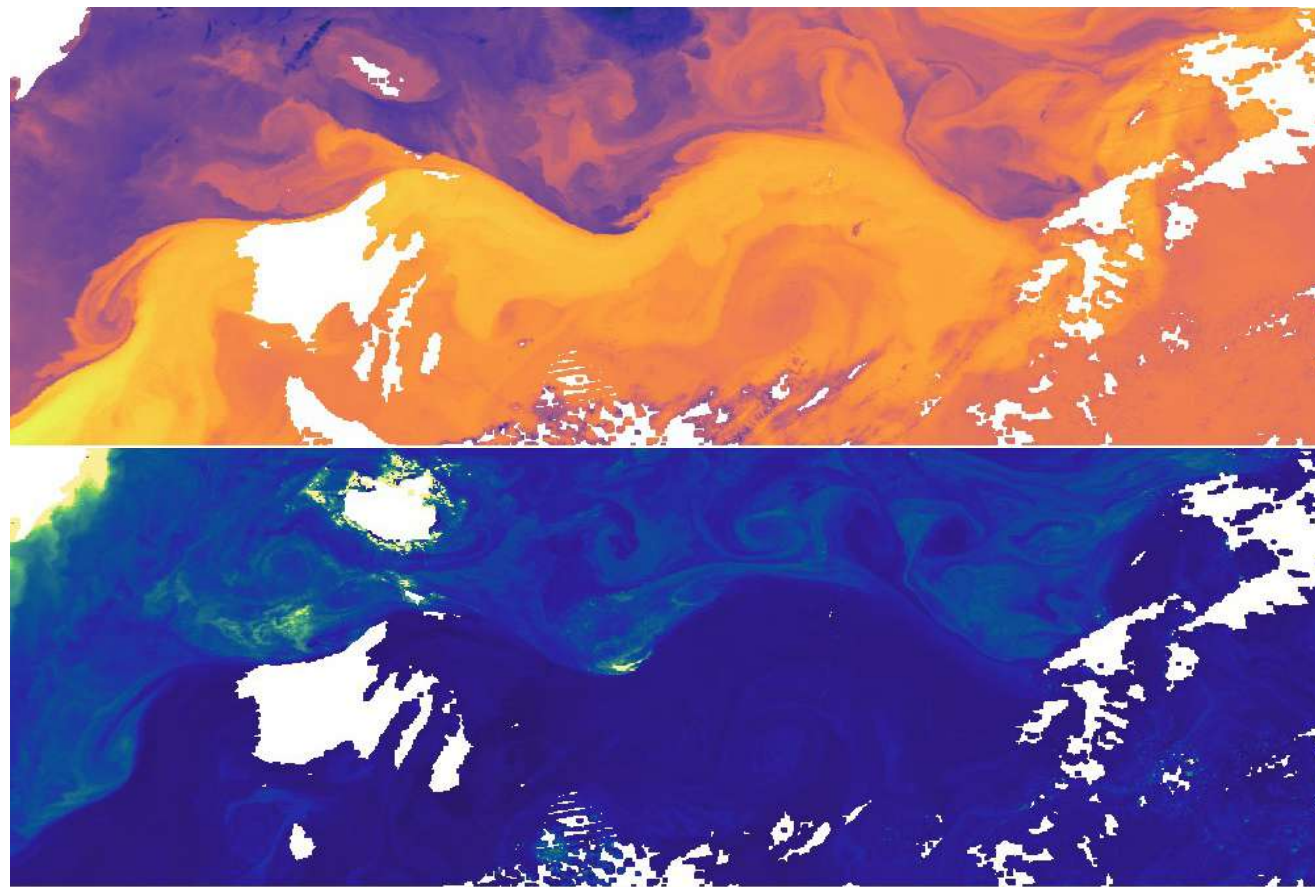
How it's going

- Clément from the past (August, starting 3rd year of PhD) hoped that by now the articles will be submitted...

- Increased biomass in fronts
- Change in composition in fronts
- Earlier bloom in fronts

- The implications of our **results** on the carbon cycle have not been explored yet...

Interaction on that topic with other researchers will surely be useful !



(SST and Chl-a in the Gulf-Stream from Modis)



Medhavi Srivastava

- Ardent and inquisitive.
- Environment and wildlife enthusiast.
- Travelling, reading and photography.
- Researcher.

1. I am about to start my PhD at Charles University, Prague, which aims at

- investigating the adaptability of the marine phytoplankton.
- Analysing reaction of the phytoplankton assemblage to environmental change in the past
- predicting future changes in the marine carbon cycle and carbonate binding capacity.

2. From this colloquia, I expect to

- deepen my knowledge in marine carbon cycling which would help me with my PhD
- be the part of an interdisciplinary program with an aim aligned to my interest.
- interact with other people from various streams and get the holistic idea.



Isabelle van der Zanden

- *Soil biodiversity in relation to soil processes (e.g. carbon dynamics)*
- *Ecological agriculture*
- *Dream: start an ecological research farm*

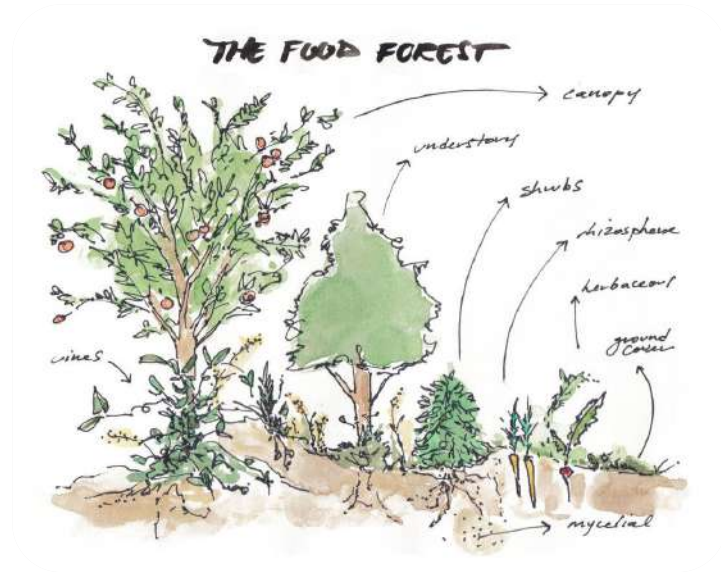


Illustration by Brook Artziniega

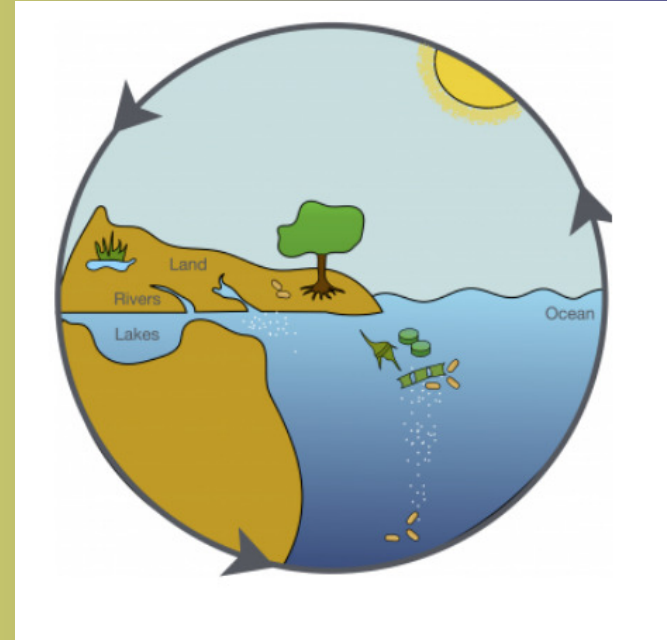
My research and future perspective

- *Second year PhD on biodiversity and carbon dynamics in food forests*
- *The design and study of agricultural systems mimicking natural ecosystems*

Expectations for the Colloquium

- *Place my own study in a broader network of research on carbon dynamics*
- *Finding inspiration for novel research ideas and methods*

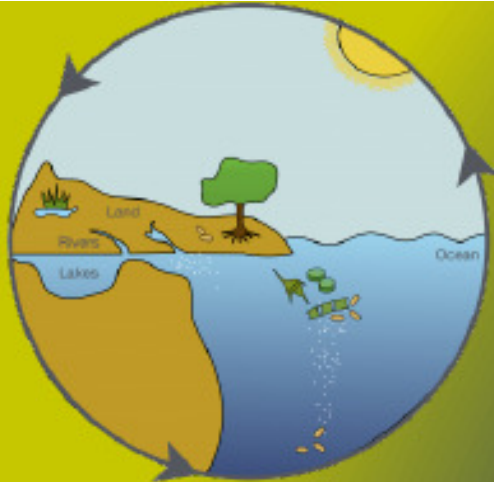
ARIANNA ROCCHI (ICM-CSIC Barcelona)



Marine biologist, fascinated by polar regions,
I love to discover.



THE RAMON MARGALEF
SUMMER COLLOQUIA



RESEARCH



- Polar ocean-atmosphere studies
- Starting my PhD at ICM-CSIC
- Make interdisciplinary research

My goal is to link all the three arrows!



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