



THE SUBMARINE VOLCANO TAGORO (EL HIERRO, CANARY ISLANDS): IMPACTS ON THE LOCAL MARINE ENVIRONMENT

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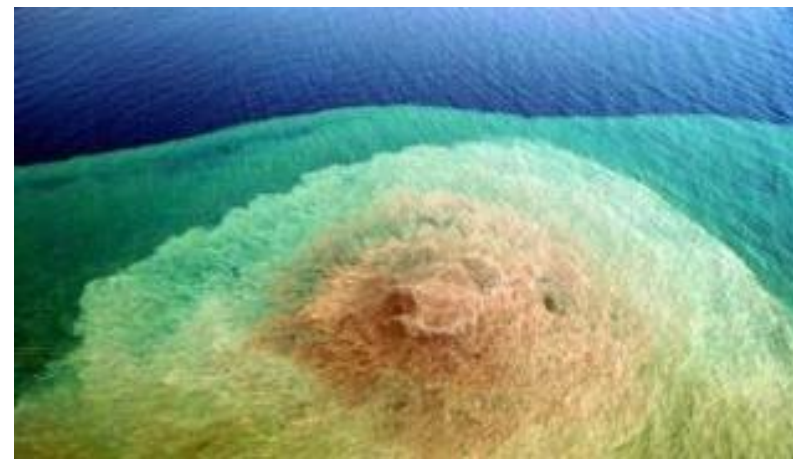
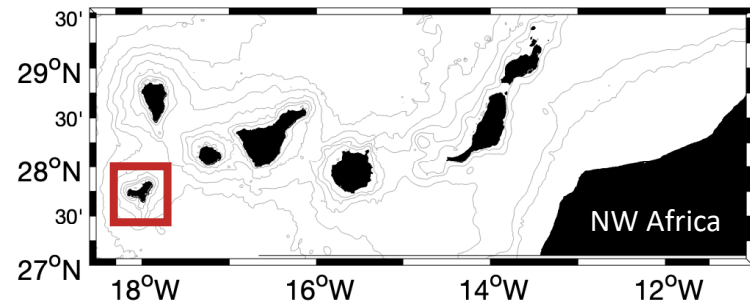


VULCANOLOGÍA
CANARIA SUBMARINA

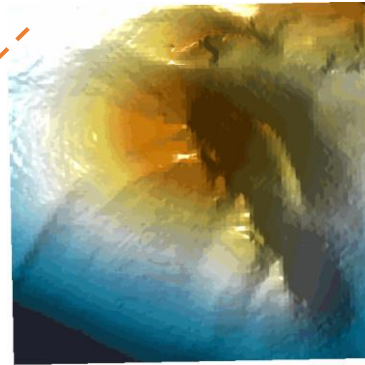


TAGORO SUBMARINE VOLCANO

2011 | El Hierro, Canary Islands



TAGORO SUBMARINE VOLCANO



- 1.8 km from coast
- Diameter: 1-1.3 km
- Summit: 88 m depth
- Main crater: 127 m depth

Eruptive stage:
October 2011 - March 2012

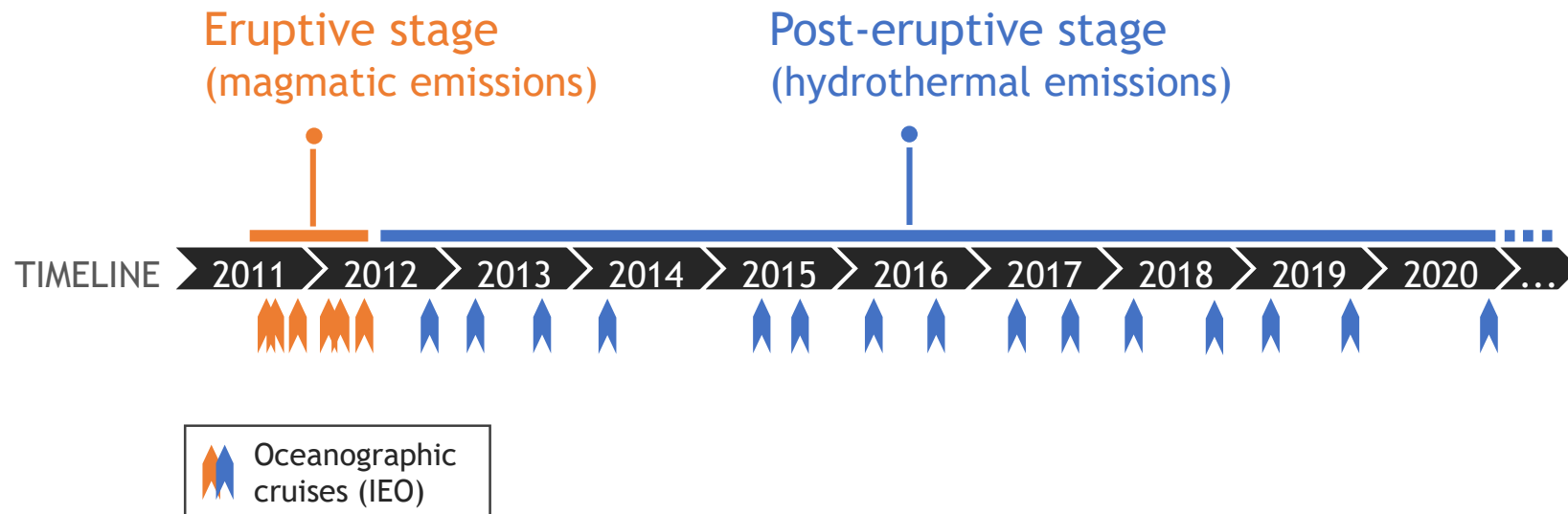
↑ T	↑ pCO ₂	↑ Fe(II)	↑ Reduced
↓ S	↓ pH	S	
		↓ O ₂	

Post-eruptive stage:
2012 - Present

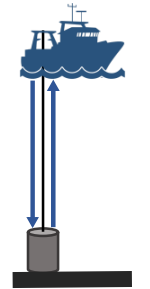
Hydrothermal vents



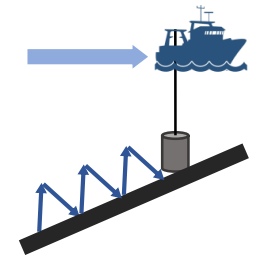
TAGORO SUBMARINE VOLCANO



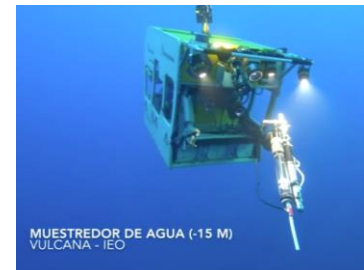
- Water column

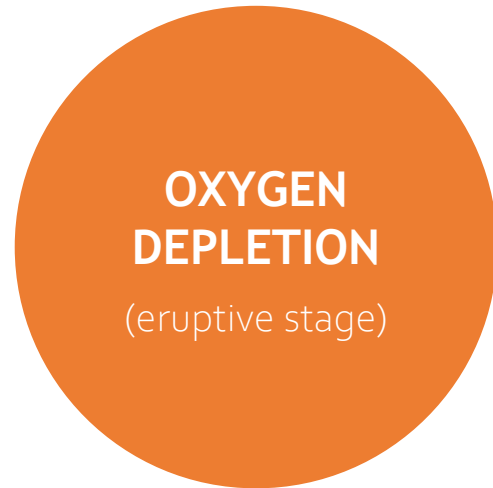


- Tow-yo

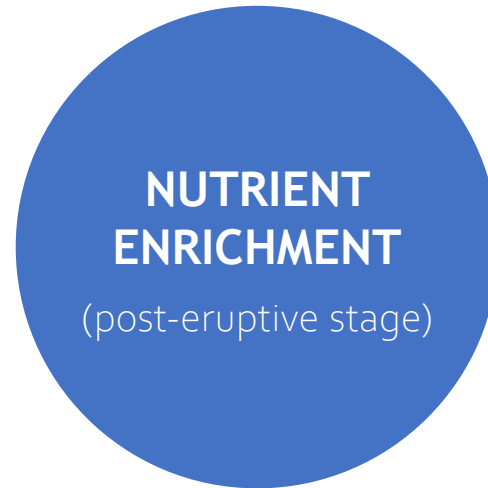


- From vents (ROV)





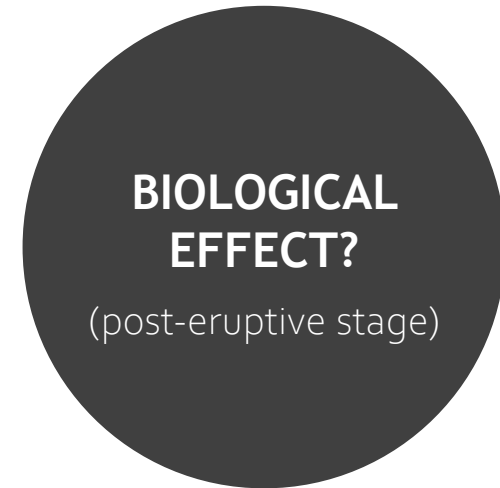
To be submitted soon



Published

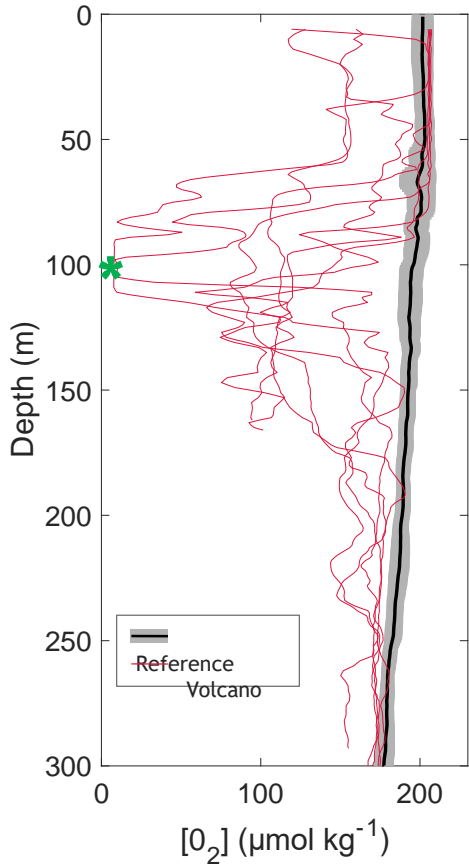


González-Vega et al., 2020
(Frontiers in Marine Science)

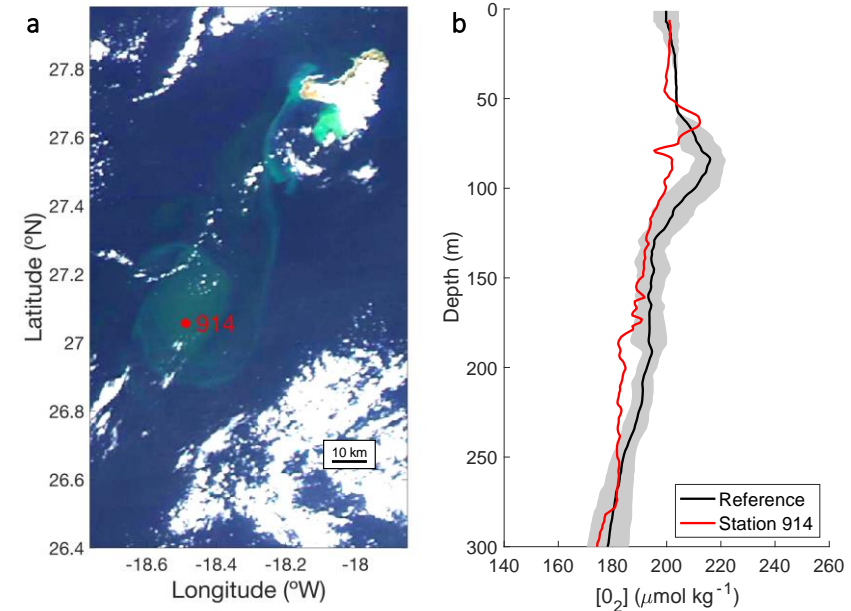
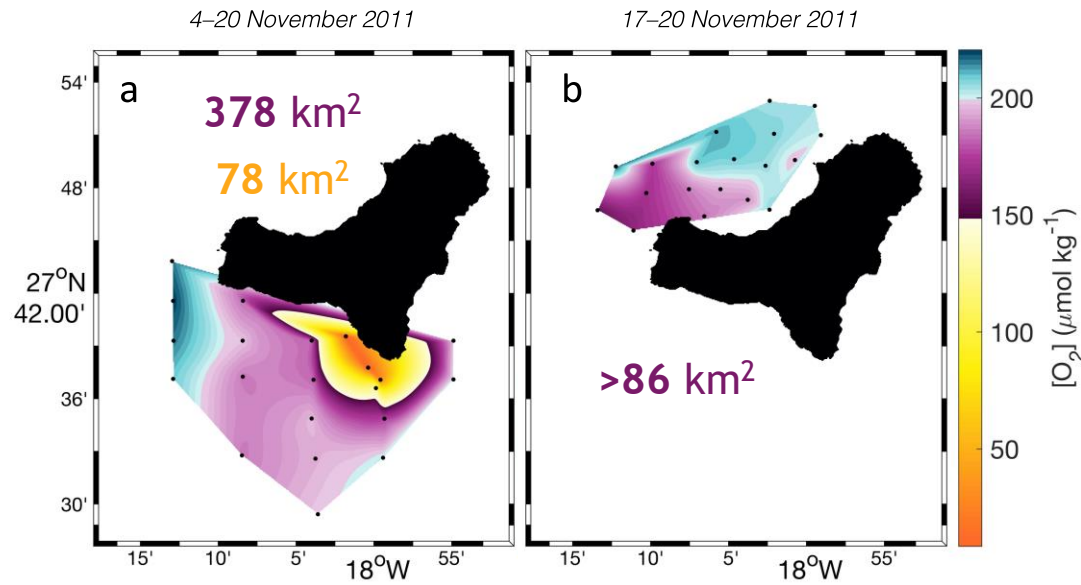


Preliminary results

RESULTS: DEOXYGENATION (ERUPTIVE STAGE)

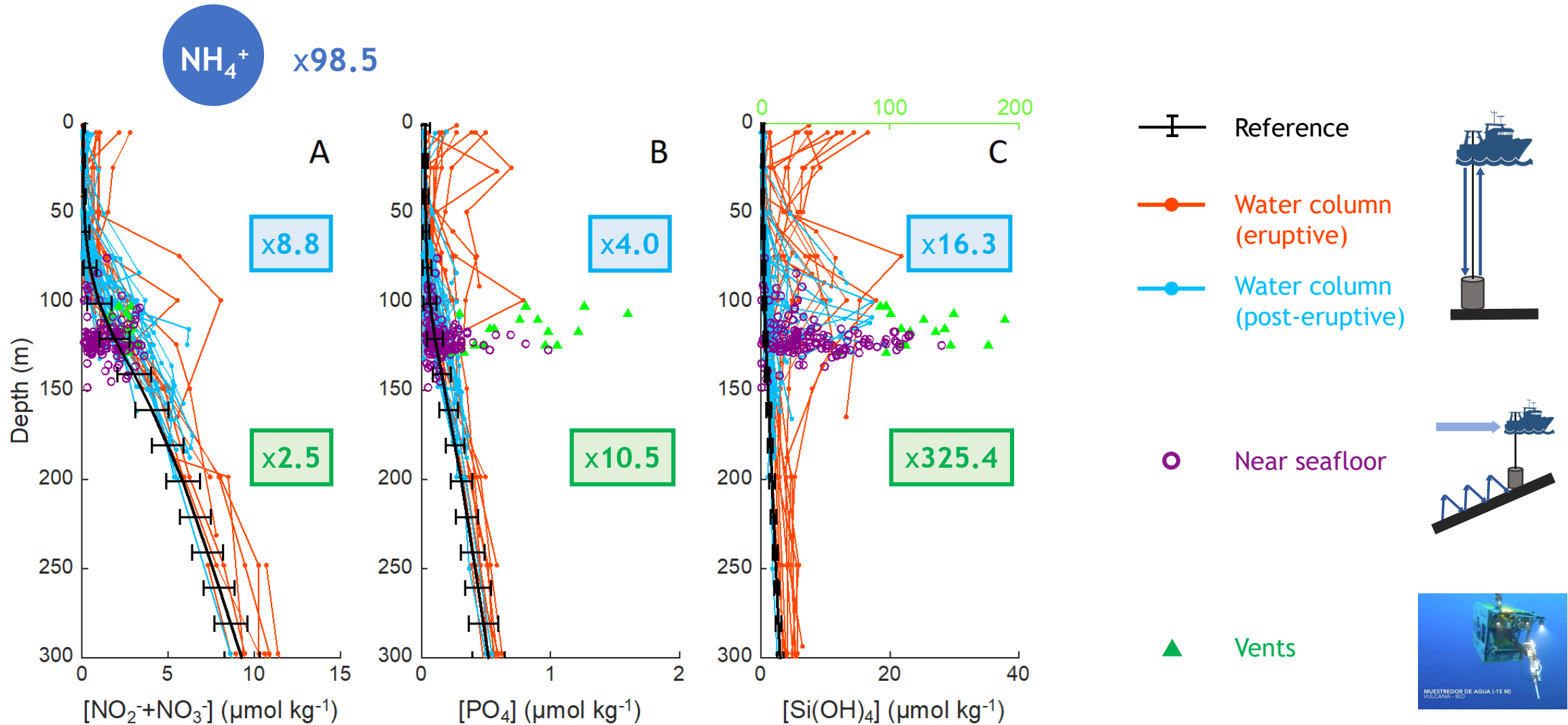


* Minimum: **7.71 $\mu\text{mol kg}^{-1}$**
(-96%)

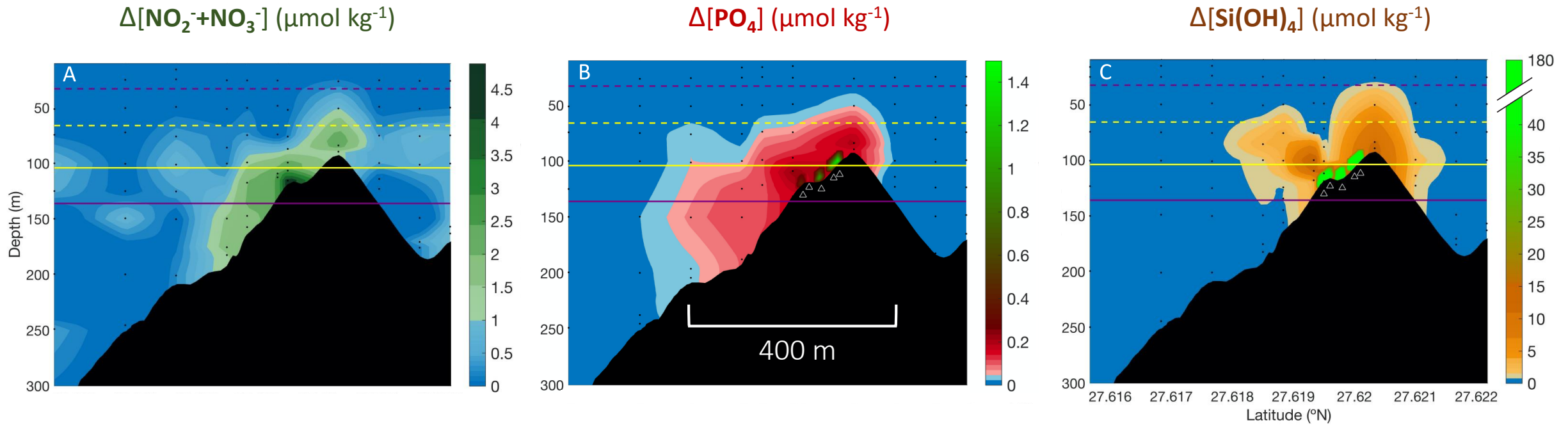


80 km away from volcano
(-8%)

RESULTS: RELEASE OF INORGANIC NUTRIENTS



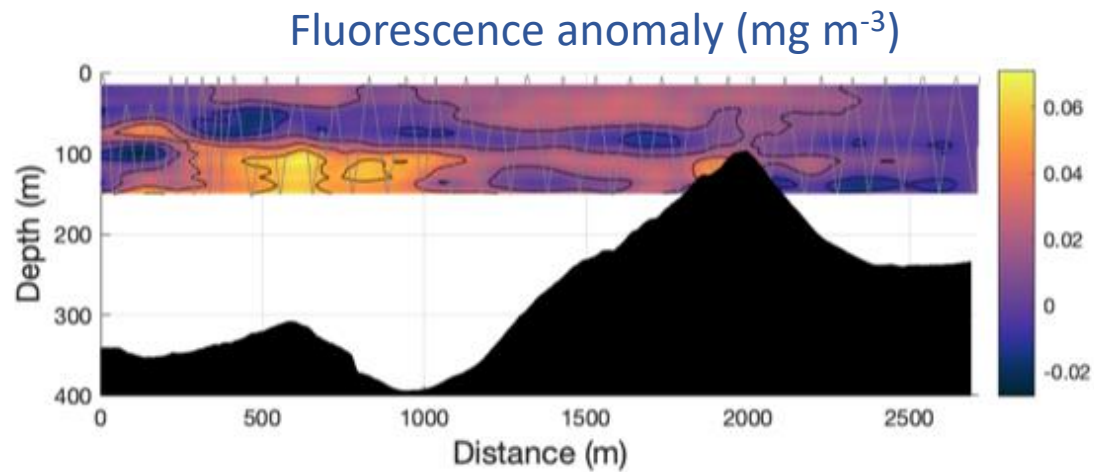
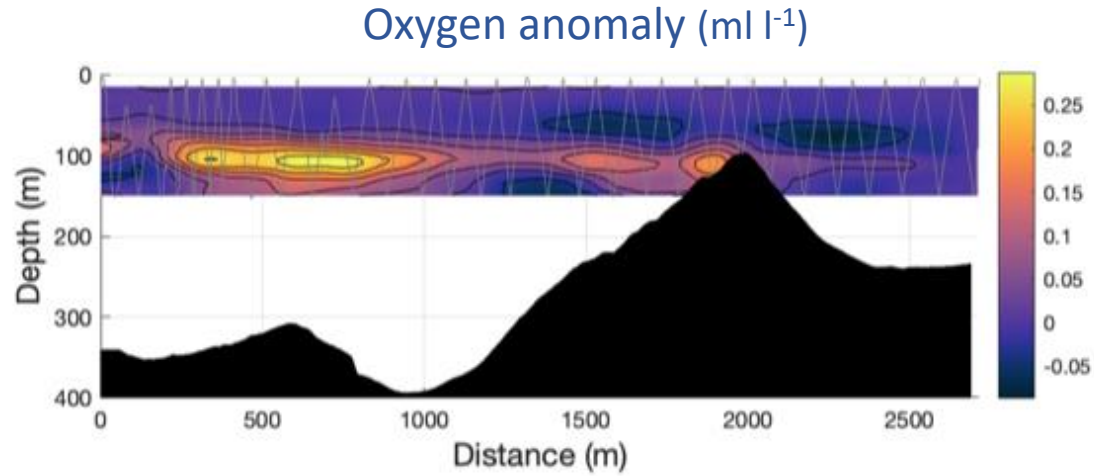
RESULTS: RELEASE OF INORGANIC NUTRIENTS



--- Mixed layer depth
— (min / max)

--- Euphotic zone depth
— (min / max)

NEXT STEPS: EFFECTS ON PRIMARY PRODUCTION?



(Preliminary results from November 2019)

2011



And now...



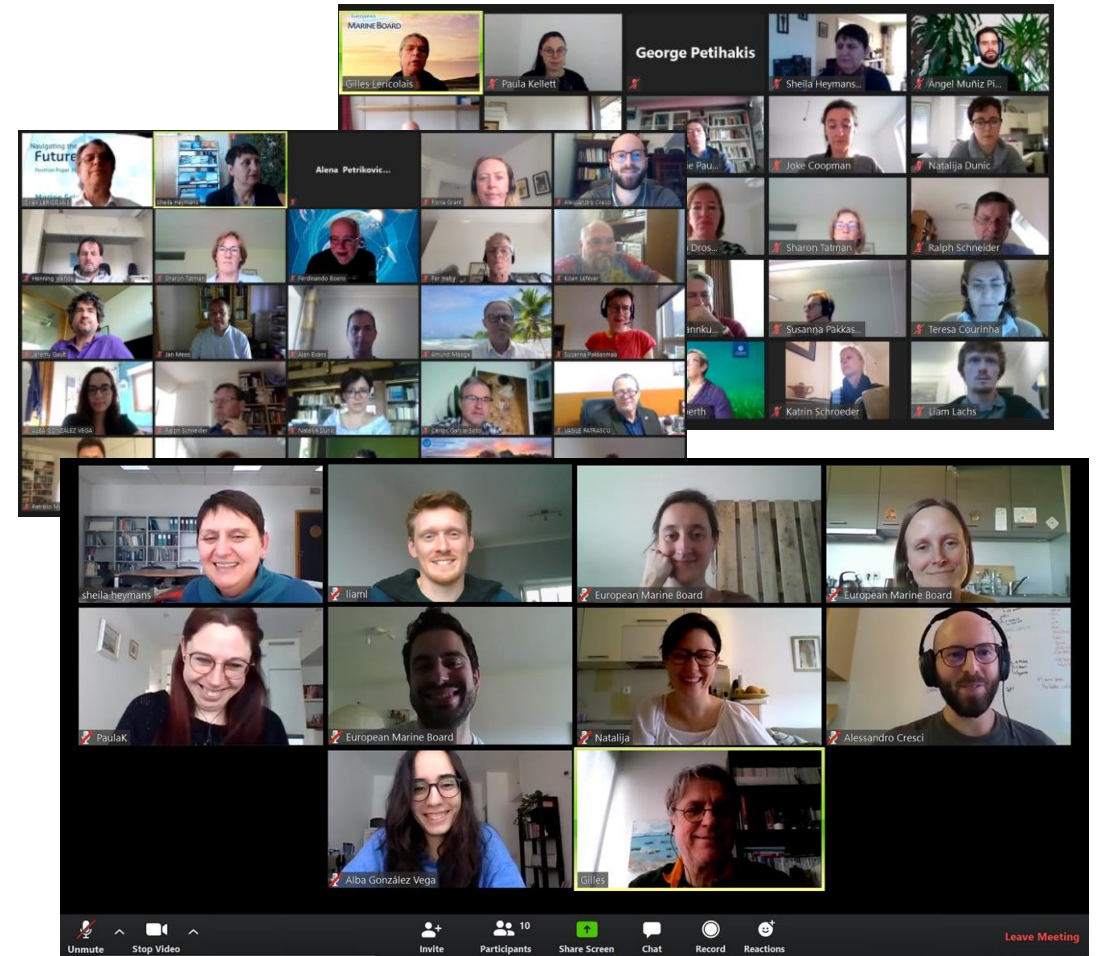


MY EXPERIENCE AS AN EMB YOUNG AMBASSADOR

1st YEAR



2nd YEAR



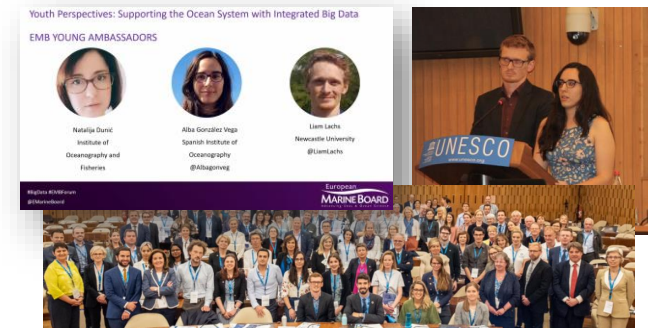
ACTIVITIES



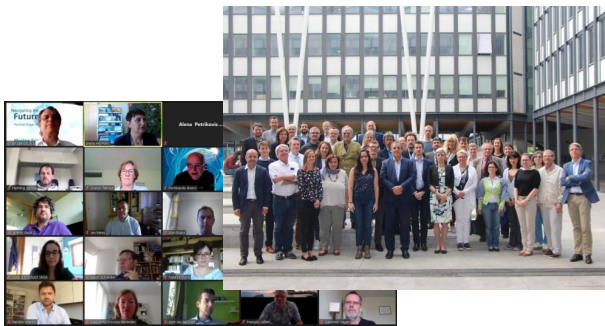
Training at EMB headquarters



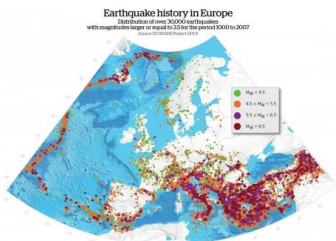
Promote EMB in conferences:
 – ICYMARE (Bremen, Germany)
 – Jis del Mar (Málaga, Spain)



EMB events:
 – EurOCEAN2019 conference
 – 7th EMB Forum



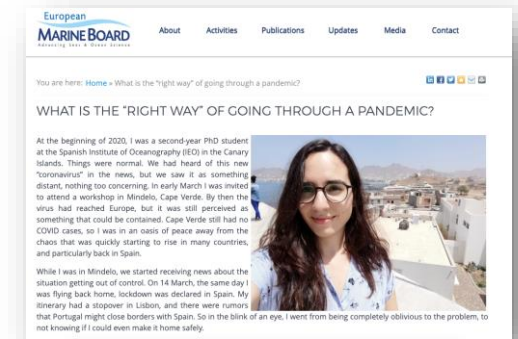
Plenary Meetings



Involvement in a WG:
Geohazards



Promote EMB within my own networks



Others:
 – Blog entry
 – Instagram
 – Infographics

BENEFITS

- Learn about marine science policy landscape in Europe
- Broaden my networks
- Learn how to make international collaborations
- Think about the way we communicate our science
- Personal skills (communication, initiative, confidence)

THANK YOU!



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Vulcana



European
MARINE BOARD
Advancing Seas & Ocean Science