Abed El Rahman HASSOUN

Curriculum Vitae



<u>Personal</u> information

First name Surname Telephone(s) E-mail(s) Nationality Date of birth Gender	Abed El Rahman Hassoun Mobile: (Lebanese) +961 3 117 537 / (German): +49 172 3868950 <u>ahassoun@geomar.de</u> ; <u>abedhassoun@gmail.com</u> ; <u>abedhassoun@cnrs.edu.lb</u> Lebanese 01/01/1988 Male
<u>Current</u> position(s)	Researcher (since February 2022)GEOMAR Helmholtz Centre for Ocean Research KielWichhofstrasse 1-3D-24148 Kiel, Germanyhttps://www.geomar.de/en/ahassounResearch Associate (since April 2015)National Council for Scientific Research (CNRS-L),National Centre for Marine Sciences (NCMS),Beirut, Lebanonwww.cnrs.edu.lbFounder and chair of the Ocean Acidification Mediterranean Hub (OA Med-Hub):http://www.goa-on.org/regional_hubs/mediterranean/about/introduction.php
<u>Previous</u> position(s)	 *June-August 2022: Scientific writer for the <u>Ocean Frontier Institute</u>/Dalhousie University, Canada to help in writing the scientific strategy of the project "<u>Transforming</u> <u>Climate Action</u>" that was awarded 154M\$ from Canada First Research Excellence Fund (CFREF) and partners' commitments. Contact person: Anya Waite, <u>Anya.Waite@dal.ca</u> *September 2016-November 2022: Lecturer at the Lebanese University (since September 2016): <u>www.ul.edu.lb</u> -Course "Methodologies of Analysis in Biology" in the Faculty of Public Health; -Course "Ecology" in the Faculty of Sciences. *October 2021-January 2022: Consultant for the <u>OA-ICC/IAEA</u>, Monaco, to report on the <u>ocean acidification status and trends in the Mediterranean Sea</u>. Contact person: Ashley Bantelman, <u>A.Bantelman@iaea.org</u> *September-December 2021: Consultant for the Ocean Frontier Institute, Canada to help in developing and designing a North Atlantic Ocean Carbon Observatory (<u>NACO</u>) in collaboration with GOOS. Contact person: Anya Waite, <u>Anya.Waite@dal.ca</u>

<u>Personal pages</u> Google Scholar ; ResearchGate ; LinkedIn ; Academia ; ORCID iD

Degrees

Date 2014

Ph.D. in Oceanology

Defended on the 29th of September 2014 in co-direction between:

- The University of Perpignan Via Domitia, IMAGES laboratory, 52 avenue Paul Alduy, 66860 Perpignan cedex, France,
- The National Council for Scientific Research in Lebanon, National Centre for Marine Sciences, B.P. 534, Batroun, Lebanon.

Thesis entitled: Analysis and Modeling of the Acidification in the Mediterranean Sea

Thesis online:

https://tel.archives-ouvertes.fr/tel-01083406v1

Abstract & résumé of the thesis in:

- http://www.theses.fr/2014PERP1187
- http://www.sudoc.abes.fr/DB=2.1/SRCH?IKT=12&TRM=181507005

Date 2010 Title of Master in "Management and Conservation of Natural Resources"/Biodiversity (M2) qualification -Title of Master thesis: the effects of the organic pollution on the phytoplankton populations in the middle part of the Lebanese coast, during the spring period. awarded -Lebanese University / Faculty of sciences. Date 2009 Title of Master in Earth and Life Sciences/Biodiversity and Environment (M1) qualification awarded -Lebanese University / Faculty of sciences Date 2005-2008 Title of Bachelor of Earth and Life Sciences/Biology qualification awarded -Lebanese University / Faculty of sciences **Projects** 2024 **ObsSea4Clim** Responsible for Milestones 15 & 16: planning and updating on the Rolling Review of Requirements for the physical Essential Ocean Variables (EOVs) CINEA tender (CINEA/2023/OP/0015): Standards and Best Practices in Ocean 2024 **Observation** Partner in WP1: Literature/Assets Collection and analyses, and system level requirements Sailing for Oxygen 2023 Responsible of the Baltic Sea data quality control **EuroSea** 2022-2023 Responsible of the Task 1.5 in WP1 on assessing the gaps in the European Ocean Observing and Forecasting System to give actionable recommendations CINEA tender "All Ocean Observations" (CINEA/EMFAF/2021/3.4.9/SI2.876379): 2022-2023 Study for Reporting Obligations for Ocean Observation Co-responsible for WP2: Standards for Observations NANO Global Project (NANO-DOAP): A global study of Deoxygenation, Ocean 2021-present Acidification and Productivity at selected sites Co-PI of the Lebanese time-series sites **IMAP** (Integrated Monitoring and Assessment Programme) 2019 Responsible of the Ecological Objective 5 (Eutrophication) monitoring

2010-present Monthly monitoring of the entire Lebanese coast

	Sampling and data analysis
2016-present	First survey of the carbonate system in the Lebanese seawater
	Chief scientist
2018-2022	Evaluation of the Lebanese Marine Environment: A multidisciplinary study (ELME)
	Biogeochemical scientist
2019-2023	IAEA Coordinated Research Project K41018, entitled 'Evaluating the Impact of
	Ocean Acidification on Seafood – a Global Approach'
	Chief scientist
2020-2023	The LEbanese Submarine CAnyon System connecting the shelf with the deep sea:
	physico-chemical-biological characterisation (LESCAS)
	Chief scientist in Lebanon
2018	The "ACCOBAMS Survey Initiative" (ASI)
	Observer scientist
2014-2015	M ₃ -HABs (Risk Monitoring, Modelling and Mitigation of benthic Harmful Algal
	Blooms along Mediterranean coasts)
	Sampling, identification and counting on microscope
2013	Mediterranean Sea Acidification in a changing climate – MedSeA project
	Sampling, data analysis and data treatment of the biogeochemical data
2010-2012	Observation and monitoring of cetaceans in Lebanon/ACCOBAMS
	Observer scientist
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Supervision of

<u>Masters</u>

- 2021 "Primary production in the Levantine Sub-basin-Mediterranean Sea" for Mr. Hasan Khalifeh, Faculty of Sciences, Biology Department, Lebanese University, Hadath, Lebanon.
- 2020 "The quantity and quality of phytoplankton populations in the Lebanese seawater in the context of climate change" for Mr. Salim Kabbara, Faculty of Public Health, Lebanese University, Tripoli, Lebanon.

"Est-ce qu'il y a des effets du changement climatique sur la production primaire dans la mer libanaise ?" for Mr. Helios Yasmine, Faculty of Sciences, Chemistry Department, Lebanese University, Fanar, Lebanon.

2019 "Estimation du CO₂ anthropique dans les eaux libanaises" for Mr. Mohamad Al Kheir, Faculty of Public Health, Lebanese University, Tripoli, Lebanon.

> "Estimation du flux air-mer en CO₂ dans les eaux libanaises" for Ms. Mariame Tannous, Faculty of Sciences, Chemistry Department, Lebanese University, Fanar, Lebanon.

- 2017 "The first survey of the carbonate system in the Lebanese seawater" for Ms. Najlaa Raad, Faculty of Sciences, Université de Saint-Joseph, Beirut, Lebanon.
- 2016 "La qualité de l'eau côtière à Tripoli" for Ms. Gloria Saba, Faculty of Public Health, Lebanese University, Tripoli, Lebanon.

Ph.D. 2019-present "Evolution and Adaptation of Coccolithophores to Recent Environmental Changes in the Mediterranean Sea" for Mr. Majd Habib, between the National Council for Scientific Research in Lebanon-National Center for Marine Sciences (Lebanon) and CNRS-CEREGE- Université Aix Marseille (France): <u>https://www.cerege.fr/fr/climat/theses-climat</u>

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<u>Membership</u> <u>& Committees</u>	 Founder and chair of the Mediterranean Ocean Acidification Hub (OA Med-Hub) affiliated to GOA-ON: http://goa-on.org/regional hubs/mediterranean/about/introduction.php Co-champion of the OARS (Ocean Acidification Research for Sustainability) <i>outcome</i> 6: <u>GOA-ON : OARS</u>. Member and scientific member in the Global Ocean Acidification Observing Network (GOA-ON) Executive Council: <u>http://goa-on.org/about/executive_council.php</u> Member of the Ocean Acidification Information Exchange (OAIE) steering committee: <u>Ocean Acidification Information Exchange (oainfoexchange.org)</u>. Member of the Pier2Peer Advisory Committee: <u>Pier2Peer</u> Member of the Gender and Diversity Board of the EuroSea Project: <u>Gender and Diversity Board – EuroSea</u> Member in the network of Mediterranean Experts on Climate and environmental Change (MedECC): <u>http://www.medecc.org/</u> Member in the NF-POGO (Nippon Foundation and Partnership for Observation of the Global Ocean) Alumni Network for Oceans (NANO): <u>http://www.ocean- partners.org/nano</u>
Oceanographic	
Expeditions	
<u>2024</u>	- MSM129 in the Subpolar North Atlantic Ocean aboard R/V Maria S Merian between 24 May and 06 July 2024. The cruise was composed of two legs: leg 1 from Rostock (Germany) to St. Johns (Canada) and Leg 2 from St. Johns (Canada) to Reykjavik (Iceland). <u>Expeditionsheft MSM128-MSM129/2 (uni-hamburg.de): Short Cruise Report MSM129-1</u> + <u>Short Cruise Report MSM129/2</u>
2022	- Two cruises aboard R/V Littorina on 05/03/2024 and 04/04/2024 to take samples from the Boknis Eck Time Series Station, Baltic Sea.
<u>2022</u>	- TalPro 2022 cruise in the Western Mediterranean Sea aboard R/V Belgica between 16 and 26 May 2022. <u>TAlPro2022</u> : the Tyrrhenian Sea & Algero-Provencal component of the <u>Med-SHIP</u> programme – Eurofleets – An alliance of European marine research infrastructure to meet the evolving needs of the research and industrial communities.
<u>2019-2020</u>	- 15 oceanographic cruises for ELME (Evaluation of the Lebanese Marine Environment: A multidisciplinary study) and IMAP (Integrated Monitoring and Assessment Programme) projects.
<u>2018</u>	- MSM72 oceanographic cruise conducted in the Mediterranean Sea aboard the R/V Maria S. Merian, between the 2nd of March and the 3rd of April 2018: <u>https://www.ldf.uni-hamburg.de/merian/wochenberichte/wochenberichte-merian/msm71-msm74/msm72-scr.pdf</u> . During this cruise, I was one of the "carbonate system" team, involved in the sampling and measurements of the total alkalinity, total dissolved inorganic carbon, pH, and calcium carbonates.
<u>2016</u>	- OCEANA Deep-Sea Lebanon expedition , October 16 th -20 th 2016. During this expedition, I participated in the identification of deep-sea species, in the CTD data interpretations and in the sediments sampling: <u>http://eu.oceana.org/en/our-work/expeditions/deep-sea-lebanon-2016/overview</u>

2013 - The 2013 MedSeA oceanographic cruise (which is an essential part of the European project "Mediterranean Sea Acidification in a changing climate – MedSeA" (<u>www.medsea-</u> <u>project.eu</u>), within the FP7 Cooperation program) along the Mediterranean Sea, on the research vessel Ángeles Alvariño of the Instituto Español de Oceanografía (IEO), between

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<u>2012-2013</u>	 May 2nd and June 2nd, 2013. During this cruise, I collected samples intended to measure the total alkalinity, total dissolved inorganic carbon, isotopes and other parameters : http://medseaoceancruise.wordpress.com/the-team/ CANA expeditions offshore the Lebanese coast. Multiple cruises were conducted during
	this period to study the hydrographic and chemical conditions of the Lebanese waters, to collect plankton samples and to monitor marine cetaceans as well.
<u>Trainings,</u> <u>Workshops,</u> <u>Technical</u> <u>meetings &</u> <u>talks</u>	
2024	- Presented the results of the gaps' analysis I have led in EuroSea project, with a focus on both the Baltic and Black Seas during a virtual "workshop on the Baltic Sea glider operations, with a link to the Black Sea", that was held on 29 February 2024 and organized by the Finnish Meteorological Institute: <u>Baltic Glider Workshop 29.2.2024 (youtube.com)</u> .
	- Invited as an expert to a "Workshop on Optimizing Methodologies for Ocean Acidification Monitoring and Chemical Analyses" to finalize the version 1 of the best practices developed with the working group and to plan for version 2. The event was hosted by the OA-ICC of the IAEA-Monaco in 21-22 March 2024: <u>Workshop on Optimizing Methodologies for Ocean Acidification Monitoring and Chemical Analyses (monacooceanweek.org)</u> .
	- Participant in the Bridging Spheres Pop-up Campus, a 5-day Helmholtz top event in science communication that brings together the spheres of science, media, public and policymaking. The event was held in 8-12 April 2024 at KIT-Campus Alpin, Garmisch-Partenkirchen, Germany. <u>Helmholtz Activities - Bridging Spheres Pop-up Campus (kit.edu)</u> .
2023	-Speaker in the Pakistan International Maritime Expo and Conference (<u>PIMEC</u>), on "ocean acidification research and its effects" on 12 February 2023.
	-Lecturer at the <u>Technical Meeting</u> on "Ocean Acidification Meta-Analyses using the Ocean Acidification International Coordination Centre Bibliographic Database and other data resources", held virtually in 13-17 February 2023, and organized by the OA-ICC of the IAEA in Monaco.
	-Chair of the OA Med-Hub first Steering Committee meeting in Erdemli, Mersin, Türkiye, 18-20 April 2023. The event was organized by METU-IMS, OA Med-Hub and supported by the OA-ICC of the IAEA: <u>OA Med-Hub on Twitter.</u>
	-Speaker at the "First Data Buoy Cooperation Panel Mediterranean Training Workshop on Ocean Observations and Data Applications (DBCP-Medi-1)-Part 2", on "Ocean Acidification observations - contributions from the Mediterranean community". The event was held in a hybrid mode in Tunisia, 2-4 May 2023, and organized by National Institute of Meteorology (INM), Ministry of Transport, Tunisia, WMO-IOC Data Buoy Cooperation Panel (DBCP), OceanOPS/WMO, and National Center of Ocean Standards and Metrology (NCOSM), China. <u>Global Ocean Observing System / (ioccp.org)</u> .
	-Giving lectures to students of the University of the Aegean and to public audience in

-Giving lectures to students of the University of the Aegean and to public audience in Lesvos, Mytilini, Greece, 22-26 May 2023. This teaching and awareness activity was part of an ERASMUS+ exchange with the University of Aegean.

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-Poster entitled "Ocean Acidification Research in the Mediterranean Sea: Status, Trends and Next Steps" at ASLO, 07 June, 2023, Palma de Mallorca, during the session SS066P Ocean Acidification 2.0 – From Chemistry to Society. <u>Scientific Sessions List - ASLO</u>.

-Panelist in the "<u>Socio-economic Impacts of Ocean Acidification</u>" session during the Ocean Acidification Week 2023 to talk about "Knowledge gaps about OA in the Mediterranean" in October 2023.

2022 -Panelist in a session entitled "Ocean Diplomacy: How Common Threats to Shared Resources Can Overcome Politics", organized by the Ocean Foundation, on the 18th of February 2022 at the American Association for the Advancement of Science (AAAS) meeting, online: <u>Ocean Diplomacy: How Common Threats to Shared Resources Can</u> <u>Overcome Politics (confex.com)</u>.

-Presenter in the EuroSea annual meeting that was held in Cadiz, Spain between 9 and 13 May 2022. <u>EuroSea</u>.

-Main Speaker in the Ocean Acidification Workshop, organized by INIOAS, IIM-CSIC, and the IOC-UNESCO, on 18-18 October 2022. The talk was entitled "Ocean acidification research in the Mediterranean Sea: Status, trends and next steps": <u>Workshop on Ocean Acidification (Online) (inio.ac.ir)</u>.

-Invited as an OA expert in the "Ocean Acidification Meta-analysis Workshop" held in Monaco 28-30 November 2022, and organized by the OA-ICC of the IAEA in Monaco.

2021 - Main speaker of a webinar presented to Moroccan students from the Master "Conservation of Marine Biodiversity» of the Faculty of Sciences at the Université Abdelmalek Essaadi in Tétouan, Morocco. The webinar, featured on the 15th of April 2021, was entitled « Le changement climatique en Méditerranée: tendances, méthodologies, et études au Liban » : https://www.youtube.com/watch?v=u2TNGa9Wxvg

- Organization and participation as a moderator in a webinar on Ocean Acidification in the Mediterranean organized in the framework of the Monaco Ocean Week 2021 and entitled "Future Priorities for Addressing Ocean Acidification in the Mediterranean: from research to policy". The session was held on March 24th 2021 and organized by the IUCN and OA Med-Hub with the collaboration of the Fondation Prince Albert II de Monaco: https://www.youtube.com/watch?v=YiQ5tBguD3c

- Participation in a workshop entitled "Ocean Acidification: SDG indicator 14.3.1 methodology – revisited" that was held in 12-13 April 2021 and organized by the IOC-UNESCO.

- Participation as an advisory member in the 'Online Advisory Committee Meeting' held in the 16th of April 2021 to discuss the process for the elaboration of the "Post-2020 Strategic Action Programme for the Conservation of Biodiversity and Sustainable Management of Natural Resources in the Mediterranean Region" (Post-2020 SAP BIO), organized by the UN SPA-RAC: www.spa-rac.org

- Organization and participation in a training for the 'Tyre Coastal Nature Reserve' staff in the framework of the Intermediate Outcome 3 (iOc3) of the "ELME Project: Evaluation of the Lebanese Marine Environment: A multidisciplinary study" on the 16th of March 2021 in Tyre's municipality.

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- Speaker during the UN World Oceans Day event entitled "Implementing UN SDG 14.3-Protecting Communities and Livelihoods from a Changing Climate" on the 8th of June 2021 to talk about "Climate Change in the Mediterranean and Actions to Understand and Address Ocean Acidification". The event was organized by the International Alliance to combat Ocean Acidification (OA Alliance) and The Ocean Foundation (TOF):

https://unworldoceansday.org/events/implementing-un-sdg-14-3-protecting-communitiesand-livelihoods-from-the-threat-of-a-changing-ocean/

- Speaker in the Sustainability Research & Innovation Congress (SRI 2021) that was held in 12-15 June, 2021 online and onsite in Brisbane, Australia. I was invited to talk about "Risks on Mediterranean marine resources" during a session entitled "Risks associated with environmental change in the Mediterranean Basin", organized by MedECC on the 14th of June 2021:

https://attend.sri2021.org/meetings/virtual/Mpt8nFHiBAY3YDfRk

-Co-chair of the session SS84 entitled "Ocean acidification: trends and effects from local to regional scales" that took place on the 25th of June 2021 at the ASLO 2021 Aquatic Sciences Meeting held virtually on June 22-27, 2021: <u>https://www.aslo.org/2021-virtual-meeting/</u>

-Organization and participation in the Ocean Acidification Week (#OAWeek2021) that took place on the 14th of September 2021, mainly in the Mediterranean session as a chair of the Ocean Acidification Mediterranean Hub (OA Med-Hub). The event is published on YouTube: <u>OARS Session: Intro by Ambassador Peter Thomson, UN Secretary General's</u> <u>Special Envoy for the Ocean - YouTube</u>

2020 -Talk entitled "Regional perspective of Ocean Acidification science and observation" during the HLPF side-event "Developing capacity to address ocean acidification for a sustainable ocean future" on the 8th of July 8-9 am (New York Time) as a part of the Communities of Ocean Action within the High Level Political Forum 2020: https://sustainabledevelopment.un.org/hlpf/2020

-Organization and participation in the Ocean Acidification Week (#OAWeek2020) that took place between 8 and 10 September 2020, mainly in the Mediterranean session as a chair of the Ocean Acidification Mediterranean Hub (OA Med-Hub). The session is published on YouTube: <u>https://www.youtube.com/watch?v=9wH7JLlURS0</u>

- Participation in the plenary consultation on the draft Summary for Policymakers (SPM) of the MedECC report, 22 September 2020 (Marseille and online), **as a Corresponding Lead Author (CLA)** in the chapter 4 'Ecosystems': <u>https://www.medecc.org/plenary-consultation-on-the-draft-summary-for-policymakers-spm-of-the-medecc-report/</u>

- Gave a talk about 'climate change effects in the Mediterranean basin' in an international event entitled: "Assessing Climate and Environmental Stresses in the Arab and Mediterranean Regions: Scientific Evidences and Socio-economic Impact", 27 October 2020, organized by the Center for Mediterranean Integration.

- Gave a talk entitled "Seawater monitoring systems and parameters in the context of climate change" during the First national meeting on MSP and Blue Economy held on 6 and 13 November 2020, and organized by UNESCO-IOC: http://www.mspglobal2030.org/wp-content/uploads/2020/11/MSProadmap_Presentation_Lebanon_20201106.pdf

-Gave a talk entitled "Biogeochemical studies in the context of climate change in Lebanon-Eastern Mediterranean Sea" during the seminar of the group 'Laboratoire des Bio-

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Indicateurs Actuels et fossiles (LPG-BIAF)', département de Géologie, UMR-CNRS in the Université Angers, on the 11th of December 2020.

2019 -1st MedECC Assessment Report Lead Authors meeting, 4-7 March 2019, in Milan, Italy: <u>http://www.medecc.org/1st-medecc-assessment-report-mar1-authors-meeting-4-7-march-milan-italy/</u>

> -The 4th Global Ocean Acidification Observing Network (GOA-ON) International Workshop, 14-17 April, 2019 in Hangzhou, China. Plenary Oral Presentation: "First quantification of the carbonate system in the Lebanese Seawater, Levantine Sub-basin, Eastern Mediterranean Sea": <u>http://www.goa-</u> on2019.com/file/[FINALIZED]%20Workshop%20Daily%20Program.pdf

> -Technical Meeting on the Development of Practical Guidelines for Ocean Acidification Measurements and their Associated Uncertainties (EVT1804704), 29-31 May 2019 in the IAEA Environment Laboratories, Monaco: <u>https://news-oceanacidificationicc.org/2019/06/03/oa-icc-holds-back-to-back-meetings-on-future-activities-and-practicalguidelines-for-ocean-acidification-research/</u>

> - First Research Coordination Meeting on Evaluating the Impacts of Ocean Acidification on Seafood – A Global Approach as a scientific partner, 26-30 August 2019 in Kristineberg Marine Station, Sweden: <u>https://www.iaea.org/newscenter/news/iaea-supports-new-research-on-the-impacts-of-ocean-acidification-on-seafood</u>

> -"Indian Ocean Regional Ocean Acidification" workshop as an invited expert and representative of the GOA-ON network, 28-29 October 2019 in Stone Town, Zanzibar-Tanzania: <u>https://www.iaea.org/newscenter/news/supporting-ocean-acidification-initiatives-in-the-western-indian-ocean</u>

- 2nd MedECC Steering Committee meeting and Coordinating Lead Authors meeting, 11-13 December 2019, in Marseille, France: <u>https://www.medecc.org/medecc-steering-</u> <u>comitee-meeting-and-coordinating-lead-authors-meeting-11-13-december-2019-marseille/</u>

2018 -POGO fellowship program for Ship-board Training. During this program I have spent one month (February) at the IEO in A Coruña, Spain at Marta Alvarez's lab. to prepare for the cruise and being familiar with the carbonate system equipment, and one month (May) in GEOMAR in Kiel, Germany at Toste Tanhua's lab. for data post-cruise data processing and data treatment. In March, I participated in the MSM72 cruise conducted in the Mediterranean Sea.

-Lecture about "The power of marine algae in the context of the Blue Growth Initiative" for the participants of the 2018 EMUNI-OGS Summer School, at the Euro-Mediterranean University, in Piran, Slovenia, on the 22nd of June 2018: http://www.emuni.si/sites/default/files/Files_EN/Attachments/Blue_Growth.pdf

-Organization of the "ACCOBAMS Training Course on Photo-ID and Databases for Experts", 1-5 October 2018, Byblos, Lebanon.

-Technical Meeting on the Management, Analysis and Quality Control of Ocean Acidification Observation Data, 22-26 October 2018, in the IAEA laboratories, Monaco: <u>https://news-oceanacidification-icc.org/2018/11/07/oa-icc-and-goa-on-organize-advanced-data-analysis-and-management-workshop-in-monaco/</u>

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2017 -Co-chair in the Science Policy Interface and Ecosystem Approach Coordination Group Joint Meeting on IMAP Scale of Monitoring and Assessment and QSR, held on 27-28 April 2017 in Nice, France, organized jointly by Plan Bleu and the CU/MED POL of UN Environment/MAP: <u>http://planbleu.org/en/event/invitation-joint-workshop-science-policyinterface-spi-strengthening-and-ecosystem-approach</u>

-"Sustainable Blue Growth in Mediterranean and Black Sea Countries" summer school, held in Trieste from 10 to 19 of July 2017 (<u>http://summerschool.inogs.it/</u>).

-The 10th International Carbon Dioxide Conference (ICDC10: <u>http://www.icdc10.unibe.ch/</u>) held between 21st and 25th of August 2017 in Interlaken, Switzerland. Poster: Acidification and carbonate system trends in the Eastern Mediterranean Sea.

-"Blue Mission" Training Course on blue growth in the Mediterranean with the focus on the maritime transport sector and ports, 13-17 November 2017 in Piran, Slovenia, organized by the EMUNI (Euro-Mediterranean University: <u>http://www.emuni.si/en/bluemission</u>).

2016 -Mares Conference, Marine Ecosystems Health and Conservation, February 1st-5th 2016, Olhão, Portugal. Organized by Mares Conference Coordination Office, Ghent University/Belgium and Centre of Marine Sciences (CCMAR), University of Algarve/Portugal. I participated in two studies presented during this event: 1- What is the acidification level in the Mediterranean Sea? 2- Average pH variations in the Mediterranean Sea surface waters: ISBN 9789461973559. http://www.maresconference.eu/

-The 3rd Global Ocean Acidification Observing Network Science Workshop (GOA-ON ; <u>www.goa-on.org</u>), May 8th-10th 2016, Hobart, Tasmania, Australia.

- 2015 -Training entitled "Ostreopsis isolation cells and maintenance of Cultures" in the Università Politecnica Delle Marche (UNIVPM), Ancona/Italy, for two months (September-October 2015) in the context of a European project: http://m3-habs.net/about-m3-habs/
 -The 20th annual international LAAS conference entitled "New Frontiers in Sciences", March 27th-29th 2014, jointly organized by LAAS, EDST-LU and CNRS in the Lebanese University/Hadath/Lebanon. During this conference, I presented an oral presentation entitled "Anthropogenic CO₂ and acidification in the Mediterranean Sea during May 2013": http://www.biotech.ul.edu.lb/laas20/program.html
- -The 3rd annual congress for the Ph.D. students of the Université De Perpignan Via Domitia, May 15th-16th 2014, at the Université De Perpignan Via Domitia/Perpignan/France. During this congress, I presented an oral presentation entitled "Analysis and Modeling of acidification in the Mediterranean Sea": <u>http://upvdoc.univ-perp.fr/programme.pdf</u>

-The ESA conference entitled "Earth Observation for Ocean-Atmosphere Interactions Science 2014", October 28th-31st 2014, co-organised by ESA (European Space Agency), SOLAS and EGU in the European Space Agency/ESRIN/Frascati/Italy: <u>http://eo4oceanatmosphere2014.info/</u>

2013 -The GreenSeas summer school entitled "Global plankton data: ecosystems, monitoring and modelling in an era of global warming", between the 28th of January and the 2nd of February 2013, in the University of Cape Town/Cape Town/South Africa: http://www.greenseas.eu/content/greenseas-summer-school

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-The 6th international SOLAS summer school entitled "Surface Ocean-Lower Atmosphere Study", between the 23rd of August and the 2nd of September 2013, at the State Key Laboratory of Marine Environmental Science/Xiamen University/China: <u>http://mel.xmu.edu.cn/solassummerschool/</u>

-The Sino-German summer school on Marine Sciences entitled "Dynamics in Atmosphere and Ocean Coupling", held by the Center for Sino-German Cooperation in Marine Sciences (SGMS), September 2nd-13th 2013, in Qingdao/China. Contributing universities and institutions were: the Ocean University of China (OUC), the Zhejiang University, the Second Institute of Oceanography (State Oceanic Administration), the University of Kiel (CAU), the University of Bremen, the University of Hamburg and the Leibniz Institute of Baltic Research, Warnemünd Marine Research (AWI): <u>http://www2.ouc.edu.cn/sgms/</u>

-The International Conference on Oceanography and Sustainable Marine Production entitled "A Challenge of Managing Marine Resources in a Changing Climate-ICOSMaP–2013", October 29th-31st 2013, in Kuantan/Malaysia. During this event, I presented a study on the "Inter-annual variations of water and air temperatures in Lebanese coastal waters (2000-2012)": <u>http://inoctr.org/files/ICOSMAP2013.pdf</u>

- 2012 -Member of the organizing committee of the INOC/CNRS International Conference entitled "Land-Sea Interactions in the Coastal Zone, LANDSI- 2012", in Byblos/Lebanon, November 6th-8th 2012. During this event, I displayed an oral presentation on the "Effects of Continental Input on Marine Environment in the Lebanese Coastal Waters ". INOC: <u>http://www.inoctr.org/</u>, CNRS: <u>www.cnrs.edu.lb</u>.
- **2011** -An international workshop entitled "Environmental impacts know no boundaries", June 5th-19th 2011, in LA Spezia/Italy, organized by ENEA (<u>www.santateresa.enea.it</u>) and Environmental Ocean Team (<u>www.ocean-team.org</u>).
- **2010** -International courses for training on the marine taxonomy, from the 20th of September till the 2nd of November 2010, in Turkey (Istanbul-Izmir), organized by INOC (Inter-Islamic Network on Oceanography): <u>http://www.inoctr.org/</u>

Publications
 *Peer-reviewed journals
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*Outreach articles	Hassoun Abed El Rahman, 2020. Research justice: We are better together! in NANO newsletter (May 2020): <u>https://nf-pogo-alumni.org/wp-</u> content/uploads/2020/06/NN18_02Jun.pdf, DOI: 10.13140/RG.2.2.16542.97606				
Awards &	2021: <u>North-South Prize 2020</u> from the Council of Europe in Lisbon, Portugal for the MedECC report (CLA of one <u>MAR1</u> chapters: <u>Ecosystems</u>).				
grants	2019: Grant from the Ocean Foundation to attend the 4th Global Ocean Acidification Observing Network (GOA-ON) International Workshop, in Hangzhou, China.				
	2018: POGO fellowship for Ship-board Training on MSM72.				
	2017: Grant from the IAEA to attend the 10th International Carbon Dioxide Conference in Interlaken, Switzerland.				
	2016: Grant from the IAEA to attend the 3rd Global Ocean Acidification Observing Network Science Workshop, in Hobart, Tasmania, Australia.				
	2016: Grant from the IAEA to attend the Mares Conference, Marine Ecosystems Health and Conservation, in Olhão, Portugal.				
	2014: Grant from the European Space Agency to attend the ESA conference in ESRIN, Frascati, Italy				
	2013: Grant from the IAEA to attend the 6th international SOLAS summer school in Xiamen University, China				
	2013: Grant from GreenSeas to attend a summer school in Cape Town, South Africa				
	2011: Doctoral scholarship by the National Council for Scientific Research-Lebanon				
<u>Review &</u> editorship	*Participation in the review process of many scientific articles in international peer- reviewed journals, i.e. Scientific Data (Nature), Progress in Oceanography, Deep-Sea Research, Frontiers in Marine Sciences, Regional Environmental Change, Biogeosciences, Journal of Marine Systems, Oceanologia, etc.				
	*Topic editor of the Frontiers' special issue: <u>Time-Series Observations of Ocean</u> <u>Acidification: a Key Tool for Documenting Impacts on a Changing Planet Frontiers</u> <u>Research Topic (frontiersin.org)</u>				

*Jury member for Mediterranean Climate Change Adaptation Awards 2019 & 2020: <u>www.medadapt-awards.com/en/home/</u>

*Jury member for Ocean Acidification Information Exchange (OAIE) microgrants 2020: <u>www.oainfoexchange.org</u>

*Reviewer in the Scientific Committee of the UNEP/MAP and Plan Bleu report "State of the Environment and Development in the Mediterranean, SoED 2020": <u>https://planbleu.org/wp-content/uploads/2020/10/SoED-Full-Report.pdf</u>

*Examiner and jury member on the 12th of January 2023 in the PhD jury defense of Ms. Joelle Habib, entitled "Study of the variability of planktonic ecosystems and biogeochemical cycles in the Levantine basin by coupled hydrodynamic-biogeochemical 3D modelling" under the direction of Mr. Claude ESTOURNEL and Mr. Milad FAKHRI, in the research unit "LEGOS - Laboratory for Geophysical Studies and Space Oceanography", within the Doctoral School SDU2E - Sciences of the Universe, Environment and Space, in Université Paul Sabatier - Toulouse III. <u>TEL - Thèses en ligne (hal.science)</u>

Personal skills and competences

competences

Mother tongue(s) Arabic Other language(s)

	Understanding		Speaking		Writing	
	Listening	Reading	Spoken interaction	Spoken production		
French	Excellent	Excellent	Excellent	Excellent	Excellent	
English	Excellent	Excellent	Excellent	Excellent	Excellent	
German	Basic	Basic	Basic	Basic	Basic	
<u>Computer skills</u> <u>and</u> <u>competences</u>	Competent with most Microsoft office programs, OceanDataView (ODV), CO2Syst./Calc., Zotero, R, and basic Matlab.					
Other skills and	-Photography,					

new cultures and meeting new people.

-I like visiting art galleries and museums, cooking, biking, hiking, travelling, experiencing