



# ALICE NEWTON

MARINE SCIENTIST  
OCEANOGRAPHER

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HIGHER EDUCATION	WORK EXPERIENCE:
<p><b>BSc</b> (Joint Honours). Oceanography, Marine Biology. University of Wales, Bangor 1978-1981;  <b>MSc</b> (by research). Biological Oceanography, University of Wales, Bangor 1986-1988;  <b>PhD</b> Chemical Oceanography, University of Wales, Bangor 1990-1995;  <b>Agregação</b> (similar to DSc) in Marine Sciences, University of Algarve, 2014.</p>	<p><b>University of Algarve:</b> 1984-2021 Lecturer then tenured Professor. 2004 Head of Department of Chemistry and Biochemistry; 2015 Head of International Office.          2009-2019 Senior Researcher NILU- Norwegian Institute of Air Research</p>
SHORT BIOGRAPHY	
<p>Alice Newton is a tenured Professor in the Department of Marine and Environmental Sciences (DCTMA), Faculty of Sciences and Technology (FCT) of the University of Algarve (UAlg, Portugal). She is a member of Portugal's Marine and Environmental Research Center (CIMA). An internationally known Chemical Oceanographer, Professor Newton has made an important contribution to the assessment of eutrophication in coastal lagoons. She has also served on numerous national and international committees and boards, including 9 editorial boards, and has forged strong links with a range of industry and stakeholder organisations. Professor Newton was the Chairperson of LOICZ (Land ocean interactions in the coastal zone) a core project of IGBP (the International Biosphere-Geosphere Programme) and IHDP (the International Human Dimension Programme) from 2009 to 2011. She was the chairperson of the European Union Bioeconomy Strategy expert group (DGR&amp;I). She is a Council member of the Estuarine and Coastal Sciences Association (ECSA); the European Engagement Partner of Future Earth Coasts, (FEC, formally LOICZ); a member of RAMSAR Mediterranean Wetlands Scientific and Technical Network Climate Change Specialist Group; a member of the Future Earth Ocean Knowledge Action Networks development team; a Vice-Chairperson of the Integrated Marine Biosphere Research (IMBeR) Science Steering Committee; a member of the UN 2<sup>nd</sup> World Ocean Assessment pool of international experts.</p>	
RECENT PARTICIPATION IN INTERNATIONAL SCIENTIFIC RESEARCH PROJECTS	CONSULTANCY
<p>2009-2012: Chairperson of LOICZ Science Steering Committee          2009-2012: 7th Framework Programme <u>KnowSeas</u>-Knowledge-based Sustainable Management for Europe's Seas project          2010-2012 OSPAR-CAMP Comprehensive Atmospheric Monitoring Programme. Project leader          2012-2015: 7th Framework Programme <u>COMET LA</u> project. WP leader.          2012-2016: 7th Framework Programme <u>DEVOTES</u> project (MSFD Biodiversity descriptor). WP leader          2015-2017: EEA grant <u>SOPHIA</u> project. Consultant.          2017-present: Integrated Marine Biosphere Research (IMBeR) Global Research Project. Future Earth Coast          2021: Lead scientist on Circles of Coastal Sustainability (Future Earth Coast)          2021: Lead scientist on Blue Carbon (IMBeR)</p>	<p>Professor Newton advises various national, international and multinational governmental and non-governmental organisations as well as research funding agencies, on aspects of science-policy implementation. Examples include:</p> <p><b>US</b> Environment Protection Agency (nutrient criteria);  <b>EU-JRC</b> (Eutrophication in Coastal and Transitional waters);  <b>EU-JRC</b> (Implementation of the Water Framework Directive);  <b>EU- DG RTD</b> (Bioeconomy);  <b>Portugal:</b> <b>INAG</b> Portuguese Ministry of Environment and <b>DGRm</b> Directorate for Marine Resources;  <b>Norway:</b> KLIF (now <b>Norwegian Environment Directorate</b>), Management plan for North Sea and Skagerrak;  <b>United Nations Environmental Programme:</b> Regional Seas Conventions, Indicator Group (including Chlorophyll).</p>

## INTERNATIONAL POSTGRADUATE CURRICULUM DESIGN AND COORDINATION

Alice Newton has formulated and successfully implemented 7 multinational post-graduate Master and PhD joint programmes. She has more than 30 years of experience in coordinating several international and national research programmes across several scientific disciplines. She has supervised and co-supervised 63 Master students, 27 Doctoral students and 11 Postdoctoral fellows from many different countries.

**2000-2004** development of international Master programme, European Joint Master programme in Water and Coastal Management based on a large network of European Universities, selected by the European University Association (EUA). Design and delivery of postgraduate (Master) modules in Chemistry and Physical Properties of Water, Hydro-chemical Characterization of Natural Waters, Water Quality Policies and Regulations, Water, Coastal and Environmental Management, Eutrophication.

**2004-2011** Coordination of International Postgraduate Programmes

*Erasmus Mundus* Master in Water and Coastal Management,

**2008-2021:** International Curriculum Development and Teaching

- Design and curriculum development then implementation and delivery of the International European Joint Master programme in Water and Coastal Management;
- Design and curriculum development then implementation and delivery of an international Master programme in Inland and Freshwater Quality;
- Design and curriculum development then implementation and delivery of Erasmus Mundus programmes at Master level (Quality in Analytical Laboratories, Marine Biodiversity and Conservation, Ecohydrology) and at PhD level (Marine and Coastal Management);
- Design and curriculum development of the International Erasmus Mundus programme at Master level in Chemical Innovation and Regulation.

## CAPACITY BUILDING

Dr Newton has designed and run 9 capacity building courses for University Academic staff and also contributed as visiting professor to the training of post-graduate students at several other Universities around the world: (Argentina) Universidad Nacional del Sur; (Brazil) Universidade Federal de São Paulo, Universidad de Santa Cecilia; (Chile) Universidad Catolica de la Santissima Concepcion; (China) Central South University, East China Normal University, Ocean University of China, University of Ningbo; (Colombia) Pontificia Universidad Javeriana, University of Eafit; (Italy) University of Bologna, University of Lecce; (Morocco) Mohamed V University – Agdal; (Norway) University of Bergen; (Poland) University of Gdansk, Gdansk Technical University, University of Szczecin, University of Czestochowa; (Spain) University of Barcelona; University of Cadiz, University of Cordoba; (Sweden) University of Göteborg; (UK) University of Plymouth, University of Portsmouth, University of Wales.

Universidad Catolica de la Santissima Concepcion, 9th-12th de May 2005, Concepcion, Chile

4 day Capacity Building course for teaching academic staff in higher education on *Networking Universities and Development of Joint Curricula*. Funded by Ministry of Science and Education, Chile

Universidad de Cadiz, 26th-30th June 2006, Cadiz, Spain. 5 day Capacity Building Course for teaching academic staff in Higher Education on *International courses development and teaching*. Funded by Ministry of Science and Education, Spain

Universidad de Cordoba, February 2009, Cordoba, Spain. 3 day Capacity Building Course for teaching academic staff in Higher Education on *International courses development and teaching*. Funded by Ministry of Science and Education, Spain

Pontificia Universidad Javeriana, Bogota, 29th-30th November 2010, Bogotá, Colombia. 2 day Capacity Building Course for teaching academic staff in Higher Education on *Environment (including Climate Change)*. Funded by Ministry of Science and Education, Colombia

University of Czestochowa, 12th-13th May 2011, Poland. 2 day Capacity Building Course for teaching academic staff in Higher Education on the *Water Framework Directive*. Funded by EEA Grants and Ministry of Science and Education, Poland

Universidad Nacional del Sur, 15th -17th July 2014, Argentina. 3day Capacity Building workshop on *Adaptive management frameworks for coastal social-ecological systems* for Postgraduates, post-doctoral researchers and senior researchers. Funded by CONICET, Instituto Argentino de Oceanografia

Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, 22nd August 2015, Yantai, China. Capacity Building workshop on *Adaptive management frameworks for coastal social-ecological systems* for Postgraduates, post-doctoral researchers and senior researchers

Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences, August 2016, Yantai, China. Capacity Building workshop on *Adaptive management frameworks for coastal social-ecological systems* for Postgraduates, post-doctoral researchers and senior researchers

University of Gothenburg, October 5th, 2016, Göteborg, Sweden. Workshop: *Vitalising a new marine department?*  
Circa 100 Academic Staff

WIOMSA-Western Indian Ocean Marine Science Association, Mombasa, Kenya from 27th May 2019 to 1st June 2019.  
6 day Regional Training Workshop on *Quantification and Valuation of Marine and Coastal Ecosystem Services*  
ERACOMA sponsored by Western Indian Ocean Marine Science Association (WIOMSA), through its Marine and Coastal Science for Management (MASMA) Programme.

#### SCHOLARSHIPS, FELLOWSHIPS, PROFESSORSHIPS

2007 - **SCHOLARSHIP** Erasmus Mundus - Water and Coastal Management, **Eafit University, Turkey**  
2010 - **SCHOLARSHIP** Ocean Alliance, **University of Tokyo, Japan**  
2011 - **SCHOLARSHIP**, Institute of Advanced Studies, **University of Bologna, Italy**  
2011 - **SCHOLARSHIP**, Scientific Committee for Ocean Research, **Mohamed V University, Morocco**  
2011 - **SCHOLARSHIP**, Erasmus Mundus, Water and Coastal Management, **Unisantia, Brasil**

2011, 2013, 2014 - **SCHOLARSHIP**, Erasmus Mundus Quality in Analytical Laboratories, **Central South University, P.R. China**  
2013 - **FELLOWSHIP**, Estuarine and Coastal Research, **East China Normal University, P.R. China**  
2014, 2015, 2016, - **PROFESSORSHIP**, Chinese Academy of Sciences, **Key State Laboratory, Yantai, P.R. China.**  
2015 - **SCHOLARSHIP**, Erasmus Mundus, Water and Coastal Management, **Ningbo University, P.R. China**  
2017 - **111 EXPERT**, Estuarine and Coastal Research, **State Key Laboratory, P.R. China**



#### SCIENCE COMMUNICATION

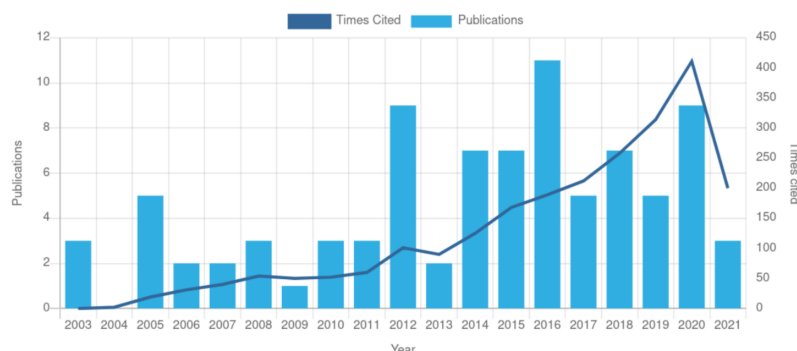
Professor Newton is the author or co-author of 100 scientific and academic (ISI) publications in the last 15 years, as well as several book chapters and has been the editor or co-editor of 4 special issues of Journals. She has given numerous presentations at international conferences over the last 10 years, including 40 keynote papers as an invited speaker. Additionally, she has co-chaired or convened 64 scientific events.

#### AUTHOR METRICS AND LINKS

[ORCID](#) | [SCOPUS](#) | [Research Gate](#)  
[LinkedIn](#) | [LOOP](#)

July 2021 [Google Scholar](#) Publons

Citations	4642	2376
h-index	34	25
i10-index	83	



## PUBLICATIONS: BOOK CHAPTERS

Wolanski, E., **Newton, A.**, Rabalais, N., Legrand, C., 2008. Coastal Zone Management. In Sven Erik Jørgensen and Brian D. Fath (Editor-in-Chief), *Ecological Engineering, Encyclopedia of Ecology*. Ed. Oxford: Elsevier, pp. 630-637. DOI: 10.1016/B978-008045405-4.00046-X

Yakushev E.V., **Newton, A.**, 2013. Introduction: Redox Interfaces in Marine Waters. *Chemical Structure of Pelagic Redox Interfaces, Observation and Modelling*. The Handbook of Environmental Chemistry. Ed. SpringerLink, vol. 22, pp. 1-12. DOI: 10.1007/978-3-642-32125-2

Wolanski, E., **Newton, A.**, Rabalais, N., Legrand, C., 2013. Coastal Zone Management. Scott Elias (Editor-in-Chief), *Ecological Engineering, Encyclopedia of Ecology*. Ed. Oxford: Elsevier.

Wolanski E., **Newton A.**, Rabalais N. and Legrand C , Coastal Zone Management, Reference Module in Earth Systems and Environmental Sciences, Elsevier, 2013. 11-Sep-13 doi: 10.1016/B978-0-12-409548-9.00537-6.

Angel Pérez-Ruzafa, Isabel M. Pérez-Ruzafa, **Alice Newton**, Concepción Marcos. 2019. Chapter 15. *Coastal Lagoons: Environmental Variability, Ecosystem Complexity, and Goods and Services Uniformity*. in *Coast and Estuaries, the future* Edited by Eric Wolanski, John W. Day, Michael Elliott, Ramesh Ramachandran, 730pp. Elsevier ISBN: 978-0-12-814003-1 <https://www.sciencedirect.com/science/article/pii/B9780128140031000150?via%3Dihub>

Helena M. Galvão, Pedro A. Mendes, Sandra M. Caetano, John D. Icely & **Alice Newton**. 2019. Chapter 5. *Role of Microbes in the Ria Formosa Lagoon* In: Aníbal, J., Gomes, A., Mendes, I. & Moura, D. (eds.), *Ria Formosa: challenges of a coastal lagoon in a changing environment*. 1st edition. University of Algarve. Faro, Portugal. ISBN 978-989-8859-72-3, 67-81. Persistent identifier: <https://sapientia.ualg.pt/handle/10400.1/12475>

Maria João Bebianno, Patrícia Pedro, Ângela Serafim, Belisandra Lopes & **Alice Newton**. 2019. Chapter 8. *Human Impact in the Ria Formosa Lagoon* In: Aníbal, J., Gomes, A., Mendes, I. & Moura, D. (eds.), *Ria Formosa: challenges of a coastal lagoon in a changing environment*. 1st edition. University of Algarve. Faro, Portugal. ISBN 978-989-8859-72-3, 109-123. Persistent identifier: <https://sapientia.ualg.pt/handle/10400.1/12475>

Sónia Cristina, John Icely & **Alice Newton**. 2019. Chapter 10. *The Application of Remote Sensing for Monitoring the Ria Formosa: the Sentinel Missions* (eds.), *Ria Formosa: challenges of a coastal lagoon in a changing environment*. 1st edition. University of Algarve. Faro, Portugal. ISBN 978-989-8859-72-3, 139-151. Persistent identifier: <https://sapientia.ualg.pt/handle/10400.1/12475>

## BOOKS AND SPECIAL ISSUES OF JOURNALS

Ferreira, J.G., et al. including **Newton, A.**, 2006. *Monitoring plan for water quality and ecology of Portuguese transitional and coastal waters*. Development of Guidelines for the Application of the European Union Water Framework Directive. 1.ed. Portugal: INAG –Water Institute, IMAR – Institute of Marine Research.

**Alice Newton** and John Icely. 2008. Guest editors of special issue: *Land-Ocean Interactions in the Coastal Zone: Lessons from Banda Aceh, Atlantis and Canute*. Estuarine and Coastal Shelf Science Volume 77, issue 2.

**Alice Newton**, Jan Harff, Zai-Jin You, Hua Zhang, and Eric Wolanski. 2016. Guest editors of special issue. *Sustainability of Future Coasts and Estuaries*. Estuarine and Coastal Shelf Science Volume 183, Part B.

Mistri, M., **Newton A.** and Pérez-Ruzafa A. (eds) *Frontiers in Ecology and Evolution. "Ecosystem Services, Biodiversity and Water Quality in Transitional Ecosystems"*. In preparation.

Carol Robinson, Annette Breckwoldt, Alistair Hobday, Eugene Murphy, Prateep Nayak and **Alice Newton** (Eds) Frontiers in Marine Science "[\*Integrated Marine Biosphere Research: Ocean Sustainability, Under Global Change, for the Benefit of Society\*](#)". In preparation

Elif Eker Devel, Ahmet Kideys, Alexander Mikaelyan, Michelle Delvin, **Alice Newton** (Eds) Special Issue of Frontiers in Marine Science "[\*Phytoplankton Dynamics Under Climate Change\*](#)". In preparation.

Barbara Zanuttigh and **Alice Newton** (Eds) Special issue of JMSE. "[\*Innovative Multi-Functional and Integrated Solutions for Coastal Adaptation\*](#)". In preparation.



**[Complete list: alicenewton.eu/publicationlist.pdf](https://alicenewton.eu/publicationlist.pdf)**

- Danchenko, S. Fragoso, B., Guillebault, D., Icely, J., Berzano, M., **Newton, A.** 2019. *Harmful phytoplankton diversity and dynamics in an upwelling region (Sagres, SW Portugal) revealed by ribosomal RNA microarray combined with microscopy.* Harmful Algae 82, 52-71 <https://doi.org/10.1016/j.hal.2018.12.002>
- Tuda, A., Kark S., **Newton, A.** 2019. *Exploring the Prospects for Adaptive Governance in Marine Transboundary Conservation in the East African Marine Eco-region.* Marine Policy, 104, pp.75-84. <https://doi.org/10.1016/j.marpol.2019.02.051>
- Owuor M.A., Icely J., **Newton A.** 2019. *Community perceptions of the status and threats facing mangroves of Mida Creek, Kenya: Implications for community-based management.* Ocean and Coastal Management 175, 172-179. <https://doi.org/10.1016/j.ocecoaman.2019.03.027>
- Urbis Arvydas, Ramūnas Povilanskas, **Alice Newton.** 2019. *Valuation of aesthetic ecosystem services of protected coastal dunes and forests .* Ocean and Coastal Management, 179, p.104832. <https://doi.org/10.1016/j.ocecoaman.2019.10483>
- Owuor M.A., Icely J., Mulwa R., Otieno P., **Newton A.** 2019 *Valuing Mangrove Ecosystems Services: An Application of Deliberative Choice Experiment, the case of Mida Creek, Kenya for Ecosystem Services* Ecosystem Services, 40, p.101040. <https://doi.org/10.1016/j.ecoser.2019.101040>
- El Mahrad B, Abalansa S, **Newton A**, Icely JD, Snoussi M and Kacimi I. 2020. *Social-Environmental Analysis for the Management of Coastal Lagoons in North Africa.* Front. Environ. Sci. 8:37. <https://doi.org/10.3389/fenvs.2020.00037>
- Newton, A.**, John Icely, Sónia Cristina, Gerardo Perillo, R. Eugene Turner, Dewan Ahsan, Simon Cragg, Yongmin Luo, Chen Tu, Yuan Li, Haibo Zhang, Ramachandran Ramesh, Donal Forbes, Cosimo Solidoro, Béchir Béjaoui, Shu Gao, Roberto Pastres, Heath Kelsey, Dylan Taillie, Nguyen Huu Nhan, Ana Brito, Ricardo de Lima, Claudia Kuenzer. 2020 *Anthropogenic pressures on coastal wetlands.* Frontiers in Ecology and Evolution (section Conservation) 8:114 <https://doi.org/10.3389/fevo.2020.00144>
- Borja, A., Jesper H. Andersen, Christos Dimitrios Arvanitidis, Alberto Basset, Lene Buhl-Mortensen, Susana Carvalho, Katherine Dafforn, Michelle Jillian Devlin, Elva G. Escobar-Briones, Christian GRENZ, Tilmann Harder, Stelios Katsanevakis, Dongyan LIU, Anna Metaxas, Xosé Anxelu G. Morán, **Alice Newton**, Chiara Piroddi, Xavier Pochon, Ana M Queiros, Paul Snelgrove, Cosimo Solidoro, Michael Arthur St. John, Heliana Teixeira. 2020. *Past and future Grand Challenges in Marine Ecosystem Ecology.* Frontiers in Marine Science, section Marine Ecosystem Ecology. DOI: 10.3389/fmars.2020.00362
- de Alencar PNM, Le Tissier M, Paterson SK, **Newton A.** 2020. *Circles of Coastal Sustainability: A Framework for Coastal Management.* Sustainability 2020, 12, 4 886; doi:10.3390/su12124886
- Torregroza Espinosa, A.C., Juan C Restrepo, Jaime H Escobar, Mark Brenner, **Alice Newton.** 2020. *Nutrient Input and Net Ecosystem Productivity in the Mouth of the Magdalena River, Colombia* Estuarine, Coastal and Shelf Science, Volume 243, 30 September 2020, 106899 <https://doi.org/10.1016/j.ecss.2020.106899>
- El Mahrad, B., **Alice Newton**, Icely John David, Ilias Kacimi, Samuel Abalansa, Maria Snoussi 2020. *Contribution of Remote Sensing Technologies to Holistic Coastal and Marine Environmental Management Framework: Best Practices and Future Potential.* Remote Sens. 2020, 12, 2313. <https://doi.org/10.3390/rs12142313>
- Malone, T. and **Newton, A.** 2020. *The Globalization of Coastal Eutrophication: Causes and Consequences.* Frontiers in Marine Science, section Marine Biology, Research Topic Integrated Marine Biosphere Research: Ocean Sustainability, Under Global Change, for the Benefit of Society <https://doi.org/10.3389/fmars.2020.00670>
- Abalansa S. El Mahrad, B., Vondolia, G.K., Icely, J.D. and **Newton A.** 2020. *The marine litter issue: a social-economic analysis* Journal: Sustainability Section: Environmental Sustainability and Applications, Special Issue: Microplastics - Macro Challenge for Environmental Sustainability Sustainability 2020, 12, 8677 <https://doi.org/10.3390/su12208677>
- Tuda, A.O., Kark, S. and **Newton, A.**, 2020. *Polycentricity and adaptive governance of transboundary marine socio-ecological systems.* Ocean & Coastal Management, p.105412. <https://doi.org/10.1016/j.ocecoaman.2020.105412>
- Torregroza-Espinosa, A.C., Restrepo, J.C., Escobar, J., Pierini, J. and **Newton, A.**, 2020. *Spatial and temporal variability of temperature, salinity and chlorophyll-a in the Magdalena River mouth, Caribbean Sea.* Journal of South American Earth Sciences, p.102978. <https://doi.org/10.1016/j.jsames.2020.102978>
- Fonseca, A., **Newton, A.**, Cabral, A. 2020. *Coupled influences of local and meso-scale pressure to promote eutrophication in a coastal and subtropical transitional system: challenges for effective management.* Estuarine, Coastal and Shelf Science. <https://doi.org/10.1016/j.ecss.2020.107109>
- Hobday, A. J., Robinson, C., Murphy, E. J., **Newton, A.**, Glaser, M., Brodie, S. 2020. *Fostering Global Science Networks in a Post-COVID-19 World.* Oceanography. <https://doi.org/10.5670/oceanog.2020.414>
- Abalansa, S.; El Mahrad, B.; Icely, J.; **Newton, A.** 2021. *Electronic Waste, an Environmental Problem Exported to Developing Countries: The GOOD, the BAD and the UGLY.* Sustainability 2021, 13, 5302. <https://doi.org/10.3390/su13095302>
- Busari, I.O., Demirel, M.C. and **Newton, A.**, 2021. *Effect of Using Multi-Year LULC and Monthly LAI Inputs on the Calibration of a Distributed Hydrologic Model.* Water 2021, 13, 1538. <https://doi.org/10.3390/w13111538>