### LAURA AIROLDI - CURRICULUM VITAE

**Personal information:** Laura Airoldi, born 27 February 1967 at Milano (Italy). Italian

nationality

**Current employment:** Associated Professor (full time, permanent position), *Alma Mater* 

Studiorum - University of Bologna

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Languages: Italian (mother tongue), English (fluent spoken and written), French

(basic)

#### **Education:**

1994 Ph.D in Environmental Sciences (Marine Science), University of Genoa, Italy (Advisors: Prof. Francesco Faranda and Prof. Francesco Cinelli)

1990 M.Sc. equivalent University Degree in Biological Sciences, University of Milano, Italy (Advisor Prof. Erminio Giavini). *Magna cum laude* honorary mention.

## **Professional experience**<sup>1</sup>:

2013	Fulbright Research Fellow, Stanford University, USA (6mo) (Prof. F Micheli)
2011-date	Associated Professor, Faculty of Sciences, University of Bologna, Italy
2011	Visiting Researcher, Wesleyan University, USA (1mo) (Prof. M Gilmore)
2006	Visiting Researcher, University of Adelaide, Australia (3mo) (Prof. SD Connell)
2005-2011	Research Fellow and Lecturer, Faculty of Sciences, University of Bologna, Italy
2004	Visiting Researcher, University of California Santa Cruz, USA (1mo) (Dr. MW Beck)
2004-	Consultant for the Marine Programs of The Nature Conservancy, USA
2002	Visiting Researcher, Marine Biological Association UK (5 mo) (Prof. S.J Hawkins)
2000-2005	Post-doctoral Fellow, University of Bologna, Italy (Prof. V-U Ceccherelli)
1999	Contract lecturer, University of Bologna, Italy
1998	Visiting Scientist, Marine Biological Association UK, UK (1mo) (Prof. AJ Southward)
1997-1998	Post-doctoral Research Fellow, University of Sydney, Australia (Prof. AJ Underwood)
1994-1996	Postdoctoral Research Fellow, University of Pisa, Italy (Prof. F Cinelli)
1992	Consultant for SNAM Progetti, Milano, Italy
1991-1994	Doctoral Research Fellow, University of Genova and University of Pisa, Italy Prof. F
	Cinelli)
1990-1991	Post-graduate Training, Plankton Laboratory, University of Trieste, Italy (Prof. S
	Fonda-Umani)
1988-1990	Master training, Laboratory of Experimental Embryology, University of Milano (Prof.

### Other qualifications and training courses:

E. Giavini)

National scientific qualification to function as Full Professor in Italian Universities (http://abilitazione.miur.it/public/candidati.php?lang=eng): this was a national competition

<sup>&</sup>lt;sup>1</sup> Since 2003, I had 10 months interruption for childbirth (5 months in 2003 and 5 months in 2005).

- to preselect the researchers authorised to apply for jobs as Full Professors in Italy in the next 5 years
- 2014 Course "An introduction to GIS Geographical Information System and Marine Habitat Mapping" (January-February 2014, 20 hours), University of Bologna
- 2013 Course "An introduction to R" (20 November 2013-15 January 2014, 18 hours), University of Bologna
- 2012 Course "Introduction to meta-analysis of biological/ecological data" (9-12 October), University of Bologna (Italy)
- 2003 Course "Design and analysis of monitoring and experiments for environmental scientists" (10-21 March), University of Bologna (Italy)
- 2002 Course of "Statistical analysis and interpretation of community data from ecology/environmental science using PRIMER for Windows (V5)", Marine Biological Association (United Kingdom)
- 1998 Course of "Multivariate analyses for biology and ecology", University of Sydney (Australia)
- 1997 International "Course-Seminar for the Instructors of European Scientific Divers", funded by the European Union, International School for Scientific Diving (Italy)
- 1997 Advanced International Course "Design and analysis of biological experiments", University of Sydney (Australia) held at the University of Evora (Portugal)
- 1996 One star CMAS Instructor of SCUBA Diving and three star CMAS Scientific SCUBA Diver
- 1995 International Course "Design and analysis of biological experiments", University of Sydney (Australia) held at the University of Evora (Portugal)
- 1990 "Training course of scientific divers", International School for Scientific Diving (Italy)
- 1990 International Course "Seaweeds as monitors of environmental quality: taxonomy, physiology and ecology of marine algae", International Marine Centre of Oristano (Italy)
- 1990 International Course "Phytobenthos of the Mediterranean" funded by the European Union under ERASMUS projects, Laboratoire Arago, Banyuls sur Mer (France)
- 1989 International Course "Mediterranean marine and terrestrial ecology", Laboratoire Arago, Banyuls sur Mer (France)

### Fellowships, Awards and Honours:

- 2015 Fellowhip of the British Phycological Society
- 2013 Fulbright Occasional Lecturer Fund, Council for International Exchange of Scholars (CIES)
- 2012 Fulbright Research Scholarship, The US Italy Fulbright Commission
- 2011 ECCO Exchange Fellowship, Eastern College Consortium, Vassar, Wellesley e Wesleyan University, USA
- 2011 Fast Moving Front Commentary, Thompson Reuters (featured at http://sciencewatch.com/dr/fmf/2011/11sepfmf/11sepfmfAiroET\_LE/)
- 2008 TNC Fellowship for the international initiative "Shellfish Reefs at Risk", The Nature Conservancy, USA.
- 2008 ISA Topic 2008 Fellowship "Predicting changes in a changing world" (Institute of Advanced Studies, Italy)
- 2007 TNC Fellowship in support of the *Shellfish at Risk* working group, The Nature Conservancy, USA
- 2006 Marco Polo Exchange Fellowship, University of Bologna
- 2004 The Nature Conservancy MI Innovative Projects (project 1981483000), The Nature Conservancy, USA.
- 2004 S.It.E (Italian Ecological Society) Award for the best 2003 Italian Ecological Paper ("The effects of sedimentation on rocky coast assemblages", Oceanogr Mar Biol Annu Rev, 41: 161-236)
- 2002 Exchange Visit Fellowship, European Science Foundation, LINKECOL Programme
- 2000, 2002, 2005 Post-doctoral Fellowships, University of Bologna

- 1999 Award "Premio Marchetti" for best oral presentation at the IX National Conference of the Italian Society of Ecology (S.It.E)
- 1997 Post-doctoral Fellowship, University of Sydney
- 1996 Post-doctoral Fellowship, University of Pisa.
- 1994 MAST II Post-doctoral Fellowship, European Union
- 1991 Doctoral Fellowship, Italian Ministry of the University, Scientific and Technological Research, Italy
- 1990 Award for excellence in university studies, INPDAI (Italy)
- 1990 Magna cum laude graduate, University of Milano, Italy.

### Current and past research projects and grants:

- 2017-2020 Risks and opportunities of microplastics in the marine environment- ROME (Coord F. Regoli, PRIN 2011, Italian Ministry of Education, University and Research) PI Submitted
- 2016-2018 Sustainable urbanization and coastal defence: 'blue' planning and design of coastal marine infrastructures along waterfronts in China and Italy Coordinator in collaboration with Y Dong (State Key Laboratory of Marine Environmental Science, College of Ocean and Earth Sciences, Xiamen University) to MAECI, Submitted
- 2016-2019 Analysis of the ecological effects of microplastics in coastal marine environments (Grant to cover the costs of one PhD student, University of Bologna, funding from the Italian Ministry of Education, University and Research) − Coordinator, € 50.000
- 2016-2018 Direct and indirect ecotoxicological impacts of microplastics on marine organisms Plastox (JPI Oceans) PI and Coordinator for the University of Bologna (Coord Dr. Andy Booth, SINTEF), € 3.624.000
- Developing ecosystem-based solutions for resilient European harbours and coastal waterfronts ECORES (joint support from EUROMARINE and World Harbour Project) Coordinator, € 11.000
- 2015-2017 Experimental analysis of effective management scenarios for marine coastal ecosystems threatened by multiple local and global stressors (Grant to co-fund the costs of 2 years Post-doc, University of Bologna, funding from the Italian Ministry of Education, University and Research) − Coordinator, € 24.000
- 2015-2017 Invited participation to the project "How is recruitment success of fish affected by anthropogenic pressures in shallow coastal areas?" supported by the Mistra Council for Evidence-based Environmental Management (EviEM), Sweden PI
- 2014-2018 Oceans Past Platform (COST Action IS1403) PI and management comitee member (Coord Poul Holm, Trinity College Dublin)
- 2014-2017 Marine urban sprawl: Using ecology to design multifunctional artificial structures. Australian Research Council, Linkage Projects (LP140100753) PI (Coordinator K. Dafforn, University of New South Wales, Australia), AUS \$381.197
- 2013-2016 "TETRIS Observing, modelling and Testing synergies and TRade-offs for the adaptive management of multiple Impacts in coastal Systems" (PRIN 2011, Italian Ministry of Education, University and Research) − Coordinator, € 979.345
- 2012-2016 "MERMAID Innovative multi-purpose off-shore platforms: planning, design and operation" (EU FP7 Ocean 2011, grant 288710) PI (Coordinator E. Damgaard Christensen, Technical University of Denmark), € 5.483.411
- 2010–2015 "MARES Doctoral Programme in Marine Ecosystem Health and Conservation" (EU-512002-1-2010-1-BE-EMJD) Coordinator for the University of Bologna (general project coordinator Ghent University). Funding received so far by UNIBO approx. € 700.000
- 2009-2013 "THESEUS -Innovative technologies for safer European coasts in a changing climate" (EU FP7 ENV2009-1, grant 244104) PI (coord B. Zanuttigh, University of Bologna), € 8.519.726

- 2008-2010 "BIORES -The resistance and resilience of coastal biodiversity to synergic effects of global and local environmental changes" (PRIN 2007, Italian Ministry of Education, University and Research, Italy) PI and Coordinator of research Unit (coordinator L Benedetti-Cecchi) € 66.848
- 2008-2010 "MarUrbe Sustainable Urban Development: solutions to promote the biological and conservation value of marine urban structures" (EU − FP7-PEOPLE-2007-2-1-IEF-219818) Coordinator € 171.469
- 2008-2010 "Effects of the Introduction of non-native habitats and species on the functioning of marine coastal ecosystems" (Bologna University, funding from the Italian Ministry of Education, University and Research) − Coordinator € 27.733
- 2007-2009 "AdriaBio Past, present and future of marine biodiversity in the Adriatic sea" (University of Bologna Strategic Project, University of Bologna, Italy) Coordinator € 60.000
- "ECO GOVERNANCE –Ecological foundations for the governance of the Adriatic coastal space: ecology, monitoring and management of transitional aquatic ecosystems" (EU INTEREG/CARDS-PHARE) multi-institutional collaboration (coordinator A. Basset, University of Salento) multiple PIs (including L. Airoldi, Coordinator of 2 modules) € 74,970
- 2006 –2010 CoML (Census of Marine Life) network "NaGISA Natural Geography In Shore Areas" Participant and local coordinator
- 2006- date "MarBEF Marine Biodiversity and Ecosystem Functioning" (EU Network of Excellence, EU contract GOCE-CT-2003–505446) until 2009, and currently MarBEF+ Association Local Coordinator for the University of Bologna
- 2006-2009 "ENCORE European platform for coastal research coordination action", EU Coordination Action Participant
- 2004-2008 3 projects supported by The Nature Conservancy Marine Program: "The loss of habitat-forming species: implications for biodiversity of temperate seas", "Status & Trends for Coastal Marine Habitats of Europe & Identification of Potential Agency and NGO Partners" and "Survey of distribution of shellfish reefs in teh Mediterranean sea: a proposal in support of the Shellfish at risk working group" PI \$25,000
- 2004-2005 "MED RED: Artificial Marine Structures (AMS): Multifunctional tool for research and environmental management in the Mediterranean and Red Sea" (Bilateral Projects Italy-Israel, Italian Ministry of the Environment, Italy) Co-PI
- 2004 "Ecological effects of beach nourishments" (Regione Emilia Romagna, Italy) Co-PI
- 2003-2004 "Spatial variability of benthic assemblages on natural reefs and artificial structures" (Project COFIN 2002, Italian Ministry of Education, University and Research) Co-PI
- 2002-2007 "Development of monitoring programs of offshore activities in the Adriatic Sea" (ENI, E & P Division, AMTE Dept, Italy) Participant
- 2001-2004 "DELOS Environmental design of low crested coastal defence structures" (EU EVK3-CT-2000-00041) PI and member of the Steering Committee
- 1999-2001 Distribution, diversity and genetic structure of hard-bottom organisms in brackish habitats: roles of natural and anthropogenic disturbances (Italian Ministry of the University, Scientific and Technological Research, Italy) Participant
- Nutrient limited growth of macroalgae in the Tuggerah Lakes estuary (supported by the Wyong Shire Council) Participant
- 1997-1998: "Quantitative and experimental ecology of coastal algae" (ARC Large Grant, Australian Research Council) Participant
- 1996-1997: "Regression of belts of canopy forming algae: monitoring and predicting the ecological effects on British and Italian rocky shores" (British Council and Italian Ministry of Education, University and Research) Participant
- 1996-1997: "Marine Invasions mediated by ballast waters" (Smithsonian Environmental Research Centre and Williams College-Mystic Seaport) Participant

- 1996-1997 EUROROCK- Interactions of physical and biological factors in the surf and swash zone of European rocky shores (MAST III Project, MAS3-CT96-0012 supported by the European Union) Participant
- Sampling subtidal rocky reef assemblages with the support of amateur divers (supported by the Federazione Italiana Pesca Sportiva ed Attività Subacquee)
  Participant
- 1993-1995: "Oxic-anoxic interfaces as productive sites" (European Community, MAS2-CT93-0058) Participant

### Activity as editor and reviewer:

- Editorial Board Member, *Marine Ecology Progress Series*, Review Staff Member (1996-2004), Reviewer Editor (2005-2006, and 2013 -) and Contributing Editor (2007 2012): subject topics ecology of rocky coasts, macroalgae, disturbance, invasive species, biodiversity and conservation
- Editorial Board Member, Diseases of Aquatic Organisms, Reviewer Editor (2003-2011)
- Editorial Board Member, *The Open Oceanography Journal* (2007-present)
- Editorial Board Member, ISRN Ecology (2011 present) http://www.hindawi.com/isrn/ecology/
- Guest Editor for the World Harbour Project Special Issue to be published in 2016 in the journal *Regional Studies in Marine Sciences*
- Review manuscripts for several journals, including Ambio, Aquatic Botany, Aquatic Conservation, Aquatic Sciences, Austral Ecology, Australian Journal of Botany, Biological Conservation, Botanica Marina, Conservation Biology, Coral Reefs, Diversity and Distributions, Ecological Indicators, Ecology, Environmental Pollution, Environmental Science: Processes & Impacts, Estuarine Coastal and Shelf Science, Hydrobiologia, Journal of Applied Ecology, Journal of Experimental Marine Biology and Ecology, Journal of Phycology, Journal of Sea Research, Marine Biology, Marine Environmental Research, Marine Pollution Bulletin, PlosONE, Science Advances, Scientia Marina, Scientific Reports, and Water Air and Soil Pollution
- Referee for the examination of PhD Thesis on behalf of the Faculty of Science, Information, Technology & Education of the Northern Territory University, Australia (2001), the Faculty of Science of the Victoria University of Wellington, New Zealand (2006), The Faculty of Biology of the University of Barcellona, Spain (2008), the Faculty of Science of the University of New South Wales, Australia (2009), the Faculty of Mathematical, Physical and Natural Sciences, University of Ferrara, Italy (2009), the School of Biology and Environmental Sciences, University College Dublin, Ireland (2015)
- Invited to review research proposals on behalf of the Natural Environment Research Council of the UK, the Swedish Research Council for the Environment, Agricultural Sciences and Spatial Planning (Sweden), the Washington Sea Grant (USA), the National Science Foundation (USA), The US-Italy Fulbright Commission, the Estonian Research Council on the behalf of ERA-NET BiodivERsA Call Secretariat
- Invited to the evaluation process of the research proposals for the Joint Baltic Sea Research Programme BONUS (BONUS Baltic Organisations' Network for Funding Science EEIG application call 2012)

### Other professional and research activities:

- Invited participant to the ICES Working Group on Introductions and Transfers or Marine Organisms (WGITMO) (Olbia, Italy, 16-18 March 2016)
- 2015-date Member of the EviEM review working team focusing on the effects anthropogenic pressures in shallow coastal areas on fisheries (supported by the Mistra Council for Evidence-based Environmental Management, Sweden)
- 2015 Coorganizer (together with F. Micheli, S. Fraschetti and E. Gissi) of the special session S21 The challenge of managing multiple stressors in marine regions: success

- stories, opportunities for action and gaps of knowledge at the EEF/SItE conference Ecology at the Interface, 21-25 September 2016 Rome, Italy
- 2014-date Participant of the World Harbour Program (WHP, coordinator Peter Steinberg, University of New south Wales) and co-leader of WP 2 Green Engineering
- 2014 date Participant and Member of the Management Committee of the EU Action COST IS1403 Ocean Past Platform (coordinator Poul Holm, Trinity College Dublin, Ireland)
- Member of the working group Marine Ecological Restoration MER (Coordinator Avigdor Abelson, Tel Aviv University, Israel).
- Organization and coordination of the International course "GLM: an introduction to generalised linear models using R" (23-28 June 2014), 40 hours), University of Bologna
- Co-organiser (with S. Goffredo) of the cycle of seminars "SEMINARS on Coral Reef Sciences @UNIBO (5-13 maggio 2014, University of Bologna)
- Co-Organiser (with L. Schippa) of the workshop "Ecological based solutions to coastal management and flood hazard mitigation: examples and relevance to the Emilia Romagna region" (13 December 2013, Comacchio, Italy)
- Member of kelp working group KEEN Kelp Ecosystem Ecology Network. This also included the participation in the NCEAS (National Centre for Ecological Analysis and Synthesis) working group "Global impacts of Climate Change on Kelp Forest ecosystems" (J. Byrnes, 1 May 2013, Santa Barbara, USA)
- Organization and coordination of the International course "Introduction to metaanalysis of biological/ecological data" (9-12 October), University of Bologna (Italy)
- Member of the KNEU working group on the Assessment of kelp forests status in Europe (I Sousa Pinto)
- Invited participant in the 1st BiodiversityKnowledge workshop organised within the project "KNEU Discussing the network of knowledge approach for Europe and its links to international processes" (21-23 May 2012, Brussels)
- Assessment of the environmental impacts of coastal defence interventions at Lido Adriano for Geo-Exe Associated Studio, Forlì, Italy
- Member of the Science Team for The Nature Conservancy's international initiative called "Shellfish Reefs at Risk", a global assessment of reef-forming shellfish. This also included the invited participation in the Workshop "Shellfish Reefs at Risk: Understanding Status and Condition & Identifying Strategies to Address Them" (MW Beck, St. Petersburg, Florida, 27-28 February)
- Organisation and coordination of the initiative "Predicting changes in a changing world" (ISA Topic 2008) comprising 13 seminars, workshops, and public events aiming at encouraging the scientific debate and promoting the public awareness of the threats related to global changes of coastal marine systems. Invited speakers included among others SR Palumbi, SJ Hawkins, MW Beck, MJ Anderson, F Boero (January-October 2008)
- 2003 2008 Organization and coordination of 2 International Schools on the "Design and analysis of environmental monitoring and experiments" (3-14 March 2008, and 10-21 March 2003, Bologna University)
- Assessment of the environmental impacts of coastal beach nourishments along the Emilia Romagna coast for the Regione Emilia Romagna, Italy
- Assessment of the environmental impacts of coastal defence interventions at Lido di Dante-Ravenna" for ENI SpA-AGIP
- 1998 Co-chair, organizer and speaker of the workshop "Issues in large-scale studies of ecological impact", University of Sydney (30 April 1998)
- Mapping of the distribution of *Posidonia oceanica* (L.) Delile meadows in the Tuscan Archipelago for the former Ministry of Merchant Navy

Assessment of the environmental impact of a project of underwater tunnel crossing the Strait of Messina for ENI SpA –SNAMPROGETTI

Participant to 3 oceanographic cruises organized by the C.N.R. (Italian National Research Center): SERPA 2 (2 wks) e ASCOP 15 (2 wks) aiming at sampling planktonic and benthic assemblages along the Adriatic sea, and one cruise in the Sicily Channel (2 wks) aiming at quantifying by scuba diving the distribution of deep macroalgal assemblages

### Service activities and committees:

2016 - date	Member of the Scientific Committee of the Institute of Advanced Sciences (University
	of Bologna)
2016	Chair for the "Future oceans" session at the Second International Mares Conference on

2016 Chair for the "Future oceans" session at the Second International Mares Conference on Marine Ecosystems Health and Conservation (Olhão, Portugal 1-5 February 2016)

2015 Chair for the symposium "Global change and algal assemblages: the fate of our seas" at the 6<sup>th</sup> International Phycological Congress (London, 23-28 August 2015)

2014-date Task leader for the "green engineering" workpackage, World Harbour Project

2014-date Management Committee Member, COST IS1403 Ocean Past Platform

2014-date Coordinator for the University of Bologna within the EUROMARINE research network

2014-date Coordinator of the International Relationship Activities for the Degree of Marine Biology, Bologna University

2014 Chair for the "Ocean noise and habitat loss" session at the International Mares Conference on Marine Ecosystems Health and Conservation (17-21 November 2014)

2013-date Steering Committee member, Ravenna campus libraries, University of Bologna

2011-date Member of the Reference Scientific Community of the Zoological Station Anton Dhorn, Napoli, Italy

2010-date Chair of the Scientific Board and member of the Management Board of the MARES (Doctoral Programme in Marine Ecosystem Health and Conservation - EU- 512002-1-2010-1-BE-EMJD) consortium

2010-date Steering Committee member, University for Senior Training "Giovanna Bosi Maramotti", Ravenna

2009-2010 President of the Environmental Forum of the Democratic Party in the Province of Rayenna

Chair at one session of the XVI S.It.E Conference (Italian Ecological Society), Viterbo–Civitavecchia, Università degli Studi della Tuscia, 19–22 September 2006

Judge for Award Premio Marchetti for best student presentation at the XVI S.It.E Conference (Italian Ecological Society), Viterbo–Civitavecchia, Università degli Studi della Tuscia, 19–22 September 2006

2001-2004 Steering committee member, "DELOS - Environmental design of low crested coastal defence structures" (EU - EVK3-CT-2000-00041)

Judge for best poster at the at the 2<sup>nd</sup> Asia Pacific Phycological Forum (21-25 June 1999, Hong Kong)

### **Memberships:**

American Institute of Biological Sciences Ecological Society of America Ecological Society of Australia Italian Ecological Society Italian Society of Marine Biology Society for Conservation Biology

## **Teaching – ongoing academic courses<sup>2</sup>:**

- 2014-2015 "Ecology" (6 cf, 48 h of frontal teaching ~ 160 students) fundamental course for the Bachelor Degree in Biological Sciences at Bologna University
- 2014-2015 "Ecology and nature conservation" (8 cf, 64 h of frontal teaching ~ 90 students) fundamental course for the Bachelor Degree in Natural Sciences at Bologna University
- 2014-2015 "Marine Ecosystems: Structure and Processes" (6 cf, 28 hours of frontal teaching and 24 hours of field practical work ~ 50 students) fundamental course for the Master Degree in Marine Biology at Bologna University

# **Teaching – past academic courses<sup>3</sup>:**

- 2013-2014 "Ecology and nature conservation" (8 cf, ~ 90 students) fundamental course for the Bachelor Degree in Natural Sciences at Bologna University
- 2013-2014 "Marine Habitats: Structure, Processes and Mapping" (8 cf ~ 50 students. I coordinated the course and taught 5 cf, while the remaining 3 cf on GIS were taught by F. Foglini) fundamental course for the Master Degree in Marine Biology at Bologna University
- 2008-2012 "Marine Habitats: Structure and Processes" (6 cf ~ 50 students, 3 cf before 2010) fundamental course for the Master Degree in Marine Biology at Bologna University
- 2005- 2014 "Ecology" (6 cf ~ 160 students, 5 cf before 2009) fundamental course for the Bachelor Degree in Biological Sciences at Bologna University
- 2011-2013 "Ecosystem laboratory" (1 cf) for the Bachelor Degree in Biological Sciences at Bologna University
- 2012-2013 "Experimental design and data analysis" (1 cf) for the Master Degree in Marine Biology at Bologna University
- 2008-2011 "Macroalgae and seagrasses" (1 cf) within the course "Applied marine botany" for the Master Degree in Marine Biology at Bologna University
- 2005-2009 "Ecology the history of ecological ideas" (5 cf) for the Bachelor Degree in Philosophy at Bologna University
- "Ecology" (20 hr Contract Lecturer of the course) for the Bachelor Degree in Environmental Sciences at Bologna University and Applied Ecology (10 h, lab and field practical, Assistant Lecturer)

### Other teaching experience (national and international):

- 2010- Provision of internships to international students within the EMBS+ programme (International Master in Marine Biodiversity and Conservation)
- Invited lecturer at the HMAP International Summer School "When humanities meet ecology. Historic changes in Mediterranean and Black Sea marine biodiversity and ecosystems since the Roman period until nowadays. Languages, methodologies and perspectives", Abdus Salam International Centre for Theoretical Physics (31 August-4 September 2009, Trieste, Italy)
- 2008 Coordinator and lecturer of 2 courses (6cf) of the International University Master: "Eco-Governance of Adriatic coastal environments" (EU, INTERREG/CARDS-PHARE 2007 2008)
- Invited Lecturer (4 hr) at the "Theoretical and practical course of algology" organized by the Algology working group of the Italian Botanical Society and by the Marine Research Centre at Cesenatico

 $<sup>^2</sup>$  I am the sole responsible and teacher of the indicated courses, including frontal teaching, practicals and student grading (there is no tutoring allocated to my courses). For my courses, I currently grade > 250 students per year

<sup>&</sup>lt;sup>3</sup> unless specifically indicated, I was always the sole responsible and teacher of the indicated courses, including frontal teaching, practicals and student grading (there was no tutoring for my courses).

- 2004 Lecturer on "Applications of multivariate analyses in ecology" for the Bachelor Degree in Environmental Sciences at Bologna University 2001 Lecturer (20 hr) at the "International Master Course in Coastal Zone Integrated Management for Sustainable Development (GIFC)", Bologna University Lecturer (3 days, about 24 hours) on "Introduction to the design and analysis of 2000 ecological experiments" for Ph.D students at the University of Palermo 2000 Support Lecturer for the course "Ecology", for the Bachelor Degree in Biological Sciences at Bologna University 1998 Tutorial (2hr) on the role of disturbance in community structure for the Honour Course of Marine Science at the University of Sydney Lecturer (5 hr) on "Introduction to experimental ecology" for the course of Ecology for 1997 the Graduate Diploma of Science (Environmental) at the University of Sassari 1992-1997 Lecturer (seminars and practicals) at the "Training courses of scientific divers", International School for Scientific Diving 1992-1997 Assistance to teaching courses in Ecology for the Graduate Diploma of Science
- assistance in final examinations and co-supervision of M. Sc. equivalent students

  Lecturer (seminars and practicals) at the International Course "Algal ecology: methods for sampling and analysis" organized by the International Marine Centre of Oristano.

(Biological) at the University of Pisa. This involved teaching at classes and seminars,

# **Teaching services and committees:**

- 2013-date Responsible of the Commission for the organisation and evaluation of practical training activities for the Master Degree in Marine Biology, Bologna University
- Head of the Commission for the final release of the Bachelor Degree in Biology, Bologna University
- 2009-date Member of the steering board of the PhD Programme in Science of Hearth, Life and Environment (formerly Biodiversity and Evolution) at Bologna University
- 2009-2014 Permanent Member of the Commission for the final release of the Master Degree in Marine Biology, Bologna University
- 2008-date Member of the Commission for the organization and evaluation of practical training activities for the Bachelor Degree in Biology, Bologna University
- 2005-date Member (on occasional basis) of several Commissions for the final release of the Degrees in Biology, Natural Sciences or Environmental Sciences, Bologna University
- 1992-1997 Member (on occasional basis) of the Commission for the final release of the Degrees in Biology, Pisa University

### **Student supervision:**

I am currently supervising or co-supervising 1 post doc (Joanne Wong), 6 PhD students (Silvia Angelini, Francesco Paolo Mancuso, Veronica Lo, Roberto Buonuomo, Fabrizio Gianni, An Liu), and 4 undergraduate students.

Previously I have supervised or co-supervised 8 post-docs (Stefanie Broszeit, now at Plymouth Marine Lab, Elisabeth M Strain, now at University of Sydney, F. Ferrario now at Laval University Canada, S. Perkol Finkel, now at Tel Aviv University and founder of the Sea Arc company which developed the ECOncrete technologies; G. Fontana now at Micoperi, A. Irving, now at the CQUniversity Rockhampton; F. Bulleri now at the University of Pisa, N.A. Lopez now Prof. at the Universidad Nacional Autonoma de Mexico, D. Balata), 8 PhD students (J. Wong, C. Castellanos Perez Bolde, G. Franzitta, F. Ferrario, F. Colosio, F. Bacchiocchi, S. Santin, G. De Grandis), and >50 undergraduate and MSc students (including F. Rindi and M. Virgilio). I have also offered training in my lab to several visiting students, including M. Rius (PhD student, University of Barcellona, 4mo), A. Sundelöf (PhD student, Goteborg University, Sweden, 2 m), and M.G Matias (MSc Student, University of Azores, Portugal, 2mo).

Some of these researchers have international recognition and brilliant careers:

- F. Bacchiocchi, did her PhD on marine urban ecology within the EU Project DELOS under my supervision. She is coauthor on 4 publications in ISI journals, one of which highly cited (most cited paper in the journal *Est Coast and Shelf Sci* since 2002). She is now Environmental Manager at the Municipality of Forli (Italy).
- F. Bulleri worked two years on marine urban ecology as post doc under my supervision. The work done together has resulted so far in 8 publications in collaboration on ISI journals. He is now Associated professor at Pisa University.
- F Ferrario was initially researcher assistant at my laboratory, and subsequently engaged in a PhD under the co-supervision of myself and MW Beck: So far we co-authored 5 papers and several Theseus reports, conference proceedings and abstract, and we are preparing another manuscript from his PhD. He is now working at Laval University, Canada
- S. Perkol-Finkel was a prestigious Marie Curie Fellow at my laboratory, leading a project on the sustainable design of marine urban structures. So far we co-authored 5 publications and several reports and conference proceedings and abstracts. She is now leading her own company specialised in the construction of sustainable marine infrastructures (SeArc Ecological Marine Consulting). She is a leading member of the SCAPE TEAM \$60M winning solution in the "Rebuild by Design" Competition for rebuilding the NewYork frontshore and winner of the Fuller award.
- F. Rindi and M. Virgilio, among my first students, are coauthors on two of my most cited papers on sedimentation effects (*Bot. Mar.*, **38**:227-237 in 1995 and *Mar. Ecol. Prog. Ser.* **165**: 271-282 in 1998). Rindi has worked in Ireland and the USA and is now permanent researcher at Ancona University. Virgilio worked in our team for several years and is lecturer at the Royal Belgian Institute of Natural Sciences, in Brussels
- M Rius spent a short training period at my lab at the end of his PhD, collaborating on a project on the effects of artificial structures on the dispersal of ascidian species. We have published a paper. He is now employed at The University of Southampton (UK)
- E. M. Strain recently finished her post-doc with me and she is now at the University of Sydney (Australia), employed on the World Harbour Project. We have finalised 7 manuscripts together (two more in preparation) and are applying for joint funding to continue our fruitful collaboration

### Research interests (see research statement for further details)

My research focuses primarily on coastal ecology, with an emphasis on field experimentation. I have always worked in a highly multidisciplinary context, focussing on the environmental consequences of various anthropogenic impacts - emphasizing coastal urbanization, habitat loss, enhanced loads of sediments and nutrients, and climate change - finalized to incorporating this understanding in the management and conservation of coastal ecosystems. More recently, I have been interested in human-induced seascape use and cover change, due to the recognition that the transformation of seascapes is the greatest driver of biodiversity loss. In this context, I apply ecological knowledge to design conservation and restoration strategies in increasingly urbanized marine systems. I have worked in a variety of marine coastal environments, including rocky shores, submarine caves, marine urban habitats, artificial coastal and offshore structures, and more recently shallow sedimentary environments and saltmarshes. I also have a strong background in the design and analysis of ecological experiments and monitoring programs. My current research interests are very cross-disciplinary and focus on:

- Marine urban ecology, emphasis on the development of tools, strategies and guidelines to mitigate the environmental effects of coastal urbanization including the spread of alien species and to preserve biodiversity and ecosystem services in marine urban environment
- Ecosystem based design of sustainable shoreline protection strategies and offshore platforms

• Conservation and restoration of threatened marine habitats subjected to multiple stressors - emphasis forests of canopy-forming algae and saltmarshes

## Invited plenary and keynote presentations:

- 2016 Plenary speaker at the "XIX Iberian Symposium of Marine Biology Studies", 5th-9th September 2016, Porto, Portugal
- 2016 Plenary speaker at the "9th International Conference on Marine Bioinvasions ICMB" (Sydney, 19-21 January 2016)
- 2015 Plenary speaker (Conservation and revitalisation of marine ecosystems in human-dominated seascapes") at the "International Conference on Mediterranean Marine Protected Areas: Integrated Management as a Response to Ecosystem Threats" (Ancona, Italy, 15-17 October 2015)
- 2015 Keynote speaker ("Integrating green engineering into conservation and restoration projects for coastal urban areas") at the symposium "Conservation, Management and Policy" within the Aquatic Biodiversity and Ecosystems Conference (Liverpool, UK, 30 August 4 September 2015)
- 2015 Keynote speaker ("Vanishing forests of canopy algae: a global problem with local solutions?") at the symposium "Global change and algal assemblages: the fate of our seas" within the 6th European Phycology Congress (London, UK, 23 28 August 2015)
- 2015 Plenary speaker ("Loss, conservation and restoration of marine ecosystems in the anthropocene") at the X Biofouling-Benthic Ecology Meeting (Arraial do Cabo, Brasil, 27-31 July 2015)
- 2014 Invited Chairperson at the Swiss Biennial on Science, Technics and Aesthetics (Swiss Museum of Transport, Lucerne, Switzerland, 18-19 January 2014)
- 2013 Plenary speaker ("Coastal marine habitats status and conservation needs") at the WiGreen Forum on Environmental Sustainability (Fondazione Riccardo Catella, Milano, Italy, 14 February 2013)
- 2009 Keynote speaker ("Status and trends of mussel bed and oyster reef condition in the Mediterranean Sea, as well as western and northern Europe") at the Special Session "Oyster Reefs at Risk: A Globally Imperiled Ecosystem and Recommendations for Future Conservation", International Marine Conservation Congress (Washington, USA, 17-24 May 2009)
- 2006 Keynote speaker ("Habitat loss across Europe") at the symposium "Habitat Loss and Conservation of European Marine Biodiversity", 1<sup>st</sup> European Congress for Conservation Biology (Eger, Hungary, 22-26 August 2006)
- 2001 Keynote speaker ("Evaluation of the impact of coastal defence structures at a European scale: the case of the North Adriatic Sea") at the XII Rassegna del Mare Mareamico (2-4 March 2001 Ravenna, Italy),
- 1999 Keynote speaker ("Determinants of spatial dominance and coexistence of algal crusts and turfs") at the 2<sup>nd</sup> Asia Pacific Phycological Forum (21-25 June 1999, Hong Kong)

### Other invited presentations:

- 2015 Seminar "Conservation and revitalisation of marine ecosystems in urban seascapes: challenges and opportunities" (Hong Kong University, 8 September 2015, Hong Kong)
- 2014 Invited participant to the kick-off meeting of the World Harbour Program (WHP, coordinator Peter Steinberg, University of New south Wales (11-13 November, Sydney, Australia)
- 2014 Invited participation in the Workshop "Ecological restoration of marine ecosystems: A crucial management tool in a human-dominated world?" where I gave two presentations: "Conservation and restoration of forests of canopy-forming algae" and "Integration of manmade structures into conservation and restoration projects" (Eilat, Israel, 22-26 June 2014)
- 2014 Invited seminar "Managing multiple stressors to enhance the resilience in threatened forests of canopy-forming algae" (Université Nice-Sophia Antipolis, France, 21 February 2014)

- 2013 Invited seminar "Conservation challenges in globally expanding marine urban seascapes", (University of Stanford, USA, 10 October 2013)
- 2013 Invited seminar "Anthropogenic marine ecosystems: preserving native biodiversity in increasingly urbanised seascapes" (University of Hawaii at Manoa, USA, 27 September 2013)
- 2013 Invited seminar "The loss and recovery potential of Mediterranean forests of fucoid algae" (Moss Landing Marine Laboratories, USA, 5 September 2013)
- 2013 Invited seminar "The effects of altered sedimentation regimes on coastal benthic communites" (U.S. Geological Survey Pacific Coastal and Marine Science Center, Santa Cruz, USA, 22 May 2013)
- 2013 Invited seminar "Changes and conservation of coastal seascapes managing increasingly urbanised marine regions" (University of Padova, Italy, 20 March 2013)
- 2012 Invited participant in the Global Workshop on Marine Biogeography and Human Impacts (Maria's Island, Tasmania, 10-30 November), organized by the University of Tasmania (Prof. G. Edgar) within the Reef Life Survey project
- 2012 Invited seminar "Conservation challenges in marine urban seascapes: combining ecological principles to the design of marine urban infrastructures": Sydney Harbour Research Program Seminar Series (Sydney Institute of Marine Science SIMS, Sydney, Australia, 16 November 2012)
- 2011 Invited seminar "Historical degradation and recovery prospects of Mediterranean coastal marine habitats" (Dept. of Earth and Environmental Sciences, Wesleyan University, Middletown CT, USA, 12 April 2011)
- 2009 Invited presentation "Historical loss and recovery prospects of Mediterranean coastal marine habitats", Abdus Salam International Centre for Theoretical Physics (ITCP), Trieste, Italy (1 September 2009)
- 2007 Invited presentation ("Mediterranean Shellfish distribution, condition, and trends") at the workshop "Shellfish Reefs at Risk", Tampa St. Petersburg, Florida, USA (25-26 Feb 2008)
- 2007 Invited presentation ("Effects of coastal defences on the marine environment: are we factoring them into management decisions?") at the EPBRS meeting "Life on the blue Planet: Biodiversity Research and the New EU Marine Policies" (E-conference, 1-19 October 2007 and Porto 7-9 November 2007)
- 2006 Invited seminar "Impacts of coastal defence structures: the example of the North Adriatic sea", University of Urbino, Italy (31 March 2006)
- 2004 Invited seminar "The consequences of marine seascape changes: the introduction of coastal defence structures in the North Adriatic sea", University of Urbino, Italy (21 April 2004)
- 1998 Invited presentation "Problems related to the choice and analysis of target assemblages and cross-habitat studies of large-scale ecological impacts" University of Sydney, Australia (30 April 1998)

**Publications:** Author or coauthor of > 200 publications, including 104 peer reviewed articles (62 on ISI journals, 35 on other non ISI journals, 6 submitted and 1 ready to be submitted papers), 14 book chapters, and numerous technical reports, general articles and conference abstracts. According to Google Scholar my work has been cited 4445 times for an H index = 32. ISI Web of Science has mentioned six of my papers as ESI Highly Cited Papers. My paper "Airoldi & Beck, 2007 (Oceanogr. Mar. Biol. Annu. Rev., 45: 345-405) was selected by Essential Science Indicators from Thomson Reuters as Fast Moving Fronts paper in the field of Plant & Animal Science and featured at <a href="http://sciencewatch.com/dr/fmf/2011/11sepfmf/11sepfmfAiroET\_LE/">http://sciencewatch.com/dr/fmf/2011/11sepfmf/11sepfmfAiroET\_LE/</a>. The papers Stuart-Smith et al 2013 (*Nature* 501:539-542), and Lotze et al 2011 (*Trends Ecol. Evol.*, 26: 595-605) have been both featured by the Faculty of 1000. Two of my papers, the mentioned Lotze et al 2011 and Airoldi & Bulleri 2011 (*Plos One* 6: e22985. doi:10.1371/journal.pone.0022985) were also selected for inclusion in the European Commission's environmental news service for policy makers Science for Environment Policy.

# Peer-reviewed papers<sup>4</sup>

ISI indexed articles:

- 1 Strain EMA, van Belzen J, Bouma TJ, Wong J, **Airoldi L** The role of global climate change in driving salt-marsh habitat shifts. *Ecosystems* ready to be submitted
- 2 O'Leary J, Micheli F, **Airoldi L**, Boch C, De Leo G, Elahi R, Ferretti F, Graham NAJ, Litvin S, Low N, Lummis S, Nickols KJ, Wong J. Bright spots in the resilience of marine ecosystems to climatic disturbances. *Bioscience*, submitted
- 3 Bishop MJ, Mayer Pinto M, **Airoldi L**, Firth LB, Morris RL, Loke LHL, Hawkins SJ, Naylor LA, Coleman RA, Chee SY, Dafforn KA. Effects of ocean sprawl on ecological connectivity: impacts and solutions. *Journal of Experimental Marine Biology and Ecology*, submitted
- 4 Buonomo R, Assis J, Fernandes F, Engelen AH, <u>Airoldi L</u>, Serrão EA Habitat continuity and stepping-stone oceanographic distances explain population connectivity and dispersal of the brown alga *Cystoseira amentacea*. *Molecular Ecology* Submitted
- 5 Gianni F, Bartolini F, **Airoldi L**, Mangialajo L Ecological amelioration of artificial structures: the role of herbivores. *Plos One* Submitted
- 6 Heery EC, Bishop MJ, Critchley L, Bugnot AB, **Airoldi L,** Mayer-Pinto M, Sheehan EV, Coleman RA, Loke LHL, Johnston EL, Komyakova V, Morris RL, Strain EMA, Naylor LA and Dafforn KA. 2016. Identifying the consequences of ocean sprawl for sedimentary habitats, *Journal of Experimental Marine Biology and Ecology*, in press
- 7 Macura B, Lönnstedt O, Byström P, **Airoldi L**, Eriksson BK, Rudstam L, Støttrup J. 2016. How is fish recruitment affected by anthropogenic habitat change in shallow nearshore areas in temperate systems? A systematic review protocol. *Environmental Evidence*. In press
- 8 Araújo RM, Assis J, Aguillar R, **Airoldi L**, Barbara I, Bartsch I, Bekkby T, Christie H, Davoult D, Derrien-Courtel S, Fernandez C, Fredriksen S, Gevaert F, Gundersen H, Le Gal A, Lévêque L, Mieszkowska N<sup>7</sup> Norderhaug KM, Oliveira P, Rico J, Rinde E, Schubert H, Strain E, Trueba A, Valero M, Viard F, Sousa-Pinto I. 2016. Status, trends, drivers and effects of change of kelp forests in Europe: a comprehensive expert consultation. *Biodiversity and Conservation* in press
- 9 Mancuso FP, D'hondt S, Willems A, <u>Airoldi L</u>, De Clerck O 2016 Diversity and temporal dynamics of the epiphytic bacterial communities associated with the canopy-forming seaweed *Cystoseira compressa* (Esper) Gerloff & Nizamuddin. *Frontiers Microbiology* in press doi: 10.3389/fmicb.2016.00476
- 10 Abelson, A., B.S. Halpern, D.C. Reed, R.J. Orth, G.A. Kendrick, M.W. Beck, J. Belmaker, G. Krause, G.J. Edgar, L. Airoldi, E. Brokovich, R. France, N. Shashar, A. de Blaeij, N. Stambler, Pierre Salameh, M. Shechter and P.A. Nelson. 2016. Restoration of marine ecosystems: A need for ecological-social concept upgrade. *BioScience*, 66: 156-163
- 11 Prati, G., Albanesi, C., Pietrantoni, L., **Airoldi, L.** 2016. Public perceptions of beach nourishment and conflict management strategies: A case study of Portonovo Bay in the Adriatic Italian coast. *Land Use Policy*, 50: 422–428 (doi: 10.1007/s11205-015-1012-8)
- 12 Ferrario F, Iveša L, Jaklin A, Perkol-Finkel S, <u>Airoldi L</u>. 2016. The overlooked role of biotic factors in controlling the ecological performance of artificial marine habitats. *Journal of Applied Ecology*, 53, 16–24 (DOI: 10.1111/1365-2664.12533)
- 13 Franzitta G, Hanley ME, **Airoldi L**, Baggini C, Bilton DT, Rundle SD, Thompson RC. 2015. Home advantage? Decomposition across the freshwater-estuarine transition zone varies with litter origin and local salinity. *Marine Environmental Research* 110: 1-7 (doi:10.1016/j.marenvres.2015.07.012)
- 14 Zanuttigh B, Angelelli E, Bellotti G, Krontira Y, Suffredini R, Airoldi L, Franceschi G,
   Troianos D, Romano A, Zagonari F, Cantù M, Taramelli A, Jimenez C, Evriviadou M,
   Filipponi F, Broszeit S, 2015 Boosting blue growth in a mild Sea: analysis of the synergies

<sup>&</sup>lt;sup>4</sup> In Italy the last position is the one of the principal investigator and is valued as much as the first position in terms of merits, career progression and fund sharing. Underlined is when I am also corresponding author

- produced by a multi-purpose offshore installation in the Northern Adriatic, Italy. *Sustainability* 7(6): 6804-6853
- 15 Dafforn KA, Glasby TM, Airoldi L, Rivero NK, Pinto MM, Johnston EL, 2015 The authors' reply. Frontiers in Ecology and the Environment 13:129–130
- 16 Strain EMA, van Belzen J, van Dalen J, Bouma TJ, Airoldi L. 2015. Management of local stressors can improve the resilience of marine canopy algae to global stressors. *PLoS One*. 10:e0120837 (DOI: 10.1371/journal.pone.0120837)
- 17 <u>Airoldi L</u>, Turon X, Perkol-Finkel S, Rius M, 2015 Corridors for aliens but not for natives: effects of marine urban sprawl at a regional scale. *Diversity and Distributions*. 21 (7): 755-768 (DOI: 10.1111/ddi.12301) featured at http://conservationcorridor.org/2015/07/marine-urban-sprawl-creates-corridors-for-invasives/
- 18 Wong JXW, vanColen C, <u>Airoldi L</u>, 2015 Nutrients levels modify saltmarsh responses to increased inundation in different soil types. *Marine Environmental Research* 104: 37-46 (DOI: 10.1016/j.marenvres.2014.12.003)
- 19 Dafforn KA, Glasby TM, Airoldi L, Rivero NK, Mayer-Pinto M, Johnston EL, 2015 Marine urbanization: an ecological framework for designing multifunctional artificial structures. Frontiers in Ecology and the Environment 13:82–90 (doi:10.1890/140050)
- 20 Stuart-Smith RD, Bates AE, Lefcheck JS, Duffy JE, Baker SC, Thomson RJ, Stuart-Smith JF, Hill NA, Kininmonth SJ, Airoldi L, Becerro MA, Campbell SJ, Dawson TP, Navarrete SA, Soler GA, Strain EMA, Willis TJ, Edgar GJ, 2015 The potential of trait-based approaches to contribute to marine conservation. *Marine Policy* 51: 148-150
- 21 Strain EMA, Thomson RJ, Micheli F, Mancuso FP, **Airoldi L**, 2014 Identifying the interacting roles of stressors in driving the global loss of canopy-forming to mat-forming algae in marine ecosystems. *Global Change Biology* 20: 3300–3312
- 22 Ferrario F, Beck MW, Storlazzi C, Micheli F, **Airoldi L**, 2014 The effectiveness of coral reefs for coastal hazard risk reduction and adaptation. *Nature Communications* 5: 3794 (doi:10.1038/ncomms4794) Featured by the Faculty of 1000 as F1000Prime
- 23 Firth LB, Thompson RC, Abbiati M, Airoldi L, Bohn K, Bouma TJ, Bozzeda F, Ceccherelli VU, Colangelo MA, Evans A, Ferrario F, Hanley ME, Hinz H, Hoggart SPG, Jackson J, Moore P, Morgan EH, Perkol-Finkel S, Skov MW, Strain EM, van Belzen J, Hawkins SJ, 2014 Between a rock and a hard place: environmental and engineering considerations when designing flood defence structures. *Coastal Engineering* 87: 122-135. *ESI Highly cited paper* by ISI Web of Science
- 24 Bouma TJ, van Belzen J, Balke T, Zhu Z, Airoldi L, Blight AJ, Davies AJ, Galvan C, Hawkins SJ, Hoggart SPG, Lara JL, Losada IJ, Maza M, Ondiviela B, Skov MW, Strain EM, Thompson RC, Yang S, Zanutigh B, Zhang L, Herman PMJ, 2014 Identifying knowledge gaps hampering application of intertidal habitats in coastal protection: opportunities & steps to take. *Coastal Engineering* 87 (SI): 147–157
- 25 Connell SD, Foster MS, **Airoldi L**, 2014 What are algal turfs? Towards a better identification of turfs and their properties. *Marine Ecology Progress Series* 495: 299-307 (DOI 10.3354/meps10513). *ESI Highly cited paper* by ISI Web of Science
- 26 Stuart-Smith RD, Bates AE, Lefcheck JS, Duffy JE, Baker SC, Thomson RJ, Stuart-Smith JF, Hill NA, Kininmonth SJ, Airoldi L, Becerro MA, Campbell SJ, Dawson TP, Navarrete SA, Soler GA, Strain EMA, Willis TJ, Edgar GJ, 2013 Integrating abundance and functional traits reveals new global hotspots of fish diversity. *Nature* 501:539-542 (featured by the Faculty of 1000 as F1000Prime and *ESI Highly cited paper* by ISI Web of Science)
- 27 Perkol-Finkel S, Ferrario F, Nicotera V, **Airoldi L**, 2012 Conservation challenges in urban seascapes: promoting the growth of threatened species on marine coastal infrastructures. *Journal of Applied Ecology* 49: 1457-1466
- 28 Lotze HK, Coll M, Magera AM, Ward-Paige C, **Airoldi L**, 2011 Recovery of marine animal populations and ecosystems. *Trends in Ecology and Evolution*, 26: 595-605 (journal cover page, featured by the Faculty of 1000 twice, once as "Recommended" and once as "Must

- Read", also selected for inclusion in the European Commission's environmental news service for policy makers Science for Environment Policy)
- 29 Airoldi L, Bulleri F, 2011 Anthropogenic disturbance can determine the magnitude of opportunistic species responses on marine urban infrastructures. *Plos ONE* 6: e22985. doi:10.1371/journal.pone.0022985 (selected for inclusion in the European Commission's environmental news service for policy makers Science for Environment Policy)
- 30 Beck MW, Brumbaugh RD, **Airoldi L**, Carranza A, Coen LD, Crawford C, Defeo O, Edgar GJ, Hancock B, Kay MC, Lenihan HS, Luckenbach MW, Toropova CL, Zhang GF, Guo XM, 2011 Oyster reefs at risk and recommendations for conservation, restoration, and management. *Bioscience* 61:107-116 (journal cover page, *ESI Highly cited paper* by ISI Web of Science).
- 31 Iken K, Konar B, Benedetti-Cecchi L, Cruz-Motta JJ, Knowlton A, Pohle G, Mead A, Miloslavic P, Wong M, Trott T, Mieszkowska N, Riosmena-Rodriguez R, **Airoldi L**, Kimani E, Shirayama Y, Fraschetti S, Ortiz Touzet M, Silva A, 2010 Large-scale spatial distribution patterns in echinoderms in nearshore rocky habitats. *PLoS ONE*, 5(11): e13845
- 32 Perkol-Finkel S, **Airoldi L**, 2010 Loss and recovery potential of marine habitats: an experimental study of factors maintaining resilience in subtidal algal forests at the Adriatic sea. *PLoS ONE*, 5 (5): e10791.
- 33 Irving AD, Balata D, Colosio F, Ferrando GE, **Airoldi L**, 2009 -Light, sediment, temperature, and the early life-history of the habitat-forming alga *Cystoseira barbata*. *Marine Biology* 156:1223-1231
- 34 Fauvelot C, Bertozzi F, Costantini F, **Airoldi L**, Abbiati M, 2009 Lower genetic diversity of populations of the limpet *Patella caerulea* on urban coastal structures as compared to natural rocky habitats. *Marine Biology* 156: 2313–2323
- 35 Connell SD, Russell BD, Turner DJ, Shepherd SA, Kildea T, Miller D, Airoldi L, Cheshire A, 2008 Recovering a lost baseline: missing kelp forests from a metropolitan coast. *Marine Ecology Progress Series* 360: 63-72
- 36 Airoldi L., Balata D., Beck M.W. 2008 The Gray Zone: relationships between habitat loss and marine diversity and their applications in conservation. *Journal of Experimental Marine Biology and Ecology* 366: 8-15 (featured as one of the Top 10 most cited articles of the journal during 2008-2012)
- 37 <u>Airoldi L</u>, Hawkins SJ, 2007 Negative effects of sediments on grazing activity and survival of the limpet *Patella vulgata*. *Marine Ecology Progress Series*, 332: 235-240
- 38 <u>Airoldi L</u>, Beck, MW, 2007 Loss, status and trends for coastal marine habitats of Europe. *Oceanogr. Mar. Biol. Annu. Rev.*,45: 345-405 (selected by Essential Science Indicators from Thomson Reuters as Fast Moving Fronts paper in the field of Plant & Animal Science, featured at <a href="http://sciencewatch.com/dr/fmf/2011/11sepfmf/11sepfmfAiroET\_LE/">http://sciencewatch.com/dr/fmf/2011/11sepfmf/11sepfmfAiroET\_LE/</a>, also indicated as *ESI Highly cited paper* by ISI Web of Science)
- 39 Bulleri F, Branca MG, Abbiati M, **Airoldi L**, 2007 Development of reproductive structures in the introduced green alga, Codium fragile ssp. tomentosoides, in the northern Adriatic Sea. Eur. *J. Phycol.*, 42: 137-144
- 40 Colosio F, Abbiati M, **Airoldi L**, 2007 Effects of beach nourishments on sediments and benthic assemblages. *Mar. Poll. Bull.*: 54: 1197-1206
- 41 Bulleri F., M. Abbiati, **L. Airoldi,** 2006 The colonisation of human-made structures by the invasive alga *Codium fragile* ssp. *tomentosoides* in the north Adriatic Sea (NE Mediterranean). *Hydrobiologia*, 555: 263-269
- 42 Bulleri F, **Airoldi L,** Branca MG, Abbiati M, 2006 Positive effects of the introduced green alga *Codium fragile* ssp. *tomentosoides* on recruitment and survival of mussels. *Marine Biology* 148: 1213-1220
- 43 Virgilio M, Airoldi L, Abbiati M, 2006 Spatial and temporal variations of assemblages in a Mediterranean coralligenous reef and relationships with surface orientation. *Coral Reefs* 25: 265-272

- 44 Clarke KR, Somerfield PJ, **Airoldi L**, Warwick RM, 2006 Exploring interactions by second-stage community analyses. *J. Exp. Mar. Biol. Ecol.*, 338: 179-192
- 45 <u>Airoldi L</u>, Bacchiocchi F, Cagliola C, Bulleri F, Abbiati M, 2005 Impact of recreational harvesting on assemblages in artificial rocky habitats. *Marine Ecology Progress Series*, 299: 55-66
- 46 Bulleri F, **Airoldi L**, 2005 Artificial marine structures facilitate the spread of a non-indigenous green alga, *Codium fragile* ssp. *tomentosoides*, in the north Adriatic Sea. *J. Appl. Ecol.*, 42: 1063-1072
- 47 Moschella P.S., Abbiati M., Åberg P., **Airoldi L.**, Anderson, J.M., Bacchiocchi F., Bulleri F., Dinesen G.E., Frost M., Gaçia E., Granhag L., Jonsson P. R., Satta M.P., Sundelöf A., Thompson R.C., Hawkins S.J., 2005 Low-crested coastal defence structures as artificial habitats for marine life: using ecological criteria in design. *Coastal Engineering*, 52: 1053-1071
- 48 <u>Airoldi L</u>, Abbiati M, Beck MW, Hawkins SJ, Jonsson PR, Martin D, Moschella PS, Sundelöf A, Thompson RC, Åberg P, 2005 An ecological perspective on the deployment and design of low- crested and other hard coastal defence structures. *Coastal Engineering*, 52: 1073-1087. *ESI Highly cited paper* by ISI Web of Science
- 49 <u>Airoldi L</u>, 2004 Forecasting the effects of enhanced sediment loads to coastal areas: a plea for long-term monitoring and experiments. *Aquatic Conserv: Mar. Freshw. Ecosyst.* (invited viewpoint), 14: S115-S117
- 50 Bacchiocchi F, **Airoldi L**, 2003 Structure, distribution, and dynamics of epibiota on different typologies of coastal defence works. *Estuar. Coast. Shelf Sci.* 56: 1157-1166
- 51 Airoldi L, 2003 Effects of patch shape in intertidal mosaics: roles of area, perimeter and distance from edges. *Marine Biology* 143: 639-650
- 52 Airoldi L, 2003 The effects of sedimentation on rocky coast assemblages. *Oceanogr. Mar. Biol. Annu. Rev.* 41: 161-236 (invited review)
- 53 Gianguzza P., L. Airoldi, R. Chemello, C.D. Todd, S. Riggio, 2002 Feeding preferences of Oxynoe olivacea (Mollusca Opisthobranchia, Saccoglossa) among three Caulerpa species. J. Mollus. Stud. 68: 315-316.
- 54 Benedetti-Cecchi L., F. Pannacciulli, F.Bulleri, P. S. Moschella, **L. Airoldi**, G. Relini, F. Cinelli, 2001 Predicting the consequences of anthropogenic disturbance: large-scale effects of removing dominant species on rocky shores. *Marine Ecology Progress Series*, 214: 137-150
- 55 <u>Airoldi L</u>, 2001 Distribution and morphological variation of low-shore algal turfs. *Marine Biology*, 138: 1233-1239.
- 56 <u>Airoldi L</u>, 2000 Responses of algae with different life-histories to temporal and spatial variability of disturbance in subtidal reefs. *Marine Ecology Progress Series* 195: 81-92.
- 57 <u>Airoldi L</u>, 2000 Effects of disturbance, life-histories and overgrowth on coexistence of algal crusts and turfs. *Ecology*, 81: 798-814.
- 58 <u>Airoldi L</u>, M. Virgilio, 1998 Responses of turf-forming algae to spatial variations in the deposition of sediments. *Marine Ecology Progress Series* 165: 271-282.
- 59 <u>Airoldi L</u>, 1998 Roles of disturbance, sediment stress, and substratum retention on spatial dominance in algal turf. *Ecology* 79: 2759-2770.
- 60 Benedetti Cecchi L., **L. Airoldi**, M. Abbiati, F. Cinelli, 1998 Spatial variability in the distribution of sponges and cnidarians in a sublitoral marine cave with sulphur water springs. *J. Mar. Biol. Ass. U. K.*, 78: 43-58.
- 61 <u>Airoldi L</u>, F Cinelli, 1997- Sources and biochemical composition of suspended particulate material in a submarine cave with sulphur water springs. *Mar. Biol.*, 128: 537-545.
- 62 <u>Airoldi L</u>, F Cinelli, 1997- Effects of sedimentation on subtidal macroalgal assemblages: an experimental study from a mediterranean rocky shore. *J. Exp. Mar. Biol. Ecol.*, 215: 269-288.
- 63 Airoldi L, AJ Southward, I. Niccolai, F. Cinelli, 1997 Sources and pathways of particulate organic carbon in a submarine cave with sulphur water springs. *Water, Air and Soil Pollution*, **99**: 353-362.

- 64 <u>Airoldi L.</u>, F. Cinelli, 1996 Variability of fluxes of particulate material in a submarine cave with chemolithoautotrophic inputs of organic carbon. *Marine Ecology Progress Series*, 139: 205-217
- 65 Benedetti Cecchi L., **L. Airoldi**, M. Abbiati, F. Cinelli, 1996 Exploring the causes of spatial variation in an assemblage of benthic invertebrates from a submarine cave with sulphur springs. *J. Exp. Mar. Biol. Ecol.*, **208**: 153-168
- 66 Benedetti-Cecchi L., L. Airoldi, M. Abbiati, F. Cinelli, 1996 Estimating the abundance of benthic invertebrates: a comparison of procedures and variability between observers. *Mar. Ecol. Prog. Ser.*, 138: 93-101
- 67 Southward A.J., M.C. Kennicutt, J. Alcalà-Herrera, M. Abbiati, **L. Airoldi**, F. Cinelli, C.N. Bianchi, C. Morri & E.C. Southward, 1996 On the biology of submarine caves with sulphur springs: apprisal of <sup>13</sup>C/<sup>12</sup>C ratios as a guide to trophic relations. *J. Mar. Biol. Ass. U. K.*,76: 265-285
- 68 **Airoldi L.**, M. Fabiano, F. Cinelli, 1996 Sediment deposition and movement over a turf assemblage in a shallow rocky coastal area of the Ligurian Sea. *Mar. Ecol. Prog. Ser.*, 133: 241-251
- 69 <u>Airoldi L.</u>, F. Rindi, F. Cinelli, 1995 Structure, seasonal dynamics and reproductive phenology of a filamentous turf assemblage on a sediment influenced, rocky subtidal shore. *Bot. Mar.*, 38:227-237 (one of the 20 most cited articles of the journal *Botanica Marina*)
- 70 Giavini E, **L. Airoldi**, M.L. Broccia, G.D. Roversi, M. Prati, 1993 Effects of diets with different content in protein and fiber on embryotoxicity induced by experimental diabetes in rats. *Neonatology* (formerly *Biology of the Neonate*), 63: 353-359

### Other peer-reviewed journals and conference proceedings:

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