

CURRICULUM VITAE: LISANDRO BENEDETTI - CECCHI

Name	Lisandro Benedetti - Cecchi
Date and place of birth	1963, Italy
Nationality	Italian
Family status	Married, two childrens
Position	Professor of Ecology
Institution	University of Pisa
Address	Department of Biology, Via Derna 1, I-56126, Pisa, Italy
Phone	++39 (0)50 2211413
Fax	++39 (0)50 2211410
E-mail	lbenedetti@biologia.unipi.it
Web page:	https://sites.google.com/site/lisandrobenedetticecchi/
Home Address	Via F. Niosi 12, 56126 Pisa, Italy
Phone (mobile)	+39 335 5426125

Academic Qualifications

2016 (Nov) -	Vice-Rector for European and International Research
2015 (Nov) -	Professor of Ecology (University of Pisa)
2005-2015 (Oct)	Associate Professor in Ecology (University of Pisa)
2000 and 2002	Visiting Fellow, University of Sydney (Australia)
1998 - 2004	Lecturer in Ecology (University of Pisa)
1996 - 1998	Senior Post Doctoral Research Fellow under the European Union project: Interactions of physical and biological factors in the surf and swash zone of European Rocky Shores (EUROROCK)
1995 - 1998	Contract Professor, Faculty of Environmental Sciences, University of Urbino
1994 - 1995	Post Doctoral Research Fellow under the European Community project: Oxic-anoxic interfaces as productive sites.
1993	Ph.D. in Marine Ecology, University of Pisa Thesis entitled: Natural disturbance and the organization of 2 shallow benthic communities on the rocky coast south of Livorno: an experimental approach.
1988	Degree in Biological Sciences "Cum Laude", University of Pisa Thesis entitled: Ecology of marine algae in relation to marine pollution

Indicators of Esteem:

2019	Receipient of the International Temperate Reef Symposium Award
2018 -	Member of the Biological Observing Group of the Partnership for Observation of the Global Ocean (POGO)
2015 -	Member of the Ecology and Biology Panel of the Global Ocean Observing System (GOOS)
2015 -	Member of the University Consortia Panel of the European Marine Board

2011 -	Member of Review Panel LS8 of the ERC (European Research Council) for the evaluation of starting/consolidator grants of the IDEAS Program
2010 - 2014	Member of the Steering Committee of the Italian Ecological Society
2009 - 2012	Deputy Director of the Department of Biology, University of Pisa
2006-2009	Review Panel Member of the EUROCORES program of the European Science Foundation

RESEARCH

Bibliometric indicators (at March 15 2019)

Scientific output includes +140 papers in peer reviewed journals and 10 book chapters. A search of Scopus and Google Scholar yielded the following bibliometric values:

	Number of publications	H Index	Citations
Scopus	141	41	5114
Google Scholar	201	46	7192

Interests

I use marine coastal plant and animals as experimental model systems to address fundamental ecological and biological questions, including the analysis of processes that generate patterns at multiple scales, the causes and consequences of loss of biodiversity and the impact of climate change. A major goal is to provide experimental tests of theories that have been rarely examined in the field, such as the role of environmental variance and red-noise shifts in shaping the spatial and temporal structure of natural communities and the experimental test of early warning signals of regime shift.

I have done most of my work along Mediterranean rocky coasts, but I'm also familiar with intertidal habitats in the north Atlantic, in temperate rocky shores of Australia and with assemblages occurring in more extreme environments, such intertidal organisms and kelp forest systems in sub-antarctic regions (Strait of Magellan, Chile) and epifauna assemblages in submarine caves. I have also been involved in research projects on the ecological impact of the invasive alga *Caulerpa taxifolia* and on seagrasses in the Mediterranean.

My research is organized in the following topics:

- 1) Ecology of marine coastal assemblages, including: (a) analysis of the distribution, abundance and diversity of species at varying spatial and temporal scales, (b) experimental analyses of theories of island biogeography, including comparisons of assemblages on islands and the mainland and (c) experimental tests of models to explain patterns in abundance of populations and structure of assemblages at different spatial scales on rocky shores, including several experiments on the role of grazing, competition, recruitment, topography of the substratum and the interplay between physical and biological processes in generating spatial and temporal variation in assemblages.
- 2) Experimental tests of catastrophe theory and critical slowing down, including field-based assessment of early warning signals of regime shift.
- 3) Experimental tests of models to predict the effects of climate change on coastal assemblages, including the effects of increasing the average magnitude and variance of run-off, storminess and aerial exposure.

- 4) Effects of establishing marine protected areas on marine coastal assemblages.
- 5) Analyses of environmental impacts in coastal assemblages, including: (a) quantification of various measures of stress in populations and assemblages, (b) impact of invasive species (c) development of statistical methods for the optimisation of environmental sampling designs, and (d) analyses of patterns of recovery of populations and restoration of assemblages after disturbance.

Achievements

My research has generated novel understanding of the spatial and temporal scales of variation in abundance of populations of algae and invertebrates inhabiting rocky seashores. Experimental studies replicated at various scales in space and time have identified some of the processes that are responsible for the observed variability. These include the role of physical disturbance, competitive interactions, consumer-resource interactions and recruitment.

Increased interest in explanation of ecological variability has led me to look beyond the mean effect of ecological processes and to examine effects of variance. I developed a conceptual model to predict the outcome of variable consumer-resource interactions as a function of spatial variance in foraging activity, intensity of foraging, underlying spatial variation of the resource and its abundance. Predictions of the model were tested using simulations and correlative analyses based on empirical data. This research has resulted in a powerful framework to explain how consumers affect spatial pattern in the distribution of their resources. This framework was later extended to the analysis of spatial and temporal variance of other processes, including the response of assemblages to climate change.

Finally, my interest in applying basic ecological understanding and the use of quantitative procedures to the analysis of human impacts has resulted in the development of a statistical method for the optimisation of environmental sampling designs and studies of human impacts on marine coastal biodiversity.

Research Coordination and Management

I have coordinated several national and two international programs, including Euro-NAGISA a Census of Marine Life Project (2006-2011) and BIOFUSE within the MARBEF network of Excellence (2005-2008).

In the last 15 years I have maintained a research group of 6-8 people, including students and post docs. Some of the most representative researchers include:

- Dr. Iacopo Bertocci – PhD student 2001-2004 and post doc. 2005-2009.
- Dr. Stefano Vaselli – PhD student 2002-2005 e post doc. 2006-2009.
- Dr. Elena Maggi – PhD student 2003-2006 e post doc. 2007-present.
- Dr. Laura Tamburello – PhD student 2005-2008 e post doc. 2009-2013.
- Mrs Laura Benvenuti – PhD student in 2007, but she abandoned having found a permanent occupation in other area.
- Dr. Vincenzo Gennusa – PhD student (co-supervised with Dr. Giulia Ceccherelli at the University of Sassari) 2008-2011
- Dr. Martina Dal Bello – PhD student 2010-2013 and post doc. 2014-2017
- Dr. Luca Rindi – PhD student 2012-present
- Dr. Fabio Bulleri – post doc. 2005-2011 (now Associate Professor)
- Dr. Joachim Claudet – post doc. in 2007

- Dr. Mathiew Cusson – post doc. 2006-2007
- Dr. Monica Incera – post doc. 2005-2006
- Dr. Carlos Sanz Lazaro – post doc. 2010-2012.
- Dott. Alex Rattray, post doc 2013-present.

Organization of Conferences and workshops

- 2017 Chair of the Biological Observing Working Group of the European Marine Board
- 2016 Chair of the XI International Temperate Reef Symposium, Pisa June 26-30 (event in progress).
- 2014 Member of the Steering Committee of the XXIV Congress of the Italian Ecological Society, Ferrara, September 15-17.
- 2013 Member of the Steering Committee of the XXIII Congress of the Italian Ecological Society, Ancona, September 16-18.
- 2012 Member of the Steering Committee of the XXII Congress of the Italian Ecological Society, Alessandria, September 10-13.
- 2012 International workshop ‘Species distribution, beta diversity and connectivity in Mediterranean and Black Sea’, Castiglioncello (Livorno), October 16-18.
- 2011 Member of the Steering Committee of the Ninth International Temperate Reef Symposium, Plymouth, UK, June 26 – July 01.
- 2011 Member of the Steering Committee of the XXI Congress of the Italian Ecological Society, Palermo, September 10-13.
- 2008 Co-chair of the sessions ‘Broad Scale Patterns And Sources Of Variation In Biodiversity-Ecosystem Functioning Relationships’ and ‘Ecosystem Functioning and Biodiversity Science in the Deep sea’ at the World Conference of Marine Biodiversity, Valencia (Spain), November 11-15.
- 2007 Member of the Steering Committee of the “European Symposium on Marine Protected Areas” (Murcia, Spain, September 25-28).
- 2007 Co-chair of the session “Biodiversity and Ecosystem Functioning” at the XVII Congress of the Italian Ecological Society (Ancona September 17-20).
- 2007 Workshop within the FP6 European project EMPAFISH (Pisa, March 7-9).
- 2007 Dedicated ecological session in the 6^o Congress of the Italian Society of Biometry (Pisa, June 20-22).
- 2006 International workshop EMBED (Environmental Modulation of Biodiversity and Ecosystem Dynamics) supported by the European Census of Marine Life (Pisa, April 25-27).
- 2006 Advanced International course “Detecting changes in biodiversity: experimental design and data analysis” (Pisa, September 4-15).

Editorial activities

Contributing editor of the International Journal *Marine Ecology Progress Series*, and past Associate Editor of the Journals *Estuaries and Coasts*, *Phycologia* and *Marine Ecology an Evolutionary Perspective* (MAE).

Manuscript Reviewer:

I have reviewed manuscripts for *PNAS*, *Trends in Ecology and Evolution*, *Scientific Reports*, *Ecological Monographs*, *Ecology Letters*, *Ecology*, *Global Change Biology*, *Ecological Complexity*, *Oecologia*, *Oikos*, *Journal of Experimental Biology*, *Journal of Animal Ecology*, *PLoS ONE*, *Marine Ecology Progress Series*, *Journal of Phycology*, *Journal of Experimental Marine Biology and Ecology*, *Marine Biology*, *Journal of the Marine Biological Association UK*, *Austral Ecology*, *Diseases of Aquatic Organisms*, *Ophelia*, *New Zealand Journal of Marine and Freshwater Research*, *Journal of Molluscan Studies*, *Journal of Biogeochemistry*, *International Review of Hydrobiology*, *P.S.Z.N: Marine Ecology*, *Aquatic Conservation*, *Vie et Milieu*.

Research proposal reviewer

I have reviewed research proposals for the National Science Foundation (NSF, USA), British Ecological Society, the Natural Research Council, UK (NERC), the Bilateral National Science Foundation (USA- ISRAELE), the Portuguese Science and Technology Foundation (FCT), the Chilean Research Fund Council (FONDECYT) and the MYRSDEN Foundation of New Zealand.

Other

I have acted as an external reviewer for a Professorship in Ecology at the Marine Science and Conservation Division, Nicholas School of the Environment Duke University (US) and for the requirement of a PhD at the Universities of Melbourne, Adelaide and Dublin; I have also participated as an external advisor of a Master Thesis for the University of Auckland (New Zealand).

Scientific Societies

I'm a member of the Ecological Society of America and the Società Italiana di Ecologia.

Invited Seminars and talks:

- 2019 Ecological experiments in the era of macroecology and big-data (Plenary talk at the 12th International Temperate Reef Symposium, Honk Kong January 2019)
- 2018 Ocean ecosystems: How can new approaches and technologies address gaps and requirements for biological ocean observations? Invited plenary at the EOOS Conference 2018. Evolving the European Ocean Observing System - Connecting communities for end-to-end solutions (Brussels, 21-23 November 2018)
- 2017 High-level Panel Discussion. 2nd JPI Oceans Event. Lisbon, October 2017.
- 2017 A moon-shot mission with a blue glow: making oceans and seas our home. Science Business Innovation Event in the presence of Commissioner Moedas, Brussels (September 2017)
- 2017 Comfortably numb: do we still need ecological experiments in the era of big data and macroecology? Hopkins Marine Station, University of Stanford, USA (March 2017).
- 2015 Regime shifts and the maintenance of alternative states on rocky reefs in the NW Mediterranean. Keynote Lecture at Aquatic Biodiversity and Ecosystems Symposium, Liverpool, August 30 – September 4 2015.
- 2014 Means, variances and extremes, from first to higher moments of ecological understanding. Seminar at the MIT - Boston, April 2014.
- 2014 Regime shifts in benthic marine assemblages. Plenary Lecture at 49th European Marine Biology Symposium. San Pietroburgo, 8-12 September.
- 2012 Approcci di studio ai gradienti di fattori ecologici in ambiente marino e risposte di specie e comunità: la beta diversità. Plenary talk at the 43rd Congress of the Italian Society of Marine Biology, Marina di Camerota (SA), June 4-8.
- 2011 Scale transition theory and algal dynamics on rocky shores. Keynote at the 9th International Temperate Reefs Symposium, June 26– July 1, Plymouth UK
- 2011 Linking patterns and processes across scales. The application of scale transition theory to algal dynamics on rocky shores. Invited talk at the Symposium 'Integrating Biomechanics and Ecology' (Cambridge, March 2011)
- 2009 Manipulating the spatial autocorrelation of ecological processes to understand pattern formation at multiple scales: an example with algal assemblages on rocky reefs. Keynote at the 8th International Temperate Reef Symposium, January 12-16, Adelaide
- 2007 Risposte delle popolazioni naturali alle fluttuazioni ambientali: metodi di indagine e problemi di scala. Seminar at the University of Ancona.

- 2007 Neutral Theory of Biodiversity and Prediction in Ecology. Invited talk at the meeting of the Italian Statistical Society: S.I.S. 2007 "Rischio e Previsione", Venezia, June 6-8.
- 2006 Processes causing small-scale variability in marine benthic assemblages: the role of life-history and environmental variance. Keynote at the 7th International Temperate Reef Symposium (June 26 – July 1, Santa Barbara, CA)
- 2006 Integrating concepts of natural variability into the design and management of marine protected areas. Plenary talk at the European Congress of Conservation Biology (22-26 August 2006, Eger, Hungary)
- 2006 The response of natural populations to increasing environmental fluctuations: untangling effect of mean intensity and variance of ecological processes. Plenary talk at the XVI Congress of the Italian Society of Ecology (Viterbo, September 19-22 2006).
- 2006 La Teoria Neutrale della Biodiversità: una semplificazione della complessità ecologica utile per identificare processi non neutrali di mantenimento della biodiversità. Keynote Lecture at the National Congress CoNISMa (Consorzio Interuniversitario Nazionale per le Scienze del Mare).
- 2005 The necessity and nature of ecological experiments for understanding invasion of marine algae. Plenary talk at the 8^o International Phycological Congress (August 13-19, Durban , Sud Africa).
- 2004 Experimental designs and analytical techniques in studies of disturbance: problems and perspectives. Invited talk at the Computational and Mathematical Population Dynamics Symposium. Trento, June 21-25.
- 2004 The experimental analysis of biodiversity: problems and perspectives. Seminario ad invito presso il Leibniz-Institut für Meereswissenschaften, University of Kiel (Germania)
- 2003 The experimental analysis of biodiversity: the importance of identifying tractable questions. Invited talk at the 'High-level Scientific Conference Activity – Biodiversity of Coastal Marine Ecosystems', Moermond Castle, Renesse, The Netherlands, May 11-15.
- 2003 Reducing unexplained variability in ecological processes: examples with limpet-algal interactions in the north-west Mediterranean. Plenary talk at the 'Third European Phycological Congress', Queen's University Belfast, July 21-26 2003.
- 2001 L'analisi sperimentale di modelli ecologici per spiegare le modalità distributive di popolazioni naturali: problemi e prospettive. Plenary talk at the XI Congress of the Società Italiana di Ecologia.
- 2000 Problems in ecology: a critical analysis and possible solutions. Università di Newcastle, Newcastle, Australia.
- 2000 Experimental ecology of algae and invertebrates on rocky shore in the northwest Mediterranean. Seminar at the Centre for Research on Ecological Impacts of Coastal Cities, Università di Sydney, Sydney, Australia.
- 1999 Analisi di modalità e processi su coste rocciose. Seminar at the Department of Biology, University of Lecce.
- 1999 L'analisi di modalità e processi su molteplici scale spazio-temporali. Seminar at the Stazione Zoologica "A. Dohrn", Napoli.
- 1999 Experimental ecology on rocky shores in the northern Mediterranean, Hong Kong. Dept of Ecology & Biodiversity, The Swire Institute of Marine Science, The University of Hong Kong. Hong Kong.
- 1999 Logica delle metodologie di campionamento e di analisi per la valutazione di impatto su popolazioni naturali. Seminar at the Department of Animal Biology and Genetics, University of Florence.
- 1998 Distribuzione di popolazioni macroalgali su coste rocciose: l'analisi sperimentale delle modalità e dei processi. Invited talk at the Annual Meeting of the Phycological Group of the Italian Society of Botany. Ist. Talassografico "A. Cerruti" C.N.R., Taranto.

- 1996 Experimental analyses of the structure of assemblages on Mediterranean rocky shores. Universidad de Oviedo, Departamento di Biologia, Oviedo, Spain.
- 1994 Effetti del pascolo e della competizione sulle coste rocciose del Mediterraneo. Seminar at the Department of Biology, University of Lecce.
- 1993 Successioni ecologiche su coste rocciose. Seminar at the Department of Animal Biology, University of Torino.
- 1993 Structure and organization of communities in littoral rock pools and emergent substrata in the western Mediterranean. Seminar at the Institute für Meereskunde, Abteilung Meeresbotanik, Kiel, Germany.

Source and purpose of grants:

- 1988 - 1990 Research project funded by the Region of Tuscany. This was an integrated programme involving several research units to study the physical, chemical and biological features of the Tuscany Archipelago.
- 1991 - 1992 Project from Industry (SNAM Progetti). This programme consisted in an evaluation of the potential impact of building a tunnel connecting the mainland with the island of Sicily on subtidal benthic assemblages in the Strait of Messina (Sicily).
- 1989 - 1992 Research projects (60%) from the Ministry of Public Instruction. Programmes aimed at studying the role of biological interactions in structuring rocky shore assemblages.
- 1991 - 1992 Research project from the Ministry of Merchant Navy. Mapping of seagrass meadows in the Tuscany Archipelago.
- 1992 - 1994 Research projects (60%) from the Ministry of the University and of Scientific and Technological Research (formerly Ministry of Public Instruction). Programmes aimed at studying the effects of disturbance on rocky shore assemblages.
- 1994 - 1997 Research projects from the Ministry of the University and of Scientific and Technological Research. Programmes aimed at estimating rates of change and spatial variance at different scales along the Ligurian/North Tyrrhenian rocky coast.
- 1994 - 1995 MAST II project ('Oxic-anoxic interfaces as productive sites') from the European Community. This was an integrated research programme involving several research units to investigate physical, chemical and biological aspects of shallow thermal systems, including the structure and dynamics of assemblages in submarine caves.
- 1996 - 1999 MAST III project ('Interactions of physical and biological factors in the surf and swash zone of european rocky shores') from the European Union. This is a series of integrated programmes on the interplay of physical and biological factors on rocky shores. This almost unique project uses an experimental approach to investigate ecological processes at several spatial and temporal scales.
- 1997 - 1998 British-Italian Collaboration in Research and Higher Education. This project is in collaboration with Prof. S. J. Hawkins and examines the effects of regression of algal canopies on the structure and dynamics of low-shore assemblages on British and Italian rocky shores.
- 1997 - 1999 Conservation of biodiversity and sustainable management of brackish waters along the Italian coast. This project uses basic ecological understanding to address management issues in coastal lagoons.
- 1999 - 2000 National geographic ('Fishing, trophic cascades and the invisibility of marine communities'). This is a project on the effects of human disturbance on biodiversity and the susceptibility to exotic invasion of assemblages on rocky shores. It also tests hypotheses about the effects of establishing marine protected areas on the structure of subtidal assemblages.
- 1999 - 2000 Research project funded by the Management Authority of the Park of the Tuscany Archipelago ('Patterns of biodiversity on rocky shores in the Tuscany Archipelago').

- This is an analysis of spatial pattern in abundance and distribution of populations on rocky shores of Islands.
- 1999 - 2001 Biodiversity and disturbance in brackish waters. This is a National programme on the ecology of populations and assemblages in coastal lagoons that builds on a previous programme on the same subject
- 2000 - 2001 The University of Sydney ('Social behaviour of limpets on rocky shores'). This project is in collaboration with Prof. A. J. Underwood and Dr. G. Chapman and investigates models about patterns of movement and spatial dispersion of limpets on rocky shores.
- 2002 - 2004 The effects of changing the disturbance regime in macroalgal assemblages. Project supported by the European Community within the Marie Curie Individual Fellowships scheme. This is in collaboration with Dr. Rosa Viejo, which is the recipient of a post doctoral fellowship.
- 2002 - 2004 Assessment of anthropogenic influences on assemblages of algae and invertebrates of rocky seashores. National project (involving 4 other Universities) aimed at quantifying the effects of various kinds of impacts and of marine protected areas (MPAs) in coastal habitats.
- 2003 - 2008 Marine Biodiversity and Ecosystem Functioning (MARBEF). This is a network of excellence funded by the EU under FP6 to establish long-term collaboration on marine biodiversity among leading European scientists.
- 2005 - 2007 Artificial Marine Structures (AMS): Multifunctional tools for research and environmental management in the Mediterranean and Red Sea. This is a bilateral project partially supported by the Italian Ministry of the Environment to assess environmental impacts of AMS in coastal habitats.
- 2005 - 2010 European Coordinator of NaGISA (Natural Geographi of Inshore Areas), a project of the Census of Marine Life aimed at investigating patterns of marine coastal biodiversity at large spatial and temporal scales.
- 2005 - 2009 European Marine Protected Areas as tools for fisheries management and conservation (EMPAFISH). This is a EU project funded under FP6 that aims at investigating the effectiveness of different schemes of Marine Protected Areas (MPAs) in preserving species, habitats and ecosystems from the effects of fishing, at developing quantitative methods to assess the effects of MPAs and at providing EU with a set of integrated measures and policy proposals for the implementation of MPAs as tools for the management of fisheries.
- 2006 - 2009 Co-chair of BIOFUSE (Effects of Biodiversity on the Functioning and Stability of Marine Ecosystems - <http://www.marbef.org/projects/biofuse/index.php>) within MARBEF.
- 2008 - 2010 Coordinator of the Project: The Resilience of Coastal Biodiversity to Synergistic Effects of Global and Local Environmental Changes (BIORES). This is a National project funded by the Ministry of University, Research and Education (MIUR) to investigate the effects of multiple disturbances on marine coastal biodiversity. Development and implementation of a pan-European Marine Biodiversity Observatory System (EMBOS). EU Cost Action.
- 2011 - 2015 VECTORS (Vectors of Change in Oceans and Seas Marine Life, Impact on Economic Sectors) is a European Commission Seventh Framework Programme (FP7) project. This project aims to improve our understanding of how environmental and man-made factors are impacting marine ecosystems now and how they will do so in the future (February 2011-January 2015).
- 2012 - 2016 CoCoNET (Towards COast to COast NETworks of marine protected areas - from the shore to the high and deep sea - coupled with sea-based wind energy potential) is a European Commission Seventh Framework Programme (FP7) project. This project

- aims at improving understanding of species connectivity in the Mediterranean and Black Sea to establish networks of marine protected areas (February 2012-January 2016).
- 2012 - 2015 Hidden relations of biodiversity and ecosystem functioning in Mediterranean rocky reefs (HI-BEF). FIRB project 2011 (Ministero dell'Università e della Ricerca Scientifica e Tecnologica).
- 2013 – 2016 Coastal bioconstructions: structure, function, and management. A project funded by the Italian Ministry for Research and Education to explore the role of bioconstructions in shaping marine biodiversity in coastal environments (March 2013-February 2016).
- 2014 - 2015 *Critical Slowing Down and Early Warning Indicators of Regime Shifts*. Bilateral project between the University of Pisa and MIT of Boston aimed at using recovery length as an early warning indicator of an impending regimen shift using field experimental data.

Teaching Experience:

Between 1989 and 1991 I lectured on the role of competition and grazing in structuring marine algal assemblages at the International course Phytobenthos of the Mediterranean funded by the European Community. This course catered for > 25 postgraduate students. The course also included field excursions and final examinations.

Since 1990 I have assisted in the teaching of undergraduate courses in Ecology at the Faculty of Sciences in Pisa. This mainly involved development of the laboratory programme, field excursions, assistance in final examinations and supervision of undergraduate students.

Between 1995 and 1998 I have been Contract Professor at the Faculty of Environmental Sciences at the University of Urbino, teaching a 60 hours course for undergraduate students on the Protection of the Marine Environment. A major component of this course was the design and analysis of sampling programs for the detection of environmental impacts, including 'beyond BACI' designs. The course also included computer simulations of environmental impacts and the use of asymmetrical analysis of variance.

In 1997 I have participated as Instructor at the MAST Advanced Study Course 'Experimental and modelling approaches to investigating the surf and swash zone of rocky shores', funded by the European Community.

Since October 1999 I have been teaching a 80 hours course in general Ecology at the School of Biological Sciences and a 40 hours course on Experimental Ecology at the School of Environmental Sciences (University of Pisa). Since 2004 I teach a 40 hours course on Marine Ecology for the second-level degree in Marine Biology at the University of Pisa.

Since 2000 I have supervised 8 Ph.D students, 7 Post Docs and more than 30 undergraduate students (Laurea Degree).

External courses

Since 1999 I have been giving international courses on the design and analysis of ecological experiments organized by other Universities [Hong Kong (twice), Lecce, Ravenna, Bologna, Genova, Florence, Pisa, and Camerino].

Publications in International peer reviewed Journals:

1. Bax, N. J., W. Appeltans, R. Brainard, J. E. Duffy, P. Dunstan, Q. Hanich, H. H. Davies, J. Hills, P. Miloslavich, F. E. Muller-Karger, S. Simmons, O. Aburto-Oropeza, S. Batten, **L. Benedetti-Cecchi**, D. Checkley, S. Chiba, A. Fischer, M. A. Garcia, J. Gunn, E. Klein, R. M. Kudela, F. Marsac, D. Obura, Y. J. Shin, B. Sloyan, T. Tanhua, and J. Wilkin. 2018. Linking capacity development to GOOS monitoring networks to achieve sustained ocean observation. *Frontiers in Marine Science* 5.
2. **Benedetti-Cecchi, L.**, F. Bulleri, M. Dal Bello, E. Maggi, C. Ravaglioli, and L. Rindi. 2018. Hybrid datasets: integrating observations with experiments in the era of macroecology and big data. *Ecology* 99:2654-2666.
3. Bulleri, F., A. Cucco, M. Dal Bello, E. Maggi, C. Ravaglioli, and **L. Benedetti-Cecchi**. 2018a. The role of wave-exposure and human impacts in regulating the distribution of alternative habitats on NW Mediterranean rocky reefs. *Estuarine, Coastal and Shelf Science* 201:114-122.
4. Bulleri, F., B. K. Eriksson, A. Queirós, L. Airoidi, F. Arenas, C. Arvanitidis, T. J. Bouma, T. P. Crowe, D. Davoult, K. Guizien, L. Iveša, S. R. Jenkins, R. Michalet, C. Olabarria, G. Procaccini, E. A. Serrão, M. Wahl, and **L. Benedetti-Cecchi**. 2018b. Harnessing positive species interactions as a tool against climate-driven loss of coastal biodiversity. *Plos Biology* 16.
5. Dal Bello, M., Rindi, L, **Benedetti-Cecchi, L.** 2018. Temporal clustering of extreme climate events drives a regime shift in rocky intertidal biofilms. *Ecology* (in press).
6. Dornelas, M., L. H. Antão, F. Moyes, A. E. Bates, A. E. Magurran, D. Adam, A. A. Akhmetzhanova, W. Appeltans, J. M. Arcos, H. Arnold, N. Ayyappan, G. Badihi, A. H. Baird, M. Barbosa, T. E. Barreto, C. Bässler, A. Bellgrove, J. Belmaker, **L. Benedetti-Cecchi**, et al. 2018. BioTIME: A database of biodiversity time series for the Anthropocene. *Global Ecology and Biogeography* 27:760-786.
7. Ingrosso, G., M. Abbiati, F. Badalamenti, G. Bavestrello, G. Belmonte, R. Cannas, **L. Benedetti-Cecchi**, M. Bertolino, S. Bevilacqua, C. N. Bianchi, M. Bo, E. Boscari, F. Cardone, R. Cattaneo-Vietti, A. Cau, C. Cerrano, R. Chemello, G. Chimienti, L. Congiu, G. Corriero, F. Costantini, F. De Leo, L. Donnarumma, A. Falace, S. Fraschetti, A. Giangrande, M. F. Gravina, G. Guarnieri, F. Mastrototaro, M. Milazzo, C. Morri, L. Musco, L. Pezzolesi, S. Piraino, F. Prada, M. Ponti, F. Rindi, G. F. Russo, R. Sandulli, A. Villamor, L. Zane, and F. Boero. 2018. Mediterranean Bioconstructions Along the Italian Coast. Pages 61-136 *Advances in Marine Biology*.
8. Maggi, E., and **L. Benedetti-Cecchi**. 2018. Trophic compensation stabilizes marine primary producers exposed to artificial light at night. *Marine Ecology Progress Series* 606:1-5.
9. Maggi, E., E. Puccinelli, and **L. Benedetti-Cecchi**. 2018. Ecological feedback mechanisms and variable disturbance regimes: the uncertain future of Mediterranean macroalgal forests. *Marine Environmental Research* 140:342-357.
10. Miloslavich, P., N. J. Bax, S. E. Simmons, E. Klein, W. Appeltans, O. Aburto-Oropeza, M. Andersen Garcia, S. D. Batten, **L. Benedetti-Cecchi**, D. M. Checkley, S. Chiba, J. E. Duffy, D. C. Dunn, A. Fischer, J. Gunn, R. Kudela, F. Marsac, F. E. Muller-Karger, D. Obura, and Y. J. Shin. 2018. Essential ocean variables for global sustained observations of biodiversity and ecosystem changes. *Global Change Biology* 24:2416-2433.
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