

## Raffaella Casotti



Born in Naples, Italy on 8/5/1964

Tel.: +39 081 5833235

Fax: +39 081 7641355

e-mail: raffaella.casotti@szn.it

Skype: raffaella.casotti

**Current Position:** ricercatore III° livello, Scientist, Contract Professor of the University of Naples Federico II

**Current Affiliation:**

Integrated Marine Ecology Department, Stazione Zoologica Anton Dohrn, Napoli (Italy)

### Education/Training/Experience

Institute and Location	Degree / Function	Year	Major
University of Naples Federico II	Laurea (M.Sc)	1982-1987	Marine Biology
University of Messina	PhD	1996-2000	Environmental Sciences
Woods Hole Oceanographic Institution	Post graduate Visiting Scientist	1988-1990	Flow cytometry for marine microbial ecology
Station Biologique de Roscoff (France)	Post graduate Visiting Scientist and graduate student	1991-1994	Marine microbial ecology and phytoplankton ecophysiology
Stazione Zoologica A. Dohrn, Naples	Research Contract (ex art. 23)	1994-1996	Marine microbial ecology
Stazione Zoologica Anton Dohrn, Napoli, Italy	Ricercatore	2000-present	Marine microbial ecology, flow cytometry

### Appointments and awards

1987- Naval League of Agrigento (Italy) Award

1988/1989- Rotary Foundation Scholarship  
1989/1990 and 1991/1992- Italian Ministry of Scientific Research Scholarship  
1991- French National Center for Scientific Research (CNRS) Scholarship  
1992/1993- Commission of the European Communities Scholarship  
1994 /1996- Research Contract of the Zoological Station of Naples (Italy)  
1997/1999- Graduate Fellowship of the Ministry of University, Research and Technology

2012- now Coordinator of the PhD Program of the SZN  
Scientific Responsible for the Agreement between SZN and the National Institute of Geophysics and Volcanology (2014)  
Scientific Responsible for the Agreement between SZN and the Taiwan National Research Council (2008)  
ISCHIA GAS contract since 2012 (Monitoring of Posidonia beds in Ischia) (total funds 372.400 €)  
IZP ME2 Contract since 2014 (Monitoring of Clostridium difficile) (total funds 4.250 €)  
Scientific Responsible for the FP7 EC CSA INCOMMET (Improving National Capacities in Observation and Management of Marine Environment in Tunisia) (total funds 35.427€)  
Scientific Responsible for the French ENVIMED MENAPHY project (Training in support of Turkey)  
Scientific Responsible for the EC ENPI S&T Med Project (Sustainability and Tourism in the Mediterranean Area) (total funds 480.137 €)  
Scientific Responsible for the project PON3 PAC00044 EMSO MED IT (total funds 2.006.180 €)  
Coordinator, Project Premiale MICGEN (MICROBial Genomics - Italian funds –approx. total of 70.000 €)  
Coordinator, Project “Premiale IRMA” (Implementation and Remote connection of a platform for the real time monitoring of MARine microorganisms Italian funds - total funds 388.101 €)  
Coordinator of 2 Operational Units within the Italian Project RITMARE (SP3\_WP2\_AZ1\_UO2 and SP3\_WP3\_AZ1\_UO3 (total funds 700.000 €)

Member of the Board of the Italian Society of Cytometry (GIC) 2001-2013  
Member of the Board of the Italian Association for Oceanography and Limnology since 2012  
Member of the Editorial Board of the journal Marine Ecology: an evolutionary perspective since 2009  
Coordinator of the Course on Environmental applications of Cytometry at the National School of the Italian Society of Cytometry 2001-2012  
Outreach officer for the Research Mode Project “ROSEMEB” within the EC Network of Excellence MARBEF 2004-2009  
Vice Chair of the Gordon Conference on Marine Microbes in Tilton (USA) July 2010  
Chair-elected of the Gordon Research Conference in Marine Microbes, Il Ciocco (LU) 24-28 June 2012  
Supervisor of 6 PhD thesis (3 Italian, 3 UK), 7 MSc thesis.  
Examiner of 2 PhD in France, 1 in China, 2 in the UK, 3 in Australia  
Evaluator for the FP5, FP6, FP7 (Marie Curie, Integrated Projects e CSA)  
Evaluator for the German EVAL-INCO, French ANR, the Royal Dutch Research Foundation, and the Italian CNR (shiptime requests) and MIUR (FIRB Projects)  
Referee for international journals such as Journal of Plankton Research, Cytometry, Limnology and Oceanography, Marine Biology, Aquatic Toxicology, PLoS One.  
Teacher for the RITMARE Project and the EMSOMEDIT Training Workpackages 2014  
Scientific dissemination activities for Città della Scienza, Rotary Napoli SudOvest, Naples Schools (also as an expert for the PON 2012)  
Member of the “Science and Society” Committee of SZN, 2013

## Professional Memberships

American Society of Limnology and Oceanography (ASLO)  
American Geophysical Union (AGU)  
International Society for Analytical Cytology (ISAC)  
Associazione Italiana di Limnologia e Oceanografia (AIOL)  
Società Italiana di Citometria (GIC)  
Marie Curie Fellowship Association (MCFA)

## Students Supervision

Supervisor of 6 PhD thesis (3 Italian, 3 UK), 8 MSc thesis and of 4 PostDocs

## Publications

Author of 57 publications

Bibliometric indexes (from Google Scholar)

Total citations 1562 last 5 years: 929

H index 22 last 5 years 19

I10 Index 29 last 5 years 25

VQR 2004-2010: 1 (top) for each product

*List of publications of the last 10 years* (2005-present): \* corresponding author

### Peer-reviewed publications:

- \***Casotti R**, Mazza S, Brunet C, Vantrepotte V, Ianora A, Miralto A. (2005) Growth autoinhibition and genotoxicity of the diatom aldehyde 2-trans-4-trans decadienal on *Thalassiosira weissflogii* (Bacillariophyceae). *J. Phycol.* 41: 7-20.
- Paffenhöfer, G.-A., A. Ianora, A. Miralto, J. T. Turner, G. S. Kleppel, M. Ribera d'Alcala, **R. Casotti**, G. Caldwell, G. Pohnert, A. Fontana, D. Müller-Navarra, S. Jonasdóttir, V. Armbrust, U. Bamstedt, S. Ban, M. Bentley, M. Boersma, M. Bundy, I. Buttino, A. Calbet, F. Carlotti, Y. Carotenuto, G. d'Ippolito, B. Frost, C. Guisande, W. Lampert, R. Lee, S. Mazza, M.G. Mazzocchi, J. Nejtgaard, S.A. Poulet, G. Romano, V. Smetacek, S. Uye, S. Wakeham, S. Watson, and T. Wichard (2005) Colloquium on diatom-copepod interactions. *Mar. Ecol. Prog. Ser.* 286: 293-305
- Vardi, A., F. Formiggini, **R. Casotti**, A. de Martino, F. Ribalet, A. Miralto and C. Bowler (2006) A stress surveillance system based on calcium and nitric oxide in marine diatoms. *PLoS Biology* 4(3): 1-9.
- Ianora A., M. Boersma, **R. Casotti**, A. Fontana, J. Harder, F. Hoffman, H. Pavia, P. Potin, S.A. Poulet, and G. Toth. (2006). New Trends in Marine Chemical Ecology. *Estuaries and coasts* 29(4): 531-551.
- Brunet C, **Casotti R**, Vantrepotte V, Corato F, Conversano F. (2006). Picophytoplankton diversity and photoadaptation in the Strait of Sicily (Mediterranean Sea) in summer. I. Mesoscale variations. *Aquat. Microb. Ecol.* 44: 127-141
- Dubelaar G, **Casotti R**, Tarran G, Biegala I. (2007). Phytoplankton and their analysis by flow cytometry. In: Dolezel J, Greilhuber J, Suda J: *Flow Cytometry with Plant Cells*. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, pagg. 287-322

- \*Ribalet F, Wichard T, Pohnert G, Ianora A, Miralto A, **Casotti R.** (2007) Age and nutrient limitation enhance polyunsaturated aldehyde production in marine diatoms. *Phytochemistry* 68: 2059-2067
- Brunet C, **Casotti R.**, Vantrepotte V, Corato F, Conversano F. (2007). Vertical variability and diel dynamics of picophytoplankton in the Strait of Sicily (Mediterranean Sea) in summer. *Marine Ecol. P.S.* 346: 15-26
- \*Ribalet F, Berges JA, Ianora A, **Casotti R.** (2007) Growth inhibition of cultured marine phytoplankton by toxic algal-derived polyunsaturated aldehydes. *Aquatic Toxicology* 85(3): 219-227
- \*Ribalet F, Intertaglia L, Lebaron P, **Casotti R.** (2008) Differential effect of three polyunsaturated aldehydes on the growth of thirty three marine bacterial strains. *Aquatic Toxicology* 86: 249-255
- \*Ianora A, **Casotti R.**, Bastianini M, Brunet C, d'Ippolito G, Acri F, Fontana A, Cutignano A, Turner J, Miralto A. Low reproductive success for copepods during a bloom of the non-aldehyde producing diatom *Cerataulina pelagica* in the North Adriatic Sea. (2008) *Marine Ecology: an evolutionary perspective* 29: 399-410
- Brunet C., **Casotti R.**, Vantrepotte V. (2008). Phytoplankton diel and vertical variability in photobiological responses at a coastal station in the Mediterranean Sea. (2008) *J. Plankton Research* 30(6): 645-654
- D'Alelio D., Amato A., Kooistra W., Procaccini G., **Casotti R.**, and Montresor M. (2008) Internal Transcribed Spacer polymorphism in *Pseudo-nitzschia multistriata* (Bacillariophyceae) in the Gulf of Naples: recent divergence or intraspecific hybridization? *Protist* 160: 9-20
- \*Ribalet F., Vidoudez C., Cassin, D., Pohnert G., Ianora A., Miralto A., and **R Casotti** (2009) High plasticity in the production of diatom-derived polyunsaturated aldehydes under nutrient limitation: Physiological and ecological implications. *Protist* 160(3): 444-451 doi 10.106/j.protis.2009.01.003
- \***Casotti R.** La citometria a flusso per lo studio dei microorganismi planctonici. (2010) In: Socal G., Buttino I., Cabrini M., Mangoni O., Penna A., Totti C. (eds.) *Metodologie di studio del plancton marino*"; Manuali e Linee Guida ISPRA SIBM Roma. Pagg. 311-325
- \*Balestra C., Alonso-Saez L., Gasol J. M., **Casotti R.** (2011) Group-specific effects on coastal bacterioplankton of polyunsaturated aldehydes produced by diatoms. *Aquatic Microbial Ecology* 63: 123-131
- Vidoudez C., Casotti R., Bastianini M., Pohnert G. (2011) Quantification of dissolved and particulate polyunsaturated aldehydes in the Adriatic Sea. *Marine Drugs* 9: 500-513
- Ianora A., Bentley M.G., Caldwell G.S., **Casotti R.**, Cembella A.D., Engstrom-Ost J., Halsband C., Sonnenschein E., Legrand C., Llewellyn C.A., Paldaviciene A., Pilkaityte R., Pohnert G., Razinkovas A., Romano G., Tillmann U., Vaiciute D. (2011) The relevance of marine chemical ecology to plankton and ecosystem function: an emerging field. *Mar. Drugs* 9, 1625-1648
- \*Gallina & **Casotti** Lettere GIC (2011) Analisi della produzione di ossido nitrico nella diatomea marina *Skeletonema marinoi* mediante citometria a flusso e DAF-FMDA. *Lettere GIC* 20(1): 24-28
- Pavarese G, Tranchida Lombardo V, Galesi R, D'Emérico S, **Casotti R.**, Cristaudo A, Cozzolino S (2013). When polyploidy and hybridization produce a fuzzy taxon: the complex origin of the insular neoendemic *Neotinea commutata* (Orchidaceae). *Botanical Journal of the Linnean Society* 173, Issue 4, pages 707–720
- Margiotta F., Mangoni O., Santarpia I., Saggiomo M., Saggiomo V., **Casotti R.** (2013) Response of phytoplankton assemblages to terrigenous pressures in the Southern Tyrrhenian Sea. *Biol. Mar. Mediterr.* 20 (1): 214-215
- \*Ribalet F., Bastianini M., Vidoudez C., Acri F., Berges J., Ianora A., Miralto A., Pohnert G., Romano G., Wichard T, **Casotti R.** (2014). Phytoplankton Cell Lysis Associated with Polyunsaturated Aldehyde Release in the Northern Adriatic Sea. *PLoS One* 9(1): e85947. doi:10.1371/journal.pone.0085947.

- Sansone C., Braca A., Ercolesi E., Francone M., Romano G., Palumbo A., **Casotti R.**, Ianora A. (2014) Diatom-derived polyunsaturated aldehydes activate cell death in human cancer cell lines but not normal cells. *PLoS ONE* 9(7): e101220. doi:10.1371/journal.pone.0101220
- Catalano G, Azzaro M, Bastianini M, Bellucci L, Bernardi Aubry F, Bianchi F, Burca M, Cantoni C, Caruso G, **Casotti R.**, Cozzi S, Del Negro P, Fonda-Umani S, Giani M, Kovacevic M, La Ferla R, Langone L, Luchetta A, Monticelli L, Piacentino S, Pugnetti A, Ravaioli M, Socal G, Spagnoli F, Ursella L. The Carbon budget in the northern Adriatic Sea, a winter case study. 2014 *J. Geophys. Res. Biogeosci.*, 119, doi:10.1002/2013JG002559.
- \*Gallina A., Brunet C., Palumbo A., **Casotti R.** (2014) The Effect of Polyunsaturated Aldehydes on *Skeletonema marinoi* (Bacillariophyceae): The Involvement of Reactive Oxygen Species and Nitric Oxide. *Mar. Drugs* 12, 4165-4187; doi:10.3390/md12074165.
- Villar E., Farrant G., Follows M., Garczarek L., Speich S. Audic S., Bittner L., Blanke B., Brum J.R., Brunet C., **Casotti R.**, Chase A., Dolan J.R., d'Ortenzio F., Gattuso J-P., Nicolas Grima5, Lionel Guidi9,10, Christopher N. Hill11, Oliver Jahn11, Jean-Louis Jamet12, Hervé Le Goff13, Cyrille Lepoivre1, Shruti Malviya4, Eric Pelletier14,15,16, Jean-Baptiste Romagnan9,10, Simon Roux6, Sébastien Santini1, Eleonora Scalco7, Sarah M. Schwenck6, Atsuko Tanaka4‡, Pierre Testor13, Thomas Vannier14,15,16, Flora Vincent4, Adriana Zingone7, Céline Dimier2,3,4, Marc Picheral9,10, Sarah Searson9,10††, Stefanie Kandels-Lewis17,18, *Tara* Oceans coordinators§, Silvia G. Acinas19, Peer Bork17, Emmanuel Boss8, Colomban de Vargas2,3, Gabriel Gorsky9,10, Hiroyuki Ogata1‡‡, Stéphane Pesant20,21, Matthew B. Sullivan6, Shinichi Sunagawa17, Patrick Wincker14,15,16, Karsenti E., Bowler C., Not F., Hingamp P., Daniele Iudicone D. (2015). Environmental characteristics of Agulhas rings affect inter-ocean plankton transport. *Science* (in press).
- Ianora A., Bastianini M., Carotenuto Y., **Casotti R.**, Roncalli V., Miralto A., Romano G., Gerech A., Fontana A. and Turner J.T. (2015) Non-volatile oxylipins can render some diatom blooms more toxic for copepod reproduction. *HAB Journal* (in press).