

Christophe Brunet



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Current Position: Researcher (since 2000)

Current Affiliation:

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

Education/Training/Experience

Institute and Location	Degree (if applicable)	Year	Field of Study
University di Lille – Paris VI (France)	D.E.A. (Laurea equivalent)	1990	Marine ecology
University of Paris VI	PhD	1994	Marine Plankton Ecology
University of Lille I – Laboratory of Plant Ecophysiology	Post-doc	1995	Phytoplankton ecophysiology
Stazione Zoologica Anton Dohrn – Lab. of Biological Oceanography	Post-doc Marie Curie fellowship	1995-1997	Phytoplankton photophysiology
Stazione Zoologica Anton Dohrn – Lab. of Biological Oceanography	Post-doc SZN fellowship	1997	Phytoplankton photophysiology
Université du Littoral Cote d’Opale - France	Associate professor	1997-2000	Phytoplankton photophysiology
Stazione Zoologica Anton Dohrn – Lab. of Biological Oceanography	Researcher	> 2000	Phytoplankton photophysiology

Appointments and awards

Since 2014: Enabled to Full Professor Position in the Italian University, from the ASN (Abilitazione Scientifica Nazionale) in Ecology (05/C1).

Since 2011, member of the editorial board of ISRN Oceanography.

Since 2010, member of the scientific committee of the CRIACQ (Centro InterDipartimentale di Ricerca in Acquacoltura, Università Federico II, Portici, Italy).

Since 2009, member of the Editorial Board of “Advances in Oceanography and Limnology” journal.

Since 2008, member of the Editorial Board of “Functional Plant Science and Biotechnology” journal.

2004-2014, member of the Editorial Board of “Journal of Plankton Research”;

From 2000 to 2003, Teacher at the Università Federico II (Napoli) of Marine ecology course for the Master “Produzione marine”.

Member of international PhD examination panels (Spain, France, Australy, New Zealand)

Other

Referee of research projects from international funding agencies (Agence Nationale de la Recherche, France; the Executive Agency for Higher Education, Research, Development and Innovation Funding, Romania).

Referee for numerous ISI journals (Journal of Plankton Research; Limnology and Oceanography; Estuarine, Coastal and Shelf Science; Marine Ecology progress Series; European Journal of Phycology; Journal of Phycology; Botanica marina; Hydrobiologia; Marine Ecology; Deep Sea Research, part I and II; Global Science Biology, Journal of Limnology, Marine Biology and Estuaries and Coasts, Food and Chemical Toxicology, Photosynthesis research, PloSOne, BBA, and Marine Drugs).

Invited speaker in different national and international institutes

Local coordinator - participant in one EU-funded project and two Italian projects

Students' Supervision

Tutor of 9 degree thesis and 5 PhD thesis (Italy and France)

Publications

Author of > 50 papers on international referenced (ISI) journals and of 2 book chapters.

(h index: 25 - http://scholar.google.com/citations?user=o_dB3KMAAAAJ&hl=it)

List of publications of the last 10 years (2005-present):

Peer-reviewed publications:

- Emilie Villar, Gregory Farrant, Michael Follows, Laurence Garczarek, Sabrina Speich, Stéphane Audic, Lucie Bittner, Bruno Blanke, Jennifer R. Brum, Christophe Brunet, Raffaella Casotti, Alison Chase, John R. Dolan, Fabrizio d'Ortenzio, Jean-Pierre Gattuso, Nicolas Grima, Lionel Guidi, Christopher N. Hil, Oliver Jahn, Jean-Louis Jamet, Hervé Le Goff, Cyrille Lepoivre, Shruti Malviya, Eric Pelletier, Jean-Baptiste Romagnan, Simon Roux, Sébastien Santini, Eleonora Scalco, Sarah M. Schwenck, Atsuko Tanaka, Pierre Testor, Thomas Vannier, Flora Vincent, Adriana Zingone, Céline Dimier, Marc Picheral, Sarah Searson, Stefanie Kandels-Lewis, Tara Oceans coordinators, Silvia G. Acinas, Peer Bork, Emmanuel Boss, Colomban de Vargas, Gabriel Gorsky, Hiroyuki Ogata, Stéphane Pesant, Matthew B. Sullivan, Shinichi Sunagawa, Patrick Wincker, Eric Karsenti, Chris Bowler, Fabrice Not, Pascal Hingamp, Daniele Iudicone, 2015. Environmental characteristics of Agulhas rings affect inter-ocean plankton transport. *Science*. In press.
- Valenti D., Denaro G., Spagnolo B., Conversano F. and Brunet C. 2015. How diffusivity, thermocline and incident light intensity modulate the dynamics of Deep Chlorophyll Maximum dynamics in Tyrrhenian Sea. *PLOS ONE*, vol. 10, e0115468, ISSN: 1932-6203, doi: 10.1371/journal.pone.0115468
- Chandrasekaran R., Barra L., Carillo S., Caruso T., Corsaro L, Dal Piaz F., Graziani G., Corato F., Pepe D., Manfredonia A., Orefice I., Ruban A. and Brunet C. 2014. Light modulation of biomass and macromolecular composition of the diatom *Skeletonema marinoi*. *Journal of Biotechnology*, 192: 114-122.
- Dattolo E., Ruocco M., Brunet C., Lorenti M., Lauritano C., D'Esposito D., De Luca P., Sanges R., Mazzuca, S., Procaccini G., 2014. Response of the seagrass *Posidonia oceanica* to different light environments: insights from a combined molecular and photo-physiological study. *Marine Environmental Research*, Aug 1. pii: S0141-1136(14)00137-8. doi: 10.1016/j.marenvres.2014.07.010.
- Giovagnetti V., S. Flori, F. Tramontano, J. Lavaud and C. Brunet., 2014. The velocity of light intensity increase modulates the photoprotective response in coastal diatoms. *PlosOne*, 9 (8): e103782.
- Gallina A.A., Brunet C., Palumbo A., and Casotti R., 2014. Effect of Polyunsaturated Aldehydes on *Skeletonema marinoi* (Bacillariophyceae): Involvement of Reactive Oxygen Species and Nitric Oxide. *Mar Drugs*, 12: 4165-4187.
- Barra L., Chandrasekaran R., Corato F., Brunet C., 2014. The challenge of ecophysiological biodiversity for biotechnological applications of marine microalgae. Review paper. *Marine drugs*, 12, 1641-1675; doi:10.3390/md12031641.
- Brunet C., R. Chandrasekaran, L. Barra, V. Giovagnetti, F. Corato and A.V. Ruban. 2014. Spectral radiation dependent photoprotective mechanism in diatom *Pseudo-nitzschia multistriata*. *Plos One*, 9(1): e87015. doi:10.1371/journal.pone.0087015.
- Polimene L., Brunet C., Butenschon M., Martinez-Vicente V., Widdicombe C., Torres R., Allen J.I., 2014. Modelling a light driven phytoplankton succession. *Journal of Plankton Research*, 36: 214-229.
- Giovagnetti V., Brunet C., Conversano F., Tramontano F., I. Obernosterer, Ridame C., Guieu C., 2013. Assessing the role of dust deposition on phytoplankton ecophysiology and succession in a low-nutrient low-chlorophyll ecosystem: a mesocosm experiment in the Mediterranean sea. *Biogeosciences*, 10, 2973–2991.
- Brunet C., Conversano F., Margiotta F., Dimier C., Polimene L., Tramontano F. and Saggiomo V., 2013. The role of light and photophysiological properties on phytoplankton succession during

- the spring bloom in the NorthWestern Mediterranean sea. *Advances in Oceanography and Limnology*, 4, 1-19.
- Mazzuca S., Bjork M., Beer S., Felisberto P., Gobert S., Procaccini G., Runcie J., Silva J., Veira Borges A., Brunet C., Buapet P., Costa M.M., D'Esposito D., Gullström M., Lejeune P., Lepoint G., Olivé I, Rasmunsson L., Richir J., Ruocco M., Serra I.A., Spadafora A., Santos R., 2013. Establishing research strategies, methodologies and technologies to link genomics and proteomics to seagrass productivity, community metabolism and ecosystem carbon fluxes. *Frontiers in Plant Proteomics*,
- Denaro G., Valenti D., La Cognata A., Spagnolo B., Bonanno A., Basilone G., Mazzola S., Zgozi S., Aronica S., Brunet C., 2013. Spatio-temporal behaviour of the deep chlorophyll maximum in Mediterranean Sea: Development of a stochastic model for picophytoplankton dynamics. *Ecological complexity*, 13: 21–34.
- Giovagnetti V., Cataldo M.L., Conversano F. and Brunet C., 2012. Growth and photophysiological response curves of the two picoplanktonic *Minutocellus* sp. RCC967 and RCC703 (Bacillariophyceae). *Eur. J. Phycology*. 47:4, 408-420.
- Laabir M., Barré N., Franco J., Brunet C., Masseret E. and Collos Y., 2012. Morphological, biochemical and growth characteristics of *Alexandrium catenella* (Whedon & Kofoid) Balech, a toxic dinoflagellate expanding in Mediterranean waters. *Cahiers de Biologie Marine*, 53: 365-372.
- La Ferla R., Maimone G., Azzaro M., Conversano F., Brunet C., Cabral A.S. and Paranhos R., 2012. Vertical distribution of the prokaryotic cell size in the Mediterranean Sea. *Helgoland Marine Research*. DOI 10.1007/s10152-012-0297-0.
- Scalco E., Brunet C., Marino F., Rossi R., Soprano V., Zingone A., Montresor M., 2012. Growth and toxicity responses of *Ostreopsis* cf. *ovata* to seasonal irradiance and temperature conditions. *Harmful Algae*. 17, 25-34.
- Polimene Luca, C Brunet, J Icarus Allen, Momme Butenschön, Daniel A. White and Carole A. Llewellyn, 2012. Modelling xanthophyll photoprotective activity in phytoplankton. *Journal of Plankton research*. 34(3): 196-207.
- Hojerová E., Mašín M., Brunet C., Ferrera I., Gasol J.M. and Koblížek M., 2011. Distribution and Growth of Aerobic Anoxygenic Phototrophs in the Mediterranean Sea. *Environmental microbiology*. 13(10), 2717–2725.
- Durieu de Madron X, et al.: The MerMex group, 2011. Marine ecosystems' response to climatic and anthropogenic forcings in the Mediterranean. *Progress in Oceanography*, doi: 10.1016/j.pcean.2011.02.003. 91 (2): 97-166.
- Fanelli E., Papiol V., Cartes J.E., Rumolo P., Brunet, C. and Sprovieri M. 2011. Food web structure of the epibenthic and infaunal invertebrates on the Catalan slope (NW Mediterranean): evidence from $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$ analysis. *Deep Sea Research*, I, 58: 98-109.
- Guieu, C., Dulac, F., Desboeufs, K., Wagener, T., Pulido-Villena, E., Grisoni, J.-M., Louis, F., Ridame, C., Blain, S., Brunet, C., Bon Nguyen, E., Tran, S., Labiadh, M., and Dominici, J.-M., 2010. Large clean mesocosms and simulated dust deposition: a new methodology to investigate responses of marine oligotrophic ecosystems to atmospheric inputs, *Biogeosciences*, 7, 2681-2738.
- Brunet C. and Lavaud J., 2010. Can the xanthophyll cycle help extract the essence of the microalgal functional response to a variable light environment? *Journal of Plankton Research*, 32: 1609-1617.
- Giovagnetti V., Cataldo M.L., Conversano F. and Brunet C. 2010. Functional relation between growth, photosynthetic rate and regulation in the coastal picoeukaryote *Phaeomonas* sp. RCC 503 (Pinguiphyceae, Stramenopiles). *Journal of Plankton Research*.
- Dimier C., Saviello G., Tramontano F. and Brunet C. 2009. Comparative ecophysiology of the xanthophyll cycle in six marine phytoplanktonic species. *Protist*, 160: 397-411.

- Dimier, C., Brunet C., Geider R. and Raven J., 2009. Growth and photoregulation dynamics of the picoeukaryote *Pelagomonas calceolata* in fluctuating light. *Limnol & Oceanography*, 54(3): 823-836.
- Ribera d'Alcalà M., Brunet C., Conversano F., Corato F., Lavezza R. 2009. Nutrient and pigment distributions in the Southern Tyrrhenian Sea during mid Summer and late fall 2005. *Deep-Sea Res., II*, 56, 676-686.
- Ianora A., Casotti C., Bastianini M., Brunet C., d'Ippolito G., Acri F., Fontana A., Cutignano A., Turner J. T. and Miralto A., 2008. Low reproductive success for copepods during a bloom of the non-aldehyde-producing diatom *Cerataulina pelagica* in the North Adriatic Sea. *Marine Ecology*, in press.
- Brunet C., Casotti R. and Vantrepotte V. 2008. Phytoplankton diel and vertical variability in photobiological responses at a coastal station in the Mediterranean Sea. *J. Plankton Res.*, 30: 645-654.
- Corato F., Brunet C., and Dimier C., 2007. Sviluppo ed applicazioni in fotobiologia algale di un sistema ad illuminazione variabile. *Biologi Italiani*, 2/2007: 37-43.
- Brunet C., Casotti R., Vantrepotte V., Corato F. and Conversano F., 2007. Vertical variability and diel dynamics of picophytoplankton in the Strait of Sicily (Mediterranean Sea) in summer. *Mar. Ecol. Prog. Ser.*, 346: 15-26.
- Dimier C., Corato F., Tramontano F. and Brunet C., 2007. Photoprotection and xanthophyll cycle activity in three diatoms. *J. Phycol.*, 43(5): 937-947.
- Dimier C., Corato F., Saviello G. and Brunet C., 2007. Photophysiological properties of the marine picoeukaryote *Picochlorum* RCC237 (Trebouxiophyceae, Chlorophyta). *J. Phycol.*, 43 (2): 275-283
- Vantrepotte V., Brunet C., Mériaux X., Lécuyer E., Vellucci V. and Santer R.. 2007. Bio-optical properties of coastal waters in the Eastern English Channel. *Estuarine, Coastal and shelf Science*, 72: 201-212.
- Brunet C., Casotti R., Vantrepotte V., Corato F. and Conversano F., 2006. Picophytoplankton diversity and photophysiology in the Strait of Sicily (Mediterranean Sea) in summer. I. Mesoscale variations. *Aquatic Microbial Ecology*, 44(2): 127-141.
- Raniello R., Lorenti M., Brunet C. and Buia M-C., 2006. Photoacclimation of the invasive alga *Caulerpa racemosa* var. *cylindracea* to depth and daylight patterns and a putative new role for siphonaxanthin. *Marine Ecology*, 27: 20-30.
- Casotti R., Mazza S., Brunet C., Vantrepotte V., Ianora A. and Miralto A., 2005. Growth inhibition and toxicity of the diatom aldehyde 2-trans-4-trans decadienal on *Thalassiosira weissflogii* (Bacillariophyceae). *J. Phycol.*, 41: 7-20.

Book Chapters:

- Brunet C. e Mangoni O., 2010. Determinazione quali-quantitativa dei pigmenti fitoplanctonici mediante HPLC. Eds G. Socal, Buttino I., Cabrini I., Mangoni O., Penna A., Totti C., Capitolo 34, "Metodologie di studio del Plancton marino", ISPRA/SIBM, ISBN: 978-88-448-0427-5., pp 379-387.
- Brunet, C., Johnsen, G., Lavaud, J., Roy, S. (2011). Pigments and photoacclimation processes. *In* *Phytoplankton Pigments, Characterization, Chemotaxonomy and Applications in Oceanography*. Roy S, Johnsen G, Llewellyn C, Skarstad E (eds) Series: Oceanographic Methodologies Vol. 2, SCOR-UNESCO Publishing, Cambridge University Press. ISBN:9781107000667, 880 pages.