

## CURRICULUM VITAE

**MARCO BARTOLI**

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Marco Bartoli is Associate Professor at the Department of Chemistry, Life Sciences and Environmental Sustainability (SCVSA) the University of Parma (since 2017), where he coordinates the Laboratory of Benthic Functioning (BeFun). He has been a graduated technician at the University of Parma (2000-2016) and holds a PhD in Ecology (1996). He is affiliated at Klaipeda University (Lithuania) since 2011. At SCVSA Department he is vice-president of the Master's degree in Sciences and Technology for Environment and Resources, he is member of the International Mobility Commission (2017-) and was member of the Students-Teachers Joint Commission (2017-2019).

He is a biogeochemist and ecosystem ecologist broadly interested in aquatic ecosystems and in how humans alter their functioning. He is focused on answering fundamental questions about energy flow and biogeochemical cycling of nutrients (nitrogen, phosphorus, and silica), carbon, and oxygen across the land-coastal continuum. In the last 25 years he was involved as partner or coordinator in national and international research programmes.

Research themes include: -eutrophication; - primary production in aquatic environments; - bioturbation and benthic heterotrophic processes; - greenhouse gas dynamics in shallow water bodies; - interactions between microbial communities and macrophyte roots; - nutrient mass balance at different spatial scales; - the impact of agriculture, animal farming and aquaculture on aquatic environments.

He regularly presents the results of his research in national and international conferences, is active in education and public outreach, serves as reviewer for different journals in the field of Aquatic Ecology and is Associate Editor of the international journals Estuaries and Coasts and Water. He was supervisor of >100 master students (Ecology and Environmental Sciences) and of 12 PhD students (Ecology). He is author of 2 book chapters and of 148 manuscripts in international journals with IF, h index 35, total citations 3526 (source SCOPUS).

### 1. PROFESSIONAL PREPARATION

University of Parma

Biology

Degree, 1991

Ecology

PhD, 1996

### 2. APPOINTMENTS

2017-present	Associate Professor, University of Parma
2011-present	Visiting Scientist, Marine Research Institute, Klaipeda University
2000-16	Graduated technician, University of Parma
1997-99	Postdoctoral Research Associate, University of Parma

### 3. TEACHING

Laboratory of Aquatic Ecology	2017-, University of Parma
Biodiversity and Ecosystem Functioning	2017-, University of Parma
Applied ecology 1: environmental management and monitoring	2017-, University of Parma
Integrated analysis of aquatic ecosystems for management and restoration programs	2019-, University of Parma

### 4. PROFESSIONAL SOCIETIES

Società Italiana di Ecologia (SIte)  
Coastal & Estuarine Research Federation (CERF)  
American Society of Limnology and Oceanography (ASLO)

### 5. PUBLICATIONS

#### 5.1. INTERNATIONAL JOURNALS

- 1- Viaroli P., **Bartoli M.**, Bodavalli C., Naldi M., 1995. Oxygen fluxes and dystrophy in a coastal lagoon colonized by *Ulva rigida* (Sacca di Goro, Po River Delta, Northern Italy). *Fresenius Environmental Bulletin*, 4: 381-386.
- 2- Viaroli P., **Bartoli M.**, Bondavalli C., Christian R. R., Giordani G., Naldi M., 1996. Macrophyte Communities and their impact on benthic fluxes of oxygen, sulphide and nutrients in shallow eutrophic environments. *Hydrobiologia*, 329(1-3): 105-119.
- 3- **Bartoli M.**, Cattadori M., Giordani G., Viaroli P., 1996. Benthic oxygen respiration, ammonium and phosphorus regeneration in surficial sediments of the Sacca di Goro (Northern Italy) and two French coastal lagoons: a comparative study. *Hydrobiologia*, 329(1-3): 143-159.
- 4- Giordani G., **Bartoli M.**, Cattadori M., Viaroli P., 1996. Sulphide release from anoxic sediments in relation to iron availability and organic matter recalcitrance and its effects on inorganic phosphorus recycling. *Hydrobiologia*, 329(1-3): 211-222.
- 5- Giordani G., Azzoni R., **Bartoli M.**, Viaroli P., 1997. Seasonal variations of sulphate reduction rates, sulphur pools and iron availability in the sediment of a dystrophic lagoon (Sacca di Goro, Italy). *Water, Air and Soil Pollution*, 99(1-4): 363-371.
- 6- Viaroli P., **Bartoli M.**, Fumagalli I., Giordani G., 1997. Relationship between benthic fluxes and macrophyte cover in a shallow brackish lagoon. *Water, Air and Soil Pollution*, 99(1-4): 533-540.

- 7- **Bartoli M.**, Nizzoli D., Welsh D.T., Viaroli P., 2000. Short-term influence of recolonisation by the polychaete worm *Nereis succinea* on oxygen and nitrogen fluxes and denitrification: a microcosm simulation. *Hydrobiologia*, 431: 165-174.
- 8- Welsh, D.T., **Bartoli, M.**, Nizzoli, D., Castaldelli, G., Riou, S.A., Viaroli, P., 2000. Denitrification, nitrogen fixation, community primary productivity and inorganic-N and oxygen fluxes in an inter-tidal *Zostera noltii* meadow. *Marine Ecology Progress Series*, 208: 65-77.
- 9- Azzoni R., Giordani G., **Bartoli M.**, Welsh D.T., Viaroli P., 2001. Iron, sulphur and phosphorus cycling in the rhizosphere sediments of a eutrophic *Ruppia cirrhosa* meadow (Valle Smarlacca, Italy). *Journal of Sea Research*, 45(1): 15-26.
- 10- **Bartoli M.**, Nizzoli D., Viaroli P., Turolla E., Castaldelli G., Fano A.E., Rossi R., 2001. Impact of *Tapes philippinarum* farming on nutrient dynamics and benthic respiration in the Sacca di Goro. *Hydrobiologia*, 455: 203-212.
- 11- Welsh D.T, Castaldelli G., **Bartoli M.**, Poli D., Careri M., De Wit R., Viaroli P., 2001. Denitrification in an-intertidal meadow, a comparison of <sup>15</sup>N-isotope and acetylene block techniques: dissimilatory nitrate reduction to ammonia as a source of N<sub>2</sub>O? *Marine Biology*, 139(6): 1029-1036.
- 12- De Wit, R., Stal, L.J., Lomstein, B.Aa., Herbert, R.A., Van Gernerden, H., Viaroli, P., Cecherelli, V.-U., Rodríguez-Valera, F., **Bartoli, M.**, Giordani, G., Azzoni, R., Schaub, B., Welsh, D.T., Donnelly, A., Cifuentes, A., Antón, J., Finster, K., Nielsen, L.B., Pedersen, A.-G.U., Neubauer, A.T., Colangelo, M.A., Heijs, S.K., 2001. Robust: The role of buffering capacities in stabilising coastal lagoon ecosystems. *Continental Shelf Research*, 21(18-19): 2021-2041.
- 13- De Leo G.A., **Bartoli M.**, Naldi M., Viaroli P., 2002. A first generation stochastic bioeconomic analysis of alagl bloom control in a coastal lagoon (Sacca di Goro, Po River Delta). *PSZN: Marine Ecology* 23: 92-100.
- 14- Nizzoli D., Castaldelli G., **Bartoli M.**, Welsh D.T., Arriaga Gomez P., Fano A.E., Viaroli P., 2002. Benthic fluxes of dissolved inorganic nitrogen in coastal lagoon of the Northern Adriatic Sea: an interpretation of spatial variability based on sediment features and infauna activity. *P.S.Z.N.: Marine Ecology*, 23: 297-306.
- 15- **Bartoli M.**, Nizzoli D., Viaroli P., 2003. Microphytobenthos activity and fluxes at the sediment-water interface: interactions and spatial variability. *Aquatic Ecology*, 37(4): 341-349.
- 16- **Bartoli M.**, Naldi M., Nizzoli D., Roubaix V., Viaroli P., 2003. Influence of clam farming on macroalgal growth: a mesocosm experiment. *Chemistry and Ecology*, 19(2-3): 147-160.
- 17- Melià P., Nizzoli D., **Bartoli M.**, Naldi M., Gatto M., Viaroli P., 2003. Assessing the potential impact of clam rearing in dystrophic lagoons: an integrated oxygen balance. *Chemistry and Ecology*, 19(2-3): 129-146.
- 18- Viaroli P., **Bartoli M.**, Giordani G., Azzoni R., Nizzoli D., 2003. Short term changes of benthic fluxes during clam harvesting in a coastal lagoon (Sacca di Goro, Po River Delta). *Chemistry and Ecology*, 19(2-3): 189-206.
- 19- Cellina F., De Leo G.A., Rizzoli, A.E., Viaroli P., **Bartoli M.**, 2003. Economic modelling as a tool to support macroalgal bloom management: a case study (Sacca di Goro, Po River Delta). *Oceanologica Acta*, 26(1): 139-147.
- 20- Viaroli P., **Bartoli M.**, Giordani, G., Magni, P., Welsh, D.T., 2004. Biogeochemical indicators as tools for assessing sediment quality/vulnerability in transitional aquatic ecosystems. *Aquatic Conservation: Marine and Freshwater Ecosystem* 14: S19-S29.

- 21- Rossetti G., **M. Bartoli**, K. Martens, 2004. Limnological characteristics and recent ostracods (Crustacea, Ostracoda) of freshwater wetlands in the Parco Oglio Sud (Northern Italy). *Annales de Limnologie*, 40 (4): 329-341
- 22- Rossi V, **M. Bartoli**, C. Bellavere, A. Gandolfi, E. Salvador, P. Menozzi, 2004. *Heterocypris* (Crustacea: Ostracoda) from the Isole Pelagie (Sicily, Italy): hatching phenology of resting eggs. *Ital. J. Zool.*, 71(3): 223-231.
- 23- **Bartoli M.**, Nizzoli D., Naldi M., Vezzulli L., Porrello S., Lenzi M., Viaroli P., 2005. Inorganic nitrogen control in wastewater treatment ponds from a fish farm (Orbetello, Italy): Denitrification versus *Ulva* uptake. *Marine Pollution Bulletin* 50(11): 1386-1397.
- 24- **Bartoli M.**, Nizzoli D., Vezzulli L., Naldi M., Fanciulli G., Viaroli P., Fabiano M., 2005. Dissolved oxygen and nutrient budgets in a phytotreatment pond colonised by *Ulva* spp. *Hydrobiologia* 550(1): 199-209.
- 25- Nizzoli D., D.T. Welsh, **M. Bartoli**, P. Viaroli, 2005. Impacts of mussel (*Mytilus galloprovincialis*) farming on oxygen consumption and nutrient recycling in a eutrophic coastal lagoon. *Hydrobiologia* 550(1): 183-198.
- 26- Vezzulli L., **Bartoli M.**, Nizzoli D., Fanciulli G., Viaroli P., Fabiano M., 2005. Relationships between macroalgal biomass and microbiological quality of water in a phytotreatment pond. *Hydrobiologia* 550(1): 211-219.
- 27- Viaroli P., **M. Bartoli**, R. Azzoni, G. Giordani, C. Mucchino C., M. Naldi, D. Nizzoli, L. Tajè, 2005. Nutrient and iron limitation to *Ulva* blooms in an eutrophic coastal lagoon (Sacca di Goro, Italy). *Hydrobiologia* 550(1): 57-71.
- 28- Nizzoli D., **Bartoli M.**, Viaroli P., 2006. Nitrogen and phosphorus budgets during a farming cycle of the Manila clam *Ruditapes philippinarum*: an *in situ* experiment. *Aquaculture* 261(1): 98-108.
- 29- Vezzulli, L., **Bartoli, M.**, Nizzoli, D., Naldi, M., Fanciulli, G., Viaroli, P., Fabiano, M., 2006. A simple tool to help decision making in infrastructure planning and management of phytotreatment ponds for the treatment of nitrogen-rich water. *Water SA*, 32(4): 605-609.
- 30- Nizzoli D., **Bartoli M.**, Viaroli P., 2007. Oxygen and ammonium dynamics during a farming cycle of the bivalve *Tapes philippinarum*. *Hydrobiologia* 587(1): 25-36.
- 31- Bolpagni R., Pierobon E., Longhi D., Nizzoli D., **Bartoli M.**, Tomaselli M., Viaroli P., 2007. Diurnal exchanges of CO<sub>2</sub> and CH<sub>4</sub> across the water-atmosphere interface in a water chestnut meadow (*Trapa natans* L.). *Aquatic Botany* 87(1): 43-48.
- 32- Nizzoli D., **Bartoli M.**, Cooper M., Welsh D.T., Underwood G.J.C., Viaroli P., 2007. Implications for oxygen, nutrient fluxes and denitrification rates during the early stage of sediment colonisation by the polychaete *Nereis* spp. in four estuaries. *Estuarine, Coastal and Shelf Sciences*, 75(1-2): 125-134.
- 33- Giardino C., **Bartoli M.**, Candiani G., Bresciani M., Pellegrini L., 2007. Recent changes in macrophyte colonisation patterns: an imaging spectrometry-based evaluation of southern Lake Garda (northern Italy) *Journal of Applied Remote Sensing* 1(1), art n°011509.
- 34- **Bartoli M.**, Nizzoli, D., Longhi, D., Laini, A., Viaroli, P., 2007. Impact of a trout farm on the water quality of an Apennine creek from daily budgets of nutrients. *Chemistry and Ecology*, 23(1): 1-11.
- 35- **Bartoli M.**, Nizzoli D., Castaldelli G., Viaroli P., 2008. Community metabolism and buffering capacity of nitrogen in a *Ruppia cirrhosa* meadow. *Journal of Experimental Marine Biology and Ecology*, 360(1): 21-30.

- 36-Viaroli P., **Bartoli M.**, Giordani G., Naldi M., Orfanidis S., Zaldivar J.M., 2008. Community shifts, alternative stable states, biogeochemical controls and feedbacks in eutrophic coastal lagoons: a brief overview. *Aquatic Conservation: Marine and Freshwater Ecosystems*, 18: 105-117.
- 37- Vezzulli L., M. Moreno, V. Marin, E. Pezzati, **M. Bartoli**, M. Fabiano, 2008. Organic waste impact of capture-based Atlantic bluefin tuna aquaculture at an exposed site in the Mediterranean Sea. *Estuarine, Coastal and Shelf Science* 78(2): 369-384.
- 38- Longhi D., **Bartoli M.**, Viaroli P., 2008. Decomposition of four macrophytes in wetland sediments: organic matter and nutrient decay and associated benthic processes. *Aquatic Botany*, 89(3): 303-310.
- 39- Bresciani M., Giardino C., Longhi D., Pinardi M., **Bartoli M.**, Vascellari M., 2009. Imaging spectrometry of productive inland waters. Application to the lakes of Mantua, *Journal of Remote Sensing*, 41, 147-156.
- 40- **Bartoli M.**, Vezzulli L., Nizzoli D., Azzoni R., Porrello S., Moreno M., Fabiano M., Viaroli P., 2009. Short-term effect of oxic to anoxic transition on benthic microbial activity and solute fluxes in organic-rich phytotreatment ponds. *Hydrobiologia* 629(1):123–136.
- 41- Pinardi M., **Bartoli M.**, Longhi D., Marzocchi U., Laini A., Ribaud C., Viaroli P., 2009. Benthic metabolism and denitrification in a river reach: a comparison between vegetated and bare sediments. *Journal of Limnology* 68(1), 133-145.
- 42- **Bartoli M.**, D. Longhi, D. Nizzoli, S. Como, P. Magni, P. Viaroli, 2009. Short term effects of hypoxia and bioturbation on solute fluxes, denitrification and buffering capacity in a shallow dystrophic pond, *Journal of Experimental Marine Biology and Ecology* 381(2): 105-113.
- 43-Pierobon E., Bolpagni R., **Bartoli M.**, Viaroli P., 2010. Net primary production and seasonal CO<sub>2</sub> and CH<sub>4</sub> fluxes in a *Trapa natans* L. meadow. *Journal of Limnology*, 69(2): 225-234.
- 44- Abbiati M., M. Mistri, **M. Bartoli**, V.U. Ceccherelli, M.A. Colangelo, C.R. Ferrari, G. Giordani, C. Munari, D. Nizzoli, M. Ponti, R. Rossi and P. Viaroli, 2010. Trade-off between conservation and exploitation of the transitional water ecosystems of the northern Adriatic Sea. *Chemistry and Ecology*, 26: 105-119.
- 45- Giardino C., Bresciani M., Pilkaite R., **Bartoli M.**, A. Razinkovas, 2010. In situ measurements and satellite remote sensing of case 2 waters: first results from the Curonian Lagoon. *Oceanologia*, 52(2): 197-210.
- 46- Racchetti E., **M. Bartoli**, C. Ribaud C., D. Longhi, L. Brito, M. Naldi, P. Iacumin, P. Viaroli, 2010. Short term changes in pore water chemistry in river sediments during the early colonization by *Vallisneria spiralis*. *Hydrobiologia*, 652(1): 127-137.
- 47- Laini A., **M. Bartoli**, S. Castaldi, P. Viaroli, E. Capri, M. Trevisan, 2011. Greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O) in lowland springs within an agricultural impacted watershed (Po River Plain, Northern Italy). *Chemistry and Ecology*, 27(2): 177-187.
- 48- Pinardi M., **Bartoli M.**, Longhi D., Viaroli P., 2011. Net autotrophy in a fluvial lake: the relative role of phytoplankton and floating-leaved macrophytes. *Aquatic Sciences*, 73(3): 389-403.
- 49- Ribaud C., **Bartoli M.**, Racchetti E., Longhi D., Viaroli P., 2011. O<sub>2</sub>, DIC and CH<sub>4</sub> fluxes in sediments with *Vallisneria spiralis*: indications for radial oxygen loss. *Aquatic Botany*, 94(3): 134-142

- 50- De Gaetano P., P. Vassallo, **M. Bartoli**, D. Nizzoli, A.M. Doglioli, M.G. Magaldi, M. Fabiano, 2011. Impact of new measured Mediterranean mineralization rates on the fate of simulated aquaculture wastes. *Aquaculture Research*, 42(9): 1359-1370.
- 51- Racchetti E., **Bartoli M.**, Soana E., Longhi D., Christian R.R., Pinardi M., Viaroli P., 2011. Influence of hydrological connectivity of riverine wetlands on nitrogen removal via denitrification. *Biogeochemistry*, 103(1): 335-354.
- 52- Soana E., E. Racchetti, A. Laini, **M. Bartoli**, and P. Viaroli, 2011. Soil Budget, Net Export, and Potential Sinks of Nitrogen in the Lower Oglio River Watershed (Northern Italy). *Clean – Soil, Air, Water* 39(11): 956-965.
- 53- Bresciani, M., Giardino, C., **Bartoli, M.**, Tavernini, S., Bolpagni, R., Nizzoli, D., 2011. Recognizing harmful algal bloom based on remote sensing reflectance band ratio. *Journal of Applied Remote Sensing* 5 (1), art. no. 053556
- 54- Ribaudo, C., **M. Bartoli**, D. Longhi, S. Castaldi, S.C. Neubauer, P. Viaroli, 2012. CO<sub>2</sub> and CH<sub>4</sub> fluxes across a *Nuphar lutea* (L.) Sm. Stand. *Journal of Limnology*. DOI: 10.4081/mnol.2012.e21 **IF 1.725, 4 Citations**
- 55- Zilius, M., **Bartoli, M.**, Daunys, D., Pilkaityte, R., Razinkovas, A., 2012. Patterns of benthic oxygen uptake in a hypertrophic lagoon: Spatial variability and controlling factors. *Hydrobiologia*, 699 (1), pp. 85-98.
- 56- Soana, E., Naldi, M., **Bartoli, M.**, 2012. Effects of increasing organic matter loads on pore water features of vegetated (*Vallisneria spiralis* L.) and plant-free sediments. *Ecological Engineering*, 47, pp. 141-145.
- 57- Bresciani, M., Giardino, C., Stroppiana, D., Pilkaityte, R., Zilius, **M., Bartoli, M.**, Razinkovas, A., 2012. Retrospective analysis of spatial and temporal variability of chlorophyll-a in the Curonian Lagoon. *Journal of Coastal Conservation*, pp. 1-9.
- 58- **Bartoli, M.**, Racchetti, E., Delconte, C.A., Sacchi, E., Soana, E., Laini, A., Longhi, D., Viaroli, P., 2012. Nitrogen balance and fate in a heavily impacted watershed (Oglio River, Northern Italy): In quest of the missing sources and sinks. *Biogeosciences*, 9 (1), pp. 361-373.
- 59- Zilius, M., D. Daunys, J. Petkuvienė, **M. Bartoli**, 2012. Sediment-water oxygen, ammonium and soluble reactive phosphorus fluxes in a turbid freshwater estuary (Curonian lagoon, Lithuania): evidences of benthic microalgal activity. *Journal of Limnology*, 2012; 71(2): 309-319
- 60- **Bartoli, M.**, Castaldelli, G., Nizzoli, D., Viaroli, P., 2012. Benthic primary production and bacterial denitrification in a Mediterranean eutrophic coastal lagoon. *Journal of Experimental Marine Biology and Ecology*, 438, pp. 41-51.
- 61- Laini, A., **Bartoli, M.**, Lamastra, L., Capri, E., Balderacchi, M., Trevisan, M., 2012. Herbicide contamination and dispersion pattern in lowland springs. *Science of the Total Environment*, 438, pp. 312-318.
- 62- Viaroli, P., Nizzoli, D., Pinardi, M., Rossetti, G., **Bartoli, M.**, 2013. Factors Affecting Dissolved Silica Concentrations, and DSi and DIN Stoichiometry in a Human Impacted Watershed (Po River, Italy). *Silicon*, 5 (1), pp. 101-114.
- 63- Longhi, D., **Bartoli, M.**, Nizzoli, D., Viaroli, P., 2013. Benthic processes in fresh water fluffy sediments undergoing resuspension. *Journal of Limnology*, 72 (1), pp. 1-12.
- 64- Bolpagni, R., **Bartoli, M.**, Viaroli, 2013. P. Species and functional plant diversity in a heavily impacted riverscape: Implications for threatened hydro-hygrophilous flora conservation. *Limnologica*, 43 (4), pp. 230-238.

- 65- Sacchi, E., Acutis, M., **Bartoli, M.**, Brenna, S., Delconte, C.A., Laini, A., Pennisi, M., 2013. Origin and fate of nitrates in groundwater from the central Po plain: Insights from isotopic investigations. *Applied Geochemistry*, 34, pp. 164-180.
- 66- Bresciani, M., Bolpagni, R., Laini, A., Matta, E., **Bartoli, M.**, Giardino, C., 2013. Multitemporal analysis of algal blooms with MERIS images in a deep meromictic lake. *European Journal of Remote Sensing*, 46 (1), pp. 445-458.
- 67- Castaldelli, G., Soana, E., Racchetti, E., Pierobon, E., Mastrocicco, M., Tesini, E., Fano, E.A., **Bartoli, M.**, 2013. Nitrogen budget in a lowland coastal area within the Po River Basin (Northern Italy): Multiple evidences of equilibrium between sources and internal sinks. *Environmental Management*, 52 (3), pp. 567-580.
- 68- Bonaglia, S., **Bartoli, M.**, Gunnarsson, J.S., Rahm, L., Raymond, C., Svensson, O., Yekta, S.S., Brüchert, V., 2013. Effect of reoxygenation and *Marenzelleria* spp. bioturbation on Baltic Sea sediment metabolism. *Marine Ecology Progress Series*, 482, pp. 43-55.
- 69- Soana, E., **Bartoli, M.**, 2013. Seasonal variation of radial oxygen loss in *Vallisneria spiralis* L.: An adaptive response to sediment redox? *Aquatic Botany*, 104, pp. 228-232.
- 70- Soana, E., **Bartoli, M.**, 2014. Seasonal regulation of nitrification in a rooted macrophyte (*Vallisneria spiralis* L.) meadow under eutrophic conditions. *Aquatic Ecology*, 48 (1), pp. 11-21.
- 71- Delconte, C.A., Sacchi, E., Racchetti, E., **Bartoli, M.**, Mas-Pla, J., Re, V., 2014. Nitrogen inputs to a river course in a heavily impacted watershed: A combined hydrochemical and isotopic evaluation (Oglio River Basin, N Italy). *Science of the Total Environment*, 466-467, pp. 924-938.
- 72- Guareschi, S., Laini, A., Racchetti, E., Bo, T., Fenoglio, S., **Bartoli, M.**, 2014. How do hydromorphological constraints and regulated flows govern macroinvertebrate communities along an entire lowland river? *Ecohydrology*, 7 (2), pp. 366-377.
- 73- Ruginis, T., **Bartoli, M.**, Petkuvienė, J., Zilius, M., Lubiene, I., Laini, A., Razinkovas-Baziukas, A., 2014. Benthic respiration and stoichiometry of regenerated nutrients in lake sediments with *Dreissena polymorpha*. *Aquatic Sciences*, 76(3), 405-417.
- 74- Bolpagni, R., Bresciani, M., Laini, A., Pinardi, M., Matta, E., Ampe, E.M., Giardino, C., Viaroli, P., **Bartoli, M.**, 2014. Remote sensing of phytoplankton-macrophyte coexistence in shallow hypereutrophic fluvial lakes. *Hydrobiologia*, pp. 1-10.
- 75- Bonaglia, S., Deutsch, B., **Bartoli, M.**, Marchant, H.K., Brüchert, V., 2014. Seasonal oxygen, nitrogen and phosphorus benthic cycling along an impacted Baltic Sea estuary: regulation and spatial patterns. *Biogeochemistry*, pp. 1-22.
- 76- Rota, E., **Bartoli, M.**, Laini, A., 2014. First time in Italy. Is the elusive aquatic megadrile *Sparganophilus Benham*, 1892 (Annelida, Clitellata) accelerating its dispersal in Europe?. *Journal of Limnology*, 73(3): 482-489.
- 77- Pinardi, M., Rossetto, M., Viaroli, P., **Bartoli, M.**, 2014. Daily and seasonal variability of CO<sub>2</sub> saturation and evasion in a free flowing and in a dammed river reach. *Journal of Limnology*, 73(3): 468-481.
- 78- Zilius, M., **Bartoli, M.**, Bresciani, M., Katarzyte, M., Ruginis, T., Petkuvienė, J. Lubiene, I. Giardino, C., Bukaveckas, P., De Wit, R., Razinkovas, A., 2014. Feedback Mechanisms Between Cyanobacterial Blooms, Transient Hypoxia, and Benthic Phosphorus Regeneration in Shallow Coastal Environments. *Estuaries and coasts*, 37:680-694.

- 79- Bonaglia, S., Nascimento, F.J.A, **Bartoli, M.**, Klawonn, I., Bruchert, V., 2014. Meiofauna increases bacterial denitrification in marine sediments. *Nature Communications* 5, Article number: 5133, doi:10.1038/ncomms6133
- 80- Azzoni, R., Nizzoli, D., **Bartoli, M.**, Christian, R.R., Viaroli, P., 2015. Factors Controlling Benthic Biogeochemistry in Urbanized Coastal Systems: an Example from Venice (Italy) *Estuaries and Coasts*, 38 (3), 1016-1031.
- 81- Viaroli, P., Nizzoli, D., Pinardi, M., Soana, E., **Bartoli, M.**, 2015. Eutrophication of the Mediterranean Sea: a watershed—cascading aquatic filter approach. *Rendiconti Lincei*, 26 (1), pp. 13-23. **IF 0.412, 1 Citations**
- 82- Aschonitis, V., Castaldelli, G., **Bartoli, M.**, Fano, E.A., 2015. A Review and Synthesis of Bivariate Non-Linear Models to Describe the Relative Variation of Ecological, Biological and Environmental Parameters. *Environmental Modeling & Assessment*, 20 (2), pp. 169-182.
- 83- Pinardi, M., A. Fenocchi, C. Giardino, S. Sibilla, **M. Bartoli** and M. Bresciani (2015). Assessing Potential Algal Blooms in a Shallow Fluvial Lake by Combining Hydrodynamic Modelling and Remote-Sensed Images. *Water*, 7(5), 1921-1942; doi:10.3390/w7051921
- 84- E. Soana, M. Naldi, S. Bonaglia, E. Racchetti, G. Castaldelli, V. Bruchert, P. Viaroli, **M. Bartoli**, 2015. Benthic nitrogen metabolism in a macrophyte meadow (*Vallisneria spiralis* L.) under increasing sedimentary organic matter loads. *Biogeochemistry*, 124 (1-3), pp. 387-404
- 85- Castaldelli, G., Soana, E., Racchetti, E., Vincenzi, F., Fano, E.A., **Bartoli, M.**, 2015. Vegetated canals mitigate nitrogen surplus in agricultural watersheds. *Agriculture, Ecosystems and Environment*, 212, pp. 253-262. DOI: 10.1016/j.agee.2015.07.009
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## 5.2. HANDBOOKS AND BOOK CHAPTERS

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- 2- **Bartoli M.**, Castaldelli G., Nizzoli D., Gatti L.G., Viaroli P., 2001. Benthic fluxes of oxygen, ammonium and nitrate and coupled-uncoupled denitrification rates within Communities of three different primary producer growth forms. In F.M. Faranda, L. Guglielmo, G. Spezie (eds), Mediterranean ecosystems. Structure and Processes. Chapter 29: 225-233. Springer-Verlag Italia, Milano.
- 3- Viaroli P., Azzoni R., **Bartoli M.**, Giordani G., Tajè L., 2001. Evolution of the trophic conditions and dystrophic outbreaks in the Sacca di Goro lagoon (Northern Adriatic Sea). In F.M. Faranda, L. Guglielmo, G. Spezie (eds), Mediterranean ecosystems. Structure and Processes. Chapter 59: 467-475. Springer Verlag Italia, Milano.
- 4- Viaroli, P., Giordani, G., **Bartoli, M.**, Naldi, M., Azzoni, R., Nizzoli, D., Ferrari, I., Comenges, J.M.Z., Bencivelli, S., Castaldelli, G., Fano, E.A., 2006. The Sacca di Goro lagoon and an arm of the Po River. Handbook of Environmental Chemistry, Volume 5: Water Pollution, 5 (PART H), pp. 197-232.
- 5- R.W. Fulweiler and **M. Bartoli**, 2011. Variation among Estuarine Geochemistry and Productivity. In: Treatise on Estuarine and Coastal Science, Academic Press, Waltham, 2011, Pages 87-98
- 6- **Bartoli M.**, S. Perlini, 2011. Mincio e Oglio: due esperienze parallele a confronto. In: Contratti di Fiume. Pianificazione strategica e partecipata dei bacini idrografici. Dario Flaccovio Editore, pag 238-261.
- 7- **M. Bartoli** and P. Viaroli, 2016. Lake Ecology and Chemistry. In: Surface Water Photochemistry, Royal Society of Chemistry Publishing, Chapter 2, Pages 19-35.

## 6. INVITED SEMINARS

- 2009 Mantova. "Aquatic environments within the Mincio River basin: the need of conservation actions", within the Conference "Mantova and Sabbioneta, UNESCO World Heritage Sites".
- 2010 Ferrara. "Genesis, transformations and transport of nitrogen loads in the basin of the rivers Oglio and Mincio". School of Advanced Studies "Monitoring and Sustainability of Hydro-Agro-Environmental Systems".
- 2010 Cremona. "Riparian buffer areas". LIFE DEMOS final meeting (Oglio Regional Park)

- 2010 Perugia. "Ecosystem functions in shallow aquatic environments" within the Conference "Knowledge, evaluations and proposals for the future of Trasimeno" organized by ARPA Umbria.
- 2011 Padova. "Nitrogen budgets in the watersheds of Oglio and Mincio: sources, sinks and time scales of the processes" within the conference "NITRATES DIRECTIVE: from research to land management, widespread pollution and buffer areas".
- 2012 Klaipeda University, Lithuania. "Benthic-pelagic coupling in shallow ecosystems: regulation of benthic respiration and exchange of solutes" Keynote speaker in the 6th International PhD Conference "Aquatic environmental research".
- 2014 Roma. "Sources, transformations and sinks of nitrogen in watersheds with multiple anthropogenic pressures". Invited speaker at the Conference "Gli impatti dell'inquinamento atmosferico sugli ecosistemi naturali e antropici" presso ENEA.
- 2014 Ispra. "Cross comparison of nitrogen sources, sinks and transport within river basins: the Italian Nitrogen Network initiative (INN)." Invited speaker at the International Workshop organized by JRC-IES: Managing N and P loads to water bodies: characterization and solutions towards macro-regional integrated nutrient management.
- 2015 Tsu, Japan. "Manila clam introduction in the Sacca di Goro Lagoon (Northern Italy): ecological and economic implications" Keynote speaker in the 3rd International symposium on the Asari Clam.
- 2015 Milano. "Biogeochemical studies in an hypertrophic coastal lagoon with frequent cyanobacterial blooms". Invited speaker at the final Meeting of the INFORM EU Project at CNR-Irea.
- 2015 Ravenna. "Benthic primary production, bioturbation and bacterial denitrification in Mediterranean eutrophic coastal lagoons" Invited speaker at the opening of the academic year of the Master course in Marine Biology.
- 2017 Medellin, Colombia. "New perspectives in benthic biogeochemistry studies" Invited seminar at the National University of Colombia.
- 2018 Sao Paulo, Brazil. "<sup>15</sup>N-based methods to measure microbial nitrogen transformations in estuarine sediments". Invited seminar at the Oceanographic Institute.

## **7. INTERNATIONAL AND NATIONAL PROJECTS, ELIGIBLE FOR FUNDING ON THE BASIS OF COMPETITIVE CALLS INVOLVING PEER REVIEW**

In this section, only competitive projects are presented with a sequence of Year, Project Title, Duration (Months) and Role Covered.

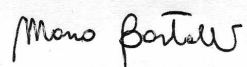
- 2011 Methane release from estuarine sediments (National Project, Lithuania), 12, Research
- 2014 COCOA, Nutrient cocktail in the Baltic Sea (Bonus EU project), 48, Research
- 2016 Squaring the cycle: the integration of groundwater processes in the nutrient budgets for a basin-oriented remediation strategy (INTEGRON)(Cariplo project), 36, Research
- 2017 Phosphorus as driver of cyanobacterial blooms (Patchy)(National Project, Lithuania), 24, PI

-2017- Inbalance, INvertebrate-BActeriaL Associations as hotspots of benthic Nitrogen Cycling in Estuarine ecosystems (EU ESF), 48, Research

- 2018 WeLab & WeMap (Cariparma Project), 24, Research

Parma, 08/02/2021

Marco Bartoli

A handwritten signature in black ink that reads "Marco Bartoli". The signature is written in a cursive style with a large initial 'M' and a stylized 'B'.