Isabella Bertani

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EDUCATION

2012   **Ph.D. Ecology –** Department of Environmental Sciences, University of Parma (Italy). Dissertation: Zooplankton dynamics in a lowland river along temporal and spatial gradients.

2008   **M.S. Environmental Science** (cum laude) – University of Parma (Italy). Thesis: New contributions to long term ecological research on Northern Apennine lakes.

2005   **B.S. Environmental Science** (cum laude) – University of Parma (Italy). Thesis: Conservation problems of marginal lowland wetlands: hydrochemical aspects.

2003-2004   **Visiting student** – Freie Universität Berlin and Technische Universität Berlin (Germany), Erasmus Program.

APPOINTMENTS

2019-present   **Assistant Research Scientist**, University of Maryland Center for Environmental Science.

2018-2019   **Research Fellow**, School for Environment and Sustainability, University of Michigan.

2014-2017   **Post-Doc**, Water Center, Graham Sustainability Institute, University of Michigan.

2012-2014   **Research Fellow**, Institute of Agroenvironmental and Forest Biology, National Research Council of Italy and Department of Life Sciences, University of Parma (Italy).

2009-2014   **Teaching assistant**
- Freshwater Ecology and Hydrobiology classes, University of Parma.
- Ecology of mountain lakes: theory and sampling methods, Inter-University Master Program in Environment and Wildlife Conservation and Management, University of Parma.

2008-2009   **Research assistant**, Department of Environmental Sciences, University of Parma (Italy).

RESEARCH EXPERIENCE

2019-present **University of Maryland/Chesapeake Bay Program Office**
- Perform statistical data analyses of water quality data across the Chesapeake Bay watershed to investigate drivers of spatial variability in contaminant loads and inform refinements to the Chesapeake Bay Program watershed model.
- Build a Bayesian hybrid watershed model that predicts streamflow and nutrient export across the Chesapeake Bay watershed.
- Revise Chesapeake Bay hypoxia forecasting model and continue releasing annual forecasts of hypoxia severity in the Chesapeake Bay.

2015-2017 **University of Michigan**
- Calibrated and operated Bayesian models to release annual forecasts of harmful algal bloom (HAB) severity in Lake Erie and hypoxia severity in the Gulf of Mexico and Chesapeake Bay.
- Collaborated to develop a protocol to transition operations of Gulf of Mexico hypoxia forecasting model to NOAA.
- Implemented ensemble modeling approach to combine results from four independent models that forecast hypoxia in the Gulf of Mexico.

2014-2016 **University of Michigan**
- Revised and calibrated an existing Bayesian hierarchical model to predict HABs in Lake Erie as a function of phosphorus loading.
- Performed statistical data analysis of long-term time series of different HAB estimates to investigate environmental drivers of HAB dynamics and compare different HAB monitoring techniques (in-situ sampling vs. remote sensing).
- Collaborated to integrate results of different models predicting lake ecosystem response to decreases in phosphorus loading to recommend phosphorus loading targets for Lake Erie to the U.S. and Canadian governments.
- Performed statistical evaluation of model performance, uncertainty quantification, and parameter sensitivity for models used to recommend phosphorus loading targets for Lake Erie to the U.S. and Canadian governments.

2012-2014 **National Research Council and University of Parma (Italy)**
- Collaborated with scientists from several European academic institutions to collect, harmonise, and analyse long-term time series of water quality and plankton community data at Long Term Ecological Research (LTER) aquatic sites throughout Europe.
- Collaborated to investigate anthropogenic and environmental drivers of long-term changes in water quality and plankton dynamics across LTER sites.
- Collaborated to the creation, harmonisation, and elaboration of a nationwide dataset on invasive species in aquatic and terrestrial ecosystems in Italy.

2009-2012 **University of Parma (Italy) – Ph.D. dissertation**
- Performed field surveys, water quality sampling, hydrochemistry lab analyses, and zooplankton identification in the lowland reach of a large river.

- Performed statistical data analysis to investigate abiotic and biotic drivers of riverine zooplankton community structure and dynamics.
- Studied plankton population dynamics during summer drought conditions to assess the role of biotic interactions (predation/competition, antipredator inducible defenses) in structuring riverine zooplankton communities.
- Performed Lagrangian sampling experiments and characterized longitudinal changes in water quality and zooplankton abundance/diversity along a 300-km river stretch.
- Studied the impacts of a hydroelectric dam on river hydrochemistry and zooplankton community structure.

2007-2009 **University of Parma (Italy) – M.S. thesis**
- Performed field surveys, water quality sampling, hydrochemistry lab analyses, and zooplankton taxonomic identification at 17 high-mountain lakes.
- Analyzed zooplankton community structure and hydrochemistry as related to lake hydrogeomorphic features and stressors, such as degree of anthropogenic alteration, local weather variability, and climate change (M.S. thesis).

2005 **University of Parma (Italy) – B.S. thesis**
- Performed field surveys, water quality sampling, hydrochemistry lab analyses, and data analysis to characterize the ecological status of eutrophic floodplain wetlands and provide restoration recommendations (B.S. thesis).

SKILLS AND EXPERTISE

Subject areas
- Aquatic ecology, hydrochemistry, water quality, plankton community structure and dynamics.
- Statistical analysis of environmental datasets to explore drivers and stressors influencing water quality and aquatic ecosystem functioning.
- Development of predictive models that quantify aquatic ecosystem responses to anthropogenic pressures to inform environmental management.

Field and Lab Experience
- Implementation of multi-year limnological monitoring/sampling campaigns (lakes, wetlands, rivers).
- Lab analysis of hydrochemical samples, use of microscope (zooplankton taxonomy, gut-content analysis, morphometric analyses).
- Field and lab training/coordination of other students.

Quantitative methods/statistical modelling
- Univariate and multivariate statistical tools (e.g., generalised linear and additive models, mixed-effects models, Bayesian hierarchical modeling, multivariate ordination techniques, time-series modeling).
- Management, harmonization, and synthesis of long-term environmental datasets.

Software

- Analytical (R, Python, Stan, WinBugs, JAGS, Fortran).
- ArcGIS.
- Microsoft Office.
- Reference management (e.g., Mendeley).

Language
- English and Italian – fluent.
- German – intermediate.
- French – basic.

PUBLICATIONS

Zhang Q., Shenk G.W., Bhatt G. & **Bertani I**. – Integrating monitoring and modeling information to develop an indicator of watershed progress toward nutrient reduction goals. *Ecological Indicators*. In review.

Linker L.C., Shenk G.W., Bhatt G., Tian R., Cerco C.F. & **Bertani I**. – Development and application of the 2020 Chesapeake Bay climate change analysis. *Journal of the American Water Resources Association*. Accepted.

Bhatt G., Linker L.C., Shenk G.W., **Bertani I.**, Tian R., Rigelman J., Hinson K. & Claggett P., 2023 – Water quality impacts of climate change, land use, and population growth in the Chesapeake Bay Watershed. *Journal of the American Water Resources Association* https://doi.org/10.1111/1752-1688.13144.

Ferrari V., Gualdi A., **Bertani I.**, Fontaneto D., Kamburska L., Karimullah K., Marrone F., Obertegger U., Rossetti G., Tiberti R. & Cancellario T., 2023 – A georeferenced dataset of Italian occurrence records of the phylum Rotifera. *Journal of Limnology* 82: 2107.

Fontaneto D., **Bertani I.**, Cancellario T., Rossetti G. & Obertegger U., 2022 – The new Checklist of the Italian Fauna: Rotifera. *Biogeographia – The Journal of Integrative Biogeography* 37(1).

Bertani I., Bhatt G., Linker L.C & Shenk G.W., 2022 – Quantifying the response of nitrogen speciation to hydrology in the Chesapeake Bay watershed using a multilevel modeling approach. *Journal of the American Water Resources Association* 58(6): 792-804.

Scavia D., **Bertani I.**, Testa J.M., Bever A.J., Blomquist J.D., Friedrichs M.A.M., Linker L.C., Michael B.D., Murphy R.R. & Shenk G.W., 2021 – Advancing Estuarine Ecological Forecasts: Seasonal Hypoxia in Chesapeake Bay. *Ecological Applications* 31(6): e02384.

Shenk G.W., Bhatt G., Tian R., Cerco C.F., **Bertani I.** & Linker L.C., 2021. Modeling Climate Change Effects on Chesapeake Water Quality Standards and Development of 2025 Planning Targets to Address Climate Change. CBPO Publication Number 328-21, Annapolis, MD (https://cast.chesapeakebay.net/Documentation/ModelDocumentation).

Manning N.F., Wang Y.C., Long C.M., **Bertani I.**, Sayers M.J., Bosse K.R., Shuchman R.A. & Scavia D., 2019 – Extending the Forecast Model: Predicting Harmful Algal Blooms at Multiple Spatial Scales. *Journal of Great Lakes Research* 45(3): 587-595.

Morabito G., Accoroni G., Belmonte G., Bergami C., **Bertani I**. *et al*., 2018 – Long-term

plankton dynamics across the freshwater, transitional and marine research sites of the LTER-Italy Network. Patterns, fluctuations, drivers. *Science of the Total Environment* 627: 373-387.

Rogora M., Frate L., Carranza M.L., Freppaz M., Matteucci G., Stanisci A., **Bertani I**. *et al.*, 2018 – Assessment of climate change effects on mountain ecosystems through a cross-site analysis in the Alps and Apennines. *Science of the Total Environment* 624: 1429-1442.

Colangelo P., Fontaneto D., Marchetto A., Ludovisi A., Basset A., Bartolozzi L., **Bertani I**., Campanaro A., Cattaneo A., Cianferoni F., Corriero G., Ficetola G.F., Pierri C., Rossetti G. & Boggero A., 2017 – Alien species in Italian freshwater ecosystems: a macroecological assessment of invasion drivers. *Aquatic Invasions* 12: 299-309.

Scavia D., **Bertani I.**, Obenour D.R., Turner R.E, Forrest D.R. & Katin A., 2017 – Ensemble modeling informs hypoxia management in the northern Gulf of Mexico. *PNAS* 114(33): 8823-8828.

Scavia D., Kalcic M., Muenich R.L., Read J., Aloysius N., **Bertani I.**, Boles C., Confesor R., DePinto J., Gildow M., Martin J., Redder T., Robertson D., Sowa S., Wang Y. & Yen H., 2017 - Multiple models guide strategies for agricultural nutrient reductions. *Frontiers in Ecology and the Environment* 15(3): 126-132.

Bertani I., Steger C.E., Obenour D.R., Bridgeman T.B., Johengen T., Sayers M.J., Shuchman R.A., Fahnenstiel G.L. & Scavia D., 2017 – Tracking cyanobacteria blooms: do different monitoring approaches tell the same story? *Science of the Total Environment* 575: 294-308.

Hampton S.E., Galloway A.W.E., Powers S.M., Ozersky T., Woo K.H., Batt R.D., Labou S.G., O'Reilly C.M., Sharma S., Lottig N.R., Stanley E.H., North R.L., Stockwell J.D., Adrian R., Weyhenmeyer G.A., Arvola L., Baulch H.M., **Bertani I**. *et al.*, 2017 - Ecology under lake ice. *Ecology Letters* 20(1): 98-111.

Scavia D., DePinto J. & **Bertani I.**, 2016 - A multi-model approach to evaluating target phosphorus loads for Lake Erie. *Journal of Great Lakes Research* 42(6): 1139-1150.

Bertani I., Obenour D.R., Steger C.E., Stow C.A., Gronewold A.D. & Scavia D., 2016 - Probabilistically assessing the role of nutrient loading in harmful algal bloom formation in western Lake Erie. *Journal of Great Lakes Research* 42(6): 1184-1192.

Scavia D., DePinto J.V., Auer M., **Bertani I.**, Bocaniov S., Chapra S., Leon L., McCrimmon C., Obenour D., Peterson G., Rucinski D., Schlea D., Steger C., Stumpf R., Yerubandi R., Zhang H.,2016 – Great Lakes Water Quality Agreement Nutrient Annex Objectives and Targets Task Team Ensemble Multi-Modeling Report. Great Lakes National Program Office, USEPA, Chicago (https://www.epa.gov/sites/production/files/2016-09/documents/nutrientannex4multimodelingreportfinal31aug2016.pdf).

Bertani I., Del Longo M., Pecora S. & Rossetti G., 2016 - Longitudinal variability in hydrochemistry and zooplankton community of a large river: a Lagrangian-based approach. *River Research and Applications* 32: 1740-1754.

Bertani I., Primicerio R. & Rossetti G., 2016 - Extreme climatic event triggers a lake regime shift that propagates across multiple trophic levels. *Ecosystems* 19: 16-31.

Boggero A., Pierri C., Alber R., Austoni M., Barbone E., Bartolozzi L., **Bertani I.**, Campanaro A., Cattaneo A., Cianferoni F., Colangelo P., Corriero G., Dörr A.M., Elia A.C., Ficetola G.F., Fontaneto D., Gaino E., Goretti E., Kamburska L., La Porta G.,Lauceri R., Lorenzoni M.,Ludovisi A., Manca M., Morabito G., Nonnis Marzano F., Oggioni A., Riccardi N., Rossetti G., Tagliolato P., Thaler B., Ungaro N., Volta P., Zaupa S., Rosati I., Fiore N., Basset A. &Marchetto A., 2016 –A geographic distribution data set of biodiversity in Italian freshwaters. *Biogeographia – The Journal of Integrative Biogeography* 31: 55-72.

Boggero A., Basset A., Austoni M., Barbone E., Bartolozzi L., **Bertani I.**, Cattaneo A., Cianferoni F., Corriero G., Dörr A.M., Elia A.C., Ficetola G.F., Kamburska L., La Porta G.,Lauceri S., Ludovisi A., Gaino E., Goretti E., Lorenzoni M., Manca M., Marchetto A., Morabito G., Nonnis Marzano F., Oggioni A., Pierri C., Riccardi N., Rossetti G., Ungaro N., Volta P., Zaupa S. &Fontaneto D., 2014 - Weak effects of habitat type on susceptibility to invasive freshwater species: an Italian case study. *Aquatic Conservation: Marine and Freshwater Ecosystems* 24 (6): 841-852.

Bertani I., Leonardi S. & Rossetti G., 2013 - Anti-predator induced trait changes in *Brachionus* and prey selectivity by *Asplanchna* in a large river under low-discharge conditions: evidence from a field study. *Hydrobiologia* 702: 227-239.

Bertani I., Ferrari I. & Rossetti G., 2012 - Role of intra-community biotic interactions in structuring riverine zooplankton under low-flow, summer conditions. *Journal of Plankton Research* 30(4): 308-320.

Bertani I., Segers H. & Rossetti G., 2011 - Biodiversity down by the flow: new records of monogonont rotifers for Italy found in the Po River. *Journal of Limnology* 70(2): 321-328.

Bertani I., Segers H. & Rossetti G., 2009 - Monogonont rotifers (Rotifera: Monogononta) from Northern Apennine lakes: new and rare taxa for Italy. Atti XVIII Convegno Gadio. *Studi Trentini di Scienze Naturali, Acta Biologica* 86: 71-74.

Rossetti G., **Bertani I.**, Laini A., Mazzini M., Bottazzi E. & Ferrari I., 2008 - Hydriobiological and ecological research in aquatic environments of the Northern Apennines (book chapter in Italian), in: L'acqua che sarà. Costruzione del Piano di Tutela delle Acque. Quaderni di Tecniche di Protezione Ambientale, Provincia di Parma, Assessorato Ambiente e Tutela del Territorio, Pitagora Editrice Bologna, 139-150.

CONFERENCE POSTERS AND PRESENTATIONS

Bertani I., Bhatt G., Shenk G., Linker L. – Towards the development of a parsimonious Bayesian model to explore drivers of spatial variability in nutrient loads in the Chesapeake Bay watershed. Talk. Chesapeake Community Research Symposium, Annapolis, MD, Jun 6-8, 2022.

Bhatt G., Shenk G., Linker L., Tian R., **Bertani I**. – Chesapeake Bay Watershed Model for Supporting Management Decisions. Talk. American Geophysical Union (AGU) Fall Meeting, virtual, Dec 13-17, 2021.

Bertani I., Bhatt G., Shenk G., Linker L. – Exploring factors affecting discrepancies between model-predicted and monitored long-term trends in watershed nutrient loads. Talk. Coastal and

Estuarine Research Federation (CERF) 26th Biennial Conference, Richmond, VA, Nov 1-11, 2021.

Shenk G., Linker L., Bhatt G., Tian R., **Bertani I**. – Incorporating climate change in the Chesapeake Bay TMDL. Talk. Coastal and Estuarine Research Federation (CERF) 26th Biennial Conference, Richmond, VA, Nov 1-11, 2021.

Bertani I., Scavia D., Bever A., Blomquist J., Friedrichs M., Linker L., Michael B., Murphy R., Shenk G., Testa J. – Leveraging multiple data sources to update the calibration of a Bayesian model that forecasts seasonal hypoxia in the Chesapeake Bay. Talk. Chesapeake Community Research Symposium, Annapolis, MD, Jun 8-10, 2020.

Bertani I., Bhatt G., Shenk G., Linker L., Kaufman D., Tian R. & Wu C. – Drivers of spatial and temporal variability in nitrogen speciation in the Chesapeake Bay watershed. Talk. Coastal and Estuarine Research Federation (CERF) 25th Biennial Conference, Mobile, AL, Nov 3-7, 2019.

Bhatt G., Linker L., Rigelman J., Kaufman D., **Bertani I.**, Claggett P., Shenk G., Hinson K. – Water quality impacts of land use and climate change in Chesapeake Bay TMDL Mid-Point Assessment. Talk. Coastal and Estuarine Research Federation (CERF) 25th Biennial Conference, Mobile, AL, Nov 3-7, 2019.

Tian R., Linker L., Shenk G., Bhatt G., Kaufman K., **Bertani I.**, Wu C. – Assessment of Chesapeake Bay water quality under future climate conditions. Talk. Coastal and Estuarine Research Federation (CERF) 25th Biennial Conference, Mobile, AL, Nov 3-7, 2019.

Colangelo P., Fontaneto D., Marchetto A., Ludovisi A., Basset A., Bartolozzi L., **Bertani I.**, Campanaro A., Cattaneo A., Cianferoni F., Corriero G., Ficetola G.F., Pierri C., Rossetti G. & Boggero A. – Non-native species in Italian freshwater habitats: a macroecological assessment of invasion drivers. 33rd Congress of the International Society of Limnology, Torino (Italy) Jul 31 – Aug 5, 2016.

Bertani I., Steger C.E., Obenour D.R., Bridgeman T.B., Johengen T.H., Sayers M.J., Shuchman R.A., Fahnenstiel G.L. & Scavia D. – Quantitative synthesis of different long-term CHAB monitoring products in western Lake Erie. Invited Talk. HABs Collaboratory State of the Science Webinar Series - HABS Data and Modelling, virtual, Jun 2, 2016.

Scavia D., DePinto J., Auer M., **Bertani I.**, Bocaniov S., Chapra S., Leon L., McCrimmon C., Obenour D., Rucinski D., Steger C., Stumpf R., Yerubandi R. & Zhang H. – A multi-model approach to guiding bi-national nutrient loading targets for Lake Erie. Talk. The International Society for Ecological Modelling Global Conference, Baltimore, MD, May 8-12, 2016.

Bertani I., Steger C.E., Obenour D.R., Bridgeman T.B., Johengen T.H., Sayers M.J., Shuchman R.A., Fahnenstiel G.L. & Scavia D. – Cyanobacteria bloom dynamics in Lake Erie in relation to environmental drivers: do different monitoring approaches tell the same story? Talk. 58th Annual Conference on Great Lakes Research (IAGLR), Burlington, VT, May 25-29, 2015.

Obenour R.D., Gronewold A.D., Stow C.A., **Bertani I.**, Steger C.E., Ruberg S.A. & Scavia D. – Probabilistic forecasting of harmful algal blooms in Western Lake Erie. Poster. American Geophysical Unit (AGU) Fall Meeting, San Francisco, CA, Dec 15-19, 2014.

Bertani I. – Long term research in European lakes. Invited talk. Water Center, Graham Sustainability Institute, University of Michigan, Ann Arbor, MI, Nov 19, 2014.

Bertani I. - Regime shift triggered by an extreme climatic event in an oligotrophic mountain lake. Invited Talk. Institute of Ecosystem Study, National Research Council of Italy, Verbania Pallanza (Italy), May 13, 2014.

Oggioni A., **Bertani I.**, Tortora C., Adamescu M., Campanaro A., Colangelo P., Coci M., Aubry F.B., Bastianini M., Bertoni R., Bravo M.A., Cabrini M., Camatti E., Cataletto B., Cazacu C., Cindolo C., Diaz-Delgado R., Focaccia P., Georgieva I., Grandin U., Hiebaum G., Karamfilov V., Lipizer M., Lugliè A., Margiotta F., Morabito G., Padedda M.B., Palffy K., Palomaki A., Pettersson K., Pugnetti A., Ravaioli M., Riminucci F., Rogora M., Rönnback P., Rossetti G., Tolonen K., Vörös L., Yang Y. & Zingone A. - Analysis of phenological trends based on the aquatic environments of the European Long Term Ecosystem Network (LTER). Talk. XXI Conference of the Italian Association of Limnology and Oceanography (A.I.O.L.), Lignano Sabbiadoro (Italy), Sep 23-26, 2013.

Boggero A., Basset A., Austoni M., Barbone E., Bartolozzi L., **Bertani I.**, Cattaneo A., Cianferoni F., Corriero G., Dörr A.M., Elia A.C., Ficetola G.F., Kamburska L., La Porta G.,Lauceri S., Ludovisi A., Gaino E., Goretti E., Lorenzoni M., Manca M., Marchetto A., Morabito G., Nonnis Marzano F., Oggioni A., Pierri C., Riccardi N., Rossetti G., Ungaro N., Volta P., Zaupa S. &Fontaneto D. - Fragility of LTER freshwater habitats to alien species. Talk. XXI Conference of the Italian Association of Limnology and Oceanography (A.I.O.L.), Lignano Sabbiadoro (Italy), Sep 23-26, 2013.

Boggero A., Basset A., Austoni M., Barbone E., Bartolozzi L., **Bertani I.**, Cattaneo A., Cianferoni F., Corriero G., Dörr A.M., Elia A.C., Ficetola G.F., Kamburska L., La Porta G.,Lauceri S., Ludovisi A., Gaino E., Goretti E., Lorenzoni M., Manca M., Marchetto A., Morabito G., Nonnis Marzano F., Oggioni A., Pierri C., Riccardi N., Rossetti G., Ungaro N., Volta P., Zaupa S. &Fontaneto D. - Fragility of LTER freshwater habitats to alien species: testing the ecological correlates of alien occurrence across several taxonomic groups. Talk. ALTER-Net Conference: Science Underpinning the EU 2020 Biodiversity Strategy, Ghent (Belgium), Apr 15-18, 2013.

Oggioni A., Campanaro A., Pugnetti A., Aubry F.B., Bastianini M., **Bertani I.**, Cabrini M., Camatti E., Cataletto B., Coci M., Georgieva I., Hiebaum G., Karamfilov V., Palffy K., Lipizer M., Lugliè A., Margiotta F., Morabito G., Padedda M.B., Palomaki A., Rogora M., Rossetti G., Tolonen K., Tortora C. & Zingone A. - Phenological responses to climate change (Pheno). Talk. EnvEurope & Expeer & LTER-Europe Joint Conference, Sofia (Bulgaria), Dec 3-7, 2012.

Oggioni A., Campanaro A., Pugnetti A., Aubry F.B., Bastianini M., **Bertani I.**, Cabrini M., Camatti E., Cataletto B., Coci M., Georgieva I., Hiebaum G., Karamfilov V., Palffy K., Lipizer M., Lugliè A., Margiotta F., Morabito G., Padedda M.B., Palomaki A., Rogora M., Rossetti G., Tolonen K., Tortora C. & Zingone A. - Phenological variations in response to climate change (Pheno). Poster. EnvEurope Life08ENV/IT/000399 Project Technical Meeting, Sinaia (Romania), Sep 25-28, 2012.

Bertani I., Del Longo M., Pecora S. & Rossetti G. - Longitudinal dynamics of river zooplankton during downstream transport: a Lagrangian sampling approach. Poster. XII World Water Day –

The Po River Watershed. Accademia Nazionale dei Lincei, Rome (Italy), Mar 22, 2012.

Bertani I., Del Longo M., Agnetti A., Pecora S. & Rossetti G. - Large-scale longitudinal survey on the zooplankton of a large lowland river (Po River, Italy) by means of a Lagrangian sampling approach. Talk. 2nd Biennial Symposium of the International Society for River Science, Berlin (Germany), Aug 8-12, 2011.

Bertani I., Zatti M., Pierobon E., Rossetti G. & Viaroli P. - Effects of an artificial impoundment on the zooplankton assemblage of a lowland river (Po River, Northern Italy). Poster. 2nd Biennial Symposium of the International Society for River Science, Berlin (Germany), Aug 8-12, 2011.

Bertani I., Ferrari I. & Rossetti G. - Turbulent relationships: do biotic interactions within the zooplankton influence community structure in rivers? Talk. VIII Meeting of PhD students in Ecology, Siena (Italy), May 11-13, 2011.

Bertani I., Anzalone M.T., Rossetti G. & Ferrari I. - Life in the fast lane: what is regulating the zooplankton community in the Po River (Northern Italy)? Talk. Joint Meeting with ASLO and NABS, Santa Fe, NM, Jun 6-11, 2010.

Bertani I., Anzalone M.T., Pierobon E. & Rossetti G. - Life in the fast lane: what is regulating the zooplankton community in a large river? Talk. Meeting of PhD Students and Post-Docs in Aquatic System Analysis and Ecology, Ancona (Italy), Feb 24-26, 2010.

Rossetti G., **Bertani I.**, Bonaglia S., Ferrari I., Monica C., Nigro V., Pistorio A. M. & Viaroli P. - Recent trends in a high mountain lake involved in a long-term ecological research program. Talk. XIX Conference of the Italian Association of Limnology and Oceanography (A.I.O.L.), Venice (Italy), Sep 22-25, 2009.

Bertani I., Ferrari I. & Rossetti G. - The zooplankton of the middle reach of the Po River: a summary of existing studies and results from new sampling campaigns. Talk. XIX Conference of the Italian Society of Ecology (S.It.E.), Bolzano (Italy), Sep 15-18, 2009.

Bonaglia S., **Bertani I**. & Rossetti G. - Population dynamics of *Daphnia longispina* (Cladocera: Crustacea) in two Northern Apennine lakes: long-term trends. Talk. XIX Conference of the Italian Society of Ecology (S.It.E.), Bolzano (Italy), Sep 15-18, 2009.

Rossetti G., **Bertani I.**, Ferrari I. & Viaroli P. - Assessing the recovery from changes induced by the development of a charophyte in a mountain lake. Talk. XIX Conference of the Italian Society of Ecology (S.It.E.), Bolzano (Italy), Sep 15-18, 2009.

Bertani I., Segers H. & Rossetti G. - Monogonont rotifers (Rotifera: Monogononta) from Northern Apennine lakes: new and rare taxa for Italy. Poster. ROTIFERA XII – XII International Symposium on Rotifers, Berlin (Germany), Aug 16-21, 2009.

Rossetti G., **Bertani I.**& Ferrari I. - Short-term changes in the zooplankton community of the Po River (Northern Italy) during summer 2005. Poster. SEFS 6 – The 6th Symposium for European Freshwater Sciences, Sinaia (Romania), Aug 17-21, 2009.

Bertani I., Rossetti G. & Segers H. - Zooplankton dynamics in a lowland river along temporal and spatial gradients: a multi-dimensional approach. Talk and poster. Meeting of PhD students in Ecology, Parma (Italy), Feb 23-25, 2009.

Rossetti G., **Bertani I.**, Ferrari I. & Viaroli P. - Switch from pelagic to benthic control of trophic interactions in a mountain lake: alternative states driven by the establishment of a charophyte. Talk. XVIII "G. Gadio", Basic Ecology Group, Alessandria (Italy), May 9-11, 2008.

Bertani I., Segers H. & Rossetti G. - Monogonont rotifers (Rotifera: Monogononta) from Northern Apennine lakes: new and rare taxa for Italy. Talk and poster. XVIII "G. Gadio", Basic Ecology Group, Alessandria (Italy), May 9-11, 2008.

TRAINING COURSES/WORKSHOPS

March 2023	**Using local monitoring results to inform the Chesapeake Bay Program's watershed model.** Two-day workshop organized by the Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC), Fairfax, Virginia. Attendee.
May 2022	**HydroML Symposium**. Three-day workshop on machine learning in hydrology, Penn State University, Pennsylvania. Attendee.
Nov 2021	**Using R to manipulate and visualize environmental data.** Two-day online workshop at the 26th Biennial Conference of the Coastal and Estuarine Research Federation. Instructor.
Jan 2020	**Linking soil and watershed health to in-field and edge-of-field water management.** Two-day workshop organized by the Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC), Morgantown, West Virginia. Attendee.
March 2019	**Assessing the environment in outcome units (AEIOU): using eutrophying units for management.** Two-day workshop organized by the Chesapeake Bay Program Scientific and Technical Advisory Committee (STAC), Annapolis, Maryland. Attendee.
Aug 2015	**Bayesian Modeling for Socio-Environmental Data**. Ten-day summer school at the National Socio-Environmental Synthesis Center (SESYNC), Annapolis, Maryland. Attendee.
Apr 2015	**Collecting global expertise to address the problem of Harmful Algal Blooms**. Two-day workshop, Bowling Green State University, Ohio. Attendee.
Jun-Jul 2013	**Summer Institute in Ecological Analysis and Synthesis.** Three-week summer school at the National Center for Ecological Analysis and Synthesis (NCEAS), Santa Barbara, California. Attendee.
Apr 2013	**Phenology and Eutrophication trends in European LTER sites.** Two-day workshop, National Research Council, Institute for Electromagnetic Sensing for the Environment, Milan (Italy). Co-lead.
Mar 2013	**Statistical Modelling with R**. Two-day workshop, Department of Life Sciences, University of Parma (Italy). Attendee.
Nov 2012	**Phenological responses to climate change.** Two-day workshop, Charles Darwin

Biology and Biotechnology Department, Sapienza University, Rome (Italy). Co-lead.

Oct 2012	**Meta-Analysis of Biological/Ecological Data**. Three-day course, Interdepartmental Research Centre for Environmental Sciences, University of Bologna (Italy). Attendee.
Jan 2012	**River Retreat - Evolution and River Science**. Three-day workshop, Duke University, Durham, North Carolina. Attendee.
Jun 2010	**Systematic evaluation of ecological literature to support causal inference: international tools and methods**. One-day workshop at the Joint Meeting with ASLO and NABS, Santa Fe, New Mexico. Attendee.
May 2010	**Full immersion in Aquatic Ecology**. Two-day workshop, Institute of Ecosystem Study, Italian National Research Council, Verbania Pallanza (Italy). Attendee.
Aug 2009	**Workshop on Applied Taxonomy**. One-day workshop at the XII International Symposium on Rotifers, Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), Berlin (Germany). Attendee.
Feb 2009	**Multivariate Data Analysis for Ecologists**. Three-day course, University of Parma (Italy). Attendee.
2011-2013	**Arabic language course**, Islamic Cultural Center, Parma (Italy). Attendee.
2003 -2004	**German language course**, Freie Universität Berlin (Germany). Attendee.

PEER REVIEWING

Limnology & Oceanography, Ecological Applications, Ecosystems, Ecosphere, Science of the Total Environment, Estuaries and Coasts, Water Research, Plos ONE, Journal of Plankton Research, Hydrobiologia, Journal of Hydrology, Inland Waters, Journal of Limnology, Journal of Water Resource and Protection, Italian Journal of Zoology.