

*Short Curriculum Vitae Roberta Bettinetti*

Current position Associate Professor BIO 07 Ecology (2015) (Comparative Assessment, 21.11.2014, 05/C1). Duties: Research and Lectures (4 courses in environmental field within the master degree of Environmental Sciences and one course in Humanities Science) Qualification to Full Professor BIO07 (8/10/2018 art. 16 paragraph 1, Law 240/10); positive votes 5/5.

Until 31 October 2021 Vice Director of Department of Human and Innovation for the Territory;

Director of the Specialization School of REACH, Registration, Evaluation, Authorization and Restriction of Chemicals, third level of instruction at the University of Insubria.

Research interests Ecology applied to the study of environmental contamination (both legacy and emergent contaminants) with special reference to aquatic environments (both freshwater and marine); study of the trophic relationships between different organisms of aquatic ecosystems; studies on biodiversity management setting up methodologies to ensure the effectiveness of conservation activities and ecological sustainability; particular interest in comparison of different environmental realities (at a national and international levels) using a risk assessment approach (mainly through the use of ecotoxicity tests). Particular interest for remote areas (high mountain lakes, saline lakes in Africa) and effects of climatic changes on biota. The research group is composed by young fellows, starting from several master thesis and three PhD students up to a post-doc. Each researcher in the group is mainly specialized in different aspects of the ecotoxicology field, some more on freshwater studies, while others on marine one. Moreover, former PhD students are still collaborating with the team, therefore multiple research are still carried out with this precious experience.

**Publications of the last three years****2021**

- Bellasi A, Binda G., Pozzi A., Boldrocchi G. **Bettinetti R.** The extraction of microplastics from sediments: An overview of existing methods and the proposal of a new and green alternative. *Chemosphere* 278: 130357.
- Valsecchi S., Babut M., Mazzoni M. Pascariello S., Ferrario C., De Felice B., **Bettinetti R.**, Veyrand B., Marchand P., Polesello S. Perfluoroalkyl Substances (PFASs) in Fish from European Lakes: Current Contamination Status, Sources, and Perspectives for Monitoring. *Environ. Toxicol. Chem.* 1–19.
- Boldrocchi, G., Monticelli D, Mazzoni, M., Spanu, D., **Bettinetti, R.** Accumulation of Selected Trace Elements in Shads from Three Lakes: First Insights from Italian Pre-Alpine Area. *Biological Trace Elements Research*, <https://doi.org/10.1007/s12011-021-02577-6>
- Binda G., Bellasi A., Spanu D., Pozzi A., Cavallo D., **Bettinetti R.** Evaluating the Environmental Impacts of Personal Protective Equipment Use by the General Population during the COVID-19 Pandemic: A Case Study of Lombardy (Northern Italy). *Environments*, 8, 33
- Castelnuovo N., Iotti P., Scanziani P., Bellasi A., Boldrocchi G., **Bettinetti R.** Biomonitoring of Littoral Areas of Water Bodies using a Technological Device: A Remote Operated Vehicle (ROV). *Nov Res Sci.* 8(1). NRS. 000677.2021. DOI: 10.31031/NRS.2021.08.000677
- Boldrocchi, G., Spanu, D., Mazzoni, M., Omar, M., Baneschi, I., Boschi, C., Zinzula, L., **Bettinetti, R.**, Monticelli, D. Bioaccumulation and biomagnification in elasmobranchs: A concurrent assessment of trophic transfer of trace elements in 12 species from the Indian Ocean. *Marine Pollution Bulletin* 172, art. no. 112853
- Galafassi, S., Sighicelli, M., Pusceddu, A., **Bettinetti, R.**, Cau, A., Temperini, M.E., Gillibert, R., Ortolani, M., Pietrelli, L., Zaupa, S., Volta, P. Microplastic pollution in perch (*Perca fluviatilis*, Linnaeus 1758) from Italian south-alpine lakes. *Environmental Pollution* art. no. 117782 DOI: 10.1016/j.envpol.2021.117782
- Binda, G., Spanu, D., Monticelli, D., Pozzi, A., Bellasi, A., **Bettinetti, R.**, Carnati, S., Nizzetto, L. Unfolding the interaction between microplastics and (trace) elements in water: A critical review. *Water Research* 204,117637 DOI: 10.1016/j.watres.2021.117637

Gibertini, E., Liberale, F., Dossi, C., Binda, G., Mattioli, B., **Bettinetti, R.**, Maspero, A., Fiore, M., Ruffo, R., Magagnin, L. Algae-derived hard carbon anodes for Na-ion batteries. *Journal of Applied Electrochemistry* 51 (12), 1665-1673. DOI: 10.1007/s10800-021-01609-2

Piscia, R., Colombini, M., Ponti, B., **Bettinetti, R.**, Monticelli, D., Rossi, V., Manca, M. Lifetime Response of Contemporary Versus Resurrected *Daphnia galeata* Sars (Crustacea, Cladocera) to Cu(II) Chronic Exposure. *Bulletin of Environmental Contamination and Toxicology* 94(1), 46-51. DOI: 10.1007/s00128-014-1413-4

## 2020

Boldrocchi G., **Bettinetti R.** Whale shark conservation hindered by lack of habitat protection. *International Journal of Environmental Sciences & Natural Resources (IJESNR)* 26 (1): 1-3

Spanu D., Butti L, Boldrocchi G., **Bettinetti R.**, Monticelli D. 2020. High-throughput, multi-batch system for the efficient microwave digestion of biological samples. *Analytical Sci.* 36(7): 889-892

Boldrocchi G., Omar Y. M., Azzola A., **Bettinetti R.** The ecology of the whale shark in Djibouti. *Aquat. Ecol.* 54: 535–551

Vignati D., **Bettinetti R.**, Boggero A. Valsecchi S. 2020. Testing the Use of Standardized Laboratory Tests to Infer Hg Bioaccumulation in Indigenous Benthic Organisms of Lake Maggiore (NW Italy). *Appl. Sci.*, 10(6): 1970

Boldrocchi G., Monticelli D., Butti L., Omar M., **Bettinetti R.** 2020. First concurrent assessment of elemental- and organic-contaminant loads in skin biopsies of whale sharks from Djibouti. *Sci. Tot. Environ.* 722 (20): 137841

Bellasi A., Binda G., Pozzi A., Galafassi S., Volta P., **Bettinetti R.** 2020. Microplastic Contamination in Freshwater Environments: A Review, Focusing on Interactions with Sediments and Benthic Organisms. *Environments* 7, 30: 1-27

**Bettinetti R.**, Zaupa S., Fontaneto D., Boggero A. 2020. Biological, chemical and ecotoxicological assessments may not provide consistent estimates of the ecological status of the benthic environment. *Water*, 12(4):1140-1151.

Boggero A., Zaupa S., **Bettinetti R.**, Ciampittiello M., Fontaneto D. The Benthic Quality Index to assess water quality of lakes may be affected by confounding environmental features. *Water*

Mazzoni M., Ferrario C., **Bettinetti R.**, Piscia R., Cicala D. Volta P. Borga K, Valsecchi S. , Polesello, S. Trophic magnification of legacy (PCN, DDT and Hg) and emerging pollutants (PFAS) in the fish community of a small protected southern alpine lake (Lake Megozzo, Northern Italy) *Water*, 12 (6) 1591

Binda G., Spanu D., **Bettinetti R.**, Magagnin L., Pozzi A., Dossi C. Comprehensive comparison of microalgae-derived biochar from different feedstocks: a perspective study for future environmental applications. *Algal Res.* Accepted

## 2019

Piscia R., Mazzoni M., **Bettinetti R.**, Caroni R., Cicala D., Manca M.M. 2019. Stable isotope analysis and persistent organic pollutants in crustacean zooplankton: The role of size and seasonality. *Water (Switzerland)* 11 (7).

Mazzoni M., Buffo A., Cappelli F., Pascariello S., Polesello S., Valsecchi S., Volta P., **Bettinetti R.** Perfluoroalkyl acids in fish of Italian deep lakes: Environmental and human risk assessment. *STOTEN* (653): 351-358.

Quadroni S. **Bettinetti R.** An unnoticed issue: Organochlorine pesticides in tobacco products around the world. *Chemosphere*, 219, pp. 54-57.

Boldrocchi G., Monticelli D., Omar Y. M., **Bettinetti R.** Trace metals and POPs in two commercial shark species ,637-648.

Boldrocchi G., **Bettinetti R.** Whale shark foraging on baitfish off Djibouti. *Marine Biodiversity*, 49(4): 2013-2016.

Pascariello S., Mazzoni M., **Bettinetti R.**, Manca M., Patelli M., Piscia R., Valsecchi S., Polesello S. Organic contaminants in zooplankton of Italian subalpine lakes: Patterns of distribution and seasonal variations. *Water (Switzerland)*,11 (9): 1901-1914.