Dr. Marco Cantonati (marco.cantonati@muse.it)
Academic teaching & Theses

Teaching in international courses (Visiting Professorships, practical courses, summer schools, workshops) (12), PhD theses (Supervisor 6, Opponent 5, Reviewer 5, Substantial contribution to 5), Post-Docs mentoring (1), Visiting Ph.D. students (4+2), Volunteer Research Assistant (4), M.Sc. Theses (15), Bachelors (9).

University Teaching Habilitation

The Central European evaluates excellence both in scientific production and in University teaching. **2011**: ***Habilitation* (*venia docendi*) in Limnology (Phycology)** at the **University of Innsbruck** (Austria). Awarded on the basis of 6 international reviews (4 on the **scientific production** and 2 on the **University teaching skills**) as well as of the public test lecture (*Erteilung der Lehrbefugnis vom Rektorat der Leopold-Franzens-Universität Innsbruck mit Bescheid GZ 146462/32-11gemäß § 103 Abs. 1 UG 2002 mit 21. 06. 2011*).

Courses at the University of Innsbruck, Austria (Contract Professor/*Lehrbeauftragter* Botany Institute) (4):

4. ● WS 2013/2014 **LV 717038 Phytobenthos**. Part of the *Wahlmodul: Spezielle Hydrobotanik* directed by Prof. Eugen Rott. Botany Institute, VU 1.
3. ● WS 2011/2012 **LV 717040 Student Project – Algae sampling in streams according to European standards / *Hydrobotanische Projektstudie*** Botany Institute, Practical Project: PJ 1 [part of a student Project, jointly directed with Prof. Eugen Rott]
2. ● WS 2009/2010 **LV 717035 Algal ecology / *Spezielle Hydrobotanik*** Botany Institute, Vorlesung 1 [Vorlesung im Rahmen einer Modul-Lehrveranstaltung von Prof. Eugen Rott]
1. ● SS 2009. **LV 717007 Introduction to aquatic photoautotrophs / *Grundlagen der Hydrobotanik*** (both theoretical and practical **/** „VO1, UE1". Botany Institute, Block [together with Prof. Eugen Rott]

Courses at the University of Trento, Italy (Adjunct Professor B.Sc. Program in Biotechnology) (2):

1. ● SS 2014 **Biology of Photoautotrophic Organisms (145379).** The main objective of the course was to provide a broad and effective introduction to the biodiversity, functional morphology, and physiology of photoautotrophic organisms from both pure and applied standpoints. Assigned on the basis of open competitive selection. Received high scores in student evaluation.
2. ● 2014 **Natural Sciences for High-School Teachers.** From the course contents: Structure, ecological role, diversity of Prokaryotes and Eukaryotes analyzed considering Chloro- and Cyanoprokaryotes and the main groups of photosynthetic protists. Photoautotrophic-organisms' evolution, phylogenesis, and systematics. The environment as a complex system. The organisms and the environment. Ecosystems and their dynamics. Pollution. Environmental-quality indicators. Water as a resource. Epicontinental waters.

Multi-lingual teaching & text books

I have performed University teaching activities in **English**, **German**, and **Italian**, and possess a detailed knowledge of scientific terminology in these three languages. I was co-Editor of the Italian Edition of a **well-known ecology textbook**, the majority of the chapters of which were translated into Italian by myself, and I wrote chapters in books (available in English and Italian) on mountain streams, high-mountain lakes, and pools, ponds & marshes (see Publ. list).

Teaching philosophy

It is important that students perceive that aquatic sciences must be **transdisciplinary** and **participatory**, and must **view nature** in a **multidimensional framework**, because our environmental problems will not be solved unless they are also

viewed as **economic**, **social**, and **political problems**: this will be essential if we hope to improve and preserve our water resources [Steinman, A.D., P. Silver, S. Fisher, & Meyer J. L. 2010. The J-NABS 25th anniversary issue: reflecting on the past, synthesizing the present, and projecting into the future. *J-NABS* **29**: 371-380].

I think it is important to communicate to those who are intentioned to build up a scientific career the **central role of enthusiasm** in scientific research, because I believe that the work of those who decide to devote themselves to research must be driven primarily by the passion for understanding organisms and natural systems and their functioning.

In dissertations and theses at all levels, **independent, project-oriented work** is if paramount importance. I think that even short Bachelor theses should be limited in the extension of the topic tackled but not in their structure that must be goal oriented and that typical of a scientific work: introduction-state of the art, goal, methods, results, discussion, conclusions.

Because of my specific research interests, I am especially inclined to fostering the discovery and description of the many constituents of the biota of freshwater systems, their ecophysiological characterization, and field studies for the identification and unveiling of interesting patterns that might indicate an interesting natural phenomenon or an environmental problem with observational, empirical, and large-scale studies. However, I am well aware that optimisation of achievements in natural sciences occurs when **observational, functional**, and **theoretical** studies are performed simultaneously: This is particularly important at the PhD level. In directing Theses I would therefore promote the combining of large-scale observational studies with manipulative experiments to confirm cause-effect relationships, and the modelling to scale observations up to better understand cause-effect relations among natural and anthropogenic factors and ecological conditions.

Spring habitats are aquatic systems that can be particularly useful in University pedagogy (http://jcsites.juniata.edu/faculty/glazier/#TEACHING). Permanent springs are well-definite, small-surface ecosystems, numerously occurring in the landscape and with peculiar environmental stability, and have thus since a long time been identified as ideal "**natural laboratories**". They are moreover great places to show that a **close interaction between ecology and hydrogeology** is necessary for a **deep understanding of these multiple ecotones**.

Upper part: Biology Bachelors Commission, University of Pavia, 2004
Lower part, left: Diatom course at the Lake Tovel Limnological Station (July 2010).
Lower part, right: Biology Masters Commission, University of Parma, 2002

Teaching in international courses (visiting professorships, practical courses, summer schools, workshops) (6)

6. ***Visiting Professor*** at the University of Olomouc (Czech Republic), March 2014. PhD program in Botany. Lectures for Hydrobiology and Phycology courses.

5. ***Visiting Professor*** at the Universities of Brno and Olomouc (Czech Republic), March 2010. ***INNOLEC LECTURESHIP in Limnology and Phycology*** awarded by the Faculty of Science of the Masaryk University in Brno "in recognition of his valuable contribution to the development of the teaching curriculum".
4. ***Ecology & taxonomy of benthic diatoms in oligotrophic freshwater habitats*** (From the 16th to the 20th of June 2008). *Practical course organizer:* Marco CANTONATI, Trentino Nature & Science Museum, Limnology and Phycology Section, Italy. *Instructors:* H. Lange-Bertalot, Univ. Frankfurt & Senckenberg Museum, Germany; K. Buczkò, Hung. Nat. Hist. Mus., Botany Dept., Budapest, Hungary; M. Cantonati, Trentino Nature & Science Museum, Limnology and Phycology Sect., Italy; I. Jüttner, Nat. Mus. Wales, Biodiv. & Syst. Biol. Dept., Cardiff, UK; R. Pienitz, Univ. Laval, Centre d'études nordiques, Paleolim.-Paleoec. Lab., Québec, Canada; A. Poulíčková, Palacký Univ., Olomouc, Czech Rep.; E. Reichardt, Treuchtlingen, Germany; E. Rott, Univ. Innsbruck, Botany Inst., Austria; B. Van De Vijver, Nat. Bot. Garden Belgium, Dept. Cryptogamy, Meise Belgium; A. Wojtal, Polish Acad. Sc., Botany Inst., Phycol. Dept., Krakow, Poland. *Participants*: 18 students from Bulgaria, France, Germany, Switzerland, Canada, Sweden, Estonia, Czech Republic, Spain, Russia, Italy.
3. *Limnology of Lake Tovel: A peculiar mountain lake* (Special subject: *Vertical gradients and depth distribution of planktonic and benthic organisms in a mountain lake*) (29/06/2003-05/07/2003). Course organizer and instructor of the phytobenthos group (analyses on epilithon sampled by divers along a depth profile). Course Director: Prof. Eugen Rott (Univ. Innsbruck). Italian and Austrian students.
2. *Limnology of Lake Tovel*, 1178 m a.s.l., Trentino, Italy (20-26/9/1998). Instructor (physicochemistry, benthic diatoms and cyanobacteria). Italian and Austrian students. Course Director: Prof. Eugen Rott (Univ. Innsbruck). This course is described and discussed in the following publication: Cantonati M., 1999 - A student course describing the late summer situation of a mountain lake (lake Tovel, 1178 m a.s.l., Southern Alps) - *Proceedings of Lake99*, S16A-4. 17-21 May 1999, Copenhagen, Denmark.
1. *Limnology of a large perialpine lake: Lago di Garda* (16-21/9/1996). Course Director: Prof. Eugen Rott (Univ. Innsbruck). Instructor (diatoms). Italian and Austrian students.

Teaching in national courses (7):
Practical courses on ***diatom taxonomy and ecology*** and on *phytobenthos taxonomy and applied ecology* for students from Italian Universities (Parma, Bologna, Padova) and professionals at the **Limnological Station of the Museum** at **Lake Tovel**. 1-week courses (Diatoms: July 2006, 25-29 June 2007, 9-13 July 2007, 6-10 July 2009, 5-9 July 2010). Course Director and Instructor for taxonomy, ecophysiology, and ecology.
Lectures & Field and lab work for the **Master *Management and Conservation of Natural Resources***, **University of Pavia** (12-13/07/2003).

List of supervised PhD theses (6+5+5+5)

6. NIEDRIST Georg. *Chironomid feeding ecology of in high-mountain streams of the Alps*. Supervisors: Prof. L. Füreder, P.D. Dr. Marco Cantonati. University of Innsbruck (Austria). Thesis defence: Month xx 2017. xxx pp.
5. ROSATI Melissa. *Assembly processes of invertebrate communities in springs across different spatial scales*. Supervisors: Dr. Giampaolo Rossetti, Dr. Marco Cantonati, Dr. Stefano Segadelli. University of Parma (Italy). Dept. of Environmental Sciences. Thesis defence: March 1st 2016. 115 pp.
4. TAXBÖCK Lukas. 2015. *Diatom biodiversity, distribution patterns and spring types in near-natural Swiss springs*. Supervisors: P.D. Dr. M. Cantonati (also Member of the *Promotionskomitee*), Prof. P. Linder [the former supervisor, Prof. H. Preisig, deceased 2011]. University of Zurich (Switzerland). Institute of Systematic Botany. Thesis defence: November 10th 2015. 150 pp.
3. MOGNA Marcella. 2012. Ricerche ecologiche su habitat sorgentizi nel Parco Naturale Alta Valle Pesio e Tanaro e valli limitrofe */ Ecological investigations on spring habitats in the Alta Valle Pesio and Tanaro Nature Park and nearby valleys.* Supervisors: Dr. Marco Cantonati, Prof. G. Berta and Dr. Flora Andreucci. Dept. of Environmental and Life Sciences, University of Eastern Piedmont, Alessandria (Italy). Thesis defence: March 28th 2012. 120 pp.
2. SPITALE Daniel. 2008. *Bryophytes and vascular plants in springs of the Italian Alps: Biodiversity analysis at large spatial scale and mechanisms of distribution at fine spatial scale*. Supervisors: Dr. Marco Cantonati,

Dr. Giampaolo Rossetti. Dept. of Environmental Sciences, University of Parma (Italy). Thesis defence: March 3rd 2008. 119 pp.

1. ANGELI Nicola. 2006. *Ricostruzioni paleoecologiche tramite l'analisi di diatomee subfossili in sedimenti di laghi del Trentino*. Università di Parma. Supervisors: Dr. Marco Cantonati, Dr. Giampaolo Rossetti. Dept. of Environmental Sciences, University of Parma (Italy). Thesis defence: March 9th 2006. Evaluation: Eccellenza. 77 pp.

Opponent (**Member of the Thesis Committee**) of the following Ph.D. theses (5):

5. Rimet F. 2012. Diatoms: an ecoregional indicator of nutrient, organic matter and micropollutants pollution. PhD Thesis. Université de Savoie, France. Supervisor: I. Domaizon.
4. Fránková M. 2010. *Ecology and taxonomy of diatoms of Western Carpathian spring fens*. PhD Thesis. Masaryk University. Brno, Czech Republic. Supervisor: A. Poulíčková. Opponents: F. Hindák & M. Cantonati.
3. Bottazzi E. 2010. Caratterizzazione ecologica di ambienti lotici e sorgentizi dell'alto Appennino parmense. Tesi per il conseguimento del Dottorato di Ricerca in Ecologia (XXII Ciclo). Supervisors: Dr. G. Rossetti, Dott. S. Fenoglio, Dr. B. Maiolini.
2. Silveri L. 2009. Plecoptera in Alpine streams and springs. Tesi per il conseguimento del Dottorato di Ricerca in Ecologia (XX Ciclo). Università di Parma. Supervisors: Dr. G. Rossetti & Dr. B. Maiolini.
1. Caravati E. 2008. Biodiversità e caratteristiche eco-fisiologiche dei picocianobatteri d'acqua dolceTesi per il conseguimento del Dottorato di Ricerca in Ecologia (XX Ciclo). Università di Parma. Supervisors: Prof. P. Viaroli & Dr. C. Callieri.

Referee of the following Ph.D. theses (5):

5. Chuzhekova T.A., 2016. *Structural and functional features of macrozoobenthos communities in spring brooks of Middle Volga Basin.* Saint Petersburg State University, Faculty of Biology, Dept. Ichthyology & Hydrobiology, Russia. Ph.D. Supervisor: Prof. Maximovich Nikolay V.
4. García M.E., 2014. *Biodiversity of continental macroalgae and ecological quality assessment in transitional waters. The case of the Pego-Oliva marsh (E Iberian Peninsula).* University of Murcia. Spain. Ph.D. Supervisor: Prof. M. Aboal.
3. Cvetkoska A. 2014. *The diatoms as indicators of the palaeolimnological changes in ancient Lake Prespa*. Ss. Cyril and Methodius University. Skopje, Macedonia. Supervisor: Prof. Z. Levkov.
2. Urrea-Clos G. 2010. *Distribution of diatom communities in agricultural and mining watersheds of Southwest Spain*. Escola de Postgrau. University of Girona. Spain. Ph.D. Supervisor: Prof. S. Sabater.
1. Tornés Bes E., 2009. *Distributional patterns of diatom communities in Mediterranean rivers*. Escola de Postgrau. University of Girona. Spain. Ph.D. Supervisor: Prof. S. Sabater.

Substantial contributions (and co-funding) for the following Ph.D. theses (5):

5. SABER A.A.M. *Unveiling phyco-biodiversity of El-Farafra Oasis (Western Desert, Egypt) with special interest on springs and wells, and potential relevance of its use in bio-assessment*. Ain Shams University (Egypt).
4. Segnana M. *Environmental and climate change (Holocene) in the Dolomites inferred from subfossil pollen (diatoms) in mire cores*. Supervisors: Prof. C. Barbante, Dr. J. Gabrieli. Environmental Sc. Dept., University of Venice (Italy). Funded by CariVerona Foundation.
3. Bertuzzi E. 2008. Le sorgenti delle Alpi: complessità, biodiversità e indicatori di naturalità/integrità - *Tesi per il conseguimento del Dottorato di Ricerca in Scienze Ambientali* - Università di Urbino (XIX Ciclo). Relatore: Prof. Almo Farina.
2. Tardio M. 2007. Eco-physiological, taxonomical and paleolimnological study of dinoflagellates of Lake Nero di Cornisello (Adamello Brenta Natural Park, Italy). Tesi per il conseguimento del Dottorato di Ricerca in Biologia Evoluzionistica. Università di Pisa. XIX Ciclo. Relatore: Prof. Graziano Di Giuseppe. Posto con borsa. Thesis defence: 10/01/2007.
1. Tolotti M. 2000. Phytoplankton, littoral diatoms and general limnology of high mountain lakes in the Adamello-Brenta Regional Park (Trentino, Italy). Dissertation zur Erlangung des akademischen Grades eines Doktors der Naturwissenschaften. Naturwissenschaftliche Fakultaet der Leopold-Franzens-Universität Innsbruck. Supervisors: Prof. Eugen Rott & Dr Eveline Pipp. 184 pp.

Visiting Ph.D. students (4+2):

4. **Rossini** R. 2016. University of Queensland, St Lucia (Australia). Main topics: Australian springs, invertebrate conservation, ecological theory.
3. **Kamberović** J. 2013. University of Zagreb (Croatia) & University of Tuzla (Bosnia and Herzegovina). Main topics: Photoautotrophs in mountain springs of Konjuh.
2. **Letáková** M. 2013-2014. University of Olomouc (Czech Republic). Main topics: Epiphytic diatoms from the Valagola_SEFIRA Project, macroscopic colonies of *Cymbella excisiformis* in the downstream sector of a SAL spring.

1. **Virtanen** L. 2011. University of Helsinki (Finland). Main topics: Taxonomy and ecology of diatoms in low alkalinity waters. *Achnanthidium minutissimum* (Bacillariophyta) teratological forms as indicators of heavy metal enrichment / pollution in different freshwater environments.

Ph.D. students: Short visits (2):

2. **Borsato** V. 2014. University of Trieste. Main topics: Identification of some algae found during the floristic and phytosociological assessment of very-shallow mountain ponds surrounded by pastures (*lame*, Foresta del Cansiglio).
1. **Fortunato** E. 2014. University of Basilicata. Main topics: Pertusillo Reservoir coring project.

Post-Doc mentoring (1)

1. Manel **Leira**. 2006-2007. Water-level changes in Alpine lakes (NE Italy), and their reflection in the diatom sediment record.

Volunteer research assistants mentoring (4)

1. **Defrancesco** C. November 2015 – open end. Limnological and paleolimnological analyses.
2. **Nones** F. January – May 2015. Benthic-algae-based assessments & monitoring in springs.
3. **Van Wensen** L. November 2014- April 2015. Ecological characterization of diatom species.
4. **Stocchetti** E. November 2013-2014. Paleolimnology of Lake Valagola (diatoms).

Mentoring of visiting academic staff & Faculty (1)

1. Małgorzata **Bąk** and three other Colleagues, Szczecin University (Poland), Palaeoceanology Unit at Faculty of Geosciences. September 2013.

M.Sc. Theses (15):

15. BURATO Sara 2015/2016. *Diatomee di sorgenti del Parco delle delle Prealpi Giulie [Diatoms in springs of the Julian Pre-Alps Nature Park, Friuli Venezia Giulia Region, South-eastern Alps]*. Corso di Laurea Specialistica in Biomonitoraggio. Università di Trieste. Supervisors: Pizzul E., Cantonati M. & Zorza R. xx pp. Thesis defence: Month xx. Evaluation: 1xx/110.
14. SEGNANA Michela 2009/2010. *Diatomee bentoniche in laghi d'alta quota e sorgenti con acque a bassa alcalinità del Parco Naturale Adamello-Brenta (Trentino), con particolare attenzione alla distribuzione con la profondità nel Lago Nero di Cornisello [Benthic diatom assemblages in low alkalinity high-mountain freshwater environments of th Adamello-Brenta Nature Park (Trentino), with special reference to the depth distribution in Lake Nero di Cornisello]*. Corso di Laurea Specialistica in Scienze della Natura. Università di Padova. Supervisors: Trevisan R. & M. Cantonati. 83 pp. Thesis defence: 20/09/2010. Evaluation: 110/110 *cum laude*.
13. SCALFI Alessia 2007/2008 – *Stagionalità ed ecofisiologia di micro- e macroalghe in ambiente sorgivo.* Classe delle Lauree specialistiche in Biologia 6S. Corso di Laurea specialistica in Biodiversità e biomonitoraggio degli ecosistemi. Università di Trieste. Relatori: Bressan G. & M. Cantonati. 85 pp. Discussa il 29/03/2008.
12. MAIORANA Silvia 2005/2006 - *Distribuzione longitudinale e stagionalità dello zoobenthos in due ruscelli sorgivi su diverso substrato geologico* - Tesi di Laurea in Scienze Biologiche. Relatori: Prof. Anna Occhipinti, Dr. Marco Cantonati. Università di Pavia. 72 pp. Discussa il 20/07/2006.
11. SCOLA Silvia 2002/2003 - *Distribuzione lungo un gradiente di profondità dei popolamenti vitali di diatomee epilitiche nel Lago di Tovel (Parco Naturale Adamello-Brenta, Trentino)* - Tesi in Scienze Biologiche. Relatore: Prof. Giampaolo Rossetti, Dr. Marco Cantonati. Università di Parma. Discussa il 16/03/2004. 120 pp.
10. CORRADINI Giorgia, 2002/2003 - *Le diatomee di torrenti d'alta quota di Parchi naturali del Trentino occidentale* - Tesi di Laurea in Scienze Biologiche. Relatore: Prof. Giampaolo Salmoiraghi, Dr. Marco Cantonati. Università di Bologna. 110 pp. Discussa il 16/07/2003.
9. SPITALE Daniel 2001/2002– *Effetti sui popolamenti fitoplanctonici del Lago di Tovel (Trentino) di arricchimenti con macro- e micronutrienti in diverse tipologie di mesocosmi* - Tesi in Scienze Biologiche. Relatore: Prof. Francesca Chiesura Lorenzoni, Dr. Marco Cantonati. 110 pp. Università di Padova. Discussa il 17/03/2003.
8. LEONARDELLI Paolo 2000/2001– *Ricerche preliminari sullo zooplancton dei laghi del Parco Adamello-Brenta* - Tesi in Scienze Naturali. Relatori: Prof. Ireneo Ferrari, Dr. Marco Cantonati e Dott. Giampaolo Rossetti. Università di Parma: pp. 85. Discussa il 20/07/2001.
7. TARDIO Massimiliano 1999/2000 - *Evoluzione del fitoplancton in mesocosmi sottoposti ad operazione di arricchimento con fosforo nel lago di Tovel (Trentino)* - Tesi di Laurea in Scienze Biologiche. Relatore: Prof. Gianpaolo Salmoiraghi, Dr. Marco Cantonati. Università di Bologna: pp. 254. Discussa il 08/03/2001.
6. ANGELI Nicola 1999/2000 - *Ecologia di due laghi alpini d'alta quota nel Parco Adamello-Brenta (Trentino) con particolare riferimento allo zooplancton* - Tesi di Laurea in Scienze Naturali. Relatori: Prof. Sandra Cesellato, Dr. Marco Cantonati. Università di Padova: pp. 61. Discussa il 15/12/2000.
5. BONETTINI Anna Maria 1993/94 - *Ricerche idrobiologiche su sorgenti montane e subalpine del Parco Adamello-Brenta (Trentino)* - Tesi di laurea in Scienze Biologiche. Relatore: Prof. ord. Cesare F. Sacchi. Università di Pavia: pp. 150. Discussa il 27/7/1994.
4. GROSSI Stefania 1993/94 - *Ricerche ecologiche su popolamenti a macroinvertebrati in un ambiente marginale di Po (Comune di Spessa Po)* - Tesi laurea in Scienze Biologiche. Relatrice: Prof. Anna Occhipinti. Università di Pavia: pp. 96. Discussa il 27/7/1994.
3. PETTINELLA Roberta 1993/94 - *Ecologia e dinamica del popolamento zooplanctonico in un ambiente marginale di Po* - Tesi laurea in Scienze Naturali. Relatrice: Prof. Anna Occhipinti. Università di Pavia: pp. 143. Discussa il 13/7/1994.
2. BIRKEMEYER Tania, 1992/93 - *Ricerche di idrobiologia applicata sulla rete idrica della Raffineria Agip di Sannazzaro De' Burgondi* - Tesi laurea in Scienze Biologiche. Relatrice: Prof. Anna Occhipinti. Università di Pavia: pp.70. Discussa il 19/7/1993.
1. FERRANDINI Maria, 1992/93 - *Ecologia dinamica dello zooplancton di un ambiente marginale di Po ed effetti di una piena* - Tesi laurea in Scienze Biologiche. Relatori: Prof. Anna Occhipinti, Dr. Marco Cantonati. Università di Pavia: pp. 89. Discussa il 19/7/1993.

Bachelors (9):

9. MAESTRINI Elisa, 2015/2016. *Paleolimnology of a shallow mountain lake on siliceous substratum with special attention to water-level fluctuations*. Bachelor Thesis in Natural Sciences. University of Modena and Reggio Emilia. Supervisors: Dr. M. Cantonati (tutor of the research work providing the topic and all scientific data) & Prof. Francesca R. Bosellini.
8. ZANINI Alessandro, 2013/2014. Impatti di gestione e uso del territorio sui tassi di senescenza e interramento del Lago di Valagola, Parco Naturale Adamello-Brenta:. [*Impacts of land use and management on the senescing and filling rates of the mountain Lake Valagola -Adamello-Brenta Nature Park*]. Bachelor Thesis in Mountain *Environment Protection and Development*. University of the Mountain Environment in Edolo. Supervisors: Dr. M. Cantonati (tutor of the research work providing the topic and all scientific data) & Prof. Anna Giorgi.
7. SANTINI Chiara, 2011/2012. Distribuzione spaziale rispetto al livello idrometrico di filamenti maturi e immaturi dell'alga rossa *Bangia atropurpurea* e delle diatomee epifite sulle rive rocciose del Lago di Garda. [Spatial distribution with respect to the water line of mature and immature filaments of the red alga *Bangia atropurpurea* and of its diatom epiphytes on the rocky shores of Lake Garda]. Baccalaureate Thesis in Science and Technology for the Environment. University of Genoa. 25 pp. Supervisors: Dr. M. Cantonati, Prof. S. Salvidio. Thesis defence: 13/11/2012. Awarded the highest grade for the Bachelor thesis.
6. PARMESANI Mattia, 2009/2010. Valutazione della qualità ambientale, tramite l'utilizzo delle diatomee come bioindicatori, di tratti di riva del Lago di Garda alla fine degli anni Settanta e confronto con la situazione attuale. [Diatom-based environmental-quality evaluation of shore stretches of Lake Garda at the end of the 1970s, and comparison with the present-day situation]. Baccalaureate Thesis in Science and Technology for the Environment. University of Padua. 31 pp. Supervisors: Dr. M. Cantonati, Dr. V. Matozzo. Thesis defence: 24/09/2010. Awarded the highest grade (5/5) for the Bachelor thesis.
5. BATTISTOTTI Martina, 2008/2009. Variabilità spazio-temporale delle diatomee epifite di *Bangia atropurpurea* (Rhodophyta, Bangiales) nel Lago di Garda. [Spatiotemporal variability of the diatom epiphytes of *Bangia atropurpurea* (Rhodophyta, Bangiales) in Lake Garda]. Baccalaureate Thesis in Science and Technology for the Environment. University of Padua. Supervisors: Prof. Paolo Cordella, Dr. Marco Cantonati. Thesis defence: 19/12/2008 (Highest grade with hons). 64 pp.
4. SCALFI Alessia 2004/2005. *Caratterizzazione idrobiologica delle sorgenti di Stenico (Trentino occidentale) con particolare riferimento alle microalghe diatomee* - Tesi di Laurea di primo livello in Scienze e Tecnologie per la Natura. Relatori: Prof. Giovanni Caniglia & Dr. Marco Cantonati. Università di Padova. Discussa il 27/09/2005. 66 pp.
3. BELLA Erica 2003/2004. *Metodi fisici nell'analisi del fitoplancton del Lago di Tovel* - Tesi in Fisica Applicata. Relatori: Prof. Graziano Guella & Dr. Marco Cantonati. Università di Trento. Discussa il 20/10/2004. 83 pp.
2. NESPOLI Andrea, 2002/2003 – *Ricerca ecologica a lungo termine su tre sorgenti del Parco Naturale Adamello-Brenta: la diatomee di muschi idrofili e igrofili* - Tesi in Scienze e Tecnologie per la Natura. Relatori: Prof. Anna Occhipinti & Dr. Marco Cantonati. Università di Pavia. Discussa il 22/04/2004. 27 pp.
1. SIMONI Michela. *Sperimentazione in mesocosmi sul fitoplancton del Lago di Tovel.* Tesi di Laurea in Scienze Biologiche. Relatori: Dr. M. Cantonati, Prof. G. Gasperi. Università di Pavia.

Small, additional, final student reports (Tesine etc.):

Gatti D., 2007-2008. Diatomee: biogeografia e ipotesi sulle modalità di dispersione. Università di Bologna. Laurea specialistica in Conservazione e Gestione del Patrimonio Naturale.

Short survey of previous academic teaching

Member of the Doctoral Studies Committees of the **Universities** of Parma (Ecology), and Pisa (Evolutionary Biology).

Seminars, tutorials, and laboratories for several courses of limnological and ecological subject at the Universities of Pavia and Innsbruck.

At the University of Pavia Member of the Exams' Commissions as "*Cultore della Materia*" (scholar) for the following courses: Hydrobiology, Ecology.

Other teaching activities

Jury Member (judge) of Student Award Commissions at International Congresses (7)

7. *Society for Freshwater Science (SFS) 2015 Annual Meeting*, Milwaukee, WI, USA (May 17-21, 2015).

6. *Joint Aquatic Sciences Meeting (JASM = SFS+ASLO+PSA+SWS) 2014*, Portland, Oregon, USA (May 19–23, 2014).

5. *Society for Freshwater Science (SFS) 2012 Annual Meeting*, Louisville, KY, USA (19-26 May, 2012).

4. *Central European Diatom Meeting, CEDIATOM6*, Innsbruck, Austria 22-25/03/2012.

3. *North American Benthological Society (NABS) 2011 Annual Meeting*, Providence, RI, USA (22-26 May, 2011).

2. *North American Benthological Society (NABS) 57th Annual Meeting*, Grand Rapids, MI, USA (17-22 May, 2009).

1. *Central European Diatom Meeting, CEDIATOM3*, Utrecht, The Netherlands 27-29/03/2009. Together with Herman Van Dam and Ingrid Jüttner.

Seminars, Lectures, Workshops & Excursions:

Cantonati M., 2012. *Workshop on the ecology of the lake littoral (L. Molveno & L. Tovel)* – Staff involved in pedagogical and educational activities of the Adamello-Brenta Nature Park (11-06-2012).

Cantonati M., 2009. Le sorgenti e i laghi di montagna del Trentino. Società degli Alpinisti Tridentini (Trentino Section of the Italian Alpine Club) – Commissione TAM (Tutela Ambiente Montano) (Mountain Environments Protection Commission) – Corso sugli Habitat Acquatici (Course on Aquatic Habitats) S. Antonio Mavignola and Vallesinella (Adamello-Brenta Natural Park, TN). 20-06-2009.

The large karstic springs of Rio Bianco (Stenico). A contribution to the excursion for students in Environmental Sciences and Nature Conservation of the University of Parma (Excursion Director: Prof. M. Tomaselli). Adamello-Brenta Natural Park, Italy. 16-06-2009.

Gli habitat sorgivi: sconosciuti hotspot di biodiversità acquatica minacciati da captazioni e cambiamenti climatici. Seminario per gli studenti del Dottorato di Ricerca in "Ecologia Sperimentale e Geobotanica" (credito formativo riconosciuto). Orto Botanico – Aula C. University of Pavia, Italy. 22-04-2009.

Spring habitats of the Alps: Specific biodiversity hotspots for algae –incl. cyanobacteria. Botanisches Kolloquium. Botany Institute. University of Innsbruck, Austria. 04-03-2009.

Former students & employment

Lukas Taxböck (Ph.D.). Successful free-lance professional in the Environmental Sciences. At the same time: - Still collaborating with one of the major Swiss Consultancy Societies in Freshwater Ecology (*AquaPlus* AG, Zug, Switzerland); - Contract Prof. of Marine and Freshwater Ecology (Institute of Systematic Botany, *University of Zürich*, Switzerland); - Founder and Managing Director of ASEM - *Swiss Association for the study of microflora* (www.sam-asem.ch).

Abdullah A. Saber (Ph.D.). Lecturer at *Ain Shams University* (Cairo, Egypt). Post-Doc Research Fellow of the *Limnology & Phycology Section* of the *Museo delle Scienze – MUSE* (Italy; 2016-2017, funded by Alcantara SpA).

Daniel Spitale (Ph.D.). Post-Doc Research Fellow of the *Limnology & Phycology Section* of the *Museo delle Scienze – MUSE*. Expert (statistical analysis of ecological data) and bryologist for several research institutions (Parks, Museums) and Universities. Post-doc fellow (2013-2015) of the Natural History Museum - BZ, funded by the Autonomous Province of Bolzano / Bozen, Scientific Research Dept. Author and Co-Author of papers in top-journals in ecology.

Nicola Angeli (Ph.D.). Specialized Research Assistant of the MUSE Limnology and Phycology Section. In charge for the MUSE SEM and Hydrochemistry labs.

Michela Segnana (M.Sc.). Teacher in secondary schools. 2012-2016: Ph.D. in Environmental Change, University of Venice (Ph.D. position won by public competition).

Ermanno Bertuzzi (Ph.D.). Environmental Agency of the Veneto Region. Toxic and industrial waste control. Special projects on benthic diatoms & running-water quality assessment.

Massimiliano Tardio (Ph.D.). Science communicator (specialized on biodiversity, limnology, and algae) within the MUSE Public Programs Section of the Museo delle Scienze. In charge for the MUSE Limnological Station at Lake Tovel.

Alessia Scalfi (M.Sc.). Expert for educational activities and environmental interpretation of the Adamello-Brenta Nature Park.

Anna Maria Bonettini (M.Sc.). Officer of the Adamello Nature Park in charge for education & research.

Marcella Mogna (Ph.D.). Occasional collaborator of the Dept. of Env. & Life Sciences, Univ. Eastern Piedmont (Italy), and free lance diatom analyst for Environmental Agencies.

Silvia Maiorana (M.Sc.). In charge for biology labs & teacher in secondary schools.

Silvia Scola (M.Sc.). Successful ice parlor, restaurant & hotel manager.

Giorgia Corradini (M.Sc.). Informant medical representative.

Martina Battistotti (B.S.). Enrolled for a Master in Environmental Sciences. Occasional contract work for the Environmental Agency of the Autonomous Province of Trento (APPA). Educational activities and environmental interpretation for the Museo delle Scienze (MUSE) and the Adamello-Brenta Nature Park (PNAB).

Mattia Parmesani (B.S.). Enrolled for a Master in Forestry and Environmental Sciences. Educational activities and environmental interpretation for the Museo delle Scienze (MUSE): Limnological Station of the Museum at Lake Tovel in the Adamello-Brenta Nature Park (PNAB).

Chiara Santini (B.S.). Enrolled for a Master in Environmental Sciences.


Left: Guided excursion through the Genova Valley (the valley richest in water of the Adamello-Brenta Nature Park), 2004.
Right: Examining materials collected in mire-pools close to the Botanical Garden of the Museo Tridentino Scienze Naturali, May 2010.

Courses for teachers:

Course on Biodiversity. 2008. Progetto “Siamo tutti biodiversi?” “Percorso di autoformazione guidata: approfondimenti scientifici” a cura dei ricercatori delle Sezioni scientifiche del Museo Tridentino di Scienze Naturali. Trento:
MODULO 1 - Definizione di biodiversità attraverso approcci di tassonomia classica nell’ambito della botanica, zoologia, microbiologia e degli organismi microscopici. 13-10-2008
MODULO 4 - Specie indicatrici di salute ambientale: i bioindicatori. 10-11-2008
MODULO 6 - Adattamenti all’ambiente. 24-11-2008
MODULO 9 - Le aree ad alta biodiversità (hotspots). Le sorgenti alpine. 22-12-2008

Invited talks for the popularization of limnological topics:

Cantonati M., 2009. I laghi di montagna del Trentino. Società degli Alpinisti Tridentini (Trentino Section of the Italian Alpine Club) – Fondo (TN). Gruppo giovani e accompagnatori (14-03-2009).

September 19th 2016

Dr. Marco Cantonati