PERSONAL INFORMATION

Matteo Montagna

POSITION HELD

Associate professor in General and Applied Entomology (AGR/11)

PROFESSIONAL EXPERIENCE

Mar. 2017 – Mar. 2020

Fixed-term research assistant RTD-B (lett. b art. 24 comma 3, della Legge n. 240/2010), General and Applied Entomology (AGR11)
Department of Agricultural and Environmental Sciences – University of Milan, Via Celoria 2, 20133, Milano, Italy.

Dec. 2013 – Dec. 2016

Fixed-term research assistant RTD-A (lett. a art. 24 comma 3, della Legge n. 240/2010), General and Applied Entomology (AGR11)
Department of Agricultural and Environmental Sciences – University of Milan, Via Celoria 2, 20133, Milano, Italy.

Feb. 2013 – Dec. 2013

Research fellowship
Center of Applied Studies for Sustainable Management and Defense of the Mountain. Department of Agricultural and Environmental Sciences – University of Milan, Via Celoria 2, 20133, Milano, Italy.

Jan. 2009 – Dec. 2012

Ph.D. in Animal Biology
Department of Agricultural and Environmental Sciences – University of Milan, Via Celoria 2, 20133, Milano, Italy.

Feb. 2013

Visiting scientist Synthesys call (European FP7 Programme, Access to Research Infrastructures)
Department of Entomology, Museum fur Naturkunde, Berlin – DE.

4-10 March 2012

Visiting scientist Synthesys call (European FP7 Programme, Access to Research Infrastructures)
Department of Entomology, Museum fur Naturkunde, Berlin – DE.

8-18 Feb. 2012

Visiting scientist in the laboratory of Dr. Jesus Gomez-Zurita
Institut de Biologia Evolutiva CSIC-UPF, Barcelona – ES.

June 2009

Visiting scientist in the laboratory of Prof. Lorenza Beati
U.S. National Tick Collection (USNTC), Institute of Arthropodology & Parasitology (Statesboro GA, USA).

INSTRUCTION AND FORMATION

Education

Jan 2009 – Jan. 2013. Ph.D. in Animal Biology, Università degli Studi di Milano, Milan – IT.

Oct 2006 – Oct. 2008. Master degree in Agri-environmental science (with a grade of 110/110 *cum laude*). Università degli Studi di Milano, Faculty of Agriculture, Milan – IT.

Oct 2003 – Oct. 2006. Bachelor in Valorisation and Protection of the Environment

and of the Mountain territory, Università degli Studi di Milano, Faculty of Agriculture, Edolo – IT.

Sep 1994 – July 1999. High school Liceo statale G. Galilei, Erba – IT.

Courses e workshops

Jul 2019. Using Geiger, Phytools, and other Computational Tools to Study Macroevolution on Phylogenies, Crete – GR.

Jan-Feb. HPC-HTC for metabarcoding – COST DNAqua-net, La Doua campus, Lyon – FR.

Jun 2018. Phylogenomics – Physalia Courses, Berlino – DE.

Sep 2016. The Use of Phylogenies in the Study of Macroevolution, Barcellona – ES.

Aug 2016. Population Genomics in R, Losanna – CH.

Jun 2015. 1st Italian Workshop on RAD-sequencing, Edolo – BS.

Sep 2013. Geometric morphometrics and phylogeny (4th ed), Barcellona – ES.

Jul-Aug 2012. Molecular evolution, Woods Hole MA – USA.

Jan 2010. European course on comparative genomics, Ecole Normale Supérieure Lyon – FR.

Aug-Sep 2009. Italian workshop on phylogenetic methods and applications (1st ed), Asti – IT.

ACADEMIC POSTS AND SCIENTIFIC RESPONSIBILITIES

Member of PhD board

Since 2014 Board Member of the Agriculture, Environment and Bioenergy PhD School, UMiL – IT.

PhD tutoring

Since 2014 tutor of four PhD students enrolled in the Agriculture, Environment and Bioenergy PhD School, UMiL – IT; co-tutor of three PhD students (UMiL - IT; University of Lodz – PL; University of Karachi – IR).

COST Italian MC Member/Substitute

Since 2019 nomination as Italian MC Substitute to COST Actions CA18134 - Genomic Biodiversity Knowledge for Resilient Ecosystems (G-Bike).

Since 2016 nomination as Italian MC Substitute to COST Actions: CA15219- Developing new genetic tools for bioassessment of aquatic ecosystems in Europe (DNAqua-Net).

UMiL – DiSAA academic posts

Since Apr 2020 member of the DiSAA Scientific Committee.

Since Jun 2018 member of the Environmental DNA platform Scientific Committee at UMiL DiSAA - IT; since May 2020 scientific manager of the Environmental DNA platform - Università degli Studi di Milano, DiSAA – IT.

Member of panels

Dec 2019 and Jul 2020. Member of the Evaluation panel for post-doc positions at UMiL DiSAA – IT.
Mar 2018 Ph.D. final examination Jury Member. PhD program in Life and Health

Sciences: Molecular and Cellular Biotechnology, University of Camerino – IT.

Since 2013 member of professorial panel for Undergraduate and Master Degree Programmes final dissertation, UMiL DiSAA – IT.

Reviewer activity

Since 2010 reviewer of research projects (German-Israeli Foundation for Scientific Research and Development: RGRP; European Research Council: ERC 2019 STG; United Arab Emirates University: UAEU Research Grant Application; Natural Environment Research Council - Pushing the Frontiers call 2020) and of scientific papers for journals such as *Mol Ecol*, *Zool Scr*, *Environ Microbiol*, *Zool J Linn Soc-Lond*, *Insect Sci* (https://publons.com/researcher/1173453/matteo-montagna/).

EARLY ACHIEVEMENTS TRACK-RECORD

Research activity

I have worked on the ecology and evolution of Insecta for my entire career. I started with faunistic studies, which led to the description of new taxa (three articles) and an article evaluating the effects of anthropogenic disturbance on insect community composition and structure. During my PhD studies I expanded my interests to encompass another arthropod group, the Ixodida. This work added further levels of complexity with regard to organisms ecology and evolution, in particular the associated microbiota and the vertebrate host, which participate in a network of trophic interactions. This research allowed me to acquire skills in molecular biology, bioinformatics, phylogenomics, comparative genomics and DNA metabarcoding. Thanks to this expertise I was able to set up my own research group with the main aim of studying key factors underlying the evolution and success of insects, especially the complex network of interactions they exhibit with bacteria, particularly in the context of trophic resources. I use a combination of different approaches, investigating interactions across temporal scales and ecological niches. Specifically, my research pursues two main topics: i. systematics, evolution and ecology of different insect and other arthropod groups, including the Triassic paleoentomofauna; ii. insect-microorganism (bacterial and fungal) interactions, in particular the role played by bacteria in conferring new ecological traits to the host, such as the adaptability to novel ecological niches or host plants. In the past two years, thanks to DNA barcoding/metabarcoding skills, I have extended my research to the community level. Specifically, investigating the biodiversity associated with human-influenced ecosystems, such as Alpine pastures and lowland agroecosystems in order shed light on the mode and tempo by which communities change due to anthropic activities. These research activities led to the development of a wide network of scientific collaborations with Italian and international universities and research institutes.

Skills

I have substantial expertise with regard to insect systematics, ecology and evolution. Thanks to my curiosity and belief in lifelong learning (as demonstrated post-doctoral courses attended) I have mastered molecular biology, microscopy, phylogenomics and related comparative methods, multivariate statistics, DNA barcoding/metabarcoding and bioinformatics techniques to investigate the exciting field of insect ecology and evolution. I have strong leadership skills, demonstrated by the success of my master and Ph.D. students. I currently lead the gender-balanced Insect Ecology and Evolution research group with one Ph.D. student, two post-docs, and one granted fellow working on various topics related to insects evolution and multitrophic interactions, as well as soil biodiversity associated with human-influenced ecosystems, where multiple skillsets merge to tackle biological problems with an intrinsically multidisciplinary approach.
Currently head of the research group Insect Ecology and Evolution composed by one Ph.D. student, two post-docs; in the last four years in this group were included foreign Ph.D. students (i.e., Iran, Poland, Turkey) and Post-docs (Poland).

Publications and invited talks

My research activities have produced 61 publications in international peer-review journals, mirroring my independent thinking and my curiosity towards the exploration of biological questions mainly related to the field of insect systematics, ecology and evolution. I have published 20 papers on arthropod (especially insect) systematics and evolution, including a revised timeframe for insect evolution based on phylogenomic reconstruction using exceptionally preserved Triassic fossils (published on Proc R Soc B). In the field of tick/insect-microorganism interactions 20 papers have been published so far, including the description of a new family of intracellular bacteria (the “Candidatus Midichloriaceae”), and the factors shaping the insect microbiota such as ecological determinants and developmental stages (published on Environ Microbiol and Insect Sci, one awarded as the most cited in 2017). Recently, benefitting from DNA metabarcoding, I returned to questions underlying my master thesis (published on Ecol Eng) to investigate the impact of anthropogenic

disturbance on the biodiversity of agroecosystems. An initial paper demonstrated that plant and soil biological diversities are only loosely dependent, not exhibiting strictly linked environmental responses along a disturbance gradient (published on Mol Ecol). I have presented my results at numerous conferences (compatible with the limited resources I had for attending conferences), including invited talks at Universities, symposia and congresses (the two most relevant were talks at the 61st Annual Meeting of the Entomological Society of America and at the XI European Congress of Entomology).

Independence and funded research projects

I take pride in my independence throughout my career. Since the beginning of my research career I have demonstrated the ability to carry out innovative and wide-ranging research in diverse areas of entomology, specifically in the fields of insect evolution, systematics and symbiosis. Of the resulting 61 publications on indexed journals, 48 of which are independent of my Ph.D. supervisor Claudio Bandi. Immediately following my Ph.D. I won an early stage post-doc fellowship for a project I devised on the phylogeography of endangered species. Subsequently, I obtained my full independence by winning highly competitive positions at UMIL funded by MIUR, represented by a Junior Research (RTD-A) in 2013, and by a Senior Research (RTD-B) in 2017. These positions helped me to formerly establish my own independent lab and to pursue novel lines of investigation that have attracted funding, initially on competitive internal calls from UMIL (RSP2015-2017, ~30k €) and then both from national and international bodies. My greatest accomplishment in fund raising has been the Cold&Warm project (LifeWatch LW-ITA Call 2018), which aims to understand how cold-adapted species survived Pleistocene temperature oscillations, using restriction site-associated DNA sequencing (ID not available; 25k €; project leader). Additionally, the PROSPECT project (PRIN–MIUR call 2017; ID 2017JLN833; Unit coordinator; funds received to my research unit 160.8k €) which uses tomato as model to investigate the functional basis of the trophic network involving soil microbiota, plant, pests (insects and pathogens) and the pests' antagonists. Other projects include the SRF 2015/2016 (1.4k €; project leader), focused on the study of exceptionally well preserved insect fossils from a Middle Triassic Lagerstätte (four papers published), and the MoBioS project (UMIL–RSP2015-2017; 14.7k €) aimed to investigate the soil biodiversity in different agroecosystems adopting DNA metabarcoding with the purpose of developing a molecular soil biology index (one paper published, two in preparation). Recently, a leader company in the AgroSciences (Corteva Agriscience™) funded me a project to investigate the biodiversity of soil organisms associated to vineyards across Italy (48k €) by using DNA metabarcoding approach in order to associate the agricultural practices with the functional soil biodiversity.

PERSONAL SKILLS

Mother tongue: Italian

Other languages

	COMPREHENSION		SPOKEN		WRITTEN WORK
	Listening	Reading	Interaction	Oral work	
English	B2	B2	B2	B2	B2
French	A2	A2	A2	A1	A2

Communication skills

- Good communication skills gained through the teaching activity and through the oral presentations of my scientific works during national and international congresses.

Management and organisational skills

- Currently head of the research group Insect Ecology and Evolution composed by one Ph.D. student, two post-docs; in the last four years in this group were included foreign Ph.D. students (i.e., Iran, Poland, Turkey) and Post-docs (Poland).

Information technology skills

Self-evaluation				
Processing information	Communication	content creation	Security	Problem solving
Advanced	Advanced	Advanced	Intermediate	Advanced

Levels: Basics - Intermediate - Advanced

Digital skills – Self-evaluation

- Good competence with Office software and Windows, Linux e OS operating system.
- Good competence with professional imaging software: (Adobe Photoshop, Adobe Illustrator, Zerene, Combine).
- Good Competence with R software, software for phylogenetic (e.g., MrBayes, RaxML, IQ-tree, PhyML, PAUP), PAML, QIIME2.
- Competence with bash.

Driving licence A e B

FURTHER INFORMATION

Italian National Scientific Qualification (ASN) achieved

- July 2018 Full professor in 05/B1 Zoology
- March 2017 Associate and full professor in 07/D1 General and Applied Entomology

Bibliometric data (Scopus)

Date of the first publication: 2010
Documents: 59; Citations: 735; H-index: 14

Publications on peer-reviewed journals,

1. M. Brunetti, V. Capasso, **M. Montagna**, E. Venturino (2020). A mathematical model for *Xylella fastidiosa* epidemics in the Mediterranean regions. Promoting good agronomic practices for their effective control. *Ecological Modelling* 432: 109204.
2. D. Kubisz, G. Magoga, M. A. Mazur, **M. Montagna**, R. Ścibior, P. Tykarski & Ł. Kajtoch (2020). Biogeography and ecology of geographically distant populations of sibling *Cryptocephalus* leaf beetles. *The European Zoological Journal* 87: 223-234. DOI: 10.1080/24750263.2020.1752832
3. **M. Montagna** (2020) Comment on Phylogenetic analyses with four new Cretaceous bristletails reveal inter-relationships of Archaeognatha and Gondwana origin of Meinertellidae. *Cladistics* 36: 227-231. DOI:10.1111/cla.12387.
   Kubisz D, Magoga G, Mazur MA, Montagna M, Ścibior R, Tykarski P, Kajtoch Ł. (2020) Biogeography and ecology of geographically distant populations of sibling *Cryptocephalus* leaf beetles. *The European Zoological Journal* 87: 223-234
4. **M. Montagna**, K.J. Tong, G. Magoga, L. Strada, A. Tintori, S.Y.W. Ho, N. Lo (2019). Recalibration of the insect evolutionary time scale using Monte San Giorgio fossils suggests survival of key lineages through the End-Permian Extinction. *Proceedings of the Royal Society B: Biological Sciences* 286(1912): 20191854. doi: 10.1098/rspb.2019.1854.
5. B. Chouaia, N. Goda, G. Mazza, S. Alali, F. Florian, F. Gionechetti, M. Callegari, E. Gonella, G. Magoga, M. Fusi, E. Crotti, D. Daffonchio, A. Alma, F. Paoli, P.F. Roversi, L. Marianelli, **M. Montagna** (2019). Developmental stages and gut microenvironments influence gut microbiota dynamics in the invasive beetle *Popillia japonica* Newman (Coleoptera: Scarabaeidae). *Environmental Microbiology* doi: 10.1111/1462-2920.14797.
6. M. Brunetti, G. Magoga, M. Iannella, M. Biondi, **M. Montagna** (2019). Phylogeography and species distribution modelling of *Cryptocephalus barii* (Coleoptera: Chrysomelidae): is this alpine endemic species close to extinction? *Zookeys* 856: 3-25.
7. D. Bulgari, **M. Montagna**, E. Gobbi, F. Faoro (2019). Green Technology: Bacteria-Based Approach Could Lead to Unsuspected Microbe Plant Animal Interactions. *Microorganisms* 7(2). doi: 10.3390/microorganisms7020044.
8. S. Alali, V. Mereghetti, F. Faoro, S. Bocchi, F. Al Azmeh, **M. Montagna** (2019). Thermotolerant isolates of *Beauveria bassiana* as potential control agent of insect pest in subtropical climates. *PLoS One* 14(2): e0211457.
9. D. Coral Şahin, G. Magoga, H. Özdikmen, **M. Montagna** (2019). DNA Barcoding as useful tool to identify crop pest flea beetles of Turkey. *Journal of Applied Entomology* 143: 105-117. https://doi.org/10.1111/jen.12566
10. Mereghetti V., Chouaia B., Limonta L., Locatelli D.P., **Montagna M.** (2019). Evidence for a conserved microbiota across the different developmental stages of *Plodia interpunctella*. *Insect Science* 26(3): 466-478. doi: 10.1111/1744-7917.12551.
11. G. Magoga, DC. Sahin, D. Fontaneto, **M. Montagna** (2018). Barcoding of Chrysomelidae of Euro-Mediterranean area: efficiency and problematic species. *Scientific Reports* 8: 13398.

12. **M. Montagna**, Berruti A, Bianciotto V, Cremonesi P, Giannico R, Gusmeroli F, Lumini E, Pierce S, Pizzi F, Turri F, Gandini G. (2018). Differential biodiversity responses between kingdoms (plants, fungi, bacteria and metazoa) along an Alpine succession gradient. *Molecular Ecology* 27(18): 3671-3685.
13. E. Mori, Pisanu B, Zozzoli R, Solano E, Olivieri E, Sassera D, **Montagna M.** (2018). Arthropods and associated pathogens from native and introduced rodents in Northeastern Italy. *Parasitology Research* 117(10): 3237-3243.
14. E. Martin, I. Varotto Boccazzi, L. De Marco, G. Bongiorno, **M. Montagna**, L. Sacchi, P. Mensah, I. Ricci, L. Gradoni, C. Bandi, S. Epis (2018). The mycobiota of the sand fly *Phlebotomus perniciosus*: involvement of yeast symbionts in uric acid metabolism. *Environmental Microbiology* 20: 1064-1077.
15. M. Pajoro, D. Pistone, I. Varotto Boccazzi, V. Mereghetti, C. Bandi, M. Fabbi, **M. Montagna** (2018). Molecular screening for bacterial pathogens in ticks (*Ixodes ricinus*) collected on migratory birds captured in northern Italy. *Folia Parasitologica* 65: 008.
16. **M. Montagna**, E. Gonella, V. Mereghetti, G. Magoga, E. Ferrari, M. Pontini, C. Ferracini, A. Alma (2018). Molecular species delimitation of the Asian chestnut gall wasp biocontrol agent released in Italy. *Insect Systematics and Evolution* doi: 10.1163/1876312X-00002188
17. **M. Montagna**, L. Strada, P. Dioli, A. Tintori 2018. The Middle Triassic Lagerstätte of Monte San Giorgio reveals the oldest lace bugs (Hemiptera: Tingidae): *Archetingis ladinica* gen n. sp n.. *Rivista Italiana di Paleontologia e Stratigrafia* 124: 35-44.
18. L. Kajtoch, **M. Montagna**, M. Wanat (2018). Species delimitation within the *Bothryorrhynchapion* weevils: multiple evidence from genetics, morphology and ecological associations. *Molecular Phylogenetics and Evolution* 120: 354-363.
19. A. Boggero, M. Ruocco, M. Shokri, V. Gjoni, I. Ansaloni, S. Zaupa, **M. Montagna**, B. Rossaro (2017). *Chironomus* (Chironomus) *aprilinus* Meigen, 1818 (Diptera Chironomidae), first record from Italy: cytotaxonomy and ecology. *Redia* 100: 11-17.
20. B. Rossaro, G. Magoga, **M. Montagna** (2017). Revision of the genus *Chaetocladius* Kieffer (Diptera, Chironomidae), 1st note : description of four new species from Italy. *Journal of Entomological and Acarological Research* 49: 36-47.
21. D. Pistone, M. Pajoro, E. Novakova, Vicari, Nadia, Gaiardelli, Cesare, Viganò, Roberto, C. Luzzago, **M. Montagna**, P. Lanfranchi (2017). Ticks and bacterial tick-borne pathogens in Piemonte region, Northwest Italy. *Experimental and Applied Acarology* 73: 477-491.
22. M. Montagna, J.T. Haug, L. Strada, C. Haug, M. Felber, A. Tintori (2017). Central nervous system and muscular bundles preserved in a 240 million year old giant bristletail (Archaeognatha: Machilidae). *Scientific Reports* 7: 46016.
23. M. Kolosa, **M. Montagna**, V. Mereghetti, D. Kubisz, M. A. Mazur, L. Kajtoch (2017). Preliminary evidence of the horizontal transmission of Wolbachia between *Crioceris* leaf beetles (Coleoptera: Chrysomelidae) and their Asparagus host plants. *European Journal of Entomology* 114: 446-554.
24. V. Mereghetti, B. Chouaia, **M. Montagna** (2017). New Insights into the Microbiota of Moth Pests. *International Journal of Molecular Sciences* 18: 2450.
25. V. Mastrantonio, M. Ferrari, S. Epis, A. Negri, G. Scuccimarra, **M. Montagna**, G. Favia, D. Porretta, S. Urbanelli, C. Bandi (2017). Gene expression modulation of ABC transporter genes in response to permethrin in adults of the mosquito malaria vector Anopheles stephensi. *Acta Tropica* 171: 37-43.
26. B. Rossaro, **M. Montagna**, V. Lencioni (2016). Environmental traits affect chironomid communities in glacial areas of the Southern Alps: evidence from a long-lasting case study. *Insect Conservation and Diversity* 9: 192-201.
27. E. Capra, R. Giannico, **M. Montagna**, F. Turri, P. Cremonesi, F. Strozzi, P. Leone, G. Gandini, F. Pizzi (2016). A new primer set for DNA metabarcoding of soil Metazoa. *European Journal of Soil Biology* 77: 53-59.
28. E. Martin, G. Bongiorno, L. Giovati, **M. Montagna**, E. Crotti, C. Damiani, L. Gradoni, L. Polonelli, I. Ricci, G. Favia, S. Epis (2016). Isolation of a Wickerhamomyces anomalus yeast strain from the sandfly Phlebotomus perniciosus, displaying the killer phenotype. *Medical and Veterinary Entomology* 30: 101-106.
29. F. Leese, F. Altermatt, A. Bouchez ... (2016). DNAqua-Net: Developing new genetic tools for bioassessment and monitoring of aquatic ecosystems in Europe. *Research Ideas and Outcomes* 2: e11321.
30. G. Magoga, D. Sassi, M. Daccordi, C. Leonardi, M. Mirzaei, R. Regalin, G. Lozzia, **M. Montagna** (2016). Barcoding chrysomelidae: a resource for taxonomy and biodiversity conservation in the Mediterranean Region. *Zookeys* 597: 27-38.
31. **M. Montagna**, D. Kubisz, M.A. Mazur, G. Magoga, R. Scibior, L. Kajtoch (2016). Exploring species-level taxonomy in the *Cryptocephalus flavipes* species complex (Coleoptera:

Chrysomelidae). *Zoological Journal of the Linnean Society* doi: 10.1111/zoj.12445

32. **M. Montagna**, S. Urbanelli, B. Rossaro (2016). The species of the genus *Diamesa* (Diptera, Chironomidae) known to occur in Italian Alps and Apennines. *Zootaxa* 4193: 317-331.
33. **M. Montagna**, S. Zoia, C. Leonardi, V. Di Taddeo, R. Caldara, D. Sassi (2016). *Colasposoma dauricum* Mannerheim, 1849 an Asian species adventive to Piedmont, Italy (Coleoptera: Chrysomelidae: Eumolpinae). *Zootaxa* 4097: 127-129.
34. **M. Montagna,** V. Mereghetti, G. Gargari, S. Guglielmetti, F. Faoro, G. Lozzia, D. Locatelli, L. Limonta (2016). Evidence of a bacterial core in the stored products pest *Plodia interpunctella*: the influence of different diets. *Environmental Microbiology* 18(12): 4961-4973. doi: 10.1111/1462-2920.13450
35. **M. Montagna**, V. Mereghetti, V. Lencioni, B. Rossaro (2016). Integrated Taxonomy and DNA Barcoding of Alpine Midges (Diptera: Chironomidae). *Plos One* 11: e0149673-20.
36. P. Lado, S. Nava, M.B. Labruna, M.P.J. Szabo, L.A. Durden, S. Bermudez, **M. Montagna**, A.C.Sanchez Quiros, L. Beati (2016). *Amblyomma parvum* Aragao, 1908 (Acari: Ixodidae): phylogeography and systematic considerations. *Ticks and Tick-Borne Diseases* 7: 817-827.
37. S. Pierce, F. Quaglino, **M. Montagna**, A. Spada, P. Casati, M. Iriti (2016). Evaluation of effective microorganisms® efficacy on 'Candidatus Phytoplasma solani'-infected and healthy periwinkle plants. *Mitteilungen Klosterneuburg: Rebe und Wein, Obstbau und Früchteverwertung* 66: 89-92.
38. A. Pernin, S. Zanzani, V. Mereghetti, M.T. Manfredi, G. Lozzia, **M. Montagna** (2015). First record of a mermithid nematode in the leaf beetles *Galeruca laticollis* (Coleoptera: Chrysomelidae). *Russian Journal of Nematology* 23: 73-75.
39. F. Comandatore, R. Cordaux, C. Bandi, M. Blaxter, A. Darby, B.L. Makepeace, **M. Montagna**, D. Sassera (2015). Supergroup C Wolbachia, mutualist symbionts of filarial nematodes, have a distinct genome structure. *Open Biology* 5: 150099.
40. G. Mazza, A.F. Inghilesi, E. Tricarico, **M. Montagna**, S. Longo, P.F. Roversi (2015). First report of *Gonipterus scutellatus* complex (Coleoptera curculionidae) in Sicily (Italy). *Redia* 98: 149-150.
41. **M. Montagna**, B. Chouaia, G. Mazza, E.M. Prosdocimi, E. Crotti, V. Mereghetti, V. Vacchini, A. Giorgi, A.D. Biase, S. Longo, R. Cervo, G.C. Lozzia, A. Alma, C. Bandi, D. Daffonchio (2015). Effects of the Diet on the Microbiota of the Red Palm Weevil (Coleoptera: Dryophthoridae). *Plos One* 10: e0117439.
42. **M. Montagna**, J. Gómez-Zurita, A. Giorgi, S. Epis, G. Lozzia, C. Bandi (2015). Metamicrobiomics in herbivore beetles of the genus *Cryptocephalus* (Chrysomelidae): toward the understanding of ecological determinants in insect symbiosis. *Insect Science* 22: 340-352.
43. G. Mazza, B. Chouaia, G.C. Lozzia, **M. Montagna** (2014). The bacterial community associated to an Italian population of *Psacothea hilaris*: a preliminary study. *Bulletin of Insectology* 67: 281-285.
44. L. Strada, **M. Montagna**, A. Tintori (2014). A new genus and species of the family Trachypachidae (Coleoptera, Adephaga) from the upper Ladinian (Middle Triassic) of Monte San Giorgio. *Rivista Italiana di Paleontologia e Stratigrafia* 120: 183-190.
45. **M. Montagna**, B. Chouaia, L. Sacchi, D. Porretta, E. Martin, A. Giorgi, G. Lozzia, S. Epis (2014). A New Strain of Wolbachia in an Alpine Population of the Viviparous Oreina cacaliae (Coleoptera: Chrysomelidae). *Environmental Entomology* 43: 913-922.
46. S. Epis, D. Porretta, V. Mastrantonio, S. Urbanelli, D. Sassera, L. De Marco, V. Mereghetti, M. Montagna, I. Ricci, G. Favia, C. Bandi (2014). Temporal dynamics of the ABC transporter response to insecticide treatment: Insights from the malaria vector *Anopheles stephensi*. *Scientific Reports* 4: 7435.
47. D. Porretta, V. Mastrantonio, S. Mona, S. Epis, **M. Montagna**, D. Sassera, C. Bandi, S. Urbanelli (2013). The integration of multiple independent data reveals an unusual response to Pleistocene climatic changes in the hard tick *Ixodes ricinus*. *Molecular Ecology* 22: 1666-1682.
48. F. Comandatore, D. Sassera, **M. Montagna**, S. Kumar, G. Koutsovoulos, G. Thomas, C. Repton, S. A. Babayan, N. Gray, R. Cordaux, A. Darby, B. Makepeace, M. Blaxter (2013). Phylogenomics and analysis of shared genes suggest a single transition to mutualism in Wolbachia of nematodes. Genome Biology and Evolution 5: 1668-1674.
49. **M. Montagna**, D. Sassera, S. Epis, C. Bazzocchi, C. Vannini, N. Lo, L. Sacchi, T. Fukatsu, G. Petroni, C. Bandi (2013). "*Candidatus* Midichloriaceae" fam. nov (Rickettsiales), an Ecologically Widespread Clade of Intracellular Alphaproteobacteria. *Applied and Environmental Microbiology* 79: 3241-3248.
50. **M. Montagna**, D. Sassi, A. Giorgi (2013). *Pachybrachis holerorum* (Coleoptera: Chrysomelidae: Cryptocephalinae), a new species from the Apennines, Italy, identified by

integration of morphological and molecular data. *Zootaxa* 3741: 243-253.

51. R. Caldara, D. Sassi, **M. Montagna** (2013). Systematics of the weevil genus *Mecinus* Germar, 1821 (Coleoptera : Curculionidae). 2. Phylogenetic analysis based on adult morphological characters and host plant information. *Zootaxa* 3664: 136-148.
52. S. Epis, M. Mandrioli, M. Genchi, **M. Montagna**, L. Sacchi, D. Pistone, D. Sassera (2013). Localization of the bacterial symbiont *Candidatus* Midichloria mitochondrii within the hard tick Ixodes ricinus by whole-mount FISH staining. *Ticks and Tick-Borne Diseases* 4: 39-45.
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Books and Book chapters

63. S. Alberghini ... (2014). Gli insetti e il loro controllo. NAPOLI: Liguori, ISBN: 978-88-207-5351-1
64. **M. Montagna**, L. Sacchi, N. Lo, E. Clementi, D. Daffonchio, A. Alma, D. Sassera, C. Bandi (2011). The Bacteroidetes *Blattabacterium* and *Sulcia* as Primary Endosymbionts of Arthropods. In: (a cura di): E. Zchori-Fein;K. Bourtzis, Manipulative Tenants : Bacteria Associated with Arthropods. CRC Press Taylor and Francis Group, ISBN: 9781439827499

Congresses abstracts

65. B. Rossaro, G. Magoga, **M. Montagna**, V. Lencioni (2016). Chironomids taxocenosis in glacial areas, a long term study. In: Book of Abstracts. p. 69, Turin:SIL, Torino, 2016.
66. E. Martin, A. Cafiso, V. Mereghetti, B. Chouaia, C. Bazzocchi, C. Bandi, S. Epis, **M. Montagna** (2014). Widespread presence of Wolbachia in an Alpine population of the viviparous leaf beetle *Oreina cacaliae* (Coleoptera: Chrysomelidae). In: 8th International Wolbachia Conference - Abstract book. p. 1, Wolfgang Arthofer, Birgit C. Schlic k-Steiner & Florian M. Steiner, Igls, 2014
67. **M. Montagna**, D. Sassera, S. Epis, M. Mariconti, C. Bazzocchi, F. Comandatore, L. Beati, E. Ferri, M. Casiraghi (2012). DNA barcoding in ticks: principles, applications, and the case of the spotted-fever vectors of the genus *Amblyomma*. In: CNBXI - XI National Congress of Biotechnology.
68. F. Comandatore, D. Sassera, N. Lo, S. Epis, G. D'Auria, **M. Montagna**, D.S. Horner, J. Pereto, A.M. Luciano, F. Franciosi, E. Ferri, E. Crotti, C. Bazzocchi, D.G. Daffonchio, L.

Sacchi, A. Moya, A. Latorre, C. Bandi (2011). Symbionts, within symbionts, within parasites: a key to trive in suboxic conditions?. In: (a cura di): S. Casella;D. Daffonchio;M. Gobbetti;E. Parente, Microbial diversity 2011: Environmental stress and adaptation. p. 90-92, Milano: SIMTREA, Milano, 2011

69. D. Sassera, T. Beninati, S. Epis, C. Bandi, L. Beati, **M. Montagna**, M. Alba, C. Genchi, L. Sacchi, N. L. (2010). *Candidatus* Midichloria mitochondrii, formerly IricES1, a symbiont of the tick Ixodes ricinus that resides in the host mitochondria. In: (a cura di): M.W. Sabelis;J. Bruin, Trends in Acarology : Proceedings of the 12th International Congress. p. 527-531, Dordrecht:Springer, ISBN: 978-90-481-9836-8
70. **M. Montagna**, E. Ferri, L. Beati, D. Sassera, M. Casiraghi, S. Epis, L. Sacchi, C. Genchi, C. Bandi (2010). DNA barcoding in ixodid ticks. *Parassitologia* 52: 209.
71. M. Pajoro, D. Pistone, S. Epis, D. Sassera, **M. Montagna**, C. Luzzago, P. Lanfranchi, R. Viganò, M.C. Cerutti, N. Vicari, M. Fabbi, C. Bandi, C. Genchi (2010). A survey for bacterial pathogens associated with Ixodes ricinus in north-western Italy. *Parassitologia* 52, p. 178, ISSN: 0048-2951
72. D. Sassera, T. Beninati, S. Epis, C. Bandi, L. Beati, M. Montagna, M. Alba, M. Genchi, L. Sacchi, N. Lo (2010). Candidatus Midichloria mitochondrii', formely IricES1, a symbiont of the tick Ixodes ricinus that resides in the host mitochondria. In: Proceedings of International Congress of Acarology.

Teaching Activities

Academic year 2020-2021 Computer technology and statistics knowledge. Bachelor Production and protection of plants and green areas, UMiL (IT).

Since 2018 Methods in Biotechnology – Molecular Taxonomy. Master Degree in Biotechnology for Bioeconomy, UMiL (IT).

Since 2017 Applied Entomology. Master Degree in Crops and Plant Sciences, UMiL (IT).

Academic year 2016-2017 Introduction to UNIX & Linux. PhD course within the Agriculture, Environment and Bioenergy PhD school, UMiL (IT).

Academic year 2016-2017 Biological control of insect pests: from SIT to symbiotic control. PhD course within the Agriculture, Environment and Bioenergy PhD school, UMiL (IT).

Academic year 2014-2016 Elements of Plant Protection–Entomology, Undergraduate in Crop and ornamental green production and protection sciences, UMiL (IT).

Authors of numerous seminars and short courses for PhD students and researchers at UMiL, CNR – IRSA.

7/2019-7/2021 LifeWatch call 2018 VREs & MoBiLab (LW-ITA Call). Cold-adapted species: lessons from the past to face future warming (25k €). Project leader.

National and International founded grant

6/2019-6/2020 UMiL– Research Supporting Plan (RSP) 2019-2020. SPEciEs Distribution modelling and population genomics to calculate extinction risk in a changing climate (14.2k €). Researcher involved.

2/2019-2/2022 PRIN–MIUR, call 2017. Plant multitROphic interactions for bioinspired Strategies of PEst ConTrol-PROSPECT (5 research units). Unit coordinator (160.8k € assigned to the research unit).

12/2017-12/2018 UMiL–RSP2015-2017. MoBioS–Molecular Biological Index of Soil Quality. (14.7k €). Project leader.

3/2017 National Science Centre of Poland, call 2016. Species diversity and origin of Chironomidae fauna from geologicaly young Lake Skadar (Montenegro/Albania) and its old spring system based on morphological characters and on Next Generation Sequencing Techniques (35k €). Scientific supervisor.

3/2016-3/2017 Systematics Research Fund–SRF 2015/16. Taxonomic description of phosphatized insect fossils from a Middle Triassic site (1.4k €). Project leader.

12/2015-12/2017 UMIL–RSP2015-2017. Arms race between *Galeruca laticollis* and Aconitum napellus: bacteria as possible allies of insects. (15k €). Project leader.

National and International projects that have crossed the quality threshold but were not funded

Call ERC-2020-STG – European Commission. Title of the proposal: *DEep-time to current extinctions: Forecasting dynamics of Anthropocene Communities subjected to anThrOpogenic disturbance (DEFACTO)*. Role: PI. Final score: B.

Call SIR–MIUR 2014. Title of the proposal: *The role of symbiont communities in the evolution of insect-plant interactions: gut bacteria, metabolomics and the host-plant defence response*. Role: PI. Final score: eligible but not funded.

Marie Curie Actions, Call: FP7-PEOPLE-2013-IEF – European Commission. Title of the proposal: *Metamicrobiomics and the role of gut symbiont communities in the evolution of insect-plant interactions* (SymBioEvo). PI. Final score: proposal of good quality, having passed all thresholds but for which funding is not available due to budgetary constraints.

Inverigo, 19 October 2020