



NEWSLETTER N°113 APRIL 2018



**UNIVERSITÀ
DEGLI STUDI
DI MILANO**

SUMMARY

[NEWS HIGHLIGHTS](#) - Don't miss the key information

[SERVICES FOR THE MOUNTAINS](#)- Practical help every month

[CALLS, INTERNSHIPS and JOBS](#) - Don't miss these opportunities

[PROJECT IMPLEMENTATION](#) - Valorization of the mountain areas of the Lombardy Region

[SEMINARS and WEBINARS](#) - Informed and trained, on campus or online

[RECENT EVENTS](#) - Learn more about Unimont activities

[NEW PUBLICATIONS](#) - Books, articles and scientific research

[ABOUT US](#) - Press releases about our activities

NEWS HIGHLIGHTS



3rd graduation session Degree Course in Conservation and Sustainable Development of Mountain Areas A.Y. 2016/2017

18 students graduated in Conservation and Sustainable Development of Mountain Areas on Tuesday and Wednesday, 10th and 11th April 2018 at the Mountain University.

Arrigoni Francesco - Bellano (LC): Quantitative and qualitative evaluation of the production of Bitto PDO in Val di S. Giacomo

Bellini Matteo - Clusone (BG): Eco-sustainable innovation in the ornamental greenery sector

Bellomi Lorenzo - San Giovanni Lupatoto (VR): Methodological criteria for ecological evaluation according to landscape bionomics. The case of the residential libeskind district which is part of the citylife redevelopment project in Milan

Bertera Francesco - Musso (CO): Giardin del Merlò: dyeing plants and enhancement of the territory

Bonetti Fabiano - Valdisotto (SO): Survey on forest utilization in Alta Valtellina

Carrara Mattia - Rumo (TN): Study on the relationship between age and stage of the autumn moult in cervids of the Rumo hunting reserve (TN)

Erfini Roberto - Montodine (CR): Analysis of the management status of the meadows of Val Grosina and of the fodder potential of the Municipality of Grosio

Ferrazza Michelle - Ragoli (TN): Design of a new ski slope: the puza piste from fo'-plaza (Madonna di Campiglio skiarea-Dolomiti di Brenta)

Franchi Luca - Provaglio d'Iseo (BS): Mead: history, production technology and quality characteristics.

Fustella Gabriele - Prata Camportaccio (SO): Production performance and management of a family poultry farm for egg production in a mountain environment

Gastoldi Chiara - Castelli Calepio (BG): The 'Botanical path of Monte Cavallo': a proposal to enhance an area of the park of Bergamo's Orobie mts.

Matteri Giordano Bruno - Stazzona (CO): Conversion to high-growing trees through the civic use of beech forests in the Municipality of Cusino

Mazzucotelli Matilda - Abbadia Lariana (LC): Analysis of the effects of a mountain wind power plant on the avifauna

Pagani Lisa - Podenzano (PC): Community supported agriculture: an analysis of the actors of a new form of agriculture

Pasini Luca - Chiuro (SO): Study of the population dynamics of Lobesia botrana in vineyards in the Province of Sondrio

Ricci Elisa - Abbadia Lariana (LC): Targeted wildlife monitoring: an instrument for the study and the valorization of fauna in the Adamello Brenta Natural Park

Teocchi Gianluca - Sorisole (BG): Floristic characterization of alpine pastures of Valchiavenna.

Villa Giacomo - Casatenovo (LC): Monitoring of bioengineering work - the case of the Val Bova di Erba (CO)

Advanced Course DETECTION OF ROCK ART

The advanced course "Rock Art Detection. New methodologies for documenting and managing mountain and valley heritage" will begin in July 2018. The first lesson will be streamed on 13th July, 2018; intensive/practical lessons from 3rd to 7th September 2018.

The course, organised by the Mountain University (University of Milan, Edolo) in collaboration with the Camunian Centre for Prehistoric Studies, aims to train new professionals and transform historical-cultural heritage into a stimulus for the enhancement and economic growth of territories.

The program aims to provide participants with an "wide" view both geographically and

chronologically, and to deal with complementary disciplines, useful for providing knowledge and methodologies and for enriching the field experience of future rock art specialists. The lessons include theoretical and practical topography sessions with the use of GPS systems, database creation and management, basics of archaeology and mountain geomorphology, methodology and rock art data collection.

The Camunian Centre for Prehistoric Studies and the Mountain University offer this course of professional training and specialization in the field of humanities and cultural heritage with a dual method, theoretical and practical - in the field.

Conference: Climate Change

CAI-TAM is organizing a national meeting dedicated to climate change and its increasingly recurring effects on the environment in order to present and analyze this important planetary emergency.

Anna Giorgi of UNIMONT - Centre of Excellence of the University of Milan, Leader of Action Group 1 - Research and Innovation of the European Strategy for the EUSALP Alpine Region has been invited to contribute to the conference about climate change, from a local to a global level together with Dr. Sarah Whitaker, a researcher at UNIMONT.

The average temperature in the Alps has increased by about 2 degrees Celsius over the last 100 years, and this increase is altering the environment and the territory of the Alps. During this meeting UNIMONT, a Centre of excellence that has been involved in research and innovation with particular attention to the specificities, criticalities and resources of mountain areas for years, will show how, due to climate change, new landscapes and meteorological conditions are emerging in the Alps with varied potential impacts on the agriculture and traditional agricultural practices, local economic activities, culture and environment of such areas.

Which future for mountain municipalities?

In order to define and focus on the importance of the social fabric of municipalities and peripheral areas, as well as to promote the awareness of local communities, develop innovative ideas and encourage aggregation between various organizations, FEDERBIM is organizing a

conference entitled "Which Future for Mountain Municipalities?", to be held Saturday, 14th April at 10.00 a.m..

Speeches will include that of Anna Giorgi of UNIMONT - Centre of Excellence of the University of Milan, Leader of Action Group 1 - Research and Innovation of the European Strategy for the EUSALP Alpine Region, who, together with Dr. Giuseppe Bufalino of the UNIMONT Internal Areas Team, has been invited to the conference to talk about "Aware administrators for a correct management of mountain municipalities".

UNIMONT is a unique and innovative university centre, which has accepted the complex challenge of a territory with important critical issues and which experiments and promotes the combination of rediscovery and innovation as a necessary perspective for a fragile area, in order to trigger repopulation, disseminate good practices and update professionals, using training and communication tools which ensure the best results.

EDOLO SPORT DAY - Sport in the mountains on 11th April

Sport becomes a focus point in Edolo. Thanks to the collaboration with the University of Milan and the CUS Statale, the first Edolo Sport Day took place on 11th April. The municipality in the province of Brescia promotes sport for secondary school students both of middle and high schools, as well as university students present in the area.

In the morning, students of middle and high schools challenged each other in the internal competitions of the school sports project. This was followed by a conference held by the President of the Sports Committee of the University of Milan Professor Antonio La Torre and Roberto Codella, lecturer in the Undergraduate Course in Exercise Sciences at the University of Milan.

The conference dealt with the issue of doping and was an opportunity to present the project "Fight against doping", started in Lombardy in 2000, and an initiative of ASSITAL (Italian Light Athletics Association) supported by the Regional Committee Fidal Lombardia with the aim of raising the awareness of high school students regarding the phenomenon of doping in sport, and of clarifying a topic often dealt with in a difficult and confusing way.

The program of the sports day continued and ended in the afternoon with the Edolo stage of the Faculty Championships, the largest sporting event of the University of Milan, established with the aim of combining culture and sport. Students of the Faculty of Agriculture took the field, ready to fight in the preliminary phase of the tournament that will elect the 2018 University Faculty Champion on 26th May.

A UNIMONT student wins the Aquila Studens award

"Aquila Studens" is a competition that rewards the best bachelor's and master's degree theses about the mountains and the alpine environment from different viewpoints: nature, human, historical, literary.

The main subject of the thesis can be a literary or scientific text, as well as an essay or manual. This means that the theses must study, from a linguistic, literary, historical and scientific viewpoint, that particular book.

Gabriele Della Torre, who graduated in Edolo last year with a thesis on the "Estimation of economic sustainability of the Val Dossana pastures", in collaboration with the union of the municipalities of Val Dossana, has won the "Aquila Studens" Award 2018 for the best bachelor's degree thesis.

The award ceremony will take place during the ceremony of the 44th edition of the ITAS Prize, when a special moment will be dedicated to the Aquila Studens competition.

MOUNTAIN SERVICES



WORKING TABLES

The UNIMONT portal has a section where users can find working tables active on topical issues for mountain areas, such as the "red gold" of the Alps and plant agrobiodiversity. The portal aims to encourage increasing interaction with mountain territories and to link them with the subjects responsible for

the training and management/administration of such areas.

❖ Plant Agrobiodiversity

Agro-food in Italy is a sector of great importance and excellence which represents the richness and quality of typical Italian products. There are still many little known traditional plant varieties that deserve to be characterized, valorized and protected. The protection and enhancement of agro-food heritage is at the centre of UNIMONT's attention. [Join the working table: CLICK HERE](#)

❖ Red Gold of the Alps

The working table on saffron was set up in order to create an agile and reactive platform for academics, technicians, enthusiasts and farmers who work with this precious spice. In addition, it aims to make farmers easier to find for those who want to make an ethical choice and find locally produced saffron and, above all, it is a platform which provides support for scientific experimentation and farmers' needs, bringing the world of research closer to that of agricultural practices, according to the principles of EU agricultural policies 2018-2020. [Join the working table: CLICK HERE](#)

CALLS, INTERNSHIPS AND JOB OPPORTUNITIES



Help for young people starting out in agriculture

L'Istituto di servizi per il mercato agricolo alimentare - ISMEA - national public economic body with registered office in Viale Liegi n. 26 - 00198 (Rome) intends to encourage young people to set up businesses in the agricultural sector throughout the country.

To this end, in implementation of the aid scheme called "Agevolazioni per l'insediamento di giovani in agricoltura - Start-up aid for young people in agriculture", registered with the European Commission as number SA.50598 (2018/XA), this Call aims to

support land operations reserved for young people who are at the head of a company setting up a farm for the first time, through the provision of a contribution to pay the interest on a bank loan.

Preliminary notice of expression of interest aimed at identifying suitable professional figures to be consulted for the attribution of services for the promotion of the cultural heritage of the department of superintendence for cultural heritage and activities

Performance of services/activities for the promotion of tangible and intangible cultural heritage, including for tourism, through the organization of initiatives and/or events. Creation and realization of replicable and sustainable events for the promotion of the intangible cultural heritage linked to the ethnology and traditions of the territory (customs, language, traditional food ...).

Competition to honour the memory of the founding partner ERMINIO FAUSTINELLI.

STELLA ALPINA - Società Cooperativa Sociale dell'Alta Valle Camonica - together with Ski instructors, Banda Musicale di Pezzo, Società Impianti Turistici SIT SPA, So.Sv.AV - Società per lo sviluppo dell'Alta Valle Camonica and with the contribution of family and friends of Erminio, have opened a call in order to honour the memory of the founding partner ERMINIO FAUSTINELLI.

Young people between 18 and 35 years of age resident in the one of the Municipalities of the Union of Lombardy Municipalities of Alta Vallecamonica prepared to take part in a work/study training experience of at least 30 days are eligible to participate. A longer timespan will be an element which will allow applicants to acquire a higher score in the ranking. Students of the Mountain University, which is located in Edolo, can also participate, presenting documentation proving that they are enrolled in one of the first three years of the degree course.

The experience must have training purposes for humanitarian and non-commercial purposes since the training contribution is not intended to replace the salary paid by the company or association as remuneration for the work done.

PROJECT IMPLEMENTATION



NETWORKING FOR THE MOUNTAINS: Antennas project

"Antennas" are points that transmit and receive scientific and information content about the mountains, making such knowledge available to all those interested in various mountain areas.

Some UNIMONT Antennas which are continuing to be part of the network:

- [ARS.UNI.VCO](#)
- [CHAMBER OF COMMERCE OF LECCO](#)
- [I.I.S. "25 APRILE" DI CUORGNÈ](#)
- [UNIONE MONTANA VALLE GRANA](#)
- [UNIVERSITY OF TUSCIA](#)
- [UNIVERSITY OF EASTERN PIEDMONT](#)

SEMINARS AND WEBINARS



Mycotoxin contamination in zea mays l. Presentation of the main mycotoxins that can be found on corn grain

Health requirements related to food resources have become increasingly restrictive in recent years, ensuring the provision of products which are increasingly safe. As regards corn, along the entire supply chain (from the farmer to the final consumer) attention has been focused on the levels of mycotoxins detectable on the grain. These toxins are secondary metabolites produced by some fungal species under certain environmental conditions and are capable of causing serious damage to human and animal health.

Given the relevance and importance of the topic, a seminar has been organized during which the main fungal species (mycotoxin producers) that parasitize maize (*Fusarium* sp. and *Aspergillus* sp.), entry into the host and environmental conditions that cause these fungi to produce mycotoxins will be described. Subsequently, the main toxins of fungal origin that can be found in products deriving from corn (food and feed) will be presented and their impact on human and animal health will be evaluated. Available detection techniques to quantify the levels of different toxins present in the main products used for both human and animal feeding will be examined. Finally, the conference will end with the discussion of agronomic practices that can be used to prevent and/or reduce the production of these dangerous secondary metabolites.

Small Municipalities and Typicality

The study "Small municipalities and typicality" carried out by Fondazione Symbola and Coldiretti, will be presented during the conference, reconstructing the geography of the territorial quality of the country, analyzing typicality, biodiversity and landscape, historical and artistic heritage.

There will be some young Coldiretti members from the mountain areas of Bergamo, Brescia, Como, Sondrio and Varese who will talk about their work experiences at the meeting. Multifunctional mountain agriculture will be represented by means of case histories regarding the transformation and direct sale of products (cheeses, cured meats, fruit and vegetables, ...), hospitality and agritourism, educational farms, product traceability, biodiversity and more.

Furthermore, an example of a sustainable territorial tourism route, developed in small mountain municipalities, will be illustrated.

Editorial Tourism

The history of the Italian Touring Club: Italy was born recently, how can it be made known to Italians? A group of Milanese entrepreneurs who were keen cyclists decided to discover it, talk about it and map it. The first publications developed in a short time, from the monthly Touring Magazine to the Red Guides that became essential tools for discovering the country's artistic, cultural and natural heritage. Italians were invited to take travel

photos and send them to Touring. The only condition: to take pictures of everyday life.

Tourism has evolved over the decades and, with it, so have TCI publications.

How has the narration of the territory changed? How can it be promoted and described today?

Touring magazine today and the new channels: from the website to the apps to the social profiles.

Avalanches: not only risk factors but important environmental modification agents

Avalanches are not just a risk factor for those who go to mountain areas in the winter, they also represent a formidable agent which modifies the environment, able to model the landscape in a unique way.

Avalanches, for example, exert considerable erosive activity on the soil, which can be removed and transported, particularly in the area where the snow mass moves. The soil mixes with the snow carried by the avalanche and is normally deposited on the valley floor, where it accumulates in specific forms. The amount of soil removed by the avalanche in movement depends on the characteristics of the avalanche itself (e.g. size, moisture content of the snow), morphological factors (e.g. inclination, width of the slope) but also on the characteristics of the soil and vegetation.

The zones of accumulation of avalanches are characterized by a greater persistence of the snowpack that reduces the duration of the vegetative season and alters the cycle of the nutrients in the soil, favouring the development of species whose seeds are transported from areas of higher altitude.

Therefore, areas which are characterized by high pedodiversity and biodiversity originate, contributing to significantly differentiate the landscape in alpine areas and with specific features which still partly need to be discovered.

racCONTA LA MONTAGNA: Marzia Verona "Di questo lavoro mi piace tutto"

Boys and girls keen on breeding, either by tradition, or by choice. Goats, cows, sheep, for the dairy, for meat and even "pets" are the background to their stories. There are those who live on the farm, those who are doing

their utmost to start a business and those who are forced to keep their interest under the heading "hobby".

Through their words, put together between 2010 and 2012 in Piedmont, Val d'Aosta, but also with contributions from other parts of Italy received through the web, we can discover a world where there are no spoilt young people, but those who roll up their sleeves and work hard to crown their dream through a career that leaves little or no free time. But the rewards are many: to see the animals that are well, to see them grazing freely in the pastures, to witness the birth of a calf, of a kid goat.

Heritage, culture, community in the Terre di Mezzo of the Val Grande National Park: the project COMUNITERRAE

COMUNITERRAE is a participated cultural project that was set up as a continuation of the construction of the Community Map of Terre di Mezzo, started in January 2017 and promoted by Associazione Ars.Uni.Vco and Val Grande National Park, under the European Charter of Sustainable Tourism and with the contribution of Piedmont Region.

One of the main objectives is to stimulate the participation of local communities in the processes of conservation and enhancement of the tangible and intangible heritage of the Terre di Mezzo. The first phase saw the 235 inhabitants of 10 Municipalities of the Ossola and Intrasca Valleys (VB) actively contributing to the definition of the shared identity of the mountain territories between the valley floor and the highest altitudes.

COMMUNITERRAE starts from there, from the need to communicate the identity of the communities and the territory of the Terre di Mezzo. Project activities aim to better define this new cultural landscape that, beyond municipal boundaries, collects and directs community energies towards a re-appropriation of their heritage, which thus becomes a resource for local development and for sustainable tourism.

The project has obtained the official mark of the European Year of Cultural Heritage 2018, contributing to the achievement of European objectives aimed at encouraging cultural, people-centred, inclusive, forward-looking, more integrated and sustainable approaches

to cultural heritage, promoting participatory heritage management models.

People and mountains: old and new professions

Make your passion, the mountains, a stimulating and engaging job? Let's find out how to realize this dream, through the story of 3 experts, mountain lovers.

Zendrini Tiziana - Environmental Sciences: Inventing your own path by living "in the" mountain "of the" mountains, regaining, with the help of historical environmental practices, a viewpoint which makes mountains a choice for your life.

Zampatti Renzo - Alpine Guide Master of Mountaineering: Mountain Guide, a new profession with 100 years of history.

Tocchini Andrea - Alpine Guide Master of Mountaineering: From mountaineer to guide, he encountered the mountains almost for fun and immediately understood that it was what he wanted to do in life, from the first adventures close to home to the climbs he dreamed of ... then turning his interest into a job.

The mountain tourism system: analysis and characterization of the infrastructural components: mobility (roads, trails, ski lifts, ski slopes) and functional relationships (property system, urban planning and safety)

Mountains are a complex system: many of the problems and conflicts that arise in the activities that concern them almost always stem from an overly sectorial approach, especially as regards the planning phase. Hence the need for an integrated "knowledge" of their components.

This conference provides participants with an organic knowledge of the mobility and fruition infrastructure system, their classification and their functional principles in relation to property, urban planning and safety.

Mountain medicinal plants

The conference will highlight the potential and problems of mountain farms regarding the cultivation and transformation of medicinal plants. In addition to dealing with aspects related to the production chain in a national and international context, some concrete experience will be presented of those who successfully cultivate (and transform) these

plants in a mountain environment, integrating tradition and innovation. Particular emphasis will be given to the various types of medicinal plants that can be grown in Lombardy mountain environments and to the products that can be obtained from them (herbal teas, cosmetics, products for natural remedies, etc.) with reference to current market potential.

The seminar is aimed primarily at farmers who want to create small production chains based on mountain medicinal plants, as well as at all those interested in the topic such as those working in the agricultural-herbalist sector, agritourism and education.

Innovating, future ideas. A story of people, mountains and innovation

Mountain terrain is impervious, full of risks and dangers, where environmental conditions change rapidly and people inevitably learn to develop a strong ability to adapt. Mountains involve difficult climbs and insidious descents. Those who live in the mountains know that the mountains do not give anything for free, they are deserved and conquered with sacrifice, honesty, respect and loyalty. Those who live in the mountains know that it is not wise to climb their peaks alone. This way of experiencing the territory permeates our business culture: we are accustomed to walking uphill, we are used to laboriously reaching the top to look at the horizon, we are used to recognize the dangers of descents and to face them with respect but without fear.

The pride of running a business in a mountain area obliges us to confront innovation daily, innovation is a necessity for us, survival is not a choice among many others, if we are not different we do not exist for obvious conditions that undermine our competitiveness in the market.

The conference will concentrate on how the challenge of innovation has been tackled in the past and nowadays and how it will be tackled in the future. A journey talking about people, organizational models, mountains, emotions, values, social commitment, leadership to discover how the mountains of business will be climbed in the future. No special skills or knowledge are required for our trip but only the desire to get to the top to see what we cannot see if we stay at the

bottom of the wall (like the child in the picture).

Forest utilization companies of northern Italy: size, economic and employment relevance and possible development strategies in a mountain environment

Proper forest management is a necessity for the environment, and at the same time an opportunity for economic development for mountain areas.

However, forest management is not feasible without forestry companies. For this reason, regional, national and EU policies offer support to forestry enterprises through a series of often very efficient measures. For the same reason, research is constantly trying to develop new technologies that can improve the efficiency and safety of forestry work. Nevertheless, in order to implement effective strategies to support forestry entrepreneurship, it is first essential to know some key factors.

How many forest enterprises are there? How are they organized? What workforce can they count on? How much timber do they move? How much machinery do they have? Are there any differences between the companies of the different regions, and if so, what are they?

In this context, the conference offers reliable data on the number of companies in Northern Italy, also indicating their regional distribution and their characteristics and equipment. Furthermore, the results of over 300 interviews conducted in forestry companies aimed at identifying the main factors of success and the obstacles to further growth in the sector will be presented.

RECENT ACTIVITIES



racCONTA LA MONTAGNA: Franco Mario Arminio "Geografia commossa dell'Italia Interna"

Edge, border, frontier, forests, mountains, sea, trees, clod, dog, vineyard, cloud, cow,

bench, sun, sunrise, sunset, and wind, snow, rain, and more wind, and more snow, and April, and the green of May, and in the black of September, silence with no opinions, light without comments, I just want life to unfold, it can go back where it came from, I will not hold it back, I will not hold anything back, walk, watch the trees, do not say and do not do anything but go around the boundaries, go deeper within certain boundaries, do not go beyond them, do not aim for the passions of most, do not aim for the passions of all, desert, become familiar with the sky, but do not show off about it, do not spit words on the world and others, walk, go out because the sun has come out, go out, choose a village, go through it, say nothing of the day, do not tend towards solitude, leave it intact, let solitude live its life, recount its story and the same for sadness and weariness, to be tired, sad and lonely is still a fortune, the good feelings mark the world like the bad ones, like words.

The Alimurgical plants of the Lombardy mountains

The conference concentrated on the main alimurgical plants that are found in the various environments of the Lombardy mountains. In particular, information was provided on how to recognize them and how to distinguish them from toxic species.

Traditional uses of edible species were described. In addition to dealing with aspects related to the collection (in the context of current legislation) and the use of wild plants, little-known herbs that can be grown in small farms and/or agritourisms in mountain areas and which could represent an added value for such businesses were analysed.

The conference was aimed mainly at farmers who intend to collect/cultivate local edible species, as well as all those interested in the preparation of traditional local dishes such as those working in the agritourism sector.

Gian Pietro Verza, alpine guide and electronic tools designer: ice axe, crampons and computer

Gian Pietro Verza, born 8 meters above sea level in Polesine, has followed a career that has taken him up to the **8000m of Everest, in the mountains of Khumbu, the Himalayas of Nepal.**

An exciting encounter with the most intense energies of the mountains, where everything depends on the capacity to create an intimate harmony with the environment. A meeting to find out about and compare life experiences in which the **mountains are a decisive component** of a very special career.

From the profession of **electronics designer** he has become an **alpine guide** and then had to learn how to combine the two professions for the realization and technical management of the **Everest Pyramid**. A synergy that has allowed him to contribute to **scientific projects** in the highest mountains.

racCONTA LA MONTAGNA: Pietro Maroè - "La timidezza delle chiome"

Pietro is a boy of twenty who lives in the trees. He climbed them before starting to walk and now looks after monumental trees all over the world. He climbs them, studies them, loves them, talks to the branches (and the branches speak to him, he swears).

In these pages he tells what happens on top of the giant plants of Australia and in our tame gardens. Because even there, without realizing it, there are loves and wars, such as that, down on the ground, between sage and tomato. But this book is not only about trees, it also talks about us. Because from those oaks more than thirty meters tall Pietro looks at the world below, our world, that of those who remain on the ground. And he tells what trees can teach us, what we need to live with their tranquility and adaptability. Pietro teaches us how to find a new measure for our time: "Plants are slow, very slow for the speed of our lives. And while we, impatient in the world below, are unable to think in terms of centuries, they see us go by, look at us and know. "

Biotic consequences of glacier retreat: community dynamics and ecosystem functioning

Global warming is causing a progressive melting of glaciers and their withdrawal is freeing large areas of land in which life is beginning to develop. The objective of this research is to understand how colonization of deglaciated areas occurs by bacteria, plants and animals, and to analyze the environmental dynamics that lead to the recreation of biodiverse ecosystems where nothing existed previously. As also observed in

the Italian Alps, in fact, when a glacier withdraws, it leaves behind only gravel and rocks, which gradually begin to be colonized by life forms. In some cases, even extremely dense forests can develop in a century and a half after glacier retreat.

The conference will show how the analysis of environmental DNA allows a rapid and complete analysis of the colonization that occurs following the withdrawal of glaciers. Traditionally, the study of organisms living in these areas has been carried out through the study of individual living species, which requires even years of research for each individual glacier. Through the technique of environmental DNA, instead, samples of soil are taken and the traces of DNA present in it are analyzed, which belong to all the animal and plant species that came into contact with that soil. This allows a quick and complete assessment of how colonization occurs in glaciers around the world, from the Andes to the Asian mountains.

From ecology to bionomics: the study of complex environmental systems in alpine landscapes

Science is currently at a turning point! It can no longer advance in separate sectors, but must take the context into account (New Paradigm shift).

This means studying for "complex systems".

Thus new disciplines are born, in relation to each other: Landscape bionomics is presented in this conference, because it is capable of overcoming the limits of traditional Ecology in the study of such systems.

Evolution of the man-river relationship in the Alps: new opportunities with ancient roots

For centuries, life in the Alps was only possible through the judicious use and careful management of surface water. The oldest traces of dams, diversions, canals are present on mountain slopes everywhere, witnesses of a past where water was so important in the subsistence economy of the Alps as to require complex forms of self-government and to start conflicts, (the term 'rival' indicates precisely the one with whom we share access to the same 'rivus', i.e. stream).

Even now water is one of the main economic resources of the Alpine territory, around

which huge interests revolve, ranging from hydroelectric power to drinking water to artificial snow. This pressure often leads to a profound alteration of Alpine river systems, the protection of which is indispensable especially in the current scenario of global climate change.

However, to protect requires knowledge and this Italian Mountain Lab project conference aims to increase knowledge of river systems and the implementation of eco-compatible and sustainable tourism systems.

The project for an Alpine Rivers Study Centre (ALPSTREAM) will also be presented, in collaboration with the Parco del Monviso.

NEW PUBLICATIONS

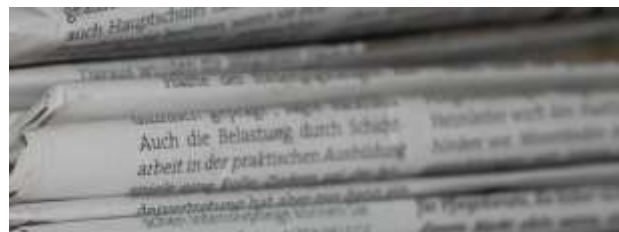


Giupponi L., Tamburini A., Giorgi A. (2018) [PROSPECTS FOR BROADER CULTIVATION AND COMMERCIALIZATION OF COPAFAM, A LOCAL VARIETY OF PHASEOLUS COCCINEUS L., IN THE BRESCIA PRE-ALPS](#) Mountain Research and Development

Hajdari A., Giorgi A., Beretta G., Gelmini F., Buratti S., Benedetti S., Mercuri A., Mala X., Kabashi S., Pentimalli D., Pula B., Mustafa B. (2018). [PHYTOCHEMICAL AND SENSORIAL CHARACTERIZATION OF HYSSOPUS OFFICINALIS SUBSI. ARISTATUS \(GODR.\) NYMAN \(LAMIACEAE\) BY GC-MS, HPLC-UD_SAD, SPECTROPHOTOMETRIC ASSAY AND E-NOSE WITH AID OF CHEMOMETRIC TECHNIQUES.](#) European Food Research and Technology

Giorgi A. (2018) [RICERCA E FORMAZIONE DA E PER LA MONTAGNA](#), Politiche Piemonte

ABOUT US



[Mais nero, l'elisir di lunga vita racchiuso in una pannocchia](#)
Corriere della Sera (Brescia) - 13 April 2018

[Uniti per portare in auge l'antico mais nero spinoso](#)
Giornale di Brescia - 13 aprile 2018

[Tesori della terra, ora il mais nero ha tanti tutor](#)
Bresciaoggi - 13 April 2018

[Edolo Sport Day, lo sport diventa protagonista in montagna](#)
Green Planner, 10 April 2018

[Unimont Edolo Sessione di Laurea per 18 studenti](#)
Gazzetta delle Valli, 9 April 2018