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Grassland diversity of the inner-alpine dry valleys in the South-Western Alps: Impressions from the 18th EDGG Field Workshop (1 to 11 June 2024)

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In June 2024, the 18th EDGG Field Workshop took place on the trail of J. Braun-Blanquet's work on xerothermic vegetation classification in the south-western Alps in France (FR) and Italy (IT). Three different valley systems were visited: the Susa(IT)/Maurienne(FR), the Aosta(IT)/Cogne(IT) and the Durance(FR)/Queyras(FR). It was full of beautiful and heartily shared moments, and on the following pages, we will give some impressions. Each day of the expedition is shortly presented and enriched with photographs that illustrate the work and joy of collective sampling efforts in the scenery of the inner-alpine valleys and their vegetation.

In total, 22 participants joined either partly or for the whole Field Workshop originating from seven countries (Austria, France, Germany, Italy, Slovakia, Spain, Ukraine) and working in eleven countries (Austria, Czech Republic, France, Germany, Iceland, Italy, Poland, Slovakia, Spain, Switzer-

land, Ukraine). They were hosted and supported by three local organising committees in the three valley systems, altogether comprising 15 local experts. Most participants were botanists specialised in vascular plants, however, also one bryologist and one arachnologist complemented the expedition. Everyone in the group contributed with the species knowledge from their home countries and with the great support of the local organising teams, the group was able to cover the diversity of the surveyed region. Every day, the group was split into 2-3 independent sampling teams. After long sampling days, climbing on the slopes like goats beneath the elements, the evenings were dedicated to species identification, juggling between the different regional flora identification books. Taken together, this Field Workshop was one of the largest and the most productive ones to date!

Further Reading:

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Map of the sampling area (coloured polygons) in the South-Western Alps. (B) Eleven sampling days were evenly distributed across the valley systems of Susa/Maurienne, Durance/Queyras and Aosta/Cogne. The background map is based on a digital elevation model.



A precisely delimited EDGG Biodiversity Plot being surveyed by well prepared botanists.



Group photo of the participants in front of our third accommodation in Nus, Aosta Valley, Italy.

1st June 2024 – Susa Valley

Our Field Workshop started with the arrival at our accommodation in San Giuliano, located in the Susa Valley, the "Azienda Agricola San Giuliano di Giai Pier Luigi e figli", a former farm that has been renovated as an agritourism. In the afternoon, we met with the local organisers, led by Michele Lonati, from the University of Torino, who prepared sampling locations for the upcoming days in the Susa Valley. While the last participants were still arriving, most of us were drawn to the grasslands above the venue. There, we sampled the first 10-m² plots of the Field Workshop. The day ended with a long, three-course Italian-style dinner, during which the plan for the field course was outlined.



View into the Susa Valley from San Giuliano.



Strong interest to explore the local flora sparked immediately among the participants.



Stipa eriocaulis grasslands, rich in annuals, were characteristic for the slopes above San Giuliano, where we sampled the first 10-m² plots.

2nd June 2024 – Susa Valley

In the morning, the field equipment was distributed and the standardised EDGG methodology (re-)introduced to all participants to calibrate surveying practices among them. In the following, separate teams split up and sampled on the hillsides of the valley until a thunderstorm forced us to return to San Giuliano. There, work continued with determination of unidentified species from the field.



Accurate sampling of the plots requires well-organised field equipment, teamwork and is rewarded with beautiful views into the Susa Valley.



Spider and bryophyte sampling often involves working face-to-face with the soil surface.



Both botanists and herbivores enjoy the open landscape between the trees.



In the evening, the group gathered to identify uncertain species collected from the field.

3rd June 2024 – Valleys of Susa and Maurienne

After two days, routines were already developed for splitting the group into three survey teams and distributing

equipment. Two teams surveyed the grasslands on the hills and terraces around Susa and Brozulo in the central part of the Susa Valley. The last team took on a longer journey over the border into the Maurienne Valley in France.



In pleasant weather, we sampled beautiful grasslands on the slopes above the Susa Valley .



Also in the Maurienne Valley, our work was devoted to steep slopes.

4th June 2024 – Susa Valley

On the last day in the Susa Valley, all groups focussed on sampling sites in the inner part of the valley around the town of Oulx with colourful flowering meadows.

In the village of Signols, our sampling intentions attracted much interest among the local farming community and stimulated engaged discussions about land use practices and our work.



Probably the most colourful grassland of the workshop.



To keep up productive sampling in the field and species identification in the evening, a good supply of drinks is essential.

5th June 2024 – Durance Valley

In the morning, our group, counting 21 persons, packed themselves and the equipment into three cars and a minivan. We crossed the mountain pass over the border to France and got down into the valley of Durance, dominated by the highest city in France, Briançon (1,326 m a.s.l.).

There, we met the local organisers from the Conservatoire Botanique National Alpin (National Alpine Botanical Conservatory), led by Sylvain Abdulhak. After a short introduction to the area, the group split up into three teams to survey the diversity around Briançon. In the evening we moved to our new accommodation, the "Cap Verb Hostel" in Guillestre, where we adapted to the French dinner habits.



The van is packed to leave San Giuliano and after a scenic trip over the Alps we were welcomed by our french colleagues.



Sometimes you can find more people than species in a plot (the so-called people-rich plots).



The now well-oiled team is quickly familiarising itself with the French flora.

6th June 2024 – Durance Valley

After an intensive morning of sampling in the Durance Valley, we met all together at the hot spring of Plan de Phazy, located near a Roman road, which has brought pilgrims and travellers from Italy to Spain since ancient times, for our first common lunch. The site is included in the Natura 2000 network for its uniqueness. It is shaped from two major hot springs (26–28 °C) that join and create a halophyte marsh and the surrounding salt meadow - something very different to our common sampling locations. One group stayed to collect vegetation data and to try the hot water first hand. The rest of the group moved on to a rare Spanish juniper (*Juniperus thurifera*) open forest until a heavy rain drew a line under this day's work.



The hot water of the *Sources thermales du Plan de Phazy* captivates both plants and humans and provided a good spot for a shared hearty lunch.



The only Spanish juniper (*Juniperus thurifera*) forest in France, located in Saint-Crepin.

The heavy rain spared none - neither humans nor *Trichodes alvearius*.

7th June 2024 – Queyras Valley

On our last workday in France, most of us sampled in the Queyras Valley. The day started with a common sampling in a flower-rich meadow in Château-Ville-Vieille. For lunch, we visited a floodplain and then split again for steeper sites, for example around Abriès.

However, in the evening, we never missed our get-together to identify the more challenging species and store the cryptic ones.



Ready for the day... and for the Queyras Valley



Sometimes our plots were steep and sometimes flat...



... but always fascinating (on the left Narcissus poeticus and on the right Astragalus monspessulanus).



In the evening in Guillestre, we are back to school.

8th June 2024 – Aosta Valley

In the morning we hit the road again, back to Italy. Through the Susa Valley once again, we arrived at noon in the Aosta Valley where Andrea Mainetti, the local organiser from Gran Paradiso National Park, awaited our arrival. Then we spread ourselves around the village of Saint-Vincent in the outer part of the Aosta Valley and discovered the flora of this humid and warm area. In the evening, eventually, we moved into our last accommodation, the "HostHello" in Nus and closed the day in the restaurant across the road.



Back on the road! Next stop: Aosta Valley, the smallest of the 21 Italian administrative regions.



There is much to capture in this valley that we would like to gather as many pictures as possible for long winter evenings.



Working and eating together is what makes the Field Workshop most fun.

9th June 2024 – Aosta Valley

We dedicated ourselves to the middle part of the Aosta Valley. Some bad weather couldn't stop us and we split again into three groups to survey the diversity around the city of Aosta.

The best grasslands of Quart, Saint-Pierre and Praz Bas were sampled with the now well-internalised methodology.



A good Italian-style breakfast is needed to start the day.



The weather conditions no longer matter, we are already addicted to sampling. Dry grasslands still amaze us, even when everything is wet.



Tighten the measuring tape, collect the soil samples, then estimate the cover values... we can do it blindly.

10th June 2024 – Cogne Valley

On our last full day, we drove into the Cogne Valley, a southern tributary to the Aosta Valley. Around the village of Cogne, we sampled while enjoying a view of the snow-covered Alps.

For lunch, we met in the village of Valnontey where we visited *Paradisia*, the alpine botanical garden of the Gran Paradiso National Park.



View onto the name-giving mountain of the national park, the Grand Paradiso, where we treated ourselves with a colourful mesic mountain meadow (*Poo alpinae-Trisetetalia*, class *Molinio-Arrhenatheretea*).



Meeting an old friend after many years! Thomas Becker is surveying a population of *Astragalus exscapus* (right), which he already visited for his PhD study.



Paradisia, the alpine botanical garden of the Gran Paradiso National Park in Valnontey gave us a short rest, but we could not stop ourselves, we had to get as many plots as possible.



Last evening of the 18th Field Workshop in Nus.

11th June 2024 – Aosta Valley

The day when we said goodbye. But before that, we used the last hours to do what we can do better... sampling! We

took a closer look into the deepest part of the Aosta Valley before heading to where this beautiful data sampling campaign started: Torino.



The last survey in the Aosta Valley and we are still not tired of seeing ... Stipa eriocaulis.



It's time to pack and divide the collected material...



... and to say goodbye, see you next time!

Selected species from the 18th Field Workshop Xeric, meso-xeric and rocky grasslands (*Festuco-Brometea*)



Ephedra distachya subsp. helvetica (left), Oxytropis halleri subsp. velutina (centre) and Phelipanche arenaria (right).



Chrysopogon gryllus (left), Ononis natrix (centre), Carex liparocarpos (right).



Paradisea liliastrum.



Achillea tomentosa in a field of Trifolium arvense (left) and Dactylorhiza sambucina (right).



Trifolium montanum (left) and Laserpitium gallicum (right).

Rocky outcrops (Sedo-Scleranthetea)



Poa perconcinna growing together with Sedum album and Sempervivum arachnoideum.



Jasione montana (left), Allium sphaerocephalon (centre) and Paronychia kapela (right).



Silene conica (left) and Armeria alliacea (right).

Cryptogams



Coloured lichen community with *Psora decipiens* (left) and the liverworts *Riccia ciliifera* (big thalli) and *R. warnstorfii* (small thalli) growing together (right).



Grimmia pulvinata (gray-green in picture on the left) and *Orthotrichum cupulatum* (light green in the picture on the left), and a dense ground cover of *Cladonia convoluta* (right)



A species-rich bryophyte and lichen layer dominating a rocky outcrop community.

Arachnida



Euscorpius italicus.



Gnaphosa lucifuga (left) and a juvenile Eresus sp. (right).