

**EDGG Event**

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## Conference report

### 17<sup>th</sup> Eurasian Grassland Conference (2022, Spain)

### Tolosa, Basque Country, with post-conference excursion in Navarre

Since 2004, the Eurasian Dry Grassland Group (EDGG) has held annual conferences across the Palaearctic region. After the successful 16<sup>th</sup> Eurasian Grassland Conference (EGC) in Graz (with post-conference excursion in Slovenia) in May-June 2019, the next meeting was planned to be held in Tolosa (Spain) in September 2020. After two consecutive postponements due to the COVID-19 pandemic the Tolosa meeting was finally held in September 2022, organized by

the EDGG and the University of the Basque Country and supported by the IAVS, the Town Council of Tolosa, the Department of Environment and Water Engineering of the Gipuzkoa Provincial Council, The Basque Government, the University of the Basque Country and HAZI, the Basque foundation for rural, coastal and food development.



Fig. 1. View of Tolosa and Oria river, dry in this hot summer. Photo: J. Dengler.

The 17<sup>th</sup> Eurasian Grassland Conference “Grassland dynamics and conservation in a changing world” was held in Tolosa (Basque Country, Spain) with a post-conference excursion in Navarre from 12<sup>th</sup> to 18<sup>th</sup> September 2022 (Biurrun 2022). The venue was the TOPIC, the Tolosa Puppets International Centre, located in the ancient Courthouse of Tolosa, an historic town that was an important checkpoint between de kingdoms of Navarre and Castile, France and the Cantabrian harbours (Fig. 1). The event was officially opened on 13<sup>th</sup> September by the speeches of the Mayoress of Tolosa, Olatz Peon, the Head of the Agriculture and Territorial balance in the Gipuzkoa Provincial Council, Xabier Arruti and the Dean of the Faculty of Science and Technology of the University of the Basque Country, Fernando Plazaola (Fig. 2).

The conference was attended by 71 participants from 18 countries. Ten were supported by IAVS, both via regular grants (three, from Poland) and an *ad hoc* grant for seven Ukrainian scientists.

Spain	23	Sweden	2
Hungary	7	Australia	1
Ukraine	7	Austria	1
Belgium	5	Germany	1
Poland	5	Iceland	1
Czech Republic	4	Ireland	1
Italy	4	Slovakia	1
United Kingdom	4	South Africa	1
Latvia	2	Switzerland	1



Fig. 2. Opening ceremony. From left to right, Xabier Arruti, Head of the Agriculture and Territorial balance in the Gipuzkoa Provincial Council, Olatz Peon, Mayoress of Tolosa, and Fernando Plazaola, Dean of the Faculty of Science and Technology of the University of the Basque Country. Photo: J.A. Campos.



### Workshops, welcome drink and touristic tour

Two optional workshops were held prior to the opening ceremony, on 12<sup>th</sup> September. Rocco Labadessa, assisted by Leonardo Ancillotto, led the workshop **Introduction to Orthoptera**, which included a lecture of 1h30m, followed by practical activities in the field (3 hours). Eighteen people attended the course and had the opportunity to learn key aspects on the taxonomy and ecology of grasshoppers, katydids and crickets, in the nice slides presented by Rocco in the brief course indoors (Fig. 3). Outdoors, we enjoyed catching orthoptera with nets and found some nice specimens belonging to five different families and different eco-

logical requirements (Figs. 4, 5). They were probably quite stressed by the blistering heat, with 40°C in the south facing slope where we tried to catch them.

In addition to some common and widespread autumn grasshoppers, like *Chorthippus brunneus*, *Omocestus rufipes* and *Aiolopus strepens*, we had the opportunity to find interesting species as the large katydids *Ruspolia nitidula* and *Platycleis albopunctata*, and the small wood cricket *Nemobius sylvestris*. Rocco showed us how to identify them in several nice books (Fig. 6). As we were in danger of overheating, we decided it was enough and finished this nice workshop with a group photo in the dry grassland (Fig. 7).



Fig. 3. Indoor session of the Orthopteran workshop. Photo: M. Janišová.



Fig. 4. Outdoor session in nearby dry grasslands. Photo: M. Janišová.



Fig. 5. Happiness among orthopteran hunters. Photo: I. Dembicz.



Fig. 6. Rocco and Leonardo took beautiful books to the field. Photo: J. Dengler.





Fig. 7. Workshop participants happy after trapping orthopterans with the nets. Photo: E. Barriola.

After tasting some local cider to rehydrate their bodies, participants could attend the **Meet the Editors** workshop back in the TOPIC. The workshop was free for all participants that had already arrived to Tolosa, and was led by Jürgen Dengler, Orsolya Valkó and Stephen Venn. There was an interesting discussion on different aspects of the publication process, starting from the selection of the target journal. There were several questions from the floor, and the three moderators gave diverse opinions, which was quite rewarding for the audience.

After a long and hot day full of indoor and outdoor activities, the registration for the conference opened at 18:30,

facilitated by a welcome drink where people had the possibility to meet each other tasting good drink and food in the portico of the venue (Fig. 8), open to the Euskal Herria square, a typical porticoed square which is full of life in summer evenings.

The next day the Tourisme Office of Tolosa provided a guided walk along the old part of the town (Fig. 9). Our guide, Leire explained a lot of details about Tolosa's history and its historical buildings, and the Tourisme Office offered to all participants a big and very useful Tolosa umbrella, maybe as an attempt to invoke the so-long awaited rain to the region.



Fig. 8. Welcome drink. Photo: J. Dengler.



Fig. 9. Touristic tour in the old part of Tolosa. Photo: I. García-Mijangos.



Fig. 10. Alfonso San-Miguel presenting his keynote talk. Photo: L. Lysohor.

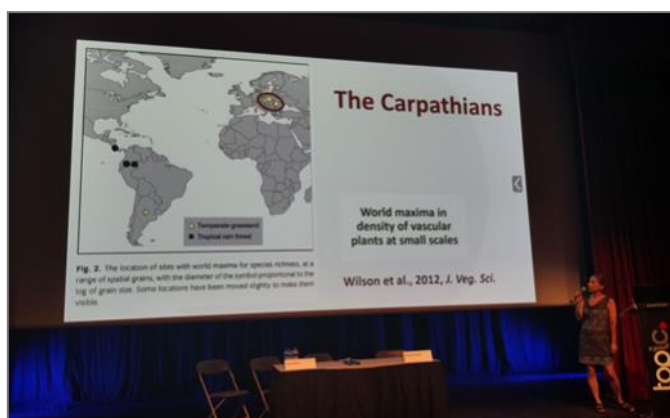


Fig. 11. Monika Janišová during her keynote talk. Photo: L. Lysohor.

### Keynote speakers

During the conference we enjoyed three splendid keynote talks that transported us through the Palaeartic and taught us different aspects of grassland biodiversity and conservation, as well as their management and relationships with humans. The first conference day, just after the opening ceremony, Alfonso San Miguel (full professor at the Department of Natural Systems and Resources of the Polytechnic University of Madrid), presented an overview of the amazing diversity of natural and semi-natural grasslands in Spain and their associated biodiversity, also addressing their conservation status after changes in management during the last decades (Fig. 10). The participants enjoyed the conference with the nice pictures Alfonso included to illustrate the grassland diversity.

In the afternoon of the same day, Monika Janišová (Institute of Botany of the Slovak Academy of Sciences in Banská Bystrica), gave her talk entitled "Species-rich semi-natural grasslands of Europe - historical masterpieces of human-nature interaction" where she provided several nice examples from the Carpathian Mountains to highlight the importance of traditional management practices based on a deep knowledge of local history and traditions and the use of domestic animals for the conservation of species-rich semi-natural grasslands (Fig. 11).

On the third conference day, Arkadiusz Nowak (Institute of Biology of Opole University, Poland), submerged the audience in the amazing landscapes of Tajikistan (Fig. 12). With the help of his impressive photos, we could enjoy the diversity of the flora and vegetation of this Middle Asian country and learn about their conservation status and perspectives.

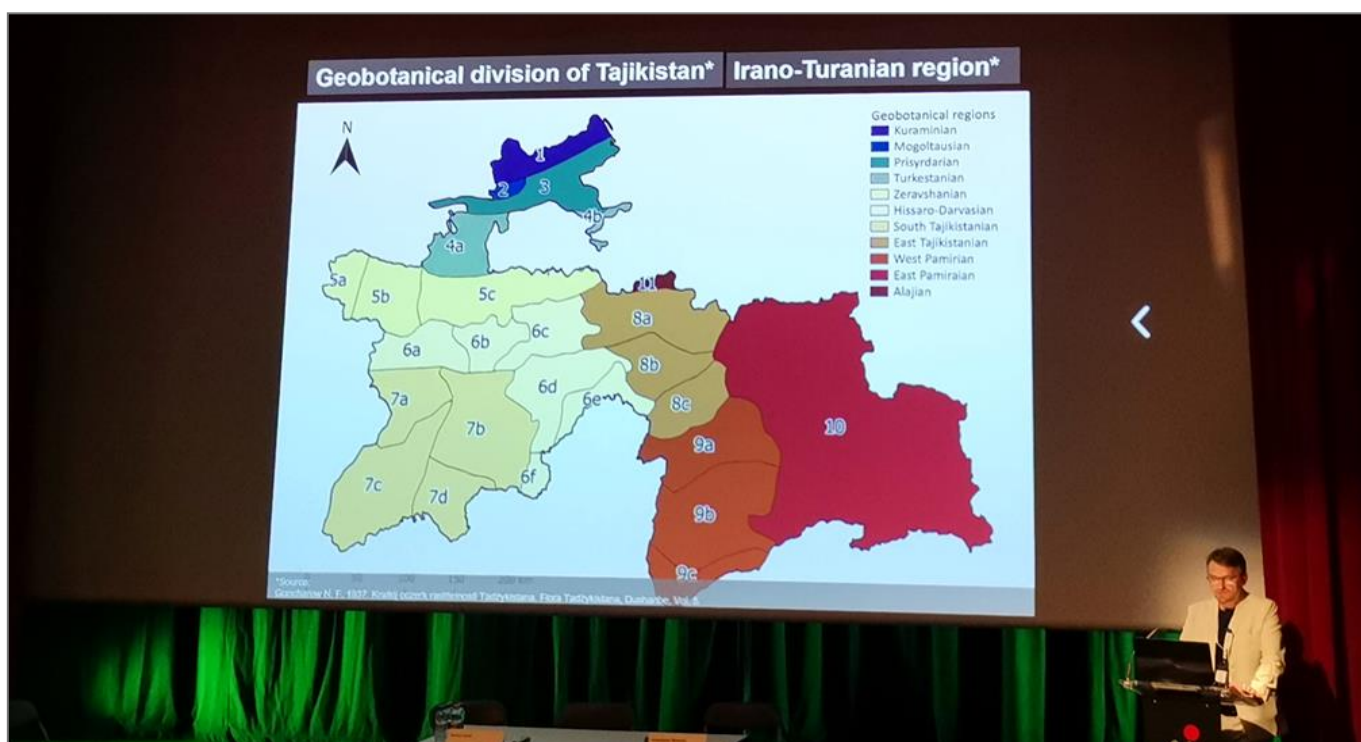


Fig. 12. Arkadiusz Nowak presenting his keynote talk. Photo: L. Lysohor.



### Talk and poster sessions

The conference included 29 oral and 25 poster presentations on a wide array of topics. The Scientific Committee had organized five sessions focused on the following topics: Succession and species turnover in abandoned grasslands, Biodiversity of urban grasslands, Above and belowground

grassland diversity, Grassland conservation and global change, and Classification of Palaeartic grasslands and other open habitats. The session Grassland conservation and global change was the most popular, with 13 talks and 10 posters (Figs. 13-15).

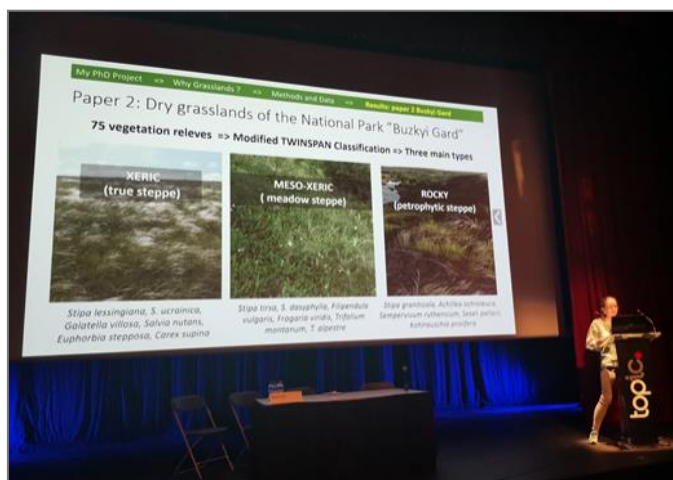


Fig. 13. Diversity of topics and regions during talk sessions. Photos: L. Lysohor.



Fig. 14. Denys Vynokurov presented the results of the 15th Field Workshop in southern Ukraine on behalf of Ivan Moysiienko, who could not make it to Tolosa due to the war. At least we could see him in the photo! Photo: I. García-Mijangos.



Fig. 15. Poster sessions. Photos: J. Dengler and M. Janišová.



### Mid-conference excursion, auction and grassland party

The second conference day (14<sup>th</sup> September), the participants could choose between two optional excursions. Excursion 1 was a long mountain walk on the Aizkorri Mountain, in the Aizkorri-Aratz Natural Park. This nice excursion was carefully planned by Javier Loidi, but unfortunately he could not eventually guide the participants along the hike, due to a small accident. So, Denys Vynokurov, who had participated in the preparation of the excursion and the excursion guide, led the excursion, together with Itziar García-Mijangos, and assisted by the student collaborators. This was a long hike, starting from the northern slopes of the mountain and finishing on the southern slopes, in Arantzazu. On the way, the participants crossed beech forests, heathlands, dry and mesic grasslands and rocky habitats. The latter are abundant near the summit, with specialist species as *Potentilla alchimilloides*, *Dethawia splendens* and *Saxifraga trifurcata*. On the north-facing slopes, near the summit with long-lasting snow patches, we could also see grasslands dominated by *Sesleria caerulea*. We enjoyed a picnic on the Aizkorri summit (Fig. 16), with impressive views towards the seacost in the north and the submediterranean valleys and mountains in the south (Fig. 17). This is normally a green landscape, even at the end of the summer. However, this summer has been exceptionally hot and dry, and mountain pastures were dry, showing a quite unusual image. After the picnic, the participants went down the southern slope of the mountain, crossing big areas of dry rocky grasslands with *Festuca gautieri* subsp. *scoparia* (near the summit), *F. rectifolia*, *Teucrium pyrenaicum* and *Carex ornithopoda* (Fig. 18). On the Urbia mountain valley, mesic acidophilous grasslands of *Nardetea* dominated by *Festuca microphylla* and *Danthonia decumbens* occupy big areas on deep decalcified soils, with some small patches of heathlands, which were traditionally burned but are now ploughed. Big sheep flocks, cattle and horses graze all over

Urbia during the summer months (Fig. 19). Participants were lucky enough to find there a mountain hut where they could refresh themselves with some cold drinks. On the way down from Urbia to Arantzazu, the participants walked through more mesic grasslands, but also through dry grasslands with *Helictotrichon cantabricum* on the south-facing steep rocky slopes.



Fig. 16. Group photo in Aizkorri summit. Photo: I. García-Mijangos.



Fig. 17. Aizkorri summit with submediterranean mountains and valleys on the background. Photo: M. Janišová.





Fig. 18. Excursion participants on the way down through rocky grasslands. Photo: M. Janišová.



Fig. 19. Left: sheep on rocky grassland. Right: horses in the *Violion caninae*. Photos: M. Janišová.



Excursion 2, led by Idoia Biurrun, visited several farms and their surrounding meadows and pastures in Aralar and Aizkorri foothills. We started with a visit to Zubeldi-Erdi farm in Abaltzisketa village, on the northern foothills of Txindoki Mountain (Aralar Natural Park). The farm is managed by two young brothers, Adur and Egoitz Gorostidi, who were born on the farm and after some years working in a factory, they decided to continue with the family tradition of rearing Pyrenean cattle for meat. We visited the byres and could admire the beauty of the Pyrenean cattle, and also the surrounding meadows. We spent quite some time listening to the explanations of the farmers about the farm management and life on the farm (Fig. 20). They were asked many questions by the participants, which they kindly answered. There was a funny conversation where people asked in English, Idoia translated to Basque, and viceversa. All this time we were accompanied by the Major of the village Abaltzisketa, Jon Zubizarreta, who also works as technician for the Agriculture section in the Gipuzkoa Provincial Council.

So, after showing our gratitude to Adur and Egoitz we finally abandoned Zubeldi-Erdi and moved to the communal pastures over the village, where Jon gave us a lot of hints about the traditional and current management of the communal land in Aralar mountains and all over Gipuzkoa province, with very precise information on stocking rates and other topics. There were interesting discussions about the encroachment of these pastures after changes in the husbandry, including exchange of empirical and theoretical knowledge about the eradication of gorse and bracken.

It was nearly noon when we said goodbye and a warm thank you to Jon and continued our trip. After a stop in a café in the village Zaldibia for refreshment, we continued our pleasant and comfortable journey in a quite hot day to the nearby town Ataun. Ataun is located in a nice long and narrow valley in the calcareous northern slopes of Aralar, with very steep slopes up both sides of the valley. There are several villages along the valley, and we walked 3 km along meadows, farms and steep slopes with dry grasslands from San Martin to San Gregorio, following the Sara track, dedicated to the Basque ethnographer Jose Miguel Barandiaran, a pioneer on studies of Basque culture and archeology. Along this track, there are interesting hints like the Larruntza watermill and the Barandiaran ethnographic museum. After a nice picnic in the shade near a stream, we met Amaia, who works in the museum, and explained the history of the so-called “hay-cables”, that had been used by the farmers to take the mown hay from the fields in the upper slopes of the valley down to the farms located in the valley bottom (Fig. 21). This system was used in some other valleys surrounding Aralar, but Ataun had the largest number, and some of them have not been removed, though they are not functioning any more.

From Ataun we resumed our bus journey and travelled from Aralar to Aizkorri-Aratz Natural Park, through small villages and traditional landscapes. By 17:00 h we reached Gomiztegi farm, on the southern slopes of the mountain, over the historical town of Oñati, and near the sanctuary of Arantzazu. We had an appointment with the people managing this farm, which not only produces sheep milk and cheese



Fig. 20. Idoia Biurrun translating Adur's explanations on the use of the meadows near the farm. Photo: A. Kuzemko.



(Idiazabal cheese) from their own flock, it is also a shepherd school supported by the Provincial Council and the Basque Government. The school, the farm and the cheese factory are managed by a cooperative with Juan Bautista Otaegi and Ekain Murua as coordinators. Ekain explained all the details related to the management of the sheep flock, cheese-making and the management of the shepherd school (Fig. 22). We visited the sheep that were in the barn (Fig. 23), the places where they make and keep the cheese, and also the nearby pastures and meadows.

By the time we finished our visit to the farm, participants of both excursions joined at Gomiztegi for the Grassland Party. First, we enjoyed an exhibition of basque dances and music. We admired the txalaparta players, the bertsolaris (extemporaneous singers), the dancers and singers (Fig. 24), and afterwards we had the opportunity to see an exhibition of a Basque shepherd dog working with a small flock in a nearby meadow. As usual in the Basque Country, the evening finished with an “afari-merienda”, a mixture of afternoon snack and dinner where we tasted local food washed down with cider and wine. When we were sufficiently happy, the Auction took place, masterfully led by Martin Magne (Fig. 25). Chocolates, beers, books, toys and other items generously donated by participants from their countries were auctioned, but then night fell and the auction had to continue during lunchtime the next day (Fig. 26). All in all, the auction was a success and 730 euros were collected which, according to an agreement among the EDGG EC, will be used to fund grants for Ukrainian scientists, of which we had a few representants in the conference (Fig. 27). Thank you all who participated in the auction, contributing items and/or bidding.



**Fig. 21.** Amaia, from the ethnographic museum, explains the use of the hay-clables in Ataun. Photo: A. Kuzemko.



**Fig. 22.** Gomiztegi manager Ekain Murua explaining the history of the shepherd school. Photo: A. Kuzemko.





Fig. 23. Latxa sheeps feeding on the barn in Gomiztegi. Photo: J.A. Campos.



Fig. 24. Left: Txalaparta musicians. Right: dancing the auresku. Photos: J.A. Campos.





Fig. 25. Martin Magnes leading the nocturnal auction in Gomiztegi. Photo: A. Kuzemko.



Fig. 26. The enthusiastic Flemish girls were very active during the conference and brought many items for the auction, among them this nice T-shirt. Photo: M. Janišová.



Fig. 27. Ukrainian scientists in the Eurasian Grassland Conference could not forget about their country in war. Photo: E. De Vrieze.

### General Assembly and Closing Ceremony

On the last conference day, after the last talk and poster sessions the General Assembly was held. Prior to that there was a time slot where participants were allowed to make announcements on their projects (Fig. 28).

During the Assembly, the chairs of the Executive Committee informed the participants about past, current and future activities. One of the most important news was the announcement about the 18th Eurasian Grassland Conference, which is going to be held in September 2023 in Körös-Maros National Park Directorate in Szarvas (Hungary), organized by Balász Deák and Orsolya Valkó, with a promising post-conference excursion to Kiskunság National Park organized by András Kelemen. Thank you very much to them for their willingness; we are sure it will be a fantastic conference.

During the Closing Ceremony, the Young Investigator Prizes for researchers under 35 yrs were announced, that went for:

Talks (Fig. 29): 1. Jorunn Dieleman, AgroFoodNature, University College Ghent: *FlowerPower the garden: experimenting, learning and raising awareness about species-rich grasslands in a citizen-science Project*.

2. Rocco Labadessa, National Research Council of Italy: *Small-scale effects of wild boar rooting activities in Mediterranean dry grasslands*.

3. Iris Moeneclaey, Department of Environment, Faculty of Bioscience Engineering, Ghent University: *Plant & vegetation responses to soil phosphorus along a grassland restoration trajectory*.

Posters (Fig. 30): 1. Ellen De Vrieze, Department of Environment, Faculty of Bioscience Engineering, Ghent University: *Creating urban wild flower meadows: experiment on the effect of abiotic conditions*.

2. Ainhoa Urkijo, Department of Conservation of Natural Resources, Basque Institute for Agricultural Research and Development NEIKER: *Livestock behavior analysis in threatened flora zones in Aldamin-La Cruz pastureland (Special Conservation Zone of Gorbeia)*.

3. Sara Sánchez-Carmona, Department of Plant Biology and Ecology, Faculty of Science and Technology, University of the Basque Country UPV/EHU: *Effects of woody plant encroachment on diversity in mesoxerophyllous grasslands*.

The ceremony finished with the organizing team on the stage to receive the applause of the conference participants (Fig. 31). Over the stage they went, together with Idoia Biurrun, chair of the organizing committee, Javier Loidi, Juan Antonio Campos, Itziar García-Mijangos and Denys Vynokurov, and the PhD students Sara Sánchez and Irati Sanz and the degree student Eneko Barriola. I would like to thank especially the latter, who were always available at the desk and solved many problems that arose during the conference.

Other members of the organizing committee could not manage to be in Tolosa on that day: Isabel Salcedo, mycologist from the University of the Basque Country, and Asun Berastegi, from Gestión Ambiental de Navarra (depending on the Government of Navarra), co-organizer of the post-conference excursion.



Fig. 28. Stephanie Schelfhout finishes her announcement just before the General Assembly. Photo: M. Janišová.





Fig. 29. Iris Moeneclaey, Rocco Labadessa and Jorunn Dieleman, winners of the YIP, talks, with Stephen Venn. Photo: M. Janišová.



Fig. 30. Sara Sánchez-Carmona and Ellen De Vrieze, winners of the YIP, posters. Photo: I. García-Mijangos.



Fig. 31. Organizing team on the stage. Photo: M. Janišová.



### Post-conference excursion

Asun Berastegi and Idoia Biurrun were the guides for the post-conference excursion. Asun was the main guide, as she has a thorough knowledge on the diversity, ecology and management of the grasslands in Navarre. Asun provided detailed explanations on all aspects of grassland diversity and management during the stops along the excursion. In the bus, Idoia provided a commentary of the vegetation and biogeography of the diverse regions we traversed during the excursion.

We spent the morning of the first day in the coast of Gipuzkoa, where we hiked along the coastal Way of St James on the Ulia mountain, from San Sebastian to Pasaia. The northern slopes of this small sandstone mountain descend to the sea in a nice and rough coastal landscape, where wet heathland is the dominant habitat, with some small remnants of the natural vegetation, with *Quercus pyrenaica* and plantations of *Pinus pinaster* (Fig. 32). Along our path, we could see the typical species of this lowland wet heathland, with several heather and gorse species, the most typical one being *Erica ciliaris*. We passed by the nice lighthouse Faro de la Plata, and went down a steep track towards the estuary of the Oiartzun River in Pasaia. En route, we passed by the small lighthouse Senokozulua and the Albaola Ship Factory, where a replica of a XVI century whaling ship that sank in Newfoundland in 1565 is under construction by carpenters and other craftsmen. We crossed by boat from Pasai San Pedro, on the left bank of the estuary, to Pasai Donibane, on the right bank (Fig. 33), and after a coffee stop in this nice fishing village, we continued our journey by bus. We arrived at the Spanish-French border, marked by the Bidasoa River, and we continued up the river. A few kilometers from the coast, we entered Navarre, where we would stay during the remainder excursion. We travelled along a narrow valley formed by Bidasoa in Bortziriak, and climbed the Belate mountain pass, in the Atlantic-Mediterranean watershed. We made our second stop in Belate, where we had a picnic



Fig. 32. Ulia mountain in the coast of Gipuzkoa. Photo: M. Janišová.

in the *Nardetea* grassland (Fig. 34), which is in contact with mountain wet heathlands with *Erica tetralix*. The natural vegetation in the area is mostly acidophilous beech forest. Mires are common in these mountains, but they are mostly small spring fens, like the one we visited next to our picnic place. However, we also had the opportunity to visit one of the oldest and largest peatlands in the Basque mountains. This Belate peatland occupies a large plateau among the hills, and after a long history of drainage, eutrophication and overgrazing is now under restoration.



Fig. 33. Left: on the boat from Pasai San Pedro to Pasai Donibane (Photo: M. Janišová). Right: Pasai Donibane (Photo: J. Dengler).



Asun provided a lot of detailed information, and participants were happy to find endemic cricket and carabid species (Fig. 35).

In the afternoon, we travelled southwards and crossed several submediterranean valleys, passing very near the city of Pamplona, until we arrived at the Urbasa-Andia mountain range. There, we climbed to the Lizarraga mountain pass in the Andia range, where we made our last stop of the day. We walked along the rocky grasslands of the association *Helianthemo incani-Koelerietum vallesianae*, that turned out to be completely dry, which produced a very unusual land-

scape in this area where natural vegetation is basophilous beech forest (Fig. 36). We climbed to the ridges of Andia range and could see the *Sesleria caerulea* communities on the north-facing slopes, as well as the impressive silhouette of the Beriain mountain and, further to the north, the Aralar mountain range. Darkness was already falling as we returned to the bus, and on our way southwards, we crossed the whole Andia range and went down to the Ebro valley. It was already night when we arrived at our accommodation in Tafalla. All in all, the three stops of the day and all the journey we made during daylight were part of the Atlantic region.



Fig. 34. Studying the acidophilous grasslands of *Jasiono-Danthonietum decumbentis* (Nardetea). Photo: M. Janišová.





Fig. 35. Trying to photograph the highly motile carabid beetle *Chrysocarabus basilicus basilicus*. In the background, Asun Berastegi explains the management of Belate mire. Photo: N. Roth.



Fig. 36. Participants in Lizarraga mountain pass, Andia Range, in a very unusual dry shape. Photo: M. Janišová.



We spent the second excursion day in the Mediterranean region. From Tafalla we travelled southwards and had a panorama stop in the town of Mérida. We could see that people were working on the dismantling of the wooden protections used during the “encierros” along the streets. In fact, one such “encierro” had taken place a few days before. In the “encierro”, brave cattle grazing in the surrounding foodplain forests and wet grasslands, run along the streets behind the people dressed white with red belt and shawls. It is funny that the cattle that had run two days before belonged to the ranching “transhumancia”, which refers to migrating or trashumant cattle. The town is located on a hill over the Aragón River, a tributary of the Ebro River, flowing from the western Pyrenees. From a lookout in the town, we could enjoy the panorama over the river, the floodplain forests, the wet meadows and dry grasslands in the surroundings, and all the irrigated crops covering the vast

floodplain. From Mérida, we travelled to the nearby town Caparroso, where we stopped near a gypsum hill in the area of Masadas to visit the gypsophilous scrub, dominated by *Rosmarinus officinalis*, with such gypsum specialists as *Heli-anthemum squamatum* and *Herniaria fruticosa* (Fig. 37). Natural vegetation in this Mediterranean xeric area is a macchia, dominated by *Quercus coccifera* and scattered pines (*Pinus halepensis*). We spent some time walking up the hill, and we were happy that the weather was not too hot, probably due to the strong wind coming from the north. From Masadas, we travelled further to the south until we reached the floodplain of the Ebro valley, near the ancient city of Tudela, which has been inhabited since the Paleolithic, but which underwent great development during medieval times, especially during IX and X centuries, under the government of the muslim Banu Quasi family.



Fig. 37. Participants in the windy hill near Caparroso studying the gypsophilous scrub. Photo: M. Janišová.



The Ebro valley has been intensively used for agriculture since Roman times, but we could see that nowadays rice crops are dominating the floodplains, which is a quite recent feature in the landscape. We moved from the Ebro floodplain to the the impressive Bardenas Reales, a huge non-urbanized extension of eroded hills, plateaus, saltpans and canyons (Fig. 38). We had our picnic on the foothills of one of these hills, surrounded by Mediterranean grasslands and scrub. One of the most typical features of Bardenas is the huge extension occupied by *Lygeum spartum*-dominated grasslands on the clayey soils, especially in the surroundings of the saltpans, which are common in the depression areas. A short walk in this Mediterranean xeric area showed us another typical feature, the abundance of nitrophilous scrub, with *Artemisia herba-alba* and *Salsola vermiculata* (Fig. 39). We took the opportunity for a group photo with the impressive Castil de Tierra in the background (Fig. 40). In the afternoon, we travelled northwards towards the Pyrenees, and we made our last stop near the Foz de Arbañun, an impressive canyon eroded by the Salazar River in the Prepyrenean Leire mountain range. The climate is rainier

here than in the Ebro valley, with submediterranean features. This is still the Mediterranean Region, but natural vegetation is formed in the deep soils by the deciduous marcescent tree *Quercus faginea*, and it is only in rocky places that the evergreen sclerophyllous *Q. rotundifolia* prevails. After enjoying the view of the canyon in the panorama, we walked to the nearby hills where we studied the dry grasslands of the association *Thymelaeo ruizii-Aphyllanthesetum monspeliensis*, typical of these transitional areas, encroached by trees and shrubs like *Buxus sempervirens* (Fig. 41). These dry grasslands are species-rich, and we were able to identify many grasses and dwarf-shrubs typical of temperate and Mediterranean dry grasslands and scrub. After this last stop in the Mediterranean Region, we continued our trip northwards, arriving in the evening at our accommodation in the Pyrenean village Isaba. We were lucky because there was a festival in the village and near the church there were musicians and happy people dancing, some of them dressed up. Some of the participants of the excursion very enthusiastically joined the dancers.



Fig. 38. Panoramic view of the xerophytic scrub in Bardenas Reales. Photo: M. Janišová





Fig. 39. Something interesting is over there in Bardenas. Photo: M. Janišová.



Fig. 40. Participants in Castil de Tierra, Bardenas. Photo: M. Janišová.



Fig. 41. *Thyreonotus corsicus* in *Buxus sempervirens* in the submediterranean grassland near Foz de Arbaiun. Photo: M. Janišová.



Our third and last excursion day included a mountain hike in the western Pyrenean Larra-Belagua massif. We walked up a valley towards the Arlas mountain, and spent the morning in the subalpine belt, where *Pinus uncinata* woodlands have been cleared for the summer grazing of sheep flocks (Fig. 42) and Pyrenean cattle (Fig. 43). *Nardus stricta*-dominated grasslands are common in the valley bottom and deep soils, while in the rocky slopes, alpine grasslands of *Primulion intricatae* and dry grasslands of *Festucion scopariae* prevail, depending on the orientation: grasslands with *Horminum pyrenaicum* and *Sesleria caerulea* on the north-facing long-innivated slopes (Fig. 44), and grasslands with *Festuca gautieri* subsp. *scoparia* on the south-facing slopes. The strongest participants climbed to the top of the Arlas mountain

(2044 m a.s.l.), but most people took it easy and stayed in the pass just beneath the summit. We had our picnic there, near the Spanish-French border, and although we were happy there enjoying the panorama, we started our way down towards our bus, as we had a long journey back to Bilbao. We crossed again the Prepyrenean mountains through the Foz de Burgi, where we could admire the impressive cliffs, colonized by rocky habitats and the shrubs *Juniperus phoenicea* and *Buxus sempervirens*. After a stop for refreshment in the village Yesa, we continued our trip towards Bilbao, where we finished this short but intense excursion through the Navarran diverse landscape and vegetation.



Fig. 42. Left: latxa sheep grazing in Larra, western Pyrenees. Right: Ovine beauty in the foreground Photos : M. Janišová.



Fig. 43. Beautiful Pyrenean cattle enjoying the views. Photo: M. Janišová.



### Acknowledgments

We thank our keynote speakers and workshop leaders, the technicians in Topic, as well as the farmers and technicians that kindly explained so many interesting aspects of grassland management to us during the excursions. We are also grateful to the people from Larrea, especially Izaskun, who fed us during the conference, and to the bus drivers, that transported us safely along the winding Gipuzkoan roads. Special thanks to Eburne, who took us through all Navarre and was full of patient.

Our warmest thanks go to Patxi Amantegi, the city councillor of Tolosa that made it possible to hold the conference in Tolosa facilitating the venue, the habilitation of the lunch place, the touristic visit and many other things that are not possible to list here. He was always ready to help us, and many of the participants are probably familiar to see him in the conference venue, the lunch place, the touristic tour and even in the mid-conference excursion. We are deeply grateful to him. Eskerrik asko, Patxi!

Many thanks also to José Ignacio Asensio, Deputy of Environment and Hydraulic Works in the Gipuzkoa Provincial Council, who also supported our conference, although unfortunately he could not attend the Opening Ceremony, and to Olatz Peón, Mayoress of Tolosa.

Last but not least, we are very grateful to the financial support provided by the IAVS, the City Council of Tolosa, the Gipuzkoa Provincial Council, the Basque Government, the Government of Navarre, the University of the Basque Country and HAZI.

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**Fig. 44.** Lunch time near Arlas summit. On the left, Spain, on the right, France. Photo: M. Janišová.



## EGC 2022 grantees

### Mykyta Peregrym

The 17<sup>th</sup> EGC conference in Tolosa was the third meeting organized by EDGG which I took part in after events in Uman' (2013) and Graz (2019). It is pleasant to say that all my expectations were met, namely I presented and discussed the results of my investigations, I saw my old friends and colleagues as well as I made acquaintance with new people who are attracted by grasslands, their study and conservation. After fruitful discussions in the conference hall and private conversations, I got many new ideas for my future investigations and offers for collaboration. Finally, it is not easy to describe my impressions and emotions during and after our field trip to the Aizkorri Massif. Even two months later, I close my eyes and time-to-time I return to its breathtaking mountain landscapes with rich plant diversity. It is almost the same when I remember cozy streets and squares of beautiful Tolosa.

So, I would like to express deep gratitude and respect to the conference organizers for their fantastic job and warm hospitality, and also, of course, to EDGG as well as to IAVS for their strong support of Ukraine and Ukrainian researchers, because my participation in the conference would be impossible without your help and understanding. Thank you very much!



### Iwona Dembicz

I am very grateful to IAVS for supporting my participation in the EGC in Tolosa. During the conference I could meet many of my colleagues and friends, who I had not seen for a long time due to the pandemic. The conference was also a great occasion to meet new colleagues with similar scientific interests, and see a lot of wonderful grasslands, plants and insects (especially from my favorite group Orthoptera, thanks to the workshop on the first day and strong group of Orthoptera experts, who also attended the conference). I was also glad to present the results of a research that I conducted with my Ukrainian and Polish colleagues in the steppes of Southern Ukraine. I found Tolosa a beautiful town, full of good, positive energy. Also all other places that we visited during the mid-conference and post-conference excursions gave me a lot of great impressions and memories.



**Dariia Shyriaieva**

The EGC 2022 in Tolosa was the first EDGG conference for me, therefore many people and topics were new to me there. I was glad to meet in person many people who I knew from the publications and online events during the pandemic times. The conference days passed fast, but very efficiently, with new knowledge, meeting people, and making plans for the future. I presented my own research dedicated to grassland diversity in Southern Ukraine (Southern Buh River Valley). After the presentation, I got valuable comments and advice about my data and methodology. Also, I enjoyed a lot the diverse nature and unique culture of the Basque country, which we experienced during the conference excursions. I am very grateful to the IAVS and EDGG for providing a travel grant for me, and also for the incredible support to Ukraine and Ukrainian members.

**Szymon Czyzewski**

During the Eurasian Grassland Conference 2022 I learned about fascinating research on grassland conservation, management, and functioning. I had the opportunity to see the incredible gradient of plant communities of the Basque Country, stretching from wet heaths to Mediterranean semi-deserts. And first of all I met other researchers sharing grassland love.

The conference started with a workshop on orthoptera identification, which was great. With colleagues from Poland we are working on an orthoptera distribution atlas for our country, so this insect group has a special place in my heart. During the workshop I met a fantastic group of orthopterologists from Italy. After the workshop we discussed differences in habitat preferences of orthoptera species present in both Poland and Italy, as well as differences in orthoptera assemblages themselves. The latter especially turned out to differ in surprisingly many ways. We ended up discussing possible research plans for the future.

During the conference itself I learned about so many fascinating research projects, it would be difficult to name them all. What may have gotten stuck in my mind the most are the study on traditional management of Carpathian grasslands, cranes as ecosystem engineers, regeneration of the primeval steppes in Ukraine, surprising seed dispersers, grassland stability, and new possibilities of urban grassland. Discussing all the science during coffee breaks was a great pleasure.





The conference was followed by the post conference excursion. I have never before seen such a strong gradient of ecosystems. Starting at the Atlantic coast we could see wet heaths with giant royal ferns (*Osmunda regalis*) and a diverse *Ericaceae* flora. My description would get too long if I started describing all the fascinating plant communities with many species I have never seen before. Thus, I will confine my description to the second stop during the excursion, because it was particularly interesting in terms of orthopterans. Here on a gentle slope in the immediate proximity of a peat bog we found a *Zeuneriana abbreviata* female hiding in *Ulex gallii* vegetation. The range of this species is restricted to Western Pyrenees and their immediate neighborhood. After exploring the slope and learning about peat bog restoration we went on to a grazed flood plain in the valley bottom. It was a beautiful area with scattered hawthorns creating a savannah like appearance. While looking for plants and insects we heard a strange metallic sound, it could only have been a member of the Bradyporinae! The pronotum of these bush crickets resembles the shield of a *Triceratops*. After a few minutes of searching we found the owner of this strange call, it was a *Callicrania ramburii* male, a uniquely beautiful creature! A female was sitting on a bush just next to the one occupied by the male. *Callicrania ramburii* is a species also endemic to the Basque Country. On the way back to the bus I was struck by *Succisa pratensis* growing here under strong grazing pressure. The plants were dwarfed but were still flowering in great numbers. I know this species from Poland to be a tall plant. It struck me how it can still flower in such a shape.

Overall what I most vividly remember from the post-conference excursion is the ubiquitous grazing. It is an absolutely positive fact, taking into account how important extensive grazing is for grasslands and their inhabitants. For example both the endemic species we found inhabit grazed grasslands. During the conference I learned that extensive grazing is declining in Spain. However, I was impressed by how widespread it still is from the wet Atlantic coast to the semi-deserts of the Ebro plain. Sadly in my home country Poland traditional extensive grazing is on the verge of extinction. I hope with help of the grassland research and through changes in conservation policies, such extensive grazing can be once brought back to Poland too.



Female Basque Wide-winged Bush-cricket (*Zeuneriana abbreviata*) in Belate. Photo: S. Czyzewski.



Rambur's Saddle Bush-cricket (*Callicrania ramburii*) over *Juncus effusus*, in Belate. Photo: S. Czyzewski.



**Anna Kuzemko**

It's so great that thanks to the titanic efforts of Idoia and her team, the EGC still took place after a two-year break, and that in this difficult time for Ukraine, thanks to the financial support of the IAVS, I was able to take part in it. Everything was perfect - the conference program, the excursions, the historical Tolosa, the local culture and cuisine, and especially the communication with old and new friends. Due to logistical problems, my trip to Tolosa took two days, and back - three days, in total five days with a lot of adventures, pleasant and not so pleasant, but it was worth it.

**Iuliia Vasheniak**

I was really happy to be a participant in the EDGG conference where I presented my poster presentation about *Stipo pulcherrimae-Festucetalia pallentis* communities in Ukraine. On the one hand, we spent a lot of time in the meeting hall discussing many interesting presentations, on the other hand, we walked across the Middle Age streets of Tolosa and were inspired by the spirit of Spain. I am grateful for the great opportunity to attend this meeting where I have got many interesting impressions.

**Liudmyla Lysohor**

The conference was organized at a high level. The main thing is the experience that the participants shared during their presentations. All presentations disclosed modern directions of research. We created a [catalogue of presentations](#) on Google Drive with our colleagues.

During the excursions we got acquainted with the traditions of Tolosa, its natural features.

Thanks to Idoia Biurrun, Denys Vynokurov, Jürgen Dengler, Anna Kuzemko, Iwona Dembiczy and members of the office IAVS.





**Oksana Tyshchenko**

I would like to express my great gratitude to IAVS and EDGG for supporting my participation in 17th Eurasian Grassland Conference. This year I joined EGC for the first time and it was the chance for me to get involved in oral session, to open the new scientific opportunities and the occasion to feel being a part of a community of like-minded people.

It was extremely pleasant to spend a whole week without constant sounds of air raid sirens, to use the comfort of civil aviation which is almost forgotten by Ukrainians, to immerse myself in the space of peaceful life and to meet new colleagues.

The keynote lectures were particularly informative. Very fascinating were the reports during the oral and poster sessions, as well as the discussions and planning for the future during breaks and informal meetings. The Meet the Editors workshop was useful for me. During the conference, I learned a lot about the new methods, approaches and trends of studying Eurasian grasslands. But especially wonderful was the mid-conference excursion. A few tens of kilometers through the Cantabrian mountains and valleys were somewhat unexpected, but unforgettable, because of the opportunity to see the plant species-rich grasslands and even find together with colleagues new localities of some protected species. The views during the Aizkorri-Aratz Natural Park excursion were incredible. Even nature greeted us very kindly, giving mostly sunny fine day. The guides and whole excursion support team were also incredible and experienced. We got acquainted with the examples of grassland ecosystems management in the Basque Country - combination of nature protection functions and traditional use. The participants could see the farms and try their nice products. And not only that, because the program of the conference had an entertainment part as well - the Grassland Party included a local folk group traditional dances and musical rhythms of the Basque Country, shepherd school show, friendly dinner and a cheerful auction.

I visited Spain for the first time, so got an opportunity to see the vegetation of the Cantabrian mountains, visit several cities and towns (Bilbao, San Sebastian, Tolosa, Irun), feel the local flavor, get acquainted with the traditions of the Basque Country and try out the local cuisine. But the most important was the feel of understanding, compassion, care, warmth and constant friendly support for Ukrainians and Ukraine from our colleagues came from different parts of the world.

In general, the 17th EGC was very positive for me - pleasant, unforgettable, valuable, informative and with great friendly atmosphere.

I am sincerely grateful to the organizers for the rewarding experience and hope for further cooperation. Peace and justice always triumph over war, violence and evil. Thank you for standing with Ukraine!!!

**Stephen Venn**

It was really great to attend conferences and excursions again, after such a long break, and to have contact with colleagues, old and new, from the EDGG. Once again, the EGC provided me with the opportunity to learn about a region that was previously unknown to me. Now they became very familiar, through conference presentations, site visits and guided tours during the mid-term excursion and eventually culminating in the post-conference excursion through some spectacular landscapes and fascinating habitats. Now I can hardly wait for the next EGC in Hungary next year.

