

DOI: 10.21570/EDGG.PG.52.7-21

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Gobierno de Navarra
Nafarroako Gobernua**EGC 2022****17th Eurasian Grassland Conference*****“Grassland dynamics and conservation in a changing world”*****Tolosa, Spain, 12-18 September 2022****First complete call**

View of Tolosa. Photo: I. Salcedo.

The 17th Eurasian Grassland Conference focuses on global change as a major driver of grassland biodiversity and productivity. The conference aims to bring together and connect the latest research with practical management and policy, and thereby contribute to the sustainability of natural and semi-natural grasslands and the animals and plants that depend on them. As in previous years, we offer opportunities for the exchange of information during our standard talk and poster sessions, as well as the mid-conference excursion to the Aizkorri-Aratz Natural Park. In addition, we will offer a *Meet the Editors Workshop* and a *Workshop on Orthoptera*. Furthermore, we will host three inspiring keynote presentations.

This year's conference offers three keynote talks, two optional workshops and an optional post-conference excursion, in addition to the talk and poster sessions, mid-conference excursion and grassland party. On 12th September, participants will have the opportunity to participate in two workshops: i) *Meet the Editors* of high impact ecology and vegetation journals, ii) workshop on Orthoptera, led by Rocco Labadessa. We welcome Alfonso San Miguel, Monika Janišová and Frank Yonghong Li as our keynote speakers.

The mid-conference excursion will take us to Aizkorri-Aratz Natural Park, and a three-day optional post-conference excursion will take place mostly in Navarre (16–18th September). Below you will find the programme.

For more information, please visit the conference web site:
[**www.edgg.org/EGC2022**](http://www.edgg.org/EGC2022)

Programme

12th September	Workshops, registration
12:00-17:30	Introduction to Orthoptera (lunch in between, after the room session)
17:30-18:30	Meet the editors
18:30-20:00	Registration and welcome drink
13th September	Talks and Poster Sessions I and II
8:00-9:00	Registration
9:00-9:20	Opening ceremony
9:20-10:20	Keynote lecture by Alfonso San Miguel
10:20-13:30	Talks and posters, with coffee break at 11:05
13:30-15:00	Lunch in Zerkausia (see map)
15:00-16:00	Keynote lecture by Monika Janišová
16:00-19:00	Talks and posters, with coffee break at 17:00
19:00	Touristic tour
14th September	Mid-Conference excursion, Grassland Party and Auction
8:00	Departure of buses from Navarra bridge (see map)
19:00	Grassland Party in Arantzazu with Auction
21:00 to 22:00	Departure of buses from Arantzazu to Tolosa
21:30 to 22:45	Arrival at Tolosa
15th September	Talks and Poster Sessions III and IV
9:00-10:00	Keynote lecture by Frank Yonhong Li
10:00-13:30	Talks and posters, with coffee break at 11:00
13:30-15:00	Lunch in Zerkausia (see map)
15:00-17:45	Talks and posters, with coffee break at 16:45
17:45-19:00	General Assembly and Closing Ceremony
16-18th September	Post-conference excursion (optional, max. 40 people)
16 September, 8:00	Departure from Tolosa (Navarra bridge)
18 September, 20:00	Arrival at Bilbao

Sessions

Global change is a major threat of natural and semi-natural grasslands, which face important conservation challenges caused by land-use and climatic change. Palaearctic grasslands are among the most threatened in the world and include both natural grasslands (mainly alpine grasslands and steppes) and semi-natural grasslands used for animal husbandry. Due to several factors – land-use abandonment and intensification being the strongest – these grasslands have declined in extent, integrity and diversity. Their conservation is crucial, as Palaearctic grasslands account for almost 40% of the World's grasslands and exhibit global maxima for fine-grain plant diversity. The 17th EGC aims to improve our knowledge of the diversity and management of Palaearctic grasslands in the face of global change.

The conference intends to emphasize the following topics in focused sessions:

1. Succession and species turnover in abandoned grasslands

Ecological succession leads to shrub and tree encroachment of semi-natural grasslands after land-use abandonment. This session welcomes contributions dealing with the effects of land-use abandonment in any type of grassland, including studies reporting data from permanent plots, monitoring of species and habitats, remote sensing, etc.

2. Biodiversity of urban grasslands

Urban grasslands across the Palaearctic are becoming a last refuge for endangered flora, fauna, and grassland habitats, especially when the surrounding rural landscapes experience either forest encroachment after abandonment, or management intensification through fertilization, afforestation or conversion to croplands. Therefore, throughout the Palaearctic, the potential value of urban grassland patches for the conservation of grassland biodiversity is increasing. This session will highlight studies focused on factors associated with diversity in urban grasslands, their contribution to the quality of urban life, and their conservation management.

3. Above and belowground grassland diversity

In the Palaearctic Realm, a major part of the biodiversity within most trophic levels and taxonomic groups is found in grasslands. This session will host studies dealing with alpha and beta diversity, at the taxonomic, phylogenetic or functional levels, including studies of plants, animals, fungi and bacteria. Studies relating diversity patterns to variation in land use are especially welcome.

4. Grassland conservation and global change

This session will focus on historical changes and future prospects on grassland extent and quality in the context of land-use trends and climate change. We encourage studies that examine the drivers of land-use change, grassland restoration, qualitative and quantitative changes in grassland cover, and studies of the impacts of conservation and management policies in the real world.

5. Classification of Palaearctic grasslands and other open habitats

This session welcomes contributions on the classification and survey of grasslands and other open habitats (e.g. wetlands, saline, dunes, screes, scrub) in the Palaearctic.

6. Conservation genetics

This session invites presentations on the use of genetic data to advance conservation goals for grassland plants, fungi and animals of all kinds that use grassland habitats. Studies of species delimitation, metagenomics, and environmental DNA are also welcome. Genetic studies may address natural populations or data resulting from experimental manipulations, reintroductions, or facilitated migration and dispersal. Preliminary and baseline data from newly established genetic monitoring programs are especially welcome.

Special Issue

EDGG seeks to enhance the visibility of the research presented in the EGCs. Studies presented in the conference will be eligible to contribute to our regular special features in *Tuexenia* and *Hacquetia*.

Important dates

Registration opens: 1st April

Early Bird registration deadline – 30th April

Travel grant application deadline – 30th April

Post-conference excursion application – 30th April

Abstract submission deadline – 30th April

Communication of acceptance for post-conference excursion – 15th May

Acceptance of abstracts and type of presentation – 15th May

Travel grant allocation – 31st May

Late registration deadline – 15th June

Detailed program: 25th July

A reminder about the opening of registration will be sent to EDGG members end of March.

Venue

The conference will be held in Tolosa (Basque Country, Spain, ~20,000 inhabitants), a historic town in the province of Gipuzkoa, 25 km away from the province capital, San Sebastian (Donostia in Basque), a famous touristic location and only 20-30 min. away by train (<https://en.wikipedia.org/wiki/Tolosa>). In medieval times, Tolosa was an important checkpoint between the Kingdoms of Navarre and Castile, France and the Cantabrian harbors. Currently it hosts many important cultural events and a traditional market every Saturday.

The registration and conference sessions will be held in TOPIC, the Tolosa Puppets International Centre, in Tolosa city centre: Euskal Herria, 1.



View of Tolosa and the River Oria with the Navarra bridge. The white building to the left of the bridge is called Tinglado (Zerkausia), where we will have lunch on 8th and 10th September. The bus for the mid and post-conference excursions will depart from a bus stop on this side of the bridge. Photo: I. Salcedo



Venue of the EGC, TOPIC (Tolosa Puppets International Centre). On the left, TOPIC in the middle of Euskal Herria square (photo: <http://bit.ly/2Fl3fgo>); on the right, the conference hall (photo: <http://bit.ly/37y4hlk>).

Accommodation

Accommodation should be booked independently by each participant. In Tolosa, there are two hotels, two guesthouses, and several rural accommodations. Below we give details about them. Please take into account that beginning of September is High Season in the area, so prices are not cheap. As the availability of accommodation is rather limited, we recommend booking as soon as possible. There is also the possibility of renting private apartments on line. Prices given below include VAT. Breakfast is a continental breakfast.

Hotels:

[Hotel Oria](#), a 5 min. walk from the conference venue. Prices: single room without breakfast: €69.60, with breakfast: €77.80; double room without breakfast: €88, with breakfast: €106. All prices VAT included. Free Wifi.

[Hotel BideBide](#), adjacent to conference venue. Prices: double room €85 (€81 for individual use), triple room €95 (prices excluding breakfast, but with 20% discount if reservation is made via the hotel's webpage). All prices VAT included. Free Wifi.

Guesthouses:

[Pensión Karmentxu](#), in the historical center. Prices: €35 single room, €60 double room. Bathrooms outside the rooms. Breakfast available, but not included. Free Wifi.

[Pensión Oyarbide](#), in the historical center. Prices: €35 single room, €50 double room, both prices with en suite bathroom (€27 and €45 with only sink en suite, respectively). Possibility of additional bed. Free Wifi. No breakfast service, but many cafeterias in surroundings. Parking: €10.

Rural accommodations (<https://www.nekatur.net/>):

[Korteta Nekazalturismoa](#). Rural accommodation at a distance of 1.5 km from the town centre. Only suitable for people with a car, as it is quite steep to get there (160 m higher than town center). Six double rooms available, with possibility of supplementary beds, total room for 18 people. Prices range from €25 to €50 per person, depending on single/double room and season.

[Teileri in Berrobi village](#). New building used as rural accommodation at 5 km distance from Tolosa. Only suitable for people with a car. Two apartments with parking. Each apartment with three double rooms, two complete bathrooms, kitchen, etc. Prices: Whole apartment: €155 per night, whole house (two apartments): €310 per night.

[Arkaitza in Berrobi](#).

[Akulebi in Villabona](#), Legarreta Auzoa. 4.5 km distance from Tolosa, 1.2 km from the railway station. Three double rooms with bathroom. Breakfast service available.

[Urresti](#) and [Alustiza](#) Rural houses, both in Villabona, Amasa. About a 7 km distance from Tolosa.

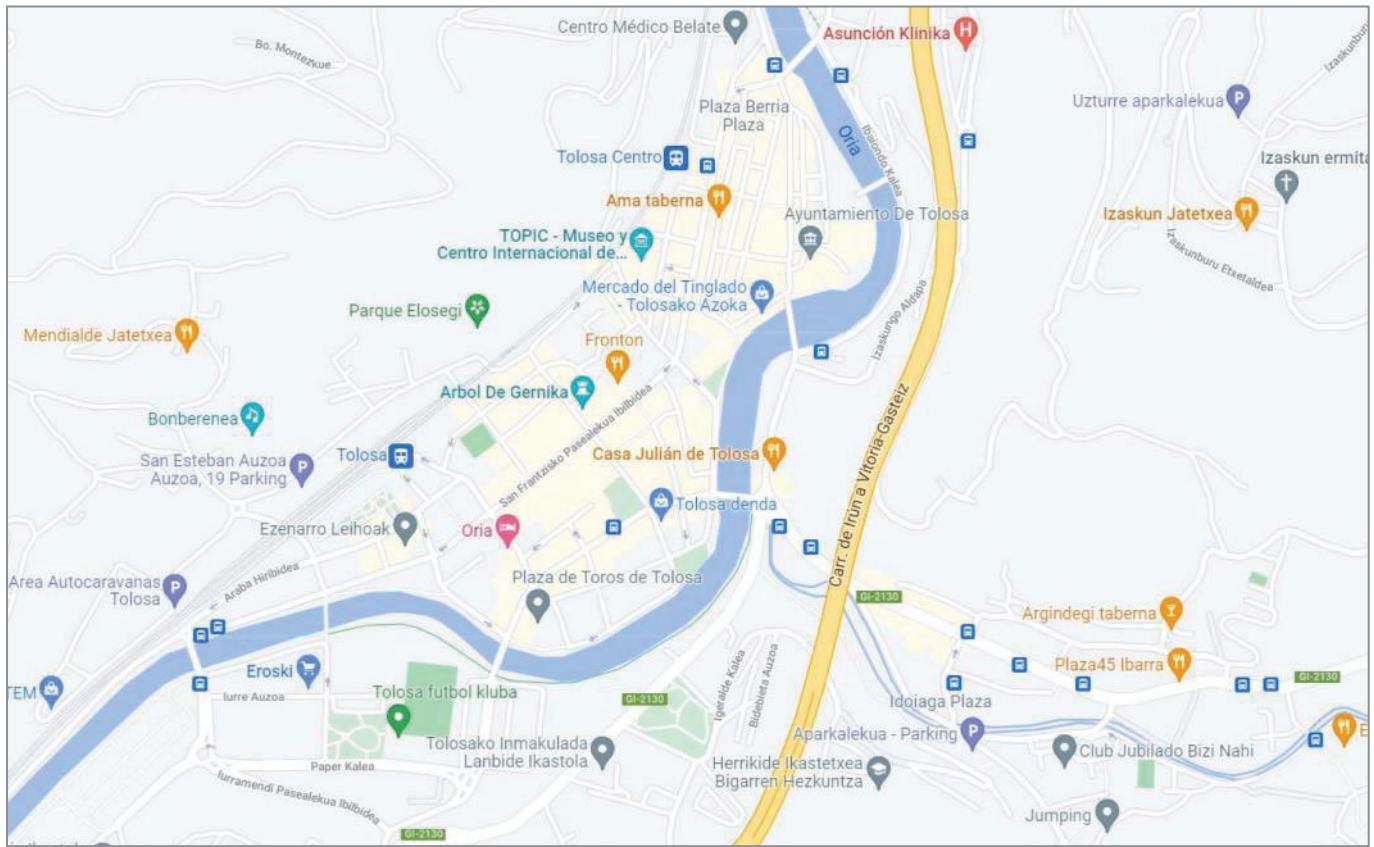


Fig. 3. Map of Tolosa showing the two railway stations: Tolosa Centro (Tolosa Erdia officially) and Tolosa (estación, geltokia), and the conference venue TOPIC (BideBide hotel is adjacent) (GoogleMaps). Mercado del Tinglado (zerkausia), by the river, is a covered market where we will have lunch during the conference. The bridge adjacent to the Tinglado is the Navarra bridge. The bus for the excursions will leave at the south side, indicated with a cross. All distances in Tolosa are very small, from hotel Oria to TOPIC 5 to 10 minutes walking distance.

Travelling to Tolosa

There are two international airports in the surroundings:

[Biarritz airport](#), in the French Basque Country, with direct flights to several European cities, including Munich, London, Berlin, Geneva, etc. There are direct buses from the airport to the bus station in San Sebastian (only one intermediate stop in San Sebastian city), 45 min.

[Bilbao airport](#), near Bilbao, with direct flights to many European cities. PESA company offers direct buses from the airport to San Sebastian bus station (€17.00, 1 hour and 8 min.). Timetables are not yet available, but the buses leave frequently (every hour).

There is also a regional airport, [San Sebastian Airport](#), located at Hondarribia, on the border with France. This airport only operates with Air Nostrum, Iberia and Vueling, flying to Barcelona and Madrid.

If you are travelling from Madrid, there are buses from Madrid airport and Madrid bus station to Tolosa, with the ALSA company.

Visas

If you require an official invitation letter to attend the conference, please contact the Chair of the Organizing Committee, Idoia Biurrun, after registering (Department of Plant Biology and Ecology, University of the Basque Country (UPV/EHU) P.O. Box 644, 48080 Bilbao, Spain. Email: idoia.biurrun@ehu.eus). This letter will not represent any commitment on the part of the organizers to provide financial support for you; it is only for the purpose of obtaining your visa or other such purposes.

Keynote lectures

The 17th EGC is pleased to welcome three keynote speakers:

Diversity, management and conservation of natural and semi-natural grasslands in Spain

Alfonso San Miguel, Department of Natural Systems and Resources, Polytechnic University of Madrid, Madrid, Spain.

Spain is a country with an amazing diversity of natural and semi-natural grasslands. Most of them are included in old cultural landscapes and/or High nature value (HNV) farmland. That is why their conservation, and that of their associated biodiversity (flora, fauna, habitats of Community interest), requires suitable management. In his keynote lecture, Professor San Miguel will present an overview of the diversity of natural and semi-natural grasslands in Spain and their associated biodiversity, and also address their conservation status after changes in management during the last decades.



Alfonso San Miguel is full professor at the Department of Natural Systems and Resources, Polytechnic University of Madrid. He is a member of the Spanish Society of Pastures (President between 2010-2014) and the Spanish Society of Geobotany. He is also the Director of the National Parks Chair. His research topic is management and conservation of natural and semi-natural grasslands and rangelands and

their associated biodiversity: flora and fauna. Some of his latest works deal with typology of natural and semi-natural grasslands in Spain, Types of Habitats of Community Interest and wild ungulate carrying capacity and management in Natural Protected Areas. [ResearchGate profile](#).

Species-rich semi-natural grasslands of Europe – historical masterpieces of human-nature interaction

Monika Janišová, Institute of Botany, Slovak Academy of Sciences, Banská Bystrica, Slovakia

Examples of positive impact of humans on ecosystem biodiversity are rare. One of the phenomenal examples are species-rich secondary grasslands of Europe, which were formed as a consequence of low-intensity farming. Their maintenance is a main goal of current grassland conservation. Through several examples from the Carpathian Mountains, Dr. Janišová will try to demonstrate: i) the importance of a deep knowledge of local history and traditions, which lead to the formation of each particular grassland; ii) the risks associated with substitution of traditional grassland management practices by their modern analogies; iii) the irreplaceable role of domestic animals in grassland conservation. Additionally, she will highlight approaches inspired by our ancestors (based on traditional ecological knowledge) that could help to maintain or increase grassland diversity for our descendants.



Monika Janišová is a vegetation ecologist focusing mainly on grasslands, their classification, biodiversity, succession, management and conservation. She is also interested in biogeography and endemism, as well as population biology and conservation of rare plants. Recently, the main subject of her research includes traditional ecological knowledge, bio-cultural heritage and sustainable agriculture in the Carpathian Mountains (Central and Eastern Europe). [ResearchGate profile](#).

Patterns, dynamics and conservation of the steppes of the Mongolian Plateau

Frank Yonghong Li, School of Ecology and Environment, Inner Mongolia University, Hohhot, China

In his keynote, Professor Yonghong Li will summarize the patterns and dynamics of the vast and continuous easternmost part of the Eurasian steppe, based on his field research experiences. He will discuss species diversity and vegetation dynamics in relation to climate and land-use changes, and present the status of, and challenges for, the conservation and sustainable management of these prestigious natural grasslands.



Frank Yonghong Li (PhD 1992, Montpellier) is professor and dean of the School of Ecology and Environment, Inner Mongolia University, China. His research career includes many years in the Institute of Botany of Chinese Academy of Sciences (Beijing) and New Zealand AgResearch- Grasslands Research Center (Palm. North). His current research covers biodiversity conservation, ecosystem processes and multifunctioning, and restoration and adaptive management of grassland ecosystems under climate and land-use change. [ResearchGate profile](#).

Workshops

17th EGC offers two optional workshops: Meet the Editors and Introduction to Orthoptera.

Meet the Editors, facilitated by Didem Ambarlı

12th September, 17:30-18:30, with informal follow-up during the welcome drink.

We'd like to provide a platform for our participants to meet with editors of high impact journals on ecology, conservation and vegetation science and ask questions about the peer-review process and get tips on submitting a successful paper.

Introduction to Orthoptera, led by Rocco Labadessa

12th September, 12:00-17:30, with lunch break after indoor session

The workshop will provide key aspects on the taxonomy and ecology of grasshoppers, katydids and crickets. Through a brief course indoors and practical activities in the field, the workshop will familiarize participants with sampling and determination techniques, and also provide hints on the interpretation of orthopteran community and biodiversity data.

Excursions

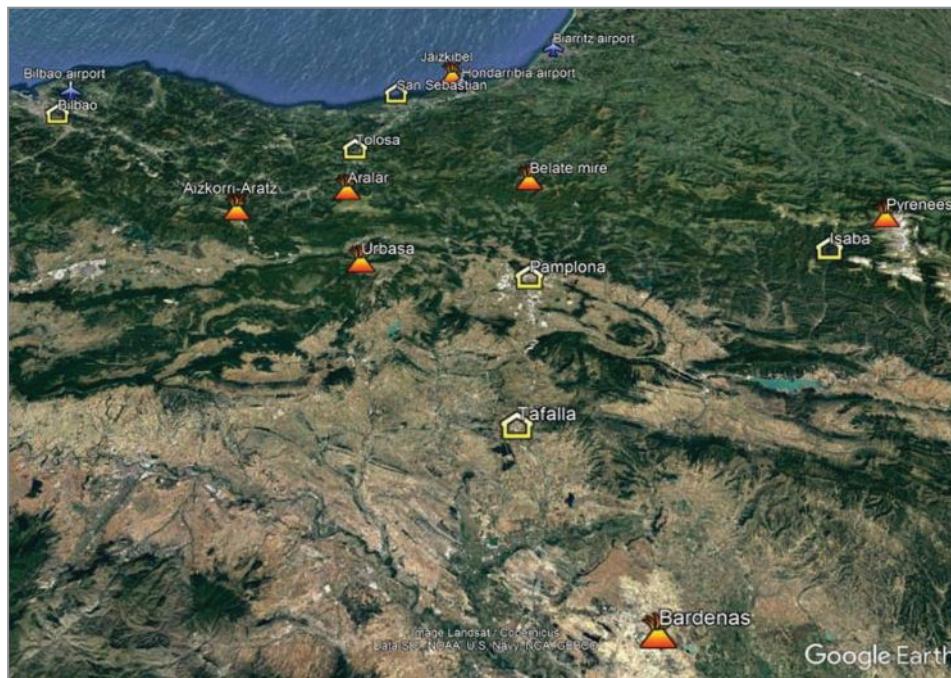
17th EGC offers a mid-conference excursion to the Aizkorri-Aratz Natural Park on 14th September and a post-conference excursion in Navarre from 16-18th September.



Euchorthippus declivus. Photos: R. Labadessa.



Rocco Labadessa is an active EDGG member, working as freelance biologist for environmental studies and biodiversity conservation projects in southern Italy. His main research focus is plant and insect ecology and conservation, with specific studies on orthopteran ecology and biogeography, and their relationship with grassland structure and dynamics. [ResearchGate profile](#).



Map showing the venue of the conference (Tolosa), destination of the mid-conference excursion (Aizkorri-Aratz) and main destinations of the post-conference excursion to Navarre (source: GoogleEarth). Airports are also indicated, as well as main cities in the surroundings.

Mid-conference excursion (14th September 2022)

We aim to show participants the biodiversity-rich grasslands of the Cantabrian valleys and mountains in the Basque Country. Two optional excursions are planned:

Excursion 1. Mountain walk to Aizkorri peak, led by Javier Loidi.

We will travel by bus to Otxaute, where we will start a mountain hike to the top of Mount Aizkorri, and finish in Arantzazu. It will be a long hike, with approximately 1,000 m slope.

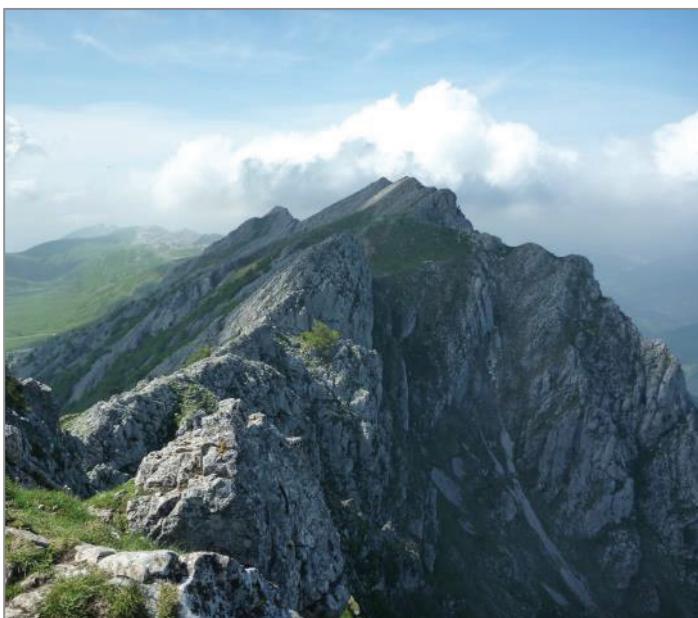
The highest peak in the Basque Country, Aitzuri (1,551 m a.s.l.) is located in this limestone mountain range, which limits the Cantabrian and Mediterranean basins. Basque legends place one of the houses of the goddess Mari, a personification of mother earth, and all the elements it contains, in these summits. In these mountains, we can find such treasures as the Tunnel of San Adrian, crossed by a medieval road, and the Arrikutz cave, with galleries full of giant stalactites.

In 2006, the Aizkorri mountain range became the Aizkorri-Aratz Natural Park, of 19,400 ha. Several forest types are abundant in these mountains, mostly beech forests, but there is also space for semi-natural grasslands in many open areas that have been retained for extensive grazing, especially in Urbia and Oltza open fields, at approximately 1,000 m a.s.l., which have been used for the summer grazing of sheep since the Neolithic, as testified by several megalithic monuments. Nowadays also cattle and horses graze these fields, but the indigenous latxa sheep breed has been traditionally bred, mainly for its milk, which is used to make Idi-

azabal cheese. Shepherds join in small group of txabolas (small mountain houses) during the summer months. Besides shepherding, charcoal-making has also been a traditional activity in these mountains.

Many species of mammals, birds and amphibians inhabit these forests, pastures and cliffs: alpine newt (*Ichthyosaura alpestris*), Iberian frog (*Rana iberica*), Peregrine falcon (*Falco peregrinus*), Griffon vulture (*Gyps fulvus*), Egyptian vulture (*Neophron percnopterus*), Alpine chough (*Pyrrhocorax graculus*), Red-billed chough (*Pyrrhocorax pyrrhocorax*), European snow vole (*Chionomys nivalis*), European pine marten (*Martes martes*), European polecat (*Mustela putorius*), European wildcat (*Felis silvestris*) and several bat species.

On our way to the mountain summit, we will cross dry grasslands with *Helictotrichon cantabricum* and *Sesleria autumnalis* and basophilous thorny-cushion scrub with *Genista occidentalis*, secondary vegetation mostly of *Quercus pubescens* forests. We will go up to the Urbia fields, at 1,100 m a.s.l., through beech forests. In Urbia, grasslands of *Violion caninae* and heathlands of *Daboecion cantabricae* form the traditional pastoral landscape. Back on the steep limestone slopes towards the summit, rocky grasslands occur, with *Teucrium pyrenaicum*, *Carex caryophyllea*, *C. ornithopoda*, *Festuca rectifolia*, *Brachypodium rupestre*, *Acinos alpinus*, *Thymus praecox*, etc. At higher elevations, we will find subalpine dry grasslands with *Festuca gautieri* subsp. *scoparia* and *Agrostis schleicheri* (*Festucion scopariae*). Near the summit, limestone cliffs harbour rupicolous communities, with *Potentilla alchimilloides*, *Hornungia alpina* subsp. *auerswaldii*, *Dethawia splendens* and *Erinus alpinus* (*Sedo-Seslerion hispanicae*), as well as mesic chionophilous grasslands with *Sesleria caerulea* (*Primulion intricatae*).



Left: Aizkorri summit (photo: J. Loidi). Right: Urbia fields (photo: <http://bit.ly/31ovWls>).



Surroundings of Orendain, Aralar. Left: Larreta farm (photo: <https://www.larretaesnekiak.com/>); right: sheep herd with Txindoki mountain on the back (photo: <http://bit.ly/39qD9Ws>).

Excursion 2. Visit to farms, meadows and pastures in Aralar and Aizkorri mountain ranges, led by Idoia Biurrun.

Our first stop will be a short walk to enjoy morning fresh air in the northern foothills of the Aralar mountain range (Aralar Natural Park), near the villages of Abaltisketa and Larraitz, under the impressive silhouette of Mount Txindoki. After this nice walk, we will visit the Larreta farm in the village of Orendain, at 5 min. distance by bus.

We will then move to Ataun, in the western foothills of the Aralar range, where we will learn about an old method of bringing the hay to the valley from the steep slopes in the hills, and also have a nice walk by a stream and adjacent meadows.

After our picnic in Ataun, we will travel to Arantzazu (45 min.), already in the Aizkorri-Aratz Natural Park. In Arantzazu, we will first hike for 2-3 hours to mountain grasslands above the village, and afterwards visit the Gomiztegi farm and shepherd school. They will show us their facilities, how they make the Idiazabal cheese with the milk of the Latxa sheep and perform a demonstration of Basque shepherd dogs working with sheep herds.

Both excursions will join at 19:00 for the Grassland Party nearby the Arantzazu sanctuary.

Post-conference excursion (16-18th September 2022)

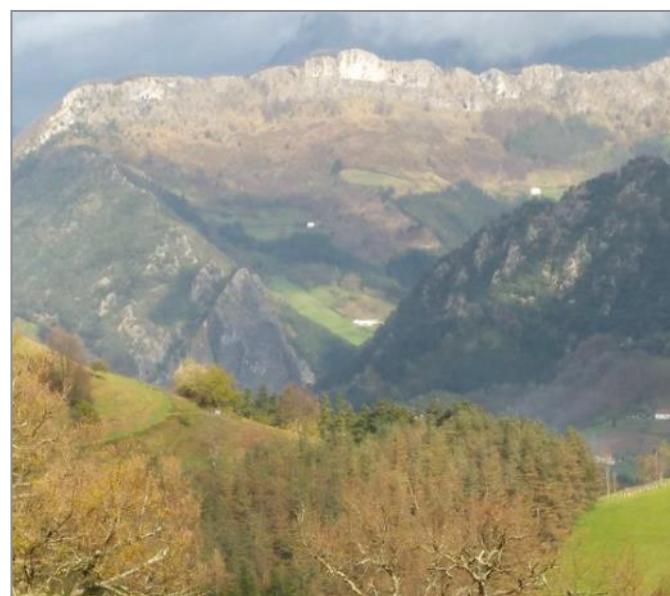
(optional - maximum number of participants: 40)

The three-day post-conference excursion will take place mostly in Navarre, a highly diverse territory where three biogeographic regions meet: Atlantic, Alpine and Mediterranean. Natural vegetation in the Atlantic region, in the North, is formed by oak forests (mostly *Quercus robur*, but also *Q. pubescens* in the driest areas) in valleys and hills, and beech forests in the mountains. Grasslands are semi-natural grasslands, except for azonal grasslands in rocky areas. Meadows are mostly found in valleys, while in the mountains, acidophilous grasslands of *Violion caninae* (*Nardetea strictae*)

and basophilous mexo-xeric and rocky grasslands of *Festuco-Brometea* prevail. Heathlands are one of the most typical landscape features, especially on siliceous bedrocks and leached soils.

The Alpine region, in the northeast corner, is the Pyrenees, one of the most beautiful and impressive European mountain ranges. The Pyrenees form the border between Spain and France from the Mediterranean to the Atlantic, and in Navarre, they are represented by the Western Pyrenees, the most oceanic part of the range. Natural vegetation includes downy oak (*Quercus pubescens*) and silver fir-beech forests in the montane belt, *Pinus uncinata* forests in the subalpine belt and alpine grasslands above the timberline.

The Ebro River valley occupies the south of the region, with a typically Mediterranean climate, though we can still find differences from the upper part to the centre of the valley (the so-called Ebro depression). On the upper part, the cli-



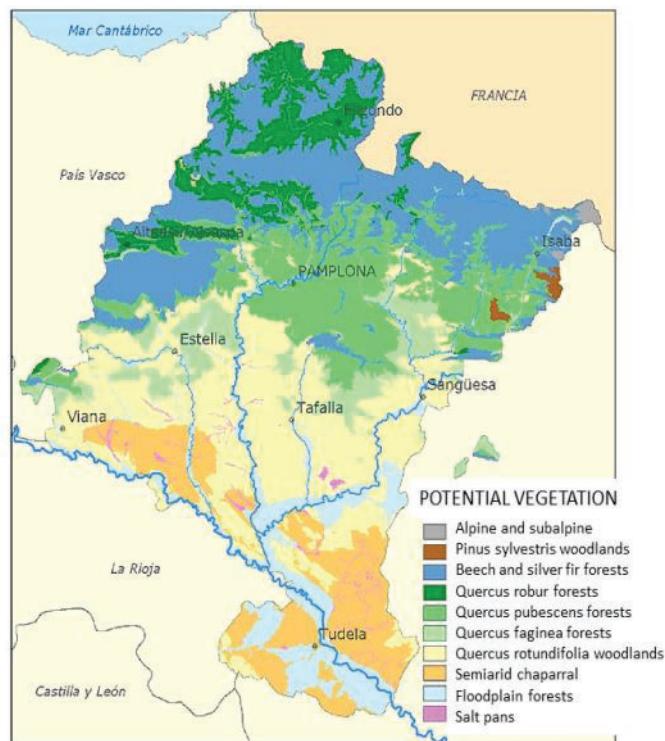
Dome in Ataun (photo: <http://bit.ly/2UK4KOP>).



Gomiztegi farm and shepherd school (photo: <http://www.oñatiturismo.eus/es/listings/gomiztegi-baseria/>).

mate is still quite rainy, and natural vegetation corresponds to marcescent deciduous forests dominated by *Quercus faginea*, whereas evergreen *Quercus rotundifolia* becomes dominant on the rocky slopes. Secondary grasslands still belong to *Festuco-Brometea*, at least in the deepest soils, although there is a particular meso-xeric grassland where *Brachypodium phoenicoides* is dominant. Down the valley, the climate becomes drier and warmer, and the natural vegetation is dominated exclusively by evergreen sclerophyllous trees (*Quercus rotundifolia*). Secondary shrublands and grasslands are typically Mediterranean: garrigues, with *Rosmarinus officinalis* (*Onionido-Rosmarinetea*) and Mediterranean grasslands, where *Brachypodium retusum* is the dominant species (*Lygeo-Stipetea*: *Phlomido lychnitis-Brachypodion retusi*).

The driest area in Navarre is located in the southernmost corner, near the Ebro River. Here, the bioclimate is Mediter-



Map of potential vegetation of Navarre. Modified from the http://www.cfnavarra.es/agricultura/informacion_agraria/MapaCultivos/seriesvegetacion.html.

ranean xeric, too dry even for the sclerophyllous forest, and thus the natural vegetation is an open woodland with *Pinus halepensis* and *Juniperus thurifera*, which is better represented towards the center of the Ebro depression (Monegros), in Zaragoza province. An exceptional grassland type can be found here on the clayey soils: the relict Mediterranean steppes, formed by *Lygeum spartum*, with *Stipa capillata* and *S. lagascae* (*Agropyro-Lygeion sparti*). *Lygeum spartum* also forms grasslands on the edges of inland salt-pans (*Limonion catalaunico-viciosoi*), in contact with halophilous scrub (*Suaedion brevifoliae*) and grasslands (*Puccinellion lagascanae*). Another outstanding feature of this semi-arid area is the abundance of nitrophilous steppic scrubs of the class *Pegano-Salsoletea*.

On the first day, we will travel directly to Jaizkibel, a small coastal mountain between San Sebastian and Hondarribia, a beautiful town on the border with France. Sandstone is the prevalent rock of this mountain, and thus heathlands cover almost all of the surface, maintained by repeated burning and extensive grazing. These coastal heathlands are very thermophilic, as frost is very rare this near to the ocean, and therefore the floristic composition is quite different to that of the mountain heaths. Small patches of mires are scattered in the heathland, with interesting communities belonging to the alliances *Anagallido-Juncion* and *Hyperico elodis-Sparganion*. After a walk in the heathland, we will have coffee and refreshments with an impressive panorama



Sheep herds are taken from the winter pastures in Bardenas Reales to the summer pastures in the Pyrenees along traditional paths (Cañadas Reales), nowadays most of them under roads. Sheep arriving to Pyrenean valleys (left), climbing to the mountain (center), enjoying the subalpine grasslands. Photos: A. Berastegi.

of the estuary of the Bidasoa River, the natural border between Spain and France, with the towns of Hondarribia (Spanish Basque Country) and Hendaye (French Basque Country).

We will continue our journey by bus up the Bidasoa River and will enter Navarre a few kilometers from the sea. We will climb to the Belate mountain pass, in the interfluvium of the Atlantic and Ebro basins. In Belate, we will stop to visit mountain acidophilous grasslands and heathlands, but we will especially focus on the Belate mire. This is one of the

largest mires in the Basque mountains, although it has long suffered from drainage, eutrophication and overgrazing. During recent years, a restoration project has been initiated, and we will be able to see some of the permanent plots used for monitoring.

In the afternoon, we will continue our journey by bus southwards, and our next stop will be in the Urbasa mountain range. There, we will enjoy the mountain landscape, with basophilous beech forests and extensive grasslands. The location of this mountain, south of the Atlantic-



Fig. 13. Estuary of Bidasoa River, frontier between Spain (below) and France (above). Photo: I. Salcedo.



Fig. 15. Castil de Tierra, Bardenas Reales, with *Lygeum spartum* on the front. Photo: J. Loidi.

Mediterranean divide, creates a high diversity of vegetation, with temperate grasslands of *Festuco-Brometea* and *Nardetea* co-occurring with submediterranean grasslands with *Festuca hystrix*, *Helianthemum canum*, *Jurinea humilis*, etc. From Urbasa we will go down to the Mediterranean region, and travel to our accommodation in the historical town of Tafalla. Here, we are already in the Ebro valley. For those of you who never visited the Mediterranean Region, we will make a special toast during the dinner!!

On the second day, we will travel directly southwards to the Ebro depression, towards the driest area in Navarre, Bardenas Reales. In route, we will stop near the Aragón River in Mélida, a tributary of the Ebro River originating from the Western Pyrenees, where we will enjoy the panorama view and visit some halophilic and gypsophilic communities in Caparroso. The main stop during this journey will be in the impressive Bardenas Reales, a huge non-urbanized extension of eroded hills, plateaus, saltpans and canyons, in which there are soils clay, chalk and sandstone.

After a long stop in Bardenas, picnic included, we will resume our journey and travel northwards to the Pyrenees. We will make a last short stop in the Mediterranean Region, near the village of Lumbier (Iso mountain pass) and a photo



Fig. 14. Palace of the kings of Navarre near Tafalla. Photo: A. Berastegi.

stop at the panorama of the impressive canyon Foz de Arbaiun. In the evening, we will reach our accommodation in the village of Isaba. We will sleep at the Isaba hotel, but before going to bed, we will have the opportunity to walk around the village, which is full of life during summer weekends.

On the third day, we will go by bus to the mountain pass called Piedra de San Martín, on the border with France. From there we will hike through subalpine and alpine grass-

lands and dwarf shrublands with *Juniperus communis* subsp. *nana* and *Rhododendron ferrugineum*. The most abundant grasslands are acidophilous *Nardus stricta* grasslands (*Carici macrostylidi-Nardion*) on deep soils, communities of *Festucion scopariae* on the sunny and rocky slopes, and of *Primulion intricatae* at locations where snow accumulates.

In the late afternoon, we will travel to Bilbao, where our journey will finish.



Fig. 16. Larra karstic area in the Western Pyrenees. Photo: A. Berastegi.



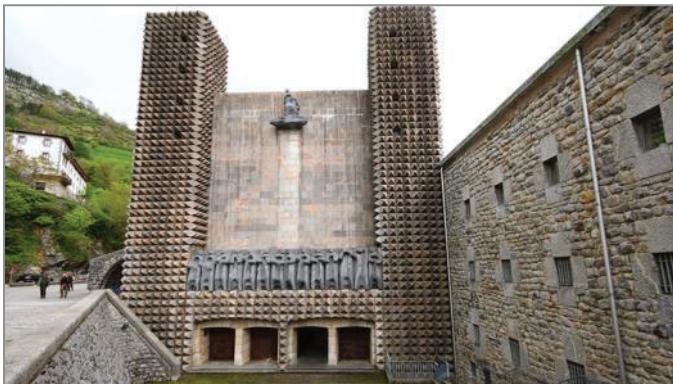
Fig. 17. Pic d'Anie, 2,507 m a.s.l., in the border between France, Navarre and Aragón. Photo: A. Berastegi.



Fig. 18. *Festuca gautieri* in scree. Photo: A. Berastegi.



Fig. 19. *Festuca altopyrenaica* on rocky slope. Photo: A. Berastegi.



Arantzazu Sanctuary



Txalapartaris

Grassland Party

The Grassland Party will take place on 14th September, near the Arantzazu sanctuary, where the participants of the two mid-conference excursions will arrive at around 19:00. The Sanctuary, located above a steep ravine at 750 m a.s.l., is the main entrance to Aizkorri-Aratz Natural Park, and is famous for its great artistic and architectonic value.

During the Grassland Party we will taste local food (cheese, vegetables, meat, etc.) and drink (cider, wine). We will have the opportunity to see and listen to Basque traditional dances and music, including an exhibition of *txalaparta*, a traditional percussion instrument where two *txalapartaris* (*txalaparta* musicians) play music using two wooden sticks each over a board (<https://en.wikipedia.org/wiki/Txalaparta>).

Auction

The auction will take place during the Grassland Party in Arantzazu.

Conference participants are encouraged to bring foods and drinks from their countries. Any other object related to grasslands, their management and biodiversity are also welcome, e.g., books, traditional tools and musical instruments, plant and animal drawings, etc. All items brought for the auction can be delivered upon registration, so that they can be exhibited already during the first day of the conference. The organizers will be responsible for transporting all the objects for the auction to the Grassland Party.

Fees

	Early Bird Registration until 30 th April	Late Registration until 15 th June
Student IAVS members*	€ 160	€ 190
Students, not IAVS members*	€ 180	€ 210
Other IAVS members*	€ 210	€ 240
Non-students and non-IAVS members	€ 230	€ 260
Accompanying person	€ 100	€ 100

*Please submit evidence of IAVS membership and/or your enrolment at a University by emailing confirmation of matriculation to idoia.biurrun@ehu.eus

The registration fee covers full participation in the conference, including registration and conference materials, admission to the conference, lunches and coffee breaks on 13th and 15th September, mid-conference excursion with lunch pack, grassland party, and Meet the Editors workshop. Fees of accompanying persons include lunches, coffee breaks, mid-conference excursion with lunch pack and grassland party. A childcare service will be offered upon demand and free of charge. Please indicate during registration if you will need this.

Fees of the optional events

The basic registration fee does **NOT include** the following, which can be booked separately:

- Post-conference excursion (16-18 September): €200
- Workshop on Orthoptera (12 September): €25

Financial support

Thanks to the EDGG's mother organization IAVS, we can support a number of participants with travel grants. Travel grants will be awarded according to the IAVS criteria, based on income level and country of origin. They will preferentially be given to early-career and other financially constrained scientists. The support usually covers only part of the participant's costs, depending on the number of successful applications. To qualify for a travel grant, active participation at the conference (oral presentation or poster) is required. After the conference, grantees must provide a short report of the event, and some photos that can be used in Palaearctic Grasslands.

Travel grants can be applied for during registration until 30th April, including a short motivation letter. Applicants for IAVS travel grants must be IAVS members for the year 2022. Information about travel grants will be given at the latest by 31th May.

Young Investigator Prizes

As in previous years, prizes will be awarded to young scientists for excellent presentation of their research (orally or in poster form). For these purposes, early career scientists (less than 35 years old) will be asked during registration if they wish to participate in the contest.

Organizers

The conference is organized by the EDGG and the University of the Basque Country. It is supported by the Basque Government, the Provincial Council of Gipuzkoa, the City Council of Tolosa, the University of the Basque Country and Hazi, public agency for rural, coastal and food development.

The [Eurasian Dry Grassland Group \(EDGG\)](#) was established in August 2008 as the European Dry Grassland Group. Recently it expanded its ecological and geographical scope to cover all types of semi-natural grasslands of the whole Palaearctic realm. The EDGG is an official group of the [International Association for Vegetation Science \(IAVS\)](#). Its basic aims are to compile and to distribute information on research in and conservation of natural and semi-natural grasslands beyond national borders, and to stimulate active cooperation among scientists, practitioners and all who work with or are interested in grasslands.

The [University of the Basque Country \(UPV/EHU\)](#). In a prosperous region stretching along the Atlantic coast of northern Spain, the people of the Basque Country are the custodians of one of Europe's most ancient languages and cultures. Yet, they not only have a high esteem for tradition,

but are also remarkably forward-looking and have established a highly regarded industrial sector. The region's success and scientific and technological progress are underpinned by the University of the Basque Country, a vibrant 30-year-old institution with 45,000 students, 5,000 world-class academic staff and state-of-the-art facilities. Our logo, symbolizing the tree of science, was created by the Basque artist Chillida, motivated by a strong popular movement in the 70s for the creation of the Basque university. Following our motto 'Give and spread knowledge', the University of the Basque Country is an integrating institution, willing to produce knowledge, experience and research, in order to forward them to the general public.

Local Organizing Committee

Idoia Biurrun, University of the Basque Country

Asun Berastegi, Gestión Ambiental de Navarra, guide on the Post-conference excursion

Juan Antonio Campos, University of the Basque Country

Itziar García-Mijangos, University of the Basque Country

Javier Loidi, University of the Basque Country

Peter B. Pearman, University of the Basque Country

Raquel Ponti, University of the Basque Country

Isabel Salcedo, University of the Basque Country

Sara Sánchez, University of the Basque Country

Irati Sanz, University of the Basque Country

Scientific Committee

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Didem Ambarlı, Turkey

Idoia Biurrun, Spain

Iwona Dembicz, Poland

Jürgen Dengler, Switzerland

Anna Kuzemko, Ukraine

Rocco Labadessa, Italy

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Supporters

Basque Government

International Association of Vegetation Science

University of the Basque Country (UPV/EHU)

Council of Tolosa

Government of Gipuzkoa

Governement of Navarre

Hazi Foundation

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