

REGIONAL WORKSHOP ON MOBILE PASTORALISM AND VULTURES

TOWARDS MUTUALLY BENEFICIAL SOLUTIONS
26-28 OCTOBER 2022, DEMIR KAPIJA



This report summarizes the topics discussed in the Regional Workshop on Mobile Pastoralism & Vultures, held in North Macedonia between 26-28 October 2022. It was jointly organized by Yolda Initiative, Vulture Conservation Foundation, Macedonian Ecological Society, with the funding provided by the MAVA Foundation and from the LIFE Programme of the European Union within the framework of the BalkanDetox LIFE project. The document aims to grow the vested collaboration between different stakeholders who have significant roles in the conservation of scavengers, related ecosystems and sustainable (mobile) pastoralism in the Balkans and beyond.



Disclaimer: This report summarises discussions held in an informal workshop setting. The views expressed are those of the individual participants who took part and do not necessarily reflect those of their respective organizations or their funders.

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ABOUT THE WORKSHOP

Recalling the resolution of the United Nations General Assembly as adopted in 2022 and entitled “International Year of Rangelands and Pastoralists, 2026” and the “Multi-species Action Plan to Conserve African-Eurasian Vultures” adopted in 2017 by the parties to the Convention on Migratory Species (CMS), the overall objective of the workshop was initiating a new understanding between mobile pastoralists, vulture conservationists and conservation authorities, based on respect and dialogue by offering a space for exchanging knowledge and experiences, learning from each other and co-developing new ideas, actions, and collaborations for the future of the conservation of vultures and mobile pastoralism in the Balkans and Europe and beyond. It also aimed to identify the problems encountered in conserving vultures and maintaining (mobile) pastoralist practice, producing joint solutions, and specifying the priorities.

The workshop contributed to the audience’s knowledge about the current situation of mobile pastoralism, the conservation status of vultures, and the unintentional killing of vultures by poisoning in the Balkans and Europe. Improved understanding of beneficial links between mobile pastoralism and vultures, the drivers of human-wildlife conflicts, enhanced knowledge of poison-free techniques to mitigate poisoning, exploring possible advocacy and promotion actions that enable policy change, and the potential mechanisms and measures which ensure effective participation of mobile pastoralists in the governance and management processes are evaluated as the significant outcomes of the workshop. It also contributes to developing new networks for better communication for future collaborations. Attended by 32 participants from 10 countries, including nature conservationists and (mobile) pastoralists from Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Hungary, India, North Macedonia, Serbia and Turkey, the main content of the workshop consisted of informative presentations and working groups discussions. Problem identifications were made as concrete outputs in the group discussions.

BACKGROUND

All over Europe, there are still many traditional cultural practices such as mobile pastoralism (transhumance, nomadic pastoralism etc.) practiced by local communities, acknowledging the constant interaction and mutualism with nature and so contributing to the ecological integrity and diversity of European cultural landscapes and the species they host. One significant example of this interaction in the Balkan Peninsula, as is the case with the whole of Europe, is the relation between vultures and mobile pastoralists.

A hundred years ago, Bearded, Cinereous, Egyptian and Griffon Vultures were among the most common breeding bird species in the mountains of central and southern Europe. Nevertheless, persecution, poisoning, loss of habitats, loss and deterioration of sustainable livestock production systems leading to decreasing food availability brought Europe's vultures to the brink of extinction across much of the continent in the 19th and 20th centuries. This is also the case in Balkan Peninsula. Although illegal, poison bait use in the countryside is still widespread, severely threatening nature, wildlife, and public health across the Balkan Peninsula and beyond. The most common motive behind this harmful practice is the intentional placement of poison baits to kill wild predators or other feral and domestic animals that may inflict damage on livestock or game species. Nevertheless, this non-selective method of extirpating animals also kills vultures with other protected and vulnerable species, causing population declines and

preventing the comeback of certain wildlife. Vultures, being mostly obligate scavengers, often fall victim to unintentional killing due to wildlife poisoning, either by directly consuming the bait or feeding on poisoned animals' carcasses.

Table 1: Status of vulture species

| | IUCN Red List category (Global)* | IUCN Red List category (Europe)** | Situation in the Balkans*** |
|---|----------------------------------|-----------------------------------|--|
| Griffon Vulture (<i>Gyps fulvus</i>) | LC | LC | In continental Greece and North Macedonia isolated and small populations are still persisting. Strong populations are present in Serbia and in Croatia, while the populations in Bulgaria and Crete are showing signs of increase in the last years. |
| Egyptian Vulture (<i>Neophron percnopterus</i>) | EN | VU | This species stronghold in the region is in Bulgaria, while it is still in small numbers present in North Macedonia, Greece and Albania, totalling to less than 50 breeding pairs in 2021 for the entire Balkan Peninsula |
| Cinereous Vulture (<i>Aegypius monachus</i>) | NT | LC | Cinereous Vulture is now reduced to single, isolated populations. The last populations of the Cinereous Vultures in Dadia-Lefkimi-Soufli Forest National Park, NE Greece and Bulgaria. |
| Bearded Vulture (<i>Gypaetus barbatus</i>) | NT | NT | The last population of Bearded Vultures in the region is found in Crete (Greece), numbering around 6 breeding pairs |

* BirdLife International. 2021. *The IUCN Red List of Threatened Species 2021*

** BirdLife International. 2021. (Europe assessment). *The IUCN Red List of Threatened Species 2021*

*** Pantović, U., Andevski, J., Duro, K., Selkegej, L., Dervović, T., Peshev, H., Dobrev, D., Fabijanić, N., Saravia, V., Sideri-Manoka, N., Petrovski, N., Vukićević, A. (2022): *Study about the illegal use of poison in the environment in the Balkan Peninsula. Technical report for Action A.2 of the BalkanDetox LIFE project (LIFE19 GIE/NL/001016)*. Vulture Conservation Foundation.

Meanwhile, the last hundred years also witnessed a sharp decline in mobile pastoralism in Europe as well. Mobile pastoralists in Europe have been and still are facing many challenges including but not limited to lack of or limited access to their traditional lands, restrictions to their mobility, limited access to basic services, lack of proper infrastructure, adverse policies that favour intensive livestock production systems.

The disappearance of mobile pastoralism has had, and continues to have, significant consequences in the Balkan peninsula, especially in terms of food availability for vultures. While vulture feeding stations provide tons of food to protect endangered vulture species in the region, more is needed given the population size. (Mobile) pastoralist activities increase the availability of food to sustain healthy vulture populations. By consuming the carcasses left in the pastures derived from domestic herbivore losses, vultures can maintain their natural foraging patterns, accessing unpredictable food in time and place.

Another indirect but crucial consequence in terms of landscape structure and composition is the global decrease in open habitats and the progression of forest habitats, further impacting the detection of remaining carcasses by the community of avian scavengers and particularly by the Griffon Vulture, the primary provider of ecosystem services at the European scale. Moreover, these open habitats are generally associated to the most threatened and endemic species across the Mediterranean region, which (mobile) pastoralism helps conserve.

In response, vulture populations clean up carcasses and other organic waste in the environment, preventing diseases that can spread from dead animals. In doing so, they reduce greenhouse gas emissions and save hundreds of millions of Euros annually in Europe, which would otherwise be spent on artificial carcass collection and transport to processing plants. Playing a very key role in the food cycle in their natural habitats, vultures prevent the increase in the population of feral dogs and other predators by decreasing carrion availability in the field.

However, despite these mutual benefits, when (mobile) pastoralists' traditional ability to develop sustainable solutions can't cope with externally imposed changes, such as land appropriation, they either abandon the practice entirely or diversify and differentiate their management systems. This can sometimes lead to responses that create conflict with wildlife or institutionalized conservation mechanisms.

Such cases must be thoroughly investigated to understand the root causes and to develop sustainable responses that address the problem, rather than merely restricting mobility and preventing mobile pastoralists from using their traditional resources – a strategy proven counter-productive.

Accordingly, a sustainable approach to conserving vultures should recognize mobile pastoralists not as usual suspects but as strong allies. Their voices should be heard in developing mutually beneficial solutions. This requires progressive conservation thinking, a new understanding based on respect, dialogue, and basic human compassion, addressing the root causes of conflicts where they have already arisen or have the potential to arise.

The workshop programme, in response to this need, was designed to cover all relevant topics, facilitating the exchange of knowledge and experiences, learning from one another, and co-developing new ideas, actions, and collaborations for the future conservation of vultures and (mobile) pastoralism in the Balkans, Europe, and beyond.

It was particularly intended to include the voice of the (mobile) pastoralists as much as possible towards initiating a new understanding between mobile pastoralists, vulture conservationists and conservation authorities.

DAY 1

OPENING SESSION

The opening session began with welcoming remarks from **Engin Yilmaz**, the director of the Yolda Initiative (Yolda) and the coordinator of the Alliance for Mediterranean Nature and Culture (AMNC). He was followed by **José Tavares**, the director of the Vulture Conservation Foundation (VCF), and **Robertina Brajanoska**, the executive director of the Macedonian Ecological Society (MES).

Robertina Brajanoska gave a welcoming remark and expressed enthusiasm that such a workshop, which is the first of its kind, is organized in North Macedonia. She continued her speech by explaining that MES has been monitoring and working towards protecting vulture conservation in the country since 2002, amongst other biodiversity conservation activities. She wished the participants a pleasant stay and fruitful discussions in the upcoming days.

In his opening remarks, Engin underscored the pivotal role that mobile pastoralism, in its various forms, has played in shaping European landscapes. He distinguished it from the intensive/industrial livestock production systems. He stressed that the prevailing belief among conservationists—that "mobile pastoralism is incompatible with nature conservation"—needs revision. He emphasized the significance of recognizing and enabling (mobile) pastoralists as crucial allies in the conservation of vultures and ecosystems in the Balkans and Europe.

After the opening session, **Jovan Andevski** (VCF) briefed the participants on the event's objectives and anticipated outcomes.



Opening Session

SESSION 1: Regional Level Situation Regarding Mobile Pastoralism in Europe

In his presentation titled “Mobile Pastoralism: The Current Situation in Europe,” **Engin Yilmaz** (Yolda & AMNC) discussed the present status and scope of mobile pastoralism and its significance in supporting rural livelihoods, delivering top-quality products, preserving, and enhancing biodiversity, and addressing the climate crisis. He detailed the primary challenges leading to a marked decline that pastoralists in Europe confront. These challenges encompass:

- Ⓢ Limited or no access to their traditional lands, primarily due to land grabbing, dispossession of their territories, and migration routes.
- Ⓢ Restrictions on their mobility.
- Ⓢ The establishment of formal protected area systems over the past century, which has significantly impacted pastoralists' mobility.
- Ⓢ Limited access to basic services.
- Ⓢ Absence of appropriate infrastructure (migration routes, water resources, shelters etc.).
- Ⓢ Detrimental policies, including misinformed conservation policies, that lean towards intensive livestock production systems without distinguishing pastoralism.
- Ⓢ Threats that dismantle their traditional management systems and diminish their socio-ecological resilience.
- Ⓢ Loss of traditional ecological knowledge and the erosion of inter-generational knowledge transmission mechanisms.

Engin emphasized the imperative shift from conflict to collaboration between pastoralists and conservationists. He also highlighted the importance of addressing the root causes of any existing or potential conflicts concerning the conservation of vultures.



The plenary session

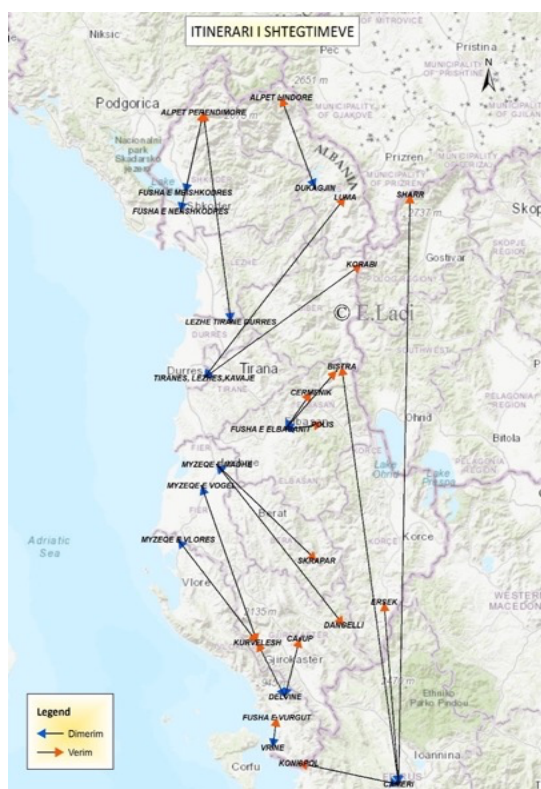
In her presentation entitled “Regional-level responses in Europe and the Mediterranean for conserving sustainable (mobile) pastoralism” **Burcu Ateş** (Yolda & AMNC), shared insights on various actions and initiatives undertaken by Yolda and AMNC towards preserving mobile

pastoralism as a cultural practice that benefits biodiversity in the Mediterranean region and also at global level. These include designation of 2026 as the UN International Year of Rangelands and Pastoralists (IYRP 2026) which was endorsed by the United Nations General Assembly in 2022. The primary objectives of IYRP 2026 include:

- ② Enhancing global understanding of the significance of rangelands and pastoralists in terms of food security, biodiversity, climate crises, economic resilience, and culture.
- ② Informing decision-making at all levels, advocating for informed policies that benefit both current and future generations.
- ② Recognizing the immense value of rangelands and pastoralists and deepening understanding of their contributions to the economy, environment, society, and culture on both national and global scales.
- ② Raising awareness about the challenges and opportunities associated with life in the rangelands.

Burcu also provided details about the European Regional Support Group for IYRP 2026 (European RISG). This group consists of pastoralist and supporting organizations collaborating to realize the above-mentioned objectives in Europe.

SESSION 2: Regional Level Situation Regarding (Mobile) Pastoralism in the Balkans



Transhumance itineraries in Albania

The program continued with individual presentations of (mobile) pastoralists and nature conservationists on the current situation in the Balkans.

Participating from North Macedonia, **Prof. Dr. Vladimir Djibirski** discussed the benefits and contributions of pastoralism. These encompass food security, ecosystem services such as the maintenance of grassland biodiversity and contributions to soil health, bolstering local and national economies, and the preservation of local breeds. He underscored the significance of this practice in the country for conserving local autochthonous breeds like ovchepolka, karakachanka, and sharplaninka (the strains of the pramenka breed). He noted that, in response to current market demands, pastoralists have diversified their production strategies, often opting to raise crossbreeds of pramenka sheep. By contrasting the production strategies of pastoralists from the past with those of today, he illustrated how market demands have influenced their management decisions. The challenges of the transhumance system in the country include a

decline in sheep numbers, mobility restrictions due to shifting borders, agricultural intensification, and the loss of autochthonous breeds adapted to the local environment, coupled with the afforestation of winter pastures. These challenges have culminated in the marginalization of pastoralism and its eventual abandonment. Citing the recommendations of the Food and Agriculture Organization, he stressed the necessity for policy and legal frameworks that support pastoralism, ensure their land tenure rights, and grant them access to natural resources. Furthermore, he emphasized the importance of research and data production initiatives that adopt a multidimensional approach, facilitating evidence-based policymaking.

Esmeralda Laci (PhD), the National Focal Point in Albania for the Nomination of Transhumance as UNESCO Intangible Cultural Heritage and a representative from the Association RUR.AL, shed light on transhumance in Albania, a practice tracing back to the Illyrian period. She highlighted that, following the Land Reforms of 1945-46, local communities and traditional practices lost prominence with the formation of cooperatives during the agricultural collectivization process, which took place in Albania between 1945 and 1990. While transhumance was once prevalent across Albania, the past two decades have seen a marked decline, with only a third of families involved in mobile pastoralism still practicing it. For instance, the cattle population in the country has shrunk by 50% from 2004 to 2021. Typically, migration distances average between 150-250 km. Some transhumants, especially those covering longer distances like the 300 km stretch from Sharri to Cameria, use trucks and other vehicles to transport their herds. The challenges and risks associated with transhumance in Albania are predominantly economic. These encompass the absence of legal status for shepherds, rural area abandonment—especially by the younger generation, escalating costs, a community-wide information deficit on available incentives, disputes over pasture usage, degradation of migration routes, and a lack of essential auxiliary infrastructure. Despite these hurdles, she stressed the existing potential to mitigate threats and preserve the practice.

Mirko Šarac, a mobile pastoralist and a member of the NGO Naša Baština in Bosnia and Herzegovina, shared insights on transhumance in the country with the participants, detailing its evolution over time. He discussed the challenges he personally faced in accessing natural resources. Furthermore, Šarac elaborated on his involvement as an advocate for the BalkanDetox LIFE project in his nation.

Hristo Peshev, an ecologist with the Fund for Wild Flora and Fauna in Bulgaria, provided details about the migration routes that Bulgarian transhumance families follow and how these routes relate to the topography. He expanded on the connection between vulture conservation efforts and the practice of transhumance in the country. Peshev emphasized the adaptation of local breeds to the climate, vegetation, and land use patterns. He concluded his presentation by describing the characteristics and behaviour of shepherd dogs raised by transhumance shepherds in Bulgaria and their significance in for the sustainability of the practice.



A karakachan guardian dog standing in a muddy area with sheep in Bulgaria © Fund for Wild Flora and Fauna

Ivan Budinski, from BirdLife Croatia – BIOM, delivered a presentation titled “Why did the Croatian livestock breeders decide to use poison?”. His talk drew from experiences during the implementation of the "Dinara back to LIFE" project. This initiative aims to restore the abandoned pastures of Mount Dinara to protect bird species dependent on this Dinaric habitat. The restoration methods include planned grazing, controlled burning, direct removal of shrubs, repairing drystone walls, restoring water sources, and more, all in collaboration with local residents. These pastures evolved alongside grazing activities. However, depopulation and other negative socio-economic trends led to the desertion of entire villages in the region. As a result, grasslands began to overgrow into dense vegetation, losing their distinct characteristics. To address the loss and degradation of these key habitats, the involvement and collaboration with locals were deemed essential. Emphasizing this, Ivan highlighted the importance of fostering genuine dialogue with the local community and ensuring their well-being is central to conservation efforts. He noted that grazing by different species impacts the management of various encroaching plant species differently. To enhance grazing efforts, BIOM financially supported locals in acquiring native breed donkeys through the project.



A donkey consuming shrub in Dinara © BIOM

Spyridon and Jara Kiosis, who lead a transhumance lifestyle with their families in rural Ioannina – Zagori (Greece), continued the program with a discussion on the foundations of their ecological knowledge regarding transhumance. They emphasized the diverse composition of the herd they manage. Having observed the evolution of the practice in their region over three generations, the Kiosis family detailed their approach to raising herds of goats, sheep, and cows. During the summer, they graze their animals in the rangelands for six months. For the remainder of the year, they return them to their villages. This seasonal movement demands adaptability and flexibility, which are essential traits of the practice.

Milica Pušica, the founder of the Serbian Daci Pesaci Association and a transhumance/livestock breeder, offered insights into her farm and her dedication to preserving and conserving the traditional livestock breeding practices she inherited from her family in the Jadovnik Mountain region. In her presentation, she emphasized the pivotal role of women in livestock breeding and shared her experiences concerning solidarity among Serbian shepherds, particularly in the context of gender and equality.

WORKING GROUPS SESSION

On the afternoon of the first day, participants split into rotational working groups to tackle specific questions. This was followed by plenary discussions at the end of the sessions. Compared to the past, the primary challenges and issues identified by (mobile) pastoralists include:

- 📍 Loss and degradation of grazing lands due to their allocation for other uses.

- ☉ A lack of recognition and support from policy and legal frameworks, especially concerning land and resource rights.
- ☉ Low income and profitability, which diminishes the appeal for younger generations and leads to increased urban migration.
- ☉ Inadequate or limited basic infrastructure, such as water points and routes, as well as essential services like heating and electricity.
- ☉ The decline of traditional knowledge and practices.
- ☉ Legal barriers hindering the enhancement of pastoralist products in the market.
- ☉ Challenges associated with reducing conflicts with predators, including the training and management of guardian dogs.

The groups pinpointed action areas, evaluating their geographical scope, feasibility and importance, to address these challenges:

- ☉ **Policy and Legal Frameworks:** Advocate for reforms and adjustments that support (mobile) pastoralism and recognize the rights of (mobile) pastoralists concerning land and resources.
- ☉ **Infrastructure:** Invest in basic infrastructure such as water points and routes, and ensure access to essential services.
- ☉ **Societal Values:** Raise awareness and champion the importance of (mobile) pastoralism within society.
- ☉ **Economics:** Deploy strategies to enhance the income and profitability of pastoralist activities.
- ☉ **Resilience, Knowledge, and Adaptive Capacity of Communities:** Launch initiatives to safeguard and amplify traditional knowledge and practices while bolstering community resilience and adaptability.
- ☉ **Demography:** Tackle issues tied to demographic shifts and urban migration, including strategies to entice younger generations to uphold the tradition of (mobile) pastoralism.

Concluding the discussions, participants also recognized that disparities in legal frameworks between European Union member states and non-member countries have notably created challenges for regional coherence in the Balkans.

DAY 2

SESSION 1: Relevant Policy and Legal Frameworks

The morning session of the second day centred on the pertinent policy and legal frameworks applicable to the conservation of mobile pastoralism and vultures.

The day commenced with a presentation by **Engin Yilmaz** (Yolda & AMNC). He highlighted several international instruments, tools, and bodies under the United Nations (UN) umbrella pertinent to the promotion of pastoralism and pastoral mobility. These encompass the Universal Declaration of Human Rights; the Indigenous and Tribal Peoples Convention; the UN Declaration on the Rights of Indigenous People; the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas; UNESCO's Intergovernmental Committee for the Safeguarding of the Intangible Cultural Heritage; and the Voluntary Guidelines on Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security. A notable instrument among these is the UN International Year of Rangelands and Pastoralists 2026 (IYRP 2026), endorsed by the UN General Assembly in 2022. The resolution for IYRP 2026 urges all Member States, UN system organizations, other international and regional entities, and relevant stakeholders—including civil society, the private sector, and academia—to observe the International Year. This observation would involve activities designed to elevate awareness and visibility, emphasizing the significance of sustainable management of rangelands and pastoralism and their role in sustainable development. Engin also touched upon the Other Effective area-based Conservation Measures (OECM) as an international framework that may be beneficial for preserving mobile pastoralists and the territories they oversee. OECM is characterized as "a geographically defined area, other than a Protected Area, which is governed and managed in ways that achieve positive and sustained outcomes for the in-situ conservation of biodiversity, with associated ecosystem services and cultural and spiritual values". Sustainable mobile pastoralism and the lands these communities oversee align with the core elements of the OECM definition. Incorporating and involving mobile pastoralists within the OECM framework could further the goals of target 3 of the Kunming-Montreal Global Biodiversity Framework (GBF), ratified during the fifteenth meeting of the Conference of the Parties (COP 15) of the Convention on Biological Diversity (CBD). As per this target, member states are tasked with ensuring that by 2030, a minimum of 30 percent of their terrestrial and marine territories are effectively conserved through protected areas and OECMs.

Vyara Stefanova from the Society for Territorial and Environmental Prosperity (STEP) delivered a presentation on the Rural Development Programme – Agroenvironmental (RDP-AE) measures that support traditional pastoralism and vulture conservation in Bulgaria, as well as the lessons learned. Traditional Livestock Breeding has been incorporated into the RDP as an AE measure since 2007. Detailing the specifications of the support measure for Traditional Shepherd Systems (Mountain Pastoralism) as outlined by the legislation, she compared the payment rates from 2008 to 2023. In 2008, the payments per hectare were 100 Euros without dogs and 110 Euros with dogs. In contrast, the proposed figures for 2023 are 168 Euros and 177 Euros, respectively. However, the plan to expand the measure to Natural Parks and Natura 2000 areas with management plans, initially set for 2015, did not come to fruition. Additionally, horses were removed from the support framework in 2015. Following the EU Common Agricultural Policy (CAP) revision in 2022, the minimum area slated for support is 5 hectares. Despite significant

interest from pastoralists in this support, numerous nature conservation organizations and Bulgaria's Ministry of Environment aim to halt the measure's implementation in national parks. A primary concern with the RDP is its lack of efficient and systematic monitoring and evaluation, even 14 years after the program's inception. Another key measure, aligned with the EU acquis, focuses on High Nature Value (HNV) Farming systems for maintaining habitats of protected species in arable lands of Important Bird Areas (IBAs). The payment rate for this support measure stands at 324 Euros per hectare. However, farmer interest in this measure remains low. Moreover, there's a glaring absence of specialized and targeted training and advice, save for what's provided by environmental NGOs, concerning this measure.



A cattle grazing in Bulgaria © Rossitsa Dzhambazova

Esmeralda Laci (PhD) from the Association RUR.AL, who is the National Focal Point in Albania for the Nomination of Transhumance as UNESCO Intangible Cultural Heritage (ICH), apprised the audiences about the nomination process. The initiative began in 2018 with Italy as the leading country, in collaboration with Greece and Austria. Key figures in this process included mobile pastoralists like Ms. Carmelina Colantuono from the Colantuono family and supporters such as Mr. Nicola di Niro from AsvirMoligal in Italy. As a result, Transhumance was added to the list in December 2019. Following this success, a second wave of the nomination process began in January 2020, involving seven additional countries: Albania, Andorra, Croatia, France, Luxembourg, Romania, and Spain, with Spain leading the effort. An international working group was established, comprising two focal points from each country. One represented the governments, and the other represented the communities. Esmeralda detailed the elements considered in the nomination file. These encompassed intangible aspects of Transhumance, such as rituals, knowledge transmission, festivals, cultural-folkloric events, family dynamics, and labour distribution. For the dossier submission, each country prepared three documents: a national inventory of intangible cultural heritage elements, a national nomination file, and a joint nomination file representing all countries. These were supported by both national-level and joint international-level safeguarding plans. Several measures, proposed by all the State Parties and finalized with the focal points, are set to be implemented by the communities in the coming years. These

measures pertain to documentation, transmission, promotion, and international partnership. Efforts to initiate a third wave of nominations, led by an international working group, are already underway, targeting countries like Argentina, Mongolia, Morocco, and Serbia.



Colantuono family during transhumance in Italy © Archivio Moligal

Jovan Andevski from VCF discussed the implementation of the European Union's sanitary regulations, starting with the EU Regulation 1774/2002. This regulation set sanitary rules for using animal by-products not intended for human consumption to feed necrophagous species. The regulation came into effect in response to Bovine Spongiform Encephalopathy, more commonly known as Mad Cow Disease. It prompted significant changes in how livestock carcasses were managed, without distinguishing between pastoral and industrial livestock farms. Consequently, the regulation mandated the industrial destruction of animal carcasses and prohibited their disposal in the countryside. This change led to a marked reduction in food sources for scavenger species, including vultures. The aftermath saw a decline in the breeding success of these species, increased juvenile mortality, and incidents of vultures attacking, for example, ailing livestock. To address these issues, new EU Regulations (322/2003 & 830/2005) were introduced to create "vulture restaurants" or vulture feeding sites. However, this solution posed potential risks as it could alter habitat quality and indirectly harm vultures due to changes in the species' foraging dynamics. Consequently, regulations 1069/2009 & 142/2011 were introduced, establishing "Protected Areas for the Feeding of Necrophagous Species of European Interest" (PAFs). These areas allowed extensive farmers to dispose of carcasses. This EU-level regulation was adopted by Spain through Royal Decree 1632/2011, which oversees the abandonment of

carcasses by extensive farmers. Jovan also provided insights into the food requirements and prey selection of all four vulture species found in Europe. He elaborated on the volume of food supplied by the authorized supplementary feeding sites across Spain's autonomous regions.



Griffon Vultures feeding on a carcass © Bruno Berthemey, Vulture Conservation Foundation

SESSION 2: Thematic Presentations

Uroš Pantović, the Project Coordinator of the BalkanDetox LIFE project at VCF, presented on the project's scope and the food availability for vulture species in the Balkans. The project, with beneficiaries spanning various Balkan countries, aims to improve the management of poisoning incidents and significantly reduce the mortality of vultures and other affected species. To achieve this, the project concentrated on gathering and refining data about the extent of poisoning in the Balkan Peninsula and its detrimental effects on both wildlife and human health.

According to the project's research, the most common form of wildlife poisoning in the Balkans is the intentional use of poison baits to target wild, feral, and occasionally domestic animals. Despite the prohibition of such practices in all Balkan countries, the tradition of using poison baits remains deeply rooted and widespread. From 2000 to 2020, the Balkans witnessed 1,046 confirmed and suspected poisoning events. The Griffon Vulture population suffered the most, with casualties reported in one out of every five poisoning incidents. During this timeframe, the region lost 465 vultures, which included 47 Egyptian Vultures, 17 Cinereous Vultures, and one Bearded Vulture. On average, the Balkans sees the death of 23 vultures due to poisoning each year, with an estimated 115 vultures potentially poisoned annually across the region.

In response to this alarming trend, the project focused on enhancing the abilities of relevant governmental authorities to tackle illegal wildlife poisoning. This involved the establishment of national anti-poisoning task forces, the creation of standardized operational procedures, and the development of national roadmaps. Uroš also delved into the challenges posed by the decreasing food sources for vultures in Europe. This decline in food availability is a significant threat to these birds, leading to their reduced numbers and, in some instances, even extinction. The project's goal was to shed light on the food availability situation for vultures in the region.

Table 2: Vulture populations in the Balkan Peninsula

| Species/Country | Bearded Vulture | | | Cinereous Vulture | | | Egyptian Vulture | | | Griffon Vulture | | | |
|------------------------|-----------------|------|------|-------------------|-------|-------|------------------|------|------|-----------------|-----------|---------|-----|
| | 2011 | 2019 | 2021 | 2011 | 2019 | 2021 | 2011 | 2019 | 2021 | 2011 | 2019 | 2021 | |
| Albania | †? | | | †? | | | 9 | 6 | 5 | † 1996 | | | |
| Bosnia and Herzegovina | † 1987 | | | † 1910 | | | † 1995 | | | † 1991 | | | |
| Bulgaria | † 1972 | | | † 1993 | | | 1 | 32 | 24 | 26 | (60) | 135 | 163 |
| Croatia | † 1910? | | | † 1950 | | | † 1987 | | | 125-135 | 120-135 | 121 | |
| Greece (continental) | † 2004 | | | 28 | 28-35 | 30-35 | (20) | 4 | 5 | (30) | 25-35 | 359 | |
| Greece (Crete) | 6-7 | 6-7 | 10 | 3 ind. | - | - | - | - | - | 240 | 250-340 | | |
| North Macedonia | † 2006 | | | † 2006 | | | 23 | 13 | 12 | 14 (16) | 14 | 7 | |
| Serbia | † 1954 | | | † 1960 | | | † 2005 | | | 130 | (180-190) | 230-233 | |

The four vulture species native to Europe were once commonly found breeding in the Balkan region. However, currently, the Bearded Vulture and Cinereous Vulture are on the brink of regional extinction.

Table 3: Trophic requirements of vultures in the Balkan Peninsula

| Species | Daily individual requirements (kg biomass) | N° pairs | N° territorial individuals approx. | Floater population approx. | Total estimate individuals N° | Percentage of carrion in diet | Days per year of presence | Total biomass (kg/year) |
|-------------------|--|----------|------------------------------------|----------------------------|-------------------------------|-------------------------------|---------------------------|-------------------------|
| Griffon Vulture | 0,52 | 508 | 1016 | 885 | 1.901 | 1,0 | 365 | 360.810 |
| Cinereous Vulture | 0,57 | 35 | 70 | 75 | 145 | 1,0 | 365 | 30.167 |
| Egyptian Vulture | 0,2 | 47 | 94 | 19 | 113 | 1,0 | 200 | 4.520 |
| Total | | | | | | | | 395.497 |

As of 2019, 27 supplementary feeding stations for vultures were operational in the Balkan Peninsula. These were distributed as follows: 9 in Greece, 7 in Bulgaria, 4 in Serbia, 3 in Croatia, 2 in Albania, and 2 in North Macedonia and 1 in Bosnia and Herzegovina. Together, they provided

up to 810 tons of food annually. The current supplementary feeding programmes for vultures in the Balkan countries provide in theory enough food to match the trophic requirements of the vulture populations inhabiting this region. However, it must be considered that numerous other scavenger species (corvids, buzzards, eagles, mammalian carnivores) also use supplementary feeding sites as a regular source of food and further efforts are needed to analyse the actual food availability for vultures. The only exception is Croatia, where the annual amount of food delivered to the existing feeding sites meets only 22% of the current Griffon Vulture population inhabiting the Kvarner islands.

Table 4: Comparison of the biomass needs and the supplied food by the supplementary feeding stations in the Balkan Peninsula

| Country | Biomass needs (kg) | % of the total requirements for the region | Kg. supplied food annually on all SFSS (supplementary feeding stations) | % of the needs fulfilled | Kg. supplied food annually on vulture SFSS | % of the needs fulfilled |
|----------------------|--------------------|--|---|--------------------------|--|--------------------------|
| Albania | 600 | 0,15 | no data | no data | no data | no data |
| Bosnia & Herzegovina | 0 | 0 | 4.500 | - | 4.500 | - |
| Bulgaria | 128.061 | 32,4 | 258.000 | 201 | 243.000 | 189,7 |
| Croatia | 80.665 | 20,4 | 18.000 | 22,3 | 18.000 | 22,3 |
| Greece | 72.958 | 18,4 | 77.000 | 105,5 | 77.000 | 105,5 |
| North Macedonia | 6.924 | 1,7 | 7.000 | 101,1 | 7.000 | 101,1 |
| Serbia | 108.186 | 27,3 | 478.000 | 441,8 | 460.000 | 425,2 |
| Total Balkans | 395.497 | | | | | |

Regarding natural food resources, the cattle and goat populations in the Balkan Peninsula have shown a steady moderate decline since 2007, decreasing by 17.26% and 21.16% respectively. While the sheep population saw a significant increase from 2010-2012, it has mostly been on the decline since, resulting in an overall 4.16% decrease over the past 12 years. It's estimated that annually, at least 1363 tons of biomass from cattle, 131 tons from sheep, and 2019 tons of biomass from pigs are potentially available as food sources for vultures and other scavengers in the region. This minimal potential food supply is more than sufficient to meet the theoretical dietary needs of the current populations in the Balkan Peninsula. However, the prevailing legislation prohibits leaving dead animals or their remains in the environment. Regrettably, individual farmers don't have the option to set up their own carcass disposal sites, similar to the light feeding stations in France or Spain, to make this food accessible to scavengers.

Given this policy challenge, the project suggests that future conservation efforts focus on establishing a network of small feeding stations, sporadically supplied with food. This approach would prevent food concentration in limited areas, decrease the risk of poisoning incidents, and promote the natural dispersion of birds, enhancing connectivity among different populations in the region.



Cinereous Vulture (Aegypius monachus) © Angel Sanchez, Vulture Conservation Foundation

Jose Tavares, the Director of the VCF, delivered a presentation on Diclofenac and other NSAIDs (non-steroidal anti-inflammatory drug). Veterinary Diclofenac is administered to livestock for therapeutic purposes. However, when vultures feed on the carcasses of these treated animals, they can ingest even trace amounts of Diclofenac, leading to their immediate death. This drug was the primary culprit behind a staggering 97-99% decline in several Gyps vulture species in the Indian sub-continent over a span of 15 years. Alarmingly, despite witnessing its catastrophic impact in India, veterinary Diclofenac remains licensed for sale in numerous countries in Europe, including several in the Balkans region. It wasn't until 2020 that these drugs were pinpointed as a cause of vulture fatalities in Europe. A post-mortem examination of a Cinereous Vulture in Spain revealed that the bird succumbed to severe generalized visceral and articular gout, a direct consequence of diclofenac intoxication.



Sharplanina guardian dog © Vladimir Djabirski

Prof. Dr. Vladimir Djabirski delved into the biological attributes of the Sharplanina dog, a breed officially recognized by the Fédération Cynologique Internationale in 1939. Esteemed as a formidable guardian, this indigenous breed has historically played a crucial role in safeguarding livestock from predators in the region. Stemming from this legacy, a project titled “Characterisation of Biological Diversity of Shar Planina Dog and Its Reintroduction in Rural Areas” was launched. The project's core objective is the reintroduction of the purebred Sharplanina dog to serve as a guardian for sheep and goat herds. This initiative seeks to mitigate conflicts with predators, thereby curtailing the resort to poisons by livestock owners as a countermeasure against predatory threats. As an integral component of the project, the breed has been reintroduced in three mountainous territories of North Macedonia.

Dimitris Vavylis, the Local Anti-poison Officer of the Hellenic Ornithological Society/BirdLife Greece (HOS), began his presentation titled “A Tale about Egyptian Vultures, Pastoralism, and Innovative Deterrent Measures Against Predators” with the story of Lazaros— an Egyptian Vulture who tragically encountered poison bait twice. Lazaros was marked after being discovered poisoned and helpless in Greece in 2012. Having survived this ordeal, he wintered in Chad. However, Lazaros's journey ended on April 2nd, 2013, when he was found poisoned in northern Greece alongside another adult Egyptian vulture. Both birds were en route to their breeding grounds in Meteora (Central Greece) after their long migration from Africa. Lazaros's



Ribbons to scare wolves © HOS

story unequivocally highlighted the severe issue of poison baits in Greece. Vavylis discussed prevalent challenges in Greece, including the abandonment of sustainable livestock systems, predator attacks, and the use of poison baits as retaliation. As part of the “Egyptian Vulture New LIFE” project, HOS has been seeking sustainable solutions to these problems. One approach is the use of guardian dogs. To promote this, HOS established a network for livestock owners to

exchange guardian dogs. Another strategy involved collaborating with livestock owners to set up electric fences as a deterrent against predators. The use of ribbons and foxlights to deter wolves was also introduced as innovative tools to alleviate conflicts. Upon investigating the motivations behind the use of poison baits, it was revealed that human disputes were the primary cause. To detect poison baits and poisoned animals in the countryside, HOS launched anti-poison dog units. Patrolling vulture habitats, these units identified 102 poisoning incidents between March 2014 and May 2021. They found 212 poisoned animals and 227 poison baits. Among the poisoned animals, 14 were vultures.

WORKING GROUPS SESSION

On the afternoon of the second day, participants reconvened in rotational working groups. Their objective was to pinpoint shared concerns and actions that would simultaneously benefit vulture conservation and the preservation of sustainable (mobile) pastoralism in the region, particularly in light of the challenges and threats previously outlined by attendees.

When discussing policy and legal frameworks, the conversation was segmented into legal, financial, and operational facets:

Legal Aspects: There's a clear demand for tailored legislation and regulations, especially in areas like forestry, that champion grasslands and small-scale livestock breeders. Simplifying bureaucratic processes is essential, and producers should receive assistance when applying for subsidies or compensation measures. The onus of these initiatives should fall on pertinent ministries, including those of Agriculture, Environment, and Culture.

Financial Aspects: Financial support for traditional (mobile) pastoralist products needs expansion and enhancement. Subsidies should be both developed further and augmented to ensure they are adequate.

Operational Aspects: On the ground, (mobile) pastoralists should receive assistance in establishing and fortifying cooperatives, which can serve as a collective voice and resource pool.



Group discussions

Another pivotal issue broached was that of wildfires. Their frequency and intensity have been on the rise across Mediterranean countries. (Mobile) pastoralists, with their access to remote forest areas, are uniquely positioned to play a crucial role in preventive monitoring. They can also assist in creating firebreaks, working in tandem with forestry authorities. The group recognized the vast reservoir of traditional ecological knowledge possessed by (mobile) pastoralists in the region, especially concerning fire management. This knowledge is an invaluable asset that official entities should tap into and integrate into broader fire management strategies.

Discussions concerning the poisoning issue yielded a series of joint recommendations from both (mobile) pastoralist and conservationist participants, some of which are listed below:

- ☉ A fair and inclusive collaboration between (mobile) pastoralists and conservationists, based on respect, trust, and true dialogue, is essential. This collaboration should avoid top-down approaches and consider the root causes of conflicts to preserve both vultures and sustainable (mobile) pastoralism.
- ☉ Collaboration between (mobile) pastoralists, conservationists, and other stakeholders can expedite the detection and removal of poison baits and other wildlife crimes, preventing such incidents.
- ☉ Nature conservation organizations should support (mobile) pastoralists with tools and mechanisms to increase their economic resilience. This support can include simplifying legal procedures, developing labelling and certification systems, utilizing the wool/hair of livestock as a revenue source, and fostering markets that recognize the added value of their products.
- ☉ Regarding the governance of grasslands and other grazing areas, the rights of pastoralists should be acknowledged. Stakeholders should collectively identify grazing areas.
- ☉ The value of knowledge co-production should be recognized, allowing the traditional ecological knowledge of communities to complement scientific studies.
- ☉ There is a need to promote the role of sustainable pastoralism for the welfare of communities, vultures, and nature in general, possibly through organizing cultural events.
- ☉ (Mobile) pastoralists should be equipped with innovative tools, such as electric fences, to guard against predation and to clean the surroundings of their grazing areas, which is crucial for detecting predator attacks.
- ☉ (Mobile) pastoralists can benefit from forming networks to exchange information regarding guardian dogs and knowledge for training and managing them effectively.,
- ☉ Nature conservation organizations should support (mobile) pastoralists by providing tools and mechanisms to enhance their economic resilience. This includes simplifying legal procedures, developing labelling and certification systems, using wool/hair from livestock as a revenue source, and creating markets that recognize the added value of their products.
- ☉ Nature conservation organizations can play a role in communicating and advocating the importance of (mobile) pastoralism for everyone's benefit. This advocacy will help develop solutions to the challenges these communities face from decision-makers.

DAY 3

On the third day, there was a field excursion to the vulture feeding station in Vitachevo. Emmanuel Lisicanec, a local from the town of Kavadarci who regularly works on projects related to vulture and bird protection in North Macedonia, accompanied the group. Lisicanec also assists in maintaining the vulture feeding station in Vitachevo by supplying food and overseeing the station. After surveying the area for a while, a few keen-eyed participants spotted a Griffon vulture flying near the station. The next stop was close to the village of Mrezicko, offering a view of the area in Chatino where a colony of Griffon vultures typically resides. Regrettably, no birds were visible at that time, though GPS tracking indicated that a few tagged vultures were circling the feeding station. The field day concluded with a group lunch.



During the field excursion

List of participants:

| Name of participant | Institution/ Organization/Occupation | Position within the Institution |
|------------------------------------|--|--|
| Arta Starova | Macedonian Ecological Society | Project Assistant |
| Robertina Brajanoska | Macedonian Ecological Society | Executive Director |
| Vladimir Dzabirski | Ss. Cyril and Methodius University of Skopje: The Faculty of Agricultural Science and Food | Professor |
| Jovan Andevski | Vulture Conservation Foundation | Vulture Programmes Manager |
| José Tavares | Vulture Conservation Foundation | Director |
| Uroš Pantović | Vulture Conservation Foundation | Project Coordinator |
| Burcu Ates | Yolda Initiative | Nature and Culture Program Expert |
| Ayca Orhon | Yolda Initiative | Nature and Culture Program Officer |
| Engin Yilmaz | Yolda Initiative | Director |
| Spase Chakrevski | Cattle breeder | Cattle Breeder (North Macedonia) |
| Rashmi Singh | School of Human Ecology | Phd Candidate |
| Zsolt Molnár | Centre for Ecological Research | Researcher |
| Réka Szilágyi | Centre for Ecological Research | Phd Candidate |
| Esmeralda Laçi | University “I.Qemali” of Vlore | National Focus Point for Transhumance UNESCO File |
| Mirko Sarac | Nasha Bashtina | Livestock Keeper (Bosnia And Herzegovina) |
| Tarik Dervovic | Nase Ptice | Project Coordinator |
| Gabrijel Totić | Dinara back to LIFE project | Livestock Keeper (Croatia) |
| Ivan Budinski | Association Biom- Birdlife Croatia | Nature Conservation Adviser |
| Charikleia Gkotsi | Mobile pastoralist | Mobile Pastoralist (Greece) |
| Spyridon Kiosis | Mobile pastoralist | Mobile Pastoralist (Greece) |
| Dimitrios Vavylis | Hellenic Ornithological Society | Poison Dog Handler |
| Milica Pušica | CSO “Daci pesaci” | Livestock Keeper (Serbia) |
| Aleksa Vukicevic | Bird Protection and Study Society of Serbia | Project Coordinator |
| Nera Fabijanic | Association Biom- Birdlife Croatia | Project Coordinator |
| Fanourios-Nikolaos Sakellarakis | MedINA | Biodiversity and Ecosystems Expert |
| Ledi Selgjekaj | Protection and Preservation of Natural Environment in Albania | Project Coordinator |
| Klea Duro | Albanian Ornithological Society | Project Coordinator |
| Maksim Hajrullaj | Agro-Eco Diber | Conservationist |
| Neda Raposka | Biology Students’ Research Society | Student |
| Nadia Sideri Manoka | Hellenic Ornithological Society | Project Coordinator |
| Hristo Peshev | Fund for Wild Flora and Fauna | Conservationist |
| Vyara Stefanova | Society for Territorial and Environmental Prosperity | Researcher/Conservationist |