



**LIFE
SHEP FOR BIO**

ShepForBio Pastoral School Newsletter #4

ShepForBio Pastoral Schools Newsletter #4

**LIFE SHEP
FOR BIO**



Welcome to the fourth edition of the LIFE ShepForBio Newsletter dedicated to pastoral schools!

About LIFE ShepForBio

The LIFE ShepForBio Project aims to improve the conservation status of three grassland habitats, which have a high naturalistic value and fall into the Habitats Directive (codes 5130, 6210*, and 6230*). To ensure sustainable and lasting management of these environments, the development of pastoral activities in marginal upland areas should be enhanced. The Project aims to restore more than 340 hectares of land and improve the conservation status of an additional 147 hectares.

These areas will be grazed following management plans developed during the project, with the aim of maintaining the efficiency restored by the planned recovery actions. The Project's intervention areas fall in two Italian Apennine regions, Tuscany and Emilia-Romagna, mainly within the Casentino Forest National Park. In addition, the project will establish a School for Shepherds and Breeders to support aspiring professionals potentially interested in undertaking project-related activities.

Actions are also planned to disseminate the results, both in Italy and internationally, and to promote pastoralism as a tool for biodiversity conservation. In this context, a series of online discussion forums and three international conferences will be organised. The aim is to connect pastoral schools and relevant actors/networks promoting pastoral practices across Europe. Such international events are designed to exchange knowledge, best practices, and challenges among the attendants. The final aim is to encourage the dialogue between European pastoral schools that can build on each other's successes and difficulties and set up future collaborations.



Editorial

As summer reaches its peak and many of us take a moment to pause and reflect, we're looking ahead to the end of 2025 and the beginning of 2026, a pivotal period full of developments.

We'll continue documenting and sharing the good practices from across Europe, expanding our database and strengthening the knowledge base that supports sustainable pastoralism. By the end of this year, we will release **the first of three collections of selected practices**. In preparation for greater things, we are relaunching a questionnaire to gather your insights and ideas on building a **European network for pastoralism**. Your input is vital in shaping a collaborative and inclusive platform that amplifies the voices of pastoral communities across borders.

In parallel, we're beginning to prepare our calendar of upcoming activities: you can save the date for our **next Online Discussion Forum**, to take place on **Thursday, 4 December 2025**, with many guest speakers to share experiences and foster connections between pastoral schools and relevant stakeholders and networks promoting pastoral practices across Europe. Looking further ahead, we're thrilled to offer a sneak peek of our next international conference, to be held in Tuscany, Italy, in **September 2026**, in the beautiful setting of the Maremma Regional Park. We are exploring ways to align this milestone event with the celebrations of the United Nations' International Year of Rangelands and Pastoralism, making it not just a gathering, but a global moment of recognition and shared purpose.

Thank you for your continued engagement and support.

Let's keep the momentum going into 2025 and beyond, towards deeper collaboration, broader impact, and a stronger future for pastoralism.

Wishing you a nice read and a relaxing rest of the summer,

Tommaso Campedelli, leading the consortium of LIFE ShepForBio (D.R.E.A.M. Italia) and Beatrice Bellavia (Euromontana)



Introducing the LIFE Maronesa project: a project that aims to promote sustainable extensive farming, climate resilience, and the conservation of the local cattle breed.

LIFE ShepForBio recently got in touch with LIFE Maronesa – Mais Sustentabilidade. Active in northern Portugal, this project promotes sustainable extensive farming, with a focus on climate resilience and the conservation of the Maronesa cattle breed. In this framework, it is also promoting the *Escolas de Pastores* initiative, dedicated to training new generations of shepherds.

How it started, and where it's going

Terra Maronesa - Community of Practice for Sustainable Development began as an informal discussion group on rural development, born from a fortunate meeting of four friends: two livestock breeders, a forestry engineer, and an agronomist and botanist. Since its legal establishment in 2018, the Community



Credits: LIFE Maronesa

has expanded to include various social groups, with the mission of bringing together livestock breeders, farmers, technicians, academics – all mountain communities – around a common grand purpose: to **restore the landscape and biodiversity**, increase the output of **ecosystem services**, both with and without market value, **improve the living conditions** of farmers and livestock breeders – who are the caretakers of the mountains – and foster the settlement of a **new**

generation of livestock breeders in the mountains while ensuring the intergenerational transmission of traditional knowledge.

The actions of Terra Maronesa

In close collaboration with livestock breeders in the Serra do Alvão, Terra Maronesa has optimized the agronomic management of **hay meadows** and extensive grazing with **fire risk reduction** in mountain grasslands (pyric herbivorism). The technique involves, among other components, the restoration of meadows invaded by shrubs without biomass extraction and soil disturbance, the correction of meadow soils with limestone and mineral phosphorus, and increased winter grazing pressure to enhance tall grasses, nitrogen-fixing legumes, and flora diversity, as well as changes in haymaking techniques to allow the reseeding of *Holcus lanatus* grass, extending the period animals spend grazing in the mountains, transporting nutrients uphill through hay, the judicious use of prescribed fire, and the introduction of fences, water troughs, handling pens, and mobile feeders.

In addition to the aforementioned virtuous effects on carbon stocks, biodiversity, and productivity, the integration of these techniques implies gains in animal welfare (animals live freely in the mountains, moving according to weather and forage availability, able to express natural innate behaviors with limited human contact), approaching 100% on-farm animal feed production, and reducing animal health



expenses to simple vaccination and deworming programs. Simultaneously, there is an increase in labor productivity (a single breeder can manage a herd of 100 cows alone) and farm income.

The first Alvão Shepherds' School

In order to transmit and exchange knowledge between the cattle breeders and shepherds of the Serra do Alvão, the cornerstone to achieve this goal was the creation of the first Alvão Shepherds' School, organizing two training courses in 2020 and 2024/25. The latter is a collaboration with Finerge. The program emphasizes **practical skills**, including **prescribed fire** and one-month **internships** with professional shepherds. The school is based on the view that agricultural, livestock, and pastoral activities can play a more active, comprehensive, and valued role in integrated local development, especially in rural areas, guaranteeing better preservation and valorisation of resources and heritage, as well as a fair return for its professionals.

In this context, it aims to train current and potential entrepreneurs in livestock and pastoral activity, promoting extensive and innovative production methods that contribute to increasing the sustainability of farms, the sector, and the territories where they are present. To this end, it includes a practical and collaborative approach, promoting training in relevant topics and tools, such as: techniques and tools for extensive production methods, landscape management, carbon sequestration and environmental sustainability, balance between people, animals, and nature, complementary product and service offerings (agri-food, birdwatching, biking/hiking, citizen science, tourism, human health, non-timber forest products - mushrooms, honey, etc). Other modules also include integrated activity/business management (leadership, strategy and planning, marketing, finance, operational management), collaboration and collective action, and digital economy.



Author: Henrique Mira Godinho, LIFE Maronesa



Introducing The CoCo - Horizon Project: Co-creating Coexistence between pastoralists and wildlife



Credits: cocoproject.eu

Despite a growing awareness of its value, extensive pastoralism faces a wide range of structural and market challenges across Europe. The wildlife with which it shares the landscape is an additional challenge. Wild herbivores can compete for grazing or spread diseases, and large carnivores (like wolves, bears, and lynx) can kill livestock and impose a wide range of additional impacts and costs

for pastoralists. The **interactions between pastoralists and wildlife require management** of both the livestock and the wildlife if a sustainable state of coexistence is to be reached. However, there is often considerable discussion about which measures are practical under different circumstances, and even which measures are ethically acceptable (for example, concerning the killing of wildlife, especially large carnivores).

Co-creating a future vision of coexistence

This is the background for a new Horizon Europe-funded research project called CoCo – which stands for Co-creating Coexistence. The project aims to conduct a package of research activities, including producing a synthesis of existing knowledge and gathering new data from the field. The project aims to both **study stakeholder experience and perspectives** and engage closely with stakeholders to **interpret the policy relevance of this knowledge**. This close engagement with stakeholders, especially pastoralists, hunters, and landowners, at all stages of the project is intended to build a broad consensus around the state of the knowledge and its interpretation. The overall ambition is to produce a collective vision of how coexistence could look in the future, which secures a future for both pastoralists and wildlife.

The beginning of an ambitious project

The project will run for 3 years, from late 2024 to late 2027, and involves 18 partners in 12 countries. The team includes agricultural scientists, agricultural advisory agencies, social scientists, economists, political scientists, and ecologists. The initiative will work along multiple lines of enquiry. The centre piece is a **farm-level survey** of more than 1000 pastoralists, where we will conduct face-to-face interviews with shepherds and livestock breeders to learn about their husbandry practices, their experience of interactions with wildlife, and their overall perspectives on pastoralism. A similar survey, but online, will target hunters and landowners. These surveys will be





complemented by analyses of (1) existing agricultural and environmental policies, (2) previous experience from relevant LIFE projects, (3) summaries of the diversity of pastoral systems in Europe and how this influences their interactions with wildlife, (4) socio-economic analysis of how wildlife conflict mitigation measures influence farm economy, and (5) an exploration of the potential utility of emerging technologies.

Co-develop future strategies

The CoCo project has set itself ambitious goals to **navigate a topic that is associated with a high degree of conflict**. However, we are optimistic for two reasons. Firstly, there has been a massive accumulation of knowledge, and hopefully, this project will reduce the extent to which it is contested. Secondly, by putting pastoralists in the centre of the project, we show that we are taking their issues and concerns seriously and involve them in the whole project cycle. This will then lead to their being invited to participate in the development of **coexistence models** that take their realities seriously.

More information <https://cocoproject.eu/en/home>

Author: John Linnell (john.linnell@inn.no)



**Funded by
the European Union**



Sustainable Future for Shar-Korab-Koritnik: Connecting livestock keeping and tourism in Dibër, Albania

The “Sustainable Future for Shar-Korab-Koritnik” project was carried out from September 2021 to August 2023 in the cross-border regions of Albania, Kosovo, and North Macedonia. Led by the Macedonian Ecological Society in partnership with EuroNatur (Germany) and local partners CNVP (Kosovo) and PPNEA (Albania), the project’s activities are supported by the German Environmental Foundation (DBU) and the charitable Jensen Foundation. This project explores ways to **connect tourism with livestock keeping and**



beekeeping, aiming to make the continuation of these traditions more appealing to younger generations. The local community plays a central role as the main driver of sustainable regional development and in reducing threats to biodiversity in the Shara/Korab-Koritnik region. Additionally, the project focuses on strengthening cross-border cooperation through learning and knowledge exchange, thereby reinforcing the regional brand of the cross-border protected area.

A region with untapped potential

The Municipality of Dibër is experiencing the **abandonment** of the extensive livestock-keeping sector and facing the consequent decline in the cultural landscape and biodiversity. The local government is unable to provide the support needed, so the conditions and facilities of the livestock-keeping business are not attractive and do not offer a sufficient income. Domestic demand for animal products is not being met, forcing the country to rely on imports. Yet, many young people are looking for ways to generate income while remaining in their areas. To do so, they need activities that are economically and environmentally sustainable.

Three key axes of action

The activities carried out through the project to address the problem targeted three different objectives. Firstly, a series of initiatives was organised to **increase the knowledge and build capacity**. The community carried out a detailed mapping and territorial analysis, with an in-depth study on the conditions of the shelters. Then, the group actively participated in a series of targeted meetings with target groups, as tourists guides, accommodation providers, hikers, and so on, encouraging participation and discussion. Finally,





thanks to a series of field visits among the actors involved, it was possible to observe and learn from concrete examples of good practices.



Credits: Sustainable Future for Shar-Korab-Koritnik

The second main action aimed to **improve working conditions for local farmers**. This objective was achieved primarily through direct support to three family farms through the provision of photovoltaic panels, camping equipment, and specific training on water management. Such interventions combined with the opening of channels for the supply of drinking water and the cleaning of ten hectares of pasture.

Finally, the project focused on the economic aspect, aiming at diversifying and improving the income offer for

local farmers. **Two local tourism agencies** visited the supported farms, and cooperation was established to share information with tourists and bring them to the farms. In 2023, the three supported farms already welcomed new visitors. The project was promoted at four trade fairs in 2022 and 2023, to raise awareness among a wider audience.



Introducing Kras4us: A Cross-Border Project to Restore Biodiversity and Identity in the Italy-Slovenia Karst Region

Kras4us is an EU-funded project under the Interreg VI-A Italy-Slovenia Programme, aiming to conserve and restore biodiversity and preserve the cultural landscape of the Karst (Kras/Carso) region, a unique cross-border area rich in ecological, geological, and historical value.



Credits: GAL Carso

The Karst plateau has long been recognized for its open rocky grasslands, shaped historically by grazing, strong bora wind, and human land use. The gradual abandonment of traditional farming and livestock practices since the mid-20th century, combined with afforestation efforts using non-native pine species has rapidly transformed this open landscape into woodland. This change threatens not only the region's ecological diversity but also its cultural identity, built for centuries relying on human-nature interactions. Led by the University of Primorska, the project "**Opportunities for preserving biodiversity and identity of the Karst**" (in short Kras4us) brings together Slovenian (DOPPS – BirdLife Slovenia and PŠJ – Škocjan Caves Park) and Italian partners (GAL Carso) to address these challenges.

How?

The project is restoring characteristic features of Karst: dry grasslands, traditional ponds used for livestock, and dry-stone walls. They play a dual role as biodiversity hotspots and cultural heritage. By improving these habitats, Kras4us supports the ecological connectivity of the area and fosters the return of species dependent on open landscapes.



Credits: <https://www.birdinginportugal.com>

Following **major wildfires** in 2022 and 2024, Kras4us is assessing the impact of fire by monitoring pollinators, vegetation, and key indicator species. Three selected Karst **indicator species**, the Short-toed Eagle (*Circaetus gallicus*), the Nightjar (*Caprimulgus europaeus*), and Feather Grass (*Stipa eriocaulis*), are particularly charismatic, threatened, and under-researched. Their presence provides valuable insight into the state of the region's biodiversity and helps define conservation priorities. Kras4us will also explore **nature-based**

solutions through the lens of circular economy. The project will test how biomass from fire-damaged areas, overgrown grasslands, and invasive alien tree species can be sustainably used for energy and materials, aspiring to offer new economic opportunities while supporting biodiversity goals.



Collaborative and Participatory Vision

At the heart of Kras4us is its commitment to **stakeholder engagement**. The project brings together farmers, conservationists, foresters, researchers, local authorities, and landowners in a co-creative process to shape the future of the Karst. Some key activities that will achieve this are focus groups with stakeholders, to create a cross-border space to discuss the Karst vision and the Kras4us Symposium, where an even larger stakeholder pool will exchange experiences and explore optimal grassland biodiversity management strategies.



Author: Nina Lončarevič

The Kras4us project is co-financed by the European Union under the Interreg VI-A Italy-Slovenia Programme.

www.ita-slo.eu/kras4us

**Interreg
Italia-Slovenija**

Kras4us



Cofinanziato
dall'Unione europea
Sofinancira
Evropska unija



Discover The Calascio School of Sheep Farming: A New Centre for the Training and Promotion of Extensive Sheep Farming

The school was created to provide advanced training for new and already active individuals, providing technical and entrepreneurial skills to promote generational change and the preservation of local traditions. It is the brainchild of [Slow Food Italia](#) and [D.R.E.Am Italia](#), two organisations with consolidated experience in the promotion and management of biodiversity, particularly concerning landscapes and agro-pastoral activities, and is part of the cultural, social, and economic regeneration programme of this ancient small village in Abruzzo.

General objectives

In a context of a sharp decline in sheep farming, shepherd schools are establishing themselves as a **model capable of facilitating generational change**, providing basic tools and support, especially for young people who want to take up this profession. Above all, they help to construct a **different narrative of this profession**, no longer seen as a legacy of a marginal past, but rather projected towards the future. The role of



SCUOLA DI PASTORIZIA
DI CALASCIO

the shepherd today is linked to the conservation of the landscape, biodiversity, climate change mitigation, and the production of ecosystem services, as well as the production of “good, clean and tasty” food, all of which are assets that the entire community enjoys and benefits from. The idea of a school that goes beyond the exclusive concept of training, but which is **open to the whole community**, integrating with the regeneration objectives of the overall project in which it is implemented, promoting education, training, and cultural exchange as tools for community development and revitalisation. The school, therefore, aims to promote extensive sheep farming as a **model of sustainable development for inland and mountain areas**.

Specific objectives

- Improving the socio-economic and environmental sustainability of existing businesses through the development of new entrepreneurial skills;
- Supporting the creation of new pastoral activities through professional training courses;
- Recognising and promoting the strategic environmental and socio-economic role of pastoralism by promoting a new role for shepherds, from producers of primary goods to providers of ecosystem services for the community;
- Regenerating local communities through an increase in pastoral activities, the establishment of stakeholder networks, cultural exchange activities and promotion of the territory.

Training offer



The School is aimed at four target groups: existing and aspiring shepherds, professionals and public officials, as well as university students and graduates active in territorial planning, nature protection, agriculture, and the promotion of mountain areas.

The school's training structure includes eight intensive masterclasses, each lasting one week. They include:

- Production and marketing (cheese). Target audience: shepherds and farmers (including aspiring ones), students, professionals. Objectives: to develop specific skills in the field of raw milk cheese making without selected enzymes;
- Production and marketing (meat and wool). Target audience: shepherds and farmers (aspiring or already active), students, professionals. Objectives: to develop specific skills in the field of additive-free meat processing and wool valorisation;
- Business management. Target audience: shepherds and farmers (including aspiring ones), students, professionals. Objectives: to develop specific skills for business management and the integration of technological innovation;
- Pasture management. Target audience: shepherds and farmers (including aspiring ones), students, professionals, civil servants and protected area staff. Objectives: to develop specific skills for the management of natural pastoral resources in extensive and marginal environments;
- Predation mitigation. Target audience: shepherds and farmers (including aspiring ones), students, professionals, civil servants and protected area staff. Objectives: to develop specific skills for identifying and implementing technical and management solutions aimed at minimising conflict between livestock farming and wildlife, in particular wild predators;
- Animal health and welfare management. Target: shepherds and farmers (including aspiring ones), students, professionals. Objectives: to develop specific skills in the technical management of health and welfare in dairy and beef farming;
- Ecosystem services and biodiversity: Target: shepherds and farmers (including aspiring ones), students, professionals, civil servants and protected area staff. Objectives: to develop specific skills in the field of planning, management and protection of agro-pastoral systems;
- Tourism and territorial marketing. Target audience: shepherds and farmers (including aspiring ones), students, professionals, civil servants and staff of protected areas. Objectives: to develop specific skills in the field of slow and conscious tourism.

A distinctive feature of the project is its integration with local communities: students will participate in practical workshops at local businesses, contributing to the creation of a network of stakeholders to support the school. In addition, the School will organise public training and information events open to the community on topics related to sheep farming.

Author: Tommaso Campedelli

More info at <https://www.slowfood.it/scuolapastoriziacalascio>. The Centre for the Training and Promotion of Extensive Sheep Farming – Calascio School of Sheep Farming is funded as part of the cultural, social and economic regeneration pilot project “Rocca Calascio - Luce d'Abruzzo” by the Municipality of Calascio, selected by the Abruzzo Region under the Ministry of Culture's PNRR measure (Line A - M1. C3 - Investment 2.1 - “Attractiveness of villages”), funded by the European Union – [NextGenerationEU](#).



Co-producing knowledge to sustain pastoral socio-environmental systems in the French Basque Country

This transdisciplinary project, funded by the U.S. National Science Foundation, examines linkages between **climate change, land management, landscape, and policy** to understand **how to sustain small-scale pastoral systems** in a changing world. The work is located in the northern Basque Country in southwestern France, where the pastoral system has developed over more than a thousand years. Like other pastoral systems worldwide, the Basque area faces increasing pressure.

The overarching goals are:

- to understand the relationship among factors that influence farm transmission, continuity of pastoral practice, and the resilience of this landscape and its ecosystem functions
- to develop a process for the co-production of socio-environmental knowledge with pastoralists that improves scientific knowledge and strengthens local governance institutions



Livestock keepers have been full partners in the design and development of this project since its inception, which was made possible by seed grants from NSF and the Thomas Jefferson Fund, a partnership between the French Embassy in the United States and the FACE Foundation. This initiative received funding from the Belmont Forum to extend this work to Spain and Norway, in a project that began May 1, 2024.

Can pastoral fires still sustain mountain pastures in a changing climate? Insights from a participatory workshop in Soule

Grazing and burning have always been essential for maintaining Soule's vast mountain pastures in southwestern France. But conditions are changing fast, from the number of livestock keepers using the mountains, to the arrival of invasive species they must manage, to the climate itself. On the evening of the 19th of May 2025, about twenty livestock keepers met with French and American researchers in the communal room of the Zibero Sports Hall in Tardets. The goal: discuss the different benefits of burning and the logic behind when, where, and how it is used. The knowledge and experiences that livestock keepers shared were incredibly useful. They allow researchers to better understand the pastoral system and its evolution into the future. The research team will use these insights to model **different scenarios that livestock keepers can use as planning tools**.

For example, let's consider what might happen if climate change brings multiple very wet winters and springs, shortening the windows that livestock keepers have to burn. They would likely only burn pastures that are the best exposed, areas with brachypodium, and areas with the best grass. This would



lead to vegetation overgrowth in remaining areas, and fewer nutrients would be returned to the soil. The project team seeks to understand how vegetation and soils will respond to changes in how burning is done in Soule. It will then be possible to create maps to show livestock keepers and other mountain users where and how the mountains could change under these circumstances. In truth, climate change is more likely to bring extended droughts to Soule. This could imply more flexibility for livestock keepers; a drier climate would allow them to do smaller burns over a longer period. Invasive species would grow more slowly, which would facilitate the maintenance of open and productive pastures. Controlled burns could become key in reducing forest wildfire risks. However, it takes more labor and resources to burn safely during dry years, so achieving these goals would depend on strong community organization. Burning depends on administrative authorizations, labor, and weather conditions. The research project will thus aim to **model what might happen if labor increases or decreases, but also if the window for burning increases or decreases**.

"It's peasant practices that maintain the picture-perfect image of the Basque Country."

As climate and policy changes force livestock keepers to adapt, we hope that these scenarios will help them develop strategies for confronting the conditions they are likely to face in the future.

Strategies to support Controlled Burns

Throughout the evening, **livestock keepers shared ideas on how to support burning** today and into an uncertain future. Here are four suggestions that got a lot of attention:

- To help with **labor requirements and ensure better management**, encourage all livestock keepers who use the mountain pastures to participate in controlled burns.
- **Involve non-farmers in controlled burns**, following specific criteria to ensure maximum security. Livestock keepers around La Madeleine and in Béarn innovated by training non-farmers so they can participate in burning and develop a better understanding of this practice. It would be useful to spread these experiments to other regions.
- Dedicate **resources to public communication** so non-farmers understand that burning is essential for maintaining mountain pastures, and that it supports agriculture, tourism, and biodiversity. Repeat photography taken at different periods of the year might illustrate how important controlled burns are.
- **Facilitate controlled burns around the year**. This would allow for more small burns, there would be fewer days with visible smoke, and more flexibility to effectively combat vegetation overgrowth.

"[People] have the impression that nature is frozen in time. That a trail is a trail for life. We need to help them understand the role of grazing and fire in creating these landscapes."