

THE ORDINO VALLEY

**An intimate connection between people and mountains
in the heart of the Pyrenees.**



ORDINO
Reserva de biosfera

Ordino from its origins

The parish of Ordino, located in the northwest end of the Principality of Andorra, lies at the very centre of the Pyrenees, in its eastern part. Despite its mere 85 square kilometres and an average altitude of 1300 meters above sea level, the Ordino Valley is a true gem, both in natural and cultural terms, representing the Pyrenean region. Its strategic location gives it a climate that blends Mediterranean and slightly Atlantic traits, resulting in extraordinary biological diversity that faithfully represents the southern slope of the Pyrenees.

Currently, 70% of its territory is covered by vegetation, of which 60% corresponds to forests, 30% to meadows, and the rest to shrubland. On the other hand, urban areas account for less than 1.5% of the territory, primarily located at the valley floor and distributed in 6 population centers along the 10-kilometer course of the Valira del Nord river.

This land use distribution, along with the fact that 92% of the territory is publicly owned, has led to the existence of a significant diversity of well-preserved habitats and ecosystems, acting as true sanctuaries for species of high value. It is noteworthy that half of the territory is considered a habitat of community interest for conservation, hosting more than 1130 species of the country's flora, as well as 60 endemics and micro-endemics specific to the Pyrenees, with special attention to the Pallars lizard (*Iberolacerta aurelioi*), the Pyrenean newt (*Calotriton asper*), or the Pyrenean desman (*Galemys pyrenaicus*).

Furthermore, it is worth highlighting the importance of ecosystems as providers of vital ecosystem services for mitigation and protection against natural risks, soil stabilization, regulation of the water and air cycles, as well as their notable contribution to the local and national economy.



Figure 1: View from the top of Casamanya, one of the most iconic mountains in the Ordino Valley.

The intimate connection between people and the natural resources of Ordino has endured over the centuries. This is reflected in the rich cultural heritage of communities adapted and closely linked to the dynamics of the mountains, as evidenced by celebrations like the Summer Solstice Fire Festivals in the Pyrenees or the Bear Festival of the Pyrenees, inscribed in 2015 and 2022 respectively on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.

The earliest traces of human settlements in the territory date back more than 5300 years. These pioneers found in this small Andorran enclave a home to

establish themselves, shaping the rich territory for their survival and development. Over the years, various civilizations such as the Iberians, Romans, and Arabs have left their mark on these lands.

It was they, with their customs, traditions, and occupations, who forged a society that, over time, has left an imprint that identifies us as a people today. Although our ways of life have changed, we still maintain the essence of those first inhabitants who chose and cherished this land, making it their means of subsistence and deciding to care for it. Our history is theirs.

The wonder that constitutes the landscape of Ordino is the result of the respect that human activity has bestowed upon it from ancient times, but it is also the fruit of the difficult conditions inherent in life in the high mountains, in rugged terrain and often adverse climatology. Despite the limitations imposed by this environment, the inhabitants of Ordino have known how to take advantage of this virtually unexplored territory to ensure their survival at first, and to thrive later.

It is at this moment that the Valley experiences a demographic boom, reaching 5000 inhabitants today. This boom was motivated by the modernization of the country and, in particular, by the establishment of an economic model based on tourism (skiing, sports, nature, and commerce). The harmonious and connected interaction between nature and human activity is what defines present-day Ordino.



Figure 2: Aerial view of the town of Ordino, the reference village of the valley.

The Sorteny Natural Park - Ordino's Jewel

The Sorteny Valley, spanning 1080 hectares with an altitudinal range between 1653m and 2915m, is one of Ordino's treasures in terms of landscape quality and biological diversity. These characteristics led to the creation of the Sorteny Valley Natural Park in 1999, the first of its kind in the country. This established the foundation for protecting its uniqueness and integrity, as well as maintaining the functional structure of ecosystems. Sorteny's designation as a natural park also paved the way for the promotion of scientific research and environmental education in the area.



Figure 3: Viewpoint at Pla de la Llosa in Sorteny Natural Park

Twenty-four years later, Sorteny is internationally recognized as a botanical reserve of immense value, with over 800 species of plants representative of the Pyrenean flora, including top-level endemic species like *Xatardia scabra*, *Campanula andorrana*, *Iris latifolia*, *Lilium pyrenaicum*, *Veronica nummularia*, and *Ornithogalum pyrenaicum*. Additionally, Sorteny hosts a mosaic of highly diverse and ecologically valuable habitats and microhabitats, a result of the combination of climatic conditions in alpine and subalpine environments, along with the alternation of siliceous and calcareous substrates. Finally, the influence of traditional livestock practices favors the maintenance of floral diversity in meadows and pastures, as well as all the associated fauna. More than 80 species of butterflies, along with hundreds of other insects and pollinators, depend on

this interaction. A true spectacle of colours, shapes, and sounds to be enjoyed during the summer.

Regarding the macrofauna, the lekking grounds of the Western Capercaillie (*Tetrao urogallus*), the extensive areas of the Rock Ptarmigan (*Lagopus muta*), the numerous populations of Pyrenean Chamois (*Rupicapra pyrenaica*), or the recent appearance of the Brown Bear (*Ursus arctos*) stand out, as well as the frequent sightings of the Golden Eagle (*Aquila chrysaetos*) and the Bearded Vulture (*Gypaetus barbatus*).



Figure 4: Specimen of Apollo (*Parnasius apollo*) feeding on nectar on a Pyrenean Lily (*Lilium latifolia*).

Habitats of High Ecological Value - RAMSAR Convention and Emerald Network

One of the most outstanding features of Sorteny is the richness and diversity of wetlands. The ensemble of wetlands in the natural park is representative of high mountain wetlands in the Pyrenees, especially in subalpine and alpine zones, covering 2.5% of the territory spread across 80 areas, of which 80% are considered wetlands of high floristic value with conservation priority. In 2012, the Sorteny Valley Natural Park was included in the international list of wetlands by the Ramsar Convention. This inclusion emphasizes the importance of

preserving its biodiversity, especially that linked to wetlands. This international recognition underscores Andorra's commitment to conserving its wetlands and promoting sustainable practices in this highly fragile and vulnerable natural area.

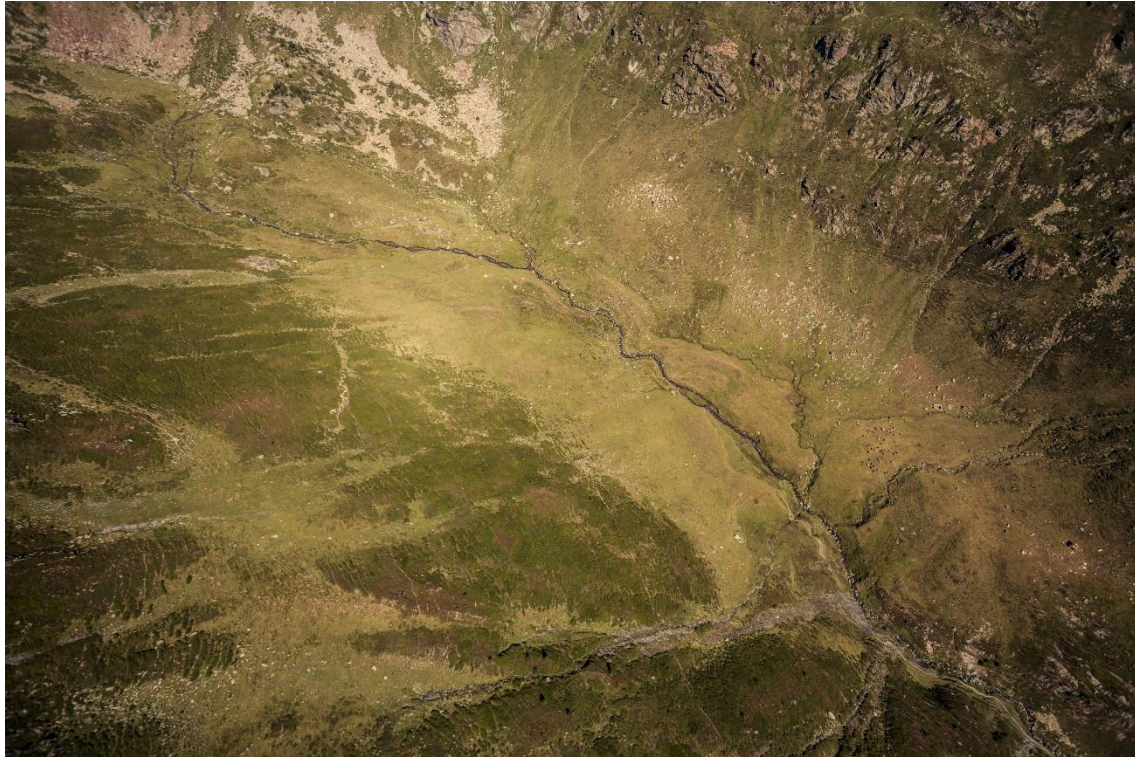


Figure 5: Wetlands of high ecological value in the Ordino Valley

Following this logic to provide international recognitions and tools that facilitate the conservation and sustainable management of territorial resources, in 2018 the Government of Andorra presented the Sorteny Park to the European Commission, within the framework of the Bern Convention, to become part of the Emerald Network. Since 2020, Sorteny has been integrated into this network, which is the equivalent of Natura 2000 for non-European Union member countries.

The areas designated in the Maragda Network are considered essential for biodiversity conservation and play a crucial role in protecting natural ecosystems. To achieve this, they must meet specific ecological criteria and host species and habitats of regional or international importance. In this sense, 70% of Sorteny's habitats are of European community interest. These habitats are conducive to ensuring the conservation of the Rock Ptarmigan and the Grey partridge, the Western Capercaillie, the Otter, the Pyrenean Triton, and the Pyrenean Lizard.



Figure 6: Pyrenean Lizard specimen in a station of Sorteny Natural Park.

The arrival of the Sustainable Development Goals and the Man and Biosphere Program

With a growing social and political demand to harmonize socio-economic growth with the conservation of natural heritage, Andorra has committed over the years to promote the sustainability of socio-economic activities by adopting the United Nations' 2030 Agenda for Sustainable Development Goals (SDGs) in 2015. In this favorable context, the city hall of Ordino initiated the candidacy process in 2019 for the recognition of the Valley as the first biosphere reserve at the national level and the second in the Pyrenees. The process, which included an informative and participatory phase involving all sectors and stakeholders of the territory, extended until October 2020, when the International Coordinating Council of UNESCO's Man and the Biosphere (MaB) program, in its 32nd session, officially designated Ordino as a biosphere reserve.

The main objective of the reserve is to harmonize the conservation of biological and cultural diversity with economic and social development, through the relationships of citizens and visitors with the territory without compromising its singularities and identity elements. On the other hand, the reserve represents an effective tool to promote the participation of the population in territorial management, a dynamic that is manifested in Ordino with special attention to decision-making in territorial Planning and management. Based on these

premises, the reserve focuses its efforts on developing models for global, national, and local sustainability, serving as a learning space where policymakers, scientific communities, management professionals, and involved groups collaborate to translate global principles of sustainable development into appropriate local practices.

With all these considerations, in 2022, the Ordino's city hall launched the Sustainability Plan for the Valley, by approaching the SDGs and the reserve's Action Plan to materialize a cross-cutting roadmap that allows adapting the daily management of the territory and reorienting deeper policies such as urban planning, towards a model that ensures a quality territorial legacy for future generations. Consequently, various studies are currently being conducted to establish the optimal carrying capacity of the territory and based on this, set acceptable limits for Valley growth.

Subsequently, in 2022, the Ordino biosphere reserve became part of the World Network of Mountain Biosphere Reserves (WNMBR) to address the intrinsic challenges of mountain regions, share lessons learned, and synergize with other reserves of similar nature. A clear demonstration of Ordino's commitment to the WNMBR came in September 2024, when the Ordino hosted the 2nd World Meeting of the World Network of Mountain Biosphere Reserves. The event brought together representatives from 22 countries from mountain regions. During the meeting, participants worked on strengthening international cooperation, defining common priorities for mountains, and preparing contributions to the 5th World Congress of Biosphere Reserves.

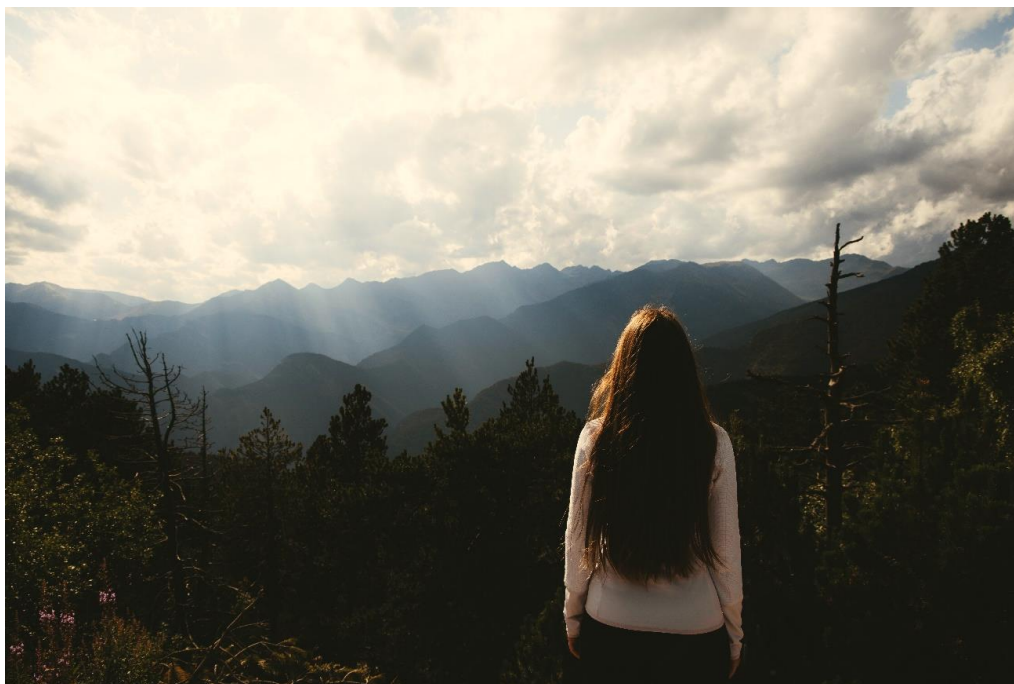


Figure 7: Teenager looking with longing at the promising future of the Ordino valley.

Territorial Stakeholders - Towards a Circular and Green Economy

With the arrival of tourism in the valley in the 1970s, traditional economic activities gradually transitioned towards the tertiary sector to complement what has been, until now, the primary economic driver of the region: the Arcalís ski resort founded in 1982. Family livestock farms shifted towards hospitality and catering, as well as small businesses dedicated to sports, cultural, and natural heritage discovery activities in the territory. Since then, the influx of visitors to the territory has steadily increased, currently reaching 490,000 visitors per year. In this sense, skiing in Arcalís, known for its excellent snow conditions both in abundance and quality, accounted for a total of 150,000 ski days sold in 2023 over 140 days, while in summer, hikers visiting the resort numbered 70,000. Furthermore, the Sorteny Natural Park received an influx of 30,000 visitors in summer and 16,000 visitors in winter in 2022, with the majority engaging in cross-country skiing. Additionally, 45,000 visitors annually are drawn to the inclusive itinerary "Riberamunt," aimed at families and focused on discovering the valley's cultural heritage along a 10 km accessible trail that was once the royal cattle track connecting all the villages in the valley. In addition to these three infrastructures, there are visitors attracted by the multitude of major international sporting events organized throughout the year, such as the Freeride World Tour competition since 2016, or some of the stages of the professional cycling events like the Tour de France or the Vuelta a España.



Figure 8: Hikers venturing into the Sorteny Natural Park.

International recognition of this commitment arrived in 2023, when UN Tourism designated Ordino as one of the world's Best Tourism Villages. The distinction acknowledges destinations that successfully balance economic development, environmental conservation, cultural heritage preservation and community well-being. The evaluators highlighted Ordino's integration of tourism within the Biosphere Reserve framework, its commitment to sustainable mobility and renewable energy, the protection of cultural traditions recognized by UNESCO, and the active involvement of local stakeholders in the transition towards a more sustainable tourism model. This recognition has further strengthened Ordino's position as an international reference for responsible mountain tourism.

In this context, with an undeniable economic dependence on nature tourism, the biosphere reserve is implementing a strategy for transitioning towards a sustainable tourism model, with particular emphasis on the inclusion and engagement of visitors as collaborators rather than hindrances.

To achieve this, the "seal" or "label" of artisanal products and tourist services of the Ordino biosphere reserve has been created, accrediting those stakeholders who, beyond national legislation, undertake additional commitments to minimize their ecological footprint while strengthening the sustainable management of the valley.

A prime example can be found in the Arcalís ski resort, which, aware of its demanding input requirements and the vulnerability of the activity to climate change, has committed to sustainable management of the resort. To mention a few specific actions, since 2020, 100% of its annual electricity consumption has been self-produced through a mini-hydroelectric power station. Following this trend, in 2024, the use of geothermal energy will be implemented to reduce fossil fuel consumption. As for water consumption, the volumes of artificial snow produced, and their subsequent management and spatial distribution are currently monitored with great precision to optimize the resource and reduce waste. Finally, since the beginning of 2022, the resort does not offer any type of single-use plastic products, thus contributing to circular waste generation.



Figure 9: Panoramic viewpoint from the Peyreguils peak at 2,700m within the Arcalís resort.

Regarding the shared responsibility of visitors and residents of Ordino, the certification course for reserve informers stands out, aiming to disseminate the values and mission of the biosphere reserve. The course is intended for all agents and stakeholders in direct contact with visitors and users of the territory. Currently, a total of 200 professionals have been certified, including mountain guides, cultural guides, hotel and restaurant managers, tourism office professionals, and customer service professionals at the Arcalís ski resort, among others.

Ordino, a Living Mountain Laboratory - International Cooperation and Research for Conservation and Sustainable Development

Beyond biodiversity conservation and the deployment of sustainable socioeconomic models, Ordino invests significant efforts in enhancing knowledge and monitoring the dynamics and structural elements of the biosphere. To achieve this, both Sorteny Park and the rest of the territory are available to the scientific community to diagnose and assess the local evolution of global phenomena, with special interest in climate change and biodiversity loss. The goal is to understand the challenges that the territory and its

communities face, in order to anticipate and implement the best responses that allow for the mitigation of impacts and the amplification of the Valley's resilience. Thanks to cross-border cooperation in research and development, various monitoring networks have been established for years, allowing for the measurement of the evolution of key species such as butterflies, with 18 years of records from the Butterfly Monitoring Scheme, or the comprehensive monitoring of Sorteny's wetlands. There is also collaboration in different international research projects that enable the comparison and extrapolation of conclusions to provide synergies in the conservation of mountain natural spaces.

All the generated information is ultimately channeled for the training and awareness of citizens, especially the youth. Through transfer and outreach programs, reflection is stimulated to raise awareness, generate spaces for constructive dialogue, and ultimately promote changes in habits.

However, the international commitment of the Biosphere Reserve has continued to grow. In March 2026, Ordino actively participated in the Seventh Global Meeting of the Mountain Partnership, hosted in Andorra under the theme "Mountains for the Future: Responsible Tourism, Thriving Communities". During the event, Ordino contributed to discussions on the impacts of climate change on mountain ecosystems and presented experiences related to cryosphere conservation and monitoring initiatives promoted through the World Network of Mountain Biosphere Reserves. These contributions reinforce the reserve's role as a platform where scientific knowledge, local practices, and international cooperation converge to address global mountain challenges.

The Ordino Biosphere Reserve and Sorteny Natural Park are beacons that guide us towards a future where conservation and sustainable development are the foundations for a fulfilling and prosperous life. Their example teaches us that it is possible to build a society in which nature speaks, not only in the language of beauty and biodiversity, but also in that of sustainability and shared prosperity.



Figure 10: Child observing attentively a century-old black pine in a Ordino's forest.

More information about Ordino and the Ordino Biosphere Reserve:

<https://www.biosferaordino.ad/>

<https://www.visitordino.com/>

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