









# TRAILS AND SIGNS IN PROTECTED AREAS

#### Prepared by:

#### Parco Nazionale del Lazio, Abbruzzo e Molise (PNALM)

In the framework of the project AID 012003"NaturBosniaHerzegovina: Protected Areas and Sustainable Development" funded by the Italian Agency for Development Cooperation (Agenzia Italiana per la Cooperazione allo Sviluppo - AICS) and implemented by the Comitato Internazionale per lo Sviluppo dei Popoli (International Committee for the Development of Peoples - CISP) in Bosnia and Herzegovina

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# **INDEX**

INTRODUCTION	4
PATHS AND LODGES OF THE ABBRUZZO LAZIO AND MOLISE NATIONAL PARK	5
1. EXAMPLES OF SIGNS IN THE ABRUZZO, LAZIO AND MOLISE NATIONAL PARK	6
1.1 ENTRY MONOLITHS	6
1.2 WELCOME/GOODBYE SIGNS AT THE PARK VILLAGES' ENTRANCE	6
1.3 TRAIL DEPARTURE SHEDS	7
2. TRAILS	8
2.1 THE SIGNS OF THE TRAILS	9
2.2 WORKS ON PATHWAYS	12
2.3 MATERIALS TO BE USED	
2.4 POSITIONING OF SIGNS	17
2.5 GRAPHIC AND TEXTUAL CONTENT OF THE TABLES	17
2.6 EQUIPPED AREAS AND COMPLEMENTARY WORKS	18
2.7 THE HIKING PAPER	19
ANNEX 1 . AGREEMENT WITH NATIONAL BODIES	20
ANNEX 2. EUROPEAN TRAILS NETWORK	22

## **INTRODUCTION**

This report on "Trails and Protected Areas" was created by the Abruzzo, Lazio, and Molise National Park following two missions in Blidinje Natural Park and Sutjeska National Park. These missions aimed to conduct training and technical assistance activities as part of the project AID 012003 "NaturBosniaHerzegovina: Protected Areas and Sustainable Development in Bosnia and Herzegovina," financed by the Italian Agency for Development Cooperation (Agenzia Italiana per la Cooperazione allo Sviluppo - AICS) and entrusted to the International Comitato Internazionale per lo Sviluppo dei Popoli (Committee for the Development of Peoples - CISP) for implementation.

The staff of the Abruzzo, Lazio, and Molise National Park (PNALM), in collaboration with the staff of Blidinje Natural Park and Sutjeska National Park, supported the project by examining various issues related to the management of protected areas based on the directives of the European Union. Among these issues, trail development and wayfinding have been identified as critical aspects to improve for both biodiversity conservation and the enhancement of the cultural and educational functions of protected areas in Bosnia and Herzegovina.

With this document, the Abruzzo, Lazio, and Molise National Park outlines some methodological aspects and best practices developed in Italy regarding trails, with the aim of contributing to the enhancement of the identity of Blidinje and Sutjeska Parks, as well as strengthening their accessibility and sustainable usability.

**Paths and lodges** within a protected area are essential elements for fulfilling its naturalistic and cultural functions. An adequate hiking network supported by a functional system of lodges - including visitor centers, information offices, and themed routes—can effectively welcome and educate visitors, fostering a greater appreciation for the values of nature conservation and respect.

Ortona Dei Marsi, November 1<sup>st</sup> 2008

# PATHS AND LODGES OF THE ABBRUZZO LAZIO AND MOLISE NATIONAL PARK

The Abruzzo, Lazio, and Molise National Park boast a vast network of paths that traverse and interconnect the entire territory of the Park. This network has ancient and historical origins, primarily arising from the need to navigate the mountains for agro-forestry-pastoral activities, as well as for work related to the extraction of stone and iron. Often, these paths served as routes for transit, facilitating relationships and trade. Additionally, the paths and structures built in the early 19th century for pastoral uses (known as "stazzi") are significant due to their dense distribution across the territory.

Hiking has become an increasingly popular cultural, recreational, and sporting practice. There is a growing demand to combine the opportunity to walk along these paths with the exploration of landscapes and the pursuit of healthy physical activity, fostering a deeper connection with nature.

In 2009, the National Park working group identified 127 paths for marking, totaling 719.287 km of routes. Some short-distance or sequentially aligned paths were merged to reduce potential overlaps.

The cartography presented is the result of data processed from previous years using GPS instrumentation. The design work was conducted on-site, utilizing conventional marking methods (trail signs, vertical signs, etc.) according to the red-white-red criteria already adopted at the national level.

Currently, there are 156 hiking trails, including thematic routes (itineraries focused on specific themes of historical, naturalistic, environmental, traditional, and cultural interest), extending approximately 831.821 linear km across the diverse environments of the Park territory (trail network of the Abruzzo, Lazio, and Molise National Park: "A Deep Immersion in Nature, Walking in the Park..." https://www.parcoabruzzo.it/rete-sentieristica.php.

Most of the paths identified and documented in the official cartography are historically known to local populations and have traditionally been used for activities linked to land use (pastoral farming, forestry, agriculture, etc.). Due to profound social and cultural transformations, these paths have become the ideal foundation for a new economy, primarily centered on hiking tourism.

The entire trail network lies on municipal land, making the municipalities the owners of the paths. It is precisely with them, through the Park Community, that the network was created and shared, taking into account the priority protection needs and the orographic characteristics of the areas involved. In order to fulfill the institutional mandate of "promotion of educational, training and scientific research activities, including interdisciplinary ones, as well as compatible recreational activities and the dissemination of environmental and naturalistic knowledge" (referred to in letter C. paragraph 3 of art. 1 of Italian law 394/91, which establishes the purposes of the protected areas), the park is responsible for organizing the network and ensuring constant maintenance and monitoring, to guarantee its constant and correct maintenance, safety and functionality both in the areas within the boundaries of the Park and in those of the contiguous area for proper and appropriate continuity.

The trail network requires human and financial resources that the Park currently lacks, except for those needed to address particularly urgent and critical situations. Consequently, following the project for the reorganization and relaunch of the trail network developed in 2009, the Authority has opted to collaborate with external entities linked to the tourism and hiking activities of the area. These entities are registered in a specific list of companies on the park portal, created to promote all educational and usability initiatives within the protected territory. This choice not only promotes entrepreneurial activities within the protected area but also integrates income from other tourism and environmental education initiatives, allowing local businesses to align more closely with the institutional objectives of the Park, thereby becoming guardians of the Park itself.

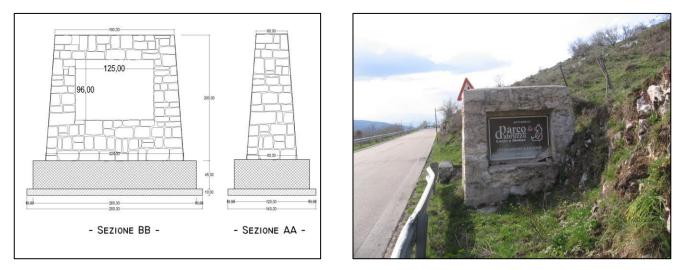
From this perspective, the trail network and awareness campaign were implemented to promote care for the territory, with the fundamental involvement of local operators, associations, and businesses. Over the years, these stakeholders have developed a strong sense of attachment and ownership, along with a desire to enhance the Park's accessibility for visitors. Local operators serve as the primary interpreters of the values associated with the protection of the natural area and its habitats.

The project and campaign facilitated marking and restoration interventions, the rediscovery and utilization of routes, and training for operators, thanks in part to the collaboration of the Medium Mountain Guides (AMM) of the Italian Alpine Club (CAI) Abruzzo, the College of Alpine Guides of Abruzzo, and Environmental Hiking Guides.

# 1. EXAMPLES OF SIGNS IN THE ABRUZZO, LAZIO AND MOLISE NATIONAL PARK

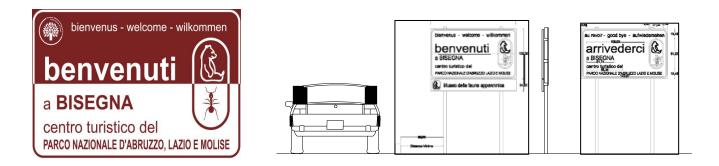
The signs that the Park Authority has equipped with over the years are divided as follows:

## **1.1 ENTRY MONOLITHS**



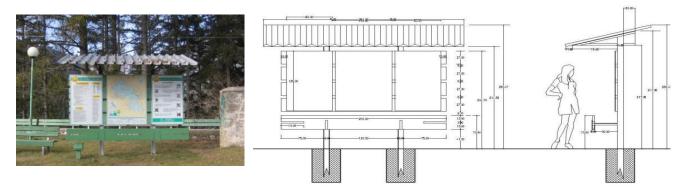
The structure is designed to mark the territorial limits of the park along the main access roads. Construction was carried out using partially squared stone masonry and cement mortar. At the center of the monolith, there is a niche that houses the "Welcome" and "Goodbye" signs for the Abruzzo, Lazio, and Molise National Park. These signs include the entrance toponym (such as Marsica Fucense, Alto Sangro, Val Comino, etc.), the reference altitude above sea level, and the phrases "We Live in Harmony with Nature" and "Here nature is protected."

## **1.2 WELCOME/GOODBYE SIGNS AT THE PARK VILLAGES' ENTRANCE**



The panel is made of 21/10 thick sheet metal and features lateral folds for reinforcement, along with two metal bars on the back to enhance the structure's rigidity and facilitate attachment to the poles. The panel measures 150 x 100 cm and is designed with a two-tone color scheme: brown and white. In the brown section, white letters are prominently displayed, while in the lower white section, black letters stand out

#### **1.3 TRAIL DEPARTURE SHEDS**



The sheds are strategically located at the beginning of a group of paths and in areas where visitors can park their cars to access the Park's trails. The structure consists of an iron frame, featuring HE 100 U-shaped uprights and L-shaped distribution irons. The roof has a sloping pitch and is constructed from an iron frame covered with corrugated sheet metal. The iron structure is enhanced with 3 cm thick wooden boards placed orthogonally to the uprights. Three metal sheet panels, each with a thickness of 25/10 mm, are attached to this structure. These panels are folded into a box shape at the ends and reinforced at the back with metal bars made of shaped sheet metal. The left side panel displays key information about the Abruzzo, Lazio, and Molise National Park. The largest central panel provides the entire trail map at a scale of 1:50,000, while the right side panel succinctly outlines the behavioral rules to follow when hiking within the Park.

# 2. TRAILS

Signage is the first essential intervention required to designate a route as "equipped." The high number of users, who come from various European and non-European countries, necessitates careful consideration in the selection of signs. It is strategic to standardize the signage types, drawing on the most significant national and European experiences.

The path serves as the medium through which visitors engage with the geographical, natural, landscape, anthropological, and cultural aspects of a territory. To achieve these objectives, the following considerations were made:

- the need to maintain a balanced number of visitors across various areas, allowing for the valorization of less frequented regions while limiting and containing visitor loads in the most fragile areas.
- the necessity to restrict or redirect visitors from the most vulnerable locations (such as breeding areas, rare plant habitats, and sites at risk of fossil or artifact depredation).
- the importance of highlighting the qualities of the territory by offering visitors a diverse range of environments and landscapes.
- the opportunity to plan for the environmental impact of motorized traffic, with particular attention to intermodality, including:
  - Promoting access to the paths via public transport.
  - Creating or upgrading parking areas.
  - Limiting access to private motorized vehicles on certain roads.
  - Ensuring sufficient parking spaces while providing, as much as possible, adequate accessibility to the routes.
- the need to create uniform signage using codes that can be understood by users from around the world, referencing existing national and international standards.
- the importance of enhancing the rich heritage of historical routes (such as ancient sacred paths, Roman roads, and transhumance routes) that allow visitors to experience human history through works and landscapes, while avoiding the opening of new trails.
- the necessity to implement low-impact interventions that harmoniously integrate into the landscape, utilizing natural materials that reflect traditional local construction methods.
- The need to protect visitors by restricting, and where not possible, limiting motorized traffic.
- the importance of aligning the works and routes with urban and landscape plans, specifically the Territorial Plan (Park Plan).
- the need to identify adequate management and maintenance strategies for the routes, in collaboration with public and private entities.

## 2.1 THE SIGNS OF THE TRAILS

## <u>a) Trail Starts Table</u>

The trail starts table is located at the beginning of each path and provides essential information about the route. It includes the following details:

- Code: A unique identifier for the trail.
- Starting and Finishing Location: The specific points where the trail begins and ends.
- Relative Altitude: The elevation of the trail at various points.
- **Distance Measurement**: Information on the distance in terms of time and/or length.
- **Degree of Difficulty**: An indication of the trail's difficulty level.
- **Permitted Distances Covered**: Information on the types of distances that are allowed, along with any prohibitions.

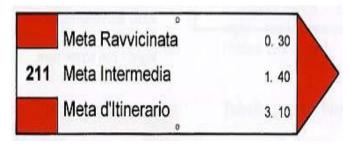


## b) Directional Table

Directional tables are signs designed in the form of arrows, placed at the intersections of two different paths. They provide essential information, including:

- Location: The names of the paths and their respective destinations.
- **Distance Measurement**: Information on the distance to each destination, expressed in terms of time and/or length.
- **Direction to Follow**: Clear indications of the direction to take for each path.

In some classifications, this type of sign is referred to as a vertical trail sign.



## <u>c) Location Table</u>

Location tables are signs that display the name of the location along with essential information about it. This may include:

- **Altitude**: The elevation of the location.
- Distance from Other Places: Information on how far the location is from nearby points of interest.
- Names: The names of significant landmarks or features in the vicinity.



## d) Didactic Tables

Didactic tables comprise a diverse collection of signs placed along the paths. These tables provide information about various assets present in the area, including:

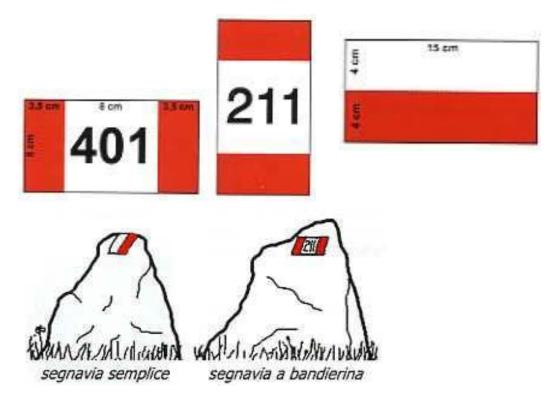
- Names of Assets: Identification of specific trees, plants, fauna, and man-made artifacts.
- **Brief Descriptions**: Concise explanations or details about each asset, enhancing the visitor's understanding and appreciation of the natural and cultural heritage.





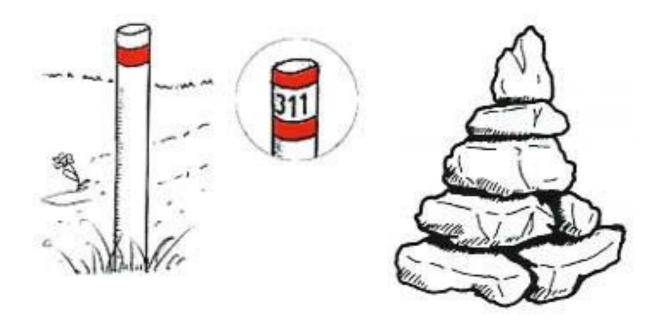
## <u>e) Horizontal Signs - Trail Signs</u>

Horizontal signs, also known as trail signs, are positioned on the ground alongside the path, mounted on trunks, boulders, or walls. Their purpose is to indicate the continuity of the route in both directions of travel. These signs come in various forms, including those mounted on poles, and are arranged to ensure the safety of the route followed by visitors.



## f) Stake or Trail Marker Mound

Stake or trail marker mounds consist of wooden stakes that are fixed vertically into the ground. They are particularly useful in pastures that are free of stones or have tall grass. In areas where stones are present, it is more effective to use rock monoliths or piles of stones that are marked with colored paint to indicate the trail.



The base of the paths must ensure a discreet integration into the environmental context in which they extend, avoiding impermeable solutions. The various characteristics and interventions to be undertaken can be summarized as follows:

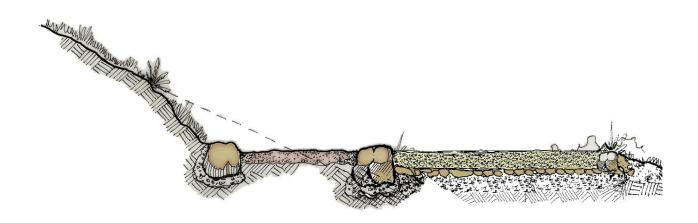
- Asphalt: Suitable for tourist cycle paths but generally unsuitable and less appreciated for pedestrian mobility and bridle paths. There are very few examples of asphalt paths in the park; most are circular routes located in the immediate vicinity of residential areas. In some cases, the asphalt route is the only feasible way to reach certain destinations.
- **Cement**: Although not widely used, cement represents an economical solution for sections where excessive slopes create difficulties for progression. Examples are primarily found on forest tracks. It is preferable to prohibit the use of this material.
- **Cobblestones (Irregular Stony Pavement)**: This refers to rare situations of particular historical and landscape value, as they represent remnants of ancient routes for slow mobility (such as sacred routes, sheep tracks, and connecting mule paths). When in good condition, these paths are suitable for all types of progression; otherwise, they may pose challenges for cycling mobility.
- **Pebble Pavement**: This is a very common type, allowing for motorized mobility (such as forestry control and access to companies). If sufficiently regular, it accommodates all types of progression, although it may present some difficulties for touring bicycles.
- **Clay Courts**: Once prevalent, this type has largely been replaced by mixed cement paving. While still widespread, clay courts are becoming increasingly rare due to the ongoing trend toward transformation with pebbles and other artificial materials, as well as natural factors such as vegetation invasion and erosion. Many of these routes are suitable for pedestrian progression but present challenges for other forms of mobility due to frequent obstructions from plant material and boulders along the path.

## **2.2 WORKS ON PATHWAYS**

To enhance the quality of the surface of the hiking trails, the following types of work have been planned:

## <u>Curbing</u>

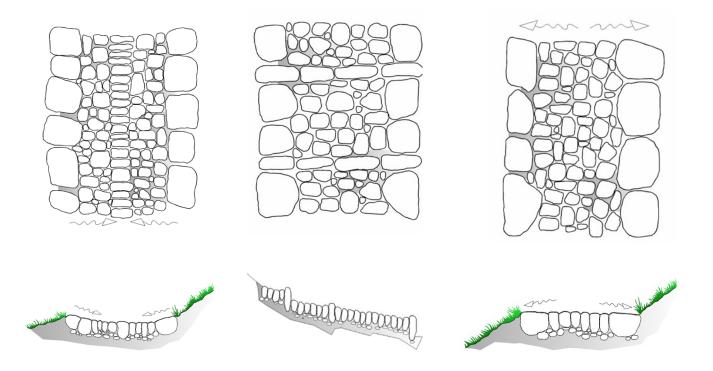
This involves placing boulders, sourced from the site, on the sides of the trail to delineate the pathway. These boulders should be embedded in the ground for at least two-thirds of their length to ensure adequate stability. This intervention is relatively costly and is recommended for maintaining stability on paths situated along hillsides, in trenches, or on embankments—especially when the path is distinct from the roadway and positioned on the side shoulder. In other cases, the impact on the landscape must be carefully evaluated, particularly in exposed sections with excessive slopes.



Visual representation of how to distinguish between the road and the cycle/pedestrian path on the pavement.

#### **Cobblestoned Paths**

Cobblestoned paths consist of placing stone materials embedded in the ground along the sides of the path and on the road surface. Some designs, based on the shapes and dimensions of the paving stones, can facilitate an effective water disposal system while maintaining good permeability of the route. Generally, these paths are mule tracks or cart paths that have been used over the years for forestry work. In areas where plastic deformations are present, it is necessary to intervene to restore the road surface. The various models in the park area are illustrated below:



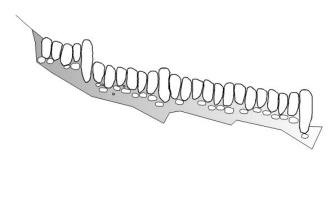
#### <u>Walkways</u>

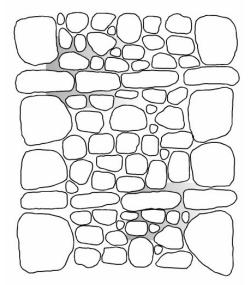
The intervention involves the installation of wooden beams elevated above the natural walking surface. These structures serve to reduce damage caused by trampling in areas with fragile ecological balances, such as flooded meadows and herbaceous communities. Additionally, they encourage accessibility for hikers in wheelchairs. Similar systems are also employed to facilitate passage across small watercourses.



#### **Breaker Steps**

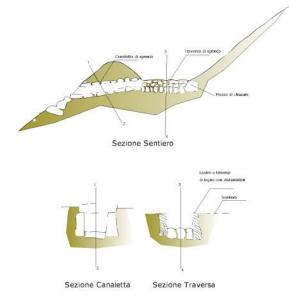
Breaker steps are systems that run transversely to the route, designed in the form of steps to navigate changes in elevation along the path and to protect sections at risk of erosion. These steps should be constructed using natural materials, such as wooden stakes, trunks, stones, and excavations in the rock, particularly in areas where rock is predominantly present.





#### Drainage Channels

Drainage channels are systems designed for the disposal of rainwater from the roadway. They can be constructed transversely to the route, slightly sunken to facilitate the flow of water. In this case, hollow semitrunks may be used, along with the placement of sturdy branches or the arrangement of flat stones to create a canal-like structure. Additionally, channels can be formed using wooden crosspieces combined with special iron or stone spacers.



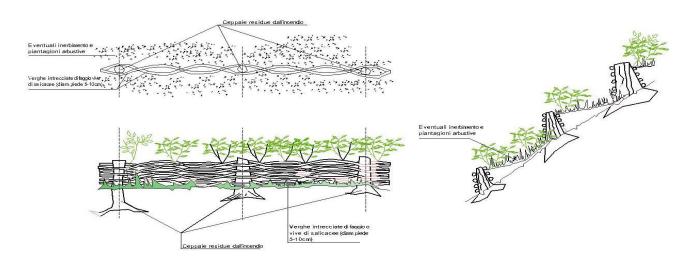


## Support Works

Support works are utilized to contain the upstream material in sloping sections. They can be constructed from stone (terracing) or plant materials (living palisades).

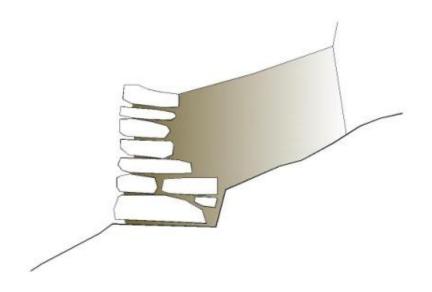
## Vegetated Espalier

The vegetated espalier consists of chestnut stakes, each 80 cm long, fixed into the ground at a distance of 1.00 m apart. This structure incorporates green material, including excavation and backfilling, along with willow weaving.



#### Side Protection Systems

The most common side protection system is dry stone walls, which represent an important part of our rural civilization heritage. Particularly beautiful examples are those that delineate the paths of ancient sheep tracks and provide access to stables. Another system involves wooden fences, which are used to define rest and refreshment areas. These protection systems are intended for short stretches of the route along the hillside or for crossing small canals. They are not suitable or practical for delimiting the entire route.



## **2.3 MATERIALS TO BE USED**

The materials to be used for signage must have characteristics that allow for the right balance between the need for harmonious integration into the landscape and visibility from a distance. The choice of materials must take into account the durability of the sign, the ease of maintenance, and the need to avoid dispersing non-biodegradable materials during their natural deterioration.

Tables that contain little textual information (such as path start tables, directional tables, location tables, and educational tables) must be made of light-colored wood with engraved (pantographed) characters and painted inside. The thickness of the wood should be approximately 2 to 2.5 cm.

Tables containing extensive textual or graphic information (such as maps and illustrations) must be made from pressed aluminum sheets of suitable thickness (21 – 25/10) or similar materials covered with reflective plastic film or silk-screened. This category includes overall panels, educational tables, and interpretative tables.

For road markings, the use of paints is recommended (preferably those without organic solvents, indicated as non-toxic and ecological) to create a suitable graphic mask to be applied to trunks (only if this is not possible on other supports), rocks, or walls. For each trail sign, several masks must be made from galvanized sheet metal, including sizes for the paint stripes, characters, numbers, and the logo of the managing body or municipality.

The trail signs must be made under climatic conditions that allow the color to adhere best. The surface on which to apply the paint must be cleaned with a steel scraper. In the case of trees, any layers of moss or lichens must be removed, and moderate leveling should be done for species with flaky bark (such as conifers and oaks), taking care not to damage the plant. It is preferable to choose parts with flat surfaces in the case of boulders or walls. If multiple colors are used, the brush with the lighter color should be used first, followed by the darker one. The paint must be used undiluted, and care should be taken to avoid dripping. In the case of overprinted characters, it is essential to let the color strips dry beforehand before applying them. It is advisable to progressively carry out the affixing of the color stripes first and then overlay the characters on the way back. For quick applications, the use of enamel markers is recommended.

The signs positioned along state, provincial, and municipal roads must comply with the corresponding safety regulations and be placed on hot-dip galvanized steel tubular poles, involving the managing bodies and complying with the New Highway Code. The tables positioned along local and country roads or on routes with no motorized traffic must be placed on special supports made of chestnut (or equivalent wood) posts, impregnated with protective paints and tarred at the base or treated with copper sulfate. Medium to large-sized tables must be placed on special supports equipped with multiple support points on the ground.

To create trail markers, chestnut wood (or similar wood) with a quadrangular or circular section will always be used, impregnated with protective paints, tarred at the base, or treated with copper sulfate. For the creation of piles of stones (cairns), it is recommended to use locally sourced material found among those placed superficially on the ground.

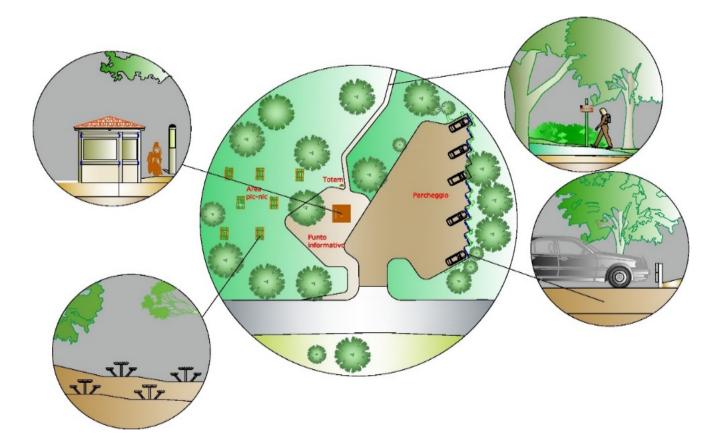
## **2.4 POSITIONING OF SIGNS**

The general guideline is to position the signs in a way that does not interfere with the usability of the landscape and the main assets, avoiding locations that even partially limit the panoramic or specific view. This objective must also be achieved through discreet and non-invasive use in terms of quantity. From this perspective, it should be noted that our territories unfortunately experience frequent vandalism, resulting in tables being damaged, plundered, and removed.

Consequently, there is a need to favor horizontal signs over vertical ones, as horizontal signs can be used more moderately and offer notable advantages in terms of construction and maintenance costs. The horizontal signs should be placed so that each sign is approximately 20 to 40 meters away from the previous one, particularly in areas with limited visibility (such as regions subject to snow, varied geomorphological profiles, or poorly defined tracks) so that each sign is already perceptible from the next one.

The tables indicating locations and directional signs should be limited to those necessary for orientation (such as at crossroads or locations indicated on the trail map).

Educational tables should be restricted almost exclusively to areas near access points and in the initial sections of the paths, except for specially created educational routes (circular or thematic routes). The signs, as described above for the various sizes, refer to the attached graphs.



## 2.5 GRAPHIC AND TEXTUAL CONTENT OF THE TABLES

The galvanized sheet metal tables must display the logo of the relevant protected natural area and/or the corresponding municipality. The same applies to pantographed wooden tables. For the pantographed wooden tables, special galvanized metal templates will be created to facilitate the engraving process. The color used for the background of the wooden tables must be natural (preferably light woods or lightening protective paints). For silk-screened tables, the background color must be white. Black will be used for the characters and graphics on the wooden tables (including the organization's logo), with the exception of the trail sign, which must always be indicated in white and red. If the organization's logo is placed on the trail sign, yellow may also be used.

The specific contents of each table are as follows:

- 1. **Overall Panel:** In addition to the basic format, it must contain graphic and/or cartographic tables and the specific textual part.
- Trail Start Table: The tables must include the itinerary code, the names of the departure and arrival locations along with their respective altitudes, the distance between the two places expressed in length (meters or kilometers), travel time, the type of path, and the degree of difficulty (T - tourist, E hiking, EE - expert hiking), as well as the different travel methods.
- 3. **Directional Signal:** It must include the name of the location and its relative altitude, along with indications of one or more destinations.

## 2.6 EQUIPPED AREAS AND COMPLEMENTARY WORKS

Other accessory works along the routes consist of rest areas commonly referred to as picnic areas. These areas are generally equipped with benches and tables, boundary fences, shelters to protect from the rain, barbecues, and waste bins. The graphs illustrate the typological and construction methods of the individual equipment.

In the planning and, above all, in the location of these areas, it is important to consider that they become attractive elements for tourism.

It is recommended that these areas be located near access roads to filter users and encourage waste collection and cleaning by the responsible companies. Waste bins must be designed to be inaccessible to wild animals, which would otherwise scatter the waste.

On one hand, barbecues reduce the risk of fires by concentrating the need for fires in specific structures; on the other hand, they may encourage the lighting of fires on the ground, increasing the risk of wildfires. For this reason, it is advisable to avoid placing barbecues in areas with a high risk of fire (such as coniferous forests or areas dense with scrub and undergrowth) and to prohibit the lighting of fires outside the equipped areas.

## 2.7 THE HIKING PAPER

An indispensable tool for the hiking management of the area is the 1:25,000 scale trail map, which contains the entire trail network of the park along with essential information to ensure that access is safe and accessible for visitors.



# **ANNEX 1. AGREEMENT WITH NATIONAL BODIES**

One of the actions implemented by the Abruzzo, Lazio and Molise National Park was to sign a memorandum of understanding with the Italian Alpine Club, a "free national association whose aim is mountaineering in all its manifestations, the knowledge and study of the mountains, especially the Italian ones, and the defense of their natural environment," which establishes relationships of mutual collaboration.

#### Model of Memorandum of Understanding

National Park of Abruzzo, Lazio and Molise (hereinafter referred to as "Park"), with registered office in \_\_\_\_\_\_, represented by \_\_\_\_\_\_, as President, domiciled for the role at the registered

#### office.

(hereinafter jointly referred to as "parties")

#### Given that:

- The intrinsic fragility of mountain areas and the need for their careful and conscious use (seen as a development factor) necessitate the contribution of all components of society who experience the mountain in its various aspects, including the study and knowledge of the territory and the permanent education of citizens, which are essential prerequisites for adequate and targeted management of this particular natural resource.
- In consideration of the common objectives regarding the study, protection, safeguarding, development, and use of natural resources—objectives expressed both by the Natural Parks and by the Statute and General Regulations of the Italian Alpine Club and its resolutions—recognizing the voluntary assistance provided by the CAI to the Park, as well as the importance of continuing this relationship, a common decision was reached to stipulate the following Collaboration Protocol between the Park and the CAI.
- The Park and CAI, with this Protocol, intend to establish and formalize a relationship of mutual collaboration regarding initiatives and programs of common interest in the fields of activity identified and listed below.

#### The following is agreed and stipulated:

#### Article 1. Premises

The premises constitute an integral and substantial part of this Collaboration Protocol.

#### Article 2. Purposes of the Protocol

For the purposes of this Convention, the parties undertake to activate mutual collaborative relationships based on the following objectives:

- Recognize the role of the CAI as an entity that, through its structures, provides specific collaboration aimed at the knowledge and protection of the natural resources within the Park territory.
- Maintain continuous and mutual coordination between the parties regarding the most delicate problems linked to attendance and tourist-sports use of sensitive areas and those of particular biological-landscape value, such as those included in the Park.
- Contribute to making the Park aware of the needs and expectations of a vast sector of users with a clear and unequivocal protection purpose in harmony with the Park's objectives.

#### Article 3. Working Group

For the purposes of this Protocol, a working group will be established, which will carry out proactive actions towards the Park in support of its institutional tasks and implementation programs, contributing to the implementation in coherence with the fundamental principles of the agreement. The group will consist of three representatives from the CAI and three representatives from the Park. The meeting times will be determined by the parties as necessary, with a minimum notice of 10 days. The working group will prepare an annual report on the status of the Protocol, verifying the collaborative activities carried out between the Park and CAI and the results achieved.

#### Article 4. Relations

The CAI undertakes, compatibly with its editorial needs, to give maximum diffusion, also through the social press, to the Park's activities and joint initiatives. The Park undertakes, compatibly with its institutional programs and commitments, to allow the CAI to organize initiatives, events, and gatherings within the Park on themes related to hiking, mountaineering, youth mountaineering, and the protection of the mountain environment, as well as naturalistic scientific research.

#### Article 5. Fields of Activity

For the pursuit of the aforementioned purposes, the parties identify the main fields of activity subject to collaboration:

- **Hiking Trails:** Promotion of modern hiking that respects the territory crossed, which interests the villages for the discovery of the area.
- Definition of the Park's Excursion Network:
- National Alpine Rescue Corps: Given the importance of the role played by the National Alpine and Speleological Rescue Corps from a social perspective, as well as the particular position of the CNSAS within the CAI structures, a specific operational collaboration agreement may be stipulated between the Park and the CNSAS Delegate, in agreement with the CAI Regional Groups, with reference to this protocol.
- **Climbing and Mountaineering Activities:** The Park and the CAI, also through the Technical Bodies, will agree on the areas reserved for rock climbing gyms and mountaineering and ski mountaineering activities.

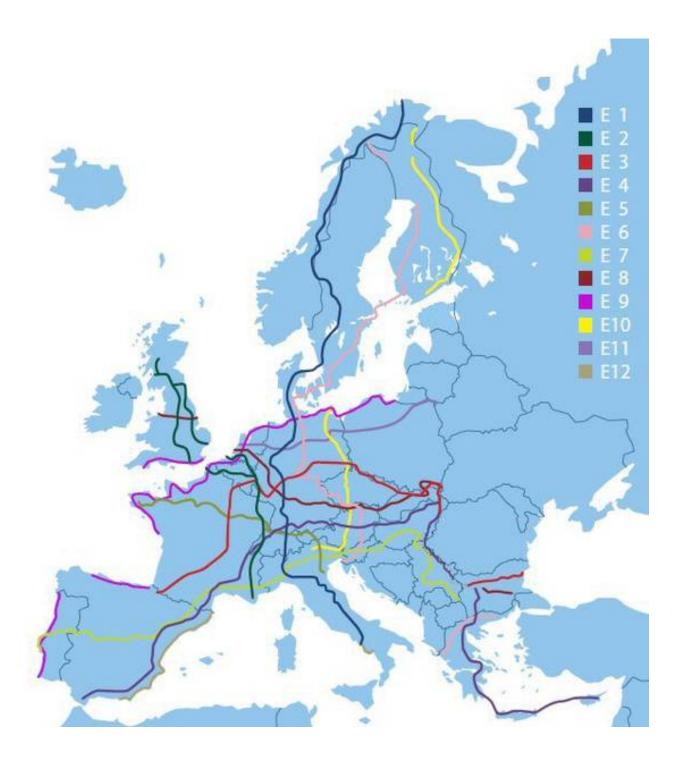
#### Article 6. Implementation of the Collaboration Protocol

The operational programs and management aspects connected to the implementation of this Agreement, including those relating to paths and the related charges, will be the subject of specific agreements to be signed between the Park and the CAI, in compliance with the Collaboration Protocol.

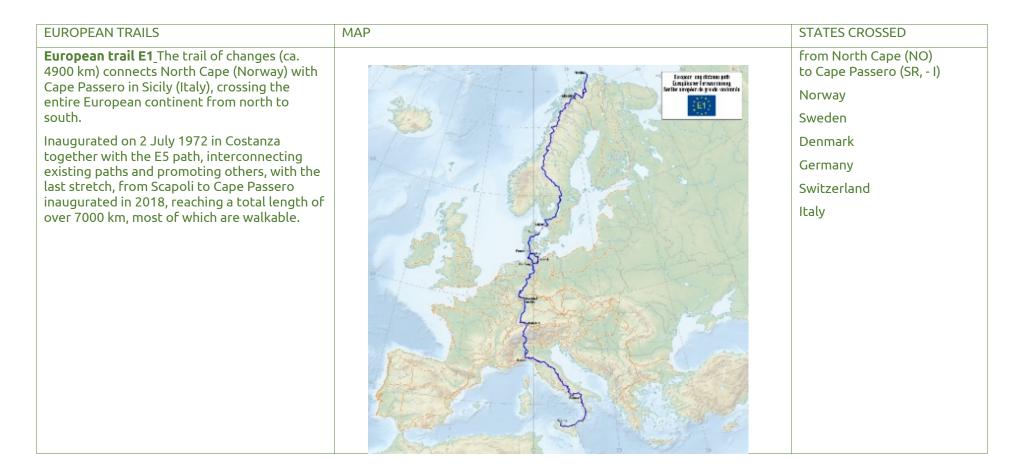
#### Article 7. Duration

The duration of this Collaboration Protocol, drawn up in duplicate, is established as three years from the date of signature, without tacit renewal.

# **ANNEX 2. EUROPEAN TRAILS NETWORK**



The European long-distance hiking trails were created under the auspices of the European Hiking Federation. The aim of the Federation is to establish and maintain a network of cross-border trails (E-routes). There are twelve European long-distance hiking trails currently being developed, which generally follow pre-existing national or local trails. Together, these twelve trails make approximately 55,000 km of hiking possible across Europe. <u>https://www.era-ewv-ferp.org/e-paths/</u>





**European Trail E3** It connects Santiago de Compostela (Spain) with Cape Emine in Bulgaria, crossing the entire European continent from west to east. Its total length is over 6,950 km, most of which is navigable. Extensions to the west are planned to Cabo de São Vicente, in Portugal, and to the east to Istanbul, in Turkey.



#### European Trail E4 (ca. 10450 km)

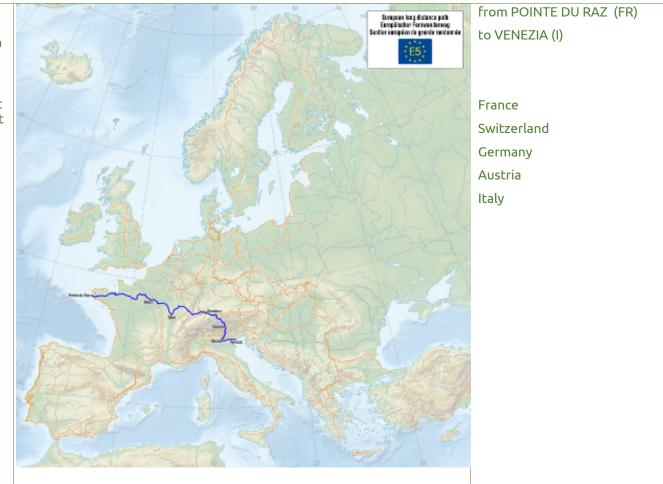
It begins in Tarifa in Spain and runs through France, Switzerland, Germany, Austria, Hungary, Romania, Bulgaria, Greece and ends in Larnaca, on the island of Cyprus.



**European trail E5**\_ is a path that starts at Pointe du Raz on the Atlantic coast in Brittany (France) and crosses the Alps, passing through Switzerland, Germany, and Austria, before reaching Italy and ending in Venice according to the plan. The total route would be 3,200 km; however, the Verona-Venice section is not currently defined, so at the moment, it ends at the Verona Arena for a total of about 3,050 km.

The most commonly traveled section is the route that extends from Lake Constance to Verona: a distance of 600 km for which an average hiker needs about 30 days of walking. This section was defined by Hans Schmidt of Sonthofen and created by interconnecting existing paths by the European Federation of Hikers, which inaugurated it on 2 July 1972.

Although the trail also crosses rocky areas with high peaks, no climbing experience is necessary, and there are several options for shelter and overnight stays along the route, typically in Alpine refuges.



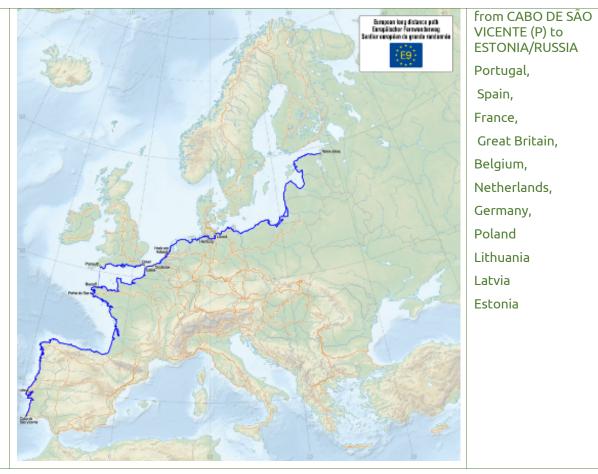
**European Trail E6** (ca. 5200 km) is one of the European long-distance paths from the northwest tip of Finland through Sweden, Denmark, German y and Austria to the Adriatic coast in Slovenia. A second section starts again in Greece and it ends in Turkey.



European Trail E7 (ca. 4330 km) from from Lisbon (P) to Romania European long distance path Europäischer Fernwanderweg Santier europäen de grande randomée the Portuguese-Spanish border eastwards through Andorra, France, Italy, Slovenia, Hung ary and Serbia. It is projected to be extended Portugal to Lisbon and into Romania, so that it reaches Spain from the Atlantic to the Black Sea, however these stages, as well as parts of the route Andorra through Italy, are still in planning. Monaco France Italy Slovenia Hungary Serbia Romania



**European Trail E9** (ca. 10.092 km)"The Atlantic, North Sea and Baltic Sea trail", also known as the European Coastal Path, is a remarkable long-distance trail that stretches from Tarifa, Spain to Narva-Jõesuu, Estonia. As the longest coastal trail in the world, the E9 offers an extraordinary adventure filled with breathtaking landscapes, diverse cultures, and captivating history. The longest coastal trail in the world.





**European Trail E11** (4.610 km) It starts in Scheveningen, a fishing community, commercial harbor and spa in The Hague on the Dutch coast of the North Sea. It ends in Tallinn, a medieval Hanseatic town situated side by side with the 21st century city of modern glass buildings, located on the shore of the Gulf of Finland of the Baltic Sea.



**European trail E12**, UNDER CONSTRUCTION! Also known as the **Mediterranean Path** is a path that connects Gibraltar with Athens in Greece, following the European Mediterranean coast from west to east. Its total length is over 2,880 km, currently passable in only a few sections.

