

# Resolution CM/ResDip(2020)1 on the revised regulations for the European Diploma for Protected Areas

(Adopted by the Committee of Ministers on 23 september 2020 at the 1384th meeting of the Ministers' Deputies)<sup>1</sup>

### Appendix 5: Model plan for annual reports

#### Annual report for the year 2024

Annual reports should describe the changes that have taken place since the previous year in dynamic terms of management and function and not be limited to basic data. Any new text or map introducing a change in the situation of the area should be attached to the annual report.

State: Italy

Name of the area: Parco Regionale Gallipoli Cognato Piccole Dolomiti Lucane

Year and number of years since the award or renewal of the European Diploma for Protected Areas: 2020 - 2

# Central authority concerned:

Name: Ministero dell'Ambiente e della Tutela del Territorio e del Mare

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# Authority responsible for its management:

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<sup>1</sup> As amended by Resolution CM/ResDip(2014)2 on 2 July 2014 at the 1204th meeting of the Ministers' Deputies.

Internet: http://www.coe.int/cm

- 1. Conditions: List here <u>all</u> conditions which were attached to the award or the renewal of the European Diploma. Explain <u>either</u> how the conditions have been totally complied with <u>or</u> detail the progress in complying with the conditions. Please also indicate any unresolved difficulties that you have encountered.
- 1. the regional authorities should ensure by 2022 a substantial increase in the budget presently allocated directly to the park to enable enough means for a stable management and a long-term consolidation of what seems now to be a very efficient but vulnerable structure;

Regione Basilicata has confirmed for the period 2024-2025-2026 an extra budget of €100.000,00 per year, in addition to the annual consolidated contribution of € 450.000,00, ensured during the past years. With the additional budget of € 100.000, the Park has published in 2024 three public calls for the hiring of personnel. Applications to participate have been received. The evaluation of the applications by the evaluation commissions is underway and will end in January 2025.

2. the regulations for the pre-park area are to be adopted by the regional government before the expiration of the first five years of the European Diploma (2025);

In September 2023, Regione Basilicata has assigned an extra budget of 40.000,00 € to write the Regulations for the Park area. On November 7<sup>th</sup> 2023 the board of the Park has identified the professional firm responsible for drafting the regulation. The Regulation of the Park and of the pre-park area has been written and it has been transferred in the month of Novembre 2024 to the Regional Board to be verified and then definitively approved by Law. The latest version is provided attached to this report.

- **2. Recommendations:** List here <u>all</u> recommendations which were attached to the award or the renewal of the European Diploma. Explain <u>either</u> how the recommendations have been totally complied with <u>or</u> detail the progress in complying with the recommendations. Please also indicate any unresolved difficulties that you have encountered.
- 1. enhance the present management of the forest towards a greater natural character, with more diversity of ages of trees, as at present parts of the forest in the park are formed by trees of a similar age. It would also be advisable to leave on the ground without removal some trees that may have died as a result of wind or other natural or biological processes so as to favour saproxylic fauna;

As explained in report 2023 the Park is continuing implementing the management activities of the forest, as drafted in the management plan: the last annuity of the management plan is working on two forest plots whose total surface is almost 90 hectares.

The new management plan valid for the period 2022/2031 was sent, in preliminary draft, to the regional bodies at the beginning of 2022. The preliminary plan has been approved by the regional government in 2023. The final and executive drawing up of the management plan of the forest has received the financial support of almost 123.000 Euros by the EAFRD - European Agricultural Fund for Rural Development, measure 16.8 and will be ready in 2024. The new forestry management plan will presumably come into force in spring 2025 following its approval by the regional council. The executive and final plan valid until 2031 envisages targeted interventions on individual forest parcels aimed at obtaining a different age forest structure eliminating alien species (cupressus sempervirens spp.) and increasing biodiversity with the creation of ecological islands with maintenance of dead biomass

2. enhance the control of non-native trees, in particular conifers planted during the 1970s and re-forest, with indigenous trees, the relatively small areas affected; *We here confirm what explained in the annual report of 2022.* 

In some areas of the forest of Gallipoli Cognato, it is possible to find portions of wood occupied by non-native trees, most of which are conifers.

A first experimental renaturalization area, on a surface of about 4000 sqm, has been carried out on a conifer reforestation built in the 70's removing the conifers and replacing them with Fraxinus both ex novo implanted and naturally reborn, together with Quercus pubescens reborn in the area after the cutting of conifers.

The Regional Park Gallipoli Cognato Piccole Dolomiti Lucane obtained a regional funding of € 500,000.00, for the implementation of the project "Actions for the maintenance of flora biodiversity in Basilicata" in collaboration with the University of Basilicata and Molise.

The project executes one of the numerous actions implemented by Basilicata Region (starting from the Natura 2000 Network Program) to apply EU and national legislation, through management tools suitable for the conservation of habitats and species present in EU sites.

The project follows the process of Conservation of flora Biodiversity in Basilicata in four thematic areas or "MACRO-ACTIONS".

- 1. Regulatory adaptation;
- 2. Research and experimentation and structures for the conservation of biodiversity;
- 3. Conservation actions;
- 4. Training, information and dissemination

Within the macro-action nr. 3, there is the activity of CONTROL OF EXOTIC AND INVASIVE FLORA SPECIES.

In Basilicata as well as in the rest of Italy, numerous reforestation interventions with alien species (mostly conifers) have been carried out in the last century with the aim of hydrogeological protection of the territory which often, properly managed, can evolve into native species woods.

These populations, that from a silvicultural point of view must be considered transitory topsoils, over the years should have been thinned out to allow the autochthonous vegetation, characteristic of the intervention areas, to reaffirm and reform a stable cover. Thinning has never been carried out and these alien species, while fulfilling its function in the first years following the planting thanks to their pioneering characteristics, now in the mature stand phase, often represent a risk for the environment.

The Regional Forest of Gallipoli-Cognato constitutes a heritage of great naturalistic interest due to the presence of different habitats, characterized by a remarkable floristic and vegetational richness. The origin of so much diversity is to be found in the variability of edaphic, climatic and geomorphological situations of the territory on which the forest area falls.

The dominant physiognomy of the forest is the deciduous mixed oak wood mainly of Quercus Cerris with the presence of Oak and Quercus Frainetto. Particularly interesting for the Gallipoli-Cognato Forest is the presence of the southern ash, Fraxinus angustifolia ssp. Oxycarpa which develops with higher frequency at altitudes below 1,000 m a.s.l.

In stations characterized by a more xeric microclimate, Quercus pubescens grows, replacing the Turkey oak, as main tree species in association with Acer monspessulanum.

At the main hydrographic network and in the stations with the best hygrometric balance and soil fertility (gorges and deep valley incisions), lime (Tilia platiphyllos, Tilia cordata) and maples (Acer opalus, obtusatum, A. pseudoplatanus, A. lobelii, the latter endemic to southern Italy) participate in the formation of the main arboreal plan, giving rise to mixed topsoils.

Within the Gallipoli Cognato Regional Forest there are reforestations of conifers, of artificial origin, carried out over 40 years ago for the purpose of hydrogeological defence.

In the Gallipoli Cognato regional forest, the areas interested by conifers involved both surfaces without arboreal vegetation (reforestation) and parts of arboreal topsoil with a low density (coniferations). The reforestations at present are relegated to small incorporated portions in the deciduous forest where renaturalization processes are in progress.

The results of artificial implants differ from area to area and can be grouped into three types. For each of them, it is possible to carry out differentiated interventions.

### Type 1 - Failed reforestation

On these surfaces, the planting has not passed the taking root phase, the areas retain the signs of soil work but are free from conifers. Longstanding, natural evolutionary processes have started, also conditioned by grazing.

Planned actions: planting of native tree and shrub species using the seed found in the Park area and/or use of young seedlings taken from more evolved populations that grow in the neighbouring areas.

#### Type 2 - Residual reforestation in groups

On these surfaces, the reforestation has passed the phase of engraftment and initial development, but with high mortality of seedlings. The development of conifers is different for both development and for the phytosanitary conditions, influenced by the different microclimatic and edaphic characteristics of the station. Planned actions: cultivation measures (thinning) on the less developed units of conifers showing established native species and clearcutting on entire units of more mature conifers, to free the renewal of the hardwoods.

### Type 3 - Reforestation with crashes

The reforested area has populations with different degrees of development and a coverage conditioned in growth by the absence of cultivation interventions. Conifers presents an excessive density, with erected stems, dry standing plants, presence of crashes and abundant dead biomass on the ground. The entry of broad-leaved trees is present, the renaturalization phenomenon is more accentuated at the margin areas and in the openings caused by crashes and slashing of the stems. Planned actions:

Option 1 - Thinning. It should be considered as preparatory action for the interventions of real renaturalization. This type will concern the densest populations, still "young" able to react to a more selective intervention, with intensity and frequency varying from case to case. With the progressive reduction of the density, greater mechanical stability and phytosanitary action will be ensured, improving the water status of the soil, promoting structural diversity and creating favourable conditions for the settlement of native broadleaf trees.

Option 2 - "Dismantling" cuts. They must be carried out in adult reforestation where it is present a widespread renewal of indigenous hardwoods undercover, and/or where there are signs of serious phytosanitary conditions. We will proceed with the elimination of the old conifer stand, in several solutions, with thinning and clearcutting on small surfaces (strips, holes, etc.). The procedures will vary according to the geomorphological and cultural conditions, ensuring the development of the pre-existing renewal of the broadleaved trees.

During the last three years some plots planted in the past with conifers have been treated. The trees, basically pines and cypress have been cut and the plot has been re-planted with thicket species. Other techniques are used and tested, in order to ascertain which methodologies are most suitable, depending on the type of soil, the conifer species planted and removed, etc.

3. enhance the repopulation of the park with new releases of the Italian hare Lepus corsicanus. The numbers of animals so far introduced do not ensure the long-term viability of the population due to inbreeding depression caused by the founder effect;

The Park has started a program for the reintroduction of the Lepus corsicanus in various areas of the Park still suitable for the species. The goal is to maintain a population in the park territory with a number of mature individuals that can guarantee the growth of the population and to promote its expansion and connection between the natural subpopulations present in the Lucanian territory, by guaranteeing sufficient genetic exchange avoiding inbreeding.

In 2023-2024, wildlife monitoring activities have been increased to obtain updated data on the status of the population. Camera traps and linear transects allowed us to detect signs of presence and information on population expansion, therefore the habitat conservation policy implemented by the Park has been successful. In 2024, another wildlife monitoring, financed by funds of Next Generation EU, was started with the use of thermal cameras to increase the probability of contacting hares and improve the results. The data obtained demonstrate an expansion of the Italian hare population compared to the latest monitoring data. This is a fact that avoids the danger of genetic depression.

Attention was also paid to health threats, in fact through contact with zootechnical realities (European hare farms within the park territory), the collection of information on the discovery of carcasses and the monitoring of the conditions of the hares raised in our farm, it is It was possible to detect the spread of the EBHS virus (European brown hare syndrome) which is also an important threat to the Lepus corsicanus. The high mortality caused by the virus and the decrease in the population can consequently increase inbreeding. careful health management made it possible to intervene immediately and save the breeders from EBHS virus. The vaccination of animals then reintroduced in nature will make it possible to increase the population's resistance to the disease, to maintain a stable nucleus of immunized animals and therefore to counteract further decline The activity of reproduction in captivity of the Lepus Corsicanus continued also in 2024. After vaccination, the pairs were reconstituted by exchanging the males, and new breeding pairs were created with the births of 2023.

4. monitor closely the effects of the introduction of the roe deer Capreolus capreolus italicus in the park, particularly in the forest. The low density of its only possible predators with the exception of man, the wolf, might lead to an explosion in numbers, which should be avoided;

In 2024, the monitoring activity, financed by funds of Next Generation EU, was extended to understand the status of the roe deer and the wolf. In addition to the use of camera traps, the park is experimenting the use of thermal imaging cameras to achieve greater success in data collection. The Italicus Roe Deer has been widely verified in all suitable areas of the protected territory of our Park. It is still absent in the territories of the municipalities of Pietrapertosa and Castelmezzano. The population is organized into small nuclei, the animals are in a good state of nutrition. This confirms the presence of a stable population in the Park area in good health. Furthermore, the expansion outside the Park was confirmed. The presence in the Park of small groups, as already found last year, the dispersion and colonization of the neighbouring territories confirms a condition of stability of the population in the Park area and of good management of the ecological corridors

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confirming that the habitat conservation policy implemented by the Park was successful. Furthermore, no reports of damage to crops have been received nor have any alterations to the habitats attributable to roe deer have been found.

The monitoring found the presence of packs of wolves in the park territory, confirming their reproduction also in the 2024. Three packs of wolves have been recorded in the park, two of which have reproduced. The analysis of the excrement revealed in some cases the presence of roe deer hair and claws. The presence of the predator therefore has a fundamental role in regulating the growth of the roe deer population. The data confirm the expansion of the range occupied by the roe deer, and in the same way confirm that the densities are still low. To better verify these data, monitoring was started in winter 2024 with the distance sampling technique using thermal cameras, to obtain much more accurate population estimate data.

5. consider carrying out studies on the effects of climate change on the flora and fauna of the park. What has been stated in previous annual reports is confirmed here. As part of the aforementioned project "Interventions for the maintenance of the floristic biodiversity of Basilicata" in collaboration with the University of Basilicata, financed by the Basilicata Region, the Park is carrying out the study project "Assessment of the vulnerability of plant ecosystems to climate changes in the territory of the Gallipoli Cognato Regional Park". The Study on climate change with the University of Basilicata (Professor Ripullone) aims to assess the vulnerability of forest vegetation in the Gallipoli Cognato Regional Park, and its recovery capacity (in terms of resilience) after the occurrence of extreme climate events through multiscale and multitemporal investigations. In particular, the activity will combine remotely sensed and dendrochronological data, in order to describe the mechanisms that cause an increased vulnerability of these forest species. This project will contribute to integrate the current knowledge on the causes of forest decline, clarifying the possible role of climate change as a predisposing factor. This activity will allow the Park to provide useful information on the link between spectral data and dendrochronological characteristics and to obtain vulnerability maps for the investigated areas. Finally, the analysis of vegetation index patterns will allow to verify the existence of a correlation between resilience to extreme climate events and post-disturbance recovery.

In 2023, the monitoring of the roe deer population also has among its objectives that of obtaining data on the effect of the climate on the distribution of roe deer. The alteration of forests and prairies due above all to the recent hot and dry summers, as well as sudden and heavy snowfalls, can represent a factor limiting the trophic availability for these animals, forcing the animals to move. Furthermore, the increase in temperatures can play an important role in the spread of diseases such as the scab. From the data collected this year, we can affirm that our roe deer population is in good health and has managed to adapt to the food resources of the area.

In 2024, the favourable weather conditions during the nesting period of the species of Black Stork and Black Kite, to which we are paying attention to, contributed to the reproductive success compared to what occurred in the 2023 station. The continuation of hot temperatures even in the autumn months has led to a delay in departures for migration. The high temperatures recorded in the summer months and the low rainfall during the year have led to the complete drying up of many pools and fountains populated by amphibians of interest and breeding sites. Most of these populations use human artefacts used in agriculture and livestock breeding, fountains, wells and collection tanks for reproduction. Consequently, these populations are particularly exposed to the risks deriving from the emptying of these water collections, especially when they occur during the reproductive period.

3. Site Management: List here any changes to the European Diploma holding site management, in relation to both terrestrial and aquatic environments (as appropriate), and in relation to staff and finances, since the last annual report was submitted to the Council of Europe. Please also indicate any unresolved difficulties that you have encountered.

In December 2022, the President of the Regione Basilicata has appointed the new Board of the Park (Consiglio Direttivo), now in regular charge of the management of the Park.

In April 2024 the board has appointed Dr. Marco Delorenzo who in the past held the role of Director, with the role of present Director of the Park.

4. **Boundaries:** Give details of any changes to the boundaries of the European Diploma holding site since the last annual report was submitted to the Council of Europe. If there are any changes, please attach an appropriate map to this report. Please also indicate any unresolved difficulties that you have encountered.

No changes on boundaries occurred since the last information about the Park has been submitted.

**5. Other information:** List here any other information about the European Diploma holding site which you consider should be provided to the Council of Europe.

With a budget of €199,986.60, in 2024 we presented the project Mo.Le.C.O.L.E. - Monitoring Lepus and Capreolus: Observation on Long-distance of the Park Environment. The project, financed with Next Generation EU funds, aims to investigate the probable causes that have led to the current situation of the Italian hare and Italian roe deer populations and to provide future monitoring and management lines aimed at the possible recovery in demographic terms of the populations. This will allow us to develop the appropriate tools for the correct management of agro-forestry habitats that take into account the ecological, economic and sociocultural elements of the territory and to enhance the ecosystem functions defined as those goods and services that satisfy, directly or diffuse, the human needs and guarantee the life of all species.

Therefore, through the study, evaluation and conservation actions of the project's target species, the conditions will be created to create new environmental governance paths aimed at protecting agroforestry ecosystems and supporting ecosystem services.

A copy of the project is attached to this report.

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The following sections of the form should only be filled in if your area is in the year before a renewal of its European Diploma for Protected Areas, i.e. <u>year 4</u> after the award of the European Diploma or <u>year 9</u> after its renewal.

# 6. Natural heritage (general abiotic description: geomorphology, geology and hydrogeology, habitats, flora, fauna, landscape) – State of conservation

- 6.1. Environment: changes or deterioration in the environment, of natural or anthropic origin, accidental or permanent, actual or anticipated
- 6.2. Flora and vegetation: changes in the plant population and in the vegetational cover; presumed causes
- 6.3. Fauna: changes in the sedentary or migratory populations; congregating, egg-laying and breeding grounds

# 7. Cultural heritage and socio-economic context

- 7.1. Cultural heritage
- 7.1.1. Changes concerning cultural heritage
- 7.2. Socio-economic context
- 7.2.1. Changes concerning the socio-economic context

#### 8. Education and scientific interest

- 8.1. Visitors Information policy
- 8.1.1. Arrangements for receiving and informing the public (building, booklets, maps, cards, etc.)
- 8.1.2. Frequentation by visitors and behavior (number, distribution in time and space)
- 8.1.3. Special visits (distinguished persons, groups, etc.)
- 8.2. Scientific research
- 8.2.1. Current or completed research (observation, experimentation, etc.; identification or inventory of the species listed in the appendices to the Bern Convention, etc.)
- 8.2.2. Scientific publications

## 9. Site description (vulnerability, protection status, ownership, documentation)

- 9.1. Changes in legislation or regulations
- 9.2. Changes in ownership title (conversion to public property, rentals, etc.)
- 9.3. Extension or transfer, new uses (for example, conversion into total reserve)

## 10. Site management (management plans, budget and personnel)

- 10.1. Improvements made
- 10.1.1. Ecological action affecting the flora and biotopes; controls of fauna
- 10.1.2. Protection against the elements (fire, water regime)
- 10.1.3. Approaches and thoroughfares (paths, roads, car parks, signposting, fencing, etc.)
- 10.1.4. Field equipment (hides and study facilities)
- 10.1.5. Waste management
- 10.1.6. Use of renewable energy systems
- 10.2. Management
- 10.2.1. Administrative department: changes made
- 10.2.2. Wardens' department: changes made
- 10.2.3. Internal policing measures
- 10.2.4. Infringement of regulations and damage; legal action

# 11. Influence of the award of the Euroean Diploma for Protected Areas

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