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EUROPEAN COMMITTEE FOR THE CONSERVATION OF NATURE AND NATURAL RESOURCES

Scandola Nature Reserve (France)

On-the-spot appraisal

bу

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1. Introduction and terms of reference

At its last meeting in May 1983, the Committee of Experts - Protected Areas examined the application for the award of the European Diploma to the Scandola Nature Reserve, which forms part of the Corsican Regional Nature Park - PNRC (see SN-ZP (83) 27 of 24 March 1983) (1).

I was subsequently asked by the Secretariat to carry out an appraisal in the company of Mr P Baum, Environment and Natural Resources Division.

The on-the-spot appraisal was carried out on 9 and 10 June 1983 with Mr Jean-Claude Thibault, Scientific Adviser to the Director of the PNRC, Mr Pierre Mariano and Mr Francois Achilli, PNRC District Superintendent.

Discussions were also held with scientists engaged in intensive research work during the same period.

The on-the-spot appraisal, although of short duration, the related discussions and the study of documents confirmed the cogency of the arguments put forward in the application report, which presented the Scandola Reserve as a protected area of European significance. Nevertheless, some proposals for improvements to the protection offered would not be inappropriate.

The following account will therefore be deliberately confined to a recapitulation of the important observations contained in this report (quoted verbatim in some cases) and to the recording of some additional facts established on-the-spot or on the basis of documents, the aim being to find an appropriate answer to the question of the award of the Diploma.

2. General description of the protected area

A brief description of the Corsican landscape as a whole is called for.

The island of Corsica rises out of the Mediterranean with, generally speaking, steep cliffs, reaches considerable altitudes (up to 2,800 m above sea level) in short distances and drops just as steeply into the sea again (to depths of 3,000 to 4,000 m). A system of rivers flowing into the sea through relatively narrow estuaries gives a structure to this very mountainous landscape. Thus, deeply fissured, rocky coasts contrast with hilly or flat shores whose extent is relatively limited.

The reserve, the most westerly part of a peninsula, is in itself an illustration of the diversity of the Corsican landscape. It lies to the north-west of the island, in the Department of Corse du Sud, on the seaboard of the PNRC.

It covers a total area of 1,920 ha, divided into two separate parts:

- a protected land area of 920 ha (highest point: 560 m above sea level),
- a protected sea area of 1,000 ha (maximum depth about 1,500 m).

⁽¹⁾ Document SN-ZP (83) 27 of 24 March 1983 is referred to in the appraisal as the "application report".

"The <u>climate</u> is of Mediterranean type, with two dry seasons, one of little note in January, and the other much longer and more pronounced in the summer.

The marine influence is predominant; average precipitation is around 750 mm of water per annum, and the average annual temperature is close to $15\,^{\circ}\text{C}$.

Winds are mostly westerly and often gale force."(1)

Hydrology: "The valleys, small but numerous and deeply etched, channel all the water from permanent springs during the summer drought. A number of shallow basins fed by these channels were even hollowed out in former times to serve as watering places in the Elbo and Canalette ravines."

3. Designation as protected area

"In October 1975 the Minister of the Environment officially established the Scandola nature reserve, on a proposal by the National Council for the Protection of Nature: it was France's first dual terrestrial/marine reserve."(1)

4. Importance of the protected area from the point of view of nature conservation

4.1 Geology and orography

The Scandola Reserve forms part of an Upper Permian volcanoplutonic complex. It is typical of much of Corsica.

The on-the-spot appraisal brought home its extraordinary geological and orographical diversity. The steep cliffs whose structures are as strange as they are varied, the very narrow gorges in which no stream is visible at this time of year, the "taffoni" (caves) whose origin is still not fully understood, and the colour of the rock, varying between ochre, grey and green, and contrasting with the deep blue of the sea, all make a striking impression (see 5.3 Tourism).

A further characteristic is the lack of actual beaches, apart from the Bay of Elbo, which was visited (even this beach is very small, but, for that very reason, particularly attractive and threatened by the tourist industry).

4.2 Fauna and flora

As this subject, of vital importance for the award of the Diploma, is dealt with very extensively both in the application report and in the many reports of studies carried out in the Scandola Reserve, I think it unnecessary to add any further remarks after the on-the-spot appraisal and the related discussions. In this passage, therefore, the reader is referred to the application report.

The reserve's fauna and flora are proof of its excellent conservation, management and scientific exploration. Every opportunity is taken to take advantage of its natural and cultural diversity and a constant effort is made to put the results achieved to some practical use in the interests of either Corsica itself or of the Mediterranean Basin as a whole.

We shall merely recapitulate some important points about fauna and flora:

- The characteristic feature of the land area is a thick maquis that can rise to a height of 5 metres, the remains of former holm-oak woodland which has been decimated by man over the centuries. It is specific to Corsica as a whole and virtually unparalleled throughout the entire Mediterranean Basin. Typical species include Cistus ("mucchio" in the Corsican language), which is the origin of the name given to this kind of vegetation, "macchie". Smaller and sparser kinds of vegetation (garrigue) are found in drier and less fertile places.
- Common species living in the maquis include the fox, the wild boar, the weasel and Europe's largest bat, the rare Tadarida teniotis (which, unfortunately, we were unable to observe in the place described as its characteristic habitat, ie the caves on an island of the reserve). Not including the seabirds of the coasts, over 50 different sedentary and migratory bird species are found in the maquis.
- Outstanding seabird species nesting on the cliffs of the reserve include shags, ospreys, pallid swifts and herring gulls.

"Two of the most threatened species of birds of prey - the osprey and the peregrine falcon - nest in the reserve, while other predators frequent it but do not nest there: the golden eagle (Aquila chrysaetos), Cory's shearwater (Calonectrius diomedea) and the Manx shearwater (Puffinus puffinus)."(1)

- The reptiles and amphibians specific to Corsica deserve special attention.
- During the visit, we were particularly struck by the erosion platforms made up of calcarious algae (Litthophyllum tortuosum), in places over 1 metre wide and 1 metre thick.
- It should be noted in particular that the protected sea area guarantees a largely intact fauna and flora, which cannot be said of many other Mediterranean coasts whose biosphere has already been extensively damaged by tourism and industry. The area's characteristic plant species is posidonia (Posidonia oceanica), one of the Mediterranean's principal resources. Its dense beds are the equivalent of forests on land. As research proceeds, there is increasing evidence that the existence of posidonia is an essential factor in the conservation both of coastal zones and of the fauna and flora within those zones (for details see: Ch-F Boudouresque and A Meinesz: Découverte de l'herbier de posidonie, Parc National de Port-Cros, cahier 4/1982).

5. Threats to the reserve

5.1 Settlement

For the time being, there is no pressure of this kind on the reserve. On the contrary, dwellings, which are few and far between but very typical of the area, lie abandoned, eg around Elbo.

Near Elbo, for the sake of effective conservation, the reserve authorities should do their utmost to prevent the maquis from encroaching on the fields, pasture land and vineyards and repair the walls surrounding the vineyards and pasture land for ecological reasons. A resumption of agricultural activities should be avoided. At the very most, one of the buildings might possibly be restored on a small scale in keeping with the landscape for research purposes, but only if the restored tower of Elbo, used for similar purposes, proved insufficient.

5.2 Hunting and fishing

Hunting is prohibited in the reserve. Poaching is not impossible, but seems to be of no great magnitude owing to the close supervision of the reserve and its remoteness from human settlements.

With few exceptions, fishing (including underwater fishing) is reserved for professional fishermen. This regulation alone made it possible to set up a marine reserve and ban all fishing in the area between Punta Palazzu and Isola de Gargalu.

5.3 Tourism

There is currently no threat to the land area from tourism as it is covered and effectively protected by an often very dense maquis, by its remoteness from human settlements and by its steep cliffs. Furthermore, its high groud forms a natural rampart, preventing access to the reserve from the landward side.

On the other hand, there is a risk that the strange, colourful shapes of the cliffs and the very few bays might attract yachting in varying degrees. For the time being, however, neither the on-the-spot appraisal nor the documents consulted showed that there was sufficient pressure from this to justify talk at this stage of danger to the reserve.

Nevertheless, unfortunate experiences elsewhere in the field of nature conservation show that it is essential to forestall any threat of this kind by taking action now and make one wonder whether the mooring of pleasure boats (even of so-called tour boats) should not in fact be prohibited. The growth of this kind of tourism should be monitored and kept within narrow limits before an irreversibly "me-too" process is set in motion (both large and small boats could be moored for 24 hours at a time in suitable places, eg the shores of the Bay of Elbo). Experience in Alpine regions shows that, as a rule, a landscape of outstanding beauty and still free from all human interference is all the more in danger of being spoilt by tourism. Is the Scandola Reserve not exposed to the same danger? Prevention is better than cure.

6. Legal status, management and financing

The reserve is subject to <u>strict protective measures</u>, in both its land and sea areas, although professional fishermen are not denied access altogether (see page 4 of the application report).

As far as one can tell, these measures are complied with in practice.

This is due mainly to sound <u>management</u>: the Director of the PNRC is at the same time Director of the reserve. He is assisted in his work by an advisory management committee and a scientific committee. Three superintendents who live near the reserve are responsible for day-to-day supervision and gather useful information as they go about their work. They also help researchers by taking part in counts, observations and all organisational measures, and are assisted in their work by the gendarmerie and customs.

Financing is provided by the nature conservation authorities. Income does not fully cover expenditure (especially in the research field). The difference is paid out of the PNRC budget.

7. Information

At present, the reserve lacks a proper information centre. There are, however, many brochures and other documents on the nature park and the reserve. They are available from bookshops (even in other countries) and tobacconists. Brochures are also handed out by the superintendents on their daily patrols. The courses and seminars given in Corsica by PNRC specialists on nature conservation, agricultural matters and cultural issues deserve a special mention.

8. Research

The quality and intensity of the research carried out in the reserve deserve European recognition extending beyond the frontiers of Corsica and the Mediterranean Basin.

It is quite obvious that the scientific committee is endeavouring to take full advantage, in as short a time as possible, of the excellent and varied conditions offered by the reserve to make the results achieved available to other similar areas and put them to practical use instead of just concentrating on fundamental research. The list of scientific studies carried out since 1975, which is published in the application report on p. 13 et seqq., given as idea of the work done.

During the visit, the young researchers' untiring, around-the-clock work made a strong impression on us. As far as the sea area is concerned, they are well-equipped: they have a fast motor boat with a radio-telephone and a zodiac with a full set of diving gear. Two towers of Genoese origin (near Elbo and Gargalu) have been, or are to be, restored by the historic monuments authorities to enable researchers to spend the night in the reserve if necessary.

On the other hand, the living and working conditions of the researchers and officials in the "Maison de la Mer" at Galeria are inadequate and almost a contradiction of what has just been said. Something will have to be done about this. The building which we were shown in the centre of the village of Galeria, hitherto used by the gendarmerie, seems a good solution to the problem and should be fitted out accordingly.

At the same time, this would make it possible to set up an information centre serving the reserve and enabling the researchers and superintendents to put their vast experience to practical use.

9. Conclusion, requirement and recommendations

9.1 On the basis of the on-the-spot appraisal, the study of documents and the above report, I give my full approval to the conclusions contained in the section "European interest justifying the application" of the application report, pages 11 and 12. I see no reason for not awarding the Diploma. On the contrary, its award would serve to emphasise the high value of the protected area from the European point of view.

9.2 Requirement

The European Diploma, Category A, should be awarded with immediate effect to the Scandola Nature Reserve subject to the following:

9.3 Recommendations:

- 9.3.1 Consideration should be given to the advisability of henceforth prohibiting the mooring of pleasure boats in the few places suitable for this, and especially the shores of the Bay of Elbo. Such a measure would prevent damage to the protected sea and land area.
- 9.3.2 At the same time, supervision should be intensified to prevent poaching, underwater hunting and unauthorised fishing.
- 9.3.3 For reasons of nature conservation in the pasture land and vineyards near the abandoned village of Marina d'Elbo, the reserve authorities should take steps to prevent the maquis from encroaching on them and repair the walls around them. If the tower at Elbo proved insufficient, one building could be restored on a small scale for research purposes. In view of the Reserve's present character, however, there should be no question of rural resettlement.
- 9.3.4 By the time the Diploma comes up for renewal, a well-equipped new centre should be set up in the reserve to facilitate administrative work in the information and research fields and provide accommodation. The former gendarmerie building would be particularly suited to this.

9.3.5 The research programme periodically drawn up by the scientists, and the results achieved, should be submitted regularly to the Council of Europe Secretariat for promotional and information purposes. In addition to fundamental research, the scientific programme should include studies serving the immediate interests of the reserve and of the PNRC as a whole, as well as those of on-the-spot information.

10. Conclusions

I feel I must thank all the reserve and PNRC officials for their valuable information and their kind welcome. I am extremely grateful to them. I take this opportunity to express my gratitude in particular to Mr Francois Giacobbi, former Minister, Senator of Haute-Corse, President of the General Council of Haute-Corse and President of the PNRC, for his warm welcome and the rewarding discussions which brought out clearly the great importance which he himself and the island of Corsica as a whole attach to the PNRC and to the Scandola Reserve.

NB I have just seen in the press (Neue Züricher Zeitung, No. 290, 12 December 1983) that the Scandola Nature Reserve was included in UNESCO's world heritage list in December 1983.