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EUROPEAN COMMITTEE FOR THE CONSERVATION
OF NATURE AND NATURAL RESOURCES

Committee of Experts - Protected Areas

Montecristo Island Nature Reserve
(Italy)

Application for the European Diploma

Ministero dell'Agricoltura
e delle Foreste
Gestione ex Azienda di Stato
per le Foreste Demanial
via Carducci
I 00187 ROMA

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09.3

APPLICATION FOR THE EUROPEAN DIPLOMA
BY THE ISLAND OF MONTECRISTO

Name: Montecristo Island Nature Reserve

Name and address of body responsible for administration: Direzione Generale per l'Economia Montana e le Foreste, Ministero dell'Agricoltura e delle Foreste, Roma

Country: Italy

1. Type of natural area, site or feature: nature reserve

2. Characteristics and scientific, aesthetic, cultural or recreative value justifying conservation:

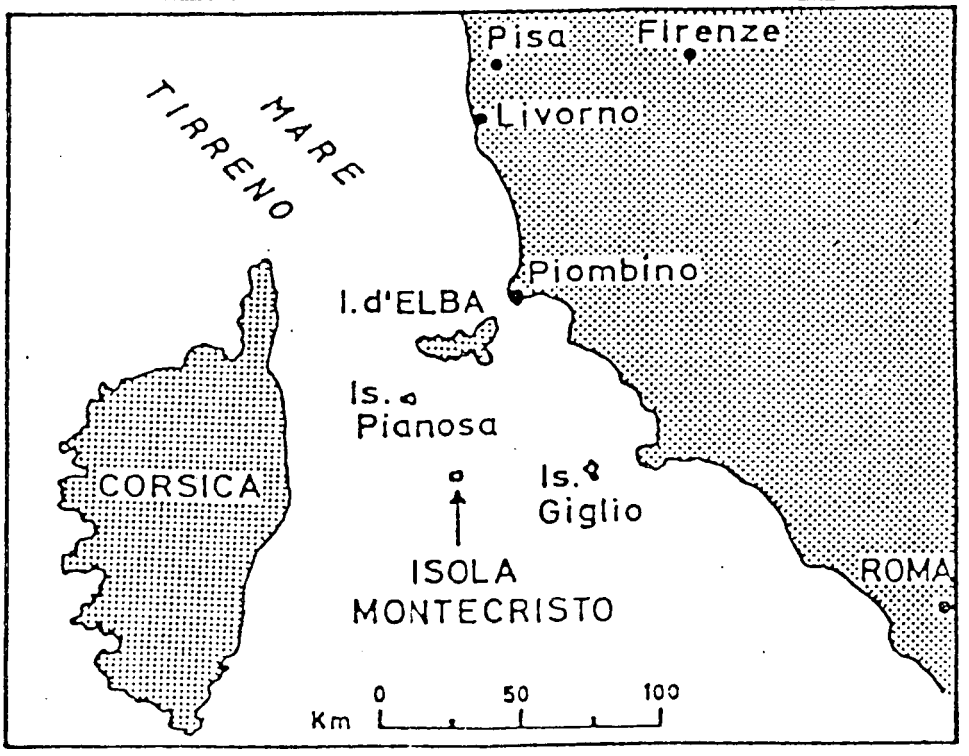
Montecristo is a Mediterranean island inhabited only by wardens and protected by a ban on all human activities. It is of exceptional aesthetic and scientific value as the habitat of 25 endemic animal species. The fauna number 477 species and the flora 837 species. The sea around the island is protected as a marine biological reserve, a zone 600 m wide in which all tourist and fishing activities are prohibited.

3. European interest justifying the application:

Montecristo is a Mediterranean island shielded from all forms of human use.

4. Description of geographical position and/or sketch or outline on a map (scale: 1:50,000 or approximately):

The island lies in the Tyrrhenian Sea 40 km south of the island of Elba.



5. Photographs illustrating typical aspects of the natural area, site or feature:

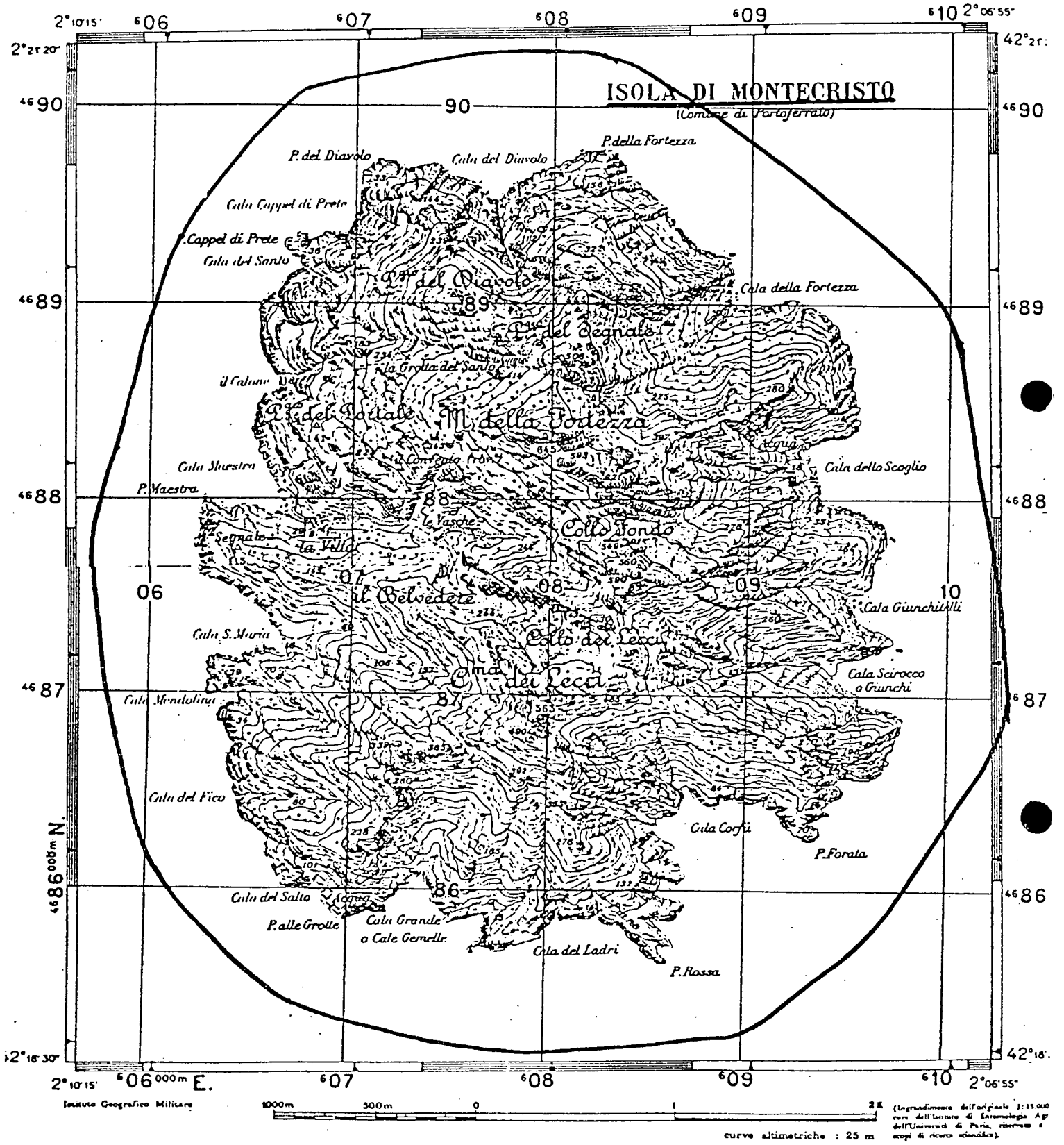
The Secretariat has received a copy of a publication by Mr Pavan containing photographs and a description of the island's typical aesthetic and scientific features (M Pavan, 1979, Montecristo Riserva naturale - IVe edizione completata).

6. Conservation measures taken so far or contemplated (attach the relevant legislative or statutory texts etc):

The statutory texts providing for the conservation of the island are available from the Secretariat (Decreto Ministeriale 4 marzo 1971, Gazzetta Ufficiale 137, pag. 329; Decreto Ministeriale 5 aprile 1979, Gazzetta Ufficiale 112, 23 aprile 1979, pag. 3547; Decreto Ministero della Marina Mercantile, 2 aprile 1981, Gazzetta Ufficiale 108, 18 aprile 1981, pag. 2615).

7. References to published descriptions:

List of works (102 references to published material on the island are included in Mr Pavan's publication, which is available from the Secretariat).



L'Ile de Montecristo et sa ~~couronne~~ ceinture de réserve biologique marine.

DESCRIPTION OF THE ISLAND OF MONTECRISTO

The island of Montecristo lies in the Tyrrhenian Sea 45 km south of the island of Elba and 75 km west of Orbetello, in the municipality of Portoferraio, province of Livorno. It is roughly rectangular in shape, with an area of 1,031 ha and at least 16 km of coastline. It consists of a granitic mountain with steep slopes and jagged rocky peaks which rise to an altitude of 645 m at Mount Fortezza.

The shores are steep and feature fifteen or so sizeable creeks and a few smaller ones. The only harbour is at Cala Maestra.

There are small springs in various parts of the island. The largest of these, in the Valley of Cala Maestra, is used by the wardens who inhabit the island. It supplies water for the former royal hunting pavilion and for the flower and vegetable gardens surrounding the staff's houses.

There are extensive outcrops of granite between scattered patches of Mediterranean scrub, in which heather and rosemary predominate, with a few old holm oaks at the highest point.

The vegetation in the Cala Maestra area is largely non-native.

For centuries the area was mainly inhabited by monks, and was the scene of battles and looting. During the last century it belonged to foreigners, then became the property of the Italian royal family.

It contains the ruins of an interesting old monastery with a church, standing 345 m above sea level, and the remains of other buildings on the slopes of Mount Fortezza, west of the summit (Grotta del Santo and the ruins of a building with a bread oven abutting against the outside wall and a stone drain leading to a nearby cistern). A clear, detailed account recently published by Brambati (1977) describes the state of the ruins and discusses the need for conservation and restoration schemes.

Until 1971 a company which had its headquarters on the island ran a hunting preserve there, causing damage to native vegetation and fauna.

The island is now inhabited only by the wardens, who come under the authority of the Ministry of Agriculture and Forestry and apply stringent nature conservation regulations.

1. FAUNA ON MONTECRISTO

An island is by nature an area in a state of precarious equilibrium, especially if its limited size and resources prevent it from sustaining an artificially high number of animals, since these are unable to move away to more suitable areas. That is why setting up a hunting preserve on the island could not, as is usually the case, be a means of encouraging game to spread into the surrounding areas.

Toschi (1953) and Guerra (1953) report spotting - respectively from 24 to 30 May and 19 to 28 July 1953 - the bodies of numerous dead birds, probably migrating birds which had arrived exhausted in the island after crossing the sea. This is an established natural phenomenon, an in exorable law of nature, a factor of that natural equilibrium which, by dint of such inevitable adjustments, has enabled a complex, highly co-ordinated natural system to survive to the present day. It is a natural process which must be respected.

This clear, standard natural example of the manner in which biological equilibrium is regulated can be observed every year. Since 1971 it has been consistently recorded. On 25 May 1971, for instance, very many birds of different species which had landed on the island in the course of their migration from Africa to Europe died. Their dead bodies were everywhere - along paths, at the foot of buildings, on the beach. During a half-hour walk along a mule track in the Cala Maestra area, wardens pciked up twelve birds which had just died and had empty stomachs; others were dying and very thin. These mass natural deaths on the island of Montecristo and other Mediterranean islands stem from the difficulty of migration across the sea and the scarcity of food on the island; at migration time such deaths even take place on passing ships. Care must therefore be taken to avoid any artificial increase in the island's fauna, because it creates competition and further difficulties with which neither migrating nor indigenous fauna can cope. The island can bear only a limited biological burden and disregarding the fact leads to serious damage - particularly as the wild goats which inhabit the island reduce the amount and variety of available plants and thus do much to reduce the chances of survival of other species which depend either directly (herbivores) or indirectly (insectivores) on the vegetation.

So far 106 bird species have been counted on the island (Toschi 1953, Moltoni 1954, Guerra 1960), some sedentary and others migrating. The density of native birds is very high and the introduction of non-native species, which increased the number of birds at the expense of indigenous and migrating species, resulted in biological imbalance. Since the island became a nature reserve, these onslaughts on its natural equilibrium have ceased.

A large colony of herring gulls (Larus argentatus cachinnans Pallas) is established on the island and nests there regularly, especially in the two large valleys which open onto Cale Gemelle on the south coast. In 1953 Guerra estimated that there were at least 500 nesting birds. Since 1971 repeated counts have set the colony at a probable 500 to 1,000 birds - a rare and picturesque sight in a natural setting.

Mammals on Montecristo have mainly been studied by Toschi (1953).

The bat Pipistrellus pipistrellus (Schreber) is widespread, as are the fieldmouse (Apodemus) and the wild rabbit (Oryctolagus cuniculus huxleyi Hoeckel).

Unfortunately, there is at present a substantial increase in the number of black rats (Rattus rattus frugivorus Raf.), partly caused by the previous widespread scattering of mash and grain to feed the birds imported and bred for shooting. Rats took advantage of this easily accessible food and were seen in large numbers in the evenings and at night at Cala Maestra. They damage or even destroy birds' eggs. However, large numbers of rats have been present for a long time, as several authors have recorded. They have even been observed to move between the island and the boats anchored in Cala Maestra, using the mooring cables to run from dry land onto the boats or vice versa.

One of the island's most typical features used to be the wild goat (Capra aegagrus Erxleben), which was widespread in all mountain regions around the Mediterranean and on many islands. Mori (1904) said that these goats were introduced on Montecristo by the monks who lived on the island centuries ago.

The species was subjected to continuous pressure from hunting and poaching, and gradually reduced to only a few survivors. As a result, it was decided over the past few decades to introduce goats of another origin (from Montenegro and the Caucasus), so that the goats now living on the island are in fact hybrids from which it will be possible, by dint of careful selection, to retrieve the original species, as has already been done elsewhere with various other species in similar conditions.

Detailed research has been done on the Montecristo goats over the past few years by Cagnolaro, Perco, Spagnesi and others, whose findings are to be published soon. According to these authors (1982), the rather more widespread brown phenotype identified among both males and females is probably that which originally lived on Montecristo (assuming that the type of goat was uniform) or at least the type into which the species evolves naturally.

There are now very large numbers of goats on Montecristo - in the absence of predators, probably too many for the island's food resources.

According to historical descriptions and observations recorded during the wars of this century, holm oaks used to be much more abundant, but many were felled for timber. Only those in the remoter parts of the island have been preserved, but most of them are very old and many defoliated by sweeping infestations of the larvae of the Lepidopteron Lymantria dispar L. In addition, they are prevented from regenerating by goats eating the acorns and young saplings. These problems will need to be carefully assessed under the new overall management plan for the island.

The boar, which was imported into the island during the last century, has disappeared.

Specialist publications also indicate that the hedgehog (Erinaceus europaeus Lin.) was imported to control vipers, but no recent information is available on the species.

Along the coast a few monk seals (Monachus monachus Herm.) are sighted from time to time. This is a very rare species, which is thought to number no more than 500 specimens in the entire Mediterranean basin; it is therefore threatened with extinction. Italian legislation protects the monk seal, but fishermen consider it harmful because, if caught in their nets, it can tear them. They accordingly destroy it throughout the Mediterranean. That is one reason why a marine reserve from which all forms of fishing, hunting, boating and anchorage are banned has recently been established around the island.

A major work by Bruno (1968) deals with reptiles and amphibians on Montecristo. The island's reptiles include the lizard Podarcis sicula calabresiae (Taddei), the Turkish gecko (Hemidactylus turcicus turcicus L), the tarantula (Phyllodactylus europaeus Gené), the viper typical of the island (Vipera aspis montecristo Mertens), the likewise typical sub-species of the western whip snake (Coluber viridiflavus Lac ssp kratzeri Kramer) and the tortoise (Testtudo hermanni robertmertensi Wer.).

The amphibian Discoglossus sardus Tschudi occurs in the waters of the springs.

In the past, a number of authors of several works also investigated the entomological fauna, but it is mainly since 1971, when the nature reserve came under its new management, that research has been stepped up and has yielded significant results. The groups of specialists taking part in it were chiefly directed by the Soology Department of the University of Sienna and the Entomology Department of the University of Pavia. Numerous specialists helped to classify the material collected and compile dozens of publications.

This phase of intensive study and research has added greatly to our knowledge of the entomological and other fauna.

The fauna on Montecristo currently consists of 477 species and sub-species: 1 Turbellarion, 23 Crustacea, 29 Arachnida, 1 Kiplopodon, 5 Chylopoda, 278 Insects, 19 Gastropoda, 1 Amphibian, 8 Reptiles, 105 Birds and 6 Mammals. Fanfani and Groppali (1979) have summarised the data collected on the subject. Important analytical works are thus available on the fauna.

Research to date shows that the island has provided science with many new and endemic species and sub-species, as indicated by the following list:

TURBELLARIA, Tricladida
Microplana giustii Minelli

CRUSTACEA, Copepoda
Elaphoidella oglasae Cattarelli, *Speocyclops sp.*, *Parastenocaris sp.*

ARACNIDA, Scorpiones
Euscorpius carpathicus oglasae Di Cap.

Araneae
Nemesia pavani Dresco

Acari
Oribatella crassipilosa Bernini, *Oribatella tyrrhenica* Bernini, *Cavernella helanae* Bernini, *Ophidiotrichus oglasae* Bernini

INSECTA, Collembola
Friesea albida montechristii Dallai, *Onychiurus pseudoghidinii* Dallai, *Onychiurus difficilis* Dallai, *Pseudosinella insularum* Dallai

Blattodea
Ectobius tyrrhenicus Failla

Neuroptera
Anisochrysa venusta Hölzel

Coleoptera
Leptotyphtus oglasensis Poggi, *Paramaurops osellai* Pace, *Colpotus strigosus oglasensis* Gardini, *Asida gestroi gestroi* Leoni

GASTROPODA, Stylommatophora
Oxychilus oglasicola Giusti, *Helicodiscus riparbelli* Giusti

REPTILIA, Squamata
Podarcis sicula calabresiae (Taddei), *Coluber viridiflavus bratzeri* Kramer, *Vipera aspis montecristi* Mertens

Despite the large number of species found so far, the entomological fauna and Arthropoda in general can be described as poor interms of both species and number of specimens. The ecological reasons for this state of affairs are not yet quite clear, but one of them is certainly the monotony of the vegetation, which consists primarily of heather (Erica scoparia L., E. arborea L.) (1), rosemary (Rosmarinus officinalis L.) and cistus (Cistus monspeliensis L.). This is the direct consequence of the selection operated by goats, which, for instance, steer clear

(1) These heather species are periodically damaged by the cochineal Orthezia sp., prope speudoinsignis (Morr) (Ortheziidae).

of Teucrium marum L. and the invasive, harmful ailanthus with its unpleasant smell. Ailanthus leaves nibbled by goats are a very rare occurrence: goats do nothing to damage the plant or prevent its spread.

The scarcity of soil and plant insects is also undoubtedly due to the lack of rain and the considerable number of insect-eating birds. The numerous but small-sized freshwater ponds, on the other hand, are well stocked with Insects, Crustacea, Isopoda and Amphipoda.

2. FLORA AND VEGETATION ON MONTECRISTO

In 1833 Giuli collected and published 24 plant species on the island. The Englishman Watson-Taylor, who stayed on Montecristo from 1852 to 1860, attempted to develop agriculture there by introducing a variety of plants (an undertaking which ruined him). He collected 335 plant species, which Caruel mentions in a publication dated 1864, adding the species previously collected by Giuli. A total of 343 plant species were thus known to exist on the island. Remarkable works were also produced by Forsyth Mayor (1883), Bégiunot (1901) and Sommier (1902, 1903).

According to Fabbri (1963), the flora on Montecristo numbered 420 species. Successive studies by a variety of botanists mentioned 529 different species of flora, but Paoli and Romagnoli (1976), who published a consolidated work on the subject, noted that while 529 vascular units, both self-sown and exotic, had been observed on the island, many species had not been recorded since Chiarugi's botanising trips in 1957 and many others were exotic (introduced for ornamental purposes into the gardens of the villa at Cala Maestra). They estimated the current self-sown flora (1976) at 304 vascular units.

Sartori (1978-79) later contributed a further 21 species.

Thus, the vascular flora listed in connection with Montecristo currently numbers 572 species and sub-species.

The island's biological flora consists of 257 species and sub-species.

Caretta and Del Frate (1976) extracted 3 species of keratinophilic fungus from the soil, animals' hairs and excrements and birds' feathers: they also recorded collecting 5 species of saprophytic fungus.

Altogether, the flora listed in connection with the island amounts to 837 species and sub-species.

A number of authors agree with Paoli and Romagnoli (1976) that on the basis of the biological spectrum the island can be included among the typically Mediterranean plant communities (which could already be assumed in view of its climatic characteristics).

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The 1/6,493 descriptive and structural map of the vegetation on Montecristo by Filipello, Sartori and Tomaselli gives a clear picture of the plant cover and its structure. It is a valuable historical document on the current situation, which will be essential for future research on the evolution of the typical environmental features of the nature reserve. It also suggests some interesting ideas for interpreting the animal population and its relationships with the vegetation.

Competition between imported and indigenous species can be vary harmful, as exemplified by some plants which have nothing to do with the local vegetation. More than a hundred years ago Caruel (1864) reported a statement by Watson-Taylor to the effect that "Mr Abrial and I have introduced various trees and grasses which have taken root successfully: Salix alba, Populus migra, Alnus glutinosa, Opuntia vulgaris, Agave americana, Arundo donax, Trifolium pratense, Poterium sanguisorba, Cichorium intybus and Nasturtium officinale".

Other imports include several eucalyptus species from Australia (Eucaliptus Lab., E. lehmannii Press ex Sch., E. cornuta Labill.), the ailanthus from Asia (Ailantus altissima (Miller) Swingle (= A. glandulosa Desf.)) and many other exotic species, as well as Mediterranean pines (Pinus pinea L., P. halepensis Mill.).

The ailanthus, which did not exist on the island in previous centuries, must have been introduced quite recently. One of the largest specimens was 30-40 cm in diameter and 35 years old in 1973. The oldest ailanthus we cut down in 1973, in the gardens at Cala Maestra, was 60 years old.

Effective action has been taken to deal with this problem: as a first step (1973) the State Forestry Board destroyed all fruitbearing specimens because the spread of the species throughout the island, even at the highest altitudes, is partly due to the winged seeds being carried by the wind. Plants were also systematically cut down in various areas, but if the operation is to be a lasting success, it must be repeated several times in the proper seasons to destroy the suckers springing from the roots.

A summary count in June 1971 indicated that there were altogether 34 young eucalyptus and 123 old ones, all at Cala Maestra, at altitudes ranging from 25 to 45 m above sea level. There are thought to be about 1,170 Mediterranean pines, most of them adult; young ones (from 10 to 20 years old), which are few and far between, occur chifly on the lower slopes near the sea. At Cala Maestra the pines extend from sea level up to an altitude of about 100 m. No recent natural regeneration has been observed anywhere.

There are only a few very old specimens of the holm oak (Quercus ilex L.), a typical Mediterranean tree, most of them in the Collo dei Lecci area, where, according to Fabbri, 120 oaks have been prevented from regenerating by the goats which eat the acorns and young saplings.

The death of each old tree is therefore a definitive loss. If appropriate action is not taken speedily to save the species from extinction, the holm oak will be unable to regenerate and will disappear from the island of Montecristo, depriving it of one of the most typical features of its environment. Here too, however, ecological reconstruction is planned: the holm oak area is to be fenced in to prevent the goats from feeding there.

3. MEASURES TO PROTECT THE MONTECRISTO NATURE RESERVE

An ecological event of outstanding importance occurred on 21 May 1971: under an agreement between the Ministries of the Merchant Navy, Finance and Agriculture and Forestry, the management of the island of Montecristo was handed over to the National Forests Administration. The island of Montecristo was declared a nature reserve to safeguard and perpetuate the exceptionally valuable natural features which make it a paradise for scientists and a major resting area for birds migrating from Africa to Europe and back.

The ministerial decree of 4 March 1971, published in Gazzetta Ufficiale 137 of 1 June 1971, reads as follows:

"ARTICLE 1 - The island of Montecristo in the Tuscan archipelago, province of Livorno, municipality of Portoferraio, is hereby declared a 'nature reserve'.

ARTICLE 2 - Within the bounds of respect for nature reserves and their aims, this shall not affect maritime and military responsibilities.

ARTICLE 3 - Access to the nature reserve shall be authorised only for research purposes, for nature study excursions and for the management, supervision and re-establishment of natural equilibria, to the exclusion of all other human activities.

Signed: the Ministry of Finance, the Ministry of the Merchant Navy, the Ministry of Agriculture and Forestry".

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The steep, rocky shores shelter interesting marine fauna, now protected by the marine biological supervision area set up under the ministerial decree of 5 April 1979, Gazz. Uff. 112 of 23 April 1979: 3547, amended by the ministerial decree of 2 April 1981, Gazz. Uff. 108 of 18 April 1981: 2615, which prohibits landing on the coast and navigation, anchorage, fishing and sea-bathing within a zone 500 m wide surrounding the island. The ban also applies to the underwater fishermen who infest the creeks and shores of the island in summer, coming from all over Europe in all manner of craft. Until 1979 they were not subject to effective supervision of any kind.

As a nature reserve the island of Montecristo is also subject to the international regulations laid down by the Council of Europe and the International Union for the Conservation of Nature and Natural Resources (IUCN), under which human access is permitted only for clearly defined purposes of supervision and administration, to conduct scientific research and to carry out any ecological reorganisation schemes.

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The nature reserve was established on the initiative of the Ministry of Agriculture and Forestry, and more specifically the Forests Administration, as one of Italy's contributions to European Conservation Year, proclaimed by the Council of Europe in 1970.

A special management committee formed by the National Research Council and the Ministry of Agriculture and Forestry (National Forests Administration) took charge of the scientific and practical aspects. The basic factors which prompted the establishment of the nature reserve have already given rise to a number of works aimed at increasing scientific knowledge of the environment, a prerequisite for conservation and ecological reorganisation.

A major publication by the Italian Biogeography Society (Proceedings of the Italian Biogeography Society, n.s., 1974, 5) sets out the findings of the scientific research commissioned by the special management committee. Other findings have been published by journals such as the Publications of the Entomology Department of the University of Pavia and the Proceedings of the Botany Department of the same university.

4. ECOLOGICAL MISTAKES MADE ON THE ISLAND OF MONTECRISTO

The conservation steps taken on the island were decided at a time when the environment had already suffered the onslaughts of human beings; in many areas what remained of the original environment had clearly deteriorated. Before the nature reserve was established excessive building and the ill-advised, ecologically mistaken introduction of animals for game were the first stages of a plan designed to turn the island over to a high-class organisation contemplating tourist accommodation, water sports and hunting. Montecristo was saved from this fate, shared by many Mediterranean islands and coastal areas, only just in time. When it became a nature reserve in 1971, it had been in the company's hands for 16 years.

Developments there during that period really ran counter to every ecological principle. For instance, Greek partridges, which were not part of the island fauna, were imported, bred and acclimatised in large aviaries, fed artificially and released to be shot "free". The red-legged partridge already existed on the island, but further specimens were imported to increase their number for hunting purposes. Once released, these non-native birds were unable to find enough food to survive in an area no larger than 10 km^2 with very limited natural resources; they consequently had to be fed artificially with mash. During the winter of 1970-71, before the nature reserve was set up, the company to which the island had been leased found itself in financial difficulties, so that the imported birds began to die of hunger for lack of food.

The island had been regarded as a cowshed or farmyard, where an incredible number of animals can be raised provided that they are given enough food; yet if those same animals were to live free in the natural environment, they would need vast tracts of land. Such an approach has nothing to do with ecology, contrary to the company management's claims; it amounts to anti-ecology, in the form of forcible use for hunting purposes.

5. ACHIEVEMENTS SINCE THE ESTABLISHMENT OF THE NATURE RESERVE

When the island became a nature reserve and the state took over management from the company running the hunting preserve, the island was virtually unsupervised and inhabited only by wardens employed by the company, who had been abandoned without wages for a long time.

The former royal villa was in a wretched state: the roof and ceilings had partly fallen in or were threatening to do so; the inside and outside doors and windows were half wrecked; very little furniture was still fit for use; the electrical and plumbing installations and all other services were in an advanced state of decay.

The wardens' small houses were in a slightly better state thanks to the care of their occupants.

The storage sheds were also extremely dilapidated and an isolated building higher up, known as the "woodhouse" was in ruins, entirely uninhabitable.

Laborious negotiations were undertaken with the agencies responsible for management of this island, the aim being to save it from its apparently inevitable fate at the hands of speculators; even then plans were being made for joint action by the Ministry of Agriculture and Forestry, which would take charge of management and technical matters, and the National Research Council, which would direct scientific research.

The two authorities signed the agreement and their respective obligations were co-ordinated by a joint committee with clearly defined responsibilities. The National Forests Administration (Ministry of Agriculture and Forestry) declared its willingness to carry out the necessary improvements to staff accommodation, assign several wardens employed by the State Forestry Board to the island (these were at first equipped with a motor boat), repair the aqueduct, clean out the drains network supplying water to the buildings, install two generators and a radio-telephone linked up to the national network, renovate the former royal villa, which would become a centre for small research and study groups, with self-contained facilities (bedrooms, kitchen, meeting rooms and studies), and rebuild the "woodhouse" to serve as a research laboratory headquarters and premises for the conservation and exhibition of natural specimens from the island and the surrounding sea.

This ambitious scheme has been carried out.

Responsibility for it lies with the Follonica Forests Administration, which has taken charge of almost all the work. The National Forests Administration and the State Forestry Board have been particularly active and helpful during this laborious, expensive and fruitful first stage in the management of the new nature reserve.

From the scientific point of view, the special management committee, financed by the National Research Council and also by the Ministry of Agriculture and Forestry, has commissioned research on the fauna, vegetation and ecology of the island. As is clear from the bibliography, we now have a valuable store of basic knowledge which opens up new horizons for research and paves the way for ecological reorganisation schemes, which are now in progress.

Thus the Montecristo Island Nature Reserve now has access to international scientific recognition and advancement, partly as a result of its inclusion in the Council of Europe's network of biogenetic reserves.

6. OUTLOOK

This very brief description, which does not claim to discuss all the island's problems in depth, shows that despite the damage suffered, which will not be easily repaired, Montecristo retains some extremely valuable features in terms of its terrestrial and marine environment and landscape. In scientific terms it is the most important island in the Italian seas, the only one of its kind not to have been invaded and irreversibly destroyed by human beings. It was therefore a wise decision to keep it in that state in order to safeguard, reconstruct and perpetuate the typical Mediterranean landscape, vegetation and terrestrial and marine fauna. The first step towards conservation was the

inter-ministerial decree of 1971 declaring it a nature reserve, with a rational management programme aimed at protecting the environment and restoring or rebuilding the damaged buildings as centres dedicated to furthering research. The first phase of the project has been completed and the ministerial decrees of 1979 and 1981 have secured the protection of the sea around the island.

As described earlier, research work began with a detailed investigation of the characteristics of the island's environment, fauna, botany and ecology and has yielded some interesting initial results. These provide a store of basic information on the fauna, flora and vegetation, a prerequisite for devising a series of schemes to complete the programme for the conservation and ecological reorganisation of the nature reserve.