

Council of Europe
Conseil de l'Europe



Strasbourg 22 January 1992

PE-S-ZP (92) 43

**STEERING COMMITTEE FOR THE CONSERVATION AND MANAGEMENT
OF THE ENVIRONMENT AND NATURAL HABITATS**

**Group of specialists on protected areas
(PE-S-ZP)**

5-7 February 1992

**Application of the
Salvage Islands nature reserve
for the European Diploma**

Experts' report

**by
Mr Francis ROUX**

The Secretariat fully endorses the report by the expert. It submits a draft resolution for the award of the Diploma to this reserve, the text of which is appended.

1. Introduction

1.1 Terms of reference

In June 1991, the Portuguese Government submitted an application for the European Diploma in respect of the Salvage Islands Nature Reserve. This archipelago is known in Portuguese as the "Ilhas Selvagens" but the name used on most nautical charts is the Salvage Islands (cf PE-S-ZP (91) 44). After the Group of Specialists on Protected Areas had accepted the application, the Council Secretariat instructed me to carry out on-the-spot appraisal in accordance with the current regulations for awarding the diploma.

In addition to the general terms of reference, the Group of Specialists asked for a study to be made of the problem of introduced species on the main island "Selvagem Grande" (Great Salvage in English), in order to determine the present impact of these non-native species and to propose a research programme. The species concerned are the rabbit and the shrub *Nicotiana glauca*.

1.2 Description of visit

The reserve was visited between 1 and 3 October 1991 in the company of Mr Hector Hacourt, Principal Administrative Officer, Environment Conservation and Management Division, Council of Europe.

On Madeira we were welcomed by Mr Henrique Costa Neves, Director of Madeira Nature Park and responsible in this capacity for the Salvage Islands Reserve, who accompanied us throughout the visit. Other participants were Mrs Ana Isabel Queiroz, National Department for Parks, Reserves and Nature Conservation, Lisbon, and Dr Francis Zino, representative in Madeira of the International Council for Bird Preservation (ICBP) who has for long played a leading role in the study and conservation of the bird life of the Madeira archipelago.

Previously, on the afternoon of 30 September, a meeting had taken place at the headquarters of the Madeira Nature Park at Funchal. In addition to the persons already mentioned, the following attended: Commander Brito Subtil, Chief of Staff of the Madeira Naval Command, Dr Manuel José Biscoito, Curator of Funchal Municipal Museum, Mrs Ana Virginia Valente, Architect, Madeira Nature Park Technical Department and Mr Alexander Zino, thanks to whose private efforts the Salvage Islands Reserve was created. The discussions focused on the introduced species and their control, measures to ensure supervision by wardens on the Island of "Selvagem Pequena" (Little Salvage) and a review of possible financial solutions.

During the morning of the same day, Mr Francisco Perry Vidal, Madeira Region Secretary for Economic Affairs and responsible for the environment, had granted us an interview.

Transport to the Salvage Islands is provided by the Portuguese Navy. The ten-hour crossing from Madeira to Great Salvage was made on board the patrol boat "Save". A visit to Little Salvage was planned for 3 October. Owing to a mechanical problem, the boat had to return to Madeira without carrying out this part of the programme. Although this was regrettable, it scarcely affected the practical scope of the visit, in so far as the consultant is thoroughly familiar with the Salvage Islands which he has

visited on some 20 occasions since 1963 to carry out ornithological studies. He therefore has had frequent opportunities to make detailed tours of the two other main islands on the archipelago, Little Salvage and Ilheu Fora (literally "High Seas Islet"), the latest occasion being in October 1989.

1.3 Thanks

Special thanks are due to Mr Costa Neves and to the wardens of the reserve who were in attendance during our visit, on account of their kind attention and cordial welcome and to Dr. Francis Zino for his assistance and hospitality in Madeira and on Great Salvage.

2. Principal features and scientific importance

2.1 We shall not repeat all the detailed information accompanying the application, but merely highlight the following aspects:

- Geographical location: the Salvage Islands lie 30°N by 16°W in the sub-tropical zone of the North Atlantic, 160 nautical miles south of Madeira, 85 north of Tenerife (Canary Islands) and 300 sea miles from the African coast on almost the same latitude as Agadir.
- Topographical configuration: these islands, of volcanic origin, consist of two groups very different in appearance: firstly, Great Salvage, a more or else pentagonal plateau, with a maximum width of 2 km and an average altitude of 100 metres, surrounded on all sides by steep cliffs and dominated by two extinct volcanos, the highest of which culminates at 163 metres; secondly, Little Salvage, 800 metres long, low and flat and almost entirely covered with calcareous sand, with the exception of a basalt spur 45 metres high, together with the nearby islet of Fora, even lower (18 metres), much smaller and also covered with calcareous sand. The archipelago is uninhabited.
- Botanical features: the vegetation on the two groups represents another contrasting feature. On Great Salvage, part of the original flora was destroyed by goats introduced probably as early as the 15th century, followed later by rabbits. Most of the existing vegetation consists of plants resistant to herbivore (mesembryanthemums and *Nicotiana glauca*, a shrub originating in South America). In areas covered by volcanic bombs, the only surviving plants are lichens.

On Little Salvage, where there are no rabbits, there is a remarkable range of the spontaneous natural flora of these islands, including several endemic plants, such as a species of arborescent euphorbia (*Euphorbia desfoliata*) located on the islet of Fora, together with an associated species of Coleoptera (*Deucalion oceanicus*) which is also endemic.
- Zoological features: the density and variety of pelagic birds which breed on the Salvage islands constitute the main natural asset and the most original feature of the archipelago. These are the only European islands with nesting colonies of 5 species of Procellariidae. They host 13,500 pairs of Cory's Shearwater (*Calonectris diomedea borealis*), approximately 1,000 pairs of Little Shearwater (*Puffinus assimilis*), almost 20,000 pairs of Bulwer's Petrel (*Bulweria bulwerii*), between 5,000 and 10,000 pairs of Madeiran Petrel (*Oceanodroma castro*) and from

10 to 20,000 pairs of Frigate Petrel (*Pelagodroma marina*). A sixth species, which is still unidentified but whose presence was recently certified by the capture of three specimens, may also prove to breed in small numbers.

In the case of Cory's Shearwater and Bulwer's Petrel, almost the entire populations are to be found on the large island; the colony of Cory's Shearwater is the most numerous in the Atlantic. As for the Frigate Petrel, virtually the entire population of the European race (*P.M. hypoleuca*) breeds on the Salvage Islands, if one disregards the tiny population on Montana Clara in the Canary Islands.

This exceptionally rich bird life is the result of the fact that, after early and vain attempts at colonisation, of which traces exist, the islands have remained uninhabited up to the present day. Since they were not afflicted by domestic mammals or the parasites which man brings in his train (rats, pigs, cats and dogs, etc), the islands have always offered exceptionally favourable conditions for ground nesting birds which are very clumsy on land and quite defenceless, and which can therefore only successfully breed in places free of predators.

- To sum up: from the botanical point of view the Salvage Islands, or at least two of them (Little Salvage and Fora), are still practically virgin which probably represents a unique situation in the Atlantic. From the point view of zoology, they represent the main "reservoir" of pelagic birds in the sub-tropical zone of the North Atlantic. It is these two features which give the islands their exceptional scientific interest and their value as part of the European natural heritage. Accordingly, the reserve has a vital role to play and the application for the award of the European Diploma in category A is perfectly justified.

2.2 Historical background

It should also be borne in mind that the Salvage Islands, which were discovered in the 15th century, remained in private ownership until 1970. Throughout this period, they were subject to a seasonal commercial exploitation consisting of the collection of lichens (*urzela*) for dye extraction, limpets, rabbits and above all "cagarras" (Cory's Shearwater) purposes (Zino, 1985). Great Salvage was leased with a view to such exploitation. Each year, in September, men would come from Madeira to slaughter the unfledged Shearwater just at the period when they were most plump. Their flesh was salted and sold in Madeira. The down was also used and even the stomach oil. This centuries-old practice was maintained until 1967. An average of 20,000 chicks were culled every year. Despite this large figure, the colony was not endangered since the number of birds captured remained constant. A drop in the number of birds slaughtered from the 1960s onwards signalled that the perennity of this resource had been compromised. With the growing prevalence of motorised fishing vessels making access to the islands easier in all seasons, not only the young birds but also the adults were captured which eventually seriously upset the population balance. Protective measures thus became indispensable.

3. Present situation in the area

3.1 Land tenure and legal status

After having been acquired by the Portuguese Government in 1971, the Salvage Islands are today the property of the Autonomous Region of Madeira which had acquired them, in turn, after the hunting rights had been obtained by Mr A Zino who, by intentionally renouncing these rights, thereby put an end to the annual culling of the Shearwater chicks from 1968 onwards. Since that time, there have been no further economic activities in the archipelago. In 1971 the islands and the surrounding maritime zone were given the status of a scientific and cultural reserve. Under a regional decree of March 1978, they were listed as a nature reserve in view of their value as part of the natural heritage, particularly in terms of bird life. By the same token, a ban was placed on all activities likely to impair the native fauna and flora together with the geological and archeological assets (harvesting, felling, disturbance, introduction of non-native species, building, extraction, overflying etc.). Public access is prohibited, except for purposes of scientific study and with the specific authorisation of the Park authorities. Ships are allowed to anchor only at specific points and for a single day. There is also a ban on underwater fishing and trawling and the use of any other apparatus touching the seabed. The only forms of fishing authorised are fishing with hook and line or the use of nets to capture live bait to be used for catching tuna and bonito with fishing lines.

These provisions apply equally throughout the entire archipelago. There is therefore no zoning.

The consultant can testify to the fact that these provisions are applied most conscientiously thanks to the supervision by the wardens on Great Salvage. The same does not apply to Little Salvage (see paragraph 4.2).

3.2 Management

Since the principal objective is the guarding of the reserve, and management arrangements are entirely focused on this objective, all other considerations being subsidiary.

After acts of vandalism had been committed in 1975 and 1976, a system of permanent guarding was set up in 1977, with two wardens based on Great Salvage, who are relieved by turns every three weeks, so that each warden remains on duty for six weeks at a stretch. Their living conditions, which at first were rudimentary, have progressively improved especially since the living quarters were refurbished in 1990. Drinking water is supplied from a cistern and electricity by solar collectors. The wardens communicate with the naval authorities in Madeira three times a day. Two sailing craft (one pneumatic outboard motorboat and one rowing boat) enable the wardens, weather permitting, to patrol the various sectors of the Great Salvage coastline. It is the presence of these wardens which protects the reserve from the main danger threatening it, namely the pillaging of the Shearwater colony by

fisherman from Madeira or the Canary Islands. There is no doubt that, without their presence, the colony would be repeatedly plundered. The population trend which has been studied since 1980 indicates a regular increase in the number of breeding birds, which testifies to the effectiveness of the warden system. Due tribute should be paid to the devotion of these men who perform their tasks in conditions of severe isolation, particularly in winter.

3.3 Management activities

There is an annual programme of activities, whose principal phases are seasonal in character.

In addition to their supervisory tasks, which include monitoring and recording the presence of fishing vessels and pleasure craft, the wardens' responsibilities include upkeep of the living quarters (frequently damaged during winter storms) and the paths leading to the plateau, together with other maintenance duties such as the selective treatment of waste, the destruction of undesirable animals (mice, cockroaches) etc.

They also carry out regular observations of a scientific nature on the colony of Cory's Shearwater, particularly the counting of brooding birds in sample sites marked on a grid map.

Herring gulls (*Larus argentatus atlantis*), which prey on the eggs of the "cagarras" and on the chicks and adults of other Procellariidae, are systematically destroyed.

No attempt has yet been made to limit the number of rabbits, which in fact represent a source of food for the wardens, in addition to fish in the inshore area. This point will be considered below.

3.4 Budget

The general budget of the Park is provided entirely by the regional government. It covers work on buildings, the cost of supplies and upkeep, staff salaries and residence allowances which, in the case of the wardens, offset the low basic salaries.

In 1991, the general budget amounted to 17 million escudos (some £64,000 = 646.000FF), which falls far short of real needs. For the 1992 financial year, it will amount to 50 million escudos (£190,000 = 1.900.000FF), intended partly to cover outstanding payments from the previous year and the renovation of the wardens' quarters on Great Salvage.

Between 25 and 30% of the general budget is devoted to the Salvage Islands Nature Reserve. At least 70% of this amount is in turn accounted for by the wardens' salaries and allowances.

It should be noted that the Madeira Nature Park also manages two other protected areas of outstanding importance: the Laurelwoods Nature Park in Madeira where two of the rarest European species of bird are endemic (*Pterodroma madeira* and *Colomba trocaz*) and the Deserted Islands Nature Reserve which provides a sanctuary for a valuable population of monk seals (*Monachus monachus*) and the only European colony of Soft-plumaged Petrel (*Pterodroma feae*).

3.5 Research

Research is intense and has already given rise to a considerable volume of publications. These are listed at the end of the critical catalogue of flora of the Salvage Islands by Monod (1990), which mentions no less than 258 titles concerning the natural history of the archipelago. More than half of these works have been published since 1971, the date on which the reserve was created. The majority deal with ornithology (49 titles published since 1971 out of a total of 69) and botany (43 out of 79).

A long-term programme of studies on the population dynamics of Cory's Shearwater was launched in 1968, with a series of campaigns to ring nestlings followed by the regular monitoring of marked specimens. From 1978 onwards certain sample colonies were studied, with the occupants of 500 nests being ringed and all individuals regularly followed up each year. This project has made it possible to calculate the relevant demographic parameters and establish the population trends.

Owing to its longstanding nature and the importance of its findings, this programme figures among the best European studies on the biology of bird populations. It would not have been possible without the logistic base established on Great Salvage for supervising the reserve and without the conscientious collaboration of the wardens.

A similar programme is being carried out on Bulwer's Petrel, while a third programme has just been initiated on the Madeiran Petrel (*Oceanodroma castro*). In addition, regular observations are made of birds of passage.

4. Problems and needs

4.1 Staff

The Salvage Islands Reserve is supervised by three wardens who have a duty rota of six weeks, so that there are always two men on duty and a third off duty in Madeira. This number is adequate for the supervision of the large island, but does not suffice for patrolling the small island, a task which should be envisaged for the future. This would call for the recruitment of two further wardens, on a seasonal basis at least (see 4.2).

As for the organising unit of the park, based in Funchal, it consists of only two permanent posts: the director and the architect in charge of the technical service. This is an abnormal situation, in view of the major responsibilities of the Madeira Nature Park. A third post of assistant director seems highly desirable, if only to ensure that someone is present to take decision when the director is touring the area or is touring abroad.

4.2 The situation regarding Little Salvage

Since it is ten sea miles away from the large island, the Little Salvage group is out of range of effective supervision by the wardens. Despite the numerous reefs surrounding them, these islets are frequently visited by fishing boats and, by an ever increasing number of pleasure craft during the summer months. This in itself would not impair the terrestrial flora and fauna provided the crews refrained from disembarking. But the instructions on the noticeboards are not observed and indeed these boards have been destroyed. When some twenty people camped for a fortnight on Little Salvage - as was the case last summer - the impact on the environment was disastrous. The Frigate petrel colony which breeds in burrows below the sand was particularly hard hit. Merely by landing and walking about, the visitors - unintentionally and without meaning to do any harm - caused many burrows to collapse and condemned the chicks to death.

The increase in the number of yachts and their improved seafaring performance make these incidents more and more frequent, so that the time has come to impose the necessary measures.

The most effective measure would no doubt be to instal two wardens on Little Salvage from May to September. These men could be accommodated under canvas and would be provided with a radio link and a pneumatic boat and they would be relieved every three weeks by the naval patrol boat which provides transport to the islands.

Such a solution would however be easier to apply, for obvious reasons of security and practicality, if and when the reserve had at its disposal a boat capable of making a rapid crossing from Great Salvage to the smaller islands. The boat concerned should be based on the main island, but as prolonged mooring is dangerous, it should be possible to haul the boat ashore and keep it under shelter.

Obviously, considerable financial resources would have to be invested in order to pay for the purchase of the boat, the accompanying facilities and the salaries of the extra wardens. But this outlay is necessary if the reserve is to be fully effective.

4.3 Signposting

At all events, new signposts and noticeboards should be set up on Little Salvage and the islet of Fora. We recommend the use of signs made of burnished aluminium, fixed to a metal post embedded in the rock. This type of signposting has proved to be resistant in French game reserve. The instructions should be printed directly on the metal in three languages (Portuguese, Spanish and English).

4.3 Repair of dykes

There are ancient drystone dykes on the plateau of Great Salvage Island. Some are more than 300 yards long. They were probably designed to prevent the soil erosion. The gaps between the stones forming these dykes are used by petrels as nesting cavities. With the passage of time, however, these dykes are tending to collapse or have been demolished. Reconstructing these walls in the traditional style would enable the territory to be occupied by a

maximum of birds and would enable new colonies to be created which would be very accessible for study. The wardens' duties should include the reconstruction and upkeep of these dykes.

4.5 Renovation of the cistern

On the Salvage Islands, freshwater is obtained by collecting rainfall into cisterns. Most of this water is stored in a cistern at the centre of one of the catchment areas on a slope of the highest hill. This cistern which was rebuilt at the end of the 1960s needs to be cleaned out and renovated. Once the wardens' living quarters have been refurbished, this is the next major piece of work in the programme of improving facilities on Great Salvage.

4.6 Meteorological observations

The climate of these islands has never been scientifically studied. A small weather station with a rain gauge should be set up without delay and the corresponding readings systematically recorded. These data will in any case be necessary for the interpretation of the experiments on controlling the introduced species (see 5.1 and 2).

4.7 Radio links

No effort should be spared to improve the living conditions of the wardens, whose role is vital. A radio telephone system should be provided to enable them to communicate directly with their families. The apparatus has already been acquired and this should provide an appreciable benefit, when it is realised that the wardens have sometimes remained storm-bound for 54 days at a stretch.

4.8 Shipping service

Equally vital for the reserve is the role played by the Portuguese Navy in providing transport to the islands since the warden system was established there. The patrol boats of the Madeira Naval Command transport the wardens, their essential food supplies, the scientific teams performing field studies and official visitors. They also monitor the vessels which moor in the archipelago. The timetable of visits and the duty roster are fixed annually. Stress should be laid on the importance of this contribution on which the entire logistics of the reserve depend and it is to be hoped that the present service may continue to be provided in the future.

4.9 Lighthouses

Both the large and the small Salvage Islands each have an automatic lighthouse operating by means of solar panels. The efficient functioning of these beacons, set up some fifteen years ago, is of paramount importance for the conservation of the islands. This is because the maritime route for oil tankers plying between Venezuela and the Mediterranean passes close to the islands. There are numerous reefs in the area extending far out to sea around Little Salvage: an oil disaster would have dramatic consequences for the ocean bird life and for the entire biocenosis. Such a disaster has been narrowly averted on two occasions in recent years. A giant tanker (fortunately empty at the time) was even shipwrecked. The maintenance of the lighthouses is the only preventive action against such risks within the power of the Madeira naval authorities and should be pursued unflinchingly.

5. The case of introduced species

5.1 Nicotiana glauca

This is a genus of tobacco (Solanaceae) originating in South America. It was introduced on the large island for the production of firewood probably no more than a century ago (Monod 1990). This shrub-like plant can reach six feet in height and produces an abundance of tiny seeds which scatter easily. It therefore tends to colonise the area, but has not yet reached Little Salvage. It represents a hindrance rather than a serious threat to the Cory's Shearwater: the number of birds which die as the result of being trapped by the neck or leg in a forked branch does not exceed 1/10,000. Where the growth of this plant is dense, however, it may hamper the shearwaters' movements in attempting to reach their nests. But there is one member of the shearwater family which does breed in a forest environment. The presence of trees is therefore not a prohibitive obstacle for this type of bird.

The destruction of these tobacco plants would not be entirely without drawbacks: if the plants are cut back, they grow again more vigorously; if they are pulled out this encourages erosion of the soil which is otherwise stabilised by its roots. In addition, these tobacco plants perform an important biological function: thousands of xylophagous insects shelter in the dry stalks during their larval phase. These insects belong to the indigenous insect fauna of the island where there is no other host plant. The tobacco plants therefore help to maintain bio-diversity.

Rather than trying to eliminate them - which would represent a considerable expenditure of energy for an uncertain result - we think that care should be taken to prevent them from becoming established in certain specific sites where the density of shearwater nests is high and which accordingly serve as study colonies for measuring population trends (eg. around the dykes on the plateau). In order to control this vegetation, we would advocate various experimental methods on sample areas: cutting, uprooting, use of selective herbicides which should be tested first of all on samples in Madeira. Future reports should give an account of the findings.

5.2 Rabbits

These animals belong to a domestic strain introduced on Grand Salvage a very long time ago; they have since run wild and their morphometrical features have gradually altered in this insular environment (Mougin, 1985). Their numbers are subject to annual and seasonal variations of great amplitude, depending on the amount of rainfall which determines the growth of the plants on which they feed. In years of drought, the population is very low, which is also the case at the end of summer.

These rabbits have obviously had a considerable impact on the original flora. Nevertheless there are several indigenous plants which they leave untouched, such as *Suaeda vera* and *Lobularia*.

On the other hand, they have a natural limiting effect on the spread of the tobacco plants, by nibbling the young shoots and bark, as well as other major introduced plant species: nettles, wild tomatoes and mesembryanthemum.

We consider that there should be no question of eliminating the rabbits completely. On the other hand, a study should be made of the natural regeneration of flora on plots of land protected from the rabbits by wire netting. A study of this type is currently being carried out on Bugio Island (Desertas Islands), at the initiative of the Madeira Nature Park. A similar study should be undertaken on Great Salvage using the same specifications on Great Salvage. At the same time, attempts should be made to limit the rabbit population by driving them into enclosures.

6. Conclusions and recommendations

In the European network of protected areas, the Salvage Islands Nature Reserve undeniably occupies a position of paramount importance. Ocean islands which are uninhabited and still possess a practically intact natural heritage have become the exception in Europe. By virtue of their highly original botanical and zoological features, they represent a heritage of unequalled scientific value. It must therefore be concluded that the area is of European importance of the highest order.

The set of protective measures applying to these islands corresponds fully to the criteria for qualifying for the European Diploma. We therefore propose that the Diploma should be awarded to the Salvage Islands Nature Reserve in category A.

A certain number of recommendations are nevertheless necessary with the view to safeguarding and reinforcing the effectiveness of these protective measures. These recommendations are addressed to the Central Government of Portugal, the Regional Government of Madeira and the Madeira Nature Park authority which manages the reserve.

6.1 Recommendations to the Portuguese Government

- a. Support the Regional Government of Madeira in all matters relating to the Salvage Islands Nature Reserve in accordance with the provisions of Act No. 15/86 of 21 May.
- b. Ensure logistic support by the navy in operating the reserve.
- c. Guarantee the operation of the Salvage Island lighthouses.
- d. Ensure surveillance of oil tanker traffic in the Portuguese territorial waters of the Madeira and Salvage Islands archipelagos with a view to controlling the application of the rules concerning the ban on dumping oil residue in the sea.

6.2 Recommendation to the Regional Government of Madeira

Provide the Madeira Nature Park with the necessary financial resources to enable it to maintain and develop its action, especially with a view to increasing the number of staff and improving the technical and logistic facilities designed to provide better protection and management of the Salvage Islands Reserve: recruitment of additional wardens and acquisition of a vessel for the effective surveillance of Little Salvage Island, with the installation of a winch and a boathouse.

6.3 Recommendations to the Madeira Nature Park

- a. Provide supervision of Little Salvage by the presence of wardens during the summer months.
- b. Erect new noticeboards on Little Salvage.
- c. Study the regeneration of the flora of Great Salvage on plots of land protected by wire netting from rabbits.
- d. Supervise the development of *Nicotiana glauca* in certain sites.
- e. Reconstruct the drystone dykes on the plateau.
- f. Undertake a study of the climate by methodically recording temperatures and rainfall.
- g. Pay attention to the risks of the accidental introductions on Little Salvage of undesirable species (*Nicotiana glauca*, mice, cockroaches). Precautions should be taken to avoid these risks.
- h. Continue controlling the populations of herring gulls and extend this to Little Salvage.

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Paris, 22 November 1991.

APPENDIX

Draft Resolution (92) ...

CONCERNING THE AWARD OF THE EUROPEAN DIPLOMA
TO THE SALVAGE ISLANDS NATURE RESERVE
(PORTUGAL)

The Committee of Ministers, under the terms of Article 15(a) of the Statute of the Council of Europe,

Having regard to Resolution (65)6 instituting the European Diploma;

Having regard to the proposals made by the Steering Committee for the Conservation and Management of the Environment and Natural Habitats (CDPE);

Having noted the agreement of the Government of Portugal;

Having deliberated,

Solemnly awards the European Diploma, category A, to the Salvage Islands Nature Reserve in accordance with the regulations for the European Diploma (Resolution (91) 16);

Places the aforesaid Reserve under the patronage of the Council of Europe until ... 1997;

Addresses the following recommendations:

I. to the national authorities:

1. that the Madeira Regional Government be supported in all matters concerning the Salvage Islands Nature Reserve in accordance with the provisions of Act No. 15/86 of 21 May 1986;
2. that the logistic support of the navy in operating the reserve be continued;
3. that the operation of the Salvage Island lighthouses be guaranteed;
4. that oil tanker traffic in the Portuguese territorial waters of the Madeira archipelago and of the Salvage Islands be kept under surveillance, especially with a view to monitoring the application of the regulations banning the discharge of oil residue into the sea;

II. to the Madeira Regional Authorities:

5. that the responsible department of the Madeira Nature Park be provided with the necessary financial resources for maintaining and developing its action, so that the extra staff and appropriate technical and logistic means become available for improving the protection and management of the Salvage Islands Reserve: recruitment of additional wardens; acquisition of a vessel with sufficient power to carry out effective surveillance of Little Salvage, installation of a winch and provision of a boathouse;

III. to the authorities responsible for managing the reserve:

6. that Little Salvage be supervised by wardens stationed on the island during the summer months;
7. that the notice boards be restored on Little Salvage;
8. that a study be made of the regeneration of flora on Great Salvage in plots of land inaccessible to rabbits;
9. that the development of *Nicotiana glauca* be controlled on certain sites;
10. that the drystone dykes of the plateau be rebuilt;
11. that a study be undertaken of the climate by the methodical recording of temperatures and rainfall (installation of a weather station);
12. that consideration be given to the risks of the accidental introduction on Little Salvage of undesirable species (*Nicotiana glauca*, mice and cockroaches) and the necessary precautions taken to avert such risks;
13. that measures to control herring gulls be continued and extended to Little Salvage.