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CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Group of Specialists  
on the European Diploma of Protected Areas  
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**APPRAISAL REPORT  
Desertas Islands Nature Reserve  
(Portugal)**

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## 1. INTRODUCTION

### 1.1 The Islands - Background information

The Desertas Islands are a group of three islands of volcanic origin: Ilhéu Chão, Deserta Grande and Bugio, running from North to South, and form part of the archipelago of Madeira. These islands consist of high rocky masses forming sea cliffs, resulting mainly from marine erosion. They lie about 22 nautical miles off Madeira.

The smallest of the three islands, Ilhéu Chão, has a plateau (mostly 60m high) which rises to a maximum height of 98m at the northern end. It is 1,600m long and about 500m at its widest point, and has a lighthouse on the northern end.

Deserta Grande, which is the next island to the south, is the largest of the group and is about 12km long. It reaches a height of 405m and is about 2km at its widest part. At the northern end there is a wide valley. Huge landslides occurred both in the east and west about the midpoint of the island in 1894, forming two large lowland areas, on each side of the island.

The second largest island, Bugio, is about 1.3km south of Deserta Grande. It is 7.5km long and 800m at its widest part. Bugio curves to the east and reaches a height of 348m with steep and dangerous cliffs. It has two plateaus which are separated by a pointed central ridge. A lighthouse exists at its southern point.

The total length of the coastline is about 38 km and is mainly made up of high, steep rocky cliffs. There are several submerged or partially submerged sea caves as well as numerous beaches, all providing excellent habitat for the Monk Seal *Monachus monachus*.

In the 15<sup>th</sup> century, livestock was released on the islands and thus rabbits, goats and even cattle flourished. Cereals were also planted and at one time a very small community was living on Deserta Grande.

Culling of young Cory's Shearwaters *Calonectris borealis* had already started probably in mid-19<sup>th</sup> century and later the islands were also used as a shooting reserve. Unfortunately the Monk Seal was also amongst the hunted species. After the hunting of Sperm Whales was started in Madeira in mid-20<sup>th</sup> century, whaling lookouts were built on Deserta Grande, and at least one on Bugio.

In 1972 the Portuguese government bought the islands from two British owners. As wardens were not posted for some years, poaching continued unabated, even on Cory's Shearwaters, whose population was already decimated by the time the Parque Natural da Madeira was set up and took over the responsibility of the Islands in 1988. Two years later the Desertas were declared a nature reserve. Since then the breeding birds population has been slowly recovering. The population of the Monk Seal has also been successfully recovering since the Parque Natural da Madeira took over. It presently runs a fully equipped, well-kept station for wardens, visiting scientists and other visitors, on the western lowland area (Doca) of Deserta Grande.

Due to their isolation the islands are of great ecological and scientific value, as well as presenting an incredible, unequalled landscape. Their unique habitats harbour a relatively large number of endemic, threatened and/or vulnerable species of flora and fauna, such as the Mediterranean monk seal, the Deserta's Petrel *Pterodroma deserta*, the Deserta's *Musschia* species and many invertebrates. The conservation of the islands' biodiversity is a *sine-qua-non* not only for the Macronesian region, but also as a unique terrestrial and marine world heritage.

### 1.2 Candidature for the European Diploma Award & Terms of reference

On 13 May 2013 the undersigned was contacted by Ms Iva Obretenova, Project Manager, Biodiversity Unit of the Council of Europe that an application for the award of the European Diploma to the Desertas Islands (Madeira) Portugal was received from the Madeira Park Authorities and that I was being considered as a possible independent expert to ensure the on-the-spot appraisal to Desertas. My attention was drawn that according to the Regulations of the Diploma it is important that apart from a thorough visit of the area, the expert should include a

meeting with representatives from local and regional authorities, as well as those from the socio-economic sectors and media associations who have dealings with the area.

The official invitation to carry out the on-the-spot appraisal, dated 6 June, signed by Ms Ivana d'Alessandro, Secretary of the Bern Convention, pointed out that my mandate consisted in covering the aspects, which are found in Appendix 3 of the Regulations of the European Diplomab (Resolution CM/ResDip 2008).

### 1.3 Details of visit

I arrived at Funchal very late on 9th June, having missed my scheduled flight from Lisbon to Madeira, due to a long delay of departure of my flight from Zurich to Lisbon. I was met at the airport by Dr Paulo Oliveira, the Director of the Parque Natural du Madeira, who had already briefed me before my arrival about the whole programme of the visit to the Desertas as well as the meetings he had already organised with the regional Minister responsible for the Environment, with stakeholders as well as members of the media.

### 1.4 The main activities of the programme

#### 10<sup>th</sup> June

- Whole day on Bugio Island accompanied by the Director and his Assistant, as well as some wardens.
- Covered a good part of the southern plateau surface.
- Discussed various ongoing projects, such as monitoring of the breeding population of the Deserta's Petrel, combating soil erosion and the eradication of alien species.

#### 11<sup>th</sup> June

- Whole day on Deserta Grande; accompanied by the Director and his Assistant and some wardens
- Covered the northern half of the plateau.
- Continuous discussions for most of the day regarding ongoing and future projects.
- On reaching the plateau of the island I was interviewed by a TV journalist about my role and views regarding the Islands, as well as about the award of the European Diploma.

#### 12<sup>th</sup> June

- Returning to Funchal.
- Discussion meeting with stakeholders - mostly representatives from local and regional authorities, socio-economic sectors and media associations. Nineteen persons attended. The meeting was opened by the Director Dr. Oliveira who made a presentation of the importance of the Desertas and the work and projects being carried out on the islands by the Parque Natural du Madeira. He then introduced me and I gave a brief talk on the European Diploma of Protected Areas, the procedures involved in the recommendation of the award after an on-the-spot appraisal, the Diploma's unique supervisory mechanism, and other matters related to the Diploma. The floor was then opened for the participants who, after introducing themselves, made various statements and asked a range of questions regarding the running of the Desertas by the park authorities, the role of wardens, research and projects, etc.. Among the participants there were representatives from the Regional Body responsible for Fisheries, The Madeira Whale Museum, The Association of Madeira Nature Wardens, The Funchal Museum of Natural History, The Secretariat for the Environment and Natural Resources, and SPEA (BirdLife Partner in Portugal),

- Meeting with the Secretario (regional Minister) responsible for the Environment - Dr Manuel António Rodrigues Correia, Secretário Regional do Ambiente e Recursos Naturais
- Press conference at the Secretario's office. About 6 representatives of Television Stations and newspapers participated in the conference and asked various questions related to the Diploma and my visit.
- An interview with a journalist at my hotel about the Desertas and the application for the Diploma Award.

13<sup>th</sup> June

- Visited the excellent Visitors' Centre – Freira da Madeira, and a breeding site of the endemic Madeira's Petrel.
- Held discussions with the wardens who accompanied me, about their role in monitoring the breeding population of the Madeira and Desertas Petrels .
- Invited Dr Paulo Oliveira the Director of the Parque Natural du Madeira and Dr Frank Zino (ornithologist) for dinner when more discussions were held in the evening.

## 2. ECOLOGICAL IMPORTANCE, CONSERVATION & PROTECTION STATUS

This small group of Macaronesian islands are not only of great ecological importance for the region and Europe but also at an international level and are regarded as of world heritage importance. Following is a list of flora and fauna examples which highlight the importance of these islands to European and World biodiversity.

### 2.1 Flora

- 96 bryophytes are known from Desertas Islands, of which the liverwort *Frullania sergiae* is exclusive to the largest island Deserta Grande.
- Over 200 indigenous and naturalized species of phanerogams are reported from the Desertas Islands, of which 30% are endemic to Madeira, and 10% restricted to Macaronesia. Important endemics of the Madeiran coasts include *Calendula maderensis*, *Helichrysum melaleucum*, *Matthiola maderensis*, *Monizia edulis*, and *Musschia* spp.
- The highest density of exclusive endemics is found on the Desertas Islands (more than 10 taxa per 100 Km<sup>2</sup>)
- Four outstanding endemics (*Chamaemeles coriacea*, *Monizia edulis*, *Convolvulus massonii*, *Musschia aurea*) and two endemics to Deserta Grande, namely *Musschia isambertoii* and *Sinapidendron sempervivifolium*, represent four of the five existing endemic genus to Madeira archipelago flora.
- Four genera endemic to Macaronesia flora are known from Desertas Islands.

### 2.2 Fauna

- The only population of the Mediterranean monk seal *Monachus monachus* with a positive trend.
- An endemic seabird species Desertas's petrel *Pterodroma deserta* (breeding on Bugio); the largest colony of Bulwer's petrel *Bulweria bulwerii* in the Atlantic; and a very important breeding area for three other pelagic species: Cory's shearwater *Calonectris borealis*, Madeiran storm-petrel *Oceanodroma castro* and Little shearwater *Puffinus assimilis*.
- An endemic reptile subspecies *Teira dugesii mauii*.
- At least 44 Madeiran endemic taxa (species and subspecies) of terrestrial molluscs including exclusive molluscs such as *Discus guerinianus calathoides*.

- About 305 Madeiran endemic species and subspecies of terrestrial arthropods, 104 of which are unique such as Deserta's tarantula *Hogna ingens* and *Paradeucalion desertarum*.

### 2.3 Conservation issues

After the creation of the Special Protection Area of the Desertas Islands in 1990 the capture of seabirds ceased and the fishing activity began to be carried out in a sustainable manner. Now there are various ongoing conservation projects to protect the habitats and species of the Islands.

- A Rehabilitation Unit for the Monk Seal was set up at Doca in 1997 to provide facilities for rehabilitation and other treatments of any debilitated animals. Protecting and monitoring the Mediterranean monk seal (*Monachus monachus*) is one of the main ongoing projects in the Islands.
- Surveillance and protection of the islands from sea and from land.
- Aiding the recovery of the plant cover and the propagation of native plants of Deserta Grande and Bugio.
- Restoration of the habitat of the tarantula *Hogna ingens*, through the removal of *Phalaris aquatic*, and monitoring the species' status.
- Preventing the introduction of alien species.
- Elimination of alien species: Goats, rabbits and mice were successfully eradicated from Bugio, while rabbits were eradicated from Deserta Grande. The elimination of goats from Deserta Grande started in 1995 (a small population is still present – about 20 were counted during the visit).

### 2.4 Protection Status.

In 1990 the Desertas Islands were given the status of a Special Protection Area by means of a Regional Legislative Decree no. 14/90/M, of 23 May. In 1992 it was accepted by the Council of Europe as a Biogenetic Reserve and in 1995 its status was raised to that of a Nature Reserve by means of a Regional Legislative Decree no. 9/95/M, of 20 May. The reserve was later also included in the Natura 2000 network.

## 3. SUPERVISION AND MANAGEMENT OF THE DESERTAS

The main aims of the ongoing management plan are

- To conserve, improve and protect all the ecosystems of the Islands.
- Promote, coordinate and support research to investigate species and habitats.
- Improve the dissemination, knowledge and appreciation of the site.
- Manage recreational-tourist activities in a way that no harm is done to the ecology of the Islands.
- Manage the Islands in a suitable and effective manner, in accordance with the proposed guidelines (e.g. identifying threats to the Islands' natural resources; preventing the introduction and dispersion of invasive species; control human pressure and prevent illegal human activities).
- Mapping the distribution of the species and habitats of the Habitat and Birds Directives found at the site.
- Studying and monitoring the endemic plant species and increasing the studies on the plant communities;

## 4. RESEARCH, ADVOCACY & PUBLIC ACCESS

### 4.1 Research

The Desertas Islands Nature Reserve is coordinated by a Biologist who manages the work done by the Nature Wardens on duty on that Reserve. These Nature Wardens work in teams of three members each, who alternate every 15 days. In addition to their supervising work, they also help in monitoring and research, and are frequently joined by other Madeira Park Authorities staff. Furthermore researchers (mainly ornithologists, botanists, biologists and geologists), biology and geology students and volunteers, both nationals and foreigners, carry out research work themselves or help in the research projects of SPNM. Current research activities are implemented both by SPNM and external institutions. Research activities include inventory research, complex ecological studies based on interdisciplinary approach as well as long-term monitoring projects. The long-term monitoring projects which focus on studies on ecological processes or management impact assessments are among the priorities of the SPNM Administration.

### 4.2 Advocacy

Television and radio programmes, exhibitions and lectures aimed at the general public, but also at target groups, and the regular production of illustrated material (booklets, pamphlets, brochures, postcards, posters etc) are used to raise awareness about the importance of the Desertas Islands Nature Reserve. A SPNM Facebook site, with about 12,000 followers, and an updated website are two modern tools which are used to propagate nature reserves and to communicate with the general public, particularly stakeholders.

Educational activities also target schools. During the scholastic year 2010-11, about 732 students and 165 teachers visited the Desertas Islands.

### 4.3 Public Access

The Islands are a tourist attraction for an experience associated with nature conservation. There are daily touristic trips to Desertas Islands. This activity is strictly controlled, and visits on land are restricted to a small area where the reception centre, the administrative and logistical facilities are located. Presently the average annual number of visitors is about 2900. Disembarkation is only allowed in the area of Doca on Deserta Grande, where there are suitable logistic facilities. Currently there is a visitors' interpretation centre, a short trail, a resting area and a small shop selling environmental related material specific to these islands. This helps to raise some funds for use in the management of the Reserve.

Visitors are met by the Nature Wardens, who accompany them along the informative circuit and then to the reception centre. Maritime-tourist visitors are organised by companies, whose employees have received specific training provided by the SPNM staff to guide the visitors.

## 5. REFERENCES

My main references in chronological order:

Secretaria Regional do Ambiente & Recursos Naturais/ Parque Natural da Madeira. 2005.

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Oliveira, P. & Menezes, D. 2012. **Eradication and control of vertebrate invasive species in Madeira and Selvagens Archipelago: a short review**. *Airo* 22: 43-48

Parque Natural da Madeira. 2012. *Information Form for New Application for the European Diploma of Protected Areas - Desertas Islands Nature Reserve* (forwarded to me by the Biodiversity Unit of the Council of Europe).

## 6. ACKNOWLEDGEMENTS

I would like to put on record my thanks to the following:

- Dr Paulo Oliveira, the Director, and his Assistant Ms. Dilia Maria Gois Gouveia Menezes for making all the necessary arrangements for an impeccable organization of my programme; for accompanying me on Bugio and Deserta Grande; and for answering all my queries without hesitation during and after my visit;
- The wardens of the Parque Natural da Madeira who were present on Bugio and Deserta Grande and at the Visitors' Centre on Madeira for the information they passed on to me and for their continuous assistance during my visit;
- The captain of the Park Authorities' boat '*Freira da Bugio*' – our means of transport from Madeira to the Islands, and for dropping and picking us up at various points during the visit.
- Ms. Carolina Santos for answering my queries and sending me literary material after my visit, to help me in the preparation of this report.
- Ms Iva Obretenova, Project Manager, Biodiversity Unit of the Council of Europe for sending me a copy of the application for the award of the European Diploma to the Desertas Islands (Madeira) Portugal and for her support.
- Dr Manuel António Rodrigues Correia, Secretário Regional do Ambiente e Recursos Naturais for finding time in his busy schedule to give me an appointment and discuss with him the nature conservation in the Madeiran archipelago
- All the participants at the stake-holders meeting for their involvement in the discussions.
- All the journalists who covered my visit copiously both on television as well as in the daily newspapers.

## 7. CONCLUSIONS & RECOMMENDATIONS

In my previous visits to Madeira on similar missions I noticed that the Parque Natural da Madeira has been consistent in doing its best in upholding and maintaining the standards of the reserves for which it is responsible. The Madeira Regional Government also gives the required support to the Parque Natural da Madeira, financing staff recruitment and operational costs.

In my opinion the award of the diploma would encourage the authorities of The Parque Natural da Madeira to continue on its excellent conservation programme for the proper maintenance of the reserve and for the fulfillment of any conditions and recommendations that may be proposed.

I have no hesitation in recommending the award of the European Diploma. It should however attach the following conditions & recommendations :

### *Conditions:*

- (a) That the Portuguese Government continues to take the necessary steps to preserve the current islands status of the Desertas Islands and to unequivocally support the Madeira Regional Government in all matters concerning the nature reserve.
- (b) Update the management plan of The Desertas Nature reserve.
- (c) Create an effective monitoring system for the fauna and flora populations of the Desertas.
- (d) Keep at least the present level of conservation effort regarding personnel, logistics and budget for the proper management of the Desertas

### *Recommendations:*

- (a) All precautions should be taken to ensure that no species of plants and animals are introduced.

- (b) Analyse and publish the studies carried out on the flora and fauna on Bugio after the total eradication of the alien species.
- (c) Increase the efforts to combat soil erosion on the plateau surface of Bugio.
- (d) To try and eliminate the goat population from Deserta Grande or at least to keep the population very low subject to a strict monitoring scheme.
- (e) Promote the training of the nature guides that take tourists to this area.
- (f) Investigate if the increasing colony of Yellow-legged Gull (*L. m. atlantis*) on Ilhéu Chão is resulting in any negative impact on the breeding seabirds populations on Deserta Grande and Bugio.

**Joe Sultana**  
**June 2013**