Identifying Important Plant Areas (IPAs) in Cabo Verde

Final Report

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1. INTRODUCTION

1.1 CEPF

CEPF (Critical Ecosystem Partnership Fund – www.cepf.net) is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan, the MacArthur Foundation and the World Bank. The fund:

- Works to conserve hotspots, Earth's most biologically rich yet threatened areas.
- Enables civil society to participate in and influence the conservation of critical ecosystems.
- Improves economic well-being by supporting people to benefit from the ecosystems they depend on.
- Mobilizes local, regional and global actors to create and achieve a common conservation vision for each hotspot.
- Unites diverse donors to maximize the efficiency and effectiveness of their conservation investment.
- Achieves results that are tangible, replicable and scalable.

CEPF bridges a gap between development and conservation, funding national and local groups that many donors find difficult to reach. To date, CEPF has helped more than 1'900 civil society groups implement diverse projects to safeguard biodiversity hotspots in 89 countries and territories.

The innovative financial mechanism of CEPF, via grants of more than $175 million, has strengthened civil societies, established 13 million hectares of new or expanded protected areas and improved management of an additional 35 million hectares of globally important lands. In addition to CEPF funding, our grant recipients have leveraged $346 million for hotspot conservation – matching CEPF investment in a ratio close to 2:1.

The world's biodiversity hotspots are at the core of CEPF's investment approach. These areas cover only 2.3 percent of the planet's surface but harbor more than 90 percent of its biodiversity. CEPF's investment in hotspots thus tackles the most important areas to biodiversity that provide key benefits to human societies. Since its inception in 2000, CEPF has invested in 22 of the 35 hotspots.

1.2 The CEPF Mediterranean Basin Hotspot

The Mediterranean Basin biodiversity hotspot is the second largest hotspot in the world and the largest of the world's five Mediterranean-climate regions. The hotspot covers more than 2 million square kilometers and stretches west to east from Portugal to Jordan and north to south from northern Italy to Cabo Verde. It is the third richest hotspot in the world in terms of its plant diversity. Approximately 30'000 plant species occur, and more than 13'000 species are found nowhere else (Mediterranean endemics); yet, many more are being discovered every year.

CEPF's niche is to work with all actors engaged in conservation and development activities in eligible Mediterranean Basin countries (Albania, Algeria, Bosnia & Herzegovina, Cabo Verde, Jordan, Lebanon, Libya, Macedonia, Montenegro, Morocco and Tunisia) to foster partnerships in priority corridors and sites. Such partnerships will seek to reduce impacts of these developments on natural resources and systems that the large communities are dependent on. In addition, opportunities to increase the benefits and reduce upland shifts in land use by the communities within these landscapes will be explored.

The CEPF Secretariat is on the way to publish its updated Mediterranean Ecosystem Profile (the current profile was published in 2010), that has been prepared with an extensive consultation with stakeholders involved in biodiversity conservation in the region. This document assesses the status of the nature and socio-economic conditions of the hotspot and set a strategy for the new granting phase. This new Ecosystem profile identifies 1'100 priority corridors and sites, including the Important Plant Areas (IPAs). The CEPF Donor Council will then use the new Ecosystem Profile to decide upon the amount of funds to dedicate to this new phase.

1.3 Plants in the Mediterranean Ecosystem Profile

The previous Ecosystem Profile (2010) took into account the plants insufficiently. Therefore, L'Agence Française de Développement (AFD) funded, in 2010, a project on Identification of the important sites and habitats for plants in North Africa, the Middle East and Albania. The results were published in 2011 (Radford & al., 2011). 207 IPAs have been identified in Morocco, Tunisia, Algeria, Libya, Egypt, Israel, Jordan, Lebanon, Palestine, Syria and Albania. Cabo Verde was not included in this project.

During the Ecosystem profile update, these 207 already identified IPAs has been integrated, together with new sites (incl. those of Cabo Verde), if they met the recently published IUCN Global Standard for the Identification of Key Biodiversity Areas (KBA) (IUCN, 2016).

2. THE IPA PROJECT IN CABO VERDE

2.1 Context

As Cabo Verde was not included in the AFD project in 2010, CEPF decided to fund a specific project to identify Important Plant Areas of Cabo Verde and to integrate preliminary results (with focus in those that meet the IUCN KBA criteria) into the updated Ecosystem Profile. The IUCN Centre for Mediterranean Cooperation and the IUCN/SSC Mediterranean Plant Specialist Group were commissioned to carry out this project.

2.2 Project implementation

This project took the form of two workshops (October 2016 and May 2017). During the interval between these two workshops, INIDA has gathered the data necessary for the establishment of the IPA data sheets.

2.3 The first workshop for IPA identification of Cabo Verde

The first workshop was organized in Rui Vaz / Santiago in coordination between :

- **Local organizer**: Biosfera 1, Tommy Melo
- **IUCN – Centre for Mediterranean Cooperation (IUCN-MED)**: Marcos Valderrabano
- **IUCN/SSC/Mediterranean Plant Specialist Group (GSPM)**: Bertrand de Montmollin

List of participants and programme in Annex I.

Main conclusions and Outputs

- ✓ All endemic species of Cabo Verde are at least partly included in one or several IPAs (according to Romeiras & al. 2016 - See Annex II).
- ✓ First list of IPAs of Cabo Verde including 17 Important Plant Areas and Key Biodiversity Areas (15 of global and 2 of regional importance), list and map in Annex II.
    - Polygons and limits
    - Datasheet with data (triggers species, KBA criteria and delineation rationale) for each KBA

2.4 Support Knowledge of Cape Verde Endangered flora

According to the publication of *IUCN Red List assessment of the Cape Verde endemic flora: towards a global strategy for plant conservation in Macaronesia* (Romeiras & al. 2016), 78% of endemic flora of Cape Verde is endangered (see figure 1). The species

evaluated were submitted by the Faculty of Science of the University of Lisbon (Silvia Catarino, Maria M. Romeiras and Maria Cristina Duarte) to the IUCN Red List of Threatened Species™ (http://www.iucnredlist.org/) to allow consultation and diffusion of results.

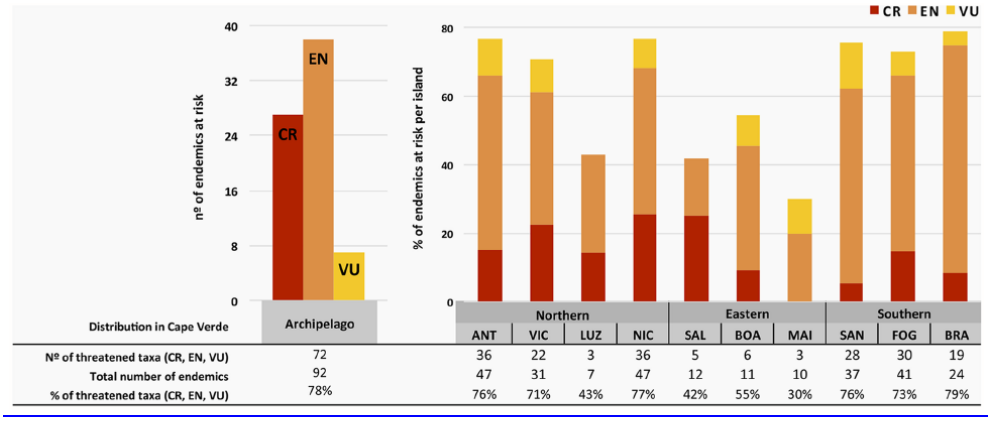


Figure 1. Distribution of Cabo Verde endemic species by threatened categories [Critically Endangered (CR), Endangered (EN), Vulnerable (VU)] in the archipelago (left) and in each island (right), Island abbreviations: Santo Antão (ANT), São Vicente (VIC), Santa Luzia (LUZ), São Nicolau (NIC) (Northern Group); Sal (SAL), Boa Vista (BOA), Maio (MAI) (Eastern GROUP); Santiago (SAN), Fogo (FOG), Brava (BRA) (Southern Group). Adapted from Romeiras & al. 2016.

2.5 The second workshop for IPA identification of Cabo Verde

The second workshop was organized in hotel Vulcão / Santiago in coordination between :

- **Local organizer** : Lantuna, Ana Veiga and Samir Martins
- **INIDA – Instituto Nacional de Investigação e Desenvolvimento Agrario**: Isildo Gomes
- **IUCN – Centre for Mediterranean Cooperation (IUCN-MED)**: Marcos Valderrabano
- **IUCN/SSC/Mediterranean Plant Specialist Group (GSPM)**: Bertrand de Montmollin

List of participants and programme in Annex III.

Main conclusions and Outputs

Following the presentations and group discussion, there were some main conclusions and recommendations for way forward in plant conservation in Cabo Verde:

- ✓ Alignment of plant conservation actions with Protected Area management
  - When IPA overlaps (totally or partially) with protected areas: Its agreed that, when management plans exist (most of protected areas do have a plan), it tends to consider flora/includes plant management. However

insufficient funding for implementing raises the need to align with management plans (see plans at www.sia.cv).

- Standardization of monitoring methodology on all protected areas and IPAs.
- Create a seed bank of endemic species.

✓ Reinforcement of NGOs and Associations to develop plant conservation projects

- Capacities of NGOS and Associations for project management to be reinforced. It's recommended to consider capacity building as continuous process, rather than punctual action. Mobility of staff and turnover.
- Change in paradigm in associations, from volunteer work to professionalization of NGO staff requires adapting the structures and functioning of associations.
- Strategic planning of NGOS is strongly encouraged. Opportunistic project development based on fund availability is seen as mayor threat to achieving long term impacts.

✓ Need for knowledge improvement and linkages between science and management

- Develop strong linkages with young professionals. Recommended to develop linkages with universities, to support development of new generation of botanists.
- Develop technical capacities for plant conservation of managers is highly recommended, both inside and outside protected areas. This may include (but not only) exchanges with other oceanic island subjected to similar threats (invasive species, fragmentation, introduced herbivores).
- When developing reintroduction plans of native species, important to consider the different populations (interspecific variations in islands may be stronger than in mainland). Useful to consider distinct populations as «Operative unit of conservation» (instead of only species).
- Strengthen collaboration between scientist and management. However it was stressed the need to ask for permissions in all scientific missions in Cabo Verde. Its also recommended to involve scientists from Cabo Verde and share the results. New protocol is under development.
- Develop an atlas of endemic and indigenous plants of Cabo Verde. This should also include an ecosystem study of endemic plants and its habitats.

3. IPA DATASHEETS

The 17 data sheets are presented below. Their structure corresponds to the essential data and additional information prescribed by the IUCN KBA methodology. Due to gaps in knowledge, these records are mostly incomplete. They may be supplemented as and when new knowledge is acquired.

Full digital map and access to 17 datasheets can be explored from https://goo.gl/upnsYQ by following the « More information » link under each site

Image 1- Example of map explorer with view of Cape Verde IPAS maps, available at https://goo.gl/upnsYQ

Species data sheets for endemic plants of the National Park of Fogo are presented in annex IV as an example of what could be done for the whole endemic flora of Cabo Verde.

List of IPA data sheets

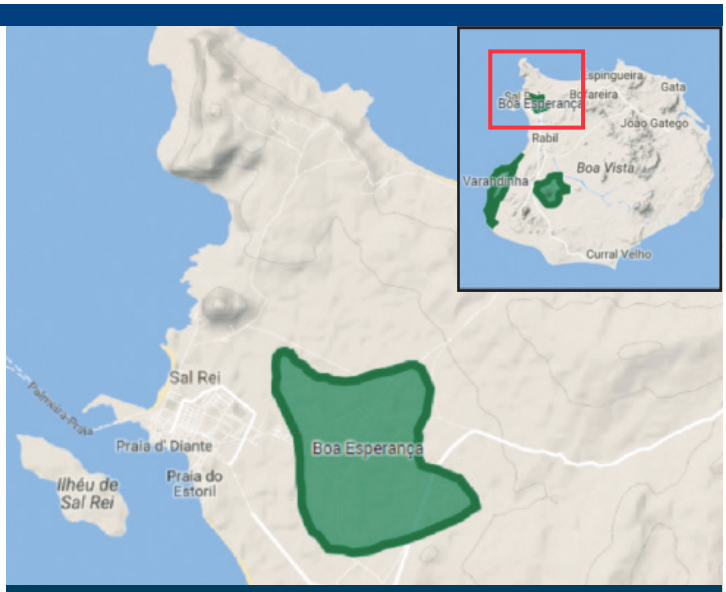
Island	**IPA**
Boa Vista	Boa Esperança
Boa Vista	Rocha de San António
Boa Vista	Varandinha
Brava	Ribeira de Fajã d'Água
Fogo	Parque Natural do Fogo
Maio	Parque Natural do Norte do Maio
Sal	Costa da Fragata
Sal	Monte Grande
Sal	Serra Negra
Santiago	Parque Natural da Serra da Malagueta
Santiago	Parque Natural de Rui Vaz e de Serra do Pico de Antónia
Santo Antão	Cruzinha de Garça
Santo Antão	Parque Natural Cova / Ribeira Paúl / Torre et Parque Natural de Moroços
Santo Antão	Tope de Coroa Natural Park
São Nicolau	Alto de Cabaças
São Nicolau	Monte Gordo
São Vicente	Monte Verde / Norte da Baia

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Boa Esperança

Island
Boa Vista

Geopolitical unit: Boa Vista
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the Boa Esperança IPA.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Phoenix atlantica* - EN / B1ab(iii) + 2ab(iii)
B1	Individual geographically restricted species	*Lotus brunneri*

Justification

	Rationale for the IPA delineation	The delimitation corresponds to the occurrence zone of *Phoenix atlantica* on the island.

Description

	IPA size	4.92 km^2
	IPA protection status and existing management plan	Natural Reserve.

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IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA description

Landscape aspect of Costa de Boa Esperança (Photo: Isildo Gomes, INIDA).

Area covered by sands in the form of plains and mobile dunes. It presents two distinct plant formations: the flat surfaces without sand mounds, which present very disperse vegetation or no vegetation whatsoever, and the plant formations found on the dune mounds, characterized by the sand mounds being topped with two formations that are distinguished depending on their proximity to the beach/sea. The formation that is closer to the sea includes the species: *Zygophylum fontanesii, Sesuvium sesuvioides, Suaeda vermiculata, Tamarix senegalensis, Frankenia ericifolia*. The vegetation further from the sea includes two formations, depending on the type of substrate: the substrate that is made up of mobile dunes includes mainly dominant species such as *Lotus brunneri, Sporobolus spicatus, Cyperus crassipes, Frankenia ericifolia, Heliotropium ramosissimum* and *Polycarpaea nivea*; the surfaces that are made up of sands with stones present *Launaea arborescens, Sporobolus spicatus, Zygophyllum fontanesii, Frankenia ericifolia* as dominant species, as well as scattered specimens of *Lotus brunnerii.* Among the flora, the following species are highlighted: *Frankenia ericifolia, Lotus brunnerii, Phoenix atlântica* and *Tamarix senegalensis*, an indigenous species of Cabo Verde.

Botanical diversity

About 19 species of angiosperms.
Also noteworthy are the species assemblages that are characteristic of dune areas, highlighting the following species for their botanical, ecological and landscape importance: *Phoenix atlantica, Lotus brunneri, Tamarix senegalensis, Zygoplyllum fontanesii, Sesuvium sesuvioides, Cistanche bruneri, Lotus brunneri* and *Cyperus crassipes*.

Habitats/ecosystems

The palm tree habitat is particularly valuable due to the presence of *Phoenix atlantica.*

Ecosystem service values

- Scientific use
- Environmental education
- Ecotourism

Land-use regimes

Free grazing.
Rain-fed agriculture.
Forestry.
Illegal/unlicensed housing.

Cultural values

In the Boa Esperança Natural Reserve, it is possible to see some elements that show the marks of the past in the infrastructures that were used for water mobilization, as well as the forest nursery, a picturesque road, the cemetery and the existing rustic buildings.

Threats and conservation

Major threats (plants and habitats)	- Invasive alien species (*Prosopis julifora*). - Rain-fed agriculture. - Free grazing. - Felling of trees and collection of firewood. - Solid wastes (deposal and waste burning). - Circulation of motor vehicles.
Conservation actions needed	Replacement of invasive alien species with *Phoenix atlantica.*
Conservation actions needed	Preparation of the Boa Esperança Natural Reserve. management plan. It is recommended that the future. management plan include the possibility of replacing. American acacia with native vegetation (shrubs and trees).

Additional information

Additional remarks or information Stakeholder engagement	INIDA DNA
Bibliography	DGA. 2015. Proposta para a criação de Reserva da Biosfera na Ilha do Sal. Praia. Cabo Verde. INIDA. 2013. Inventariação da Flora e Fauna das Áreas protegidas na Ilha do Sal. DGA. Praia. Cabo verde.

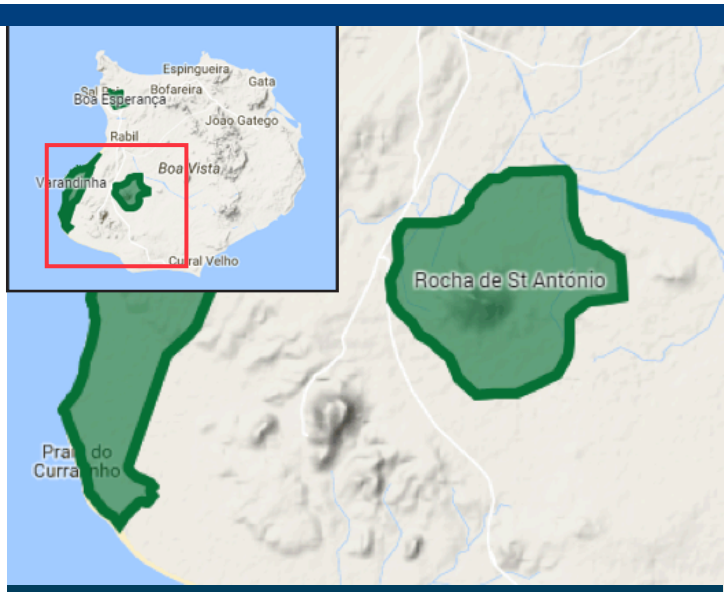
Plant community of Costa de Boa Esperança, highlighting Lotus brunnerii (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Rocha de San António

Island
Boa Vista

Geopolitical unit: Boa Vista
Assessment date: 9/5/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/5/2017
Regional KBA criteria met: B1(i,ii). Not achieving the threshold for global KBA. To be considered as regional KBA.



Delimitation of the Rocha de Santo António IPA

"Trigger" biodiversity elements (flora and ecosystems) according to regional KBA standards

B1	Individual geographically restricted species	*Cynanchum daltonii* (LC)

Justification

Rationale for the IPA delineation	The limits of the IPA are identical to those of the protected area.

Description

IPA size	17.2 km^2
IPA protection status and existing management plan	The limits of the IPA are identical to those of the protected area.
Habitats/ecosystems	Habitat of *Ficus sycomorus.*

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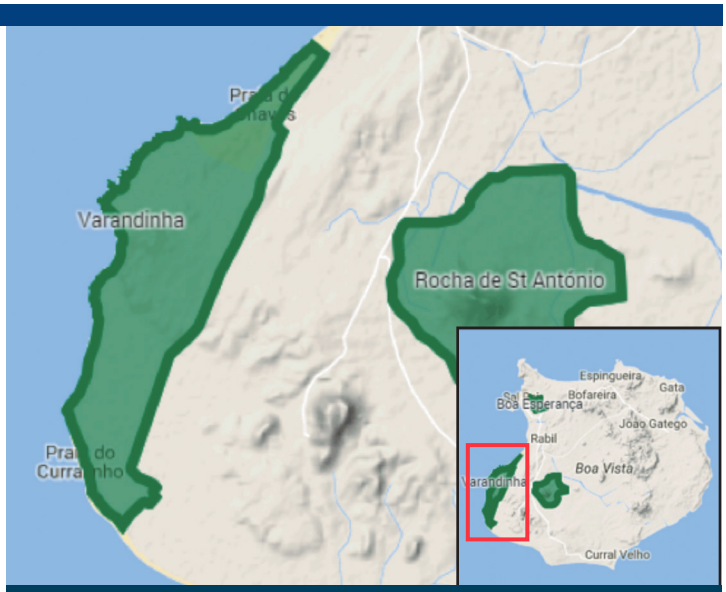
IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Varandinha

Island
Boa Vista

Geopolitical unit: Boa Vista
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/5/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Location of Ribeira de Fajã d'Água in Brava island.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Arthrocnemum franzii* - EN
B1	Individual geographically restricted species	*Arthrocnemum franzii* *Lotus brunneri* *Asparagus squarrosus*

Description

IPA size	21.3 Km^2
IPA protection status and existing management plan	The dunes of Varandinha are part of the Morro de Areia Natural Reserve.


Varandinha lagoon. (Photo: Isildo Gomes, INIDA).


Communities of Cocculus pendulus and Cyperus crassipes on the Varandinha dune system (Photo: Isildo Gomes, INIDA).

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IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA description	The dunes of Varandinha are one of the most important patches, if not the most important patch, of vegetation on Boa Vista (an island where vegetation is generally scarce), evidenced by its high density of specimens, the diversity of typical dune species and other systems like *Arthrocnemum franzii* and *Tamarix senegalensis*, that are characteristic of wetlands (salt marshes). The dunes of Varandinha, which also shelter the Varandinha lagoons, are considered the area of greatest diversity of angiospermic plant species and of the highest density of dune plant assemblages on Boa Vista island, with 3 and 2 endemic and indigenous species, respectively, of Cabo Verde.
Botanical diversity	26 species of angiosperms
Habitats/ecosystems	Ecosystems of brackish wetlands that house populations of species such as *Arthrocnemum franzii* and *Tamarix senegalensis.*
Ecosystem service values	Tourism Environmental education
Land-use regimes	Natural vegetation, grazing

Threats and conservation

Major threats (plants and habitats)	Invasive alien species. Tourism.

Additional information

Stakeholder engagement	INIDA, DNA and workshops participants.
Bibliography	DGA. 2015. Proposta para a criação de Reserva da Biosfera na Ilha do Sal. Praia. Cabo Verde. INIDA. 2013. Inventariação da Flora e Fauna das Áreas protegidas na Ilha do Sal. DGA. Praia. Cabo verde.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Ribeira de Fajã d'Água

Island
Brava

Geopolitical unit: Brava
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/5/2017
Global KBA criteria met: A1a(i,ii); B1(i,ii)

Location of Ribeira de Fajã d'Água in Brava island.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Launaea thalassica* - CR / B1ab(iii)+2ab(iii) *Globularia amygdalifolia* - EN / B1ab(ii)+2ab(ii) *Sideroxylon marginata* - EN / B1ab(ii)+2ab(ii) *Echium hypertropicum* - EN / B1ab(ii)+2ab(ii) *Campanula bravensis* - EN / B1ab(ii,iv)+2ab(ii,iv) *Diplotaxis varia* - EN / B1ab(ii)+2ab(ii)
B1	Individual geographically restricted species	*Launaea thalassica* *Echium hypertropicum* *Campanula bravensis* *Diplotaxis varia*

Justification

	Rationale for the IPA nomination	There is no accurate population data for most species, but it is estimated that the entire population (100%) of *Launaea thalassica* (CR) is in the Fajã d'Água area. Populations of the endemic species *Echium hypertropicum*, *Campanula bravensis* and *Diplotaxis varia* in Fajã d'Água exceed 10% of the world population.
	Rationale for the IPA delineation	Boundary along the streambed and valley upstream of Fajã d'Água.

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

Description

IPA size	1.11 km^2
IPA protection status and existing management plan	N/A
IPA description	Like other streambeds that make up the hydrographic network of the island, Fajã d 'Água has protruding peaks on the mountainsides surrounding it. It then sinks sharply into majestic canyons that quickly open onto the coast. In the hydrographic network of Fajã de Água, like the other hydrographic networks of the island, water only flows during heavy rainfalls. During the rainy season, rubble frequently accumulates in the streambed of the watershed, and the coarse materials dragged by the flood waters accumulate at the mouth of the valley and at the low-level areas along the coastline. This area benefits from northeasterly trade winds, which greatly contribute to the definition of varied landscape scenarios within the various branches of the Fajã d'Água watershed. It has characteristics such as relief, thick soils, high altitude and its location in the NW part of Brava, the portion of the island that benefits most from the moist winds, generally absent in other parts of the island. It is a watershed of great importance in terms of wild plant genetic resources. These values are augmented by agricultural resources and potential. Fajã d'Água has a diversity of wild flora, estimated at 43 species, highly valued by local communities that use it for their own food, for feeding animals and for the treatment of diseases.

Fajã d'Água watershed, upstream (Photo: Isildo Gomes, INIDA).

Fajã d'Água watershed, downstream (Photo: Isildo Gomes, INIDA).

Botanical diversity	43 species of angiosperms were inventoried, of which 14 are endemic, representing 29% of the species found on the escarpment of the watershed; 44% of the endemic species are in the Red List of Brava and 30% in the Red List of the Archipelago. On its N-NE façade there is a settlement of *Echium hypertropicum* and *Periploca laevigata chevalieri* and *Sideroxylon marginata*, taxa considered endangered at the national level and critically endangered for the island.

Launaea thalassica – endemic local species – Brava island (Photo: Isildo Gomes, INIDA).

Ecosystem service values	This IPA represents the ecosystems with the greatest agricultural potential of Brava island. It is also the area with the best natural conditions for the practice of mountain tourism on the island. Fajã d'Água has also a rural landscape of great beauty with cultural, agricultural, historical and archaeological values.
Land-use regimes	Fajã de Água is the most representative sample of agricultural ecosystems of Brava Island and one of the most important agricultural ecosystems of Cabo Verde. Livestock. Natural vegetation.

Threats and conservation

Major threats (plants and habitats)	Invasive alien species. Agriculture. Grazing.
Conservation actions needed	Protection of the area against free grazing, in order to allow for vegetation regeneration. Creation of alternative income-generating practices as a way of gradually replacing livestock activities practiced in the area. Information, training and awareness of the current users of pasture in the area, namely herders and livestock farmers.

Free grazing on the cliffs of Fajã d'Água (Photo: Isildo Gomes, INIDA).

Fajã d'Água hillsides, facing the Northeast, with a high population density of Furcraea foetida (Photo: Isildo Gomes, INIDA).

Echium hypertropicum – critically endangered endemic species (Photo: Isildo Gomes, INIDA).

Additional information

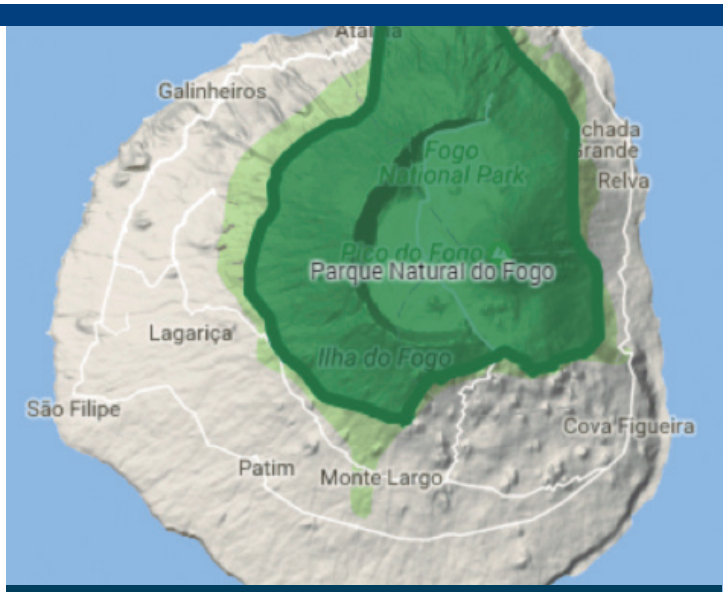
Stakeholder engagement	INIDA, DNA, DMAA
Bibliography	Gomes, Elisângela. 2006. Vegetação da Ilha Brava. Monografia de Fim do Curso de Licenciatura em Biologia. Universidade de Cabo Verde.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Parque Natural do Fogo

Island
Fogo

Geopolitical unit: Fogo
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii) ; B3a(i,ii)



Delimitation of the Fogo Natural Park.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1 Threatened species

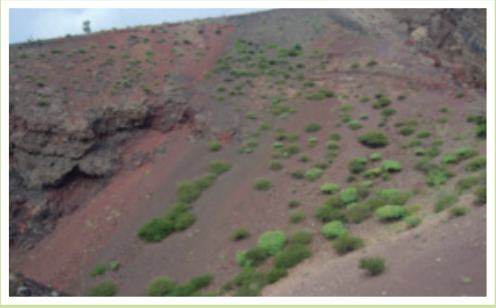
Partial view of Natural Park of Fogo (Photo: Isildo Gomes, INIDA).

Echium vulcanorum - EN / B1ab(ii) + 2ab(ii)
Erysimum caboverdeanum - CR / B1ab(ii)
Conyza pannosa - EN / B1ab(ii,iv) + 2ab(ii,iv)
Diplotaxis hirta - EN / B1ab(ii) + 2ab(ii)
Verbascum cystolithicum - EN / B1ab(ii) + 2ab(ii)
Limonium braunii - EN / B1ab(ii) + 2ab(ii)
Campanula bravensis - EN / B1ab(ii,iv) + 2ab(ii,iv)
Helianthemum gorgoneum – EN / B1ab(ii,iv) + 2ab(ii,iv)
Conyza varia – EN / B1ab(ii,iv) + 2ab(ii,iv)
Coniza feae – EN / B1ab(ii,iv) + 2ab(ii,iv)
Tornabenea tenuissima - CR / B1ab(ii) + 2ab(ii)
Phagnalon melanoleucum – EN / B1ab(ii) + 2ab(ii)
Micromeria forbesii - EN / B1ab(ii,iv) + 2ab(ii,iv)
Dracaena draco ssp. caboverdeana – CR / B1ab(ii,iv)
Centaurium tenuiflorum ssp viridense - CR / D
Artemisia gorgonum - VU / B1ab(ii,iv) + 2ab(ii,iv)
Campylanthus glaber ssp. glaber - EN / B1ab(ii) + 2ab(ii)
Globularia amygdalifolia - EN / B1ab(ii) + 2ab(ii)
Kickxia elegans ssp. elegans - EN / B1ab(iv) + 2ab(iv)
Lobularia canariensis ssp.fruticosa - EN / B1ab(ii,iv) + 2ab(ii,iv)
Papaver gorgoneum ssp. gorgoneum - CR / B1ab(ii) + 2ab(ii)
Sideroxylon marginatum - EN / B1ab(ii) + 2ab(ii)
Sonchus daltonii - EN / B1ab(iv) + 2ab(iv)
Tolpis farinulosa - EN / B1ab(ii) + 2ab(ii)
Tornabenea humilis - EN / B1ab(ii) + 2ab(ii)
Umbilicus schmidtii - EN / B1ab(ii) + 2ab(ii)
Withania chevalieri - CR / B1ab(ii) + 2ab(ii)

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

B1 Individual geographically restricted species

Echium vulcanorum
Erysimum caboverdeanum
Diplotaxis hirta
Verbascum cystolithicum
Asteriscus daltonii
Helianthemum gorgoneum
Conyza varia
Euphorbia tuckeyana
Lavandula rotundifolia
Tornabenea tenuissima
Lotus jacobaeus
Lotus purpureus
Paronychia illecebroides
Phagnalon melanoleucum
Sideroxylon marginata
Withania chevalieri
Globularia amygdalifolia
Sonchus daltonii
Artemisia gorgonum



Community of Lavandula rotundifolia (medicinal plant), accompanied by Euphorbia tuckeyana, on the Bordeira of the Fogo Natural Park (Photo: Isildo Gomes, INIDA).

B3 Geographically restricted assemblages

The areas of this IPA, especially the volcanic soils and humid areas, are home to geographically restricted assemblages: *Echium vulcanorum,Verbascum cystolithicum, Tornabenea tenuissima, Limonium lobinii, Umbilicus schmidtii, Campanula jacobaea, Diplotaxis hirta, Erysimum caboverdeanum Umbilicus schmidtii, Campanula bravensis.*

B4 Geographically restricted ecosystem types

Recent lava flows.

Justification

Rationale for the IPA nomination

Caldera interior escarpment of Natural Park of Fogo with Sideroxylon marginata (Photo: Isildo Gomes, INIDA).

There is population estimated data for most species. It is estimated that almost the entire population (95%) of *Echium vulcanorum* (EN); *Erysimum caboverdeanum* (CR); *Diplotaxis hirta* (EN); *Verbascum cystolithicum* (EN); *Tornabenea tenuissima* (CR) is within Fogo Natural Park and that the following endemic species have more than 10% of its global population within the Park: *Phagnalon melanoleucum* (EN); *Campanula jacobaea; Coniza feae* (EN); *Helianthemum gorgoneum* (EN); *Limonium braunii* (EN); *Campanula bravensis* (EN); *Asteriscus daltonii; Miromeria forbesii* (EN); *Centaurium tenuiflorum* (CR); *Lavandula rotundifólia; Euphorbia tuckeyana.*

	There is no population specific data of *Conyza pannosa* (EN); *Globularia amygdalifolia* (EN); *Sideroxylon marginata* (EN); (EN); *Conyza varia* (EN); *Diplotaxis varia* (EN) but it is estimated that more than 5% of their global population is within Fogo Natural Park.
Rationale for the IPA delineation	The delimitation follows the limits of Fogo Natural Park, including the buffer zone, due to the population of 5 exclusive species and several other species with important national density.

Description

IPA size	The park has an area of 84.685 km² and it is located at the confluence of three municipalities: São Filipe (18.61 km²: 22% of the Park), Santa Catarina (42.37 km²: 50% of the Park) and Mosteiros (23.7 km²: 28 % of the Park).
IPA protection status and existing management plan	Natural Park. Management Plan approved in 2009 (www.sia.cv).
IPA description  Echium vulcanorum – local endemic species (Photo: Isildo Gomes, INIDA).	The IPA includes the Fogo Natural Park and the buffer zone. The landscape of the Natural Park is made up of an active volcano (2,829 m), a large caldera and the walls flanking the caldera, with its steep sides with a difference of up to 1000 meters, as well as unique shrub vegetation, traditional agriculture in a lunar landscape and the villages of Chã das Caldeiras. Although some of these elements are not exclusive to the Park, they combine here in such a way that they configure a unique landscape reality. Fogo Natural Park is located in the central zone of the island and includes the Volcano, the Crater, the Bordeira and the Forest Perimeter of Monte Velha. Due to the high altitude and unique geological characteristics, microclimates are formed favoring the distribution of a great variety of biodiversity.
Botanical diversity	Fogo Natural Park is home to about 123 species of angiosperms, of which 37 are endemic to Cabo Verde (36% of the local floristic diversity) and 5 are local endemisms. 90% (37 of 41) of the endemisms that are present in Fogo island are found within the Park. Of the spontaneous species that appear in the region, 11 (9%) are included in the Red List of Cabo Verde and of Fogo island.

Habitats/ecosystems	The site has different habitat types, including those characteristic of *Echium vulcanorum* and *Erysimum caboverdeanum*, which do not exist on the other islands of Cabo Verde. It is also possible to observe the habitats of *Umbilicus schmidtii* and *Campanula bravensis*, characterized by humidity. Ecosystems with volcanic gravel and humid ecosystems where the species Campanula bravensis and *Umbilicus schmidtii* are found.
Ecosystem service values	Fogo Natural Park represents the ecosystem with the greatest agricultural potential of the island and of Cabo Verde. It is the area with the best natural conditions for the practice of mountain tourism. Other services include: traditional rain-fed agriculture; confined and semi-confined livestock; use of medicinal plants; hydrological exploitation; scientific use; environmental education.
Additional biodiversity values	Fauna: Fogo Natural Park is classified as an Important Bird Area (IBA) due to the presence of some birds such as *Pterodroma feae, Acrocephalus brevipennis, Apus alexandri, Falco alexandri;* 5 species of endemic reptiles exclusive to the island (highlighting *Tarentola fogoensis, Hemidactylus lopezjuradoi*).
Land-use regimes	Agriculture, pasture production, forest.

Threats and conservation

Major threats (plants and habitats)	Volcanic eruption, rain-fed agriculture, invasive alien plants, grazing, forest fires.
Conservation actions in place (plants and habitats)	Monitoring of threatened plants populations; recovery of degraded areas; production of plants in nurseries; soil conservation measures; control and elimination of invasive species; environmental education; recovery of water springs; construction of community nurseries.
Conservation actions needed	Eradication of invasive alien plants (in the forest of Monte Velha); Introduction of endemic species to replace the invasive alien species; restoration of degraded areas through afforestation with endemic species and soil conservation measures; environmental education and production of the information materials.

Additional information

Stakeholder engagement	DNA, DMAA, INIDA, Community associations and Projeto Vitó. Include all workshop processes and participants.
Bibliography	MAHOT. 2005. Plano de Gestão do Parque Natural do Fogo.

Verbascum cystholithicum – local endemic species (Photo: Isildo Gomes, INIDA).

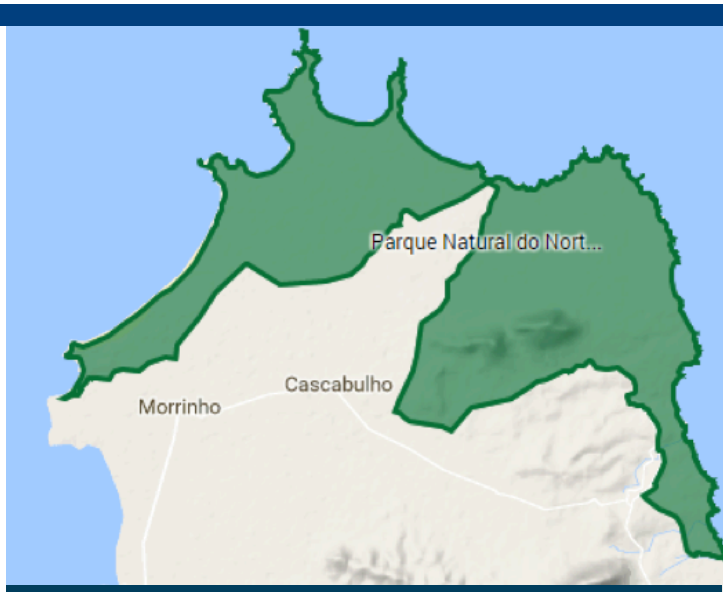
Erisymum caboverdeanum – local endemic species (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Parque Natural do Norte do Maio

Island
Maio

Geopolitical unit: Maio
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/5/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the Parque Natural do Norte

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Arthrocnemum franzii* - CR *Asteriscus daltonii* – EN / D
B1	Individual geographically restricted species	*Arthrocnemum franzii* *Lotus brunneri* *Aristida cardosoi* *Asteriscus daltonii*

Justification

Rationale for the IPA delineation	Identical limits to the protected area (terrestrial part).

Description

IPA size	46.7 km^2
IPA protection status and existing management plan	IPA totally protected (100%) within the Natural Park (limits identical to those of the protected land area).
IPA description	Ecosystems in a good state of conservation, rare at the national level, with natural salt marshes and dune systems; unique endemic plant populations on the island, including *Nauplius daltonii vogelii*; important landscape values.

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IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

Botanical diversity	About 20 species of angiosperms.
Habitats/ecosystems	Salt marsh ecosystems host specific species such as *Arthrocnemum franzii* and *Tamarix senegalensis*.
Ecosystem service values	- Traditional rain-fed agriculture; - Silvicultura practices; - Confined and semi-confined livestock; - Use of medicinal plants; - Hydrological use; - Tourism; - Scientific use; - Environmental education.

Additional information

Stakeholder engagement	INIDA, DNA and workshop participants.

Arthrocnemum franzii cluster in the Terras Salgadas area, one of the largest clusters of this species in Cabo Verde (Photo: Isildo Gomes, INIDA).

Plant community of mobile dunes with Tamarix senegalensis and Arthrocnemum franzii (Photo: Isildo Gomes, INIDA).

Sandy formations at the north of Maio island, featuring a chain of dunes with tarafe (Tamarix senegalensis) (Photo: Isildo Gomes, INIDA).

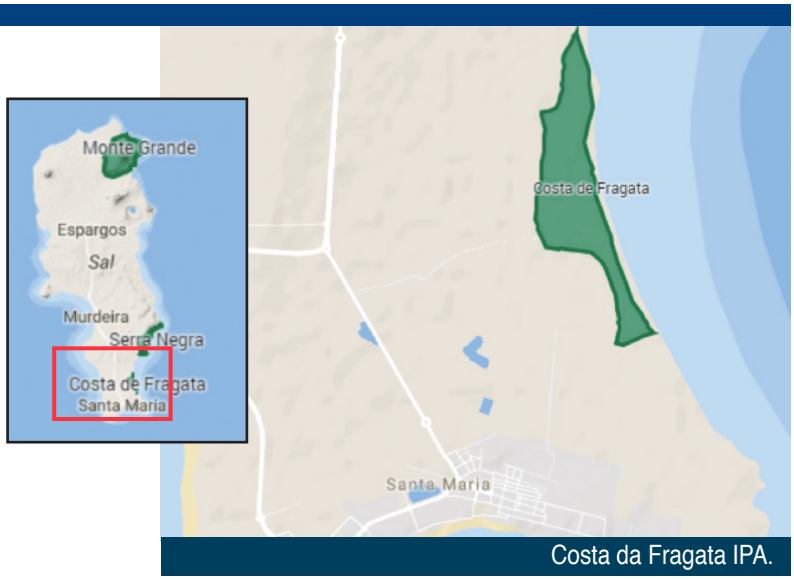
Salt marsh area in Terras Salgadas evidencing the materials with fine-grained granulometry. (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Costa da Fragata

Island
Sal

Geopolitical unit: Sal
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Regional KBA criteria met: A1a(i,ii); B1(i,ii). Not achieving the threshold for global KBAS, to be considered as regional KBA.



Costa da Fragata IPA.

"Trigger" biodiversity elements (flora and ecosystems) according to regional KBA standards

A1	Threatened species	*Withania chevalieri* – CR / B1 ab(ii) + 2ab(ii)
B1	Individual geographically restricted species	*Arthrocnemum franzii* *Lotus brunneri*

Justification

Rationale for the IPA delineation	The IPA limits correspond to those of the protected area.

Description

IPA size	0.67 km²
IPA protection status and existing management plan	Natural Reserve.
IPA description	Located in the southeast quadrant of the Sal island, Costa da Fragata is made up of an extensive sandy beach, about 4.7 km long, flanked by a dune strip parallel to the coast, followed by an extensive salt marsh partially covered by sands. It is included in the national network of Protected Areas, and is classified as a Natural Reserve.

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Community of *Arthrocnemum franzi* and *Sesuvium sesuvioides*
(Photo: Isildo Gomes, INIDA)

In terms of vegetation, it presents characteristic species of dune systems, the most notable of which are: *Zygophyllum fontanesii, Sesuvium sesuvioides, Suaeda vermiculata, Calotropis procera, Cistanche phaelipaea, Artrhocnemum macrostachyium, Tamarix senegalensis, Helitropium curassavicum* and *Polycarpaea nivea.*

Botanical diversity	About 11 species of angiosperms. The vegetation presents characteristic species of dune systems, with some endemic species of Cabo Verde, namely *Arthrocnemum franzii* and *Lotus brunneri*. The area, including the wetlands, houses specific species such as *Arthrocnemum franzii* and *Tamarix senegalensis*.
Habitats/ecosystems	Dune systems
Ecosystem service values	– Tourism – Scientific use – Environmental education
Land-use regimes	Natural vegetation
Cultural values	Natural vegetation

Threats and conservation

Major threats (plants and habitats)	Tourism

Additional information

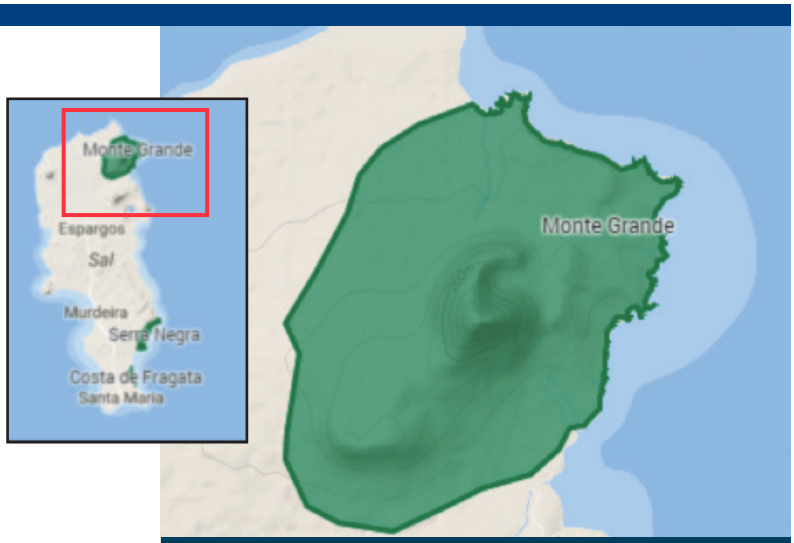
Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	DGA. 2015. Proposta para a criação de Reserva da Biosfera na Ilha do Sal. Praia. Cabo Verde. INIDA. 2013. Inventariação da Flora e Fauna das Áreas protegidas na Ilha do Sal. DGA. Praia. Cabo verde.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Monte Grande

Island
Sal

Geopolitical unit: Sal
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the IPA of Monte Grande.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Pulicaria diffusa* – EN / B1 ab(iv) + 2ab(iv) *Limonium brunneri* – CR / B1 ab(ii,iii,iv) *Diplotaxis glauca* – CR / D
B1	Individual geographically restricted species	*Asparagus squarrosus* *Polycarpaea gayi* *Forsskaolea procridifolia*

Justification

Rationale for the IPA delineation	The limits correspond to those of the protected area.

Description

IPA size	13.20 km²
IPA protection status and existing management plan	Protected landscape.
IPA description	Located on northeast side of the island, between Fiura Bay and Monte Grande beach, at 406 meters above sea level, Monte Grande constitutes the highest topographical relief of Sal Island.

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Protected landscape of Monte Grande
(Photo: Natura 2000, 2001)

The geological value of its recent materials, with pillow lava sectors at the base, is one of the most notable in Cabo Verde.

Botanical diversity	In terms of vegetation, it presents species of great botanical importance, with the notable presence of endemic species of recognized importance in Cabo Verde, as are the cases of *Euphorbia tuckeyana, Forsskaolea procridifolia, Lotus brunneri, Pulicaria difusa, Diplotaxis glauca* (endemic to Sal island), *Polycarpaea gayi, Asparagus squarrosus* and *Lotus brunnerii.*
Ecosystem service values	Tourism.
Land-use regimes	Natural vegetation.

Threats and conservation

Major threats (plants and habitats)	The most important problems in this area are due to the high risk of erosion, because this natural space is a volcanic area with a high degree of inclination and without a vegetation cover protecting the scarce soil. Any activity that produces physical changes in the substrate (extraction of basaltic material) may accentuate this erosive phenomenon and would significantly change the characteristics of this type of volcanic landscape. Other activities such as grazing may contribute to the degradation of vegetation.

Euphorbia tuckeyana.
(Photo: Natura 2000, 2001)

Additional information

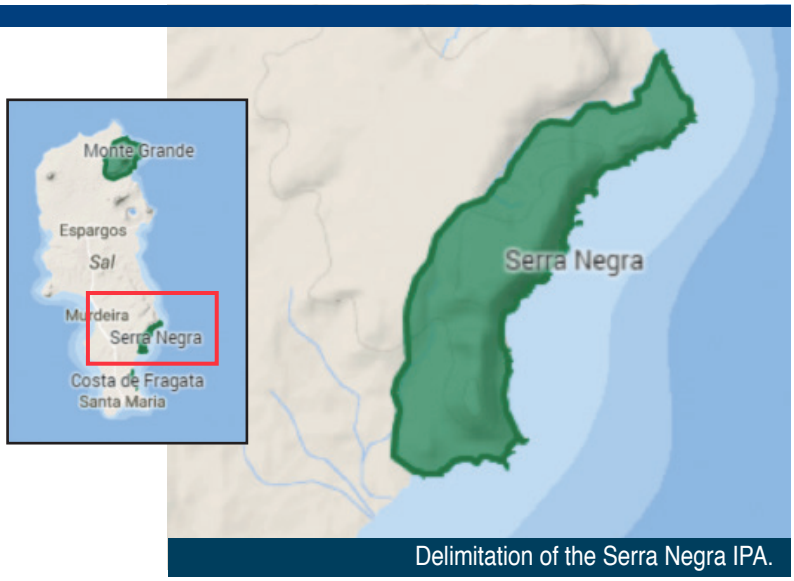
Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	Natural DGA. 2015. Proposta para a criação de Reserva da Biosfera na Ilha do Sal. Praia. Cabo Verde.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Serra Negra

Island
Sal

Geopolitical unit: Sal
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the Serra Negra IPA.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Pulicaria diffusa* – EN / B1 ab(iv) + 2ab(iv) *Limonium brunneri* – CR / B1 ab(ii,iii,iv) *Diplotaxis glauca* – CR / D
B1	Individual geographically restricted species	*Lotus brunneri*

Justification

Rationale for the IPA delineation	The boundaries correspond to those of the protected area.

Description

IPA size	3.30 km²
IPA protection status and existing management plan	All the IPA is included within the Natural Reserve.
IPA description	Located in the southeast region of Sal island, Serra Negra has a relief that is 104 meters above sea level and that is parallel to the coastline, from Ponta de Fragata to Ponta do Vermelho. The coast presents rocky areas, with accumulation of rhodoliths, coral and shell fragments, alternated with intertidal pool areas and sandy beaches zones. Serra Negra is part of the National Network of Protected Areas and has been classified as a Natural Reserve.

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

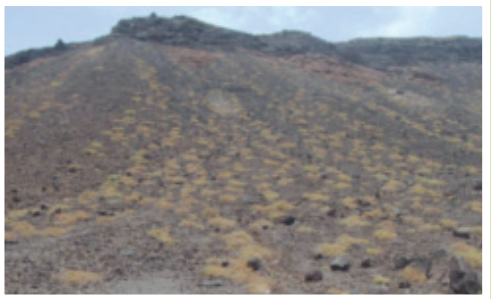
IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

Botanical diversity	About 18 species of angiosperms. *Diplotaxis glauca* is an endemism of the island.
Ecosystem service values	Ecological landscape of great aesthetic value.
Land-use regimes	Natural vegetation.

Landscape aspect of Serra Negra Natural Reserve (Photo: Isildo Gomes, INIDA).

Additional information

Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	DGA. 2015. Proposta para a criação de Reserva da Biosfera na Ilha do Sal. Praia. Cabo Verde. INIDA. 2013. Inventariação da Flora e Fauna das Áreas protegidas na Ilha do Sal. DGA. Praia. Cabo verde.



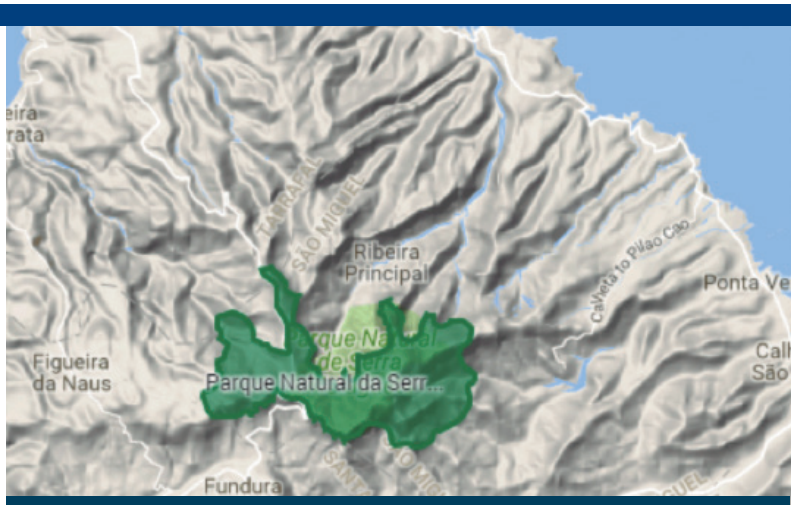
Aspect of the vegetation of Serra Negra Natural Reserve
(Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Parque Natural da Serra da Malagueta

Island
Santiago

Geopolitical unit: Santiago
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the Serra Malagueta Natural Park.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Limonium lobinii* – CR / B1ab(ii); D *Conyza pannosa* – EN / B1ab(ii,iv)+2ab(ii,iv) *Globularia amygdalifolia* – EN / B1ab(ii)+2ab(ii) *Sideroxylon marginata* – EN / B1ab(ii)+2ab(ii) *Echium hypertropicum* – EN / B1ab(ii)+2ab(ii) *Conyza varia* – EN / B1ab(ii,iv)+2ab(ii,iv) *Diplotaxis varia* – EN / B1ab(ii)+2ab(ii) *Tornabenea annua* – EN / B1ab(ii)+2ab(ii)
B1	Individual geographically restricted species	*Limonium lobinii* *Echium hypertropicum* *Campanula jacobaea* *Conyza varia* *Diplotaxis varia*

Justification

Rationale for the IPA nomination	There is no accurate population data for most species but it is estimated that the entire population of *Limonium lobinii* is found within the Serra da Malagueta Natural Park and that the following endemic species have more than 10% of their global population within the Natural Park: *Echium hypertropicum; Campanula jacobaea; Conyza varia; Diplotaxis varia.*

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	There is no accurate population data but it is estimated that the following threatened species (according to the IUCN Red List) have more than 5% of their global population within Serra da Malagueta Natural Park: *Conyza pannosa* (EN); *Globularia amygdalifolia* (EN); *Sideroxylon marginata* (EN); *Echium hypertropicum* (EN); *Conyza varia* (EN); *Diplotaxis varia* (EN); *Tornabenea annua* (EN); and that *Limonium lobinii* (CR) has its total (100%) population within the Natural Park.
Rationale for the IPA delineation	The IPA's limits follow those of the Natural Park, including neighboring areas such as Ribeira Cantada and Lugar Velho, due to important populations of *Echium hypertropicum* and *Diplotaxis varia.*

Description

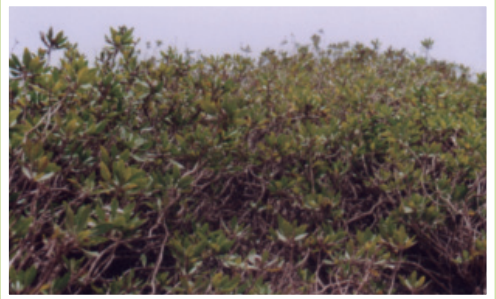
IPA size	The Natural Park has an area of 7.74 km² and is located at the confluence of three municipalities: Santa Catarina (3.02 km²), São Miguel (4.36 km²) and Tarrafal (0.36 km²).
IPA protection status and existing management plan	Serra da Malagueta Natural Park (95% of KBA's surface area). The Natural Park delimitation was approved by the Council of Ministers by Decree-Law No. 19/2007 of 31 December. It has a Management Plan that was approved in December 2008.
IPA description	Serra Malagueta Natural Park is located in the northern part of Santiago Island. Presence of mountains that constitute, along with Serra de Pico de Antónia, one of the most representative examples of mountain ecosystems of the island.
Botanical diversity	The area is home to a wide variety of angiospermic and pteridophytic plants (123 species). It has the largest number, 26 (27%), of higher plant species endemic to the island of Santiago. Among the spontaneous species that occur in the region, 14 (13%) are included in the Red List of Cabo Verde and of Santiago island.

Habitats/ecosystems	Within the Park, there are different types of habitats due to the diversity of altitude and microclimates. Ecosystems with *Centaurium tenuiflorum Viridense*. Areas that are home for species of *Limonium lobinii, Umbilicus schmidtii, Campanula jacobae.*
Ecosystem service values  Partial view of Serra da Malagueta - south slope occupied with *Furcraea foetida* and other introduced species (Photo: Isildo Gomes, INIDA).	The Serra da Malagueta represents, together with Rui Vaz and Serra do Pico de Antónia, the ecosystems with the greatest agricultural potential of the Santiago island. It is, together with Serra do Pico de Antónia, an area with good natural conditions for the practice of mountain tourism. It is a sample of an ecosystem where man can harmonize three aspects: subsistence, natural resources and sustainable development. Other services: use of medicinal plants, tourism, scientific use, environmental education.
Additional biodiversity values	Fauna.
Land-use regimes	Land occupied with rain-fed agriculture, forest, pasture.
Cultural values	Serra da Malagueta Natural Park offers a variety of elements that show the marks of the past and the cultural heritage in human settlements. The villages scattered throughout the Park, mainly in Curral D'Asno, and extending at top of the descending slopes show signs of ancient patterns of architectural constructions, also evident in the double- or four-gabled roofs. The conservation of this heritage of peculiarities, varieties and beauty requires special attention.

Threats and conservation

Major threats (plants and habitats)	Invasive alien species (*Lantana camara, Furcraea foetida*).
Conservation actions in place (plants and habitats)	Replacement of invasive alien species with endemic species.

Conservation actions needed



Dense settlement of *Globularia amygdalifolia* on the northwest slope of Serra da Malagueta. It occupies an estimated area of 1.5 hectares (Photo: Isildo Gomes, INIDA).

Community of *Limonium lobinii* – local endemic species (Photo: Isildo Gomes, INIDA).

- Information, training and awareness for users (shepherds, farmers, among others) of the biological resources, especially for the area vegetable biomass; Public Services and Non-Governmental Organizations;
- Multiplication of threatened plant species and others for the recovery of degraded ecosystems (e.g., slopes) in the nurseries of the Forest Services and other entities (e.g, local community members);
- Partial and gradual replacement, in close collaboration with local communities, of introduced exotic vegetation (*Eucalyptus* spp,. *Lantana camara* and *Furcraea gigantea*) by shrub and tree species of native flora (ex.: *Dracaena draco, Echium hypertropicum, Sonchus daltonii, Sideroxylon marginata, Periploca laevigata chevalieri* and *Euphorbia tuckeyana*, among others;
- Promotion of the approval of the Decree-Regulation on protection of local flora species threatened with extinction;
- Protection of slopes facing N-NW against free grazing and unruly pasture cutting.

Additional information

Stakeholder engagement

INIDA, DNA and workshop participants.

Bibliography

Gomes, I. 2001. Subsídios para a elaboração do Plano de Gestão de Áreas Protegidas em Cabo Verde. SEPA. Praia. Cabo Verde.

MAHOT. 2008. Plano de Gestão do Parque Natural de Serra da Malagueta. DGA. Praia. Cabo Verde.

Community of *Sonchus daltonii* on the NE slope of Serra da Malagueta, during the rainy season (Photo: Isildo Gomes, INIDA).

Community of *Sonchus daltonii* on the NE slope of Serra da Malagueta, during the rainy season (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Parque Natural de Rui Vaz e de Serra do Pico de Antónia

Island
Santiago

Geopolitical unit: Santiago
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)

Delimitation of the Serra do Pico de Antónia Natural Park.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Globularia amygdalifolia* – EN / B1ab(ii)+2ab(ii) *Sideroxylon marginata* – EN / B1ab(ii)+2ab(ii) *Echium hypertropicum* – EN / B1ab(ii)+2ab(ii) *Campanula bravensis* – EN / B1ab(ii,iv)+2ab(ii,iv) *Micromeria forbesii* – EN / B1ab(ii,iv)+2ab(ii,iv) *Dracaena draco ssp. caboverdeana* – CR / B1ab(ii,iv)
B1	Individual geographically restricted species	*Echium hypertropicum* *Campanula bravensis* *Solanum rigidum*

Justification

Rationale for the IPA nomination	There is no accurate population data for the majority of species. The IPA has more than 10% of the world's population of *Campanula bravensis,* and the following endemic species also have more than 10% of their overall world population in Serra de Pico de Antónia Natural Park: *Globularia amygdalifolia* (EN); *Sideroxylon marginata* (EN); *Echium hypertropicum* (EN); *Diplotaxis varia; Micromeria forbesii* (EN) *Dracaena draco* subsp. *caboverdeana* (CR). There is no accurate population data but it is estimated that the following threatened species, according to the IUCN Red List, have more than 5% of their overall world population in Serra de Pico de Antónia Natural Park: *Globularia amygdalifolia* (EN); *Sideroxylon marginata* (EN); *Echium hypertropicum* (EN); *Diplotaxis varia* (EN).

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

Rationale for the IPA delineation	The IPA follows the boundaries of the protected area.

Description

IPA size	8.9 km^2
IPA protection status and existing management plan	Natural Park.
IPA description	The mountains of Rui Vaz and Serra do Pico de Antónia are two of the most representative samples of mountain ecosystems on Santiago island. They represent, together with the Serra da Malagueta, the ecosystems with the greatest agricultural potential on the island. The Serra do Pico de Antonia crosses Santiago island from west to east. With 1,392 m in height, the Pico de Antónia massif is the largest orographic feature on the island. The east-facing slopes constitute a majestic escarpment, whereas those exposed to the west and south present smoother gradients, and are further modified by erosion as a result of their exposure to the Northeast trade winds. In this mountain chain several valleys are born, with Ribeira Seca being the most important one. As in Serra da Malagueta, the N-NE faces are subject, due to their altitude, to considerably higher precipitation levels than those in the rest of the island. For this reason, some of the valleys in Serra do Pico de Antonia have water for several months during the dry season. Due to the barrier effect produced by the mountain chain, Serra do Pico de Antónia has zones that are influenced by the moist winds and the N-NE slopes located in the humid zone. The area of Rui Vaz is located on the southwest-facing slopes of Santiago island. These slopes are heavily influenced by the Northeasterly moist winds which not only contributes to increase soil humidity but also to increase the erosion of rocky areas.
Botanical diversity	Approximately 143 species of angiosperms. The area holds a relatively high number (17%) of endemic plant species from Cabo Verde. Among the spontaneous species that appear in the region, 21% are in the Red List of Santiago and 15% in the Cabo Verde Red List.

Serra do Pico de Antónia during the rainy season (Photo: Isildo Gomes, INIDA).

Slopes of the Pico de Antónia area occupied with forest (Photo: Isildo Gomes, INIDA).

Ecosystem service values	The two zones have among the best natural conditions for the practice of mountain tourism. They constitute a sample of ecosystems where man can harmonize subsistence, natural resources and sustainable development. Other services include: traditional rain-fed agriculture; use of medicinal plants; tourism; scientific use; environmental education.
Additional biodiversity values	Endemic fauna: *Acrocephalus brevipennis; Ardea pourpurea bournei*; *Falco t. alexandri;*
Land-use regimes	Land occupied with rain-fed agriculture, forest, pasture.
Cultural values	Use of plants with medicinal properties.

Echium hypertropicum – endemic species of Cabo Verde (Photo: Isildo Gomes, INIDA).

Threats and conservation

Major threats (plants and habitats)	Invasive alien species. Agriculture. Free grazing.
Conservation actions in place (plants and habitats)	Environmental education and awareness; *in situ* conservation.
Conservation actions needed	– Information, training and awareness for users (shepherds and farmers, among others) of the biological resources of Rui Vaz and Serra de Pico de Antónia, Public Services and Non-Governmental Organizations; – Multiplication of threatened plant species and others for the recovery of degraded ecosystems (e.g., slopes) in the nurseries of the Forest Services and other entities (e.g, local community members);

Nauplius daltonii – endemic species of Cabo Verde (Photo: Isildo Gomes, INIDA).

Community of *Tolpis farinulosa* – endemic species of Cabo Verde, endangered in Santiago island (Photo: Isildo Gomes, INIDA).

- Partial and gradual replacement, in collaboration with members of local communities, of introduced exotic vegetation (*Eucalyptus* spp,. *Lantana camara* and *Furcraea gigantea*) by shrub species of native flora (e.g., *Dracaena draco, Echium hypertropicum, Artimisia gorgonum* and *Periploca laevigata chevalieri*);
- Promotion of the approval of the Decree-Regulation on protection of local flora species threatened with extinction;
- Protection of the central region against free grazing and unruly pasture cutting.

Additional information

Stakeholder engagement

Invasive alien species (*Furcraea foetida* and *Lantana camara*), agriculture and free grazing are factors that contribute to the degradation of vegetation in Ruiz Vaz and Serra de Pico de Antónia (Photo: Isildo Gomes, INIDA).

INIDA, DNA and workshop participants.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Cruzinha da Garça

Island
Santo Antão

Geopolitical unit: Santo Antão
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)

Delimitation of the Cruzinha Natural Reserve

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Sideroxylon marginatum* – EN / B1ab(ii) + 2ab(ii) *Campylanthus glaber* – EN / B1ab(ii) + 2ab(ii) *Limonium braunii* – EN / B1ab(ii) + 2ab(ii) *Launaea gorgadensis* – CR / B1ab(iii)
B1	Individual geographically restricted species	*Sideroxylon marginatum* *Campylanthus glaber* *Limonium braunii*

Justification

Rationale for the IPA nomination	The native population of *Sideroxylon marginata* within the IPA represents more than 10% of the global population.
Rationale for the IPA delineation	The limits of the IPA coincide with those of the Natural Park.

Description

IPA size	25,2 km²
IPA protection status and existing management plan	Natural Park.

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA description	Cruzinha da Garça is an area featuring several seasonal streams and their respective deep valleys, including Ribeira da Garça and Ribeira do Mocho. Representative species such as *Sideroxylon marginata* and *Campylanthus glaber spathulata* are present. It is the only coastal area with dunes in Santo Antão island. Its dune landscape contrasts with the rocky and generally steep coastal shorelines.
Botanical diversity	About 40 species of angiosperms. The population of *Campylanthus glaber* subsp. *spathulata,* a characteristic species of coastal areas, is very representative within the IPA.
Ecosystem service values	Tourism.
Additional biodiversity values	Avifauna: nesting of *Calonectris edwardsii, Pandion haliaetus.* Nesting of *Caretta caretta.*
Land-use regimes	Agriculture, construction, natural vegetation.

Threats and conservation

Major threats (plants and habitats)	Invasive alien species. Destruction of the natural vegetation.
Conservation actions needed	Elaboration of the protected area management plan. Immediate termination of reforestation activities that have consisted of the introduction of acacia trees within the IPA. Progressive substitution of the introduced non-native acacias with native plant species (e.g., *Tamarix senegalensis*).

Partial view of the Cruzinha da Garça dune vegetation. Santo Antão (Photo: Isildo Gomes, INIDA).

Additional information

Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	Gomes, I. 2001. Subsídiospara a elaboração do Plano de Gestão de Áreas Protegidas em Cabo Verde. SEPA. Praia. Cabo Verde.

Campylanthus glaber and *Nauplius daltonii vogelii* on the dunes of Cruzinha da Garça-Santo Antão. (Photo: Isildo Gomes, INIDA).

Local community of Cruzinha (Photo: Isildo Gomes, INIDA).

Coastal region (Photo: Isildo Gomes, INIDA).

Sideroxylon marginata (Photo: Isildo Gomes, INIDA).

Campylanthus glaber subsp. *spathulatus* (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Parque Natural Cova/ Ribeira Paúl/ Torre e Parque Natural de Moroços

Island
Santo Antão

Geopolitical unit: Santo Antão
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)

Delimitation of the Cova/Ribeira Paúl/Torre and Moroços Natural Parks.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1 Threatened species


Caldeira da Cova (Photo: Isildo Gomes, INIDA)

Carex antoniensis – CR / B1ab(ii) + 2ab(ii); D
Tornabenea bischoffii – EN / B1ab(ii) + 2ab(ii)
Periploca chevalieri – EN / B1ab(ii) + 2ab(ii)
Papaver gorgoneum – CR / B1ab(ii) + 2ab(ii)
Sonchus daltonii – EN / B1ab(iv) + 2ab(iv)
Tolpis farinulosa – EN / B1ab(ii) + 2ab(ii)
Diplotaxis gorgadensis – CR / B1ab(ii) + 2ab(ii)
Phagnalon melanoleucum – EN / B1ab(ii) + 2ab(ii)
Verbascum capitis-viridis – VU / B1ab(ii,iii) + 2ab(ii,iii)

B1 Individual geographically restricted species

Carex antoniensis
Diplotaxis gorgadensis
Phagnalon melanoleucum
Lotus latifolius
Echium stenosiphon

Justification

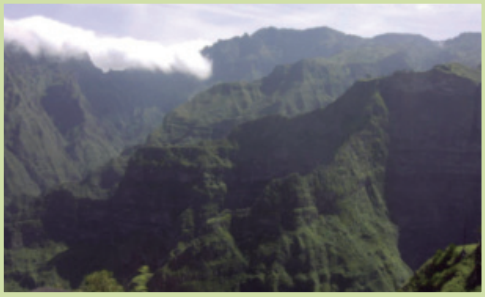
Rationale for the IPA nomination	Presence of an exclusive endemism of the island (100% of the population of *Carex antoniensis* is within the IPA).
Rationale for the IPA delineation	The delimitation follows the buffer zone boundary that covers the two protected areas.

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

Description

IPA size	56 km²
IPA protection status and existing management plan	Natural Park.
IPA description	This IPA is an important area of mountains made up of volcanic craters, agricultural valleys and plateaus and that shelters important populations of endemic plants of Cabo Verde, some of which are exclusive to the island (*Campanula hortelensis, Campanula feijoana, Carex antoniensis*).
Botanical diversity	About 130 species of angiosperms. Significant presence of *Carex antoniensis, Diplotaxis antoniensis* and *Papaver gorgoneum populations*. Significant presence of *Campanula hortelensis* and *Campanula feijoana populations*, endemic species of the island.
Habitats/ecosystems	Different habitat types due to altitude and microclimate diversity.
Ecosystem service values	Rural tourism, rain-fed agriculture, environmental education, irrigated agriculture.
Additional biodiversity values	Avifauna: *Buteo buteo bannermanii, Neophron percnopterus.* Herpetofauna: *Tarentola* sp., *Chioninia* sp.
Land-use regimes	Rain-fed and irrigated agriculture, forestry, agrosilvopastoralism.



Partial view of Ribeira da Torre
(Photo: Isildo Gomes, INIDA)

Cova slopes occupied with forest species
(Photo: Isildo Gomes, INIDA).

Threats and conservation

Major threats (plants and habitats)	Invasive alien species; Rain-fed agriculture; Grazing (grass collection).
Conservation actions in place (plants and habitats)	Eradication of invasive alien species. Projects of endemic species production and fixation.
Conservation actions needed	– Progressive substitution of exotic plants, namely *Acacia* spp., at the entrance of Ribeira da Torre, with native flora species; – Prevention and combat of water erosion, through the establishment of live barriers, made up of local autochthonous species such as *Periploca laevigata*; – Information, training and awareness of the current users of genetic plant resources in the area, namely farmers and livestock breeders; – Promotion of other income-generating activities in neighboring communities, the survival of which depends on the exploitation of the three areas; – Protection of the area against overgrazing of native species, in order to allow the regeneration of the natural vegetation; – Control of the spread of invasive species, namely, *Furcraea gigantea* and *Lantana camara* on the slopes, in order to reduce their interference in natural vegetation communities.

Dracaena draco caboverdeana (Photo: Isildo Gomes, INIDA).

Campanula feijoana – local endemic species (Photo: Isildo Gomes, INIDA).

Additional information

Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	Planos de Gestão do Parque Natural de Cova/Paul/ Ribeira da Torre e Parque Natural de Moroços. Gomes, I. 2001. Subsídios para a elaboração do Plano de Gestão de Áreas Protegidas em Cabo Verde. SEPA. Praia. Cabo Verde.

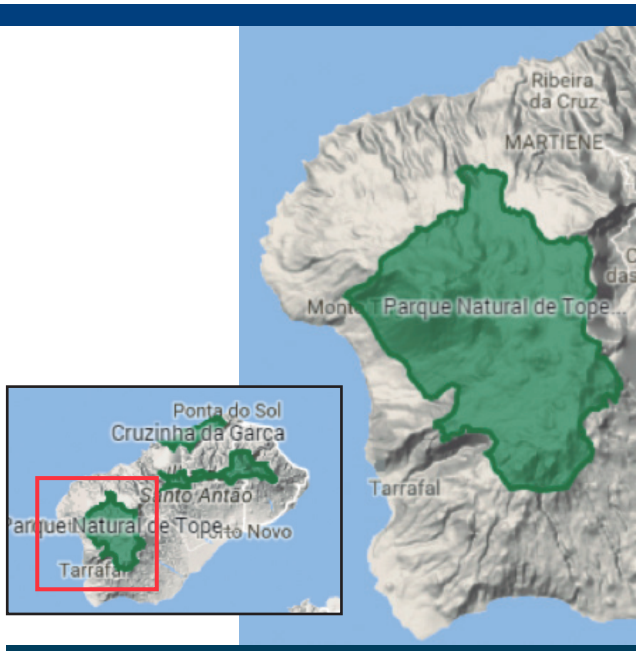
General view of Ribeira da Torre during the transition period between the rainy season and the dry season.
Community of *Sonchus daltonii, Tolpis farinulosa* and accompanying species
(Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Tope de Coroa Natural Park

Island
Santo Antão

Geopolitical unit: Santo Antão
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the Tope de Coroa Natural Park.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Artemisia gorgonum* - EN / B1 ab(ii,iii) + 2ab(ii,iii) *Conyza feae* – EN / B1 ab(ii,iv) + 2ab(ii,iv) *Diplotaxis antoniensis* – VU / D1+2 *Micromeria forbesii* – EN / B1 ab(ii,iv) + 2ab(ii,iv) *Tornabenea bischoffii* – EN / B1 ab(ii) + 2ab(ii)
B1	Individual geographically restricted species	*Echium stenosiphon lindbergii* *Nauplius daltonii vogelii*

Justification

Rationale for the IPA delineation	The IPA limits correspond to those of the protected area.

Description

IPA size	85.4 km²
IPA protection status and existing management plan	Natural Park.

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA description	The Tope de Coroa Natural Park features vegetation that is adapted to a semi-arid climate, represented by species such as Euphorbia tuckeyana, *Nauplius daltonii vogelii, Artemisia gorgonum*. From the geomorphological point of view, this IPA presents volcanic cones. Like the peak on Fogo island, Tope de Coroa is a young cone that has developed inside a crater. On its western façade it presents very inclined slopes and on its southern and eastern façades, more precisely from 1,400 m, a vast plateau. The façade exposed to the north presents a greater percentage of plains cut by a series of rills, probably originating in erosive action. In contrast to the western slope, characterized by its aridity, the north-northeast has a more dense vegetation cover that prevents the erosion of the soil covered by dark volcanic pumice gravel. The area has soils that are, mostly, without vegetation. The areas in which there is some semi-natural vegetation are overexploited by free grazing.
Botanical diversity	About 31 species of angiosperms.
Ecosystem service values	Rural tourism, environmental education.
Additional biodiversity values	Avifauna: *Neophron percnopterus.*
Land-use regimes	Natural vegetation.

General view of Tope de Coroa e Monte Pia (Photo: Gilda Monteiro, Santo Antão Island Protected Areas).

Threats and conservation

Major threats (plants and habitats)	Grazing.
Conservation actions in place (plants and habitats)	Construction of corrals for goats, aimed at reducing free grazing.
Conservation actions needed	– Elaboration of the Protected Area Management Plan; – Creation of alternative income-generating activities as a form of gradual replacement of livestock activities practiced in the area; – Information, training and awareness of the current users of pasture in the area, namely herdsmen and livestock farmers; – Protection of the area against free grazing in order to allow for the regeneration of vegetation.

Additional information

Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	Gomes, I. 2001. Subsídios para a elaboração do Plano de Gestão de Áreas Protegidas em Cabo Verde. SEPA. Praia. Cabo Verde.

Partial view of Tope de Coroa (Photo: Isildo Gomes, INIDA).

Euphorbia tuckeyana on the slopes of Tope de Coroa (Photo: Isildo Gomes, INIDA).

Euphorbia tuckeyana in the small dry streambeds on Tope de Coroa (Photo: Isildo Gomes, INIDA).

Diplotaxis antoniensis (endemism of Santo Antão island) and *Asphodelus fistulosus* (Photo: Isildo Gomes, INIDA).

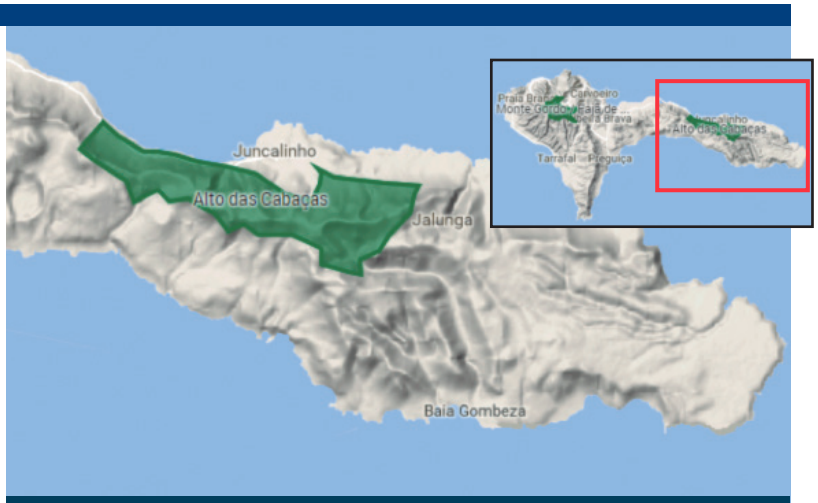
Free grazing - the main cause of vegetation degradation in the Tope de Coroa area (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Alto das Cabaças

Island
São Nicolau

Geopolitical unit: São Nicolau
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a (i,ii) ; B1(i,ii)



Delimitation of the Alto da Cabaças IPA.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Conyza schlechtendalii* – CR / D *Helichrysum nicolai* – CR / D *Limonium sundingii* – CR / D *Diplotaxis sundingii* – CR / B1 ab(ii) + 2ab(ii) *Tornabenea ribeirensis* – CR / B1 ab(iii) + 2ab(iii)
B1	Individual geographically restricted species	*Conyza schlechtendalii* *Helichrysum nicolai* *Limonium sundingii* *Diplotaxis sundingii* *Tornabenea ribeirensis* *Campanula jacobaea*

Justification

Rationale for the IPA nomination	There is no accurate population data for most species but it is estimated that the entire population of *Helichrysum nicolai; Limonium sundingii* and *Diplotaxis sundingii* is found within the Alto das Cabaças Natural Reserve, and that the endemic species *Conyza schlechtendalii* and *Tornabenea ribeirensis* have more than 10% of their global populations within the Natural Reserve. Assessment of threatened species according to the IUCN Red List: *Helichrysum nicolai* (CR); *Limonium sundingii* (CR) and *Diplotaxis sundingii* (CR) (100%).

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

(Photo: Isildo Gomes, INIDA).

Rationale for the IPA delineation	The IPA limits follow those of the protected area.

Description

IPA size	Area of the IPA: 12.7 km². The Alto das Cabaças Natural Reserve occupies an area of 13.25 km².
IPA protection status and existing management plan	Natural reserve There is no management plan for the area.
IPA description	Alto das Cabaças is located in the sub-humid zone and it is part of the second-highest mountain range on the island that goes from east to west. It constitutes, with its 656 m, the highest elevation on the eastern part of the island. The steep slopes constitute, due to their location between the eastern and western mountain chains, a barrier to the humid winds coming from the sea. This provides a large amount of localized precipitation that benefits the local vegetation. Alto das Cabaças is part of a chain of mountains that develops from west to east, close to the sea and parallel to the coast. The soils of Alto das Cabaças are, for the most part, occupied with semi-natural vegetation, generally used as fodder for goats. Rain-fed agriculture occupies the plots of arable land that are more accessible, situated at S-SE, near Jalunga, where there are still the remains of a half-dozen houses that were used in the past for human habitation.
Botanical diversity	The site has intact vegetation, typical of escarpments, that forms a dense vegetation cover on the terraces facing the sea.

(Photo: Isildo Gomes, INIDA).

(Photo: Isildo Gomes, INIDA).

There are about 37 species of spermatophytes and pteridophytes. About 79% of the inventoried species are spontaneous. Of these, 64% are endemisms, and *Limonium sunding, Conyza schlechtendalii, Diplotaxis sunding* and *Helichrysum nicolai* are local endemisms, all of which are classified as critically endangered at local and national level.

About 33% of the species that are currently present in the area are on the Red List of São Nicolau and 27% belong to the Red List of angiospermic plants of Cabo Verde; *Campanula jacobaea, Nauplius daltonii ssp. vogelii, Frankenia montana, Asplenium hemionitis, Sonchus daltonii, Launaea gorgadensis.*

Habitats/ecosystems	The Alto das Cabaças area is the most representative sample of humid mountain ecosystems in the eastern region of São Nicolau Island.
Ecosystem service values	From a geological point of view, the mountain chain of which Alto das Cabaças is the highest point is probably older than the one located in the west, and may be an attraction for mountain tourism in the eastern part of São Nicolau island. Rain-fed agriculture, tourism, environmental education, scientific use.
Additional biodiversity values	Herpetofauna: *Chioninia nicolauensis* and *Tarentola bocagei*
Land-use regimes	Rain-fed agriculture and grazing.

(Photo: Isildo Gomes, INIDA).

Threats and conservation

Major threats (plants and habitats)	Grazing and invasive alien species (*Lantana camara* and *Furcraea foetida*).
Conservation actions in place (plants and habitats)	The implementation of recommended conservation measures is not yet in place.

Conservation actions needed

(Photo: Isildo Gomes, INIDA).

- Information, training and awareness for livestock breeders and farmers, among others, in the Juncalinho community who habitually use the biological resources of Alto das Cabaças, and for Public Services and Non-Governmental Organizations;
- Elimination of the clusters of *Lantana camara* from the communities of *Euphorbia tuckeyana* and *Echium stenosiphon* stenosiphon from the peak (small plateau from the highest point of Monte Alto das Cabaças);
- Creation of living barriers with *Periploca laevigata chevalieri* to protect the slopes facing Jalunga against wind and water erosion;
- Protection of the slopes facing Jalunga against the free grazing of goats.

Additional information

Stakeholder engagement

INIDA, DNA and workshop participants.

Bibliography

(Photo: Isildo Gomes, INIDA).

Gomes, I. 2001. Subsídios para a elaboração do Plano de Gestão das Áreas Protegidas em Cabo Verde. DGA. Praia. Cabo Verde.

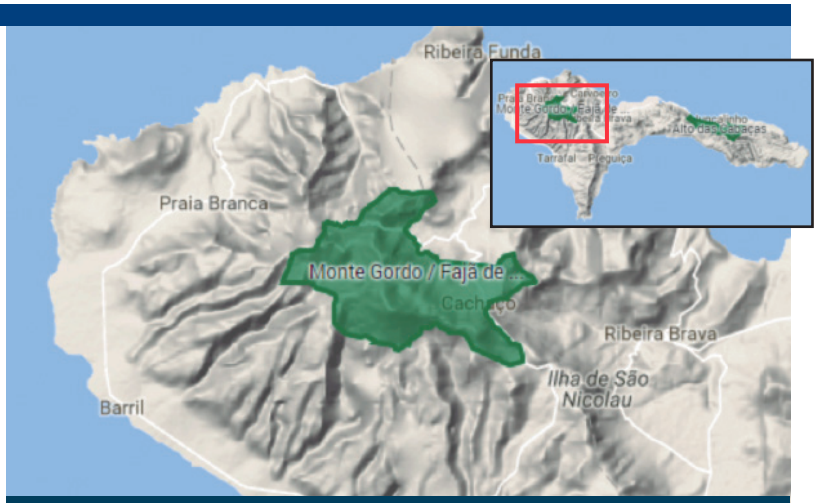
Kilian, N. Merce Galbany-Casals & Christoph Oberprieler. 2010. Heiichrysum nicolai (Compositae, Gnaphaiieae), Systematics of a New Dwarf Local Endemie of the Cape Verde Islands, W Africa. Flora Geobot. Institute of Botany. Academy of Sciences of the Czech Republic. 45:183-199.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Monte Gordo

Island
São Nicolau

Geopolitical unit: São Nicolau
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the IPA of Monte Gordo.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Asteriscus smithii* – CR / B1ab(iii)+2ab(iii) *Echium stenosiphon glabrescens* – EN / B1ab(ii)+2ab(ii) *Micromeria forbesii* – EN / B1ab(ii,iv)+2ab(ii,iv) *Papaver gorgoneum* – CR / B1ab(ii)+2ab(ii) *Diplotaxis gracilis* – EN / B1ab(iii)+2ab(iii) *Umbilicus schmidtii – EN / B1ab(ii)+2ab(ii)*
B1	Individual geographically restricted species	*Echium stenosiphon* *Dryopteris gorgonea* *Umbilicus schmidtii* *Lotus arborescens* *Dracaena draco*

Justification

Rationale for the IPA nomination	There is no accurate population data for most species, but it is estimated that the entire population of *Asteriscus smithii* is found within Monte Gordo Natural Park and that the following endemic species have more than 10% of their global population within the Park: *Echium stenosiphon glabrescens; Micromeria forbesii; Papaver gorgoneum; Diplotaxis gracilis* and *Umbilicus schmidtii.* Assessment of threatened species according to the IUCN Red List: *Asteriscus smithii* (CR) (100%).

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

Partial view of the top of Monte Gordo with community of *Euphorbia tuckeyana* (Photo: Isildo Gomes, INIDA).

There is no accurate population data but it is estimated that the following species have more than 5% of their global population within the Park: *Echium stenosiphon glabrescens* (EN); *Micromeria forbesii* (EN); *Papaver gorgoneum* (CR); *Diplotaxis gracilis* (EN) and *Umbilicus schmidtii* (EN).

Rationale for the IPA delineation

The limits of the IPA follow those of the Natural Park and include the neighboring sectors such as Ribeira Fragata and Vale de Fajã, due to the presence of important populations of *Sideroxylon marginata* and *Dracaena draco*.

Description

IPA size

The IPA has an area of 11.7 km².

The protected area of Monte Gordo occupies a small area of 9.52 km².

IPA protection status and existing management plan

Monte Gordo Natural Park (95% of KBA area).

It has a Management Plan that was approved in December 2008.

IPA description

Monte Gordo slope occupied by *Pinus* sp. (Photo: Isildo Gomes, INIDA).

Monte Gordo Natural Park presents high diversity and natural complexity, resulting from the numerous combinations among types of relief, altitudes, topographic characteristics, rocky substratum, soils and natural vegetation cover.

The site is a territory with endemisms, ecological refuges and threatened species, exhibiting a spectacular orography, which characterizes an exuberant landscape and is quite attractive for sustainable nature tourism.

The Park was created by Decree-Law no. 3/2003 of February 24th, and its external limit was approved by Decree-Law no. 10/2007 of September 3rd. It is located in the western part of São Nicolau, between the coordinates 24° 21 'and 24° 22' 30" W and 16° 36'30" and 16°37'30"N, on the division between the municipalities of Ribeira Brava and Tarrafal.

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

Botanical diversity

About 200 taxa of vascular plants.

The park has a significant amount of rare and threatened species:

Sideroxylon marginata
Sonchus daltonii
Campanula jacobaea
Campylanthus glaber

Habitats/ecosystems

Monte Gordo is considered one of the most attractive areas in Cabo Verde and one of the few where it is possible to observe the native vegetation of the island. The park is endowed with a great variety of unusual habitat types, among which is a vast expanse of *Euphorbia turkeyana* habitats - the species' largest area in the country. However, some native habitats have also disappeared due to the invasion of exotic flora and the use of land for agriculture.

Sub-humid ecosystem with a diversity of habitat types.

Ecosystem service values

- Traditional rain-fed agriculture.
- Livestock, confined and semi-confined.
- Use of medicinal herbs.
- Tourism.
- Scientific use.
- Environmental education.

Additional biodiversity values

Avifauna: *Acrocephalus brevipennis.*

Herpetofauna: *Chioninia nicolauensis; Hemidactylus bouvieri* spp. and *Tarentola nicolauensis.*

Land-use regimes

Soil occupied with forest, rain-fed agriculture, pasture, fruit plants.

Cultural values

Nauplius smithii – local endemic species
(Photo: Isildo Gomes, INIDA).

Monte Gordo Natural Park offers a variety of elements that show the marks of the past and local cultural heritage in human settlements. The most distant villages in the Park, mainly Fragata and Ribeira dos Calhaus, are the only ones that still show signs of old pattern of traditional architectural constructions called "a door and two windows" that represents the typical homes of rural environments.

Threats and conservation

Major threats (plants and habitats)	Invasive species: *Lantana camara, Furcraea foetida* and *Leucaena leucocephala.* Free grazing.
Conservation actions in place (plants and habitats)	Monte Gordo Natural Park has a Management Plan with measures for flora conservation.
Conservation actions needed	– Gradual elimination of invasive species. – Information, training and awareness among users (farmers, livestock breeders and others) about the biological resources, mainly vegetal biomass, of the area and for Public Services and Non-Governmental Organizations.

Community of *Euphorbia tuckeyana* with specimens up to 3 m high (Photo: Managment Plan of the Monte Gordo Natural Park).

Additional information

Stakeholder engagement	INIDA, DNA and dos workshop participants.
Bibliography	Gomes, I. 2001. Subsídios para a elaboração do Plano de Gestão de Áreas Protegidas em Cabo Verde. SEPA. Praia. Cabo Verde. MAHOT. 2008. Plano de Gestão do Parque Natural de Monte Gordo. DGA. Praia. Cabo Verde.

Sonchus daltonii – endemic species of Cabo Verde (Photo: Isildo Gomes, INIDA).

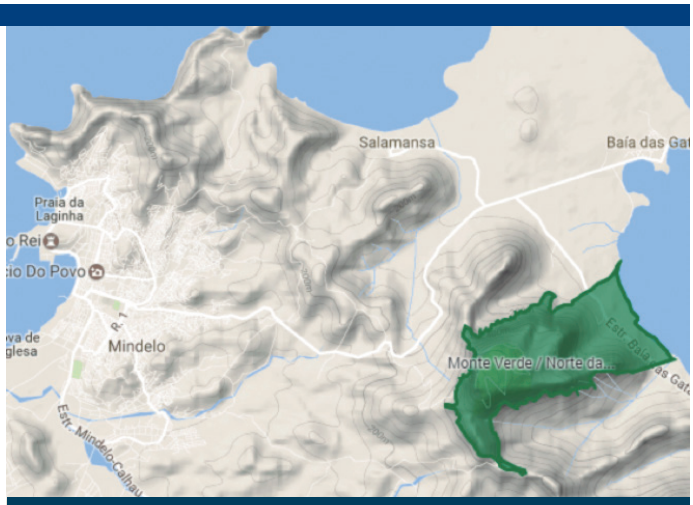
Free grazing on the slope of Monte Gordo (Photo: Isildo Gomes, INIDA).

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

IPA Name
Monte Verde / Norte da Baía

Island
São Vicente

Geopolitical unit: São Vicente
Assessment date: 09/05/2017
System: Terrestrial
Evaluator: INIDA, revised in national workshop 9/05/2017
Global KBA criteria met: A1a(i,ii) ; B1(i,ii)



Delimitation of the Monte Verde/Norte da Baía IPA.

"Trigger" biodiversity elements (flora and ecosystems) according to global KBA standards

A1	Threatened species	*Echium stenosiphon* – EN / B1ab(ii)+2ab(ii) *Aeonium gorgoneum* – EN / B1ab(ii,iii)+2ab(ii,iii) *Limonium jovi-barba* – CR / B1ab(ii); D *Tornabenea insularis* – EN / D *Launaea picridioides* – VU / B1ab(ii)+2ab(ii) *Diplotaxis vogelli* – CR / B1ab(ii)+2ab(ii) *Limonium braunii* – EN / B1ab(ii)+2ab(ii) *Lotus purpureus* – EN
B1	Individual geographically restricted species	*Echium stenosiphon* *Aeonium gorgoneum* *Limonium jovi-barba* *Diplotaxis vogelli*

Justification

Rationale for the IPA nomination	Presence of an exclusive endemism of São Vicente and São Nicolau islands, *Limonium jovi-barba* (more than 10% of its population is within the IPA). More than 10% of the global population of *Tornabenea insularis.*
Rationale for the IPA delineation	The limits of the IPA follow those of the Natural Park and include the Norte de Baía.

Funded by: CRITICAL ECOSYSTEM PARTNERSHIP FUND

IMPORTANT PLANT AREAS (IPAs) OF CABO VERDE

Description

IPA size	4.17 km²
IPA protection status and existing management plan	The Natural Park houses an important part of the IPA. Land Planning and Management Plan, and Ecotourism Plan.
IPA description	This IPA is the most important mountain area in São Vicente island and is the only example of a humid ecosystem on the island, where more than 70% of its native species are concentrated, as are other endemic species such as *Limonium jovi-barba*, which is only found in two islands of Cabo Verde.
Botanical diversity	About 93 species of angiosperms. Presence of important populations of *Limonium jovi-barba* and *Tornabenea insularis*. The mountains habitat houses specific species such as *Campanula jacobaea* and *Aeonium gorgoneum*.
Ecosystem service values	Rain-fed agriculture, tourism, grazing, medicine, pharmacopoeia medicine, environmental education
Additional biodiversity values	Avifauna: *Pandion haliaethus, Falco tinnunculus* Herpetofauna: *Tarentola caboverdiana substituta*
Land-use regimes	Land occupied with rain-fed agriculture and natural vegetation.

Landscape of Monte Verde, showing the view of Santa Luzia and S. Nicolau islands and the islets of Branco and Raso (Photo: Isildo Gomes, INIDA).

Aeonium gorgoneum, endemic species (Photo: Isildo Gomes, INIDA).

Threats and conservation

Major threats (plants and habitats)

Invasive alien species, rain-fed agriculture, water erosion.

Conservation actions in place (plants and habitats)

Campanula jacobaea (Photo: Isildo Gomes, INIDA).

- Information/training and awareness raising for schools, landowners, farmers and other users of the Monte Verde lands on the importance of this area for São Vicente and Cabo Verde;
- Promotion of the creation of nurseries for the multiplication of native plants;
- Eradication of invasive alien species.

Conservation actions needed

Lantana camara and Furcraea foetida – invasive species (Photo: Isildo Gomes, INIDA).

Control of the spread of invasive species such as *Furcraea gigantea, Lantana camara* and *Leucaena leucocephala* on the slopes, in order to reduce their interference in natural vegetation communities. Prevention of and fight against water erosion, through the establishment of living barriers, made up of local native species.

Information, training and awareness of the current users of the area's genetic plant resources, namely farmers and livestock breeders.

Furcraea foetida – invasive species (Photo: Isildo Gomes, INIDA).

Rain-fed agriculture – one of the factors in the destruction of vegetation in Monte Verde (Photo: Isildo Gomes, INIDA).

Additional information

Stakeholder engagement	INIDA, DNA and workshop participants.
Bibliography	MAHOT/DGA. 2014. Plano de Ordenamento e Gestão do Parque Natural de Monte e Verde. Ilha de S. Vicente. Cabo Verde. Gomes, I. 2001. Subsídios para a elaboração do Plano de Gestão de Áreas Protegidas em Cabo Verde. SEPA. Praia. Cabo Verde. MAHOT/DGA, 2012. Relatório da Biodiversidade do Parque Natural de Monte Verde. Ilha de São Vicente. Cabo Verde.

Tonabenea insularis (Photo: Isildo Gomes, INIDA).

Limonium jovi-barba (Photo: Isildo Gomes, INIDA).

Rain-fed agriculture
(Foto: Isildo Gomes, INIDA).

Landscape of the western slope of the park
(Foto: Isildo Gomes, INIDA).

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Romeiras, M.M., Catarino, S., Gomes, I., Fernandes, Cl., Costa, J.C., Caujapé-Castells, J. and Duarte, M.C. (2016). *IUCN Red List assessment of the Cape Verde endemic flora: towards a global strategy for plant conservation in Macaronesia*. Botanical Journal of the Linnean Society, 180, 413-425.

Annexes

I. Workshop I : Programme and list of participants

II. Maps, list of trigger species, delineation rationale and map of the 17 IPAs

III. Workshop II : Programme and list of participants

IV. Species list of PN Fogo Island and factsheets for plant species

Annex I : Workshop I - Programme and participants

PROGRAMME

Monday, October 10 (8:30 – 17:30)

Welcome	Julio C. Lima Assessor of the Minister of Agriculture and Environment	
The CEPF Ecosystem Profile	Marcos Valderrabano	IUCN-MED
Project goals and aim of the workshop	Bertrand de Montmollin	IUCN/SSC/GSPM
State of knowledge about the flora, the habitats and the existing Protected areas of Cabo Verde	Isildo Gomes	INIDA
The IUCN Red List of the Cabo Verde endemic flora	Maria M. Romeiras and Maria Cristina Duarte	Faculty of Sciences. University of Lisbon
Tentative list of rare/threatened habitats in Cabo Verde	Maria M. Romeiras and Maria Cristina Duarte	Faculty of Sciences. University of Lisbon
IPA methodology and criteria	Bertrand de Montmollin	IUCN/SSC/GSPM
IUCN KBA project and criteria	Marcos Valderrabano	IUCN-MED
IPA/KBA database and mapping	Marcos Valderrabano	IUCN-MED
Identification and delineation of potential IPAs / KBAs	Work in group	All

Tuesday, October 11 (8:30 – 17:30)

Identification, delineation and justification of IPAs / KBAs	Work in group	All
Control against Red List of capoverdian endemics	Work in group	All

Final check and validation of the provisional list and map of IPAs/KBAs	Work in group	All
Conclusion of the Workshop and preparation of Phase II	Bertrand de Montmollin and Marcos Valderrabano	IUCN/SSC/GSPM, IUCN-MED
Closure of the Workshop	Isildo Gomes INIDA	

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Annex II : Trigger species, delineation rationale and map of the 17 IPAs as result of workshop I.

Country (Island)	KBA Name national	Trigger species and KBA Criteria	Delineation Rationale
Cabo Verde (S. Antão)	**Cruzinha da Garça**	*Sideroxylon marginatum* - A1, B1 (EN) *Campylanthus glaber* - A1, B1 (EN) *Limonium braunii* - A1, B1 (EN) *Launaea gorgadensis* - A1 (CR)	Following the limits of the Protected Area
Cabo Verde (Boavista)	**Boa Esperança**	*Phoenix atlantica* - A1 (EN) *Lotus brunneri* - B1 (NE)	Following the distribution area of *Phoenix atlantica*
Cabo Verde (Boavista)	**Rocha de St António**	*Cynanchum daltonii* - B1 (LC) Habitat of *Ficus sycomorus*	Approximate limits of the Protected Area
Cabo Verde (Boavista)	**Varandinha**	*Arthrocnemum franzii* - B1 (NE) *Lotus brunneri* - B1 (NE) *Asparagus squarrosus* - B1 (NT) Saltmarsh habitat	Following the limits of the Protected Area
Cabo Verde (Brava)	**Ribeira de Fajã de Água**	*Launaea thalassica* - A1, B1 (CR) *Globularia amygdalifolia* - A1 (EN) *Sideroxylon marginata* - A1 (EN) *Echium hypertropicum* - A1, B1 (EN) *Campanula bravensis* - A1, B1 (EN) *Diplotaxis varia* - A1, B1 (EN)	Following the river and the valley up from Faja de Agua

Country (Island)	KBA Name national	Trigger species and KBA Criteria	Delineation Rationale
Cabo Verde (Fogo)	**Parque Natural do Fogo**	*Echium vulcanorum* - A1, B1 (EN) *Erysimum caboverdeanum* - A1, B1 (CR) *Conyza pannosa* - A1 (EN) *Diplotaxis hirta* - A1, B1 (EN) *Verbascum cystolithicum* - A1, B1 (EN) *Limonium braunii* - A1 (EN) *Asteriscus daltonii* - B1 (NT) *Campanula bravensis* - A1 (EN) *Helianthemum gorgoneum* - A1, B1 (EN) *Conyza varia* - A1, B1 (EN) *Euphorbia tuckeyana* - B1 (NT) *Lavandula rotundifolia* - B1 (NT) *Tornabenea tenuissima* - A1, B1 (CR) *Lotus jacobaeus* - B1 (NE) *Lotus purpureus* - B1 (NE) *Paronychia illecebroides* - B1 (NT) *Phagnalon melanoleucum* - A1, B1 (EN)	Following the borders of the Natural Park of Fogo including the buffer zone
Cabo Verde (Maio)	**Parque Natural do Norte do Maio**	*Arthrocnemum franzii* - B1 (NE) *Lotus brunneri* - B1 (NE) *Aristida cardosoi* - B1 (NT) *Asteriscus daltonii* - B1 (NT)	Following the limits of the Protected Area

Country (Island)	KBA Name national	Trigger species and KBA Criteria	Delineation Rationale
Cabo Verde (S. Antão)	**Parque Natural da Cova / Paul / Ribeira da Torre and Moroco**	*Carex antoniensis* - A1, B1 (CR) *Tornabenea bischoffii* - A1 (EN) *Periploca chevalieri* - A1 (EN) *Papaver gorgoneum* - A1 (CR) *Sonchus daltonii* - A1 (EN) *Tolpis farinulosa* - A1 (EN) *Diplotaxis gorgadensis* - A1, B1 (CR) *Phagnalon melanoleucum* - A1, B1 (EN) *Verbascum capitis-viridis* - A1 (VU) *Lotus latifolius* - B1 (NE)	Following the limits of the buffer zone that covers the two protected areas
Cabo Verde (S. Antão)	**Parque Natural de Tope Coroa**	*Artemisia gorgonum* - A1 (VU) *Conyza feae* - A1 (EN) *Diplotaxis antoniensis* - A1, B1 (VU) *Micromeria forbesii* - A1 (EN) *Tornabenea bischoffii* - A1 (EN) *Euphorbia tuckeyana* - B1 (NT)	Following the limits of the Protected Area
Cabo Verde (S. Nicolau)	**Alto das Cabaças**	*Conyza schlechtendalii* - A1 (CR) *Helichrysum nicolai* - A1 (CR) *Limonium sundingii* - A1 (CR) *Diplotaxis sundingii* - A1 (CR) *Tornabenea ribeirensis* - A1 (CR)	Following the limits of the Protected Area

Country (Island)	KBA Name national	Trigger species and KBA Criteria	Delineation Rationale
Cabo Verde (S. Nicolau)	**Monte Gordo / Fajã de Cima**	*Asteriscus smithii* - A1 (CR) *Echium stenosiphon* - A1, B1 (EN) *Micromeria forbesii* - A1 (EN) *Papaver gorgoneum* - A1 (CR) *Diplotaxis gracilis* - A1 (EN) *Dryopteris gorgonea* - B1 (DD) *Umbilicus schmidtii* - A1, B1 (EN) *Lotus arborescens* - B1 (NE) *Dracaena draco* - HD-AnxIVb; BC-AnxI	Following the borders of the Natural Park Monte Gordo including Fajã de Cima
Cabo Verde (S. Vicente)	**Monte Verde / Norte da Baía**	*Echium stenosiphon* - A1, B1 (EN) *Aeonium gorgoneum* - A1, B1 (EN) *Limonium jovi-barba* - A1, B1 (CR) *Tornabenea insularis* - A1 (EN) *Launaea picridioides* - A1 (VU) *Diplotaxis vogelli* - A1, B1 (CR) *Limonium braunii* - A1 (EN) *Lotus purpureus* - A1 (NE)	Following the borders of the Natural Park Monte Verde including Norte da Baía
Cabo Verde (Sal)	**Costa de Fragata**	*Arthrocnemum franzii* - B1 (NE) *Lotus brunneri* - B1 (NE) *Withania chevalieri* - A1 (CR) Saltmarsh habitat	Hand delineation following approximate limits of the Protected Area
Cabo Verde (Sal)	**Monte Grande**	*Pulicaria diffusa* - A1 (EN) *Lotus brunneri* - B1 (NE) *Limonium brunneri* - A1 (CR)	Following the protected area limits

Country (Island)	KBA Name national	Trigger species and KBA Criteria	Delineation Rationale
		Diplotaxis glauca - A1 (CR)	
Cabo Verde (Sal)	**Serra Negra**	*Pulicaria diffusa* - A1 (EN) *Lotus brunneri* - B1 (NE) *Limonium brunneri* - A1 (CR) *Diplotaxis glauca* - A1 (CR)	Following the limits of the Protected Area
Cabo Verde (Santiago)	**Parque Natural da Serra da Malagueta**	*Limonium lobinii* - A1, B1 (CR) *Conyza pannosa* - A1 (EN) *Globularia amygdalifolia* - A1 (EN) *Sideroxylon marginata* - A1 (EN) *Echium hypertropicum* - A1, B1 (EN) *Campanula jacobaea* - B1 (VU) *Conyza varia* - A1, B1 (EN) *Diplotaxis varia* - A1, B1 (EN) *Euphorbia tuckeyana* - B1 (NT) *Tornabenea annua* - A1, B1 (EN)	Following the borders of the park but including some of the bordering areas like Ribeira Cantada and Lugar Velho
Cabo Verde (Santiago)	**Parque Natural de Rui Vaz e de Serra do Pico de Antónia**	*Globularia amygdalifolia* - A1 (EN) *Sideroxylon marginata* - A1 (EN) *Echium hypertropicum* - A1, B1 (EN) *Campanula bravensis* - A1, B1 (EN) *Solanum rigidum* - B1 (VU)	Following the limits of the Protected Area

Figure 1 : Cabo Verde Islands, and the 17 IPAs identified

Figure 2 : Southern Islands (5 IPAs)

Figure3 : Eastern Islands (5 IPAs)

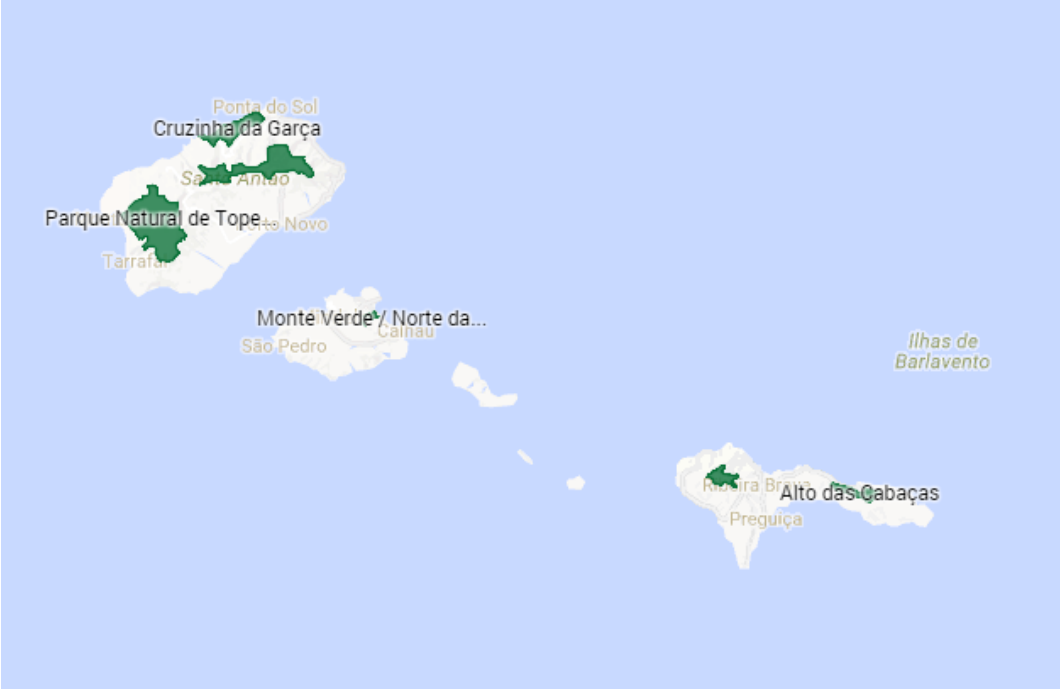

Figure 1 : Northern islands (6 IPAs)

Annex III : Workshop II - Programme and participants

PROGRAMME Tuesday 9 May (8:30 – 17:30)

IPA profile and knowledge gaps.

Objective: Finalize the identification of Important Plant Areas of Cape Verde (based in previous results). Identify knowledge gaps and way forward.

Welcome		
INTRODUCTION: The CEPF Ecosystem Profile and results of previous workshop Project goals and aim of the workshop	Marcos Valderrabano Bertrand de Montmollin	IUCN-MED IUCN/SSC/GSPM
IPAs of Cape Verde. Identification, description of work accomplished until now	Isildo Gomes	INIDA
IPAS of Cape Verde. Group exercise to complete missing data.	Work in group (This will take most of the day.)	Facilitated by INIDA
Knowledge improvement in Cape Verde flora. Description of initiatives and groups of research. Knowledge gaps identification and needs for scientific studies and data collection		INIDA/DNA
Conclusion of the day and way forward		All

Wednesday,10 May (8:30 – 13:00).

Developing plant conservation programmes and policies

Objective: Clarify role of Protected areas, and mechanisms to ensure communication with plant conservation initiatives (ongoing or future) happening inside protected areas in Cape Verde.

Introduction to the day, agenda and what to expect	Marcos Valderrabano	IUCN MED
Examples from abroad: «Linkages between plant conservation and protected area planning in Canary Islands»	Miguel Angel Peña	Cabildo de Gran Canaria
Examples from abroad: «Aplication of plant data for the conservation of species and sites, cases from Canary Islands»	Juli Caujapé Castells	Botanical garden of Gran Canaria
Overview of situation in different islands and Protected areas	All	PA managers of Cape Verde
Conclusion and recommendations		DNA

Wednesday,10 May (14:00-17:30).

Developing plant conservation initiatives and projects

Objective: Support associations, NGOS and other institutions willing to launch initiatives for plant conservation on the steps, mechanisms for funding, and project management needs. Identify gaps and opportunities to improve project management capacities.

Introduction to the afternoon, agenda and what to expect	Marcos Valderrabano	IUCN MED
CEPF framework: CEPF project life cicle, and lessons learned	Awatef Abiad	RIT CEPF
Challenges for successful project management. Lessons learned from SGP	Ricardo Monteiro	GEF- Small Grants programme
Group discussion. Identification gaps and opportunities to improve project management capacities.	Ricardo Monteiro	GEF- Small Grants programme
Closure of the Workshop	Isildo Gomes	INIDA

List of Participants

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Annex IV : Species list of PN Fogo Island and factsheets for plant species

LIST OF PLANT FOUND IN THE NATURAL PARK OF FOGO

Scientific name	Local name	Threat Level (Romeiras & al 2016)	Endemic to Cabo Verde
Acacia cyanophilla	Acacia		No
Acacia holosericea	Acacia		No
Acacia mollissima	Acacia		No
Achyranthes aspera L.	Malpica / Carqueja		No
Adiantum capillus-veneris L.			No
Asteriscus daltonii subsp. vogelii	**Macelinha**	**EN**	**Yes**
Agave sisalana (Engelm.) Perr.	Sisal / Pita		No
Ageratum conyzoides L.	Oregão		No
Amaranthus hybridus	Bredo / Rabo de Galo		No
Andropogon sp.	Touça / Touça –fêmea		No
Anogramma leptophylla (L.) Link			No
Arabidopsis thaliana (L.) Heynh			No
Argemone mexicana L.	Cardo		No
Aristida cardosoi Cout.	**Erva-zagaia**	**NT**	**Yes**
Aristida sp.			
Artemisia gorgonum Webb	**Lorna**	**VU**	**Yes**
Arthraxon lancifolius (Trin.) Hochst.			No
Arundo donax L.	Cariço		No
Asplenium adiantum-nigrum L.			No
Asplenium aethiopicum Ormonde			No
Bidens bipinnata L.	Seta-preta		No
Bidens pilosa L.	Seta		No
Borreria verticillata (L.) G.F. Meyer	Locotane / Velho-téso		No
Brachiaria sp.	Djé-djé folha-larga		No
Brachypodium distachyon			No
Bromus madritensis L.			No
Calotropis procera (Ait.) Ait. Fil.	Bombardeiro		No
Campanula bravensis (Bolle) Chev.	**Contra-bruxa-branca**	**EN**	**Yes**
Campanula jacobaea	**Contra-bruxa Roxa**	**VU**	**Yes**
Campylanthus glaber Benth.ssp. glaber	**Alecrim-brabo**	**EN**	**Yes**
Cenchus ciliaris L	Rabo-de-gato		No
Centaurium tenuiflorum ssp. viridense (Bolle) A. Hans. Et Sund.	**Fel-de-terra**	**CR**	**Yes**

Cheilantes acrostica (Balb.) Tod.			No
Chenopodium ambrosioides	Teixerinha		No
Chenopodium murale			No
Commicarpus helenae (J.A. Schult.) Meikle	Costa-branca		No
Conyza feae (Béguin.) Wild	**Losna-brabo**	**EN**	**Yes**
Conyza varia (Webb) Wild	**Marcelinha**	**EN**	**Yes**
Cosentinia vellea (Aiton) Tod. ssp. vellea	Feto		No
Crotalaria senegalensis (Pers.) Bacle ex DC:	Ovos-de-rato		No
Cupressus arizonica	Cupresso		No
Cupressus lusitanica	Cupresso		No
Cupressus macrocarpa	Cupresso		No
Cupressus sempervirens horizontalis L.	Cupresso		No
Cupressus sempervirens verticalis	Cupresso		No
Cuscuta approximata Bab.			No
Cyperus esculentus L.	Vista		No
Cyperus rotundus	Junça		No
Cynanchum daltonii	Gestiba	LC	Yes
Cytopteris fragilis (L.) Bernh. S.l.			No
Digitaria ciliaris			No
Diplotaxis hirta (Chev.) Rustan et Borgen	**Mostardinha**	**EN**	**Yes**
Dolichos lablab L.			No
Dracaena draco subsp. caboverdeana Marrero Rodr. & (L.) L.	Dragoeiro	CR	Yes
Echium vulcanorum Chev.	**Lingua-de-vaca**	**EN**	**Yes**
Eleusine indica	Djé-dje		No
Eragrostis barrelieri Dav.			No
Erysimum caboverdeanum (Chev.) Sund.	**Cravo-brabo**	**CR**	**Yes**
Eucaliptus camaldulensis	Eucalipto		No
Euphorbia hirta L.	Solda-inglesa		No
Euphorbia tuckeyana Steud. ex Webb	**Tortolho**	**NT**	**Yes**
Foeniculum vulgare	Erva-doce		No
Forsskaolea procridifolia Webb	**Ortiga**	**NT**	No
Furcraea foetida (L.) Haw.	Carrapato		No
Galinsoga quadriradiata			No
Galium aparine L.			No
Galium parisiensis L.			No

Gastridium ventricosum (Gouan) Schinz et Thell.			No
Globularia amygdalifolia Webb	**Mato-botão**	**EN**	**Yes**
Gnaphalium luteo-album L.	Goivo-branco		No
Grevillea robusta	Grevilha		No
Helianthemum gorgoneum Webb	**Piorno-de-flor-amarela**	**EN**	**Yes**
Heteropogon contortus (L.) P.B. ex Roem. et Schult.	Azagaia /Touça-macho		No
Hyparrhenia hirta (L.) Stapf	Palha-guiné		No
Hypodematium crenatum (Forssk.) Kuhn	Feto		No
Imperata cylindrica (L.) PB.	Feto		No
Ipomea purpurea	Calabaceira		No
Jacaranda mimosifolia	Jacarandá		No
Kickxia elegans (G. Forst.) D.A. Sutton ssp. elegans	**Agrião-de-rocha**	**EN**	**Yes**
Lantana camara L.	Freira		No
Lavandula rotundifolia Benth.	**Aipo**	**NT**	**Yes**
Leucaena leucocephala			No
Lobularia canariensis ssp. fruticosa (Webb) Borgen	**Sempre-noivinha**	**EN**	**Yes**
Lotus jacobaeus L.	**Piorno**	**NE**	**Yes**
Lycopodiella cernua (L.) Pic.Serm.			No
Melinis repens (Willd.) Zizka ssp. repens	Palha-de-burro		No
Micromeria forbesii Benth.	**Erva-cidreira**	**EN**	**Yes**
Notholaena marantae var. subcordata (Cav.) Kunkel			No
Ophioglossum polyphyllum A. Braun			No
Oxalis corniculata L.	Azedinha		No
Papaver gorgoneum Cout. ssp. gorgoneum	**Papoila**	**CR**	**Yes**
Paronychia illecebroides Webb in Hooker	**Palha-formiga**	**NT**	**Yes**
Periploca laevigata* ssp.*chevalieri (Brow.) G. Kunkel	**Lantisco**	**EN**	**Yes**
Phagnalon melanoleucum Webb	**Mato-branco**	**EN**	**Yes**
Pinus canariensis	Pino		No
Pinus halepensis	Pino		No
Pinus radiata	Pino		No
Plantago afra L.	Tanchagem		No
Polycarpaea gayi Webb	**Palha-bidião**	**NT**	**Yes**
Pteridium aquilinum (L.) Kuhn			No

Pteris vittata L.			No
Ricinus communis L.	Dajaqui-djaqui /Ricino		No
Samolus valerandi L.			No
Schinus molle			No
Sideroxylon marginata (Decne.) Cout.	**Marmulano**	**EN**	**Yes**
Solanum nigrum L.	Santa-maria		No
Sonchus daltonii Webb	**Sabão-de-cativi / Coroa-de-rei**	**EN**	**Yes**
Sonchus oleraceus L.	Palha-leite		No
Stachys arvensis (L.) L.			No
Tagetes patula L.	Cravo-de-burro		No
Tolpis farinulosa (Webb) Schmidt	**Serrralhinha**	**EN**	**Yes**
Tornabenea tenuissima (Chev.) A Hans et Sund.	**Funcho**	**CR**	**Yes**
Trichodesma africanum (L.) Lehm.	Talino/ racha-canela		No
Tricholalena teneriffae (L. fil.) Link	Palha-branca		No
Umbilicus schmidtii Bolle.	**Bálsamo /Batata-de-rato**	**EN**	No
Urospermum picroides (L.) Scop. Ex F.W. Schmidt	Raposa / Palha-leite-amarga		No
Verbascum cystolithicum Hub.-Mor.	**Sabão-de-feiticeira / Lingua-de-largatixa**	**EN**	No
Wahlenbergia lobelioides subsp. lobelioides (L. fil.) A. DC.			No
Withania chevalieri A.E.Gonc.		**CR**	**Yes**
Withania somnifera (L.) Dun.	Malagueta-de-galinha		No
Zinnia pauciflora L.			No
Zinnia peruviana			No

Losna

Artemisia gorgonum Webb

Familia: Asteraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

2 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto aromático, ereto e denso, revestido por uma penugem branca, até 2 m de altura. Flores minúsculas amarelas, tubulares, agrupadas em pequenas rosetas florais, pendentes, de cerca de 0.5 mm de largura. *Artemisia gorgoneum* está presente em Santo Antão, Santiago e Fogo. Nas últimas pesquisas realizadas em Santiago foi encontrado um único individuo, o que significa que provavelmente a população está a diminuir drasticamente. Esta espécie é frequente em zonas de altitude. Na ilha do Fogo encontra-se em solos vulcânicos sendo um componente característico da vegetação arbustiva da Bordeira e de Chã das Caldeiras. Esta espécie foi recentemente avaliada como Vulnerável (VU) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Esta espécie é colhida para usos medicinais, utilizada como lenha e para pasto de animais. Contudo a maioria das populações está incluída nas áreas protegidas de Santo Antão, como por exemplo no Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre) e na ilha do Fogo no Parque Natural do Fogo.

Aromatic shrub, erect and dense, covered with white hair, up to 2 m high. Minute, tubular, yellow flowers, grouped into small floral rosettes, pendular, about 0.5 mm wide.

Artemisia gorgoneum is present on Santo Antão, Santiago and Fogo. During recent sampling a single specimen was found on Santiago, which suggests that this population is at risk of disappearing. This species is common in high-altitude zones of Santo Antão and on Fogo Island occurs in volcanic soils being a characteristic component of the shrub vegetation of Bordeira and Chã das Caldeiras.

The species was recently evaluated as Vulnerable (VU) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). This species is threatened by habitat loss. Also it is used as firewood, for grazing animals and for medical uses. Several populations are included in the protected areas of Santo Antão, namely of the Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre, and in the island of Fogo in the Parque Natural do Fogo.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Contra-Bruxa-Branca
Campanula bravensis (Bolle) A.Chev.
Familia: Campanulaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,8 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta vivaz, muito ramificada e lenhosa na base, com ramos até 80 cm de comprimento. Flores solitárias alongadas com corola estreita, esverdeadas a brancas, raramente violetas. Esta espécie ocorre nas ilhas de Santiago, Fogo e Brava. Encontra-se fendas e encostas rochosas, em zonas húmidas e subhúmidas montanhosas. Também pode ser encontrada em locais com água corrente e em muros. Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A maior população encontra-se na área protegida do Parque Natural do Fogo, sendo frequente em zonas a partir de 1800 m de altitude, nomeadamente nas nascentes da Bordeira exterior e nas ribeiras da Bordeira interior. As zonas de ocorrência desta espécie devem ser protegidas para garantir a sua conservação.

Perennial plant, highly branched, woody at its base with branches up to 80 cm long. Solitary, elongated flowers with slender corolla, greenish to white and rarely purple.

This species occurs on Santiago, Fogo and Brava. It is found in moist crevices and on rocky hillsides in mountain sub-humid and humid zones.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The biggest population occurs in the protected area of Parque Natural do Fogo, where this species is found above 1800 m, on walls and places with running water, namely in the outer and inner Bordeira. The areas of occurrence of this species should be protected to ensure its conservation

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Lluzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Alecrim-Brabo

Campylanthus glaber Benth. subsp. *glaber*

Famalia: Plantaginaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

1 meter

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto perene, rasteiro, até 1 m de altura. Folhas muito estreitas, lineares a oblongas com 0.05-0.2 cm de largura, moderadamente suculentas. Flores pequenas com 6-9 mm de comprimento, geralmente menores do que na subespécie spathulatus. *Campylanthus glaber subsp. glaber* é frequente nas zonas subhúmidas e semiáridas de Santo Antão, São Vicente, São Nicolau, Santiago, Fogo e Brava. Cresce geralmente em habitats rochosos ou de cascalho. Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Espécie era colhida devido às suas propriedades medicinais, o que poderá ter provocado o declínio de algumas populações, mas a perda e alteração do habitat são atualmente a ameaça importante. *Campylanthus glaber subsp. glaber* encontra-se incluído nas áreas protegidas Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) e Parque Natural do Fogo, na ilha do Fogo. A espécie deve ser monitorizada com frequência, uma vez que se encontra em declínio.

Perennial, creeping shrub up to 1 m high. Leaves very narrow, linear to oblong, 0.05-0.2 cm wide, moderately succulent. Small flowers 6-9 mm length, usually smaller than in the subspecies spathulatus.
Campylanthus glaber subsp. glaber is common in the sub-humid and semi-arid zones of Santo Antão, São Vicente, São Nicolau, Santiago, Fogo and Brava. Usually grows in rocky or gravelly habitats.
The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species was traditionally harvested for its medicinal properties which could have contribute to reduce some populations, but the habitat alteration and loss are presently the most important threats. *Campylanthus glaber glaber* is included in the protected areas of Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural Monte Verde (São Vicente) and Parque Natural do Fogo – Fogo Island. The species should be monitored frequently as it is in decline.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Losna-Brabo

Conyza feae (Beg.) Wild

Família: Asteraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,6 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto ereto e ramificado, até 60 cm de altura. Inflorescência em panículo denso, umbelado com muitos capítulos florais. Flores minúsculas e amarelas. A espécie ocorre nas ilhas de Santo Antão, São Nicolau, Santiago, Fogo e Brava. *Conyza feae* é mais comum nas zonas semiáridas, mas também ocorre em zonas húmidas. As plantas crescem geralmente em encostas secas, rochosas ou pedregosas. A sua distribuição altitudinal é principalmente entre os 600 m e 1600 m, mas na ilha do Fogo é muito frequente na Bordeira Exterior acima dos 1800 metros. Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Espécie colhida para a medicina tradicional. Atualmente é considerada extinta em São Vicente, o que mostra a diminuição das subpopulações. A perda de habitat pode representar uma ameaça importante para esta espécie. Algumas subpopulações ocorrem em áreas protegidas, nomeadamente no Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) e Parque Natural do Fogo.

Erect, branched shrub, up to 60 cm high. Inflorescence a dense, umbellate panicle with many small yellow flowers.
The species occurs on Santo Antão, São Nicolau, Santiago, Fogo and Brava. *Conyza feae* is more common in semi-arid zones, but it also occurs in humid zones. The plants usually grow on dry, rocky or stony hillsides. The main altitudinal distribution is between 600 m and 1600 m, but on Fogo Island this species is more frequent above 1800m, in the Bordeira Exterior.
The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Species harvested for traditional medicine. It is currently considered extinct on São Vicente, revealing a decrease in subpopulations. Habitat loss represents an important threat to this species. Some subpopulations occur in protected areas, in particular in Parque Natural de Moroços, Parque Natural Cova / Paul / Ribeira da Torre (Santo Antão) and Parque Natural do Fogo

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Marcelinha

Conyza varia (Webb) Wild

Familia: Asteraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

1,8 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto até 1.8 m de altura e 1.5 m de diâmetro. Inflorescência em panículo denso, umbelado e com muitos capítulos florais. Flores de cor amarela. *Conyza varia* é frequente nas zonas sub-humidas e húmidas das ilhas de Santo Antão, São Nicolau, Fogo e Brava. A espécie cresce em vales e encostas montanhosas. Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Espécie utilizada como pasto para animais. Atualmente é considerada extinta em São Vicente, o que indica a diminuição do número de subpopulações. A perda de habitat pode representar uma ameaça importante para estas plantas. A espécie ocorre na área protegida do Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) e no Parque Natural do Fogo. No entanto, a sua extinção em São Vicente sugere que são necessárias medidas adicionais para prevenir o seu desaparecimento em outras ilhas.

Shrub up to 1.8 m high and 1.5 m in diameter. Dense inflorescence, umbellate panicle with many large capitula of more than 300 outer female flowers and 20 central male flowers, yellow in colour.

Conyza varia is frequent in sub-humid and humid zones of Santo Antão, São Nicolau, Fogo and Brava. The species grows in valleys and on mountainsides.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). This species is used as pasture. Habitat loss may also be an important threat. It is considered extinct on São Vicente, showing a decrease in the number of subpopulations. The species occurs in the protected area of the Parque Natural Cova / Paul / Ribeira da Torre (Santo Antão) and Parque Natural do Fogo. However, its extinction on São Vicente suggests that additional measures are needed to prevent its disappearance from other islands.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Gestiba
Cynanchum daltonii (Decne. ex Webb) Liede & Meve
Apocynaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

12 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta muito ramificada, quase rasteira. Caules longos, suculentos, glabros e sem folhas, até 8 mm de diâmetro. Inflorescências umbeliformes multiflorais com pedicelos longos até 12 mm. Corola branca, creme ou amarelada-esverdeada.

Cynanchum daltonii ocorre em Santo Antão, São Vicente, São Nicolau, Boavista, Santiago, Fogo e Brava. Existe incerteza quanto à sua presença no Sal. Esta espécie é frequente nas zonas áridas, semiáridas e subhúmidas. As plantas crescem fendas de locais escarpados e rochosos próximos do mar. Embora a sua principal distribuição altitudinal seja entre os 100 m e 600 m, ocorre acima dos 1600 m no Parque Natural do Fogo.

Esta espécie foi recentemente avaliada como Pouco Preocupante (LC) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Colhida como planta medicinal, para o tratamento de dentes cariados. Algumas subpopulações estão localizadas em áreas protegidas. Uma vez que esta espécie é abundante, especialmente nas zonas costeiras, não se prevê que seja necessário aplicar medidas urgentes de conservação

Plant highly branched, almost creeping. Stems long, succulent, hairless and leafless, up to 8 mm in diameter. Inflorescences umbeliform and multifloral with long pedicels up to 12 mm. Corolla white, cream or yellowish-green.

Cynanchum daltonii occurs on Santo Antão, São Vicente, São Nicolau, Boavista, Santiago, Fogo and Brava. There is uncertainty about it presence on Sal. This species is frequent in arid, semi-arid and sub-humid zones. The plants grow in crevices on escarpments and cliffs. Although, the main altitudinal distribution is between 100 m and 600 m, this species is found up to 1600 m in the Parque Natural do Fogo.

The species was recently evaluated as Least Concern (LC)) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Harvested as medicinal plant for the treatment of decayed teeth. Some subpopulations are located in protected areas. Since it is widespread and abundant taxa, especially in coastal zones, conservation measures are not considered urgent.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Mostarda-Brabo
Diplotaxis hirta (A.Chev.) Rustan & L.Borgen
Brassicaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta ereta até 70 cm de altura, caule principal fortemente ramificado quase desde a base. Inflorescência ereta ou pendente com 20-50 flores. Pétalas amarelas e espatuladas. *Diplotaxis hirta* é uma espécie restrita às zonas montanhosas da ilha do Fogo. Cresce em encostas e penhascos pedregosos, junto a estradas e campos cultivados no sul e sudoeste da ilha. A principal distribuição altitudinal é entre 800 m e 2000 m.
Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Esta espécie ocorre na área protegida Parque Natural do Fogo. As zonas de baixas altitudes também devem ser protegidas para evitar o desaparecimento da flora nativa.

Plant up to 70 cm high, main stem densely branched from near the base. Erect or pendant inflorescence with 20-50 flowers that have spatulate, yellow petals.

Diplotaxis hirta is a single-endemic species restricted to the mountain areas of Fogo. It grows on hillsides and rocky cliffs, near roadsides and cultivated fields in the south and southwest of the island. The main altitudinal distribution is between 800 m and 2000 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). This species occurs in the protected area of Parque Natural do Fogo. The zones at low altitudes should be protected to prevent the disappearance of the native flora.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

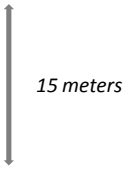
Dragoeiro

Dracaena draco (L.) L. subsp. *caboverdeana* Marrero Rodr. & R.S.Almeida

Familia: Asparagaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta de hábito arbóreo podendo atingir 15 m. Copa densa, umbeliforme e larga. Tronco robusto e proporcionalmente baixo em altura, com ramificações externas. Folhas pontiagudas, 50 cm a 100 cm de comprimento, glaucas a verdes azuladas. Estrutura florar cónica a globular até 100 cm de comprimento, flores geralmente brancas esverdeadas. Frutos carnudos esféricos.
Dracaena draco subsp. caboverdeana ocorre naturalmente em Santo Antão, São Nicolau e Fogo. Cresce como árvore cultivada em todas as ilhas. é uma planta mesófila com preferência por zonas húmidas e subhúmidas. Cresce espontaneamente em escarpas viradas para o mar, influenciadas pela humidade atmosférica. A sua principal distribuição altitudinal varia entre os 500 m e 900 m.
Esta espécie foi recentemente avaliada como Criticamente em Perigo (CR) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). No passado *Dracaena draco subsp. caboverdeana* foi sobreexplorada e o efetivo populacional tem diminuído nos últimos anos. Na maioria das ilhas já não existem exemplares naturais. A espécie é muito utilizada na medicina tradicional. Existem alguns exemplares nas áreas protegidas Parque Natural de Moroços e Parque Natural de Cova/ Paul/ Ribeira da Torre e Parque Natural do Fogo. Devem ser implementadas medidas especiais para proteger as árvores existentes. Além disso, a espécie deve ser utilizada em planos de reflorestação mais alargados.

Tree that can reach 15 m. Crown is dense umbelliform and wide. Robust trunk, proportionally short with external ramifications. Pointed leaves, 50 cm to 100 cm long glaucous to bluish green. Floral structure conical to globular, up to 100 cm, usually greenish white flowers. Fleshy spherical fruit.
Dracaena draco subsp. caboverdeana occurs naturally on Santo Antão, São Nicolau and Fogo. It is cultivated as a tree on all the islands. This species grows spontaneously on slopes facing the sea due to the atmospheric humidity. The main altitudinal distribution is between 500 m and 900 m.
The species was recently evaluated as Critically Endangered (CR) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). *Dracaena draco subsp. caboverdeana* has been overexploited and the effective population has declined in recent years, most of the islands no longer have wild specimens. The species is much used in traditional medicine. There are some specimens in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre and in the Parque Natural do Fogo. Special measures should be implemented to protect the existing trees and extensive reforestation should be carried out using this species

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

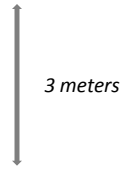
It means present in the island

Photo: Parque Natural do Fogo

Língua-de-vaca
Echium vulcanorum A.Chev.
Familia: Boraginaceae

IUCN RED LIST

DD
LC
NT
VU
EN
CR
EW
EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto que pode atingir mais de 3 m de altura, existindo na zona da Bordeira um exemplar com mais de 4m "mimisó". Ramos revestidos de pequenos tricomas rígidos e esbranquiçados. Inflorescência densa, quase cónica, até 18 cm de comprimento. Flores numerosas dispostas em panícula, brancas ou azuladas. *Echium vulcanorum* é endémico da ilha do Fogo. As plantas crescem em solos cobertos de lapili nas encostas do vulcão. A sua principal distribuição altitudinal é entre os 1600m e 2400m.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A espécie foi muito utilizada como lenha e destruída pelos rebanhos de cabras, mas atualmente estas ameaças encontram-se controladas dentro da área protegida do Parque Natural do Fogo, onde *Echium vulcanorum* ocorre. Embora as recentes erupções vulcânicas, de 2014, não tenham tido um impacto directo na extinção de populações de *Echium vulcanorum*, as cinzas lançadas durante a erupção vulcânica, tem que ser avaliada como uma grave ameaça para a vegetação nativa e em particular aos endemismos restritos à ilha do Fogo.

Shrub up to 3 m high, but some individuals can reach more than 4 m in height, namely "mimisó" in Bordeira.

Branches coated with small, hard, whitish trichomes. Inflorescence dense, almost conical, up to 18 cm long with numerous white or bluish flowers arranged in panicles.

Echium vulcanorum is a single endemic species of Fogo. The plants grow in soils covered with lapilli on the sides of the volcano. Its main altitudinal distribution is between 1600 m and 2400 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species was widely used as firewood and destroyed by goats, but today these threats are controlled within the protected area of the Fogo Natural Park where *Echium vulcanorum* occurs. Although the recent volcanic eruptions of 2014 have not had a direct impact on the extinction of *Echium vulcanorum* populations, the ash released during the eruption has to be evaluated as a serious threat to native vegetation and in particular to the single-island endemics, so additional measures are needed to ensure its conservation.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Cravo-Brabo

Erysimum caboverdeanum

Família: Brassicaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,6 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto até 60 cm de altura. Caule ereto e anguloso. Inflorescências densas e terminais. Flores lilases, frutos muito estreitos e eretos até 6 cm de comprimento.

Erysimum caboverdeanum é endémico da ilha do Fogo, ocorrendo nas áreas rochosas e solos cobertos de lapili na caldeira central do Fogo e na Bordeira. A principal distribuição altitudinal é entre 1600 m e 2200 m, no Parque Natural do Fogo.

Esta espécie foi recentemente avaliada como Criticamente em Perigo (CR) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Embora as recentes erupções vulcânicas, de 2014, não tenham tido um impacto directo na extinção de populações de *Erysimum caboverdeanum*, as cinzas lançadas durante a erupção vulcânica, tem que ser avaliada como uma grave ameaça para a vegetação nativa e em particular aos endemismos restritos à ilha do Fogo. Sendo assim medidas adicionais são necessárias para garantir a sua conservação.

Small shrub up to 60 cm high. Stem erect and angular. Inflorescences dense and terminal with lilac flowers, fruits very narrow and erect up to 6 cm in length.

Erysimum caboverdeanum is a single-island endemic species of Fogo, occurring in in rocky areas and soil covered with lapilli within the central caldera on Fogo. The main altitudinal distribution is between 1600 m and 2000 m, within the Parque Natural do Fogo.

The species was recently evaluated as Critically Endangered (CR) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Although the recent volcanic eruptions of 2014 have not had a direct impact on the extinction of *Erysimum caboverdeanum* populations, the ash released during the eruption has to be evaluated as a serious threat to native vegetation and in particular to the single-island endemics, so additional measures are needed to ensure its conservation.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present on the island

Photo: Parque Natural do Fogo

Tortolho

Euphorbia tuckeyana Steud. ex Webb

Família: Euphorbiaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

3 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta até 3 m de altura com ramos lenhoso na base e caules suculentos, desprovidos de folhas inferiormente e densamente folhosos na parte superior. Flores pequenas, amarelas e campanuladas.

Euphorbia tuckeyana ocorre em Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Boavista, Santiago, Fogo e Brava. No entanto, os últimos espécimes colhidos em Santa Luzia e no Sal são antigos e a espécie não foi encontradas durante as pesquisas de campo recentes. Euphorbia tuckeyana ocorre em zonas semiáridas, subhúmidas e húmidas. É uma das espécies arbustivas características da vegetação endémica cabo-verdiana. Encontra-se muitas vezes em escarpas e locais rochosos. A principal distribuição altitudinal é entre 300 m e 2000 m. Esta espécie foi recentemente avaliada como Quase Ameaçado (NT) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Embora tenha sido muito colhida para obtenção de lenha e destruída pela expansão dos terrenos agrícolas, verificou-se nos últimos anos o aumento de algumas populações, nomeadamente na ilha de Santo Antão e na zona da Bordeira no Parque Natural do Fogo.

Plant up to 3 m high with woody branches at the base and succulent stems without leaves on lower parts but densely leaved at the top. Flowers small, yellow and campanulate.

Euphorbia tuckeyana occurs on Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Boavista, Santiago, Fogo and Brava. However, it is some time since specimens were collected on Santa Luzia and Sal, the species was not found during recent field research.

This species occurs in semi-arid, sub-humid and humid zones. It is one of the shrubby species characteristic of Cape Verdean endemic vegetation. It is found on escarpments and in rocky places. The main altitudinal distribution is between 300 m and 2000 m.

The species was recently evaluated as Near Threatened (NT) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Much harvested for firewood and destroyed by the expansion of agricultural land. Although it has been harvested for firewood and destroyed by the expansion of agricultural land, there has been an increase in some populations in recent years, namely on the island of Santo Antão and in the Bordeira area of the Parque Natural do Fogo.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island


Photo: Parque Natural do Fogo

Ortiga, Pega-saia
Forsskaolea procridifolia Webb
Família: Urticaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

1,2 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto prostrado ou ereto, muito ramificado, formando por vezes pequenos tufos até 1.2 m de altura. Ramos lenhosos, ásperos e híspidos. Flores muito pequenas. *Forsskaolea procridifolia* ocorre em Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Maio, Santiago, Fogo e Brava. Esta espécie está adaptada a uma vasta gama de habitats, desde as zonas húmidas a zonas extremamente áridas. Cresce frequentemente em escarpas, solos pedregosos, fendas das rochas e escórias vulcânicas. É uma espécie pioneira em escórias vulcânicas recentes. A principal distribuição altitudinal é entre o nível do mar e 1700 m. Esta espécie foi recentemente avaliada como Quase Ameaçado (NT) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Esta planta é utilizada na alimentação de animais e na medicina tradicional (a sua infusão alivia a asma).

Small shrub prostrate or erect, much branched, sometimes forming small tufts up to 1.2 m high. Branches woody, rough and hispid. Very small flowers.

Forsskaolea procridifolia occurs on Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Maio, Santiago, Fogo and Brava. This species is adapted to a wide range of habitats, from humid to extremely arid. It frequently grows in rock crevices, on escarpments, stony soils and scoria. It is a pioneer species on recently formed scoria. The main altitudinal distribution is between sea level and 1700 m.

Forsskaolea procridifolia was recently evaluated as Near Threatened (NT) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). This plant is used for feeding livestock and it is used in traditional medicine (its infusion relieves asthma).

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present on the island

Photo: Parque Natural do Fogo

Mato-Botão

Globularia amygdalifolia Webb

Família: Plantaginaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

1,5 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto perene, ereto e lenhoso até 1.5 m de altura, caule com muitos ramos. Folhas alternadas em forma de lança, de cor verde quando jovens, tornando-se acinzentadas com o tempo. Inflorescência em capítulo denso, com flores azuladas ou arroxeadas. *Globularia amygdalifolia* está restrita a zonas húmidas e subhúmidas das ilhas de Santo Antão, São Nicolau, Santiago, Fogo e Brava. As plantas crescem em áreas planas e escarpas. A sua principal distribuição altitudinal é entre os 400 m e 2200 m.
Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Esta espécie está ameaçada por perda de habitat, muito embora algumas subpopulações ocorram em zonas de áreas protegidas, nomeadamente no Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) e no Parque Natural do Fogo.

Perennial shrub, erect and woody up to 1.5 m high, densely branched. Leaves alternate, lance-shaped, green when young, becoming grey with time. Inflorescence a dense capitulum, with bluish or purplish flowers.
Globularia amygdalifolia is restricted to humid and sub-humid zones of Santo Antão, São Nicolau, Santiago, Fogo and Brava Islands. Plants grow both on flatland and escarpments. Its main altitudinal distribution is between 400 m and 2200 m.
The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species is threatened by habitat loss, even though some subpopulations occur inside protected areas, in particular Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) and Parque Natural do Fogo.

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It means present in the island

Photo: Parque Natural do Fogo

Piorno de flor amarela
Helianthemum gorgoneum Webb
Família: Cistaceae

IUCN RED LIST

DD
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NT
VU
EN
CR
EW
EX

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto até 50 cm de altura. Folhas inteiras, elípticas, revestidas por pelos fracos e densos, verdes-acinzentadas, até 2,5 cm de comprimento e 1,3 de largura. Flores amarelas fasciculadas.

Helianthemum gorgoneum é frequente em zonas subhúmidas e semiáridas de Santo Antão, Fogo e Brava. Em Santa Luzia, os últimos espécimes registados datam de 1990. As plantas crescem em áreas rochosas e solos vulcânicos. A sua principal distribuição altitudinal é entre o nível do mar e 1800 m, mas na ilha do Fogo é frequente acima dos 2000 metros.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Esta espécie é utilizada como medicinal para combater parasitas nos animais. *Helianthemum gorgoneum* encontra-se nas áreas protegidas Parque Natural de Moroços e Parque Natural do Fogo.

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Small shrub up to 50 cm high. Leaves entire, elliptical, densley coated with weak hairs, grey-green up to 2.5 cm long and 1.3 wide. Flowers yellow and fasciculate.

Helianthemum gorgoneum is common in sub-humid and semi-arid zones of the Santo Antão, Fogo and Brava Islands. On Santa Luzia, the last recorded specimens date from 1990. The plants grow in rocky areas and on volcanic soils. Its main altitudinal distribution is between sea level and 1800 m, but on Fogo Island this species is frequent above 2000 meters.

This species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species is used as a medicine to treat and control parasitic infections and infestations in animals. *Helianthemum gorgoneum* can be found in the protected areas of Parque Natural de Moroços and Parque Natural do Fogo.

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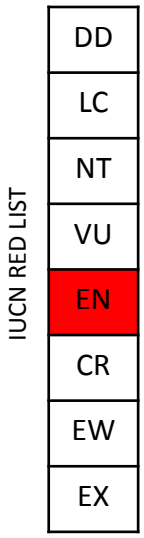
It means present in the island

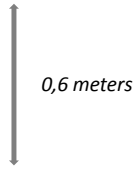
Photo: Parque Natural do Fogo

Agrião-de-rocha

Kickxia elegans (G. Forst.) D.A.Sutton subsp. *elegans*

Família: Plantaginaceae





Subarbusto com caules finos e pouco rígidos, glabros ou pubescentes. Flores amarelas muito pequenas.

Kickxia elegans subsp. elegans ocorre em todas as ilhas de Cabo Verde: Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Boavista, Maio, Santiago, Fogo e Brava. No entanto, em Santa Luzia não existem registos recentes da sua ocorrência e em Maio os últimos espécimes registados datam de 1964.

Kickxia elegans subsp. elegans é mais frequente nas zonas semiáridas, ocorrendo em penhascos inclinados e fendas de rochas.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A perda de habitat, as secas e as perturbações devido ao turismo nas zonas costeiras são as principais ameaças.

Subshrub with thin, lax stems, glabrous or pubescent. Very small yellow flowers.

Kickxia elegans subsp. elegans occurs on all the Cape Verde islands: Santo Antão, São Vicente, Santa Luzia, São Nicolau, Sal, Boavista, Maio, Santiago, Fogo and Brava. However, there are no recent records of its occurrence on Santa Luzia and on Maio the last recorded specimens date from 1964.

Kickxia elegans subsp. elegans is more frequent in arid and semi-arid areas. It grows on sloping crags and in rock crevices.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The main threats are habitat loss, droughts and disturbances due to tourism in coastal areas.

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It means present on the island

Photo: Parque Natural do Fogo

Aipo, Alfazema-brava
Lavandula rotundifolia Benth
Família: Lamiaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

1 meter

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto ereto, moderadamente ramificado, até 1 m de altura. Inflorescências em espigas cilíndricas e compactas com flores azuis ou roxas até 13 mm de comprimento. *Lavandula rotundifolia* ocorre nas zonas semiáridas e subhúmidas de Santo Antão, São Vicente, São Nicolau, Santiago e Fogo. Espécie pioneira nas escarpas, fendas rochosas e solos vulcânicos. A principal distribuição altitudinal é entre 400 m e 1800 m, mas na ilha do Fogo é frequente acima dos 1800 metros. Esta espécie foi recentemente avaliada como Quase Ameaçado (NT) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). É uma espécie utilizada como medicinal contra dores de barriga e para alimentar animais. Algumas subpopulações estão a ser afetadas pela espécie invasora *Lantana camara*. Algumas populações estão incluídas nas áreas protegidas do Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) e Parque Natural do Fogo.

Erect shrub, moderately branched, up to 1 m high. Inflorescences in compact, cylindrical spikes with blue or purple flowers up to 13 mm in length.

Lavandula rotundifolia occurs on semi-arid and sub-humid areas of Santo Antão, São Vicente, São Nicolau, Santiago and Fogo. It is a pioneer species on escarpments, volcanic soils and in rocky crevices. The main altitudinal distribution is between 400 m and 1800 m, but on the island of Fogo it is frequent above 1800 meters. The species was recently evaluated as Near Threatened (NT) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Species used as a medicine (for stomach aches), and also for animal feed. Some subpopulations are being affected by the invasive species *Lantana camara*. However, some populations occur in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) and Parque Natural do Fogo.

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It means present in the island

Photo: Parque Natural do Fogo

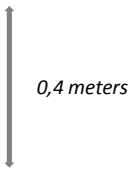
Sempre-Noivinha

Lobularia canariensis (DC.) L.Borgen subsp. *fruticosa* (Webb) L.Borgen

Família: Brassicaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto perene, ereto, moderadamente ramificado, geralmente até 40 cm de altura. Folhas lanceoladas a lineares, ligeiramente pubescentes e margens crenuladas, até 8 cm de comprimento e 1.5 cm de largura. Inflorescência com pétalas esbranquiçadas.

Lobularia canariensis subsp. fruticosa ocorre em zonas húmidas e subhúmidas em Santo Antão, São Nicolau, Santiago, Fogo e Brava. No entanto não existem registos recentes na Brava e os efectivos populacionais são muito reduzidos na ilha do Fogo. Cresce geralmente solos pedregosos, em zonas de rochedos, nas bermas das estradas e nos campos cultivados. A faixa de distribuição principal é entre 400 m 3 1200m Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A subespécie encontra-se nas áreas protegias Parque Natural de Monte Verde, Parque Natural de Cova/ Paul/ Ribeira da Torre, Parque Natural de Moroços (Santo Antão) e Parque Natural do Fogo.

Small perennial shrub, erect, moderately branched, usually up to 40 cm high. Leaves lanceolate to linear, slightly pubescent and crenulated margins, up to 8 cm long and 1.5 cm wide. Inflorescence with whitish petals.

This subspecies is endemic on Santo Antão, São Nicolau, Santiago, Fogo e Brava. However there are no recent records for it on Brava and the population numbers are very small in the island of Fogo

Lobularia canariensis subsp. fruticosa occurs in humid and sub-humid areas. It usually grows on stony soils, rocky areas, roadsides and in cultivated fields. The main altitudinal distribution is between 400 m and 1200 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The subspecies is found in the protected areas of Parque Natural de Monte Verde, Parque Natural de Cova/ Paul / Ribeira da Torre, Parque Natural de Moroços (Santo Antão) and Parque Natural do Fogo.

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It means present in the island

Photo: Parque Natural do Fogo

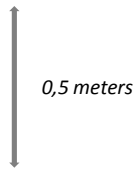
Piorno

Lotus jacobaeus L.

Família: Fabaceae

IUCN RED LIST

DD
LC
NT
VU
EN
CR
EW
EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Espécie herbácea perene, atingindo os 50 cm de altura, com flores que ocorrem em inflorescências do tipo umbeliforme no topo de longos pedúnculos erectos, de coloração purpúrea escura.
Lotus jacobaeus é uma espécie mesofítica mais comum em zonas semi-áridas e sub-húmidas de Santiago e do Fogo. Dentro do Parque Natural do Fogo, esta espécie é observada em maior abundância nas zonas superiores da Bordeira. Sua distribuição altitudinal principal é entre 600 m e 2400 m.
O género Lotus mostra uma ampla diversidade morfológica em Cabo Verde e uma considerável incerteza taxonómica. Por estas razões, as 6 espécies endémicas de Lotus não foram avaliadas na Lista Vermelha de plantas endémicas de Cabo Verde (Romeiras et al. 2016).

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Perennial subshrub up to 50 cm, with ascending to erect stems, woody at base. Dark purple flowers.

Lotus jacobaeus is a mesophytic species more common in semi-arid and sub-humid zones. The species grows on slops and plains, roadsides and field edges. Natural populations of *Lotus jacobaeus* are only found in in montane areas on Santiago and Fogo. Within the Parque Natural do Fogo, this species is observed in greater abundance in the upper zones of Bordeira. Its main altitudinal distribution is between 600 m and 2400 m.

Six taxa belonging to *Lotus* L. (Fabaceae) were Not Evaluated (NE) in the Red List (Romeiras et al. 2016), given the wide morphological diversity and considerable taxonomic uncertainties that hinder the assignment of collected samples to a particular species.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

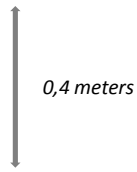
It means present in the island

Photo: Parque Natural do Fogo

Erva-cidreira
Micromeria forbesii Benth.
Familia: Lamiaceae

IUCN RED LIST

DD
LC
NT
VU
EN
CR
EW
EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta vivaz quase prostrada com caule difuso e muito ramificado, até 40 cm de altura. Folhas com pecíolos curtos, alongada ou elípticas, até 0.6 cm de comprimento e 0.4 cm de largura. Flores até 1 cm de comprimento, violetas ou roxas. Geralmente é uma planta muito aromática.

Micromeria forbesii ocorre em Santo Antão, São Nicolau, Santiago, Fogo e Brava. As plantas crescem escarpas e nas encostas húmidas. A sua principal distribuição altitudinal é entre os 800 m e 1600 m, mas na ilha do Fogo é frequente acima dos 1800 metros. No entanto, não existem registos recentes das populações de São Nicolau, Santiago e Brava, que podem estar muito reduzidas atualmente.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Colhida como planta medicinal, utilizada em infusão para curar tosse.

Algumas subpopulações estão localizadas nas áreas protegidas Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre (Santo Antão) e Parque Natural do Fogo, onde ocorre a principal população na zona da Bordeira.

Perennial plant almost prostrate with a diffuse stem, densely branched, up to 40 cm high. Leaves with short petioles, elongated or elliptical, up to 0.6 cm long and 0.4 cm wide. Flowers up to 1 cm in length, violet or purple. Usually a very aromatic plant.

Micromeria forbesii occurs on Santo Antão, São Nicolau, Santiago, Fogo and Brava. Plants grow on humid or sub-humid escarpments. Its main altitudinal distribution is between 800 m and 1600 m, but on the island of Fogo it is frequent above 2000 meters. However, there are no recent records for the populations of São Nicolau, Santiago and Brava, which may now be much reduced.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Harvested as a medicinal plant, used as an infusion to cure coughs.

Some subpopulations are found in the protected areas of Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre (Santo Antão) and Parque Natural do Fogo, where is found the biggest population in the Bordeira area.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Papoila-de-Cabo-Verde

Papaver gorgoneum Cout. subsp. *gorgoneum*

Família: Papaveraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,6 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta anual, ereta, geralmente não ramificada, até 30 cm de altura. Flores solitárias, 4 pétalas de forma obovada a elíptica, cor vermelha e sem mancha negra basal. *Papaver gorgoneum subsp. gorgoneum* pode ser encontrada em zonas húmidas e subhúmidas de São Nicolau e Fogo. Tem uma distribuição muito limitada, em São Nicolau é encontrada na área de Monte Gordo, no Fogo ocorre na zona de Chã das Caldeiras e Monte Velha. Cresce geralmente solos pedregosos e encostas rochosas. A principal distribuição altitudinal é entre 800 m e 1700 m. Esta espécie foi recentemente avaliada como Criticamente em Perigo (CR) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). As principais ameaças são a agricultura e a perda do habitat. Esta espécie encontra-se nas áreas protegidas do Parque Natural de Monte Gordo em S. Nicolau e do Parque Natural do Fogo.

Annual plant, erect, usually unbranched, up to 30 cm high. Flowers solitary, 4 petals obovate to elliptical, red and without basal black spot.

Papaver gorgoneum subsp. *gorgoneum* occurs in humid and sub-humid areas of the São Nicolau and Fogo Islands. It has a very limited distribution, on São Nicolau it is found in the Monte Gordo area, on Fogo it occurs in the areas of Chã das Caldeiras and Monte Velha. It usually grows on stony soils and rocky hillsides. The main altitudinal distribution is between 800 m and 1700 m.

The species was recently evaluated as Critically Endangered (CR) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The main threats are agriculture and habitat loss. This species is found in the protected areas of do Parque Natural de Monte Gordo in S. Nicolau Island and on Parque Natural do Fogo.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Palha-de-formiga

Paronychia illecebroides Webb

Família: Caryophyllaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,5 metro

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta subarbustiva com raízes lenhosas, até 50 cm de altura. Caules muito ramificados e pubescentes. Flores subsésseis em glomérulos, pétalas de cor esverdeado a castanho-escuro, até 0.5 cm. *Paronychia illecebroides* ocorre em Santo Antão, São Vicente, Santa Luzia, São Nicolau, Boavista, Maio, Santiago e Fogo. Em Maio e em Santa Luzia existem poucos registos de ocorrência e os mais recentes datam de 1996. *Paronychia illecebroides* é uma espécie com grande amplitude ecológica, é igualmente frequente em zonas áridas, semiáridas, húmidas e subhúmidas. Cresce em habitats muito variáveis, desde áreas costeiras áridas a escarpas húmidas de altitude. A distribuição altitudinal é entre o nível do mar e 2800 m. Esta espécie foi recentemente avaliada como Quase Ameaçado (NT) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A espécie é muito utilizada como pasto, como planta medicinal e está a ser ameaçada pelo turismo nas zonas de baixas altitudes. Contudo algumas populações estão incluídas nas áreas protegidas Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) e no Parque Natural do Fogo.

Subshrub with woody roots, up to 50 cm high. Stems densely branched and pubescent. Flowers subsessile in glomerules, petals green to dark brown up to 0.5 cm long. *Paronychia illecebroides* occurs on Santo Antão, São Vicente, Santa Luzia, São Nicolau, Boavista, Maio, Santiago and Fogo. There are few records for Maio and Santa Luzia and the most recent date from 1996. *Paronychia illecebroides* is a species with a wide ecological amplitude, it is equally frequent in arid, semi-arid, humid and sub-humid zones. It grows in a wide range of habitats, from arid coastal areas to damp escarpments at higher altitudes. The altitudinal distribution is between sea level and 2800 m. The species was recently evaluated as Near Threatened (NT) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species is widely used for grazing, as a medicinal plant and is threatened by tourism in areas at low altitudes. Some populations are included in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) and in the Parque Natural do Fogo.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Lantisco

Periploca chevalieri Browicz

Familia: Apocynaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,6 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Arbusto lenhoso até 1.5 m de altura, com ramos curtos e rígidos. Folhas opostas, com pecíolos curtos, forma elíptica a alongadas com margem inteira, até 6.5 cm de comprimento e 1 cm de largura. Inflorescência com poucas flores, cor avermelhada e amarela-esverdeada. *Periploca chevalieri* ocorre nas zonas semiáridas e subhúmidas de Santo Antão, Santa Luzia, São Nicolau, Santiago, Fogo e Brava. Em Santiago não existem registos recentes e o estado da população não é bem conhecido. As plantas crescem encostas e nos leitos pedregosos dos rios. A sua principal distribuição altitudinal é entre os 400 m e 1800 m.
Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Espécie foi muito utilizada como forrageira, para o curtimento de peles de cabra e como lenha. Algumas subpopulações estão localizadas nas áreas protegidas Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre (Santo Antão) e no Parque Natural do Fogo.

Woody shrub up to 1.5 m high, with short, rigid branches. Leaves opposite, with short petioles, elongated to elliptical with entire margin, up to 6.5 cm long and 1 cm wide. Inflorescence with few flowers, reddish and yellow-green.

Periploca chevalieri occurs on semi-arid and sub-humid areas of Santo Antão, Santa Luzia, São Nicolau, Santiago, Fogo and Brava. In Santiago there are no recent records and the population's status is unclear. Plants grow on hillsides and rocky riverbeds. Its main altitudinal distribution is between 400 m and 1800 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). This species was typically used as forage, for tanning goat skins and as firewood. Some subpopulations are located in the protected areas of Parque Natural de Moroços, Parque Natural Cova/ Paul/ Ribeira da Torre (Santo Antão) and in the Parque Natural do Fogo.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

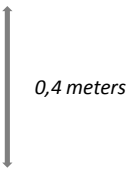
Mato-branco

Phagnalon melanoleucum Webb

Família: Asteraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto muito ramificado, revestido de penugem branca, até 40 cm de altura. Inflorescências terminais com flores minúsculas amarelas, agrupadas em rosetas florais pontiagudas.

Phagnalon melanoleucum ocorre nas zonas húmidas e subhúmidas de Santo Antão, São Vicente, São Nicolau, Santiago e Fogo. A sua principal distribuição altitudinal é entre os 800 m e 1800 m.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Estima-se que a área de ocupação esteja a diminuir nos últimos anos mas as ameaças ainda não são conhecidas. Algumas populações estão incluídas nas áreas protegidas Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) e no Parque Natural do Fogo.

Small shrub, densely branched, coated with white hair, up to 40 cm high. Terminal inflorescences with tiny, yellow flowers, grouped in pointed floral rosettes.

Phagnalon melanoleucum occurs in the humid and sub-humid areas of Santo Antão, São Vicente, São Nicolau, Santiago and Fogo. Its main altitudinal distribution is between 800 m and 1800 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). It is estimated that its area of occupation has been declining in recent years but the threats have not yet been fully defined. Some populations are included in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão), Parque Natural de Monte Verde (São Vicente) and in the Parque Natural do Fogo.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

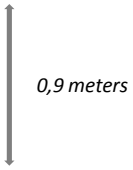
It means present in the island

Photo: Parque Natural do Fogo

Coroa-de-rei
Sonchus daltonii Webb
Família: Asteraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto até 90 cm de altura. Caule lenhoso, 1 a 6 rosetas foliares na base com folhas elípticas a espatuladas, até 50 cm de comprimento e 12 cm de comprimento. Rosetas florais com mais de 2 cm de diâmetro e mais de uma centena de flores minúsculas, de cor amarela e linguiformes. *Sonchus daltonii* ocorre em encostas e escarpas rochas de zonas húmidas e subhúmidas de Santo Antão, São Vicente, São Nicolau, Santiago e Fogo. No entanto, a espécie não foi registada em Santiago e São Vicente durante os últimos anos. A principal distribuição altitudinal é entre 800 m e 1800 m, mas na ilha do Fogo é frequente acima dos 2000 metros na Bordeira interior.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Embora esta espécie seja ameaçada pelo pastoreio nómada, muitas populações estão localizadas nas áreas protegidas do Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) e no Parque Natural do Fogo.

Small shrub to 90 cm high. Stem woody, 1 to 6 basal leaf rosettes, leaves elliptical to spatulate, up to 50 cm long and 12 cm in length. Floral rosettes over 2 cm in diameter with more than one hundred minute flowers, yellow and ligulate.

Sonchus daltonii occurs mainly on hillsides and rocky escarpments in humid and sub-humid zones of Santo Antão, São Vicente, São Nicolau, Santiago and Fogo. However, the species was not recorded on Santiago or São Vicente during recent years. The main altitudinal distribution is between 800 m and 1800 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Although this species is threatened by nomadic grazing, several populations are located in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) and in the Parque Natural do Fogo.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Mato-branco

Tolpis farinulosa (Webb) J.A.Schmidt

Familia: Asteraceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,7 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno arbusto até 70 cm de altura, caule pequeno, curto e lenhoso. Folhas elípticas a espatuladas, margens inteiras a profundamente pinuladas, agrupadas em rosetas foliares. Inflorescências ramificadas com flores minúsculas, amarelas, linguiformes, agrupadas em roseta com menos de 1 cm de diâmetro.

Tolpis farinulosa ocorre principalmente em áreas montanhosas húmidas e subhúmidas de Santo Antão, São Vicente, Santiago, Fogo e Brava. Em Santiago e na Brava não existem registos recentes da sua ocorrência. A principal distribuição altitudinal é entre 800 m e 1800 m.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A espécie é ameaçada pelo pastoreio nómada. A sua presença está confirmadas nas áreas protegidas do Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) e no Parque Natural do Fogo na zona do Monte Velha.

Small shrub up to 70 cm high, stem thin, short and woody. Leaves elliptic to spatulate, margins entire to deeply pinnate, grouped in leaf rosettes, each plant having 1 to 3 basal leaf rosettes. Inflorescences branched with minute yellow flowers, ligulate, grouped in rosettes less than 1 cm in diameter.

Tolpis farinulosa occurs on Santo Antão, São Vicente, Santiago, Fogo and Brava although on Santiago and Brava there are no recent records of its occurrence. This species occurs mainly in humid and sub-humid mountainous areas. It grows on hillsides exposed to the north and north east and rocky escarpments. The main altitudinal distribution is between 800 m and 1800 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species is threatened by nomadic grazing. Some individuals are located in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) and in the Parque Natural do Fogo, on Monte Velha area.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Aipo, Funcho

Tornabenea tenuissima (A.Chev.) A.Hansen & Sunding

Familia: Apiaceae

IUCN RED LIST

DD	LC	NT	VU	EN	CR	EW	EX

0,6 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Pequeno Planta anual ou perene, ereta, glabra e aromática, até 60 cm de altura. Caule pouco ramificado. Inflorescências em umbelas terminais ou laterais com flores pequenas de pétalas brancas.
Tornabenea tenuissima é um endemismo da ilha do Fogo tendo uma distribuição restrita às zonas vulcânicas montanhosas desta ilha. *Tornabenea tenuissima* ocorre principalmente em áreas húmidas e subhúmidas. Cresce na zona da caldeira do vulcão, em solos de lavas recentes, encostas rochosas e em Monte Velha. A principal distribuição altitudinal é entre 1200 m e 2400 m.
Esta espécie foi recentemente avaliada como Criticamente em Perigo (CR) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). A espécie é ameaçada pelo pastoreio nómada, pela perda e alteração do habitat e é colhida como planta medicinal. Embora a *Tornabenea tenuissima* seja encontrada na área protegida do Parque Natural do Fogo, a sua distribuição limitada às zonas vulcânica, torna esta espécie muito ameaçada pois corre o risco de ser muito afetada por futuras erupções vulcânicas.

Annual or perennial plant, erect, glabrous and aromatic, up to 60 cm high, main stem having few branches. Inflorescences terminal or lateral umbels with small white flowers.

Tornabenea tenuissima is a single endemic species from Fogo, restricted to the volcanic mountain areas with more favourable growing conditions. This species occurs mainly in humid and sub-humid areas. It grows in the caldera of the volcano, in soils formed from recent lavas, and rocky escarpments. The main altitudinal distribution is between 1200 m and 2400 m.

The species was recently evaluated as Critically Endangered (CR) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The species is threatened by nomadic grazing, habitat alteration and loss and is collected for medicinal purposes. Although, *Tornabenea tenuissima* is within the protected area of Parque Natural do Fogo, its distribution is limited to the volcanic zones and the species may be critically affected by future volcanic eruptions.

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National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

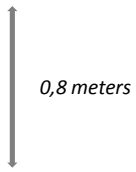
It means present in the island

Photo: Parque Natural do Fogo

Bâlsamo
Umbilicus schmidtii Bolle
Familia: Crassulaceae

IUCN RED LIST

DD
LC
NT
VU
EN
CR
EW
EX



NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	F	Br

Planta vivaz até 50 cm de altura, com pequenos tubérculos. Folhas suculentas e glabras, quase circulares, até 6cm de diâmetro, dispostas pares, envolvendo o caule nos pontos de inserção. Escapos florais simples, partindo da base, até 40 cm de comprimento. Inflorescência em racemo simples, corola verde-esbranquiçada, em forma de campânula até 7 mm de comprimento.

Umbilicus schmidtii ocorre nas zonas húmidas e subhúmidas em Santo Antão, São Nicolau, Santiago e Fogo. Estudos moleculares recentes revelaram uma grande diversidade entre as populações das ilhas do Norte e do Sul, e a possível existência de dois taxa endémicos em Cabo Verde. A principal distribuição altitudinal é entre 800m e 1600m.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Os fatores de ameaça não são conhecidos. Embora a espécie se distribua por 4 ilhas, as subpopulações têm sempre pouco indivíduos. A sua presença está confirmadas nas áreas protegidas do Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) e no Parque Natural do Fogo na zona do Monte Velha e nas ribeiras da Bordeira interior.

Perennial plant up to 50 cm high, with small tubercles. Leaves succulent and glabrous, almost circular, up to 6 cm in diameter, connate. Floral scapes simple, starting from the base, up to 40 cm long. Inflorescence simple raceme, corolla a green-white campanula up to 7 mm in length.

Umbilicus schmidtii is more frequent in humid and sub-humid zones of Santo Antão, São Nicolau, Santiago and Fogo. Recent molecular studies revealed a great diversity between the populations of the Northern and Southern islands, and the possible existence of two endemic taxa in Cape Verde. The main altitudinal distribution is between 800 m and 1600 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). The threats have not been defined. Although the species is distributed on 4 islands, the subpopulations always have very few specimens. Some individuals are located in the protected areas of Parque Natural de Moroços, Parque Natural de Cova/ Paul/ Ribeira da Torre (Santo Antão) and in the Parque Natural do Fogo, on Monte Velha area, and on the riverside of Bordeira interior.

IUCN Red List means: DD – Data Deficient, NT – Near Threatened, VU – vulnerable, EN – Endangered, CR – Critically Endangered, EW – Extinct in the Wild, Ex - Extinct

National Level Distribution: SA – Santo Antão, SV – São Vicente, SL – Santa Luzia, SN – São Nicolau, S – Sal, B – Boavista, M – Maio, ST – Santiago, F – Fogo, Br – Brava

It means present in the island

Photo: Parque Natural do Fogo

Mato-branco, língua-largatixa

Verbascum cystolithicum (Pett.) Hub.-Mor.

Família: Scrophulariaceae

IUCN RED LIST

DD
LC
NT
VU
EN
CR
EW
EX

0,8 meters

NATIONAL LEVEL DISTRIBUTION

SA	SV	SL	SN	S	B	M	ST	**F**	Br

Pequeno arbusto perene, até 80 cm de altura, muito ramificado e lenhoso na base. Folhas elípticas, pecioladas, até 10 cm de comprimento, verdes a castanhas com veias violeta, agrupadas em rosetas basais. Flores em racemos terminais com corola amarela, sempre com marca basal violeta.

Verbascum cystolithicum é um endemismo da ilha do Fogo. Esta espécie ocorre principalmente na zona central da caldeira, em escarpas rochosas e escórias de lava. A sua principal distribuição altitudinal é entre 1600 m e 2800 m.

Esta espécie foi recentemente avaliada como Em Perigo (EN) na Lista Vermelha de Cabo Verde (Romeiras et al. 2016). Embora as recentes erupções vulcânicas, de 2014, não tenham tido um impacto directo na extinção de populações de *Echium vulcanorum*, as cinzas lançadas durante a erupção vulcânica, tem que ser avaliada como uma grave ameaça para a vegetação nativa e em particular aos endemismos restritos à ilha do Fogo, como é o caso do *Echium vulcanorum, Erysimum caboverdeanum* e *Verbascum cystolithicum* que ocorrem acima dos 1600 m na zona de Chã das Caldeiras.

Small perennial shrub, up to 80 m high, much branched and woody at the base. Leaves elliptic, petiolate, up to 10 cm long, green to brown with violet veins, grouped in basal rosettes. Inflorescences terminal racemes with yellow corolla, always having a basal violet marking.

Verbascum cystolithicum is a single island endemic restricted to the mountain areas of Fogo. This species occurs chiefly in the central area of the caldera, on rocky escarpments and lava slag. Its main altitudinal distribution is between 1600 m and 2800 m.

The species was recently evaluated as Endangered (EN) in the Red List of Cape Verde endemic plants (Romeiras et al. 2016). Although the recent volcanic eruptions of 2014 have not had a direct impact on the extinction of *Echium vulcanorum* populations, the ash released during the eruption has to be evaluated as a serious threat to native vegetation and in particular to the single-island endemics, like *Echium vulcanorum, Erysimum caboverdeanum,* and *Verbascum cystolithicum* that mainly occur above 1600 m in Chã das Caldeiras.

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It means present in the island

Photo: Parque Natural do Fogo