



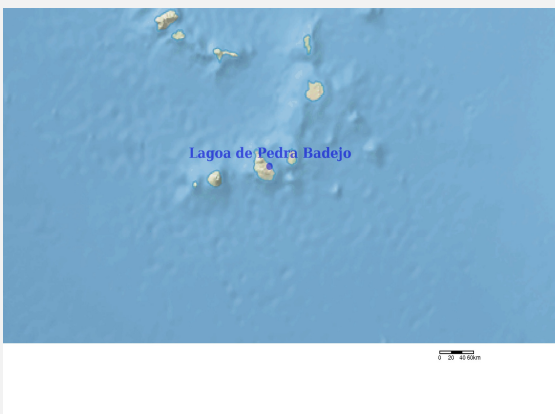
Ramsar Information Sheet

Published on 18 November 2016

Update version, previously published on 18 July 2005

Cabo Verde

Lagoa de Pedra Badejo



Designation date	18 July 2005
Site number	1577
Coordinates	15°05'59"N 23°32'12"W
Area	666,07 ha

Color codes

Fields back-shaded in light blue relate to data and information required only for RIS updates.

Note that some fields concerning aspects of Part 3, the Ecological Character Description of the RIS (tinted in purple), are not expected to be completed as part of a standard RIS, but are included for completeness so as to provide the requested consistency between the RIS and the format of a 'full' Ecological Character Description, as adopted in Resolution X.15 (2008). If a Contracting Party does have information available that is relevant to these fields (for example from a national format Ecological Character Description) it may, if it wishes to, include information in these additional fields.

1 - Summary

Summary

The Lagoas de Pedro Badejo wetland is made up of two coastal lagoons on the estuary of two watercourses and the entire basin of one of the watercourses as far as the Poilão reservoir. The lagoons represent an environment of high ecological value for birds, since they contain fresh or slightly brackish water. Since it was flooded, this reservoir has also become an exceptional area for migratory waterbirds and birds endemic to Cape Verde such as the Cape Verde heron (*Ardea bournei*) and the Cape Verde swamp-warbler (*Acrocephalus brevipennis*). Waders such as black-winged stilt (*Himantopus himantopus*) and the Kentish plover (*Charadrius alexandrinus*) breed here. Beaches are important nesting sites for the loggerhead turtle (*Caretta caretta*) on Santiago Island and feeding grounds for seabirds.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Compiler 1

Name	Samir Martins
Institution/agency	BIOS.CV - Association for Environmental Conservation and Sustainable Development.
Postal address	Sal Rei, Boa Vista, Cabo Verde
E-mail	bios.cv.ong@gmail.com
Phone	+238 9773070

2.1.2 - Period of collection of data and information used to compile the RIS

From year	2013
To year	2014

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish)	Lagoa de Pedra Badejo
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2.1.4 - Changes to the boundaries and area of the Site since its designation or earlier update

(Update) A. Changes to Site boundary	Yes <input checked="" type="radio"/> No <input type="radio"/>
(Update) The boundary has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The boundary has been extended	<input checked="" type="checkbox"/>
(Update) The boundary has been restricted	<input type="checkbox"/>
(Update) B. Changes to Site area	the area has increased
(Update) The Site area has been calculated more accurately	<input type="checkbox"/>
(Update) The Site has been delineated more accurately	<input checked="" type="checkbox"/>
(Update) The Site area has increased because of a boundary extension	<input checked="" type="checkbox"/>
(Update) The Site area has decreased because of a boundary restriction	<input type="checkbox"/>

2.1.5 - Changes to the ecological character of the Site

(Update) 6b i. Has the ecological character of the Ramsar Site (including applicable Criteria) changed since the previous RIS?	Not evaluated
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2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<1 file(s) uploaded>

Boundaries description (optional)

The boundary with the coastline on the northeastern side and with the watershed along the Ribiera do Poilão watercourse up to the end of the Poilão reservoir. Three special protection areas have been identified, whose borders coincide with the usual shore of the flooded zones in the two lagoons (1 and 2) and with the usual shore of the reservoir (3). The table below shows the surface areas in hectares of the total proposed area and all the special protection areas.

NAME AREA(Ha) TYPE

Pedra Badejo 666,8 Ramsar site
 1. Lagoa 1,9 Special protected area
 2. Lagoinha 2,1 Special protected area
 3. Poilao reservoir 21,7 Special protected area

2.2.2 - General location

a) In which large administrative region does the site lie?

b) What is the nearest town or population centre?

2.2.3 - For wetlands on national boundaries only

a) Does the wetland extend onto the territory of one or more other countries? Yes No

b) Is the site adjacent to another designated Ramsar Site on the territory of another Contracting Party? Yes No

2.2.4 - Area of the Site

Official area, in hectares (ha):

Area, in hectares (ha) as calculated from GIS boundaries

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	Macaronesian Region

Other biogeographic regionalisation scheme

3 - Why is the Site important?

3.1 - Ramsar Criteria and their justification

- Criterion 1: Representative, rare or unique natural or near-natural wetland types

Other ecosystem services provided

The Pedra Badejo Lagoons represent one of the most important sites for birds at a national level, which is included in the list of the most important bird areas in Africa.

- Criterion 2 : Rare species and threatened ecological communities

- Criterion 3 : Biological diversity

Justification

The Lagoas de Pedra Badejo are home to a large number of species typical of dune, wetland and arid regions, which are of great importance in the maintenance of the biological diversity of the Macaronesian ecoregion and the entire Palearctic region, including West Africa. These species include: the Cape Verde swamp-warbler (*Acrocephalus brevipennis*), the grey-headed kingfisher (*Halcyon leucocephala*), the bar-tailed lark (*Ammomanes cinctura*), black-crowned sparrow-lark (*Eremopterix nigriceps*), the sanderling (*Calidris alba*), the bar-tailed godwit (*Limosa lapponica*), the Spanish sparrow (*Passer hispaniolensis*) and the Cape Verde sparrow (*Passer iagoensis*) (endemic).

- Criterion 6 : >1% waterbird population

3.2 - Plant species whose presence relates to the international importance of the site

<no data available>

3.3 - Animal species whose presence relates to the international importance of the site

Phylum	Scientific name	Common name	Species qualifies under criterion				Species contributes under criterion				Pop. Size	Period of pop. Est.	% occurrence ¹⁾	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
Birds																		
CHORDATA / AVES	<i>Ardea purpurea bournei</i>		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	80		45		<input type="checkbox"/>	<input type="checkbox"/>		The lake and reservoir Poilão are the main feeding areas of Santiago egret (<i>Ardea bournei</i>), endemic to the island.
Others																		
CHORDATA / REPTILIA	<i>Caretta caretta</i>	Loggerhead	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				EN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		Nesting area of the loggerhead turtle (<i>Caretta caretta</i>) population considered one of the most threatened in the world.

1) Percentage of the total biogeographic population at the site

Criterion 6: The Poilão reservoir and lagoon are the main feeding grounds of the Cape Verde heron (*Ardea bournei*), a species endemic to this island. The total population consists of around 90 pairs and on the Ramsar site there are around 40 pairs.

3.4 - Ecological communities whose presence relates to the international importance of the site

<no data available>

4 - What is the Site like? (Ecological character description)

4.1 - Ecological character

This is an important permanent wetland, due to the fact it contains fresh water and is located on an isolated volcanic island in the Atlantic. It is a unique habitat for many migratory waterbirds, which cross the Atlantic flying for thousands of kilometres. It is also a site where amphibians lay their eggs.

4.2 - What wetland type(s) are in the site?

Marine or coastal wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
J: Coastal brackish / saline lagoons	Lagoas de Pedra Badejo	2	4	Unique

Human-made wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
6: Water storage areas/Reservoirs	Barragem de Poilão	1	21.7	Representative

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
<i>Asparagus squarrosus</i>		endemic
<i>Lotus brunneri</i>		endemic
<i>Phoenix dactylifera</i>		

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Common name	Pop. size	Period of pop. est.	% occurrence	Position in range / endemism / other
CHORDATA/AVES	<i>Acrocephalus brevipennis</i>	Cape Verde Warbler				
CHORDATA/AVES	<i>Charadrius alexandrinus</i>	Kentish Plover				
CHORDATA/AVES	<i>Halcyon leucocephala</i>	Grey-headed Kingfisher				
CHORDATA/AVES	<i>Himantopus himantopus</i>	Black-winged Stilt				
CHORDATA/AVES	<i>Passer iagoensis</i>	Iago Sparrow				

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
B: Dry climate	BSk: Md-latitude steppe (Md-latitude dry)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres)

a) Maximum elevation above sea level (in metres)

Entire river basin

Upper part of river basin

Middle part of river basin

Lower part of river basin

More than one river basin

Not in river basin

Coastal

Please name the river basin or basins. If the site lies in a sub-basin, please also name the larger river basin. For a coastal/marine site, please name the sea or ocean.

Atlantic ocean

4.4.3 - Soil

Mineral

(Update) Changes at RIS update No change Increase Decrease Unknown

Organic

(Update) Changes at RIS update No change Increase Decrease Unknown

No available information

Are soil types subject to change as a result of changing hydrological conditions (e.g., increased salinity or acidification)? Yes No

Please provide further information on the soil (optional)

The reservoir collects rainwater in a very important part of the island characterized by highly eroded volcanic mountains and arid steppe plains very large clay soils and very little vegetation.

4.4.4 - Water regime

Water permanence

Presence?	Changes at RIS update
Usually permanent water present	unknown

Source of water that maintains character of the site

Presence?	Predominant water source	Changes at RIS update
Water inputs from rainfall	<input type="checkbox"/>	unknown
Water inputs from surface water	<input type="checkbox"/>	unknown
Marine water	<input type="checkbox"/>	No change

Water destination

Presence?	Changes at RIS update
Unknown	No change

Stability of water regime

Presence?	Changes at RIS update
Water levels fluctuating (including tidal)	unknown

4.4.5 - Sediment regime

Significant erosion of sediments occurs on the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Significant accretion or deposition of sediments occurs on the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Significant transportation of sediments occurs on or through the site

(Update) Changes at RIS update No change Increase Decrease Unknown

Sediment regime is highly variable, either seasonally or inter-annually

(Update) Changes at RIS update No change Increase Decrease Unknown

Sediment regime unknown

4.4.6 - Water pH

Acid (pH<5.5)

(Update) Changes at RIS update No change Increase Decrease Unknown

Circumneutral (pH: 5.5-7.4)

(Update) Changes at RIS update No change Increase Decrease Unknown

Alkaline (pH>7.4)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.7 - Water salinity

Fresh (<0.5 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Mixohaline (brackish)/Mixosaline (0.5-30 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Euhaline/Eusaline (30-40 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Hyperhaline/Hypersaline (>40 g/l)

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Mesotrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Oligotrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Dystrophic

(Update) Changes at RIS update No change Increase Decrease Unknown

Unknown

4.4.9 - Features of the surrounding area which may affect the Site

Please describe whether, and if so how, the landscape and ecological characteristics in the area surrounding the Ramsar Site differ from the i) broadly similar ii) significantly different site itself:

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Water for irrigated agriculture	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Erosion protection	Soil, sediment and nutrient retention	Medium

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Picnics, outings, touring	Medium
Recreation and tourism	Nature observation and nature-based tourism	Medium
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Type location for a taxon	High

Supporting Services

Ecosystem service	Examples	Importance/Extent/Significance
Biodiversity	Supports a variety of all life forms including plants, animals and microorganisms, the genes they contain, and the ecosystems of which they form a part	High

Within the site:

Outside the site:

Have studies or assessments been made of the economic valuation of ecosystem services provided by this Ramsar Site? Yes No Unknown

4.5.2 - Social and cultural values

i) the site provides a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland

ii) the site has exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland

iii) the ecological character of the wetland depends on its interaction with local communities or indigenous peoples

iv) relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland

<no data available>

4.6 - Ecological processes

<no data available>

5 - How is the Site managed? (Conservation and management)

5.1 - Land tenure and responsibilities (Managers)

5.1.1 - Land tenure/ownership

Public ownership

Category	Within the Ramsar Site	In the surrounding area
National/Federal government	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Other types of private/individual owner(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site:

National Directorate for the Environment / Ministry for the Environment, Housing and Land-use Planning

Provide the name and title of the person or people with responsibility for the wetland:

Ana Veiga - Ramsar Focal Point

Postal address:

C.P-332-A, Ciudad da Praia, Isla Santiago, Cabo Verde

E-mail address:

ana.m.veiga@mahot.gov.cv

5.2 - Ecological character threats and responses (Management)

5.2.1 - Factors (actual or likely) adversely affecting the Site's ecological character

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Livestock farming and ranching	Medium impact	Medium impact	<input type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Fishing and harvesting aquatic resources	Medium impact	Medium impact	<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	unknown

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Agricultural and forestry effluents	Medium impact	Medium impact	<input type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	No change
Garbage and solid waste	Medium impact	Medium impact	<input checked="" type="checkbox"/>	unknown	<input type="checkbox"/>	No change

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Droughts	Medium impact	Medium impact	<input checked="" type="checkbox"/>	unknown	<input checked="" type="checkbox"/>	unknown

Please describe any other threats (optional):

- a) Within the Ramsar site: The capture of marine waterbirds, their chicks and eggs used for local consumption. The illegal hunting of marine turtles for local consumption and national trade. The illegal extraction of inert materials for civil engineering projects. The dumping of burnt oil, in addition to municipal and construction waste.
- b) In the surrounding area: The free grazing of goats and cows that degrade the surrounding vegetation. The use of fertilisers and pesticides in farming.

5.2.2 - Legal conservation status

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Lagoas de Pedra Badejo	http://www.birdlife.org/datazone/sitefactsheet.php?id=6141	partly

5.2.3 - IUCN protected areas categories (2008)

- Ia Strict Nature Reserve
- Ib Wilderness Area: protected area managed mainly for wilderness protection
- II National Park: protected area managed mainly for ecosystem protection and recreation
- III Natural Monument: protected area managed mainly for conservation of specific natural features
- IV Habitat/Species Management Area: protected area managed mainly for conservation through management intervention
- V Protected Landscape/Seascape: protected area managed mainly for landscape/seascape conservation and recreation
- VI Managed Resource Protected Area: protected area managed mainly for the sustainable use of natural ecosystems

<no data available>

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Proposed

Habitat

Measures	Status
Soil management	Partially implemented

Species

Measures	Status
Threatened/rare species management programmes	Partially implemented

Human Activities

Measures	Status
Communication, education, and participation and awareness activities	Implemented

Other:

The national plan for the conservation of wetlands on Cape Verde is being revised and awaiting approval.

5.2.5 - Management planning

Is there a site-specific management plan for the site? In preparation

Has a management effectiveness assessment been undertaken for the site? Yes No

If the site is a formal transboundary site as indicated in section Data and location > Site location, are there shared management planning processes with another Contracting Party? Yes No

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No, but restoration is needed

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Animal species (please specify)	Implemented

Monitoring shorebirds
Conservation and scientific studies on the nesting loggerhead turtle (Caretta caretta)

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

Afonso, C.B. Impacte Ambiental da Barragem de Poilão. Tese apresentado a ISE para el grado de Licenciatura. 90p.
Costa, F.L. y Nunes, M.C. (2008). Condicionantes geomorfológicas de erosão hídrica na bacia da Ribeira Seca (Santiago, Cabo Verde). INIDA, 15p.
Fernandes, E. C. (2008). As aves Migratórias de Cabo Verde. Tese apresentado a UniCV para el grado de Licenciatura. 51p.

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)

<no file available>

ii. a detailed Ecological Character Description (ECD) (in a national format)

<no file available>

iii. a description of the site in a national or regional wetland inventory

<no file available>

iv. relevant Article 3.2 reports

<no file available>

v. site management plan

<no file available>

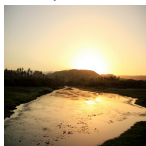
vi. other published literature

<no file available>

<no data available>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:



lagoas de Pedra Badejo (
Aquilés Oliveira, 16-03-
2013)

6.1.4 - Designation letter and related data

Designation letter

<no file available>

Date of Designation 2005-07-18