Ramsar Information Sheet

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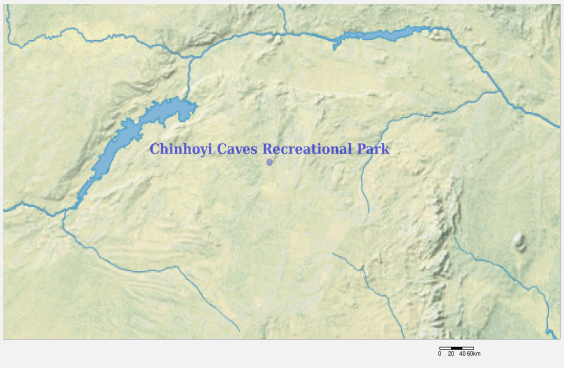
Zimbabwe

Chinhoyi Caves Recreational Park



Designation date	3 May 2013
Site number	2103
Coordinates	17°21'21"S 30°07'55"E
Area	33,35 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 (This field is limited to 2500 characters)

The Chinhoyi Caves is characterised by a pool of deep water at the centre of the site. Chinhoyi Caves is in Manyame catchment and lies in agro ecological region IIa which receives over 750-1000mm of rainfall a year. These caves are the most extensive cave system in Zimbabwe that the public can access. The cave system is composed of limestone and dolomite, and the descent to the main cave with its pool of cobalt blue water is very impressive. This pool is popularly called Sleeping Pool or Chirorodziva (Pool of the Fallen). There is a submarine passage leading from the Bat Cave, a subchamber of the Dark Cave to another room known as the Blind Cave.
The traditional name for the Caves is "Chirorodziva" which means the "Pool of the Fallen". The name was derived from an incident which took place in the 1830s when the Angoni Tribe, who were moving northwards surprised people living near the Caves and flung them into the pool.

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Name: Mrs D. M. Chasi, Director General

Institution/agency: Environmental Management Agency

Postal address (This field is limited to 254 characters)

Makombe Complex Block 1
Corner Harare Street/Chitepo Avenue
Harare Zimbabwe

E-mail: ema@ema.co.zw

Phone: +26304705671

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

From year: 1995

To year: 2000

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Chinhoyi Caves Recreational Park

Unofficial name (optional): Chirorodziva

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 ○ No ◉
(Update) B. Changes to Site area	No change to area

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

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image

<3 file(s) uploaded>

Boundaries description (optional) (This field is limited to 2500 characters)

The boundary of the Chinhoyi Caves follows that of the existing Chinhoyi Caves Recreational Park located 9 kilometres from the town of Chinhoyi and 120 kilometres from Harare (the Capital City)

2.2.2 - General location

a) In which large administrative region does the site lie?	Mashonaland West administrative province
b) What is the nearest town or population centre?	Chinhoyi

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):	33.35
Area, in hectares (ha) as calculated from GIS boundaries	33.1

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
Other scheme (provide name below)	Afro-tropical
Other scheme (provide name below)	Zambezian Biome (Chenje 2000)

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

Hydrological services provided (This field is limited to 3000 characters)

The site is approximately 8 hectares in size. It offers a unique, rare and near natural Karst wetland habitat comprising a system of tunnels and caverns that represent the most extensive cave system in Zimbabwe and accessible to the public. The cave has a “ Wonder Hole ” , which is the main feature, and is in fact a “ Swallow Hole ” or a large cavern with a collapsed roof. The walls or sides of the Wonder Hole drop vertically down for approximately 150 feet to the Sleeping Pool. The water in the Sleeping Pool remains at a constant 22 degrees Celsius throughout the year. It is so phenomenally clear that silver-hued fish and underwater rock formations can be seen many metres below the surface.

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

Scientific name	Common name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Podocarpus latifolius	Real Yellowwood	☐	☐	☐		☐		
Pterocarpus angolensis	African Teak;Transvaal Teak	☐	☐	☐		☐		
Stereospermum kunthianum	Pink Jacaranda	☐	☐	☐		☐		

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	IUCN Red List	CITES Appendix I	CMS Appendix I	Other Status	Justification
			2	4	6	9	3	5	7	8								
CHORDATA / ACTINOPTERYGII	Carassius auratus		☐	☐	☐	☐	☐	☐	☐	☐					☐	☐		
CHORDATA / ACTINOPTERYGII	Micropterus salmoides		☐	☐	☐	☐	☐	☐	☐	☐					☐	☐		
CHORDATA / ACTINOPTERYGII	Sparus aurata		☐	☐	☐	☐	☐	☐	☐	☐					☐	☐		

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

<no data available>

Name of ecological community	Community qualifies under Criterion 2?	Description	Justification
Vegetation species	☐	The flora is made up largely of indigenous species and a few exotics	Indigenous flora species are: Mukwa (pterocarpus angolencis), Cape Fig (ficus capensis), Combretum species, Terminalia species, Msasa (brachystegia), Violet tree (securidaca longipediculata), Yellow wood (monotas glaber) and Pink Jacaranda
Animal species	☐	Birds diversity	Arnot's Chat, Angola Rock Thrush, Mocking Chat, Large Striped Pipit, Woodpecker species, Black Tit, Redwing Starling, Batis, Flycatcher, Penduline Tit, Glossy Starling, Bat Hawk, Tree Creeper, Familiar Chat, Paradise Flycatcher and other species.
Fish species	☐	The fish species found are bass, bottle fish, bream, and catfish. Goldfish were introduced to the Sleeping Pool to address the escalating mosquito population in the cave.	
Habitat	☐	Natural Karst wetland. The Caves consist of a system of tunnels and caverns and are the most extensive cave system in Zimbabwe that the public can access.	" Wonder Hole " , which is the main feature, and is in fact a " Swallow Hole " or a large cavern with a collapsed roof. The walls or sides of the Wonder Hole drop vertically down for approximately 150 feet to the Sleeping Pool.

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

4.1 - Ecological character

(This field is limited to 2500 characters)

The Chinhoyi Caves are composed of limestone and dolomite, and consist of a system of tunnels and caverns, the extent of which is still unknown. This is a cobalt blue pool of water surrounded by lush plants and the sounds of birds. Strangely enough, the pool is always at the same temperature and level, and always this cobalt colour – whether day or night, sunshine or overcast. The main feature of the Chinhoyi Caves is known as " The Wonder Hole " , which is in fact a large cavern with a collapsed roof. The walls (or sides) of the Wonder Hole drop vertically down for 150 feet to " The Sleeping Pool " or Chirorodzira (Pool of the Fallen). The descent to this pool, with its sparkling cobalt surface is very impressive.

Research has revealed that the depth of the water in the Sleeping Pool varies between 80 metres and 91 metres. This fluctuation in depths is attributable to the amount of rainfall received in a particular season. Several under water passages have been found leading from the Bat Cave, a sub-chamber of the Dark Cave, to another room known as the Blind Cave, but all of these so far explored lead back into the Sleeping Pool. Diving is fantastic in the Chinhoyi Caves all year round, with temperatures never below or above 22 – 24 Degrees Celsius, with zero thermocline. Visibility is incredibly good; 50 metres and above is not unusual. The water in the Sleeping Pool remains at a constant 22 degrees Celsius throughout the year. It is so phenomenally clear that silver-hued fish and underwater rock formations can be seen many metres below the surface.

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

Inland wetlands

Wetland types (code and name)	Local name	Ranking of extent (1: greatest - 4: least)	Area (ha) of wetland type	Justification of Criterion 1
Zk(b): Karst and other subterranean hydrological systems	Chinhoyi Caves	1		Unique

Other non-wetland habitat

Other non-wetland habitats within the site	Area (ha) if known
grasslands	

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Scientific name	Common name	Position in range / endemism / other
Brachystegia spiciformis		
Ficus sur		
Securidaca longipedunculata		

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	Balearica regulorum	Grey Crowned Crane				
CHORDATA/AVES	Lamprotornis nitens	Cape Starling				
CHORDATA/AVES	Macheiramphus alcinus	Bat Hawk				
CHORDATA/AVES	Onychognathus morio	Red-winged Starling				
CHORDATA/AVES	Pyrocephalus rubinus	Flycatcher				

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
A: Tropical humid climate	Aw: Tropical savanna (Winter dry season)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres): 0

a) Maximum elevation above sea level (in metres): 1172

Not in river basin ☑

4.4.3 - Soil

No available information ☑

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

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	☑	unknown
Water inputs from groundwater	☐	unknown

Water destination

Presence?	Changes at RIS update
Feeds groundwater	unknown

Stability of water regime

Presence?	Changes at RIS update
Water levels largely stable	unknown

4.4.5 - Sediment regime

Sediment regime unknown ☑

4.4.6 - Water pH

Unknown ☑

4.4.7 - Water salinity

Unknown ☑

4.4.8 - Dissolved or suspended nutrients in water

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 site itself: i) broadly similar ○ ii) significantly different ◉

Surrounding area has significantly different land cover or habitat types ☑

Please describe other ways in which the surrounding area is different: (This field is limited to 1000 characters)

The cave system is composed of limestone and dolomite. The area itself is made up of many calcareous rocks, sandy loam soils and wooded scrubland.

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Medium
Spiritual and inspirational	Cultural heritage (historical and archaeological)	Medium

Supporting Services

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

Outside the site: 48000

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

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 ☑

Description if applicable (This field is limited to 2500 characters)

The Caves have a historical cultural significance. In the 16th century they were used by the local Shona tribes for storing grain and as a refuge from invading tribes. In the 1890 ' s Chief Chinhoyi and his followers used the Caves as a refuge from raiding tribes such as the Matebele. There is a particularly extensive archaeological deposit associated with the Main Cave. This includes scatters of stone tools and later village settlements. The locals still hold their cultural rituals on the site

Robinson (1966) undertook several excavations around the Main Cave (Sleeping Pool, Chirorodziwa) in the 1960s. This work provided important information on the early occupation of this area by metal producers who also practised agriculture and made a distinctive style of decorated pottery. It is the type-site for the so-called Chinhoyi (Sinoia) Ceramic Tradition that dates to between 300 to 1100 AD (Burrett 1998).

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	☑	☑

Provide further information on the land tenure / ownership regime (optional): (This field is limited to 1000 characters)

The site is protected by the Parks and Wildlife Management Authority

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: (This field is limited to 1000 characters)

Zimbabwe Parks and Wildlife Management Authority

Provide the name and title of the person or people with responsibility for the wetland: Mr Felix Chimeramombe, Regional manager

Postal address: (This field is limited to 254 characters)

National Parks and Wildlife Management Authority
P. Bag 7713, Chinhoyi

E-mail address: fchimeramombe@zimparks.co.zw

5.2 - Ecological character threats and responses (Management)

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

Human settlements (non agricultural)

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Tourism and recreation areas		Medium impact	☑	No change	☑	unknown

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Water abstraction		Medium impact	☑	unknown	☐	No change

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Mining and quarrying	Medium impact		☑	unknown	☑	unknown

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	Changes	In the surrounding area	Changes
Recreational and tourism activities	Medium impact		☑	unknown	☐	No change

Please describe any other threats (optional): (This field is limited to 2500 characters)

a) within the Ramsar site: the number of tourist inflows
b) in the surrounding area: Farming, water utilization by boreholes sinking and dolomite mining

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
World Heritage site	ChinhoyiCaves		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Recreational Park	ChinhoyiCavesRecreationalPark		whole

5.2.3 - IUCN protected areas categories (2008)

III Natural Monument: protected area managed mainly for conservation of specific natural features ☑

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Implemented

Human Activities

Measures	Status
Regulation/management of recreational activities	Implemented

Other: (This field is limited to 2500 characters)

The site is protected by National parks and Wildlife Authority.
It has a high cultural value to the local communities

5.2.5 - Management planning

Is there a site-specific management plan for the site? Yes

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 ◉

Please indicate if a Ramsar centre, other educational or visitor facility, or an educational or visitor programme is associated with the site: (This field is limited to 1000 characters)

Information booklets and facilities are made available for school visits

5.2.6 - Planning for restoration

Is there a site-specific restoration plan? No need identified

5.2.7 - Monitoring implemented or proposed

Monitoring	Status
Water regime monitoring	Implemented

(This field is limited to 2500 characters)

Monitoring the human population influx, avoid disturbing the water in the Chinhoyi caves and avoid wetland water pollution.

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

(This field is limited to 2500 characters)

Vimbai C K (1995)Zimababwe ’ s Chinhoyi Caves
Munyaradzi Chenje. State of the Environment in the Zambezi Basin 2000. Maseru, Lusaka and Harare: SADC, IUCN, ZRA, and SARDC, 2000

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)
<1 file(s) uploaded>

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
<4 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:

Chinhoyi caves main view (
Danny DTM, 10-01-2014)

6.1.4 - Designation letter and related data

Designation letter

<1 file(s) uploaded>

Date of Designation 2013-05-03