Ramsar Information Sheet

Published on 31 January 2024

India

Longwood Shola Reserve Forest

Designation date	24 May 2023
Site number	2538
Coordinates	11°26'22"N 76°52'38"E
Area	116,01 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

Shola forests are tropical montane forests found in the valleys separated by rolling grasslands in higher elevations. The Shola forests of South India derive their name from the Tamil word, "Solai", which means a 'tropical rain forest'. Classified as 'Southern Montane Wet Temperate Forest' by experts Harry George Champion and SK Seth, the Sholas are found in the upper reaches of the Nilgiris, Anamalais, Palni hills, Kalakadu, Mundanthurai and Kanyakumari in Tamil Nadu. They occur only in the valleys where there the occurrence of the fog and mist is low.

The Longwood Shola Reserve Forest is the only major area of natural shola forest remaining is in the immediate vicinity of the Kothagiri village. Though relatively small in area, it is highly important to the whole Kothagiri region as it harbours a variety of endemic flora and fauna. This Site is one of the key conservation areas of endangered Black-chinned Nilgiri Laughing thrush (Strophocincla cachinnans), Nilgiri Blue Robin (Myiomela major), and vulnerable Nilgiri Wood-pigeon (Columba elphinstonii) (BirdLife International, 2014). It is home to several important bird species as 14 out of 26 species that are endemic to the Western Ghats region are found here. It is adjacent to the eastern slopes of the Nilgiris and consequently harbours some species of lower elevations. It is surround by tea plantations.

Like other sholas of the Nilgiris, Longwood Shola is also classified as Southern Montane Wet Temperate Forest by Champion & Seth (1968). Tall trees of 20 m are still seen in this Shola. Evergreen plant species in this Site include Actinodaphne bourdillonii, Ilex denticulata, Litsea wightiana, Michelia nilagirica, Microtropis ramiflora, Pithecellobium subcoriaceum, Symplocos pendula, Syzgium arnottianum, Eurya nitida, Photina notoniana, Ternstroemia japonica, Berberis tinctoria, Hedyotis stylosa, Leucas suffruticosa and Smithia blanda. Many species of the Himalayan affinity are found in the Nilgiris, which also includes this Site.

Despite its small size (116 ha), this Site qualifies for two criteria to be included as one of the Important Bird and Biodiversity Areas (IBAs): A1 (Threatened species) and A2 (Endemic Bird Area 123: Western Ghats). Though there is a history of encroachment and habitat loss in this Site, it is actively protected by a conservation group of local residents named, "Longwood Shola Watchdog Committee".

2 - Data & location

2.1 - Formal data

2.1.1 - Name and address of the compiler of this RIS

Responsible compiler

Institution/agency: Tamil Nadu State Wetland Authority

Postal address: O/o Additional Principal Chief Conservator of Forests & Member Secretary No.1, Jeenis Road, Panagal Building, VIII Floor, Saidapet, Chennai 600 015 Tamil Nadu, INDIA

National Ramsar Administrative Authority

Institution/agency: Ministry of Environment, Forest & Climate Change

Postal address: Office of the Secretary, Ministry of Environment, Forest and Climate Change, Government of India, Indira Paryavaran Bhavan, Jorbagh Road, New Delhi - 110 003
INDIA

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

From year: 2015

To year: 2021

2.1.3 - Name of the Ramsar Site

Official name (in English, French or Spanish): Longwood Shola Reserve Forest

Unofficial name (optional): Dodda Shola

2.2 - Site location

2.2.1 - Defining the Site boundaries

b) Digital map/image
<1 file(s) uploaded>

Former maps: 0

Boundaries description

The Site boundaries is based on the boundaries of a nationally protected area (Longwood Shola Reserve). The boundary of the Longwood Shola Reserve Forest Ramsar Site and Longwood Shola Reserve are the same. The boundaries are defined to capture both the permanent and seasonally flooded area of the wetland and the boundary has been drawn to protect the Shola ecosystem.

The boundaries definition are as follows:
NOTE: "C" is the Survey number of the Site which denotes Watershed area.
1.North- The Kotagiri settlement boundary, then C-5,C-4,C-3,C-14,C-15,C-16,C-17,C-206 to the corner of C-19
2.West- C-19,C-225,C-20, C-21,C-22,C-24 (the Neton estate), C-27, C-28
3.South- C-28, C-100, C-214A, C-101, C-102,C-213 to the Forest Road
4.East- The road then C-11, C-10, C-9 and C-210 to the Kotagiri settlement boundary, and then along the settlement boundary to the north-eastern corner.

nearby location/spot/sites:
1. East - Patta Land (Tea estate – Dharmona Estate)
2. West - Patta land (Tea estate – Samiyar thottam)
3. North - Kerbetta Hatty
4. South - Sulligude RF

Longwood Shola (LWS) (Latitude. 11.438244, Longitude. 76.87353)

2.2.2 - General location

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

b) What is the nearest town or population centre? Kothagiri

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): 116.007

Area, in hectares (ha) as calculated from GIS boundaries: 116.007

2.2.5 - Biogeography

Biogeographic regions

Regionalisation scheme(s)	Biogeographic region
WWF Terrestrial Ecoregions	South Western Ghats montane rain forests

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	"Sholas" are the local name for patches of stunted tropical montane forest found in valleys surrounded by rolling grassland in the higher montane regions of South India, mainly in Kerala, Karnataka and Tamilnadu. The Shola forests of South India derive their name from the Tamil word, "solai", which means a 'tropical rain forest'. Generally, Shola forests are found from 2000 meters above sea level. However, in certain hilly regions of South India, they can be found at 1600 meters elevation. Shola forests harbour a variety of trees, some of which are endemic to India. Shola forests have a high water retention capacity and support origin and maintenance of streams and rivers in the Western Ghats which provide primary sources of water for high elevation organisms. In the Nilgiris District, about 118 patches of Sholas have been recorded which are perennial sources of many rivers in Nilgiris and play an important role in water conservation. The Longwood Shola Reserve Forest is an important Shola patch in the Nilgiris district. It is the only major pockets of natural shola, left in the vicinity of the Kotagiri and plays a vital role in regulating Kotagiri's microclimate and rainfall. It helps to protect the surrounding area from adverse climatic conditions such as heavy rain, storm and drought, and also helps in controlling soil erosion. The Site is a major water source for Kotagiri as it supplies thousands of cubic meters of water to 18 villages, notably, Kairbetta, Hosahatti, Aravenu and Jakkanarai. It also helps in recharging the groundwater in the surrounding area. With an area of 116 Ha, this Site has 3 main perennial streams, out of which two connect to a central swamp and the third connects to a pond. High elevation streams and swamps found in the Site are representative of similar type of wetlands found throughout the high elevation mountains of the Western Ghats.
Other ecosystem services provided	This Site is an integral part of the fragile Nilgiri eco-system and supports diverse life forms. It supports a wide variety of endemic flora and fauna due to the unique climate and habitat structures. The presence of swamps and streams makes it a suitable place for varieties of ferns and other forms of aquatic flora and fauna to thrive. The water from the Site is used for agricultural purposes in the nearby villages and thus, it plays an important role in providing food security and livelihood for the local people.

☑ Criterion 2 : Rare species and threatened ecological communities

Optional text box to provide further information	The Longwood Shola Reserve Forest is home to several important bird species. Of the 26 Western Ghats endemic species of birds, 14 have been recorded in this Site. Several species are classified under the IUCN red list including, Nilgiri Laughingthrush, Nilgiri Blue Robin, Malabar Grey Hornbill, Nilgiri Wood-Pigeon, Kashmir Flycatcher, Nilgiri Pipit and Rufous-bellied Eagle. The Site is rich in herpetofauna diversity of which several species are endemic to the Western Ghats and are also considered as threatened species by IUCN. Endangered species such as Ghatixalus variabilis, Raorchestes charius, Raorchestes signatus and Raorchestes tinniens along with Vulnerable species like Uperodon triangularis and Micrixalus phyllophilus are found in and around the Site. The Site also supports endangered and vulnerable flora according to IUCN Red List. Endangered species such as Psychotria nilgiriensis, Actinodaphne bourneae and Cinnamomum wightii are found in the Site along with vulnerable species like Cayratia pedata and Syzygium densiflorum. These species are also endemic to the Western Ghats. Hence, conservation of this Site is critical in conserving these species.

☑ Criterion 3 : Biological diversity

Justification

Flora:
The area is said to support variety of endemic plants species including 44 species of trees, 32 species of shrubs, 5 species of epiphytes, 12 species of ferns and 25 species of lianas and other climbers. Most of the species found in The Longwood Shola Forest are endemic to the western Ghats which includes 7 species listed as threatened by the International Union for Conservation (IUCN). Most of the plant species are endemic to the area and also require specific climatic conditions for their survival and the Longwood Shola Reserve Forest provides the necessary conditions for the floral diversity to flourish.

Fauna:
Large animals are rarely seen in the Site due to its small area and its disconnectedness from the neighbouring sholas. However, Sambar Deer and Barking Deer are relatively common, which are prey of big carnivores like Leopard. Other mammal species such as Indian Gaur, Mouse Deer, Nilgiri Marten, Wild Boar, Indian Crested Porcupine, Bonnet Macaque, Indian Giant Squirrel, and Black-naped Hare are found here.

The area harbours about 177 species of birds which includes 14 species of birds which are considered endemic to the Western Ghats and 7 species are listed as threatened species by IUCN. Threatened bird species such as Malabar Grey Hornbill, Nilgiri Wood-Pigeon, Nilgiri Laughingthrush, Nilgiri Blue Robin, Nilgiri Pipit are habitat specialists and hence cannot adapt to changes in the habitat structure resulting from urbanisation. The Site provides suitable habitat for these birds and several other bird species in the region as a protected area. The area also comprises 44 herpetofauna, 19 odonatan, 78 butterfly species.

Species in the Order Anuran are endemic to the Western Ghats as they prefer particular climatic conditions of the region for their survival and are not capable of migrating from one place to another crossing unfavourable habitat. A frog species called Nyctibatrachus indraneili was discovered from the Site which shows the importance of the Site in providing unique habitat for various life forms.

☑ Criterion 4 : Support during critical life cycle stage or in adverse conditions

Optional text box to provide further information

The Longwood Shola Reserve Forest provides shelter for variety of fauna during adverse weather conditions such as drought, cyclones and flood. The Forest acts as a buffer and remediates the effect of these extreme events on wild fauna. The Site provides food sources for herbivores during adverse conditions and hence, helps to maintain the herbivore population and prevents human-wildlife conflict by limiting movement of animals into humans settlements from food or water scarcity.

The Site also supports critical stages in the life cycle of amphibians including endemic frogs by providing required aquatic habitat and food sources and specific climate conditions, especially during those stages. Some of these frogs below to the Genus Nyctibatrachus, Indosylvirana and Micrixalus.

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

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
Plantae								
TRACHEOPHYTA / MAGNOLIOPSIDA	*Actinodaphne bourneae*	☑	☑	☑	EN	☐	Endemic to Southern Western Ghats	The species is endemic and threatened. The Site provides habitat for the species during dry seasons.

Phylum	Scientific name	Criterion 2	Criterion 3	Criterion 4	IUCN Red List	CITES Appendix I	Other status	Justification
TRACHEOPHYTA / MAGNOLIOPSIDA	*Cayratia pedata*	☑	☑	☑	VU	☐		The species is Vulnerable. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Cinnamomum wightii*	☑	☑	☑	EN	☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Cryptocarya stocksii*	☑	☑	☑	VU	☐	Endemic to Peninsular India	The species is Vulnerable. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Euonymus crenulatus*	☐	☑	☑		☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Gordonia obtusa*	☐	☑	☑	LC	☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / LILIOPSIDA	*Isachne bourneorum*	☐	☑	☑		☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Isodon wightii*	☐	☑	☑		☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Isonandra perrottetiana*	☐	☑	☑		☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Jasminum brevilobum*	☐	☑	☑		☐	Endemic to Peninsular India	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Lasianthus venulosus*	☐	☑	☑		☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Litsea floribunda*	☐	☑	☑	NT	☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Litsea wightiana*	☐	☑	☑	NT	☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Neolitsea pallens*	☐	☑	☑		☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Piper schmidtii*	☐	☑	☑		☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Psychotria nilgiriensis*	☑	☑	☑	EN	☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / LILIOPSIDA	*Smilax wightii*	☐	☑	☑		☐	Endemic to Southern Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Symplocos foliosa*	☐	☑	☑		☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Syzygium densiflorum*	☑	☑	☑	VU	☐	Endemic to Southern Western Ghats	The species is endemic and threatened. The Site provides habitat for the species during dry seasons.
TRACHEOPHYTA / MAGNOLIOPSIDA	*Syzygium montanum*	☐	☑	☑		☐	Endemic to Western Ghats	The species is endemic. The Site provides habitat for the species during dry seasons.

Shola forests contain a variety of trees, some of which are not found anywhere else in the world (endemic). The forests typically have an upper story of small trees, and a low understory of dense shrubs. The Site provides suitable habitat for these endangered and endemic plant species as the water bodies in the Site help them to survive during adverse conditions and also the Site is important for plants reproductive processes.

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

Phylum	Scientific 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								
Others																	
CHORDATA / REPTILIA	*Boiga nuchalis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	Collared Cat Snake is an endemic species of Boiga genus found in high elevations of southern Western Ghats. Lives in moderate to high elevations of Western Ghats mainly in evergreen and mixed deciduous forests. Lives in dense vegetation including bushes and trees of hills. It feeds mainly on lizards, birds, rodents, bats, frogs etc. The trees and vegetation in the Site provides suitable habitat for the species.
CHORDATA / MAMMALIA	*Bos frontalis gaurus*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☑	☐	Sch I (Part I) of Indian wildlife protection act 1972	Being a herbivore, the species plays an important role in seed dispersal. The species predominantly feeds on grasses. The Site provides water for the species during adverse condition and provide habitat as the forest patches in the area are fragmented. Theses patches help in the free movement of the species. The species also prefers swamps which are found in the area as the swamps provide water and grasses for them to feed on.
ARTHROPODA / INSECTA	*Caconeura risi*	☐	☑	☐	☐	☑	☐	☐	☐				DD	☐	☐	Endemic to Western Ghats	This endemic damselfly is usually found perched on riparian vegetation in shaded streams in dense jungle. It lays its egg in the streams and swamps where the larval stage lives and then turns into adult. Thus, the Site provides suitable habitat for the species to complete its life cycle.
CHORDATA / REPTILIA	*Calotes nemoricola*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species is found in mid to high elevated forest areas. They are endemic to the Western Ghats.
CHORDATA / AMPHIBIA	*Clinotarsus curtipes*	☐	☑	☐	☐	☑	☐	☐	☐				NT	☐	☐	Endemic to Western Ghats	Like toads, this species moves slowly in the forest floor and stays inland except during breeding. Thus the Site is important for providing breeding habitat for the species due to the availability of streams and swamps.
CHORDATA / AMPHIBIA	*Ghatixalus asterops*	☐	☑	☐	☐	☑	☐	☐	☐				DD	☐	☐	Endemic to Western Ghats	They are found along the streams, undergrowth, shrubs, AND tall grass clumps in the evergreen Shola forest between 1700 - 2400 meters altitude. The streams are habitat for the tadpoles of the species. Thus, the Site provides suitable habitat for the species.
CHORDATA / AMPHIBIA	*Ghatixalus variabilis*	☑	☑	☐	☐	☑	☐	☐	☐				EN	☐	☐	Endemic to Western Ghats	This frog species is very habitat specific and sensitive to habitat changes. It is found only in the high altitude montane forest region along low vegetation near water bodies. The streams are habitat for the tadpoles of the species.
CHORDATA / REPTILIA	*Hebius beddomei*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species is found near streams sides of high rainfall areas. They feed on frogs, small reptiles, etc. in the wetlands. The streams and swamps in the Site provide suitable habitat for the species.

Phylum	Scientific 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								
CHORDATA / AMPHIBIA	*Indosylvirana flavescens*	☐	☑	☐	☐	☑	☐	☐	☐					☐	☐	Endemic to Western Ghats	This endemic species is found in riparian vegetation and streams. They typically breed along the edges of gently flowing and/or in the pockets of still water along the streams. Eggs are slightly green in colour and can be found in clutches and are usually deposited at the edges of the rocky pools.
CHORDATA / MAMMALIA	*Macaca radiata*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☐	☐	Sch II (Part I) of Indian wildlife protection act 1972	The species faces human wildlife conflict and it plays an important role in seed dispersal. The forest cover in the Site provides safe place for the species to rear their young ones.
CHORDATA / MAMMALIA	*Martes gwatkinsii*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	Sch II (Part I) of Indian wildlife protection act 1972	This endemic species inhabits the Shola grassland and high altitude evergreen forests, and occasionally the adjacent mid-altitude moist deciduous forests. It is elusive and arboreal. It plays an important role in the Site's ecosystem: (i) the seeds they eat as part of their varied diet are eventually dispersed throughout the forest, (ii) they also prey on other small mammals.
CHORDATA / MAMMALIA	*Melursus ursinus*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☑	☐	Sch I (Part I) of Indian wildlife protection act 1972	The Site provides good habitat for this vulnerable species and limits their movement into the human settlement. It also provides water during adverse conditions such as drought.
CHORDATA / AMPHIBIA	*Micrixalus phyllophilus*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☐	☐	Endemic to Western Ghats	This frog species is very habitat specific and sensitive to habitat changes. The species of the Genus Micrixalus live in streams and also lay their egg in streams.
CHORDATA / AMPHIBIA	*Nyctibatrachus indraneili*	☐	☑	☐	☐	☑	☐	☐	☐					☐	☐	Endemic to Western Ghats	The species live in streams and swamps found in high elevation. They are predominantly aquatic and lay their eggs in waterbodies. The holotype of the species was discovered from the streams in this Site. The steams and swamps in the Site are ideal habitat for the species.
CHORDATA / MAMMALIA	*Panthera pardus*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☑	☐	Sch I (Part I) of Indian wildlife protection act 1972	The species faces threats such as habitat fragmentation, pouching and lack of prey. The forest cover in the Site provides necessary habitat and ample herbivore preys and keeps them isolated from threats. They also get water during adverse condition from the site which helps prevent human-wildlife conflict.
CHORDATA / REPTILIA	*Plectrurus perroteti*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	It is found in the upper Nilgiris (above 5900ft), including the Ootacamund Plateau of southern Western Ghats of Kerala and Tamil Nadu. The species is a fossorial and are found below leaf litters and wooden logs in moist forest floor. The Site provides suitable habitat for the species to thrive and breed.
CHORDATA / AMPHIBIA	*Raorchestes akroparallagi*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats	This endemic species is found in wet forests and associated habitats in elevation between 1800-2400 meters. They perch on bushes near streams and swamps. The egg clutches of Raorchestes species require moist condition for them to survive. The Site provides suitable habitat and climatic condition for the species to breed.
CHORDATA / AMPHIBIA	*Raorchestes charius*	☑	☑	☐	☐	☑	☐	☐	☐				EN	☐	☐	Endemic to Western Ghats	This frog species is very habitat specific and sensitive to habitat changes. It is mostly seen on the stems of shrubs about 0.5 to 1.5 m above the ground. The species of the genus Raorchestes tend to be found in moist areas and lay their eggs on shrubs near waterbodies. The egg clutches of Raorchestes species require moist condition. The Site provides suitable habitat and climatic condition for the species to breed.

Phylum	Scientific 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								
CHORDATA / AMPHIBIA	*Raorchestes coonoorensis*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats	The species is found in wet forests and associated habitats in elevation ranging between 1800-2400 meter. They perch on bushes near streams and swamps. The egg clutches of Raorchestes species require moist condition. The Site provides suitable habitat and climatic condition for the species to breed.
CHORDATA / AMPHIBIA	*Raorchestes signatus*	☑	☑	☐	☐	☑	☐	☐	☐				EN	☐	☐	Endemic to Western Ghats	This frog species is very habitat specific and sensitive to habitat changes. Mostly seen on shrubs and trees about 4 meters above the ground in evergreen to moist deciduous forest and Sholas. The species of the genus Raorchestes tend to be found in moist areas and lay their eggs on shrubs near waterbodies. The egg clutches of Raorchestes species require moist condition. The Site provides suitable habitat and climatic condition for the species to breed.
CHORDATA / AMPHIBIA	*Raorchestes tinniens*	☑	☑	☐	☐	☑	☐	☐	☐				EN	☐	☐	Endemic to Western Ghats	This frog species is very habitat specific and sensitive to habitat changes. It is found in moist forest and in elevation ranging between 1500 - 2400 meters in Sholas. The species of the genus Raorchestes tend to be found in moist areas and lay their eggs on shrubs near waterbodies. The egg clutches of Raorchestes species require moist condition. The Site provides suitable habitat and climatic condition for the species to breed.
CHORDATA / AMPHIBIA	*Rhacophorus malabaricus*	☐	☑	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats	It is an arboreal species inhabiting the tropical moist evergreen forest, deciduous forest, secondary (disturbed) forest. Unlike other frogs it makes nest in trees which is built over waterbody so that the tadpole drops into water. The Site provides suitable habitat and climatic condition for the species to breed.
CHORDATA / MAMMALIA	*Rusa unicolor*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☐	☐	Sch III of Indian wildlife protection act 1972	Being a herbivore, the species plays an important role in controlling plant cover and helps in seed dispersal. It is also a prey for other carnivores found in the area. The Site provides drinking water for the species during drought.
CHORDATA / AMPHIBIA	*Uperodon triangularis*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☐	☐	Endemic to Western Ghats	The frog species is known to breed in the water, collected in tree hollows. They are found in moist places on land, tree holes, tree bases, logs, stones and forest floor in moist deciduous to evergreen forest. The shola forest with streams and swamps provide an ideal habitat for the species. During dry seasons, the Site provides the required shelter for the species.
CHORDATA / REPTILIA	*Varanus bengalensis*	☐	☑	☐	☐	☑	☐	☐	☐				NT	☑	☐	Sch I (Part II) of Indian wildlife protection act 1972	The species is found in wide variety of habitats from the dry plain regions to the hill tops. The species is harvested for food and medicinal purposes in huge amount hence the Site provides good habitat for them to survive in a highly populated area. They are carnivores and feed on frogs, reptiles, birds and small mammals. They also scavenge at times. Females dig a nest hole in ground or a vertical bank and lay the eggs inside, filling it up and using their snouts to compact the soil. The Site provides suitable nesting site for the species.
Birds																	
CHORDATA / AVES	*Anthus nilghiriensis*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	Endemic to Western Ghats	This species is a habitat specialist and are endemic to the Western Ghats of Kerala and Tamil Nadu. Their principal habitats are high altitude grasslands, associated habitats, and high altitude tree savanna in elevation (m) ranging between 1000-2300. The habitats of these species are being threatened due to land use change and fragmentation. Hence the remaining forest patches of this Site are important for the movement of the species from one place to other.

Phylum	Scientific 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								
CHORDATA / AVES	*Columba elphinstonii*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	Endemic to Western Ghats	The Nilgri Woodpegion is endemic to the Western Ghats. The species is a habitat specialist found in wet forests, Associated habitats and Shola forests, ranging between 600-2000 meters. They are mainly frugivorous and forage in the canopy of dense hill forests.
CHORDATA / AVES	*Cyornis pallidipes*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species is endemic to the Western Ghats found in low to medium elevation Wet Forests, around reeds and swampy area. The Site provides these habitat for the species. They hunt for insects in dense vegetation.
CHORDATA / AVES	*Dicaeum concolor*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Peninsular India, Protected under Sch IV of Indian wildlife protection act 1972	The species is endemic to the Western Ghats and found in forest areas of low to high elevation. They are important pollinators and dispersers of mistletoes in forests.
CHORDATA / AVES	*Eumyias albicaudatus*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The are found in high altitude Shola forests & grasslands and associated habitats in elevation between 600-2000 meter. They are insectivorous species and are endemic to the Western Ghats. The shola forests are ideal habitat for the bird species.
CHORDATA / AVES	*Ficedula nigrorufa*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species is found in high altitude forests (shola) and in associated habitats in elevation ranging between 700-2400 meters. They are insectivorous species and are endemic to the Western Ghats. The shola forests are ideal habitat for the bird species.
CHORDATA / AVES	*Ficedula subrubra*	☑	☑	☐	☐	☑	☐	☐	☐				VU	☐	☐		The species are habitat specialist and migrate to the shoal forest during winter. It is an insectivorous species which breeds in the north-west Himalayas in the Kashmir region of the Indian Subcontinent. It is migratory and winters in the hills of central Sri Lanka and the Western Ghats of India. The flycather feeds on insects in the Site.
CHORDATA / AVES	*Galerida malabarica*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The are found in grasslands, scrubs, and associate habitats with elevation up to 2000 meter. The species is endemic to the Western Ghats. The Site provides habitat for the species and also helps in the movement from one forest patch to another as the habitats are getting fragmented.
CHORDATA / AVES	*Leptocoma minima*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species is found in mid to high elevation moist-wet forests and associated habitats. The species is endemic to the Western Ghats. The Site provides flower nectar as food to the species. It is an important pollinator. The Shola forests are ideal habitat for the bird species.
CHORDATA / AVES	*Megalaima viridis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Peninsular India, Protected under Sch IV of Indian wildlife protection act 1972	The species is frugivorous in nature and hence helps in dispersal of seeds. They build their nest by making holes in tree branches. They are found in low to high elevation and are endemic to peninsular India.
CHORDATA / AVES	*Myiomela major*	☑	☐	☐	☐	☑	☐	☐	☐				EN	☐	☐	Endemic to Western Ghats	The species are habitat specialist in the Shola forests. The species has been found to occur only above 1200 m altitude in the higher hill ranges of Western Ghats. These forest patches are highly restricted in size and the species is thus threatened by habitat loss.

Phylum	Scientific 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								
CHORDATA / AVES	*Ocyceros griseus*	☑	☐	☐	☐	☑	☐	☐	☐				VU	☐	☐	Endemic to Western Ghats	The species are habitat specialist in the Shola forests and is endemic to the Western Ghats and associated hills of southern India. This hornbill is found in small groups mainly in habitats with good tree cover. Being large frugivores, they are important seed dispersers of many fruit bearing trees.
CHORDATA / AVES	*Psittacula columboides*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Peninsular India, Protected under Sch IV of Indian wildlife protection act 1972	An endemic species of Parakeet, restricted to the Western Ghats. They are predominantly found in moist-wet forests and associated habitats. They are also help in seed dispersal. The Shola forests are ideal habitat of the bird species.
CHORDATA / AVES	*Pycnonotus gularis*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	It feeds on berries, figs and insects, finding most of its food in the forest canopy. They prefer moist-wet forests and associated habitats and are found between medium to high elevation. The species is endemic to the Western Ghats. The Shola forests are ideal habitat for the bird species.
CHORDATA / AVES	*Pycnonotus priocephalus*	☐	☐	☐	☐	☑	☐	☐	☐				NT	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	Its diet consists mainly of fruits and invertebrates. It is endemic to the Western Ghats and are found in medium to high elevation. They prefer dense reeds or thickets mainly near rivers and swampy areas inside forests. The Shola forests are ideal habitat for the bird species.
CHORDATA / AVES	*Trochalopteron cachinnans*	☑	☐	☐	☐	☑	☐	☐	☐				EN	☐	☐	Protected under Sch IV of Indian wildlife protection act 1972, Endemic to Western Ghats	The species are habitat specialist and hence the shoal forest is important habitat for the species. It is a species of laughingthrush endemic to the high elevation areas of the Nilgiris and adjoining hill ranges in Peninsular India. It lives in dense forest patches of the Nilgiri and Wayanad ranges above the elevation of 1,200 m (3,900 ft). The species is predominantly dependent on the Shola forest patches as these birds do not take long flights and tend to move within nearby forest patches in search of food.
CHORDATA / AVES	*Turdoides subrufa*	☐	☐	☐	☐	☑	☐	☐	☐				LC	☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species is found in medium to high elevation forest and prefer bushy areas. It is mostly insectivores and is endemic to the Western Ghats. The Shola forests are ideal habitat for the bird species.
CHORDATA / AVES	*Zoothera neilgherriensis*	☐	☐	☐	☐	☑	☐	☐	☐					☐	☐	Endemic to Western Ghats, Protected under Sch IV of Indian wildlife protection act 1972	The species wet forests, shola forest and associated habitats in elevation ranging between 600 - 2000 meters. It is endemic to the Western Ghats. It is largely restricted to the Sholas and stays on the terrestrial lower canopy of the moist Shola ecosystem. It is also rarely found in roadways on rainy days. It feeds on insects and is an opportunistic insectivore. The scaled pattern on its body provides camouflage in terrestrial understory of the forest.

1) Percentage of the total biogeographic population at the site

The Site provides habitat for diverse variety of species by providing various habitat types for mammals, frogs and birds. Frogs are dependent on the Site for breeding as there are steams and several species of frogs are dependent on the habitat. The Site provides refuge for animals during adverse conditions.

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

"Sholas" are the local name for patches of stunted tropical montane forest found in valleys surrounded by rolling grassland in the higher montane regions of South India, mainly in Kerala, Karnataka and Tamilnadu. The Shola forests of South India derive their name from the Tamil word, "solai", which means a 'tropical rain forest'. Generally, Shola forests are found from 2000 meters above sea level. However, in certain hilly regions of South India, they can be found at 1600 meters elevation.

Shola forests harbour a variety of trees, some of which are endemic to India. The forests typically have an upper story of small trees, and a low understory of dense shrubs. Mosses and ferns are also found in the understory. Shola forests have a high water retention capacity and support origin and maintenance of streams and rivers in the Western Ghats which provide primary sources of water for high elevation organisms.

The Longwood Shola Reserve Forest comes under South Western Ghats montane rain forests in the Regionalization schemes of WWF (World Wide Fund For Nature) Terrestrial ecoregions. It is a Shola Forest and comprises swamps and streams that crisscross the forest area. Streams that run from the Site provide water and irrigation to the downstream settlements.

The Site is located in the Bhavani River basin in the western part of Tamil Nadu, bounded by Upper Cauvery River basin aquifer system in north, Amaravathy River basin aquifer system in south, Lower Cauvery River aquifer system in east and Karnataka State in west. The total area of Bhavani River basin is 10,391 sq.km within which the hilly area covers 1198 sq.km. The Bhavani River basin comprises parts of seven districts: Coimbatore, Erode, Namakkal, Nilgiris Karur, Salem and Tiruppur. The area receives water predominantly from precipitation and it helps in recharging groundwater.

The Site helps to regulate local rainfall. The micro climatic condition within the Site provides habitat for diverse flora and fauna. More than 400 species have been recorded which includes several endemic species belonging to the Western Ghats and Indian Peninsular. The Site also provides shelter to threatened species during adverse climatic conditions such as cyclone, flood and drought. It helps in preventing soil erosion and acts as a buffer during floods by reducing the speed of water flow. The Site acts as a carbon sink because it absorbs carbon from the atmosphere and stores it in the plants and the sediments of the swamps found in the Shola forest.

Flora:
The Site supports a variety of endemic plants species including 44 species of trees, 32 species of shrubs, 5 species of epiphytes, 12 species of ferns and 25 species of lianas and other climbers. 7 species of the species listed as threatened by the International Union for Conservation (IUCN). Most of the plant species are endemic to the area and also require specific climatic conditions for their survival and the Site provides the necessary conditions for the floral diversity to flourish.

Fauna:
Large animals are rarely seen in the Site due to its small area and its disconnectedness from the neighbouring sholas. Leopards are rarely seen but their prey such as Sambar Deer and Barking Deer are relatively common in the area. Other species such as Indian Gaur, Mouse Deer, birds and butterflies help in pollination and dispersal of seeds.

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
Fresh water > Flowing water >> N: Seasonal/ intermittent/ irregular rivers/ streams/ creeks		2	0.44	Representative
Fresh water > Marshes on inorganic soils >> Ts: Seasonal/ intermittent freshwater marshes/ pools on inorganic soils		1	115.567	Representative

Other non-wetland habitat

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

4.3 - Biological components

4.3.1 - Plant species

Other noteworthy plant species

Phylum	Scientific name	Position in range / endemism / other
TRACHEOPHYTA/LILIOPSIDA	*Carex lindleyana*	Endemic to South India and Sri Lanka
TRACHEOPHYTA/MAGNOLIOPSIDA	*Cissampelopsis walkeri*	South India and Sri Lanka
TRACHEOPHYTA/MAGNOLIOPSIDA	*Laportea bulbifera*	Endemic to India and Sri Lanka
TRACHEOPHYTA/MAGNOLIOPSIDA	*Myrsine wightiana*	Endemic to South India and Sri Lanka
TRACHEOPHYTA/MAGNOLIOPSIDA	*Piper mullesua*	Endemic to India
TRACHEOPHYTA/MAGNOLIOPSIDA	*Psychotria bisulcata*	Endemic to South India and Sri Lanka
TRACHEOPHYTA/MAGNOLIOPSIDA	*Scutellaria violacea*	Endemic to South India and Sri Lanka

Invasive alien plant species

Phylum	Scientific name	Impacts
TRACHEOPHYTA/MAGNOLIOPSIDA	*Acacia mearnsii*	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	*Chromolaena odorata*	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	*Eucalyptus globulus*	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	*Lantana camara*	Actual (major impacts)
TRACHEOPHYTA/MAGNOLIOPSIDA	*Prosopis juliflora*	Actual (major impacts)

4.3.2 - Animal species

Other noteworthy animal species

Phylum	Scientific name	Pop. size	Period of pop. est.	%occurrence	Position in range /endemism/other
CHORDATA/REPTILIA	*Chamaeleo zeylanicus*				Protected under Sch II (Part I) of the wildlife protection act 1972
CHORDATA/REPTILIA	*Draco dussumieri*				Endemic to Peninsular India
ARTHROPODA/INSECTA	*Euphaea cardinalis*				Endemic to India
CHORDATA/MAMMALIA	*Felis chaus*				Protected under Sch II (Part I) of the wildlife protection act 1972
CHORDATA/AVES	*Gracula indica*				Protected under Sch I (Part III) of the wildlife protection act 1972
ARTHROPODA/INSECTA	*Heliocypha bisignata*				Endemic to India
ARTHROPODA/INSECTA	*Hylaeothemis apicalis*				Endemic to India
CHORDATA/MAMMALIA	*Hystrix indica*				Protected under Sch IV of the Wildlife protection act 1972
CHORDATA/MAMMALIA	*Lepus nigricollis*				Protected under Sch IV of the Wildlife protection act 1972
CHORDATA/AVES	*Lophotriorchis kienerii*				Near Threatened Bird species
CHORDATA/REPTILIA	*Lycodon travancoricus*				Endemic to Peninsular India
CHORDATA/MAMMALIA	*Moschiola indica*				Protected under Sch I (Part I) of the wildlife protection act 1972
CHORDATA/MAMMALIA	*Muntiacus muntjak*				Protected under Sch III of the Wildlife protection act 1972
CHORDATA/MAMMALIA	*Paradoxurus hermaphroditus*				Protected under Sch II (Part I) of the Wildlife protection act 1972
CHORDATA/AVES	*Pavo cristatus*				Protected under Sch I (Part III) of the wildlife protection act 1972
CHORDATA/MAMMALIA	*Prionailurus bengalensis*				Protected under Sch I (Part I) of the wildlife protection act 1972
CHORDATA/REPTILIA	*Ptyas mucosa*				Protected under Sch II (Part II) of the wildlife protection act 1972
CHORDATA/MAMMALIA	*Ratufa indica*				Protected under Sch II (Part I) of the wildlife protection act 1972
CHORDATA/MAMMALIA	*Sus scrofa cristatus*				Protected under Sch III of the wildlife protection act 1972

4.4 - Physical components

4.4.1 - Climate

Climatic region	Subregion
D: Moist Mid-Latitude climate with cold winters	Dfa: Humid continental (Humid with severe winter, no dry season, hot summer)

4.4.2 - Geomorphic setting

a) Minimum elevation above sea level (in metres) 2000

a) Maximum elevation above sea level (in metres): 2250

- 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.

The Bhavani River basin is located in the western part of Tamil Nadu, bounded by Upper Cauvery River basin aquifer system in north, Amaravathy River basin aquifer system in south, Lower Cauvery River aquifer system in east and Karnataka state in west. The total geographical area of the study area is 10,391 sq.km in which hilly area covers 1198 sq.km. The basin comprises of seven districts of parts of Coimbatore, Erode, Namakkal, Nilgiris Karur, Salem and Tiruppur.

4.4.3 - Soil

- Mineral ☐
- Organic ☑
- 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?	
Usually permanent water present	No change

Source of water that maintains character of the site

Presence?	Predominant water source	
Water inputs from precipitation	☑	No change
Water inputs from surface water	☐	No change

Water destination

Presence?	
To downstream catchment	No change
Feeds groundwater	No change

Stability of water regime

Presence?	
Water levels largely stable	No change

4.4.5 - Sediment regime

- Significant erosion of sediments occurs on the site ☐
- Significant accretion or deposition of sediments occurs on the site ☐
- Significant transportation of sediments occurs on or through the site ☐
- Sediment regime is highly variable, either seasonally or inter-annually ☑
- Sediment regime unknown ☐

4.4.6 - Water pH

- Acid (pH<5.5) ☐
- Circumneutral (pH: 5.5-7.4) ☑
- Alkaline (pH>7.4) ☐
- Unknown ☐

4.4.7 - Water salinity

- Fresh (<0.5 g/l) ☑
- Mixohaline (brackish)/Mixosaline (0.5-30 g/l) ☐
- Euhaline/Eusaline (30-40 g/l) ☐

Hyperhaline/Hypersaline (>40 g/l) ☐

Unknown ☐

4.4.8 - Dissolved or suspended nutrients in water

Eutrophic ☐

Mesotrophic ☐

Oligotrophic ☐

Dystrophic ☐

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 greater urbanisation or development ☐

Surrounding area has higher human population density ☑

Surrounding area has more intensive agricultural use ☑

Surrounding area has significantly different land cover or habitat types ☑

4.5 - Ecosystem services

4.5.1 - Ecosystem services/benefits

Provisioning Services

Ecosystem service	Examples	Importance/Extent/Significance
Fresh water	Drinking water for humans and/or livestock	High
Fresh water	Water for irrigated agriculture	High

Regulating Services

Ecosystem service	Examples	Importance/Extent/Significance
Maintenance of hydrological regimes	Groundwater recharge and discharge	High
Maintenance of hydrological regimes	Storage and delivery of water as part of water supply systems for agriculture and industry	High
Erosion protection	Soil, sediment and nutrient retention	High
Climate regulation	Local climate regulation/buffering of change	High
Climate regulation	Regulation of greenhouse gases, temperature, precipitation and other climactic processes	High

Cultural Services

Ecosystem service	Examples	Importance/Extent/Significance
Recreation and tourism	Nature observation and nature-based tourism	Medium
Spiritual and inspirational	Aesthetic and sense of place values	High
Scientific and educational	Educational activities and opportunities	High
Scientific and educational	Important knowledge systems, importance for research (scientific reference area or site)	High
Scientific and educational	Type location for a taxon	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	High
Soil formation	Accumulation of organic matter	High
Soil formation	Sediment retention	High
Nutrient cycling	Carbon storage/sequestration	High
Pollination	Support for pollinators	High

Within the site: V only: 1000s

Outside the site: R: 1000s; V 10000s

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
Provincial/region/state government	☑	☐

Private ownership

Category	Within the Ramsar Site	In the surrounding area
Commercial (company)	☐	☑

Other

Category	Within the Ramsar Site	In the surrounding area
Unspecified mixed ownership	☐	☑

5.1.2 - Management authority

Please list the local office / offices of any agency or organization responsible for managing the site: District Forest Officer, Nilgiris Forest Division

Postal address:
DISTRICT FOREST OFFICER,
NILGIRIS DIVISION,
MOUNT STUART HILL
UDHAGAI 643 101
NILGIRIS

E-mail address: dfonlgsouth@gmail.com

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	In the surrounding area
Housing and urban areas	Medium impact	Medium impact	☐	☑
Commercial and industrial areas	Medium impact	Medium impact	☐	☑
Tourism and recreation areas	Medium impact	Medium impact	☐	☑

Water regulation

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Drainage	Low impact	Low impact	☑	☑
Water releases	Low impact	Low impact	☑	☑
Canalisation and river regulation	Low impact	Low impact	☑	☑

Agriculture and aquaculture

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Annual and perennial non-timber crops	Low impact	Low impact	☐	☑
Livestock farming and ranching	Low impact	Low impact	☐	☑

Energy production and mining

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Renewable energy	Low impact	Low impact	☐	☑

Transportation and service corridors

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Roads and railroads	Low impact	Low impact	☐	☑

Biological resource use

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Hunting and collecting terrestrial animals	Medium impact	Medium impact	☑	☑
Logging and wood harvesting	Medium impact	High impact	☑	☑

Human intrusions and disturbance

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Recreational and tourism activities	Medium impact	Medium impact	☑	☑

Natural system modifications

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Fire and fire suppression	Medium impact	Medium impact	☑	☑
Dams and water management/use	Medium impact	Medium impact	☑	☑

Invasive and other problematic species and genes

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Invasive non-native/ alien species	High impact	High impact	☑	☑

Pollution

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Household sewage, urban waste water	Medium impact	Medium impact	☐	☑
Industrial and military effluents	Medium impact	Medium impact	☐	☑
Agricultural and forestry effluents	Medium impact	Medium impact	☐	☑

Geological events

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Avalanches/landslides	High impact	High impact	☐	☑

Climate change and severe weather

Factors adversely affecting site	Actual threat	Potential threat	Within the site	In the surrounding area
Temperature extremes	Low impact	Low impact	☑	☑

5.2.2 - Legal conservation status

Global legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
UNESCO Biosphere Reserve	Niligiri Biosphere Reserve		whole

National legal designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Reserve Forest	Longwood Shola		whole

Non-statutory designations

Designation type	Name of area	Online information url	Overlap with Ramsar Site
Important Bird Area	Longwood Shola - Kothagiri	http://datazone.birdlife.org/site/factsheet/longwood-shola--koth agiri-iba-india	whole

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 ☐

5.2.4 - Key conservation measures

Legal protection

Measures	Status
Legal protection	Partially implemented

Habitat

Measures	Status
Catchment management initiatives/controls	Implemented
Habitat manipulation/enhancement	Implemented
Re-vegetation	Implemented
Soil management	Implemented
Land conversion controls	Implemented
Faunal corridors/passage	Implemented

Species

Measures	Status
Threatened/rare species management programmes	Implemented
Control of invasive alien animals	Implemented

Human Activities

Measures	Status
Harvest controls/poaching enforcement	Partially implemented
Communication, education, and participation and awareness activities	Partially implemented

5.2.5 - Management planning

Is there a site-specific management plan for the site? No

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

<no data available>

6 - Additional material

6.1 - Additional reports and documents

6.1.1 - Bibliographical references

1. Flora of Tamil Nadu, VOL. I, 1983, Flora of Maharastra State Dicotyledones, Vol I, Lakshminarasimhan P. & Prasanna P. V, 2000
2. Sageretia hamosa Brongn., Ann. Sci. Nat. Bot. ser. 1, 10: 360. 1827; Hook. f., Fl. Brit. India 1: 641. 1875; Gamble, Fl. Pres. Madras 223(160). 1918; Ramach. et al., Journ. Econ. Tax. Bot. 5:
140. 1984; Ramach. & V.J. Nair, Fl. Cannanore Dist. 99. 1988; Sasidh., Fl. Periyar Tiger Reserve 71. 1998; Bhandari & Bhansali in N.P. Singh et al., Fl. India 5: 200. 2000; P.V. Sreekumar &
A.N. Henry in P. Daniel, Fl. Kerala 1: 726. 2005.
3. Mathew, K. M. "The flora of Palani Hills." Rapinat Herbarium, Tiruchirapalli, Part I-III.
4. https://ebird.org/hotspot/L2933116
5.http://datazone.birdlife.org/site/factsheet/18394
6. Endemic flora in Kotagiri hill of Nilgiri Biosphere Reserve, Patharaj.J, Sasurie vidhya Bhavan Educational Institution, Tirupur, 2016.
7. A taxonomic review of the Night Frog genus Nyctibatrachus Boulenger, 1882 in the Western Ghats, India (Anura: Nyctibatrachidae) with description of twelve new species, 2011.
8. A Checklist of Anurans (Class: Amphibia) in Nilgiris, Western Ghats, Southern India, https://www.researchgate.net/publication/337144401
9. Rahmani, A.R., Islam, M.Z. and Kasambe, R.M. (2016) Important Bird and Biodiversity Areas in India: Priority Sites for Conservation (Revised and updated). Bombay Natural History Society, Indian Bird Conservation Network, Royal Society for the Protection of Birds and BirdLife International (U.K.). Pp. 1992 + xii
9.Documentation of butterflies at mid hill high rainfall region of Gudalur, Tamil Nadu: The Nilgiris, India, https://www.researchgate.net/publication/337928042
10, Altitudinal gradients and species richness: A study on diversity of orthoptera in Nilgiris Shola Forests and Grasslands. Rec. zool. Surv. India: Vol. 121(4)/465–472, 2021
11.Editor-Director 2001. Fauna 0/ Nilgiri Biosphere Reserve, Fauna o/Conservation Areas Series 11 : 1-330 (Published-Director, Zool. Surv. India, Kolkata)

6.1.2 - Additional reports and documents

i. taxonomic lists of plant and animal species occurring in the site (see section 4.3)
<1 file(s) uploaded>

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
<1 file(s) uploaded>

iv. relevant Article 3.2 reports
<no file available>

v. site management plan
<no file available>

vi. other published literature
<7 file(s) uploaded>

6.1.3 - Photograph(s) of the Site

Please provide at least one photograph of the site:


Image of the swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 12-04-2022*)


Image of the swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)


Image of the swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)


Image of the swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)


Image of the steam reaching a swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)


Image of the steam in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)


Image of the swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)


Image of the swamp in the Longwood Shola Reserve Forest (*Tamil Nadu Forest Department, 27-04-2023*)

6.1.4 - Designation letter and related data

Designation letter
<1 file(s) uploaded>

Date of Designation: 2023-05-24