

Ifa Lemvelo

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Natural History Museum of Zimbabwe

Offices at: Centenary Park, Corner Park Road &
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Bulawayo

Regional Director's message

Welcome to this issue!

Finally it is warming up and it's that time of the year when we start seeing all the animals in a frenzy of activity. If you see anything unusual or require animals to be identified, especially hard ones like insects and spiders please bring them to the museum where the staff will assist. If you are from out of town and would like to assist in the collections please come into the museum, speak to the staff and find out how you can get involved. There are so many areas in Zimbabwe where we have little information so "citizen science" is of great importance. Wishing you all a wonderful creature filled summer!!



Entrance fees

Locals: Adults RTGS \$9

Children (5-14yrs) RTGS \$3

SADC Countries: Adults USDS\$7

Children (5-14yrs) USDS\$5

International: Adults USDS\$10

Children (5-14yrs) USDS\$5

The Museum is open daily from 9am-5pm

Events!!!!

 Natural History Museum of Zimbabwe

 RAYS

MUSEUM CLUB presents

WORLD CLEAN UP DAY NATURE WALK

A FUN MORNING OF CLEANING UP AND WALKING AROUND THE CONSERVANCY

 WORLD CLEANUP DAY

SEPTEMBER 21 • 10 AM TO 11:30 AM
THE HILLSIDE DAMS
(OFF BANFF RD)

+263772933071

ZW\$5

JOIN US AT THE MUSEUM

Experience our planet's natural beauty and examine how climate change impacts all living creatures in this ambitious documentary of spectacular scope.



OUR PLANET

Sir David Attenborough's award-winning new series.



ONE PLANET
August 14th



FROZEN WORLDS
August 21st



JUNGLES
August 28th



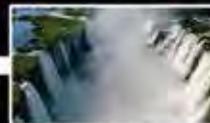
COASTAL SEAS
September 4th



DESERTS TO GRASSLANDS
September 11th



HIGH SEAS
September 18th



FRESH WATER
September 25th



FORESTS
October 2nd

1pm every Wednesday
at the Lecture Theatre
● the Natural History
Museum

ENTRANCE IS FREE / DONATIONS ACCEPTED



Natural History Museum and Monuments of Zimbabwe

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Events cont'd!!



Special Talks from:

- Lyenia Mularati (NUST) - Laser therapy use to treat Bumble-foot in Cape Vultures
- Fadzai Matvimbo (BirdLife Zim)- Landscape Approach to Vulture Conservation in the KAZA TFCA
- Merlyn Nkomo (NUST) - Debiban Vulture Survey Report



Date : 25 September 2019
Venue : Museum Auditorium
Time : 5.30 pm – 7 pm
Free entry
Refreshments served at 5.15 pm

Hot offer!

Lappet Faced Vulture Pin Badges
Pledge your support for vulture conservation by purchasing this limited edition pin for only \$5 USD. Limited stock available hurry and get yours!

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merynoma@gmail.com



Save these dates !!!!

Save the Dates

- 28 SEPTEMBER
- 28 OCTOBER
- 26 NOVEMBER
- 26 DECEMBER

MOTH NIGHTS 2019



Friday 11th October at 5.30pm we will be opening a display on Postcards, their history and fun facts with a postcard on display. This coincides with 150 years of the Postcard and World Post Day on the 9th of October. All are invited.

Join us for Moth Nights in the Matobo Hills. For more information contact Dorothy on 0772 933 071

Did you know??

Study and collecting of postcards is termed DELTIOLOGY and a stamp collector or PHILATELIST collects postage stamps as a hobby. The Museum has a specialist stamp collection of all the first postal stamps in the country issued from 2 January 1892 by the British South Africa Company.



The early stamps from the Museum Stamp Album

Nswatugi Cave – Paintings, Dust and Spiders

By Moira FitzPatrick

Nswatugi Cave is probably one of the most visited cave in the Matobo Hills because of its fine paintings and easy access. The name, Nswatugi, means the 'place of jumping' and, according to local legends, Mlimo (God) leapt from his home at Njelele Hill, landing from his first leap on Nswatugi hill, leaving a 'footprint' in the granite. The 'footprint' is a natural mark, enlarged by artificial pecking. The cave was used as a granary in the 19th century, although the grainbins that used to be present have long disappeared. Cattle used to be kept hidden in this cave which explains for the blurred nature of much of the art below the one and a half metre mark.

The majority of the paintings are on the northern wall of the cave and have been the subject of much study and speculation since the cave was discovered in 1932. Most are thought to date to between 10 000 and 6 000 years ago, based on the frequency of the occurrence of pigment recovered during excavations in the deposit.

From the left, high up on the wall are a series of female kudu - all painted in red. The painting captures perfectly the long-legged loping gait of the giraffe, while the brisk gait of the neighbouring zebra complements it. A beautiful pair of duiker gazes serenely over the hundreds of other paintings of formlings, animals (including eland, kudu, wildebeest, and leopard) and humans in the cave. A line of leaping hunters with bows and arrows display body paint are also visible.



The floor of this cave is covered in fine clay dust which has blown onto the paintings over the many years of high visitorship. With funding from the Monuments Watch Fund we are covering the floor of this cave with a layer of river-sand and then granite slabs in an effort to prevent further dust damaging these outstanding paintings. We are hoping that in the future, with expert help we will find a way to clear the dust off the paintings.



While the covering of the floor with granite slabs benefits the paintings, those creatures living in the sand will no longer survive – one of these being the six-eyed sand spider (*Hexophthalma hahni*). This spider belongs to the Family Sicariidae which also includes the Violin/Recluse spiders. It is a primitive spider with only six eyes (most spiders have 8) and the cuticle is leathery and has sickle-shaped hairs. It is a robust, flattened spider, usually 9-19mm in length and a leg span of about 50 mm. They are commonly called sand spiders in reference to their habit of

quickly burying themselves under sand by tossing it over their bodies with their legs. The tufts of sickle-shaped body hairs hold the sand covering in place helping to camouflage the spiders.



Hexophthalma hahni (photograph by Jon Richfield)

Prey is caught using the front legs when the prey runs over a concealed spider, and appear to rely solely on chance encounters with prey rather than actively going hunting. They seldom leave their habitat, and can go for long periods (up to a year) lying beneath the soil without food and water. They live in the fine sand under rocks, rock overhangs and entrances to animal burrows, thus all the caves with fine sandy floors in Matobo Hills are ideal habitat for these spiders.

Silk cup-like egg sacs, usually covered with sand are buried in the sand (Sand spiders and Violin spiders are the only spiders that lay in soil) and spiderlings develop slowly. Sand spiders can live for 15 years making them among the longest living of the spiders. *Hexophthalma* is considered to be a living fossil that predates the Gondwanaland drift some 100 million years ago as its distribution is Southern Africa and Central and Southern America.

The bites of these spiders, which are extremely rare, results in massive tissue destruction causing extensive

and severe ulcerating lesions and widespread haemorrhaging at the lesion and internally with systemic symptoms attributed to disseminated intravascular coagulation (DIC), leading to multiple organ failure resulting in death.

Mafungabusi Forest Area Field Trip

By Shiela Broadley



Arachnids and Herpetology had a joint fieldtrip conducted from 12-20 April in Mafungabusi Forest Area located in the Midlands of Zimbabwe, near Gokwe Centre a small town of the province 10 kilometres away. Mafungabusi Forest Area has an estimated elevation above sea level of 1216 metres. The total forest area covers about 81 000 ha, 10 000 ha of which has been taken up for human habitation and agriculture. Its co-ordinates are 18°25'0"S and 28°49'60"E. Mafungabusi is a state controlled forest, protected area of typical indigenous miombo woodlands. It has a well diverse tree community mostly of the genera *Brachystegia*, *Julbernardia* and *Isoberlinia*, and is surrounded by communal areas. Mafungabusi is also rich in grasses such as *Hyparrhenia*, *Andropogon*, *Loudetia* and *Digitaria*.

The forest is being threatened by deforestation with part of it already having human settlements like some of the forests around Zimbabwe. The trees being

mostly cut for brick molding, timber, fuel wood and also during honey harvesting, mainly by surrounding communities.

The first day was spent travelling due to having problems with the old (Mazda) vehicle which developed a mechanical problem. Fixing it took about three hours, after which proceeding was at a tortoise speed, for the vehicle was still rattling and puffing. The journey that was to take five hours ended up taking twelve hours! On arrival there was no time to set up camp but had to sleep under the stars, setting up camp the following day.

Collecting was specifically by physical searching under rocks and logs, under loose bark and rock crevices during the day and going out at night with a torch to find sleeping reptiles.

The following day 13th of April was not a good day neither for collecting, as only three specimens were collected after a long day's tramping and lifting of rocks and logs. The catch included *Trachylepis* (Skink) and a *Lygodactylus* (Dwarf gecko). On the 14th there was another vehicle break down which affected the collecting time. The 15th to the 16th were more successful, collecting Agamas, Skinks, and a couple of limbless skinks, the limbless skinks were the highlight of the trip due to the difficulty of finding and catching these fossorial herps. Amphibians (*Schismaderma* (Red Toad), *Sclerophrys* (Typical toad) and *Ptychadena* (Grass Frog) too were collected during these two days.



On the 17th and 18th more specimens were collected mainly skinks, visiting a nearby stream produced some *Xenopus* (Platanna) which had fallen into a well that was being used to water cattle and vegetable gardens by the settlers in part of the forest area.

The last day 19th April produced a couple of snakes *Aparallatus* (Centipede-eater) and *Amblyodipsas* (Kalahari purple-glossed Snake).

Unknown to the team was the fact that the area was infested by 'small flies' that inflicted such painful bites that by the end of the first day everyone had had enough of the bites! As days went by the torment was unbearable with everyone wishing to go back home. At the end of the trip everyone looked like they were suffering from Chicken Pox, the resultant bumps on the skin were very itchy and lasted a long time to clear after the trip!

Travelling back to the museum the car gave trouble a kilometre from the museum thereby necessitating pushing it all the way to the museum! What an interesting way to end a trip!

The collection will produce a preliminary checklist for the area, previously has not been surveyed for herpetofauna or arachnids and only a few reptiles and amphibians were collected opportunistically in the past, more fieldwork in the future is needed hopefully using a more reliable vehicle.

Archaeological rescue excavation of exposed material culture at Mabukuwene

By Senzeni Khumalo

An archaeological survey carried out at Mabukuwene Nature Garden in 2017 identified exposed pre-colonial material culture within the 12 hectare estate. A considerable number of potsherds and beads were seen along the pathway. These were being eroded by rain water and foot-induced erosion along the pathways. Following the assessment it was decided that a rescue excavation of the archaeologically visible areas be undertaken to save and conserve the material traces of ancient humans. An opportunity was also taken to further investigate the extent of the distribution

of the materials as well as to cross-date the finds. The archaeological rescue excavation was financed National Museums and Monuments of Zimbabwe and carried out by archaeological professionals from the Natural History Museum.

Mabukuwene also referred to as Mabukuwene Nature Garden is part of The National Trust, located at the top of Inverleith Drive between Chipping Way and Kingfisher Road in Burnside. It is a tranquil place of indigenous trees and granite boulders in the suburb of Burnside, Bulawayo. The area has some indigenous trees, stone walls, a few Stone Age paintings, plant specimens and bird life. The site is where Thomas Meikles, who died in 1939, and some of his family members are buried. The Meikles family cemetery is in a small enclosure close to the entrance gate.

The site was once a 19th century Ndebele settlement, part of King Lobengula's favourite resort area, when he was escaping from the strains of political power stretching from Hillside Dams. It is about 12km away from King Lobengula's first capital KoBulawayo in Sauerdale (currently known as Old Bulawayo). According to Ndebele custom, King Lobengula established his own royal palace and town after the death of his father King Mzilikazi kaMatshobana. Much of what we know about the extent of the Ndebele settlements in southwestern Zimbabwe comes from written records (historical) and very little investigation was done archaeologically.

Archaeological surface surveys were done at Mabukuwene Nature Garden to discover and record the distribution of material traces of past human presence across the landscape. A comprehensive survey in the 12 hectare land was conducted through field walking in linear parallel transects, spaced 100m x 100m into grid units and locations marked with GPS. With the help of the custodian of the area the survey was made easy. The archaeological assessment on the site cannot be over emphasised as this exercise has proven that there is certainly more

cultural occupational material across the entire nature garden area.



Plate 1: Clearing of vegetation before excavation

Middens were excavated to recover material culture for analysis, Photographs were taken, detailed plans and stratigraphic profiles were drawn. This provided a basis for evaluating the duration and intensity of the occupation in order to understand human behaviour that produced the patterning. 5 trenches were dug in 10cm spits, which was then used as a guide to the archaeological deposits, dug out stratigraphically from the edge of the trench. The cultural material collected was sorted and catalogued according to material type.

Two test-trenches 1 and 2 were set on the existing footpath, northwest of the existing historical period walling where material was visibly exposed. This formed the baseline of the excavation. Test-trenches 3, 4 and 5 were dug to test the depth of the stratigraphy and its relationship to the cultural history of the site. The soil texture of the trenches all revealed a dark greyish colour ashy up to 20cm level, possibly middens and then brownish towards the sterile ground. It transpired that the stratigraphy of all test pit trenches were similar but less instructive than trench 1 and 2. All the trench were dug to a depth of about 25-30cm producing reddish and blue beads, potsherds, bones, pole impressed *dhaka* and pieces of slags.



Plate 2: Test pit excavation



Plate 3: Test pit at Mabukuwene Nature Garden.

Findings

A substantial amount of pottery sherds, beads pole impressed *dhaka* and slag residues were recovered from a total of 5 trenches that were opened up. The artefacts were cross dated to establish which period the site was occupied. The pottery, beads and abundance of bones in all layers has no deep chronological stratification which reinforces the fact that this was not occupied for a long time.



Plate 4: Retrieving artefacts from test pits

Local ceramics: Ceramic studies in Zimbabwe have been used to interpret the life of pre-colonial societies or prehistoric societies. It is one of the longest surviving artifacts that do not decompose easily and presents us with a significant sample of material that provides information about how people from all levels of society lived in the past. The analysis of pottery attributes which were examined were namely shape/form, lip forms, decoration technique, placement and pattern, methods of firing and sherd thickness. All the pottery sherds recovered at Mabukuwene nature garden were plain without any decoration, typical of Old Bulawayo pottery.

Beads: Archaeologists have used beads (such glass, shell and metal beads) in the analysis of Iron Age sites to establish trading systems that functioned at that time as well as making inferences about the status of communities by examining the abundance of exotic goods. The illumination that beads relate the dating of various Iron Age Sites have propelled archaeologists to further study their concentration and relation to other sites. Archaeologists have also adopted this glass bead typology as a basis for cross dating Iron Age sites without radio carbon dates. More than 140 glass beads were recovered from 5 trenches and these beads related to beads recovered from Old Bulawayo.



Plate 5: Recording of artefacts on site

The analysis of the material has established that Mabukuwene nature garden is of archaeological importance and suggests site to be associated with the Ndebele community when they occupied the area during the 19th century. Similar material was found at Old Bulawayo and it is also related to the material recovered at Hillside Dams. Due to the age of the site, research on the artefacts has the potential to expand our knowledge about settlement patterns of the Ndebele before colonisation basing on pottery and glass beads.