

Ifa Lemvelo



The Newsletter of the Natural History Museum **2019**
of Zimbabwe, Vol. 1 No.4



In this issue!!

**** Upcoming events**

**** The Fungi display**

**** Khami story**

+263292250045

natmuse@netconnect.co.zw

www.naturalhistorymuseumzimbabwe.com

Natural History Museum of Zimbabwe

Offices at: Centenary Park, Corner Park Road &
Leopold Takawira Avenue,
Bulawayo

Regional Director's Welcome

Welcome to this issue! This month we celebrate International Museum Day and hold the Annual General Meeting of the Friends Association. I would like to take time to thank those that not only have been on the past Friends Committees but those that have supported them in all their fund raising events. All have played a huge part in the revival of our wonderful museum, from fixing lights to funding new displays, safeguarding our immense collections, revamping the site museums and fixing the leaking roof. It has been a fun and rewarding experience working alongside all of you and we look forward to yet another year of achievements. Siyabonga!!



Entrance fees

Locals: Adults \$3

Children (5-14yrs) \$1

SADC Countries: Adults US\$5

Children (5-14yrs) US\$1

International: Adults US\$10

Children (5-14yrs) US\$5

The Museum is open

24/7, 365 from

9am-5pm

Upcoming Events!!!!

- International Museum Day celebrations will be held on Friday May 17th, 2019
- Chris Griffin from Virginia Tech University will be back in Zimbabwe. He will be talking about "an exceptional new Late Triassic (Carnian) fossil assemblage from Zimbabwe and the biogeography of the earliest dinosaurs across Pangaea on Wednesday 5 June at 1pm. An almost complete skeleton was found of an amazing new dinosaur last year in Zimbabwe (and on loan from our Museum to Chris). Chris will be presenting this for the first time to a Zimbabwean audience, so don't miss this opportunity.

Natural History Museum of Zimbabwe
presents an annual tribute to unlimited curiosity!

INTERNATIONAL MUSEUM DAY FRIDAY | 20 17th MAY | 19

FREE ENTRY ALL DAY!

LEARN
Come learn about spiders, insects and other creepy crawlies, mammals, birds and snakes.

MEET
Meet the staff in the central courtyard for a fun day.

DEMO'S
We will have specimens and collection equipment on hand with various planned activities.

NHM Natural History Museum of Zimbabwe
Cir L. Takawira Ave/Park Road, Bulawayo, PB: 220040
www.naturalhistorymuseumzimbabwe.com

Did you know???

The name Ifa Lemvelo is a Ndebele translation for Natural Heritage. It was voted for by the Museum curators because it was considered short, easy to pronounce and catchy.

The Fungi Display – Natural History Museum of Zimbabwe

By Cathy Sharp



Just like a mushroom spore, the idea of having a Fungi Display had been germinating and growing for a while. In September 2016 the decision was made to go ahead with it and the Dinosaur Display started its gradual modification.... its legs becoming tree trunks! Not quite the usual process of evolution!

The Museum Café took on a new look and initiated a sense of expectancy that continued throughout the year of preparation.

The Trees

The mycorrhizal trees were the next project and the Team needed to see the real thing. A day trip to Lumene Falls was arranged for 23rd of November 2016 where the habitat of the *Brachystegia tamarindoides* was experienced down to the minutest detail – the bark, the exposed roots, the leaf-litter – all had to be correctly replicated in the display. The roots and embankment were also studied in preparation for the Root Zone. The foliage for the model trees were taken from a ridge south of Bulawayo in August 2017.

The Termite Mound

Finding and moving a real termite mound had to be well-timed before the first rain fell. Trying to move a slippery, clay mound would have been near-impossible. So the day was set for the 24th November 2016 with the advice and expertise of Mr Alan Ogden the mound was soon ready to be moved.

Unfortunately the mound broke into three huge pieces but in the end that turned out to be ideal. It was then possible to arrange the pieces so that the cross-section was face-on, enabling the public to see the fungus gardens and how the mushrooms develop from these. After a long period of fumigation the chunks were arranged on a moveable base, wheeled into the designated corner and rebuilt with original clay. The back-drop was done before the completion of the mound and then it was all finally put together, francolin included. The latter was donated by Vaughan Whitehead-Wilson and beautifully prepared by Francis Nyathi.





filling a long plastic tube with poly-urethane and this was later incorporated into the cap when the 'dish' was filled with more poly-urethane. Then the gills and tubes were done next and the tubes took many hours of cutting up old PVC pipes. Finally it was ready to be set in place.

The mushrooms

The whole heart of the display is portraying fungi in a good light – improving their reputation of being poisonous, disgusting and causing disease! The display needed to open the public's eyes to their astounding variety of colours, shapes and sizes. Because the availability of fresh mushrooms is governed by the relatively short rainy season and the fruiting-bodies being so short-lived, it is impossible to display the real thing. Zimbabweans are very good at re-cycling – someone's junk is another's treasure! This was definitely the case when raiding Keith Ellis's scrap-heap! Along with many donations of household 'refuse', a sizeable source of inspiration was soon collected and converted into fungi. Many 'Mushroom Parties' were arranged where volunteers of all ages gathered to use their skills and imagination in creating various mushrooms.

The ecto-mycorrhizal fungi were destined to grow amongst the leaf litter under the trees and particular examples were taken from the Pocket-guides. To demonstrate the function of mycorrhizae, strings of lights were first laid down between the trees, simulating root-lines, and the leaf litter sprinkled on top. The relevant fungi were then positioned along the root-lines.

What remained of the previous dinosaur was metamorphosed into Matobo granite and Big Cave Camp kindly donated a large slab of lichen-covered granite.



The Root Zone

Once the dinosaur was dismantled, the Root Zone back-drop was the first project to get underway after inspiration by the visit to Lumene Falls. Much later, the frame for the whole structure was set up in a 3-dimensional design to give the public some idea of what is happening underground – the communication between tree and fungus through the ecto-mycorrhizae whose mycelia search for nutrients in the surrounding soil. The use of glass enabled one to see upwards and envisage the whole story. This is particularly useful when imagining the duiker smelling the underground truffles and then digging them up to eat.

The giant mushroom



The reason for having this model was to show the public and children in particular, the various parts of the mushroom in a fun way and bring it to life for them. It was so rewarding to hear a class of small children call out "Howa, howa" (Mushroom, mushroom) as they came down the stairs – the model had caught their attention! Making it was another story!

Finding a suitable mould for the mushroom cap was the first challenge and after trying many ideas, the Stephens family came to our rescue with an old, unwanted satellite dish. First the stem was made by



Posters and text

Years of collecting photographs and information needed to be incorporated into the informational panels and here Mthandazo from the museum display team excelled in putting it altogether.

The project took over a year to complete and was officially opened on 15th November 2017. If you have not yet seen this display do come to the museum and admire our creativity and innovation while enjoying a cup of tea.

Khami Ruins Survey 2016-2017

By Sheila Broadley

Secretive and elusive are the reptiles and amphibians to observe and capture.

Khami Ruins listed by UNESCO as a World Heritage Site has a land area of over 161 hectares. The vegetation in the area is characterised by mixed woodland dominated by *Acacia*, *Terminalia* and also some *Colophospermum mopane*. The underlying rock of the area is mostly granite, outcrops interspaced with mixed woodland. This is perfect habitat for the herpetofauna.

We conducted day only sampling and all encountered reptiles and amphibians were either collected or recorded as sight records. We used three collecting methods of sampling which included physical searching of most places where reptiles are likely to be found. Pitfall traps involved digging in four buckets into the ground connected with plastic drift fence as seen in the photograph. Then we had the opportunistic

encounters which involved the Khami Site staff, as they carried out their duties throughout the site and would come across reptiles and amphibians.



To find some lizards and snakes we looked under rocks and crevices. This is where an area such as Khami where baboons are found can be frustrating. There was competition between us and the baboons as to who got to the rocks first. The baboons beat us to it; on our arrival they would have already an early morning scout for scorpions. Pitfall traps also proved unsuccessful as some of the buckets were pulled out by curious baboons. In the right conditions this method can be most useful for trapping unsuspecting reptiles and amphibians which fall into the buckets, particularly the nocturnal ones. We were thus reduced to having to tramp around to observe the reptiles and amphibians found at Khami World Heritage Site.



Lizards come out of their overnight sleeping places in the morning to bask on the rocks just close to their crevice retreats. Any disturbance they quickly scuttle back into a crevice making photographs rather difficult. Those that have cryptic colouration that blend in with the background might try to lie low until we were too close for comfort would dart away. As the day progressed the lizards got more active scuttling across rock faces with such speed chasing after insects. Trying to catch them took some darting

on rock faces after them and also patience. Once in the safety of its crevice the lizard would turn round to come closer to where you can see it but cannot catch it. The lizard seems to be saying you cannot catch me! Probing into the crevice only makes the lizard go deeper out of reach.

A male tree agama in its beautiful mating colours clung to its acacia tree out of harm's way ready to play their favourite game of cat and mouse. When we disturbed the lizard he scuttled round the tree trunk out of site. This he did again and again each time going further up the tree trunk this marking game over. This lizard only gets down to the ground to feed and find another tree trunk. While on the tree trunk or ground it displays by bobbing its head.

A black mamba is a snake feared by many, with so many myths surrounding its existence, in reality it is not black only the mouth lining is black, it is olive grey or grey in colour. It is very fast only for a short distance, does not chase after people and strikes readily if cornered. This snake was observed on many occasions either crossing the road or basking close to resident staff their quarters. Museum staff at Khami alerted us to this resident black mamba. On searching the area we were unfortunate that we did not observe this much feared snake for the duration of our study.

Juvenile Bullfrogs were found congregating in shallow temporal pools of warm water in grassy areas after a heavy thunder storm. This was observed on our next visit a few days after the thunderstorm. The day was hot with temperature around 31°C. Approaching a pool of water resulted in the juvenile bullfrogs which had been sitting on the edge of the pool to splashed back into the warm muddy water. Some of them just hopped away from the edge of the pool into the surrounding grass.



A good number of Amphibians, lizards, tortoises and snakes were either sighted or collected around the Ruins, staff quarters, surrounding woodland and riverine area (along the banks of Khami River and Khami Dam wall vicinity). Swampy grounds in the vicinity of the Khami River were actively searched

during the rains for amphibians.

This survey is only the first step to obtain base line data, and the diversity and abundance will be continuously monitored over the coming years. The habitat around the World Heritage is now under threat from increased human habitation and agricultural practices that are known to cause declines in reptile and amphibians populations.



The mushroom art competition is still on. Please bring your art work to the museum before the end of May