

# Ifa Lemvelo

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



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+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 message

Welcome to this issue!

As Bulawayo celebrates 125 years, recent research at Pomongwe cave places the rock art at least 10 000 years old. What an incredible heritage, divergent cultures and history National Museums are custodians of. This makes our work so exciting and rewarding. This month's newsletter we share a little more of this with you and thanks to our partners that work with us and support us.



### Entrance fees

**Locals:** Adults \$3

Children (5-14yrs) \$1

**SADC Countries:** Adults USD\$7

Children (5-14yrs) USD\$5

**International:** Adults USD\$10

Children (5-14yrs) USD\$5

**The Museum is open  
daily from 9am-5pm**

## Events!!!!

NATURAL HISTORY MUSEUM  
OF ZIMBABWE INVITES YOU  
TO OUR NEXT PUBLIC TALK

### DID YOU KNOW?

**An almost complete dinosaur skeleton  
was found last year in Zimbabwe!**

Now presented for the first time  
to a Zimbabwean audience.

**Chris Griffin**  
Virginia Tech University USA

"An exceptional new Late  
Triassic (Carnian) fossil  
assemblage from Zimbabwe  
and the biogeography of the  
earliest dinosaurs across  
Pangaea"

**1pm, WEDNESDAY  
5th JUNE 2019**

at the Museum  
Lecture Theatre

Don't miss this opportunity



National Museums and Monuments of Zimbabwe

Cnr L.Takawira Ave/Park Road, Bulawayo. Ph: 2250045  
[www.naturalhistorymuseumzimbabwe.com](http://www.naturalhistorymuseumzimbabwe.com)

### JOIN US AT THE MUSEUM

Witness the stories of the men and machines that changed  
warfare forever in the Nazi quest to conquer the world.



## NAZI MEGA STRUCTURES SEASON 2

In their quest for world domination, the Nazis built some of the biggest pieces  
of military hardware and malevolent technology in history, and created one  
of the most brutal paramilitary organisations the world has ever known.

Every Wednesday at 1 p.m  
Lecture Theatre @ the Natural History Museum

June 12th - The Wolf's Lair

June 19th - Hitler's Megaship

June 26th - Himmler's SS

July 3rd - Hitler's Vengeance Missile

July 10th - Kamikaze Suicide Bombers

July 17th - Hitler's Siegfried Line

**ENTRANCE IS FREE / DONATIONS ACCEPTED**

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# Did you know???

On June 1st 1894, Bulawayo was declared a town outside Maxim Hotel, Five Street. However, it was only on October 19th 1943 that the Coat of Arms, designed by Mr V. W Hiller, Government Archivist was approved by Council and a heraldically corrected version was granted by Royal decree. This Coat of Arms, on display in the Museum, was carved from the fallen Indaba Tree from Mzilikazi's Memorial.



Mushroom art competition is almost coming to an end. Be sure to submit your artwork

**NATURAL HISTORY MUSEUM OF ZIMBABWE**

**af Alliance Française Bulawayo - Zimbabwe**

## MUSHROOM ART COMPETITION

Original work in any medium

Visit the MUSEUM FUNGI DISPLAY for inspiration

Any Fungus or Mushroom

ONLY on A5 or A4 paper

Fantasy or Real

**AGE GROUPS**  
9 & 10 years  
11 & 12  
13 - 15  
16 - 18  
Adult

All entries submitted by the end of May 2019 to:  
The Secretary,  
Natural History Museum  
L. Tafelwag & Park Road  
Bulawayo

Enquiries: Contact Ms C Sharp +263 772 347 135

## WE NEED JARS

- Please donate to:
- **Natural History Museum Zimbabwe Entomology Department**
- Phone: +263-9-250 045
- Email: [natmuse@netconnect.co.zw](mailto:natmuse@netconnect.co.zw)

# Biodiversity of the Upper Umzingwane Catchment Area fishes

By Nobuhle Sebata

The Ichthyology department in collaboration with Dr Albert Chakona, a taxonomist, from the South African Institute for Aquatic Biodiversity (SAIAB) went on a field trip to the Upper Mzingwane catchment area to collect specimens for taxonomic purposes and also look at the biodiversity of the fishes found in that area. Many freshwater species are at risk of extinction if the riverine systems are not protected. Many factors contribute to the loss of fish species and degradation of their habitat. These include introduction of exotic species, water pollution (i.e industrial wastes, pesticides, and fertilizers), dam sediments from mining construction and agriculture and also overfishing.



The long term aim of Dr Chakona's visit is to establish strong collaboration links between SAIAB, research institutions in Zimbabwe including the Zimbabwe Museum of Natural History to develop the country's capacity on freshwater fish systematics and taxonomy. This will ultimately contribute towards accelerating comprehensive systematic revisions of freshwater fishes in southern Africa and provision of critical information for effective management and conservation of the region's natural heritage.



Recently Dr Chakona and his team after extensive surveys of the streams and rivers in the Eastern Zimbabwe Highlands freshwater ecoregion, revealed the existence of extreme levels of hidden diversity within almost all the fish species that were considered in the study. This exploratory study indicated that the current taxonomy conceals the actual diversity of freshwater fishes in the country.

A combination of electrofishing and seine netting were used for fish sampling. High quality pictures of the specimens were also taken in the field and some in the laboratory to preserve live colour patterns. Examples of the pictures taken include the *Chiloglanis* species shown below and the *Micralestes acutidens* species.

This research therefore aimed to initiate comprehensive surveys to collect DNA tissue samples and voucher specimens of freshwater fishes from multiple localities across all the river basins in Zimbabwe for DNA barcoding, a novel approach that facilitates rapid inventory of the country's biodiversity. Findings from the DNA analysis will contribute towards fulfilment of national policy on biodiversity conservation enshrined in the National Biodiversity Act and addressing the "taxonomic impediment" identified by the Convention on Biological Diversity (CBD).



*Chiloglanis paratus*



### *Micralestes acutidens*

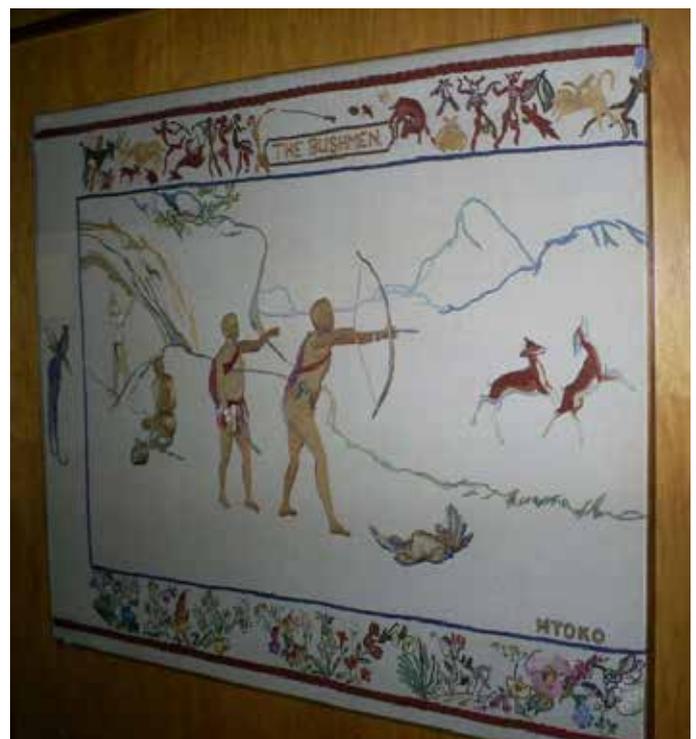
A total of 12 native freshwater fishes were sampled during the two day field trip in the Upper Mzingwane catchment. These species were: *Enteromius neefi*, *E. unitaeniatus*, *E. paludinosus*, *Mesobola brevianalis*, *Labeo cylindricus*, *Labeobarbus marequensis*, *Clarias gariepinus*, *Chiloglanis preoriae* and *C. paratus*, *Micralestes acutidens*, *Pseudocrenilabrus philander*, *Coptodon rendalli* and *Oreochromis mossambicus*. Voucher specimens and DNA tissue samples were collected. The specimens have since been deposited at the Museum and are now available for future research or studies. Two non-native species, *Oreochromis niloticus* and *Micropterus salmoides* were also collected during the surveys. Many thanks also go to Mr Masuku the Esigodini Catchment Officer for helping us identify the sampling areas.

of Southern Rhodesia in 1946. Various Women's Institutes in Zimbabwe worked to produce the National Tapestry and 42 institutes were involved in the embroidery work of the panels who among them from Matebeleland, were Nyamandlovu, Bulawayo, Hillside, Richmond, Matobo, Marula, Plumtree, Filabusi, Inyathi and Gwanda.

In 1963 the completed panels were presented to the Speaker of the House of Parliament and were hung in the Members' Dining Hall of the House of Parliament.

The National Tapestry, the history of the country as told by the Women, was moved to the National Museums of Zimbabwe in Bulawayo in 1978 for the public to view. Thirty six of the panels were integrated into and enhanced the permanent exhibitions of the Hall of Man and Hall of Kings and they are accompanied by associated artefacts in these galleries. Below are just some of those tapestries on display, so on your next visit to the museum have a closer look at the fine detail and history decorating the walls of our galleries.

### The Bushmen (now known as the San)



The San are the earliest known human inhabitants of Zimbabwe. They have all disappeared from Zimbabwe and records of their lives are left on the rock paintings in caves and shelters of the Matobo World Heritage Site. The bottom border illustrates the medicinal plants used while the top border features their rock paintings.

## Reciting the History of Zimbabwe in Tapestry

By Violah Makuvaza

The Natural History Museum documents the history of Zimbabwe through its various collections and through exhibitions which attempt to help the museum visitors understand this history better.

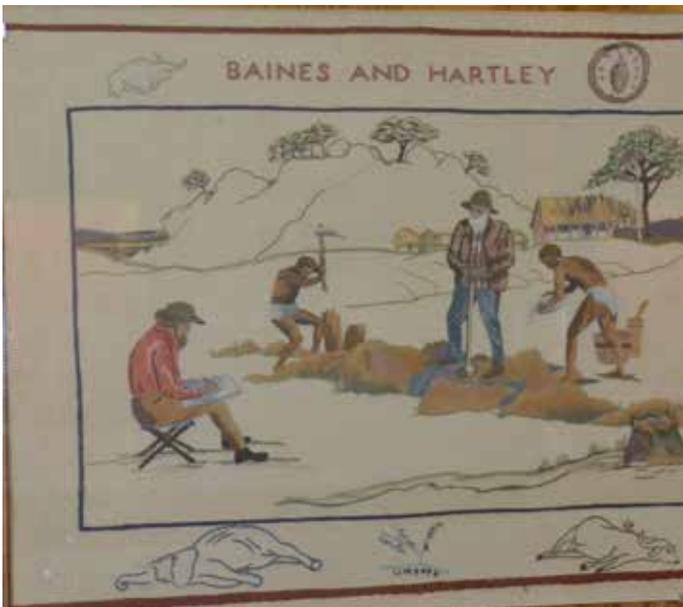
The National Tapestry at the Natural History Museum was produced following the famous Bayeux Tapestry displayed in Bayeux, Normandy in France. The National Tapestry has adapted the pattern of decorative borders with figures along the top and bottom of the panels as found in the Bayeux Tapestry. The idea of the National Tapestry was suggested by Lady Tait who was the wife of the then Governor

### Robert Moffat meets Mzilikazi



Robert Moffat was a missionary who came to Mzilikazi's home at Old Bulawayo by ox-wagon in 1854 and they became friends. Due to Mzilikazi's respect for Moffat he gave protection to the missionaries. The bottom border depicts the burial of Mzilikazi who died in 1868 while the top border shows Moffat's traveling table and bible, and African drums and assegais.

### Baines and Hartley



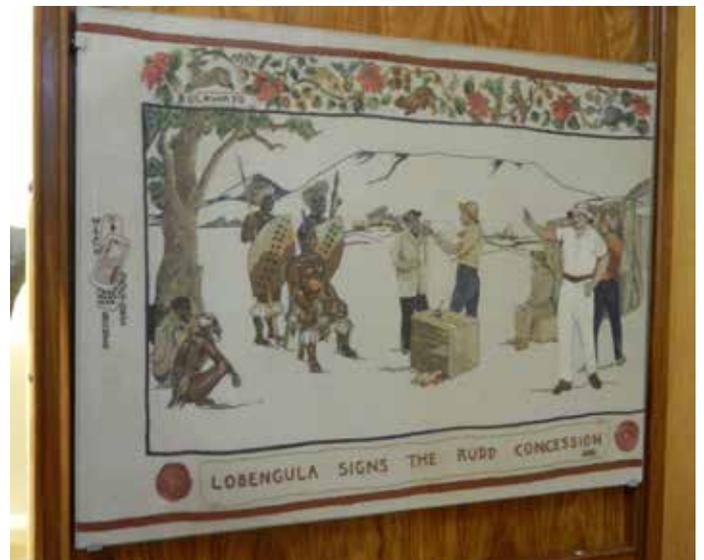
Henry Hartley was one of the more famous hunters who went hunting in Matabeleland in 1859. And he is credited with killing 1 200 elephants in his lifetime. He also recognised the gold potential of Mashonaland. Hartley was engaged by Thomas Baines to guide him to the Mashonaland gold-fields in 1869. Thomas Baines painted hundreds of pictures during his travels and he is best known as an artist. The borders on this tapestry are sketches from the diary of Thomas Baines.

### Selous on a Hunting Expedition



Frederick Courteney Selous was one of the best known professional hunters who started hunting in Africa at the age of 20. Between 1872 and 1874, Lobengula and white hunters shooting from horseback accounted for 2 500 elephants. He also hunted for trophies and specimens for museums. During 1887 Selous was one of a party which discovered Chinhoyi Caves. The top border shows animals fleeing from a veld fire.

### Lobengula Signs the Rudd Concession



The signing of the Rudd Concession by Lobengula formed the basis of the British South African Company's charter and foundation stone of the British occupation of Mashonaland. The agreement granted Rhodes' company "the complete and exclusive charge over all metals and minerals situated and contained in my kingdoms, principalities and dominions". The bottom border display's Lobengula's seals while the top border *Combretum* and *Erythrina* trees with wild animals.

## Arrival of the First Train, 1897



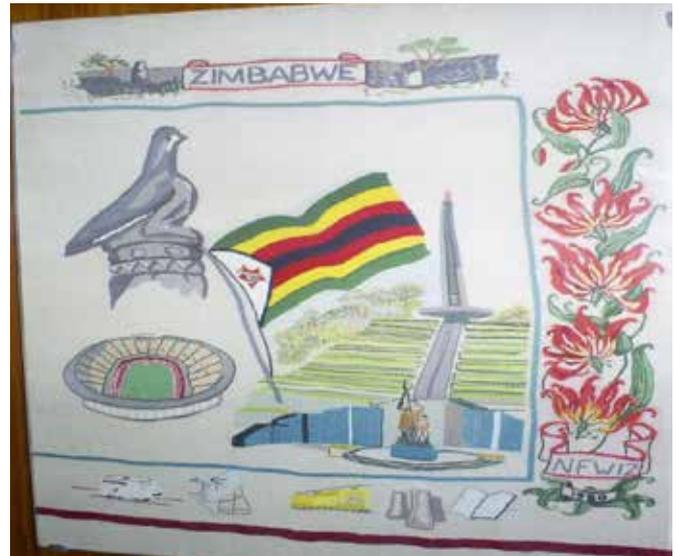
The arrival of the first train occurred when Bulawayo celebrated its 4<sup>th</sup> anniversary in 1897. The arrival of the railway line was a tremendous factor in developing Zimbabwe. Access to the South African ports became easier and faster, gold mining became economical and this boosted Zimbabwe's industry and commerce. The bottom border shows the early methods of travel and the top border a herbalist collecting medicinal plants and treating a patient.

## Scouting in the Matopos, Col. Plumer and Col. Baden-Powell



The panel is based on a sketch by Baden-Powell himself, where he was on horseback reporting to Col. Plumer and his staff. Colonel Baden-Powell is the founder of the Boy Scout Movement who used to scout among the granite kopjes and bush-filled valleys of Matobo. After the Siege of Mafeking during 1899-1900, Col Baden-Powell used his experience

of military reconnaissance in Africa as the basis for his book *Scouting for Boys* of 1908 which started the great movement for youths throughout the world. The upper border shows the Boy Scouts camping while the lower border illustrates their emblems.



The women through tapestry have documented significant historical places, artefacts, people and events of Zimbabwe. After Independence in 1980 an additional tapestry was produced to incorporate The National Heroes Acre, National Sports Stadium, National Flag, Zimbabwe Bird and the National Flower, the flame lily *Gloriosa superba*.

## The Need to Fumigate our Museum

By Moira FitzPatrick

Insect pests are responsible for substantial damage to museum objects and historic books. Different wood boring beetles, different Dermestides, moths like the clothes moth, Silverfish and booklice can damage materials, objects or building parts.

Insect pest infest our collections in different ways. Mostly natural history collections with large numbers of dried insects (usually stored in drawers), dry plant material in herbaria, stuffed animals, fur and skeleton specimens are at a very high risk of infestation and damage. Large numbers of objects of these vulnerable materials are stored close to each other and in dark areas. This helps the spread of an infestation from one drawer or closet to the other. Libraries and archives also have large numbers of very similar materials very close together. However only a few insect species feed on paper and the historic bookbinding, but they can result in severe damage if the infestation is not found.

In the wild these keratine feeding insects live feed on dead animals, or live in nests of vertebrate or bird nests. Inside of museums, they feed on fur, feathers, animal skin, hair, bristles, animal wool, felt, silk, yarn, velvet, carpeting, insect specimens, parchment and vellum or stuffed animals. The most important species in Southern Africa are the carpet beetles (*Trogoderma*). These beetles are responsible for damaging many dried insect collections, often resulting in complete loss of the insect specimen. They are very tolerant and can access collections and drawers through very small cracks when the larvae are still very small.

A few species of moths are important pests, predominantly the clothes moth (*Tineola* and *Tinea*), which is probably the most important pest on textiles, fur, felt, silk, carpets, rugs, blankets, upholstery and feathers.

In libraries, the paper, book covers (bindings) using leather, parchment, cardboard, wood or wooden shelves can be infested by a few species of insect pests. Most important is the biscuit beetle (*Stegobium paniceum*) and the cigarette beetle (*Lasioderma serricorne*). The larvae of these pests are known to eat objects like the bookbindings with starch glue. Biscuit beetles can especially cause severe damage to historic books as they reproduce fast and spread quickly. Another important group of pests on books and paper are the silverfish (*Ctenolepisma quadriseriata*) and book lice (Psocoptera). Silverfish all feed mainly on detritus, mould, human skin or hair (textiles, cotton, silk), but can also damage paper, book bindings, wallpaper, papier-mâché, starch glue and cellulosic materials. Book lice (Psocoptera) can also be found in high numbers if humid conditions present. Cleaning to reduce dust, microscopic fungi and other organic matter is important to stop these pests.

In the past, chemical methods were the preferred way to treat active infestations. Today, after prohibition and dangers of the use of many of these chemicals few museums overseas still regularly use pesticides against insect pests. One hundred percent success in killing at all stages can be achieved with toxic gases and is used in museums when no other method is available.

To prevent damage by pests and their introduction, there are a number of approaches that can be taken. This is achieved by sealing the building against pest entry, adapting the micro-climate (the cooler the indoor climate, the slower they develop and reproduce), maintaining high hygienic standards, quarantining all new and incoming objects and monitoring pest infestations. If an active infestation is found, objects are isolated as fast as possible and non-chemical methods like freezing are preferred to prevent damage to the objects or harm museum staff.

Our main bird and mammals collections are situated in the cooler part of the museum which helps to keep these pests in check but our most fragile collection is that of the insects situated on the top floor in a very warm environment. Through the Friends Association we have secured two 530l freezers to freeze our collections to assist with pest outbreaks. As it is impossible to permanently seal off our collections to prevent re-infestation so regular fumigations are required. We would like to extend our extreme gratitude to both BirdLife Zimbabwe and Wildlife and Environment Zimbabwe (Matabeleland Branch) for their continuous support towards funding fumigation and keeping our collections as pest free as possible. Due to the warm climate and ideal conditions for the breeding of these pests, this activity as unpleasant as it is, is undertaken twice a year.

