



Hawaan Forest Conservation Trust

Monthly site inspection report:

Summary:

28.2.2025

1. Work in the Hawaan Forest during February focused on maintenance activities to manage vegetative growth during this wet and highly productive late-summer period. The HCT team has kept the overgrowth on the grassland and forest trails in check, while also clearing a large *Ziziphus* tree that toppled over on the Pipeline Trail during February.
2. February recorded approximately 270 mm of rainfall, which, combined with 220 mm in January, brings the total rainfall for 2025 to over 500 mm. As a result, the forest environment remains extremely humid and wet. A serious concern is that the Ohlanga River has swollen (and changed course slightly), leading to ongoing slip-strike activity on the steep embankment where the forest meets the river.
3. The tree tags have arrived and have been provisionally installed. In the coming months, we will refine their placement to better align with different ecological communities in the forest while also providing identification for landmark tree specimens along the trail.
4. Evidence of Bush pigs was noted in the grassland during February. These are the largest mammals in the forest and appear to have been foraging for bulbs, insect larvae, or fungi.
5. The Helsinki University LIFE biodiversity project is set to begin in March/April 2025. A meeting with the Restoration Ecology Department of the eThekweni, Environmental Planning Branch was held to finalize logistics. The project monitoring equipment is scheduled for installation in the forest and grassland servitude during March, 2025.
6. Planned actions for the HCT in March-April include: (i) Assisting with the installation of monitoring equipment for the LIFE research project. (ii) Continuing to document the occurrence of fungi species on iNaturalist during the final humid summer period. (iii) Treating invasive plant species that have re-emerged along the M4 highway boundary (iv) Checking the western portion of the forest for snares.

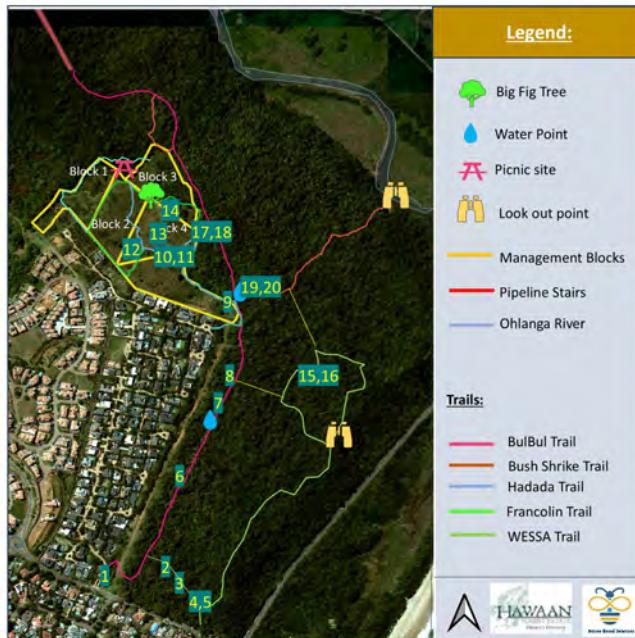
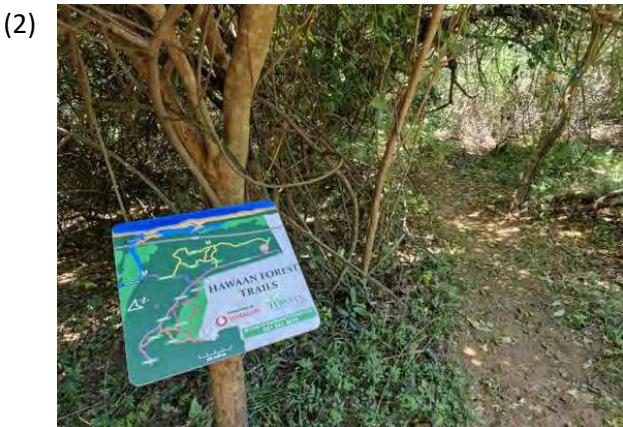


Figure 1. Numbers on the map refer to items below.



(1) Municipal officials visited the Hawaan in February to assess where suitable sites for the LIFE Biodiversity Monitoring programme will be located.



(2) Despite the rain and heat during February, HCT staff have managed to cut back and rake pathways, ensuring the trails can be navigated easily and without risk of getting lost.



(3) HCT staff have installed most of the tree tags during February.



(4) We will adjust the location tree tags so that face the closest (i.e. the trail head) and focus on clustering tree tags according to different forest communities.



(5) The benches require cleaning and servicing, which will be performed by HCT staff during late February.



(6) Some tree tags are to be placed at larger tree specimens and focal tree species at the Bushshrike-Hadadae trail junction.



(7) A large Ziziphus went down and blocked the pipeline servitude during February this has now been cleaned up.



(8) Removing sticky weed is a continuous task on the trails during summer. So far we have managed to limit its spread into forest interior.



(9) After several months of hand-weeding, it has become necessary to spray certain sections of the trail for sticky weed to ensure its permanent management and control.



(10) We believe that is a sounder of a Bush Pig may feeding in the grassland at the moment...



(11) as there has been extensive digging in grassland Block Four.. they have possibly been searching for insect larvae, bulbs, or fungi.



(12) Our ongoing spot spraying on the edges of bush-clumps has continued during February. This action ensures that the investment made by clearing the woody encroachment in the grassland over past two season is realised over the long-term.



As the grassland at the Hawaan was previously cultivated for sugar cane, there are not too many legume wild flowers remaining. So its always exciting to find a relic from the past ecosystem such as this unidentified *Crotalaria* species.



Among the remnants from the cultivated phase of the grassland at Hawaan is the dainty *Wahlenbergia*, commonly known as Blue Bells. These flowers appear along the edges of the grassland during late summer, adding to the grassland beauty and to its pollen and nectar resources.



During February there were still many species of Fungi fruiting in the forest such as this potential *Tricholosporum* species which function as saprotrophic decomposers of forest leaf litter.



Parasol fungi in the Hawaan also function as saprotrophic decomposers but primarily target deadwood or bark. Their fruiting bodies are typically found growing on tree stems rather than on the forest floor.

(17)



(18)



Scrub Hares were noted on the grassland trails near the big Fig Tree during February. This was first time we have captured them on camera.

(19)



(20)

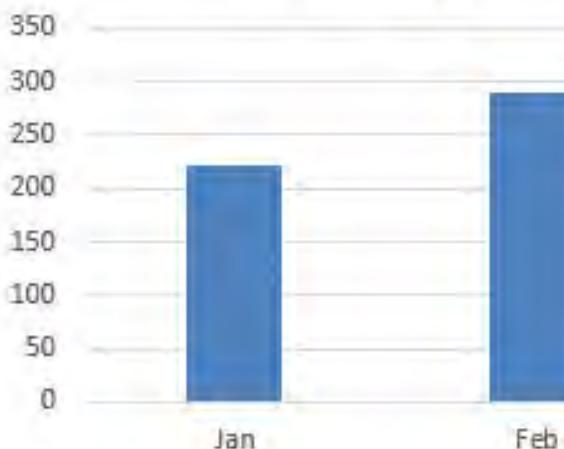


The usual Wood Owl was noted at the Bushshrike waterpoint in February

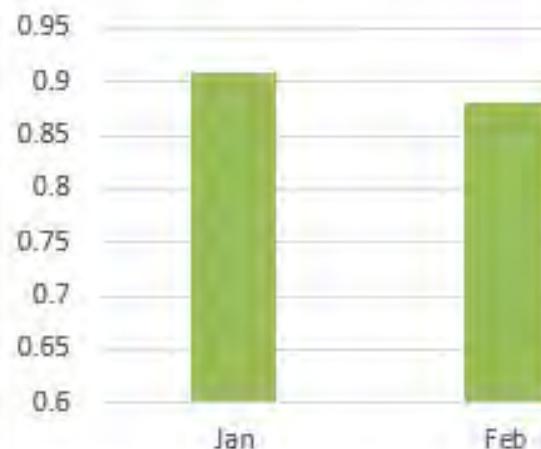
It appears that a little Sparrow-Hawk was enjoying the freshwater provided by HCT at the Bushshrike waterpoint.

Climatic Data 2025

Rainfall 2025



NDVI



| | | | | | | | | | | | | | | | | |
|------------------------|------|--|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3.7 | Keep Tilley Huts neat and tidy sweep daily, clean windows every 10 days check maintenance and rusting on a monthly basis and report to HCT members. | Weekly | x | x | - | - | - | - | - | - | - | - | - | - | - |
| | 3.8 | Check that trail cameras weekly to ensure they are not stolen. | Daily | x | x | - | - | - | - | - | - | - | - | - | - | - |
| | 3.9 | Cleaning of shower on a daily basis after use. | na | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 3.10 | Check and order cleaning consumables for shower and toilet | na | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Woody plant management | 4.1 | On-going daily work is clearing invasive introduced plants such as Pepper Trees, Triffid etc..in both the forest and grassland systems. | Weekly | x | x | - | - | - | - | - | - | - | - | - | - | - |
| | | Checking for regrowth of IAPs monthly and set out new work areas each month. | Monthly | x | x | - | - | - | - | - | - | - | - | - | - | - |
| | 4.2 | Removal of selected indigenous woody encroachment species such Silver Oak in the grassland section | Monthly | - | x | - | - | - | - | - | - | - | - | - | - | - |
| | 4.3 | Monitoring herbicide stores on a monthly basis | Monthly | x | x | - | - | - | - | - | - | - | - | - | - | - |
| Fire management | 5.1 | Ensure tracers belts and pathways in the grassland open before prescribed burn | Yearly | - | - | - | - | - | - | - | - | - | - | - | - | - |
| | 5.2 | Service fire-fighting equipment once before the annual burn is completed and then oil up so that next season the equipment has not seized up with rust. <i>Fire fighting equipment one drip torch, 3 rubber beaters with handles, two Knapsack sprayers.</i> | Yearly | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Consumables | 6.1 | Order uniforms and personal protective gear for the 2 staff. | Yearly | - | - | - | - | - | - | - | - | - | - | - | - | - |

| Item | Herbicide name | Active ingredient | Type | Litres in stock | Date used | Species applied | Location |
|------|--------------------|-------------------|---------------|-----------------------------|-----------|----------------------------------|-------------------|
| 1. | Gladiator, pre-mix | Picloram | Selective | 15L (pre-mix) | 16/4/22 | Creeping inch | Forest mgmt zone |
| 2. | Round-up | Glyphosate | Non-selective | 3L | - | - | - |
| 3. | Gladiator, premix | Picloram | Selective | Used 15L | 15/11/22 | Brazilian pepper | Eastern grassland |
| 4. | Plenum 160 | Picloram | Selective | 20L – concentrate. Mixed 2L | 25/02/23 | Brazilian pepper – Yellow bells. | Eastern grassland |

| Item | Herbicide name | Active ingredient | Type | Litres in stock | Date used | Species applied | Location |
|------|----------------|-------------------|-----------|-----------------|-----------|------------------------|----------------|
| 5. | Plenum | Picloram | Selective | 18L | 13/4 | Pepper, Yellowbe | West grassland |
| 6. | Plenum | Picloram | Selective | 5L | 05/9 | Ils Pepper, | West grassland |
| 7. | Plenum | Picloram | Selective | 5L | 05/03/24 | Searsia | East-grassland |
| 8. | Plenum | Picloram | Selective | 3L | 05/08/24 | Searsia, Dodda, Euclea | East-grassland |

(29)



Crested Guinea fowls are a typical feature in the forest understory at Hawaan.

(31)



The Crowned Eagles have bred and fledged in 2024, it has been more than 12 months since a juvenile has been noted on the camera's.

(30)



The usual pair of Water mongoose captured in January 2024.

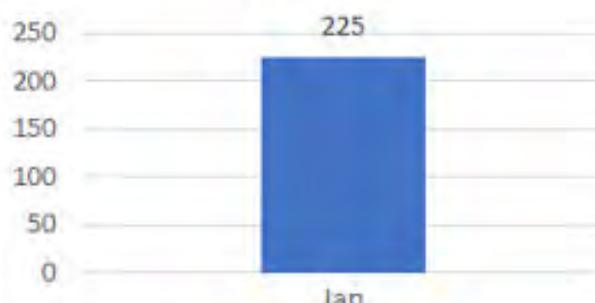
(32)



The usual Genet was also spotted by the cameras during late December in 2024.

Climatic Data January 2025

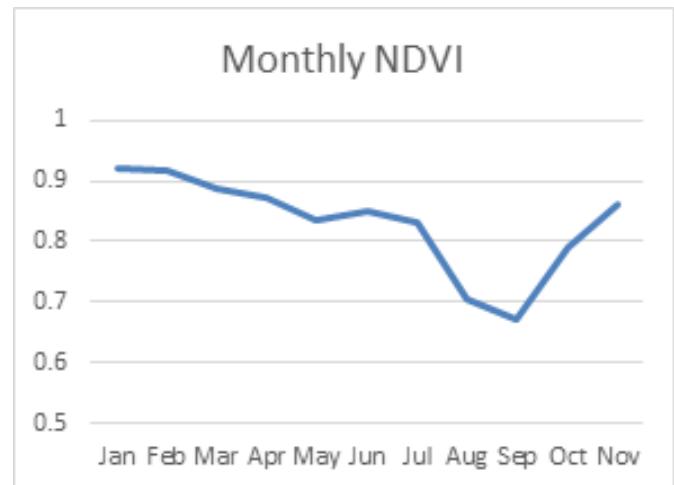
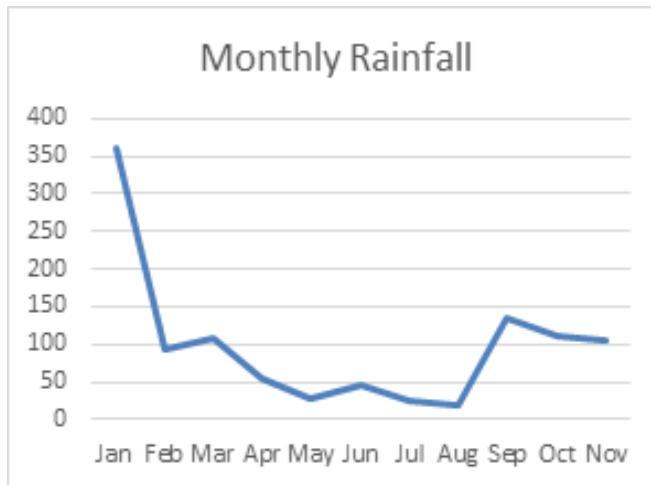
Rainfall



NDVI



Climatic data for November, 2024.



Camera trap highlights from November 2024, aligning with the pattern of increasing observations within the interior of the forest – though the water-points are still being utilised a diversity of animals



Bushbuck female and doe



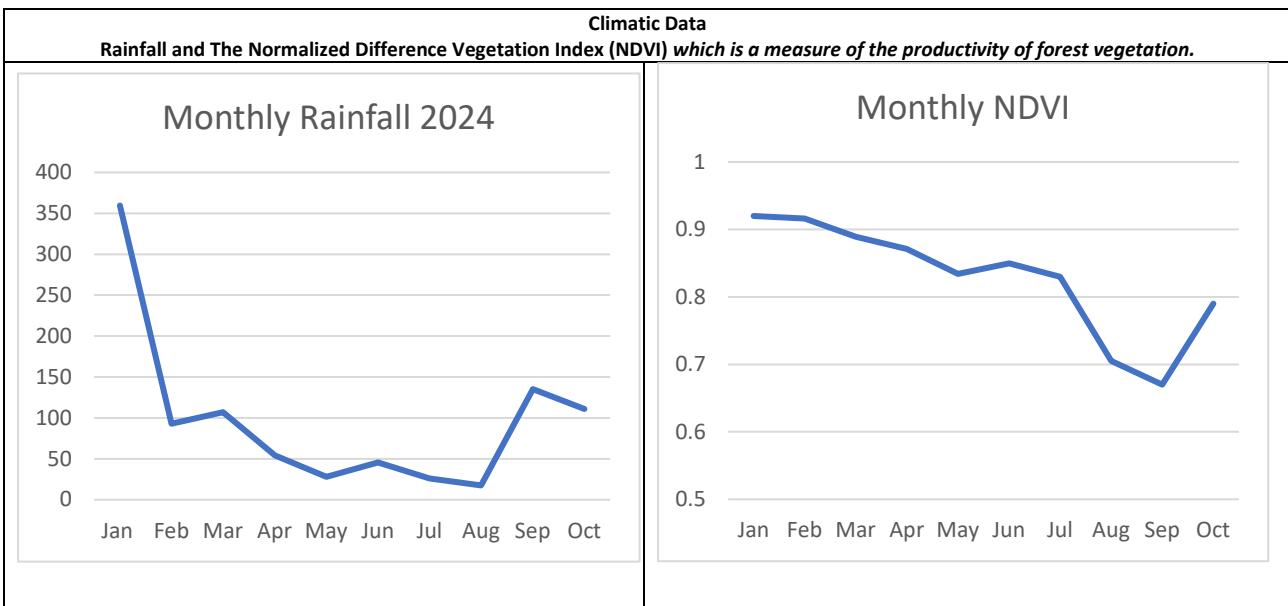
Maybe a Marsh Mongoose...



Water Mongoose



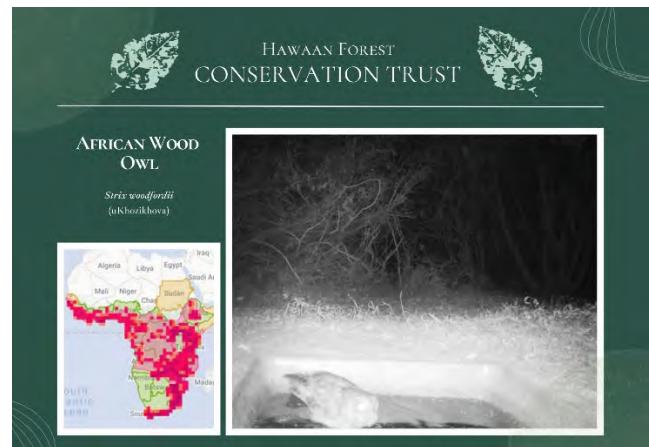
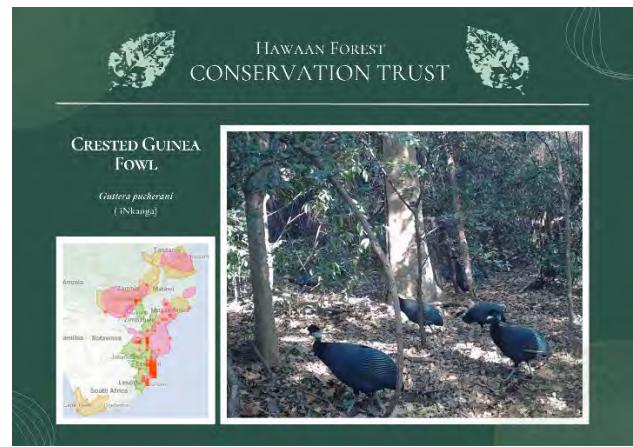
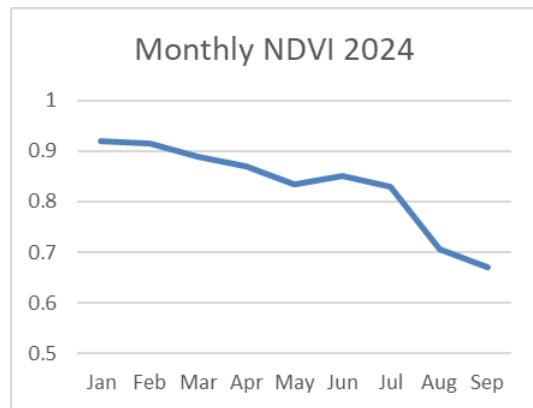
Crested Guineafowl



The camera trap images from October 2024 reflect the clearing humidity and the greening up of the forest, which has been occurring since the beginning of September. This change lends a mystical quality to the forest at this time of year.



Climatic Data for September 2024

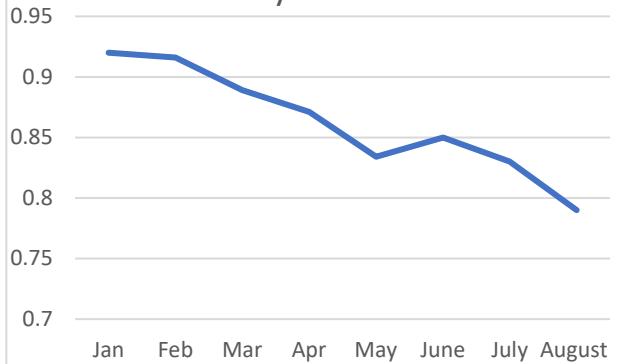


Climatic data (August 2024)

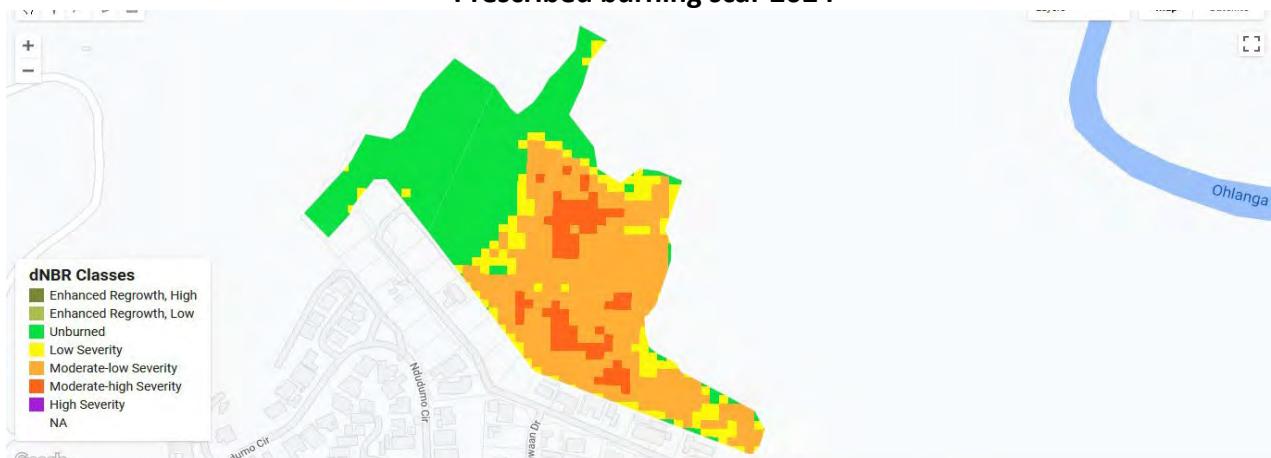
Monthly Rainfall 2024



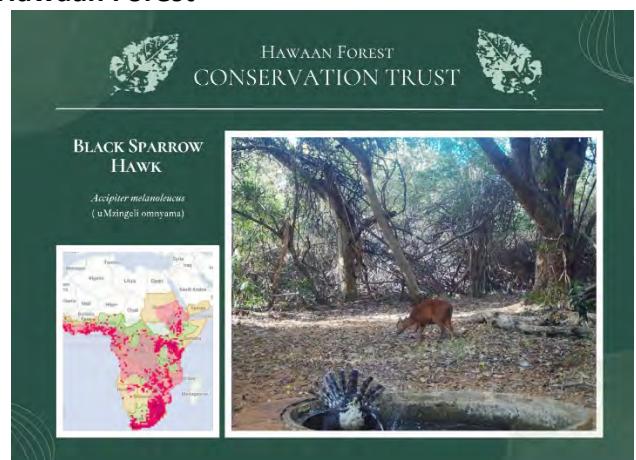
Monthly NDVI 2024

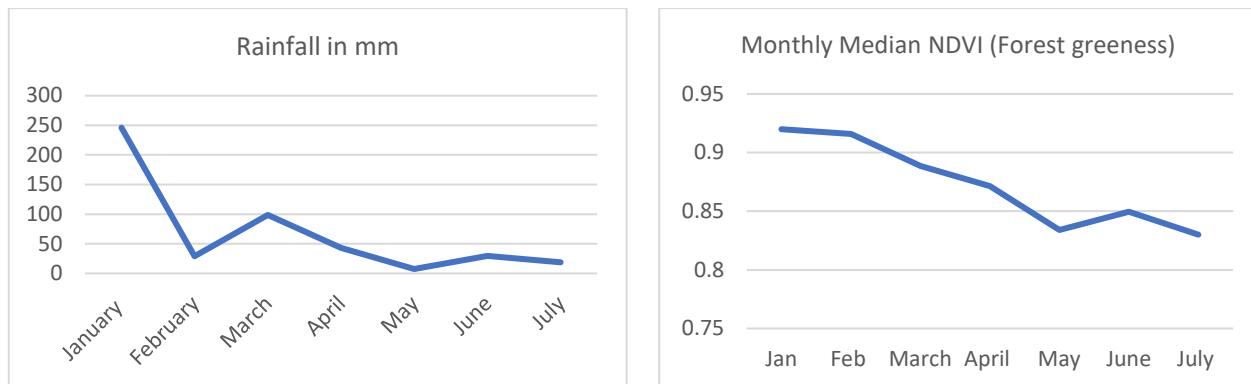


Prescribed burning scar 2024



Avifauna of the Hawaan Forest





Antelope of the Hawaan Forest

**Hawaan Forest
CONSERVATION TRUST**

RED DUIKER
(FEMALE)
Cephalophus natalensis
(Sikhipha)



**HAWAAN FOREST
CONSERVATION TRUST**
Biodiversity Stewardship Nature Reserve



**Hawaan Forest
CONSERVATION TRUST**

RED FOREST DUIKER
(MALE)
Cephalophus natalensis
(Sikhipha)





**Hawaan Forest
CONSERVATION TRUST**

BUSH BUCK
(FEMALE)
Tragelaphus scriptus
(Intakajolwanemnyama)





**Hawaan Forest
CONSERVATION TRUST**

BUSH BUCK
(MALE)
Tragelaphus scriptus
(Intakajolwanemnyama)





**Hawaan Forest
CONSERVATION TRUST**

BLUE DUIKER
(FEMALE & FAWN)
Philantomba monticola
(Nkonkon)



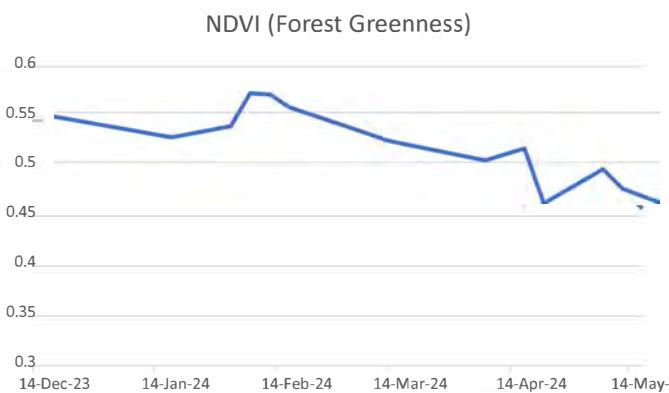


**Hawaan Forest
CONSERVATION TRUST**

BLUE DUIKER
(MALE)
Philantomba monticola
(Nkonkon)







Normalised differentiated vegetation index, on a scale from 0-1, is a satellite derived metric used to monitor vegetation health and primary productivity. This can be tracked on a monthly bases through the growing season, where it can be noted that mean NDVI at the Hawaan peaked in Mid-February at 0.58 and dropped to 0.45 during late May,



Male Bushbuck



Female Bushbuck



Blue Duiker - Male



Lemon Dove



Red Duiker - Male



Banded Mongoose



Vervet Monkey

Camera Trap imagery from April 2024



Vervet monkeys have been enjoying the fresh water provided HCT at the Bushshrike water point



As have many of the Red Duiker



The large male bush-buck



and the beautiful female bush-buck, all look in fine condition.



Two beautiful forest doves, the rarer forest, Lemon Dove..



and the more common, more often associated with woodlands, Tambourine Dove, were captured on the camera during April

Observations from the camera traps in February showed the usual allotment of animals using the water provided by the HCT staff to bathe and drink. We are working towards formalising the logging of this data on a consistent basis so that it can be used as baseline information for the forest and to track change.



Spotted Genet



Tambourine Done



Red Duiker



Blue Duiker



Spotted Eagle Owl



Water Mongoose

Camera Trap highlights from November 2023. Hawaan Forest.



Large Spotted Genet



Female Bushbuck



Red Capped Robin Chat



Pair of Red Duikers



Purple crested turaco

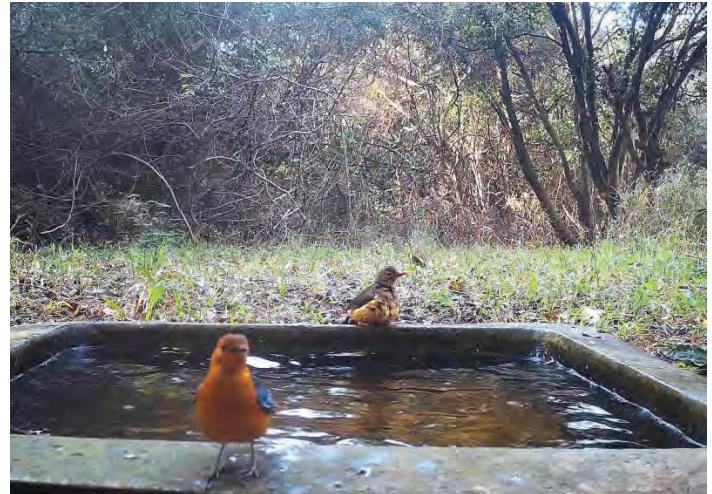


Tambourine dove

The forest fauna have been out in full force during August and the action has clearly revolved around the water point at the entrance to the Bush Shrike trail. One again some beautiful forest images have been captured.



A lemon dove and male blue duiker



A Red capped robin chat with a Olive thrush



Juvenile crowned eagle



A family of bushbuck



Large spotted Genet



Dwarf mongoose

Some beautiful camera trap images were taken at the forest water point during July, 2022.



Red Duiker, female.



Bushbuck females.



Crested guinea fowl.



Red Duiker, male



Vervet Monkey, Banded Mongoose, and Guinea fowl.



Banded Mongoose.

Some beautiful camera trap images were taken within the dry forest interior during June.



Bush buck female)



Bush buck (male)



Bush buck (female)



Red duiker (female)



Bush buck (female)



Blue duiker (pair)

Camera Trap imagery from March 2024



The have been some great mixed foraging parties captured on the camera's during March. Here, Crested Guinea fowls and Red Duiker.



On the Bush-Shrike trail, Crested Guinea fowl and Bush Buck.



The recent hot weather has prompted a diverse array animals captured at the water-hole on the Bush-shrike trail. Such as the Crowned eagle drinking at the water-hole.



A family of Purple Crested Turaco's.



A nice large Bushbuck passing by the water-hole on the Bush Shrike trail.

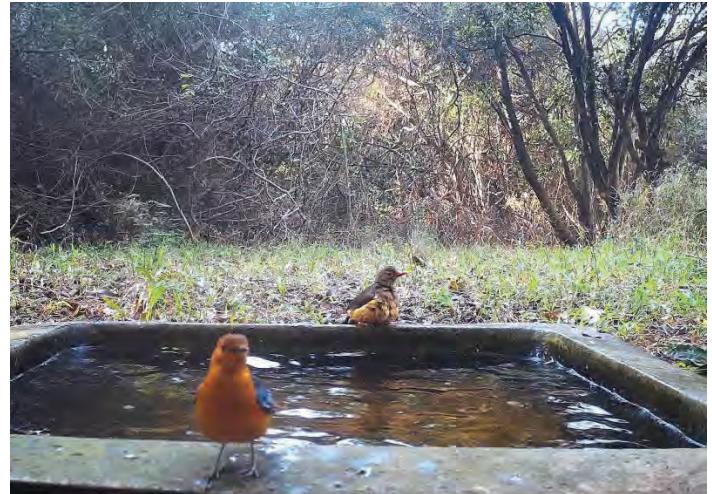


A small, blue Duiker close up at the water-hole.

The forest fauna have been out in full force during August and the action has clearly revolved around the water point at the entrance to the Bush Shrike trail. One again some beautiful forest images have been captured.



A lemon dove and male blue duiker



A Red capped robin chat with a Olive thrush



Juvenile crowned eagle



A family of bushbuck

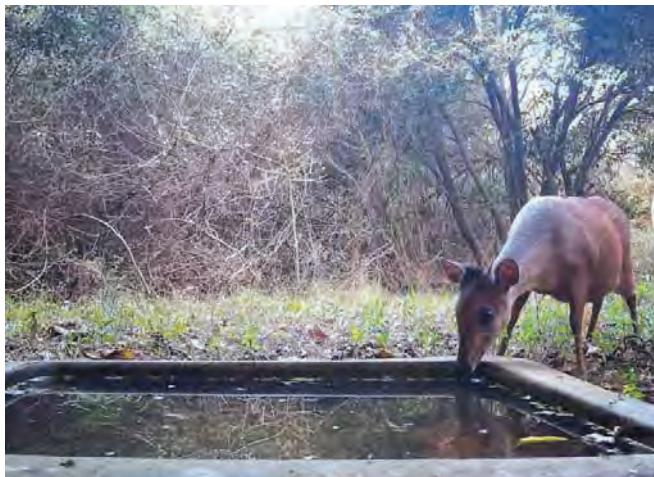


Large spotted Genet



Dwarf mongoose

Some beautiful camera trap images were taken at the forest water point during July, 2022.



Red Duiker, female.



Bushbuck females.



Crested guinea fowl.



Red Duiker, male



Vervet Monkey, Banded Mongoose, and Guinea fowl.



Banded Mongoose.

The Polyphagous Shot Hole Borer (PHSB) is an ambrosia beetle native to Southeast Asia. In 2017 this pest was detected on London

Plane trees in the KwaZulu-Natal National Botanical Gardens, Pietermaritzburg. Its presence has since been confirmed in multiple

locations in eight provinces in South Africa. The beetle has a symbiotic relationship with the fungus *Fusarium euwallaceae*, which serves as a food source for the adults and their larvae. In susceptible trees the fungus causes a disease called Fusarium dieback, which can

lead to dying branches and tree death. The beetles attack a wide range of exotic and indigenous trees in urban, agricultural and natural landscapes.



Above: An adult female is 1.8-2.6mm long. Males are smaller and cannot fly.

PSHB is not able to complete its life cycle on all the tree species it attacks. Trees in which the beetle is able to breed and multiply are referred to as '**reproductive host trees**'. Important reproductive hosts include species of oaks, maples, willows and coral trees, avocado and castor bean. '**Non-reproductive host trees**' are attacked by the beetle, but the beetles do not establish galleries (tunnels) or breed. The fungus may, or may not cause disease. Trees are generally not expected to die. An updated list of confirmed hosts in South Africa can be viewed at www.fabinet.up.ac.za/pshb/

The movement of infested wood is an important means of spread of the beetle. Therefore, appropriate disposal of infested trees (by chipping/composting, solarization or burning) will be key to reducing the spread of this damaging pest. Surveys to monitor the spread of the beetle in South Africa are continuing. The public can assist by looking out for symptoms. Suspected instances can be reported to pshb@fabi.up.ac.za

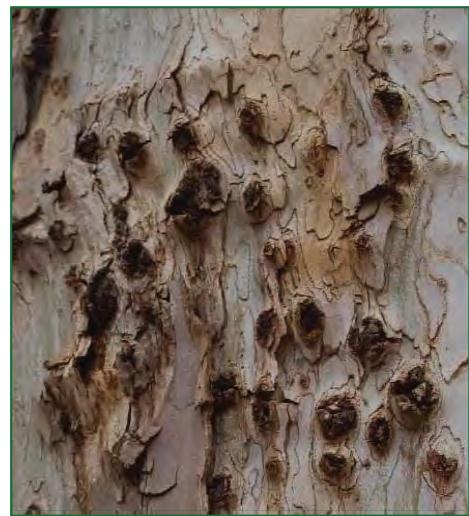
Left: Chinese maple tree killed by PSHB and its fungus



Reproductive galleries in pecan



PSHB galleries in coral tree



Shot gun-like symptoms on London Plane

Compiled by Z.W. de Beer & T. Paap (Version 2021-03-04) www.fabinet.up.ac.za/pshb

