Hawaan Forest Conservation Trust

Monthly site inspection report:

31.03.2025

Summary:

1. March's work in the Hawaan Forest focused on the ongoing maintenance of grasslands and forest trails. These efforts are crucial for managing overgrowth and ensuring that the trail network remains accessible and safe and neat for forest users.
2. Approximately 180 mm of rainfall was recorded in March. Combined with over 500 mm in January, the total rainfall for 2025 is almost 700 mm. As a result, the forest environment remains extremely humid and wet.
3. A serious slip-strike event has occurred due to undercutting along the southern bank of the river (adjacent to the northern boundary of the forest). An estimated 4,000 m² of forest slope has been lost, including the observation deck. This area has been closed to all forest users and the public until further notice.
4. No snares or suspicious activity were observed on the upper western section or lower eastern slopes of the forest. However the north-western portion of the forest, below the Pipeline, has not yet been monitored in 2025. While reviewing camera trap footage for Bush pig activity, we now regularly record Scrub hare (Lepus saxatilis) —a first for the forest monitoring programme.
5. Thekwini Municipality University of Helsinki's LIFE Biodiversity Project has successfully installed its monitoring equipment near the forest entrance (within the forest management zone). As part of this installation, the HCT connected a power plug point inside one of the Tilley Sheds to allow for battery charging.
6. Planned HCT Actions for April–May 2025 - Collect baseline data from the browsing exclusion plots; Spot spray woody encroachment in preparation for the prescribed burn later this year; Treat invasive plant species along the M4 highway boundary that have re-emerged.

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

(1)

The heavily wet conditions and soft sands mean that at this time of year, heavy trees often fall onto trails. Quite a large Silver oak (Brachylaena discolor) went down in early March and has been cleaned up by the HCT.

(2)

Ongoing positioning of the tree tags has continued in March. We aim to add a tag to this White Stinkwood (Celtis africana) here at the entrance to the Bush-Shrike trail.

(3)

Overgrowth areas on Forest trails are to get cut back in March 2025.

(4)

This includes overhanging & balancing branches which have dropped out of the canopy and may be dangerous to forest users.

(5)

After the rains in early March - a significant slip-strike occurred on the southern bank of Ohlanga River – this unfortunately took down out a quite a large section of forest.

(6)

About 4000 m2 of forest has slipped down the slope on southern bank of Ohlanga River.

(7)

The observation platform has been lost and slip-strike area has now been closed to estate residents and other forest users. See the full report as an addendum to this report.

(8)

A typical collapse of canopy creepers has also occured at the start of the WESSA trail – instead of cutting these back we will move the trail around this section.

(9)

HCT staff have now moved the old-sign from the base of Hadada Trail and stored it neatly at the Tilley Shed management Zone area.

(10)

New units at the western portion of Python Place have interrupted the viewshed looking south from the Picnic site in the grassland. So we'll allow this section of Silver Oak grow up slightly, such that the new houses in Python will be screened from conservation users.

(11)

An inspection of the bush-encroachment in Grassland Block 2 revealed some late summer growth, so we'll diversify our focus of herbicide spot spray to this area over April and May in preparation for the fire season this year.

(12)

Many of the generalist fruit-producing tree species which occur at the Hawaan have been fruiting in late March – such as this Tassle Berry – *Antidesma venosum*

(13)

Starting to flower over autumn in the grassland near the picnic spot are the introduced wildflowers *Leonotis intermedia*.

(14)

Feeding off the Eriosema legumes in March, which have been introduced into the grassland, are the bum spot chafers (*Popillia bipunctata*). This scarab beetle is found in Afrotropical regions and feeds on grass, leaves, and flowers in open habitats like grasslands.

(15)

Flowering in late March are *Momordica balsamina* – an indigenous cucumber species which are adapted to sandy soils of coastal forests in southern Africa. It is found in drier regions and coastal belts, where it colonises forest edges and bush-clumps.

(16)

The forest leaf litter dung beetles, known as *Scarabaeus afra*, primarily feed on decomposing organic matter found in leaf litter. This includes decaying leaves, plant material, and other organic debris

(17)

Noted in its adult form during March was the day-flying moth, the White Bear (*Chiromachla leuconoe*), found in Afrotropical regions. Its larvae feed on Acacia and Albizia species (legume's) which grow well in nutrient-poor sandy soils.

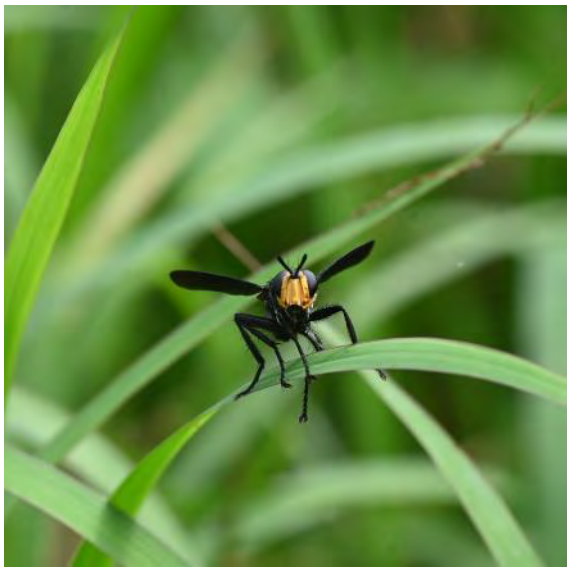
(18)

Also noted on the forest-estate edge was this Blue-spot pansy butterfly. This is a generalist butterfly which inhabits open, sunny areas such as grasslands, roadsides, and gardens, with larvae feeding on host plants like Asystasia, Barleria and Justicia

(19)

Ringbum ants (*Plectroctena* spp.) are millipedes specialists. They forage open terrain, but typically on forest edges, and there small colonies are most commonly found in sandy soils.

(20)



Hermia flies (Tachinidae) are parasitic and not carrion flies, primarily targeting beetle and moth larvae. They contribute to natural pest control and are ecologically associated with forest and savanna habitats.

(21)

During our investigation of suspected Bush Pig activity in March, we relocated the camera traps to monitor the western portion of the grassland trails. This adjustment allowed us to capture some excellent observations of the local scrub hare.

(22)

Observed by the camera at the enjoying the water at the Bush-Shrike water-hole were the local Wood Owl.

(23)

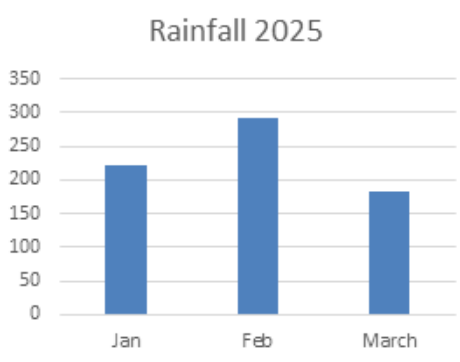
Also observed at the Bush-Shrike water hole was the resident Crowned Eagle, which we haven't seen regularly in a few seasons.

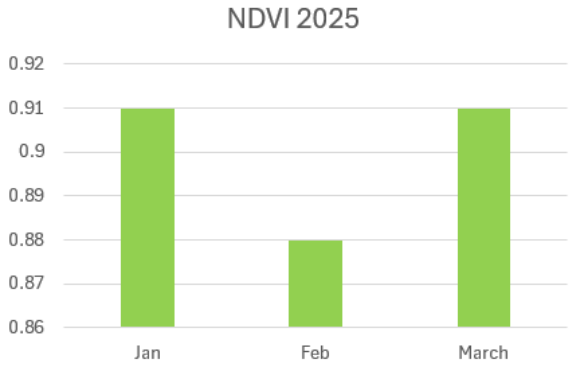
(24)

The resident water mongoose is frequently observed along the trails in Hawaan, making regular appearances during our monitoring efforts.

Climatic Data 2025

Rainfall and The Normalized Difference Vegetation Index (NDVI) which is a measure of the productivity of forest vegetation.





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Operations: Tasks 2025															
Category	Item	Task	**Schedule**	**Jan**	**Feb**	**March**	**April**	**May**	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**
Trails	1.1	Clearing away vegetation that is growing over, repairing washaways	Weekly	x	-	x	-	--	--	--	-	-	-	-	
	1.2	Repairing washaways	Weekly	-	-	x	-	-	-	--					
	1.3	Resetting concrete sleeper treads on steeper parts of the trails	Weekly	-	-	-	-	-	-	-	-	-	-	-	-
	1.4	Cut the trails using a brush cutter once every two weeks in summer and check for overgrowth in winter	Weekly	x	-	x	-	-	-	-	-	-	-	-	-
	1.5	Trails should be maintained because they function as fire breaks or tracer breaks for fire-fighting when annual burn is done each year in July/August.	Weekly	x	x	x	-	-	-	-	-	-	-	-	-
	1.6	Check trails for over-hanging branches and other vegetation.	Weekly	x	-	x	-	-	-	-	-	-	-	-	-
	1.7	Clearing litter on the trails and in the forest twice a week as not much pedestrian traffic if usage increases then checking daily will have to be done.	Weekly	x	x	x	-	-	-	-	-	-	-	-	-
	1.8	Check fuel and oil for machines and report.	Monthly	x	-	-	-	-	-	-	-	-	-	-	-
	1.9	Snare management – check hot spot sites for re-applied snares on a weekly basis	Monthly	x	x	x	-	-	-	-	-	-	-	-	-
Water points	2.1	Check if waterpoints are soiled by animals	Weekly	x	x	x	-	-	-	-	-	-	-	-	-
	2.2	Fill waterpoints along the trails	Weekly	x	x	x	-	-	-	-	-	-	-	-	-
Infrastructure	3.1	Observe and report to Management where signage needs to be cleaned or replaced due to vandalism or fading	Monthly	x	x	x	-	-	-	-	-	-	-	-	-
	3.2	Check signs and clean signs and benches weekly	Weekly	x	x	x	-	-	-	-	-	-	-	-	-
	3.3	Check exclusion plot for fallen trees or branches damaging the wire.	Monthly	-	x	x	-	-	-	-	-	-	-	-	-
	3.4	Keep tools and equipment clean and serviced daily for hand tools.	Weekly	x	x	x	-	-	-	-	-	-	-	-	-
	3.5	Clean and service machine tools after each session of use. Chainsaw, Brushcutter.	Weekly	x	x	-	-	-	-	-	-	-	-	-	-
	3.6	Service of machinery at Berries	Yearly	-	-	-	-	-	-	-	-	-	-	-	-

	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	x	-	-	-	-	-	-	-	-	-	-
	3.8	Check that trail cameras weekly to ensure they are not stolen.	Daily	x	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	x	-	-	-	-	-	-	-	-	-	-
		Checking for regrowth of IAPs monthly and set out new work areas each month.	Monthly	x	x	x	-	-	-	-	-	-	-	-	-	-
	4.2	Removal of selected indigenous woody encroachment species such Silver Oak in the grassland section	Monthly	-	x	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 ne-t season the equipment has not seized up with rust. *Fire fighting =equipment one drip torch, 3 rubber beaters with handles, two Knapsack sprayers.*	Yearly	-	-	-	-	-	-	-	-	-	-	-	-	-
Consumables	6.1	Order uniforms and personal protective gear for the 2 staff.	Yearly	-	-	-	-	- -	-	-	-	-	-	-	-	-

Herbicide application 2025							
12	Plenum	Picloram	Selective	2l	5/2/2025	Bush Encroachment	Western Grassland
13	Plenum	Picloram	Selective	2L	12/2/2025	Trails/Sticky weed	Trails
14	Plenum	Picloram	Selective	2l	20/03/205	Searsia/Bush encroachment	Western grassland
15	Plenum	Picloram	Selective	2l	1/04/2025	Searsia/Bush encroachment	Western grassland

Hawaan Forest Slip Strike – March 2025

A significant slip has occurred on the southern bank of the Ohlanga River in March 2025. This slip, resulting from the combined effects of over 600 mm of rainfall during January, February, and March 2025, along with ongoing undercutting by Ohlanga River, has led to the loss of approximately 4,000 m² of forest habitat.

Aerial imagery and reports dating back to the flooding in 1986 indicate that this is a long-term feature of the river channel. The river is forced to meander southward due to a large sandbank and reedbed located directly adjacent to the slip. The ecological habitat loss includes several medium-sized tree species, such as the Red Coastal Milkwood (*Mimusops obovata*), Stem-Fruit Iron Plum (*Drypetes natalensis*), and Blue Berry (*Strychnos usambarensis*).

The parent soil material at the slip site consists of regic sands, which have deposited approximately 200–300 m³ of material at the foot of the slope, which has a gradient of roughly 1:3.

There appear to be two possible outcomes:
1.The material at the foot of the slope remains in place and is not removed by the Ohlanga River, allowing emergent wetland and forest vegetation to colonise the area, thus stabilising the bank.
2.The river continues to undercut the slope, resulting in further slipping and erosion.

At present, there is an estimated 1–2 m vertical drop from the forest edge to the slip. It is anticipated that further rainfall and erosion will continue to shift this area until the level change aligns with the forest plateau, which lies approximately 20 m from the edge of the slip and drop-off.

For safety reasons, the area has been closed to the public and estate residents.

Hawaan Forest Slip_2025

Hawaan Grassland

Contours_north coast

Hawaan_slip

Hawaan_boundary

Google

0 100 200 m

HAWAAN FOREST ESTATE
Nature's Doorstep

(17)

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.

(18)

Spurwing Geese chicks were noted on the grassland trails and seem to have bred in the grassland somewhere close by.

(19)

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

(20)

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

Climatic Data 2025

(29)

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

(30)

The usual pair of Water mongoose captured in January 2024.

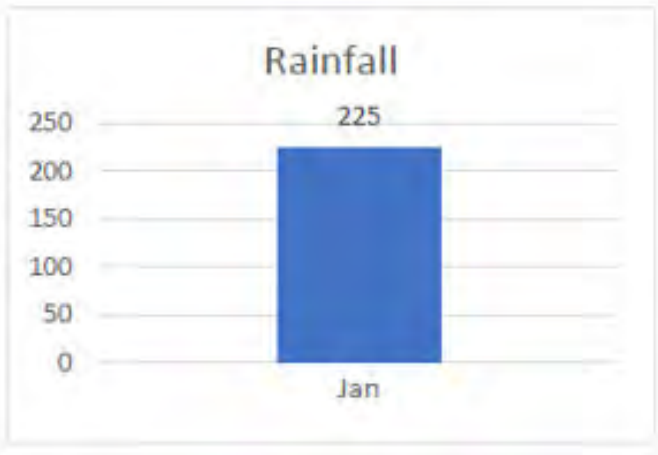
(31)

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.

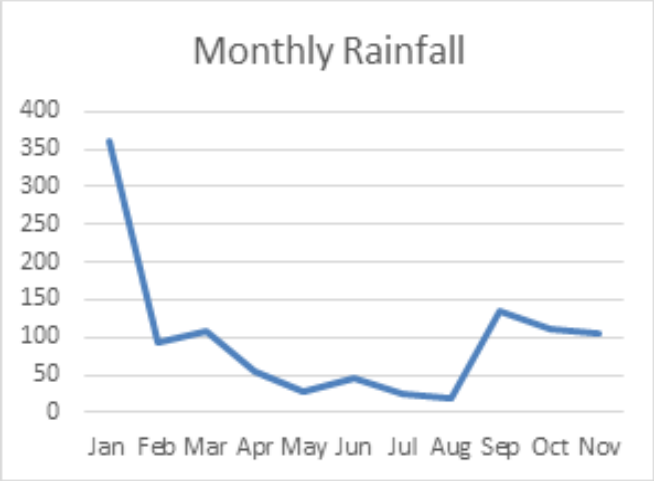
(32)

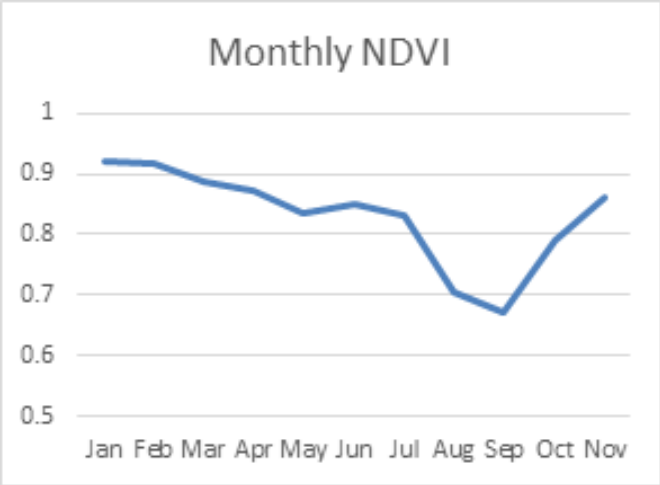
The usual Genet was also spotted by the cameras during late December in 2024.

Climatic Data January 2025



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

(21)

Bushbuck female and doe

(22)

Maybe a Marsh Mongoose…

(23)

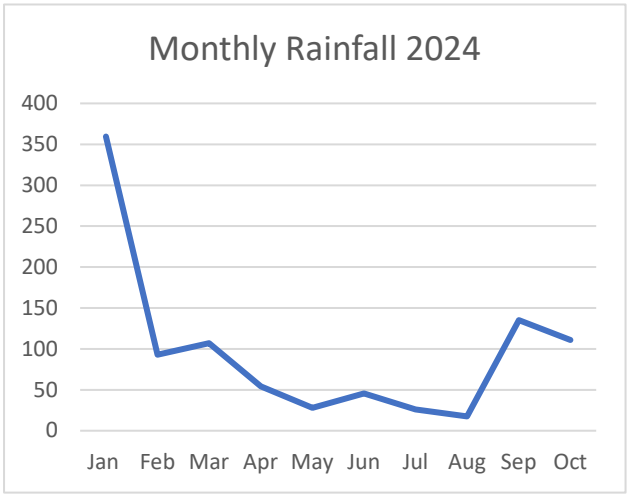
Water Mongoose

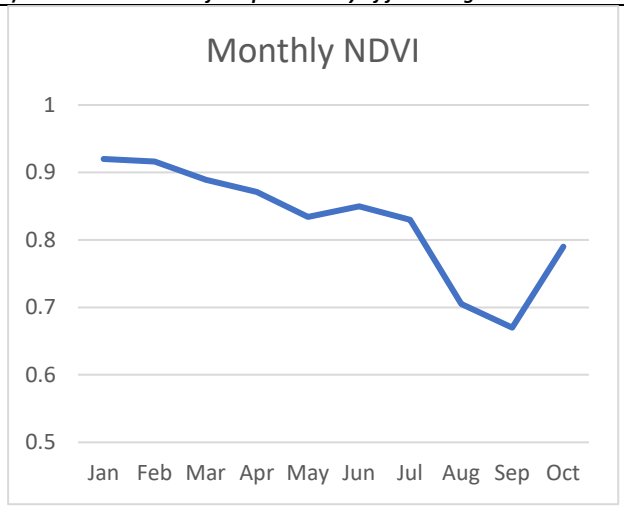
(24)

Crested Guinefowel

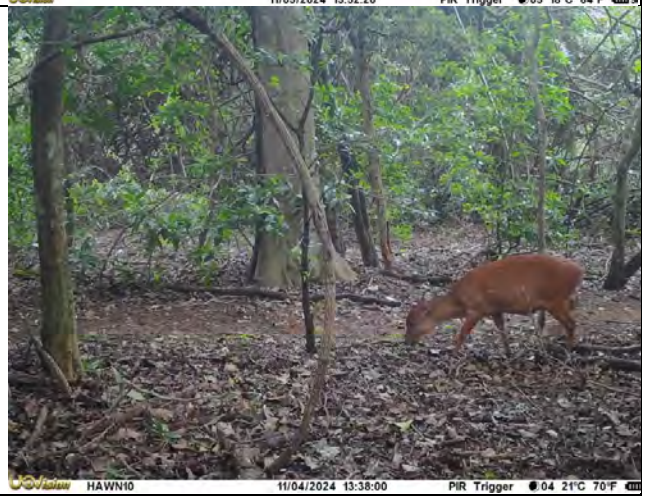
Climatic Data

Rainfall and The Normalized Difference Vegetation Index (NDVI) ***which is a measure of the productivity of forest vegetation.***

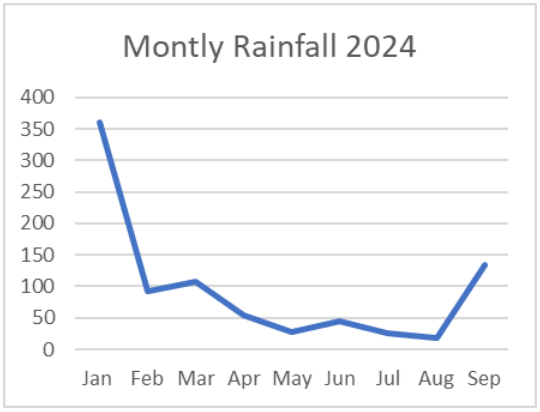


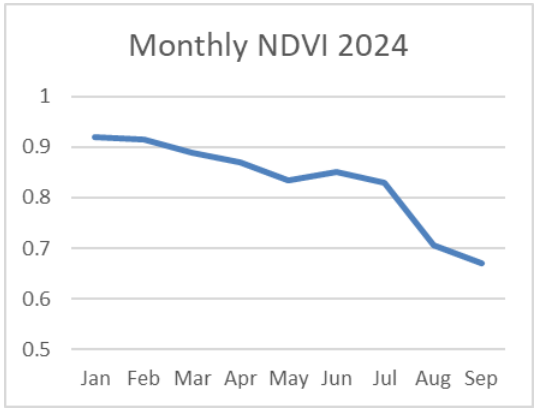


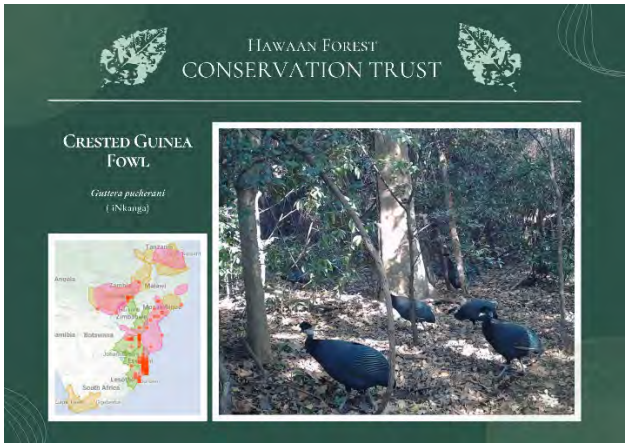
The camera trap images from October 2024 reflect the clearing humidity and the greening up of the forest, which has been occurring since the beginning of September. This change lends a mystical quality to the forest at this time of year.



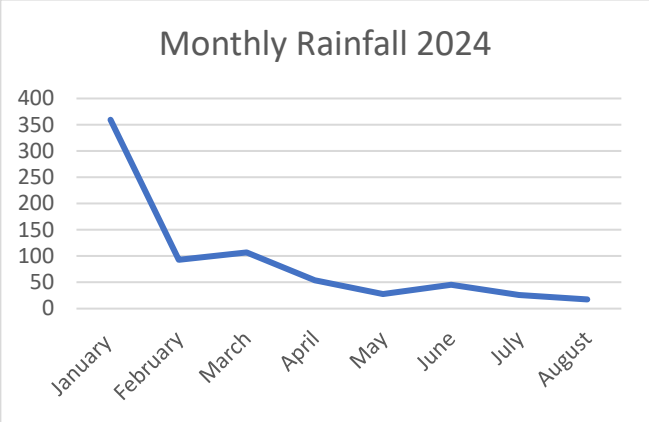
Climatic Data for September 2024

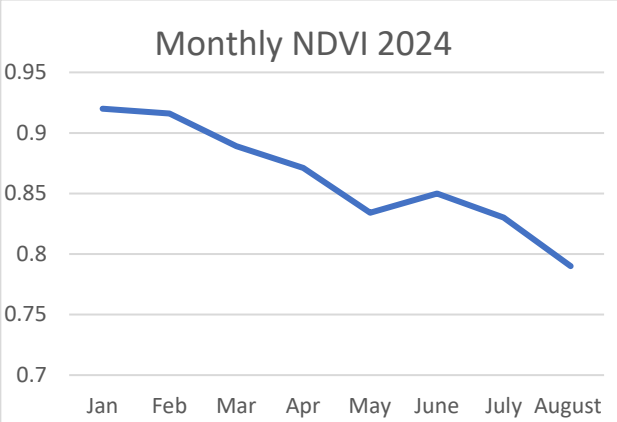




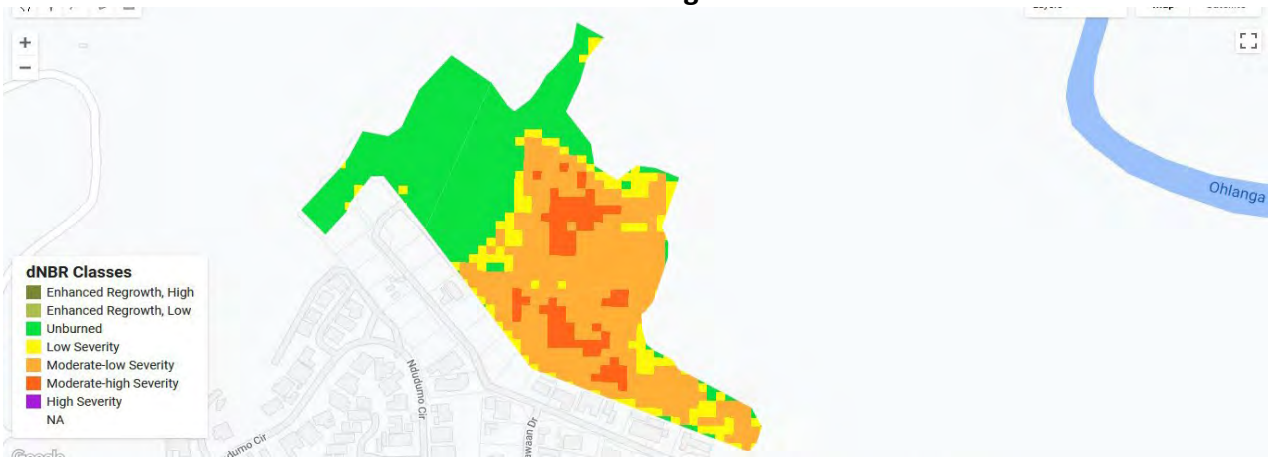


Climatic data (August 2024)

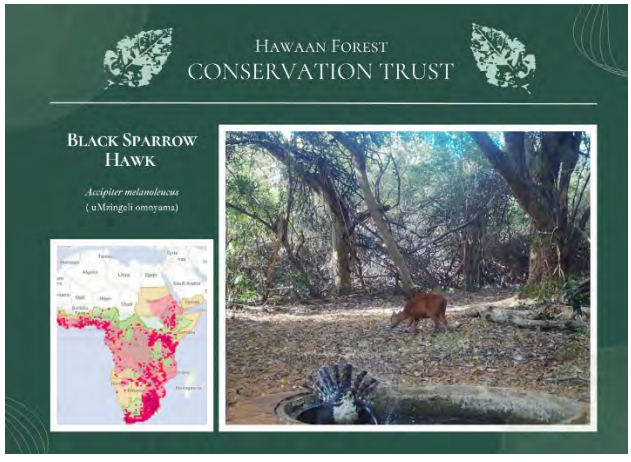


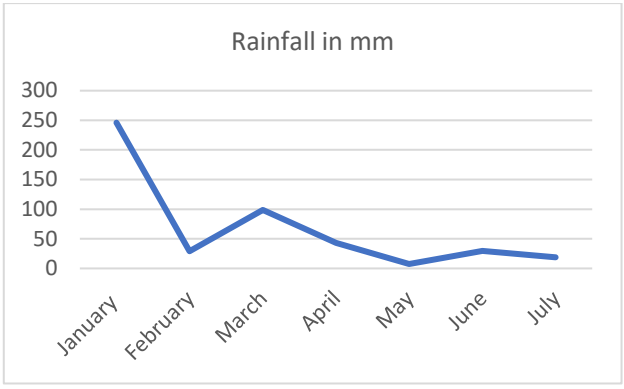


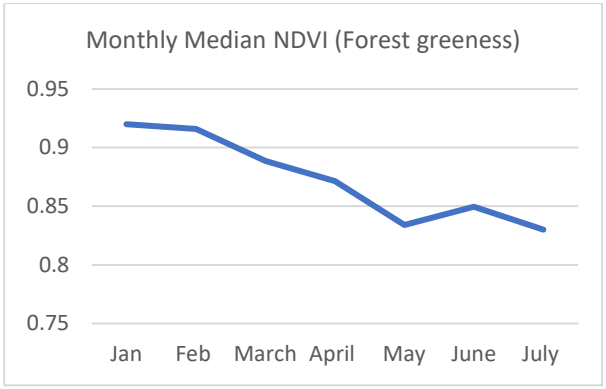
Prescribed burning scar 2024



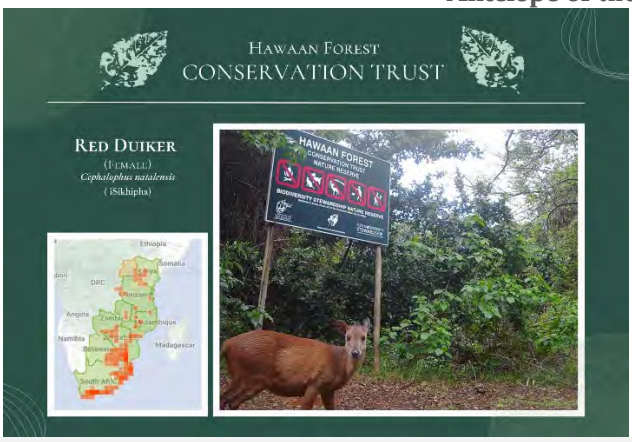
Avifauna of the Hawaan Forest

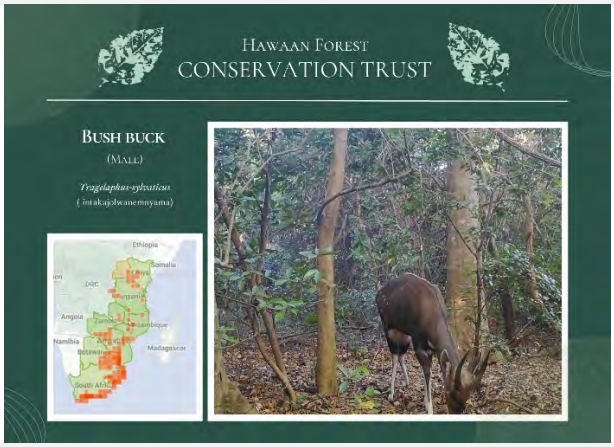


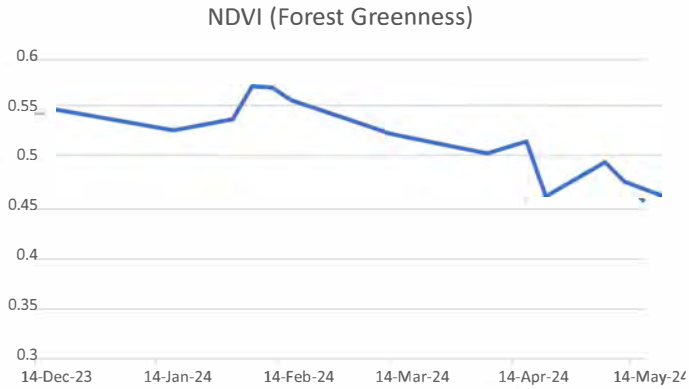




Antelope of the Hawaan Forest







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,

Female Bushbuck

Male 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 of associated with woodlands, Tambourine Dove, were captured on the camera during April

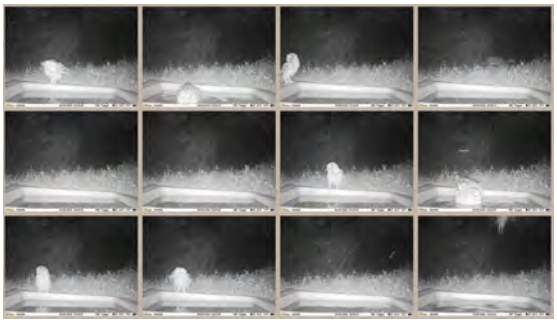
Observations from the camera traps in February showed the usual allotment of animals using the water provided by the HCT staff to bath and drink. We are working towards formalising the logging of this data on a consist basis so that it can be used a baseline information for the forest and to track change.

Spotted Genet

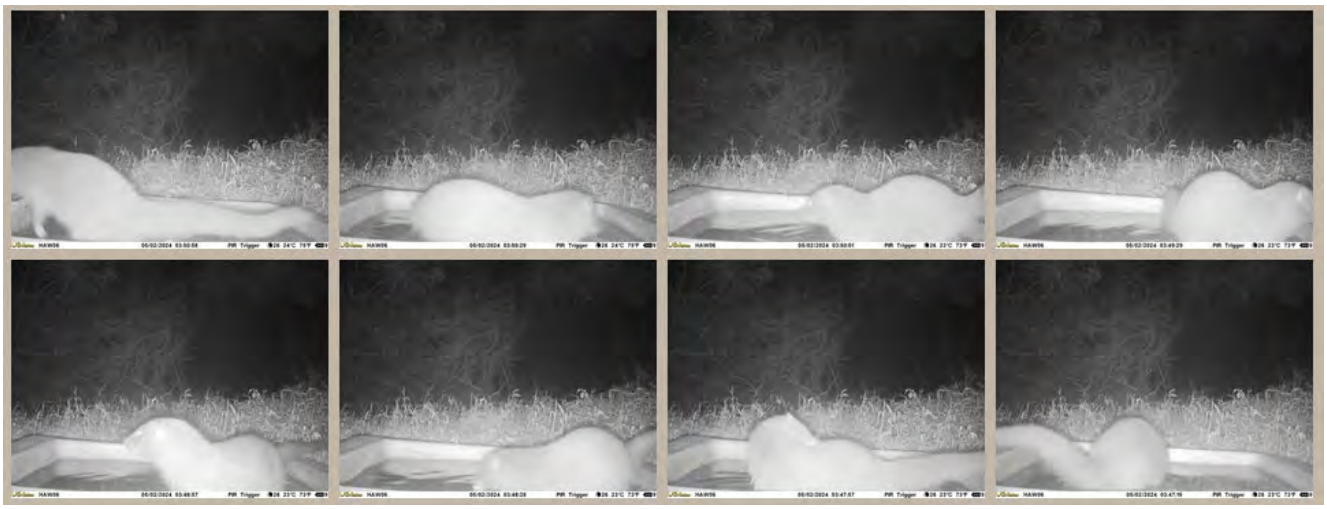
Tambourine Done

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

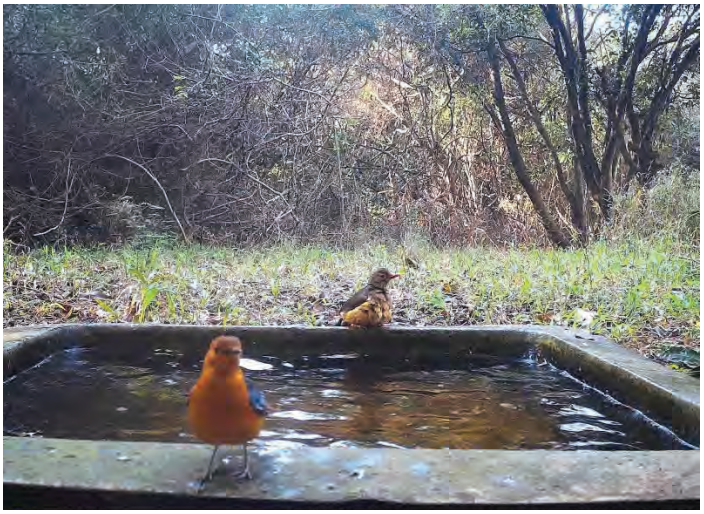
Pair of Red Duikers

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

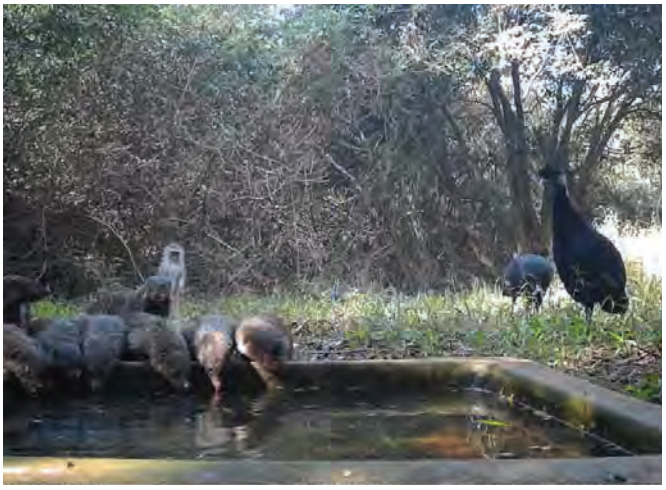
Some beautiful camera trap images were taken at the forest water point during July, 2022.

Red Duiker, female.

Bushbuck females.

Crested guinea fowel.

Red Duiker, male



Vervet Monkey, Banded Mongoose, and Guinea fowel.

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.

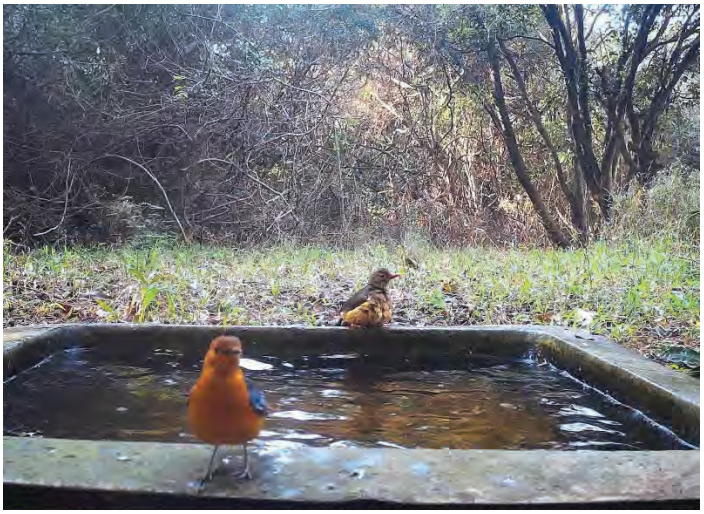
A family of Purple Crested Turaco's.

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

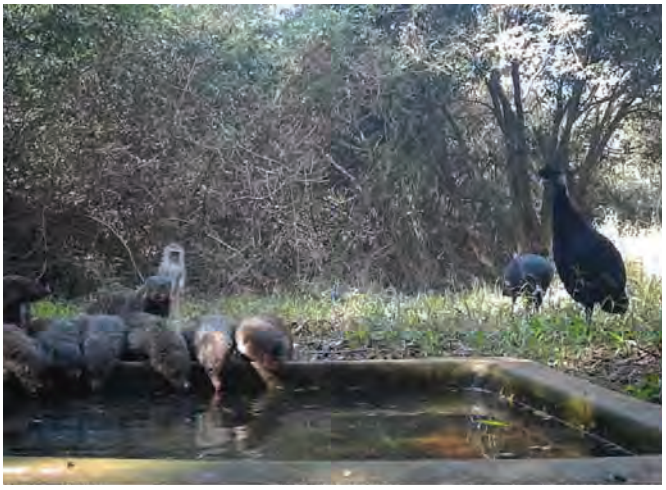
Some beautiful camera trap images were taken at the forest water point during July, 2022.

Red Duiker, female.

Bushbuck females.

Crested guinea fowel.

Red Duiker, male



Vervet Monkey, Banded Mongoose, and Guinea fowel.

Banded Mongoose.

The Polyphagous Shot Hole Borer (*Euwallacea fornicatus**) and Fusarium dieback (*Fusarium euwallaceae*)

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

*Some confusion existed about the Latin name of the PSHB [the species that is invasive in South Africa, California and Israel]. It has been referred to as *Euwallacea* nr. *fornicatus* and *Euwallacea whitfordiodendrus*, but as of 2019 the correct name to be used for this species is *Euwallacea fornicatus.*


HAWAAN ESTATE GRASSLAND
(ALIEN PLANT CONTROL)
Scale : 1: 2000
Date Created :30-07-2009
Block1
Area=1.7ha
Block2
Area=2.0ha
Block3
Area=1.99ha
Block4
Area=2.2ha
Block5
Area=2.4ha
HERRWOOD DR
HAWAAN DR
PYTHON PL
Legend
Parcels
Study Area
DEVELOPMENT PLANNING
,ENVIRONMENT & MANAGEMENT UNIT
BIODIVERSITY BRANCH
Created by: Lucky mncube
Tel Number : 031 311 7940
Email address:mncubel@durban.gov.za
Path:C:\esri\luckyas@26-01-2009\Richard
ETHEKWINI MUNICIPALITY