Hawaan Forest Conservation Trust

Monthly site inspection report:

31.08.2025

Summary:

1. The operations focus at the Hawaan Forest in August was to prepare for and conduct the prescribed burning of the western grassland management blocks. This was successfully carried out by Simon Msenge and his team, in conjunction with the HCT staff. After unsuccessfully requesting permission to burn in the second week of August, permission was finally granted on the 26 of August.
2. Only 3 mm of rainfall was recorded during August. This, coupled with the increasing day length, meant that the forest system has remained crisp and dry, and most of the leaves of many deciduous tree species had yet to unfurl by the end of August. However, the early green shoots of the White Stinkwood (*Celtis africana*) were all in bud.
3. During the prescribed burn, members of the HCT WESSA research team conducted an opportunistic sampling exercise with the goal of recording grassland insect diversity. Insects that were trapped included Slantface Grasshoppers, Leaf-footed Bugs (Genus Anoplocnemis), Leaf-footed Bugs (Tribe Mictini), Jerusalem Crickets and allies, Ant-mimicking Bushcrickets, African Stick Mantis, and Sandspringers.
4. Planned actions for September 2025 include: snare patrols on the eastern boundary, where there have been incursions during August; a strategic mission to target Cat's Claw Creeper on the heavily invaded boundary on the western side of the reserve; an inspection of the municipal sewer servitude to check for snares and assess vegetation regrowth for programming over summer; cutting back charred brush on the woody-encroached section of Block 2 grassland; and monitoring the Crowned Eagle nest site.

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

(1)

The first record of an invasive Palm species, a Queen Palm (*Syagrus romanzoffiana*) was found naturalising in the forest at entrance gate.

(2)

Also, the first record, *Dolichandra unguis-cati*, Cats Claw Creeper was found on the western side of the reserve. The WESSA HCT team will be deployed to treat this early invasion.

(3)

The prescribed burn was conducted in light southeasterly winds on August 26. The wind was ideal, in that it ensured that the embers and smoke

(4)

The far north-western corner of grassland burnt well, the temperature rose to around 20-23 degrees and with a fairly low humidity much of the grass sward was burnt to basal tuft.

(5)

The central grassland slope in Block 2, was the only section of the grassland which did not burn cleanly, although a fair amount of the woody scrub was burnt. This HCT team will work on this slope during the summer of 2025-2026.

(6)

The fire did however did burn cleanly in Block 1, where most of the efforts to remove scrub by the HCT conservation team have been been focused over the past 18 months.

(7)

Tracer-belts around the signage worked well, and the signage was protected.

(8)

On the fire-front, the HCT WESSA conservation team conducted sampling of grassland invertebrate fauna. Insects were photographed for identification and following species have been cataloged thus far:

(9)

Ant-mimicking Bushcrickets (*Genus Eurycorypha*) – cryptic herbivores and occasional predators.

(10)

African Stick Mantis (*Popa spurca*) – an ambush predator that regulates insect populations through camouflage and rapid strikes.

(11)

Sandspringers (*Family Talitridae*) – detritivorous amphipods that recycle organic matter and enhance soil fertility in sandy habitats.

(12)

Slantface Grasshoppers (*Genus Acrida*) – primarily herbivores that feed on grasses.

(13)

Leaf-footed bugs, Coreidae are seed- and fruit-feeding insects while also serving as prey for birds and reptiles.

(14)

Jerusalem Crickets, and Allies (*Superfamily Stenopelmatodea*) are nocturnal omnivores that aerate soil while feeding on roots, detritus, and small invertebrates.

(15)

As usual in August, the water-points are busy places where Banded Mongoose were regular visitor.

(16)

Purple Crested Turaco were also observed bathing and cooling down.

(17)

Both Male, Red and Blue Duikers were regular visitors in August.

(18)

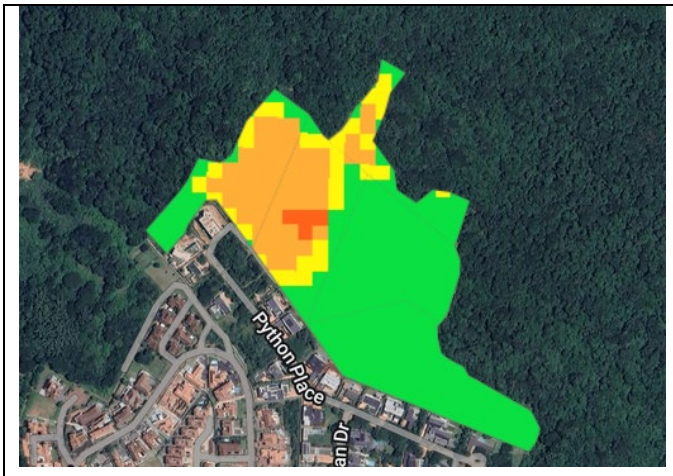
As was this beautiful Male, Bushbuck.

Hawaan Forest Prescribed burning August 2025

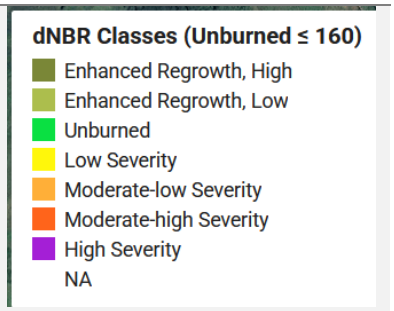
The Hawaan

On Tuesday, 26 August, the Hawaan Forest grassland burn commenced at 10:15 and was safely closed at 4:30. Weather conditions favorable with a light SSW flow of 6–8 kt (gusts 8–15 kt), mild temperatures of around 19–20 °C. These conditions suited to a steady, controllable burn concluding with a moderate burn severity across much of the site. The wind direction allowed good smoke management away from the Estate and nearby suburbs.

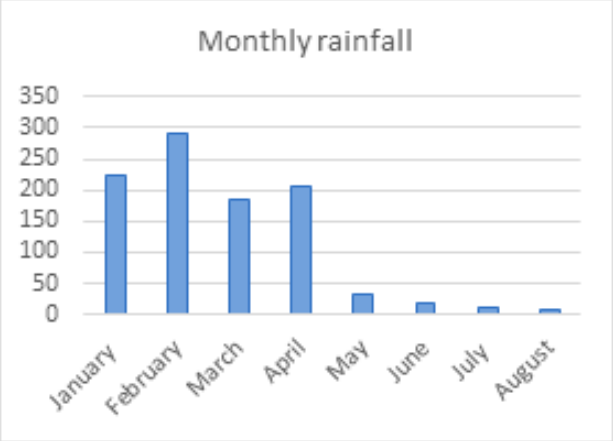
Concurrently, the team conducted opportunistic sampling of grassland insects which typically disperse ahead of the flame front. These specimens are being identified using iNaturalist and field guides with the goal to document the composition of the grassland insect communities at the Hawaan.

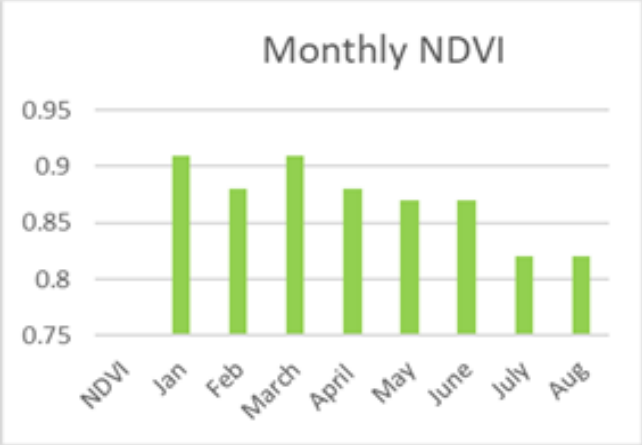


CLASS	AREA (HA)	% OF AOI	% OF BURNED
UNBURNED	**5.87**	**64.6%**	–
LOW SEVERITY	1.01	11.1%	*31.3%*
MODERATE-LOW	2.03	22.4%	*63.3%*
MODERATE-HIGH	0.17	1.9%	*5.4%*
HIGH	0.00	0.0%	*0.0%*
BURNED TOTAL	**3.21**	**35.4%**	*100%*



Monthly Climatic Data for August





Herbicide Register – Hawaan Forest – 2024/2025

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	Stickyweed	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 21L	25/02/23	Brazilian pepper, Yellow bells	Eastern gra
5	Plenum	Picloram	Selective	18L	13/04	Pepper, Yellow bells	West grassland
6	Plenum	Picloram	Selective	5L	05/09	Yellow bells, 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
9	Plenum	Picloram	Selective	3L	11/08/24	Searsia, Dodda , Euclea	Central grassland
10	Plenum	Picloram	Selective	2l	31/08/24	Searsia	Eastern grassland
11	Plenum	Picloram	Selective	2l	31/10/24	Searsia	Eastern grassland
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
16	Plenum	Picloram	Selective	1.95	30/06/2025	Mexican Sunflower	Eastern Grassland

x

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	x	x	x	x	x	-	-	-	
	1.2	Repairing washaways	Weekly	-	-	x	-	-	-	--					
	1.3	Resetting concrete sleeper treads on steeper parts of the trails	Weekly	-	-	-	-	-	-	x	x	-	-	-	-
	1.4	Cut the trails using a brush cutter once every two weeks in summer and check for overgrowth in winter	Weekly	x	-	x	-	x	x	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	x	x	x	x	-x	-	-	-	-
	1.6	Check trails for over-hanging branches and other vegetation.	Weekly	x	-	x	x	X	-x	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	x	x	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	x	x	x	x	x	-	-	-	-
Water points	2.1	Check if waterpoints are soiled by animals	Weekly	x	x	x	x	x	x	x	x	-	-	-	-
	2.2	Fill waterpoints along the trails	Weekly	x	x	x	x	x	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	x	-	-	-	x	-	-	-	-
	3.2	Check signs and clean signs and benches weekly	Weekly	x	x	x	x	x	x	x	x	-	-	-	-
	3.3	Check exclusion plot for fallen trees or branches damaging the wire.	Monthly	-	x	x	x	X	-	-	-	-	-	-	-
	3.4	Keep tools and equipment clean and serviced daily for hand tools.	Weekly	x	x	x	x	-	x	x	-	-	-	-	-
	3.5	Clean and service machine tools after each session of use. Chainsaw, Brushcutter.	Weekly	x	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	x	-	x	x	x	x	-	-	-	-
	3.8	Check that trail cameras weekly to ensure they are not stolen.	Daily	x	x	x	x	-	x	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	x	-	x	x	x	x	-	-	-	-
		Checking for regrowth of IAPs monthly and set out new work areas each month.	Monthly	x	x	x	x	-	x	x	x	x	-	-	-	-
	4.2	Removal of selected indigenous woody encroachment species such Silver Oak in the grassland section	Monthly	-	x	x	x	-	x	x	x	x	-	-	-	-
	4.3	Monitoring herbicide stores on a monthly basis	Monthly	x	x	-	x	-	x	x	x	x	-	-	-	-
Fire management	5.1	Ensure tracers belts and pathways in the grassland open before prescribed burn	Yearly	-	-	-	x	-	x	x	x	x	-	-	-	-
	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	-	-	-	-	-	-	-	-	x	-	-	-	-
Consumables	6.1	Order uniforms and personal protective gear for the 2 staff.	Yearly	-	-	-	-	- -	-	-	-	-	-	-	-	-

(17)

In the low-rainfall months between June and August, the camera at the Bushshrike water point pick up roughly 100 images per day, including frequent daily activity by bushbuck

(18)

Unlike impala, bushbuck are not gregarious antelope — though these females seem to have teamed up during the winter months for the moment.

(19)

Using the water point during July were only one or two visits by Banded Mongoose.

(20)

The local Large spotted Genet.

(21)

Red duiker visit the water point even though they may not actually need to, being territorial forest antelope that do not rely on surface water.

(22)

This purple-crested Turaco was the most colorful of the handful of bird species that utilise the water point on the forest edge.

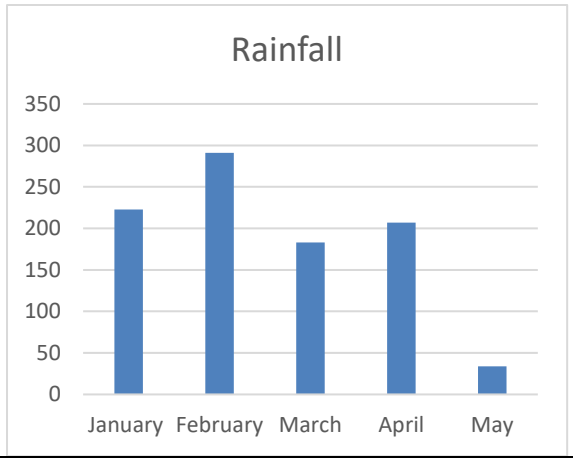
(25)

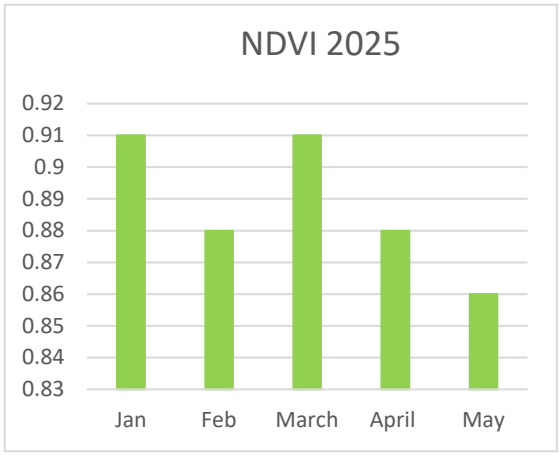
The pair of water mongooses are a monthly feature on the grassland trails but come out late at night foraging.

(26)

While foraging in the early morning, this Red duiker brings contrast and reminds us all of our collective responsibility to maintain and protect urban forest systems.

Climatic Data – May 2025





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16	Plenum	Picloram	Selective	1L	12/05/2025	Tithonia/Chromolaena	M4 edges

(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)

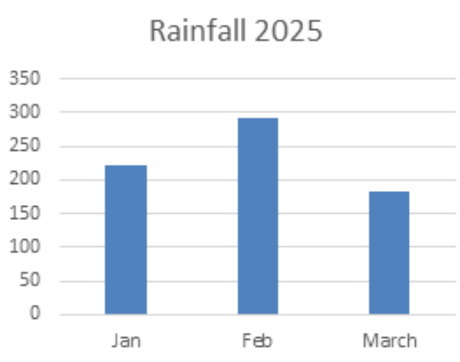
Also observed at the Bush-Shrike water hole was the resident Crowned Eagle, which we haven't seen regularly in a few seasons.

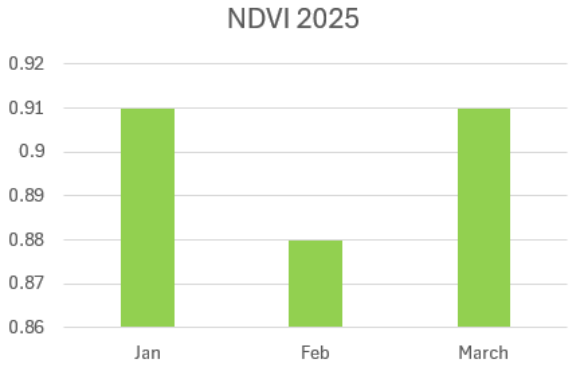
(24)

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.





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.

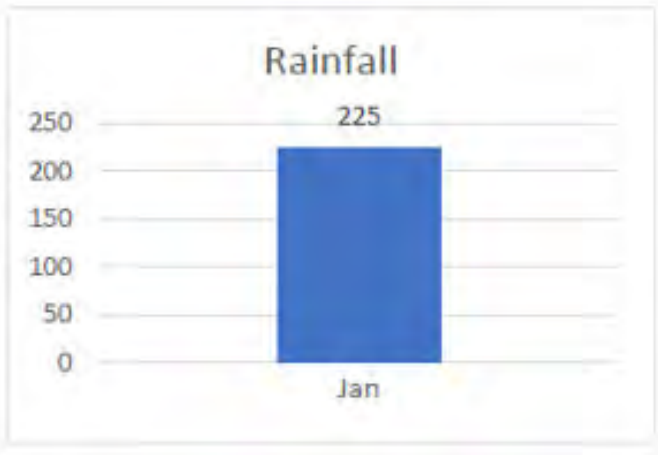
(31)

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.

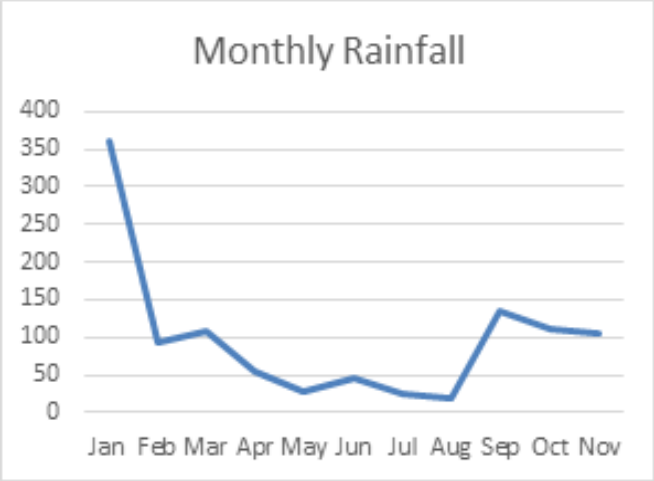
(32)

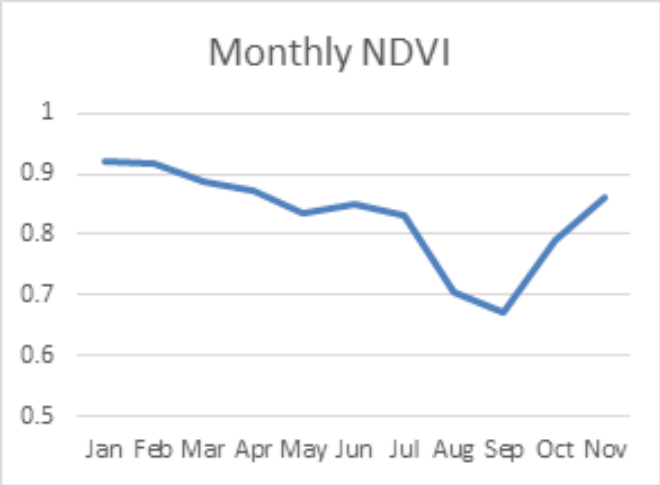
The usual Genet was also spotted by the cameras during late December in 2024.

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)

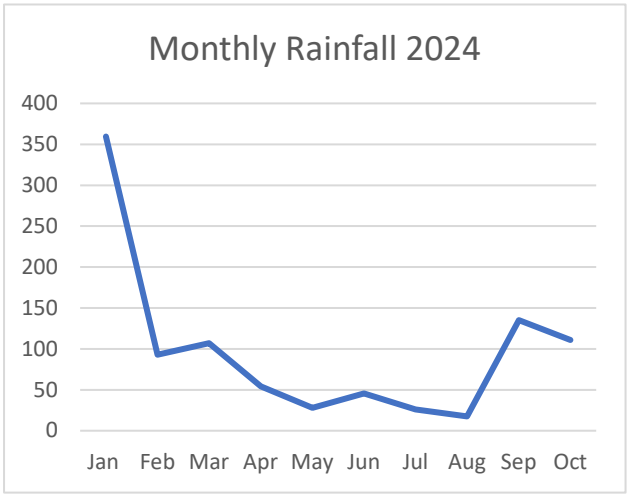
Water Mongoose

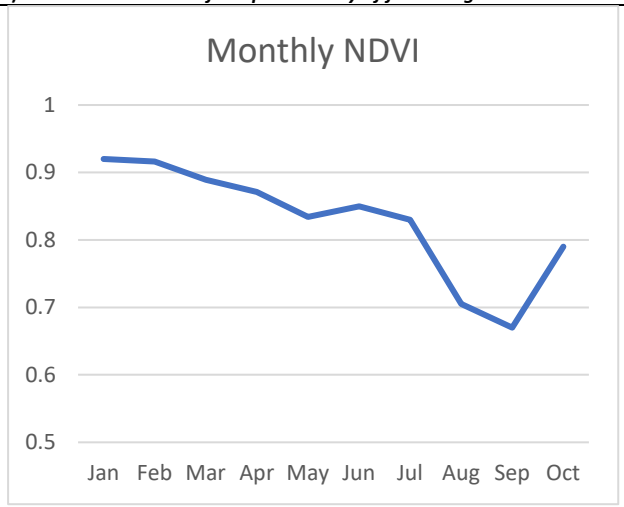
(24)

Crested Guinefowel

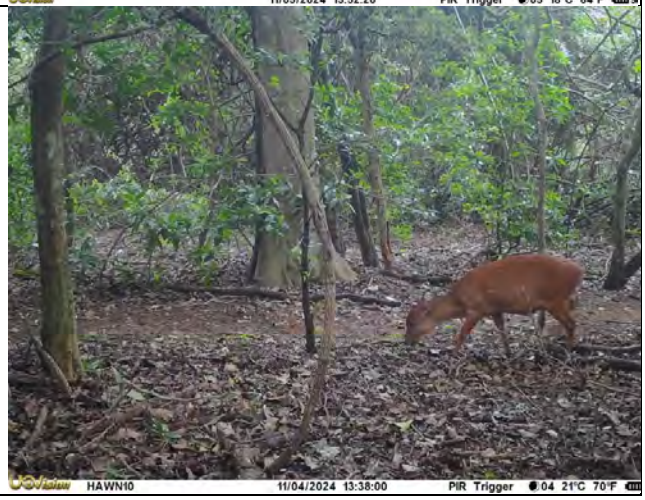
Climatic Data

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

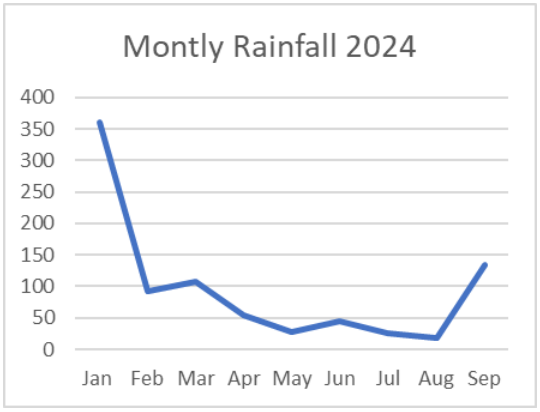


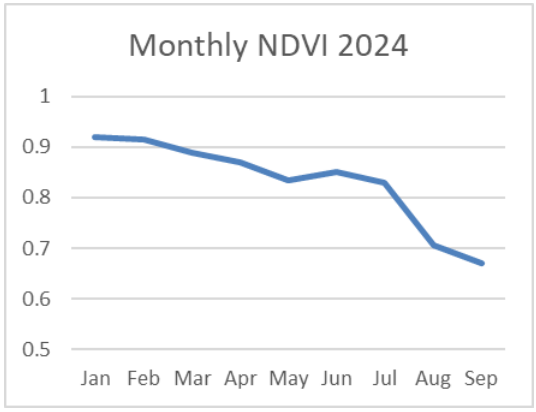


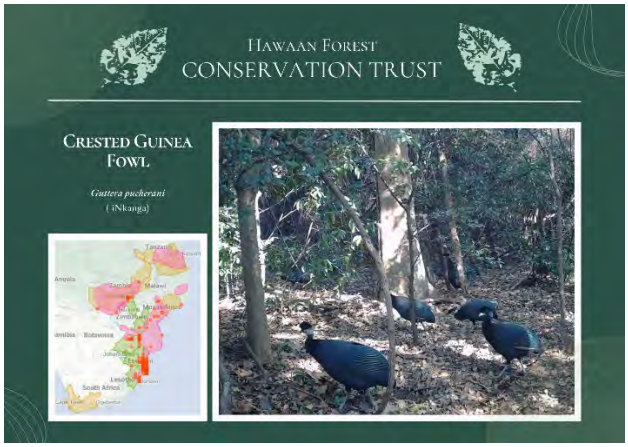
The camera trap images from October 2024 reflect the clearing humidity and the greening up of the forest, which has been occurring since the beginning of September. This change lends a mystical quality to the forest at this time of year.



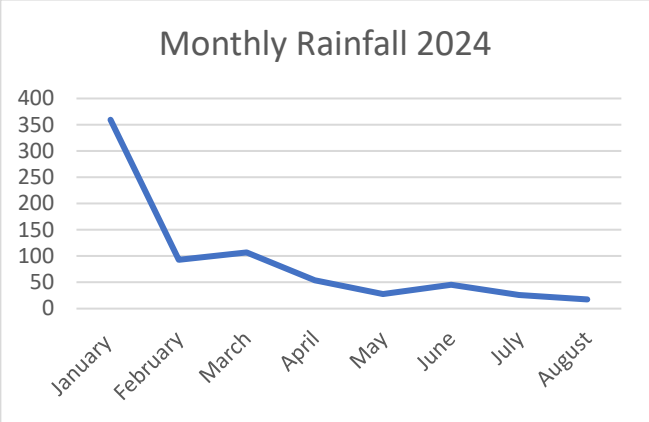
Climatic Data for September 2024

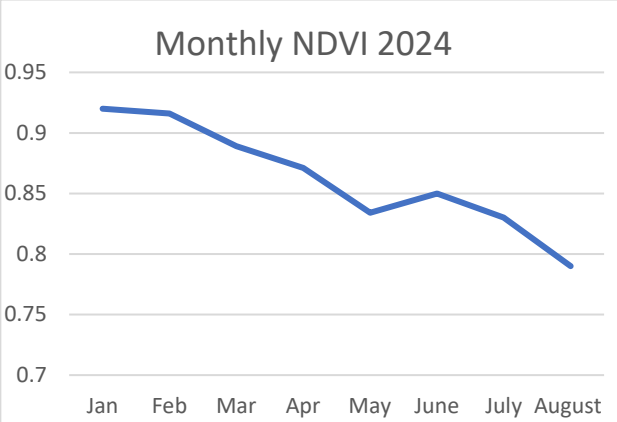




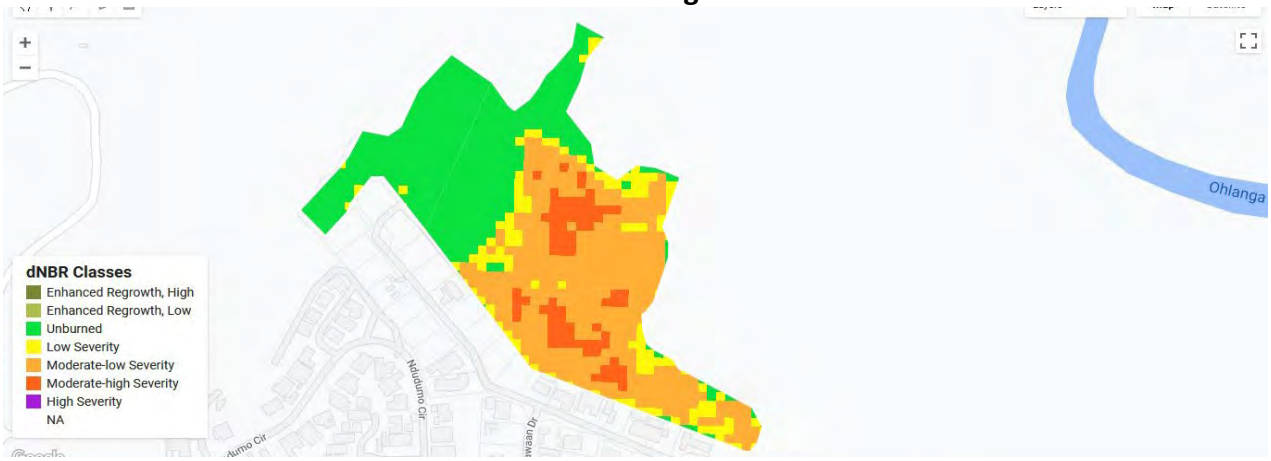


Climatic data (August 2024)

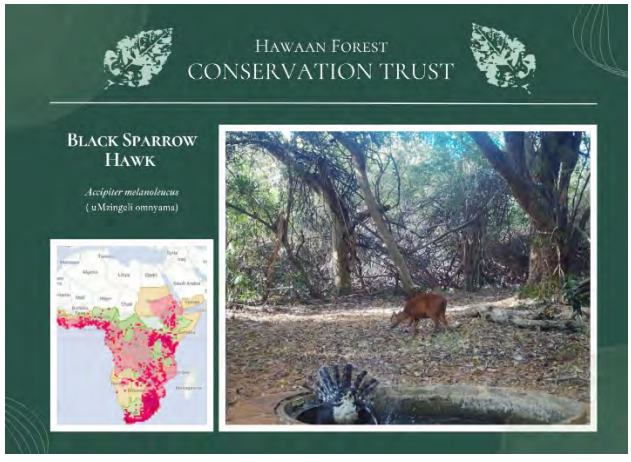


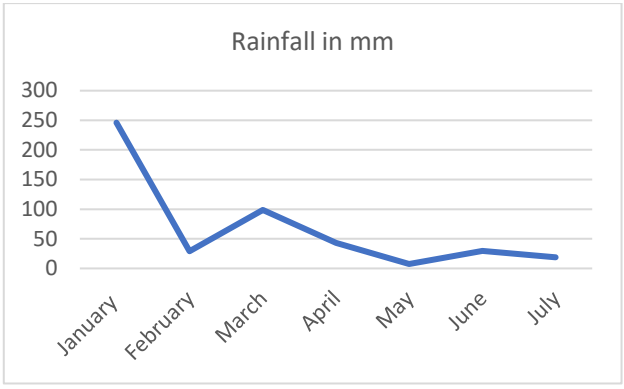


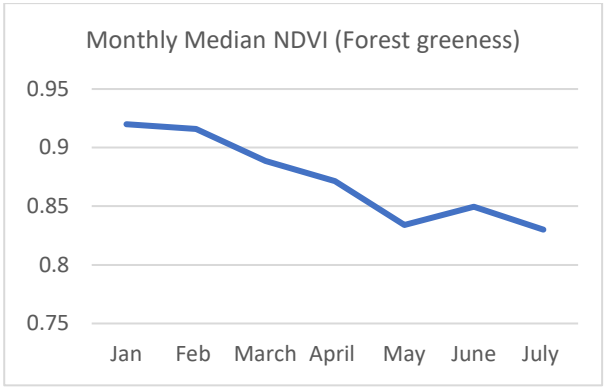
Prescribed burning scar 2024



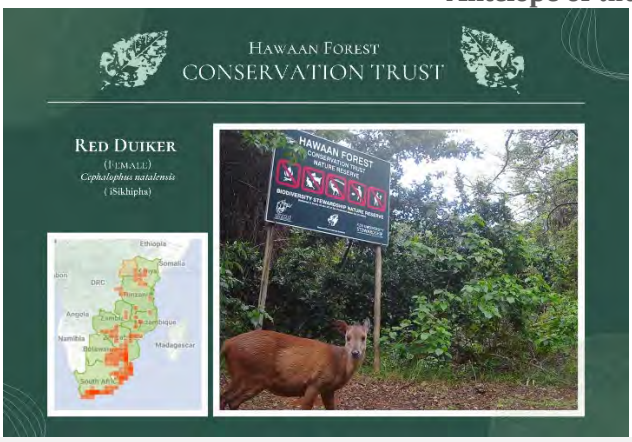
Avifauna of the Hawaan Forest

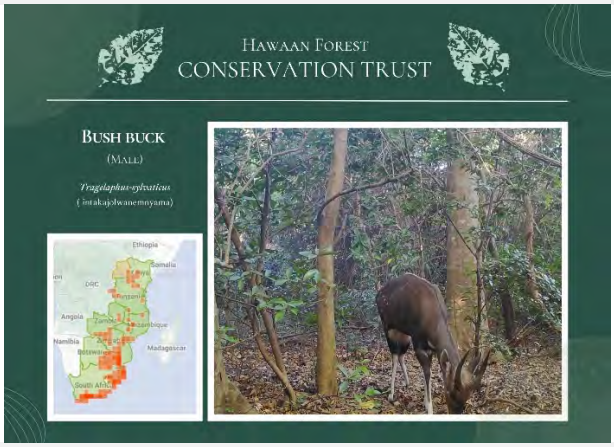


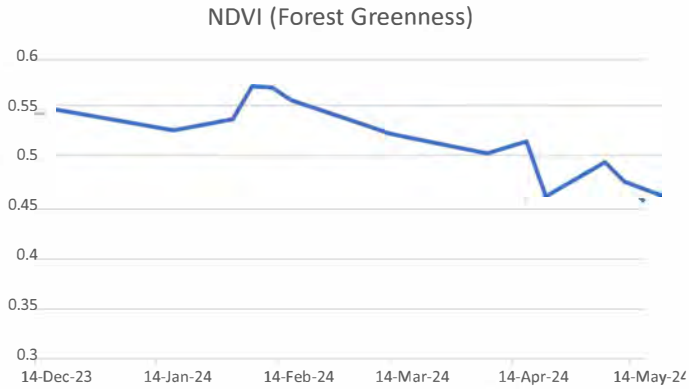




Antelope of the Hawaan Forest







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

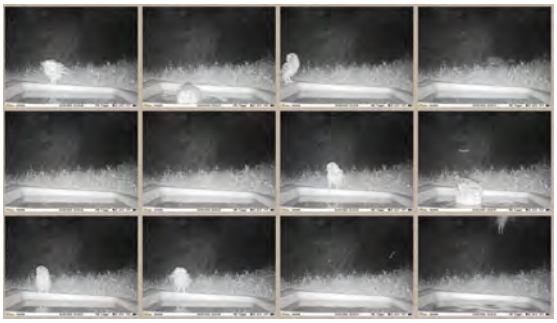
Observations from the camera traps in February showed the usual allotment of animals using the water provided by the HCT staff to bath and drink. We are working towards formalising the logging of this data on a consist basis so that it can be used a baseline information for the forest and to track change.

Spotted Genet

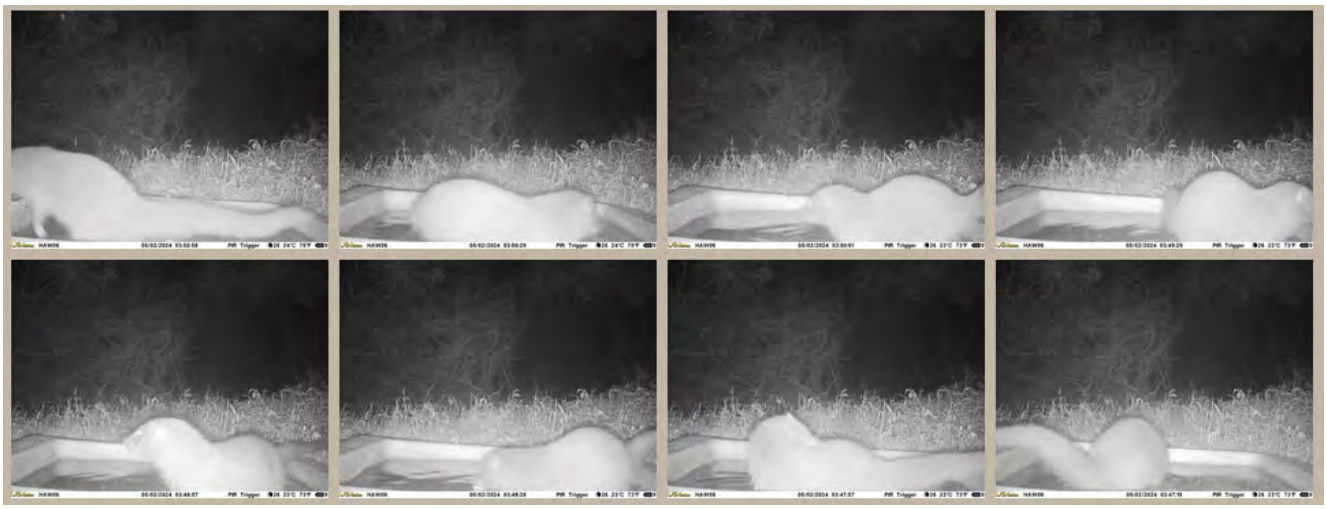
Tambourine Done

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

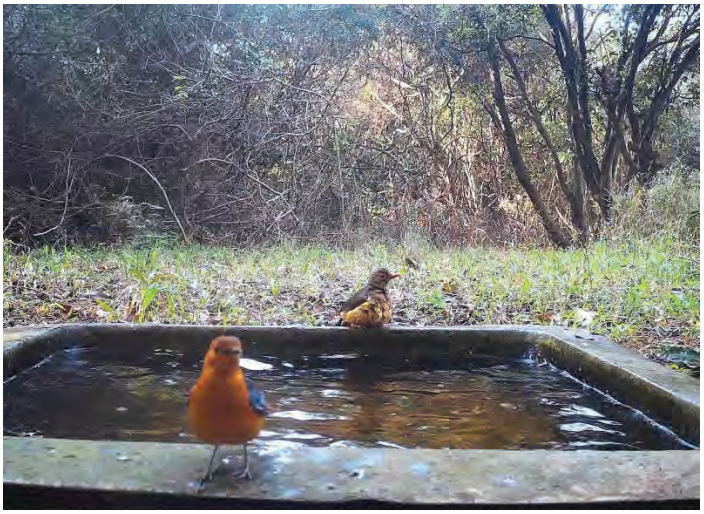
Pair of Red Duikers

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

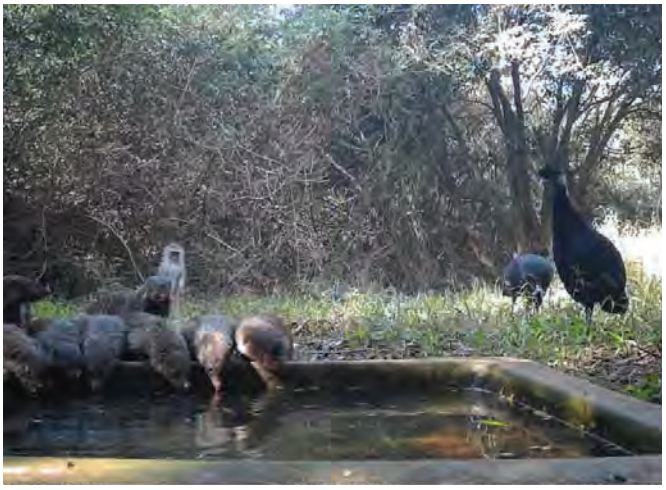
Some beautiful camera trap images were taken at the forest water point during July, 2022.

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 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