



Hawaan Forest Conservation Trust Monthly site inspection report:

Summary:

08.11.2024

1. Work at the Hawaan forest over October comprised routine maintenance actions, including cleaning and raking on the WESSA trail network, while a significant amount of woody encroachment was cutback at the corner of Block 5. Opening up the corner of Block 5 is a long-standing goal identified during the grassland conservation planning process - so its great to have finally arrived at this point.
2. October realised about 115 mm of rainfall, and there has been a clear increase in forest productivity this month – as noted by the increase in NDVI.
3. A single snare was removed during the routine snare western portion of the reserve.
4. Bird activity, especially breeding calls seemingly remain at their peak for the year. The Acoustic monitor has been deployed to record a summer-sample subset as part of the reserve baseline monitoring efforts.
5. Actions planned for November are to focus on spot spraying regenerating woody plants in Grassland Block 2 and 5, while also to install a few small browsing enclosures with the re-purposed fencing material which is outstanding work from October and has not been done as yet.

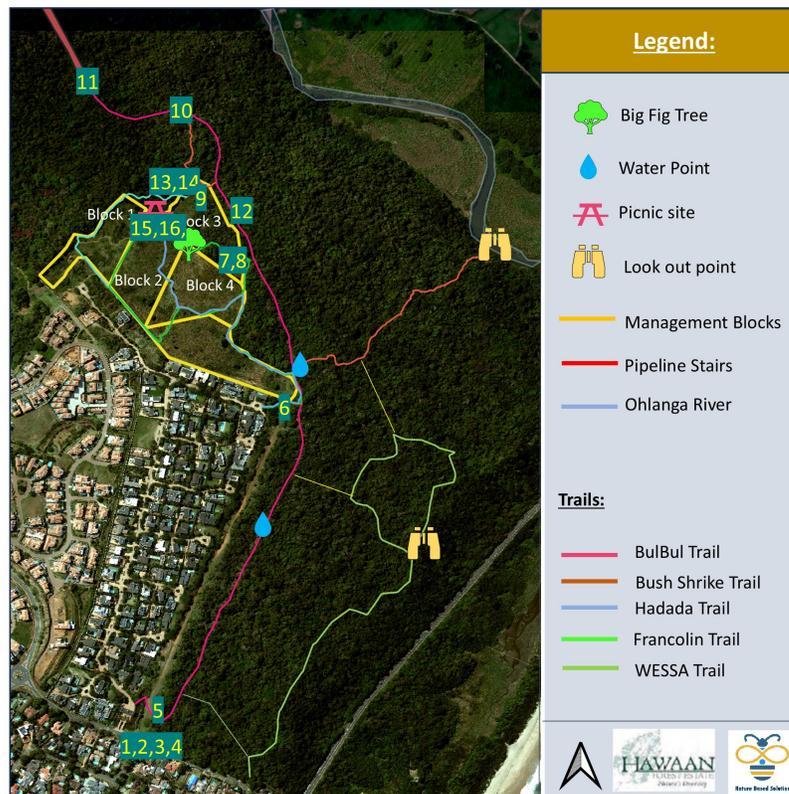


Figure 1. Numbers on the map refer to items below.

(1)



The Hawaan Entrance sign and new fence has been installed neatly at the servitude gate.

(2)



Signage has been taken down from the grassland and will now be stored neatly behind the shed until they are removed.

(3)



A few Indian Laurel (*Litsea glutinosa*) were noted in forest near the management zone they will be removed in November.

(4)



Forest pathways and trails have been mowed and were neat during the inspection.

(5)



Some of the paths on the WESSA trail were raked in October – HCT Staff will work on these again in mid-November.

(6)



The grasses within Grassland block 5 have come back well after the burn in August.

(7)



HCT staff to deploy herbicide selectively in order spot-spray re-emerging woody vegetation within the grassland.

(8)



Bush clumps on the forest edge at Grassland Block 4 were identified for the work programme in 2025.

(9)



HCT staff have been attending to cutting back the woody bush-clumps at the

(10)



Trails within the forest, towards the pipeline in the west area have been mowed and opened up during October.

(11)



The pipeline was checked for leaks after recent rain in early October – some overhanging branches need pruning which will be attended to during November.

(12)



Flowering within the forest-understory during October is the most beautiful forest herb *Freesia laxa*

(13)



If you look carefully in this image – you might see a Bark Mantis – which love to hide and hunt on the bark of *Psydax obovata*<https://www.inaturalist.org/observations/249014495>

(14)



Another flowering shrub in the forest during October are *Grewia occidentalis*

(15)



Flowering nicely in the grassland during October was *Eriosema psoraleoides* – which has been once of the more successful wildflower re-introductions into the grassland.

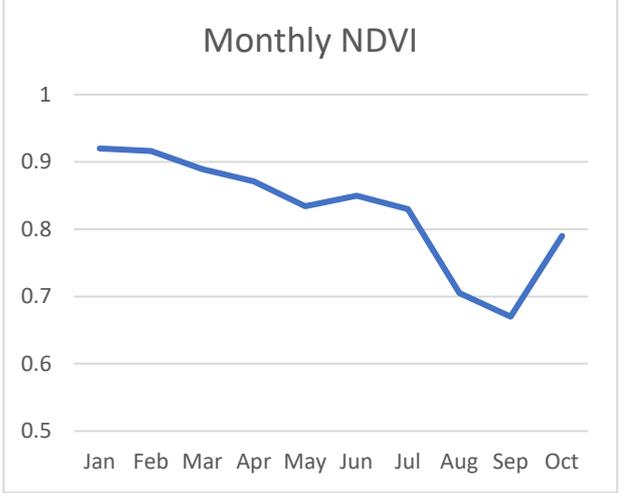
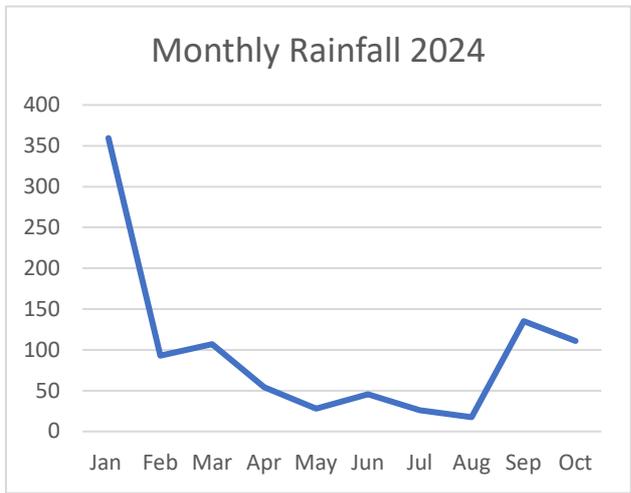
(16)



During October, HCT staff observed a ground-nesting colony of wasps from the family Philanthidae. They were seemingly hunting small rhinoceros beetles to take to their nests to feed their larvae once they hatch.

<https://www.inaturalist.org/observations/249123653>

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 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.

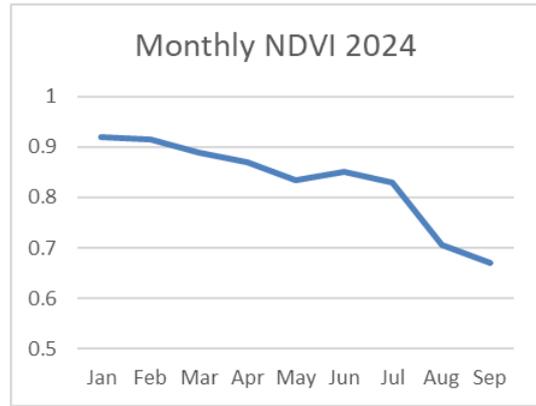
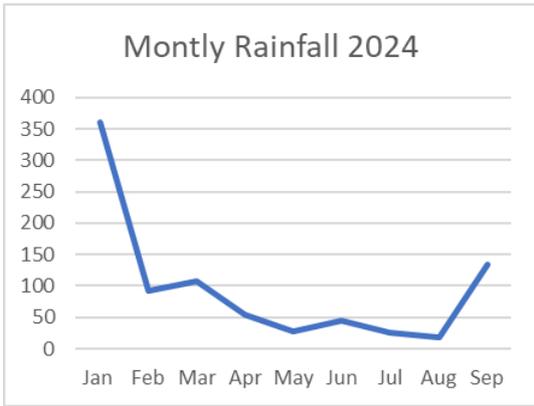


	3.7	Keep Tilley Huts neat and tidy sweep daily, clean windows every 10 days check maintenance and rusting on a monthly basis and report to HCT members.	Weekly	x	x	x	x	x	x	x	x	x	x	-	-	-
	3.8	Check that trail cameras weekly to ensure they are not stolen.	Daily	x	x	x	x	x	x	x	x	x	x	-	-	-
	3.9	Cleaning of shower on a daily basis after use.	na	-	-	x	x	x	-	-	-	-	-	-	-	-
	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	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	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	x	-	-	-
	4.3	Monitoring herbicide stores on a monthly basis	Monthly	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	-	-	-	-
	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. <i>Fire fighting =equipment one drip torch, 3 rubber beaters with handles, two Knapsack sprayers.</i>	Yearly	-	-	-	-	-	-	-	x	x	-	-	-	-
Consumables	6.1	Order uniforms and personal protective gear for the 2 staff.	Yearly	-	-	-	-	x	-	-	-	-	-	-	-	-

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	lls - 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

Climatic Data for September 2024



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BOOTED EAGLE

Hieraaetus pennatus
(iNqabe)

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CRESTED GUINEA FOWL

Guttera pucherani
(iNkanga)

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PURPLE HEADED TURACO

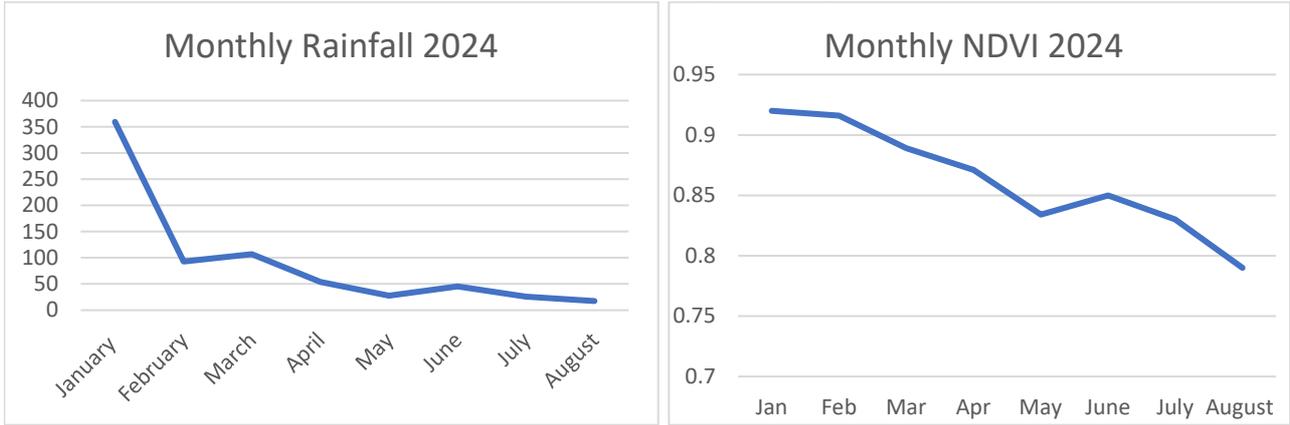
Tauraco porphyrocephalus
(iGwalagwala)

HAWAAN FOREST CONSERVATION TRUST

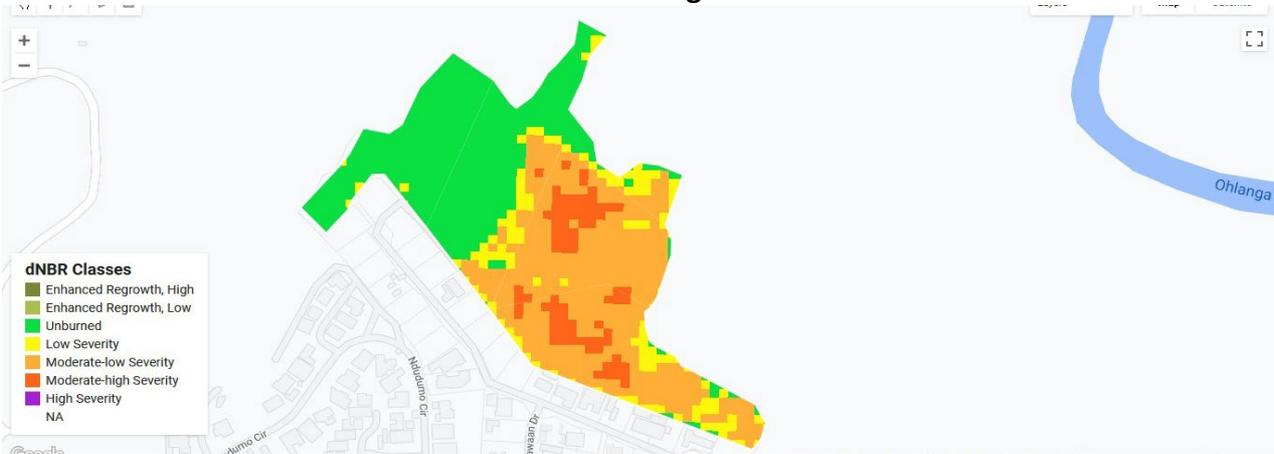
AFRICAN WOOD OWL

Syrinx woodfordii
(uKhozikhova)

Climatic data (August 2024)



Prescribed burning scar 2024



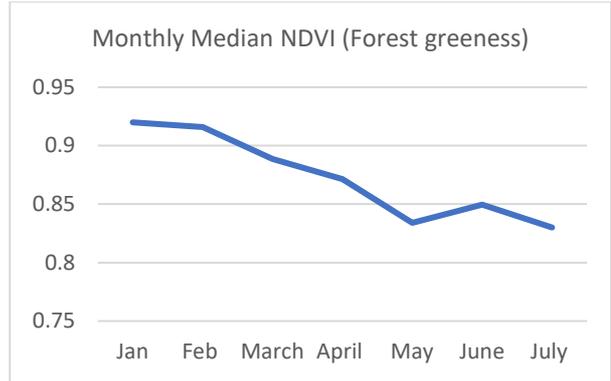
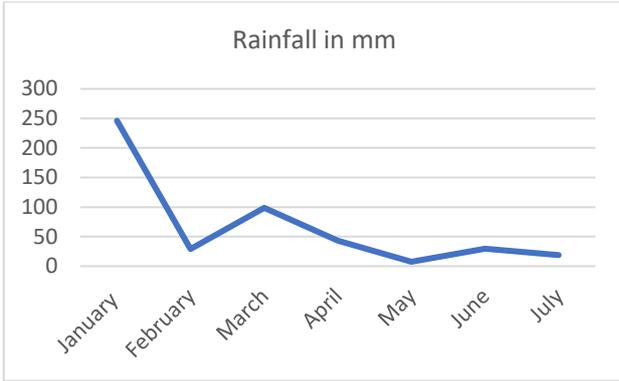
Avifauna of the Havaan Forest

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TAMBOURINE DOVE
Turtur tympanistris
(iHubs)

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BLACK SPARROW HAWK
Accipiter melanoleucus
(uMzingeli omnyama)



Antelope of the Hawaan Forest

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RED DUIKER

(FEMALE)
Cephalophus natalensis
(iSikhipha)

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RED FOREST DUIKER

(MALE)
Cephalophus natalensis
(iSikhipha)

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BUSH BUCK

(FEMALE)
Tragelaphus sylvaticus
(intakajolwanemnyama)

HAWAAN FOREST CONSERVATION TRUST

BUSH BUCK

(MALE)
Tragelaphus sylvaticus
(intakajolwanemnyama)

HAWAAN FOREST CONSERVATION TRUST

BLUE DUIKER

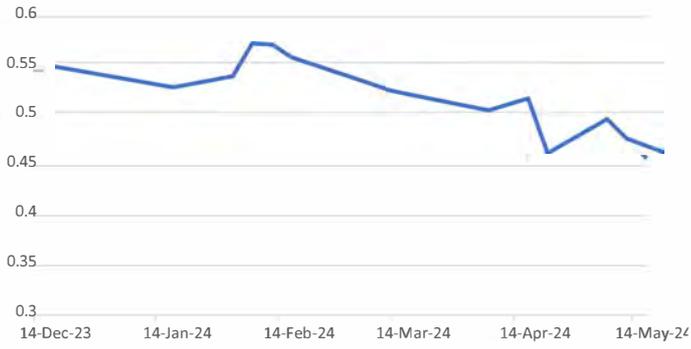
(FEMALE & FAWN)
Philantomba monticola
(iNkonkoni)

HAWAAN FOREST CONSERVATION TRUST

BLUE DUIKER

(MALE)
Philantomba monticola
(iNkonkoni)

NDVI (Forest Greenness)



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

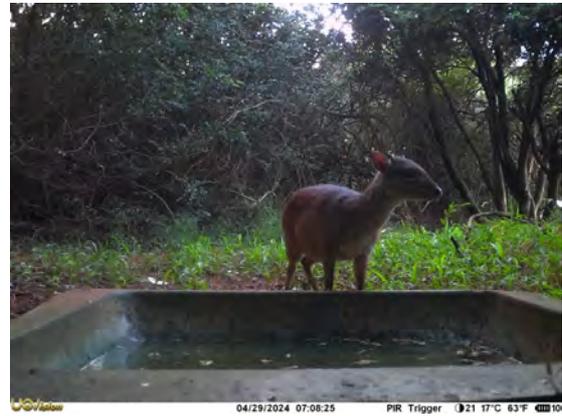


Vervet Monkey

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 Dove



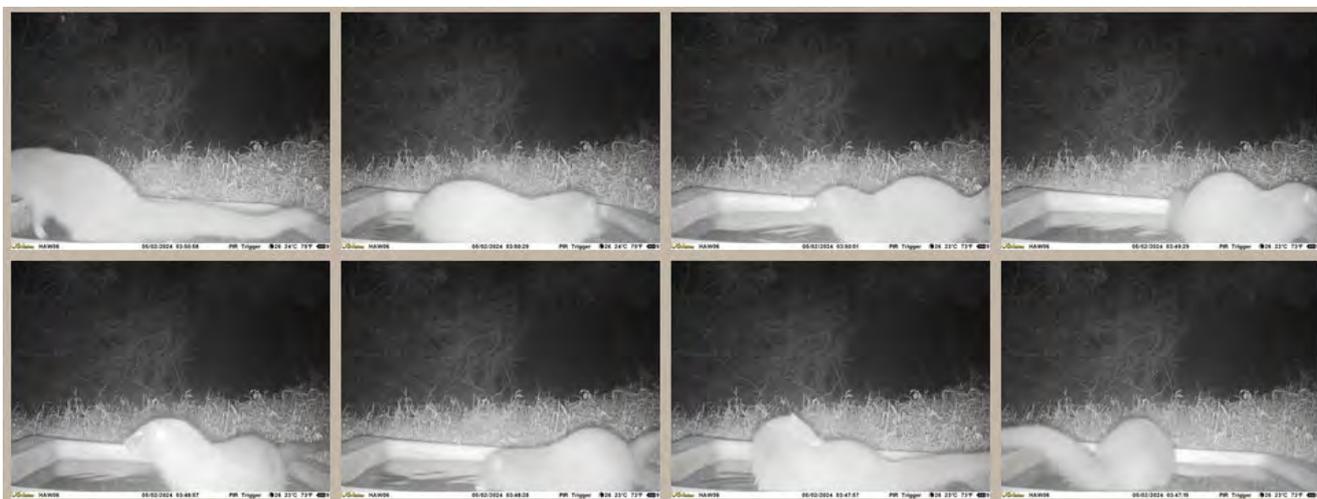
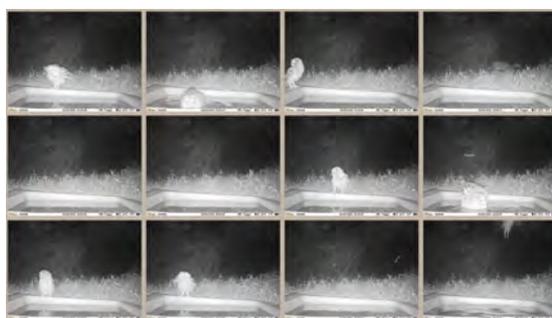
Red Duiker



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 Crowded 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.

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Banded Mongoose.

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

The Polyphagous Shot Hole Borer (PSHB) 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

HAWAIIAN ESTATE GRASSLAND
(ALIEN PLANT CONTROL)

Scale: 1:1,000
Date: Council Report 2010

Legend
Parcels
Study Area

Block3
Area=1.99ha

Block1
Area=1.7ha

Block2
Area=2.0ha

Block4
Area=2.2ha

Block5
Area=2.4ha

DEVELOPMENT PLANNING
ENVIRONMENT & MANAGEMENT UNIT



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