

# Ulu Kalumpang-Wullersdorf Sustainable Forest Management Project (UKW-SFM)

Year 2018 was the 11th year of implementation on Ulu Kalumpang-Wullersdorf Sustainable Forest Management Project (UKW-SFM). Activities that were carried-out is based on the 10-year Forest Conservation Management Plan (FCMP) started from 1<sup>st</sup> January 2011 until 31<sup>st</sup> December 2020 and for implementation in 2018 is based on the Annual Work Plan 2018 approved by the Chief Conservator of Forest. Funds approved under the 11<sup>th</sup> Malaysia Plan (State Fund) in 2018 is RM2,263,720.00.

The purpose of forest rehabilitation activities is to restore forest ecosystem in areas within this project which had been previously encroached by illegal oil palm plantation dan agricultural crops as well as illegal logging/*bantalan*. Essentially, forest rehabilitation is planting activities done in encroached areas of the Forest reserves with indigenous species to rehabilitate the forest area. There are six (06) forest reserves included in Ulu Kalumpang-Wullersdorf Sustainable Forest Management (UKW-SFM) Project area consisting of Class I (Protection Forest) and Class VI (Virgin Jungle Reserve). These are the following name list of forest reserved in UKW-SFM Project:

Table. 1: List of Forest Reserve in the UKW-SFM project

Forest Reserved	Class	Area (Ha)
Ulu Kalumpang FR	I	50,736
Mt. Wullersdorf FR	I	8,137
Kalumpang VJR107C (Forbes & Sangster) FR	VI	950
Kalumpang VJR107D (Sapang) FR	VI	1,950
Kalumpang VJR107E (Bkt. Mangkok) FR	VI	868
Madai Baturong VJR107F (Binuang) FR	VI	2,312.74
<b>JUMLAH</b>		<b>64,953.74</b>

## FIELD ACTIVITIES

### 1. FOREST REHABILITATION

Main activity for this project is forest rehabilitation activities. Since the start of forest rehabilitation works in 2007 up to 2018 recently, a total of 1,816.80 Ha had been successfully restored. Forest rehabilitation activity is focusing on restoration works and planting maintenance as mentioned in Annual Work Plan 2018 (AWP 2018). Planting maintenance works in Mt. Wullersdorf Forest Reserve involved 110 Ha by PEMBORONG NR and Kalumpang VJR 107D (Sapang FCS) for 40 Ha by MZN Enterprise. Forest restoration works in Kalumpang VJR 107D (tip of Sapang) was carried-out by MZN Enterprise for 40 Ha. Based on the field inspection, it was found that the main problem encountered is because of the weather and wildlife attack towards the planted saplings. However, these problems can be solved by replanting of saplings to replace the dead/destroyed saplings. Forest rehabilitation achievement were as follows:

Table 1.1: Forest rehabilitation area in 2018

Area	Target (ha)	Actual (ha)	Achievement (%)	Contractor
Mt. Wullersdorf (Balung) FR	110	110	100%	PEMBORONG NR
HS Kalumpang VJR107D (Sapang FCS)	40	40	100%	MID NINE ENTERPRISE
HS Kalumpang VJR107D (Tip of Sapang)	40	40	100%	MZN ENTERPRISE
<b>Jumlah</b>	<b>190</b>	<b>190</b>	<b>100</b>	



**Pict. 1.1** Planting line for Maintenance in Mt. Wullersdorf Forest Reserve



**Pict. 1.2** Another planting line for Maintenance in Mt. Wullersdorf Forest Reserve





**Pict. 1.3** Inspection by SFD staffs on the maintenance works in Mt Wullersdorf Forest Reserve



**Pict. 1.4** Inspection by SFD staffs on the planted sapling during maintenance works in Mt Wullersdorf Forest Reserve



**Pict. 1.5** Planted sapling by contractor workers in Kalumpang VJR 107D (Sapang FCS)



**Pict. 1.6** Cleared line during maintenance works in Kalumpang VJR 107D (Sapang FCS)





**Pict. 1.7** Plant Maintenance in Kalumpang VJR 107D (Sapang FCS)



**Pict. 1.8** New planted sapling growing successfully



**Pict. 1.9** Planting line in restoration area of Kalumpang VJR 107D (tip of Sapang)



**Pict. 1.10** Inspection by SFD staffs in restoration area of Kalumpang VJR 107D (tip of Sapang)



**Pict. 1.11** New sapling planted in restoration area of Kalumpang VJR 107D (tip of Sapang)



**Pict. 1.12** New sapling planted in restoration area of Kalumpang VJR 107D (tip of Sapang)



## 2. SILVICULTURE

A total of 1,428 Ha of silviculture treated area was achieved in 2018. Based on the AWP 2018, there were two areas had been selected to be silviculturally treated which are Ulu Kalumpang Forest Reserve for 779 Ha and Mt. Wullersdorf Forest Reserve with total area of 649 Ha. Specific treatment which focus on climbers cutting to release forest trees so that it will enhance tree growth in the selected areas. Silviculture works were carried-out by appointed company that is DISAMODRA ENTERPRISE.

Table 2.1: Silvicultural Treatment Area 2018

No	Area	Target (ha)	Actual (ha)	Achievement(%)	Contractor
1	Mt. Wullersdorf FR (Sri Kunak)	649	649	100%	DISAMODRA Enterprise
2	HS Ulu Kalumpang (Sg. Melati)	779	779	100%	DISAMODRA Enterprise
<b>Total</b>		<b>1,428</b>	<b>1,428</b>	<b>100%</b>	

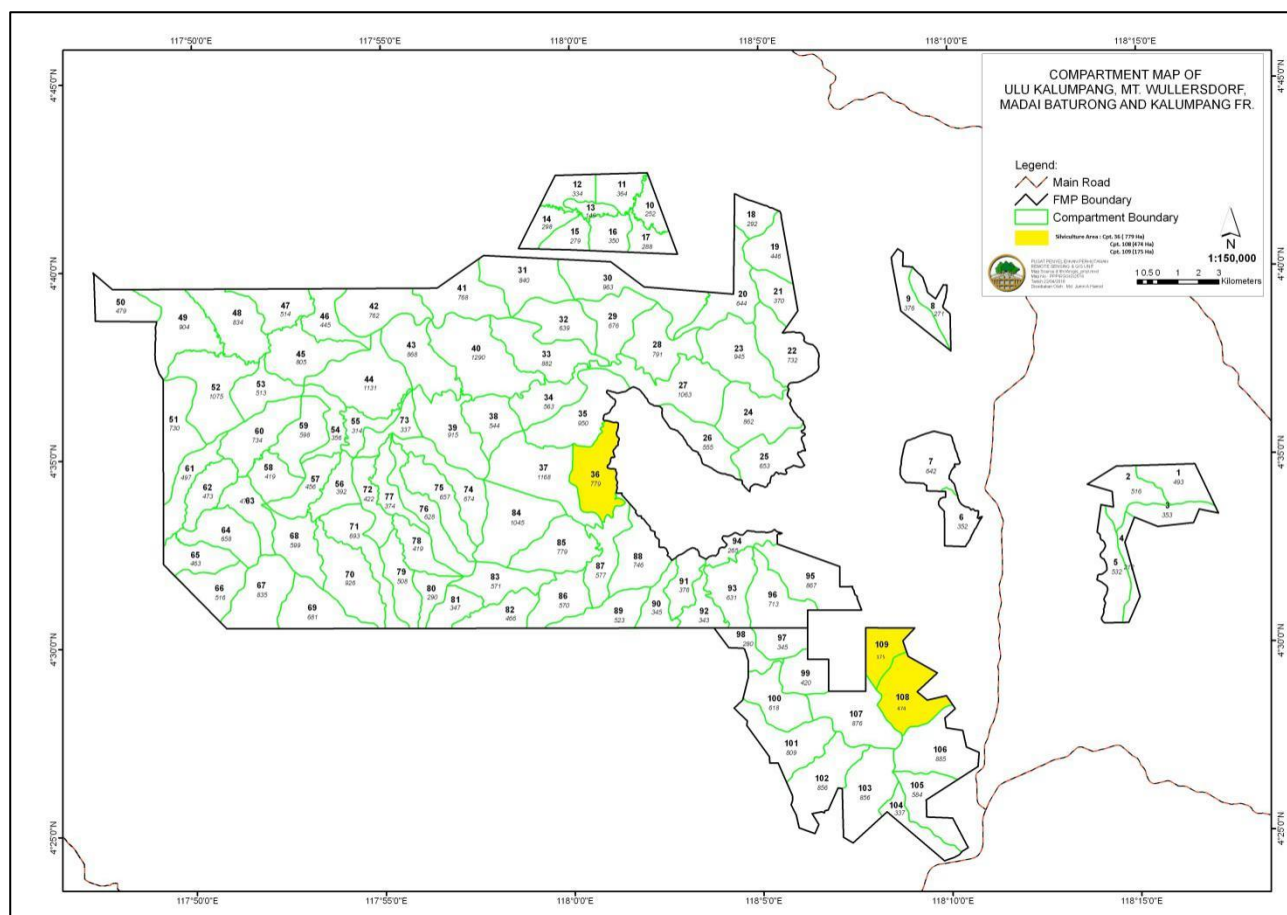


Pict. 2.1 & 2.2 Silviculture treatment area in Ulu Kalumpang FR and Mt. Wullersdorf FR by DISAMODRA ENTERPRISE



Pict. 2.3 & 2.4 Ground inspection for silvicultural works in Ulu Kalumpang FR and Mt. Wullersdorf FR





MAP 2.1 Silviculture treatment area in 2018

### 3. WILDLIFE MONITORING

Wildlife monitoring is one of the requirement to fulfill the FSC Principles & Criteria, under Principle 9: High Conservation Value. Main objective to identify wildlife species that can be found within Ulu Kalumpang-Wullersdorf Sustainable Forest Management (UKW-SFM) Project area by using three (03) methods as mentioned below:

1. Opportunistic Sighting
2. Camera trapping
3. Transect / Recce Walk

Data had been collected based on the monitoring activities and analyzed results as follows:

#### 3.1 OPPORTUNISTIC SIGHTING

No.	Species	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dic	Total	Percentage (%)
1	Borneo pygmy elephant	7	2	5	8	22	14.67
2	Pig tailed macaque	8	7	5	3	23	15.33
3	Long tailed macaque	5	8	9	9	31	20.67
4	Wild pig/bearded pig	3	6	2	3	14	9.33
5	Lesser mouse deer	2	1	1	2	6	4.00
6	Bornean gibbon	3	1	0	0	4	2.67
7	Banteng	2	1	0	0	3	2.00
8	Malay Civet	1	0	0	0	1	0.67
9	Crested Fireback	3	6	1	0	10	6.67
10	Bangkatan	1	1	0	0	2	1.33

11	Bornean yellow muntjac	1	3	0	0	<b>4</b>	2.67
12	Sarang Orang Utan	0	1	0	1	<b>2</b>	1.33
13	Greater Mouse Deer	2	0	0	0	<b>2</b>	1.33
14	Sambar Deer	3	3	2	3	<b>11</b>	7.33
15	Great Argus	3	1	0	0	<b>4</b>	2.67
16	Giant Squirrel	1	0	0	0	<b>1</b>	0.67
17	Leopard Cat	2	1	0	1	<b>4</b>	2.67
18	Common Palm Civet	1	0	1	1	<b>3</b>	2.00
19	Yellow Throated Marten	2	0	0	0	<b>2</b>	1.33
20.	Red Leaf Monkey	0	0	1	0	<b>1</b>	0.67
	<b>TOTAL</b>	<b>50</b>	<b>42</b>	<b>27</b>	<b>31</b>	<b>150</b>	<b>100</b>

Table 3.1.1 Shows Opportunistic Sighting data recorded from January 2018 until December 2018

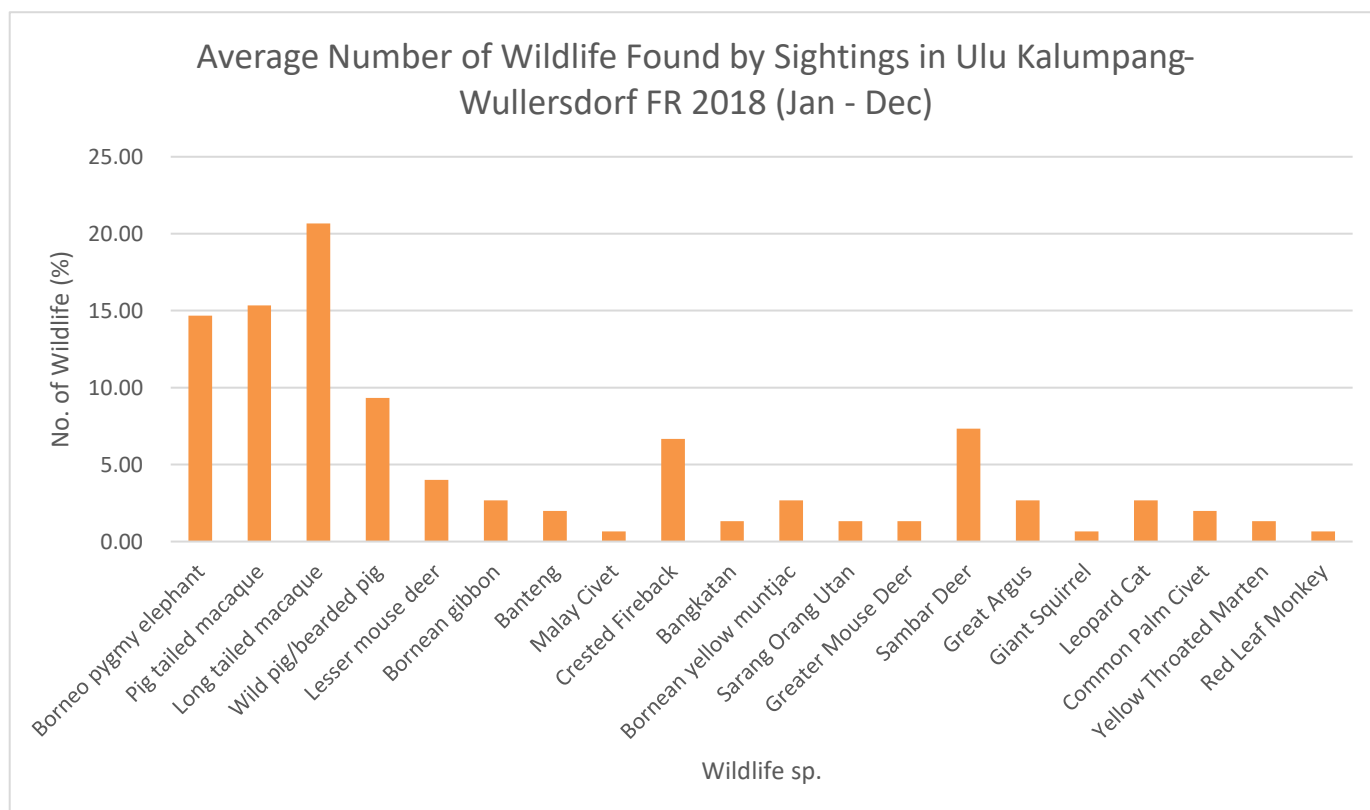


Figure 3.1.1 Graph shows Opportunistic Sighting data/results from January 2017 until December 2017

Graph above shows that Long-tailed Macaque species was the highest number of species seen compared to other wildlife species in forest reserve areas for the year 2018. A total of 60% of wildlife species had been categorised under IUCN Redlist including; Orang Utan (Nest) as Critically Endangered (CR), Borneo Pygmy Elephant (EN), Bornean Gibbon (EN), Banteng (EN), Bangkatan also known as Proboscis Monkey (EN), Pig-tailed Macaque (VU), Bearded Pig (VU), Sambar Deer (VU), Crested Fireback (NT), Bornean Yellow Muntjac (NT), Great Argus (NT) and Giant Squirrel (NT). These data was recorded during wildlife monitoring, patrolling and other activities within forest reserves area.

### 3.2 CAMERA TRAPPING

No.	Species	1 <sup>st</sup> Quarter (Jan-Mar)	2 <sup>nd</sup> Quarter (Apr-Jun)	3 <sup>rd</sup> Quarter (July-Sept)	4 <sup>th</sup> Quarter (Oct-Dec)	Total	Percentage (%)
01.	Pig-tailed Macaque	112	62	53	104	<b>331</b>	36.49
02.	Banteng	0	143	0	0	<b>143</b>	15.77
03.	Lesser Mouse Deer	40	18	8	4	<b>70</b>	7.72
04.	Wild/Bearded pig	8	44	71	15	<b>138</b>	15.21
05.	Sambar deer	1	23	18	9	<b>51</b>	5.62
06.	Long-tailed Macaque	3	6	5	18	<b>32</b>	3.53

07.	Crested Fireback	4	4	7	39	<b>54</b>	5.95
08.	Malay civet	3	3	0	6	<b>12</b>	1.32
09.	Common/Malayan porcupine	2	1	0	0	<b>3</b>	0.33
10.	Borneo Pygmy Elephant	2	0	0	10	<b>12</b>	1.32
11.	Bornean Red Muntjac	0	2	0	0	<b>2</b>	0.22
12.	Clouded leopard	0	2	0	0	<b>2</b>	0.22
13.	Sun Bear	0	2	2	0	<b>4</b>	0.44
14.	Greater Mouse Deer	0	0	18	7	<b>25</b>	2.76
15.	Bornean/ Thick-spined Porcupine	0	0	7	5	<b>12</b>	1.32
16.	Banded Civet	0	0	1	0	<b>1</b>	0.11
17.	Great Argus	0	0	4	2	<b>6</b>	0.66
18.	Bornean Yellow Muntjac	0	0	1	0	<b>1</b>	0.11
19.	Hairy-nosed Otter	0	0	0	1	<b>1</b>	0.11
20.	Slow Loris	0	0	0	1	<b>1</b>	0.11
21.	Long-tailed Porcupine	0	0	0	5	<b>5</b>	0.55
22.	Leopard Cat	0	0	0	1	<b>1</b>	0.11
	<b>TOTAL</b>	<b>175</b>	<b>310</b>	<b>195</b>	<b>227</b>	<b>907</b>	<b>100</b>

Table 3.2.1 Camera traps data collected from January 2018 until December 2018

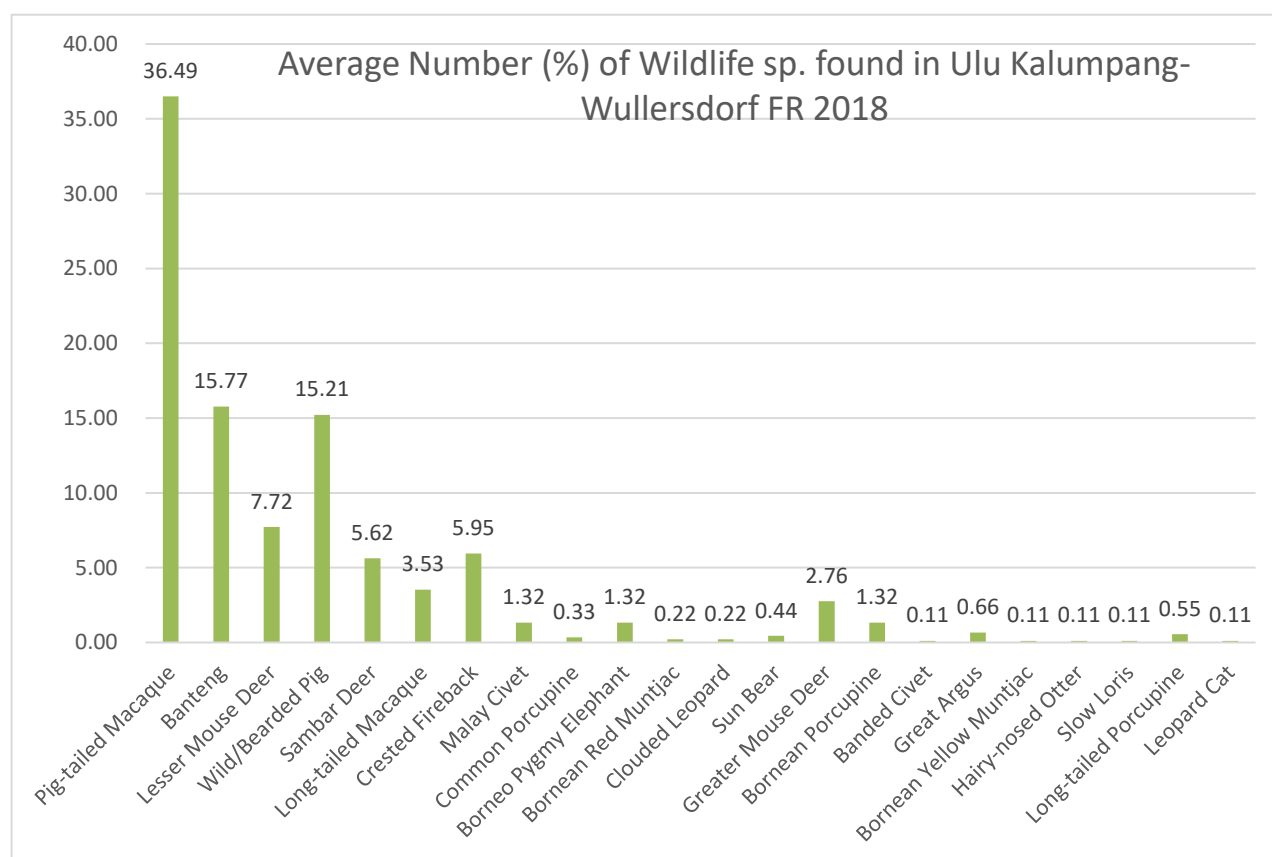


Figure 3.2.1 Graph show Camera trap data Assessment/Result from January 2018 until December 2018

Graph 1 above, the data shows that Pig-tailed Macaque has the highest number of presence collected from January until December of 2018 and followed by Banteng within Ulu Kalumpang-Wullersdorf Forest Reserve area. 59% of wildlife species had been categorised under IUCN Red List including; Banteng (EN), Borneo Pygmy Elephant (EN), Clouded Leopard (EN), Hairy-nosed Otter (EN), Pig-tailed Macaque (VU), Wild/Bearded Pig (VU), Sambar Deer (VU), Sun Bear (VU), Slow Loris (VU), Crested Fireback (NT), Banded Civet (NT), Great Argus (NT), and Bornean Yellow Muntjac (NT). There were three (03) camera traps used for data collection within UKW-SFM Project Area.

### 3.3 TRANSECT/RECCE WALK



There are four (04) permanent transect line based on each forest reserve in Ulu Kalumpang-Wullersdorf SFM Project area (Ulu Kalumpang Forest Reserve, Wullersdorf Forest Reserve, Kalumpang Forest Reserve and Madai Baturong Forest Reserve) for data collection by identifying wildlife trace including footprints, sound, direct sightings and scratching marks.

Ulu Kalumpang Forest Reserve

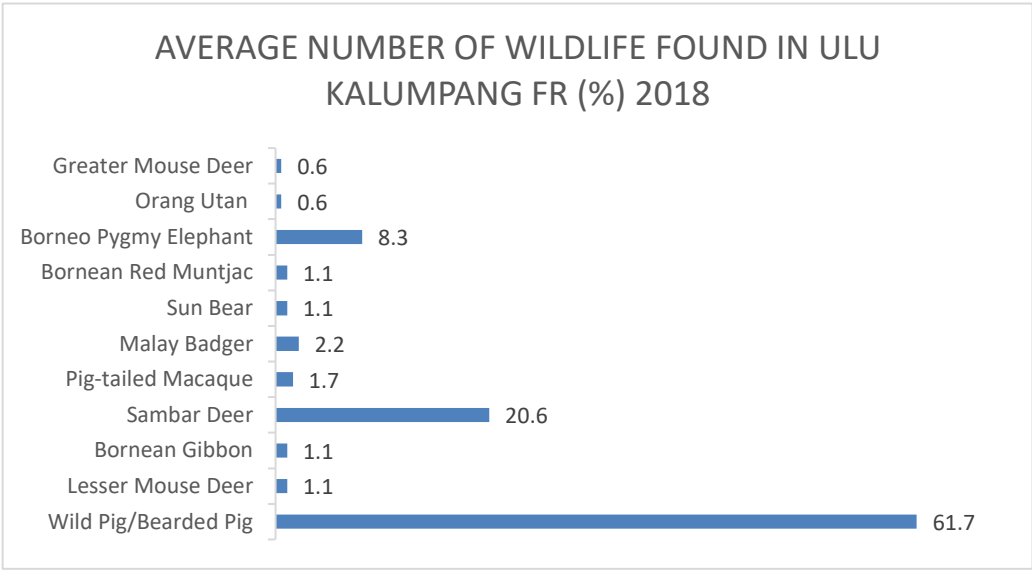


Figure 3.3.1 Chart shown Wildlife Index percentage recorded through “Recce Walk” in Ulu Kalumpang FR for year of 2018 (Jan-Dec)

Figure above shows wildlife index percentage for average number of wildlife found in Ulu Kalumpang Forest Reserve were recorded for the year 2018 (January-December). The most active wildlife species that found in that period recorded is Wild/Bearded Pig (*Sus barbatus*) where the index of percentage is 61.7%. Based on the figure shown, 63.6% species founded within Ulu Kalumpang Forest Reserve area were categorised under IUCN Red List including; Bornean Orangutan (CR), Bornean Gibbon (EN), Borneo Pygmy Elephant (EN), Wild/Bearded Pig (VU), Sambar Deer (VU), Pig-tailed Macaque (VU) and Sun Bear (VU).

Mt. Wullersdorf Forest Reserve

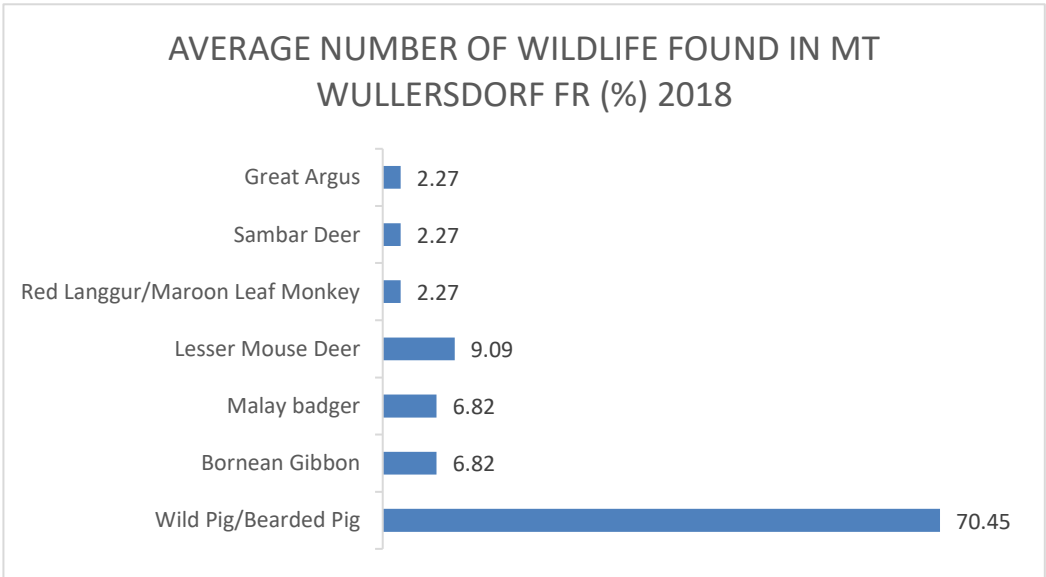


Figure 3.3.2. Wildlife Index percentage recorded through “Recce Walk” in Mt. Wullersdorf FR for year 2018(Jan-Dec)

Figure above shows wildlife index percentage for average number of wildlife found in Mt. Wullersdorf Forest Reserve were recorded for the total of year 2018 (January-December). The most active wildlife species that found in that period recorded is Wild Pig/Bearded Pig (*Sus barbatus*) where the index of percentage is 70.45% compared to other species in the forest reserve area.



Based on the figure shown above, 57.1% species founded within Mt. Wullersdorf Forest Reserve area were categorised under IUCN Red List including; Bornean Gibbon (EN), Bearded Pig (VU), Sambar Deer (VU) and Great Argus (NT).

**Kalumpang VJR107D Forest Reserve**

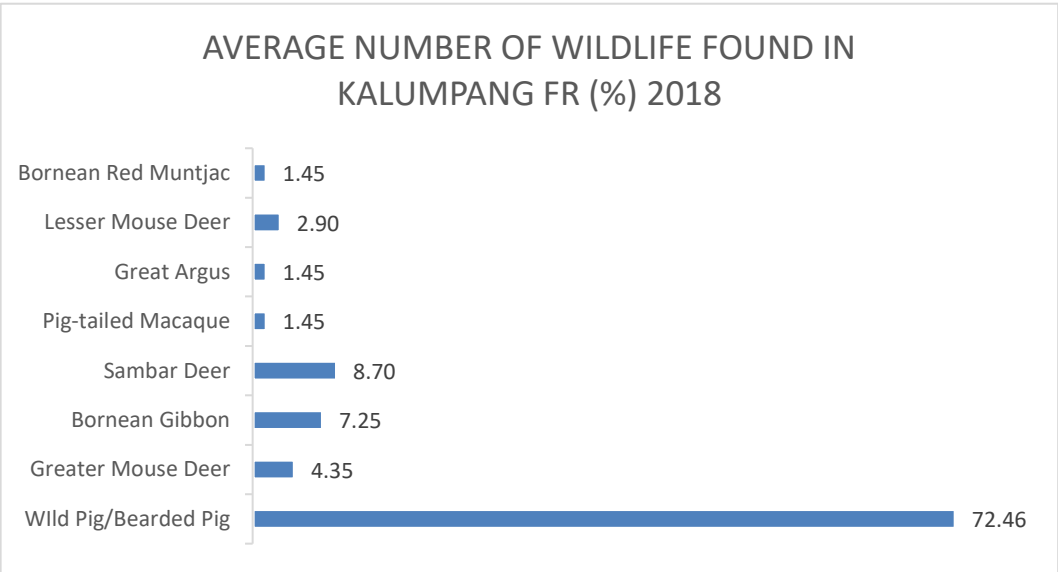


Figure 3.3.3 Wildlife Index percentage recorded through “Recce Walk” in Kalumpang VJR107 FR for year 2018 (Jan-Dec)

Figure above shows wildlife index percentage for average number of wildlife found in Kalumpang VJR107D Forest Reserve were recorded for total of the year 2018 (January-December). The most active wildlife species that found in that period recorded is Bearded Pig (*Sus barbatus*) where the index of percentage is 72.46% which is higher compare to other species in the forest reserve area.

Based on the figure above, 62.5% species founded within Kalumpang Forest Reserve area were categorised under IUCN Red List including; Bornean Gibbon (EN), Pig-tailed Macaque (VU), Bearded Pig (VU), Sambar Deer (VU) and Great Argus (NT).

**Madai Baturong VJR107F (Binuang) Forest Reserve**

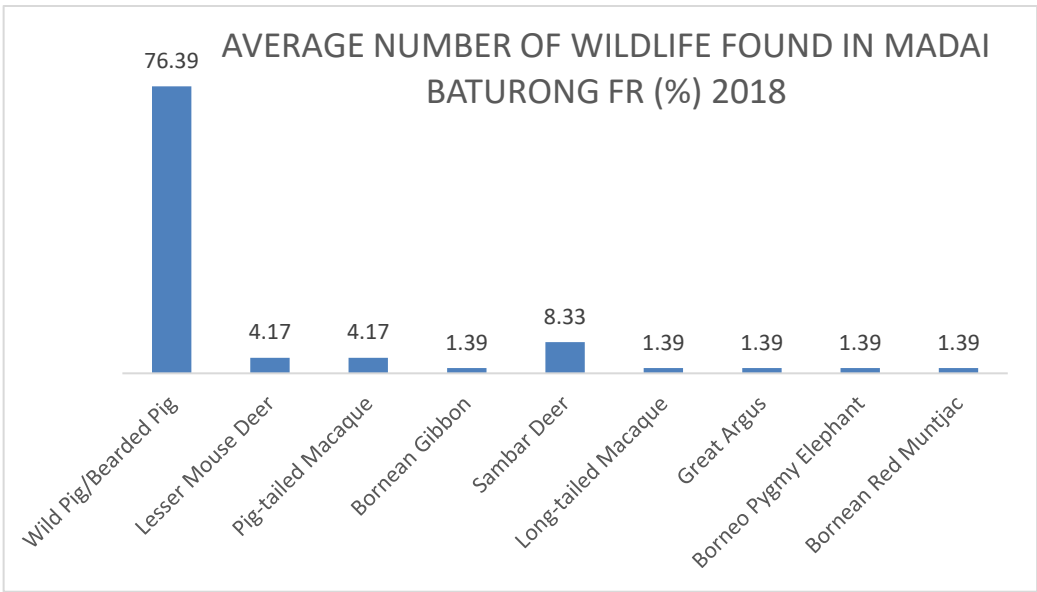


Figure 3.3.4 Wildlife Index percentage recorded through “Recce Walk” in Madai Baturong FR for the year 2018 (Jan-Dec)

Figure above shows wildlife index percentage for average number of wildlife found in Madai Baturong VJR107F (Binuang) Forest Reserve were recorded for total of the year 2018 (January-December). The most active wildlife species that found in that period recorded is Bearded Pig (*Sus barbatus*) where the index of percentage is 76.39% which is higher compare to other species in the forest reserve area.



Based on the figure above, 66.7% species founded within Madai Baturong Forest Reserve area were categorised under IUCN Red List including; Bornean Gibbon (EN), Borneo Pygmy Elephant (EN), Bearded Pig (VU), Pig-tailed Macaque (VU), Sambar Deer (VU) and Great Argus (NT).





Pict 3.1 Banteng(*Bos javanicus*)



Pict 3.2 Sun Bear (*Helarctos malayanus*)



Pict 3.3 Lesser Mouse Deer (*Tragulus javanicus*)



Pict 3.4 Great Argus (*Argusianus argus*)



Pict 3.5 Clouded Leopard (*Neofelis diardi*)



Pict 3.6 Pig-tailed Macaque (*Macaca nemestrina*)

## 4. PROTECTION

Patrolling routine were conducted periodically based on the arranged schedule. Ground patrolling involved all field staff from every Forest Checking Station (FCS). There are five Forest Checking Station (FCS) within Ulu Kalumpang-Wullersdorf Sustainable Forest Management (UKW-SFM) Project area with total of two to three members for every FCS. Ground patrolling is important to protect forest reserve areas from forest crime and early prevention to avoid forest fire by monitoring the boundary between stakeholders and forest reserves, night patrols and roadblocks. Aerial surveillance was also conducted within forest reserves especially in area where hardly to access by vehicle to ensure there is no illegal logging/encroachment occur.

Based on the patrolling records from January 2018 until December 2018, there was one case involving illegal cutting of bamboo trees from Ulu Kalumpang Forest Reserve and one case on forest encroachment by converting small area of forest into banana farm. Traces of Poachers was also found during patrolling but there were no arrests being made. Operation (OPS) had been conducted several times on poaching and successfully found one 4x4 vehicle that were left within forest reserve suspected of belonging to poachers and was used as mode of transportation.

Type of Crime	Month/No. Of Crime Detected including Attempt												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Okt	Nov	Dec	Total
Illegal Logging/Forest Product	1	0	0	0	0	0	0	0	0	0	0	0	1
Forest Encroachment	0	1	0	0	0	0	0	0	0	0	0	0	1
Poaching	2	1	2	0	0	0	0	0	0	1	0	0	6

Table 4.1. Number of forest crimes (including attempts) detected within UKW-SFM Project area in 2018

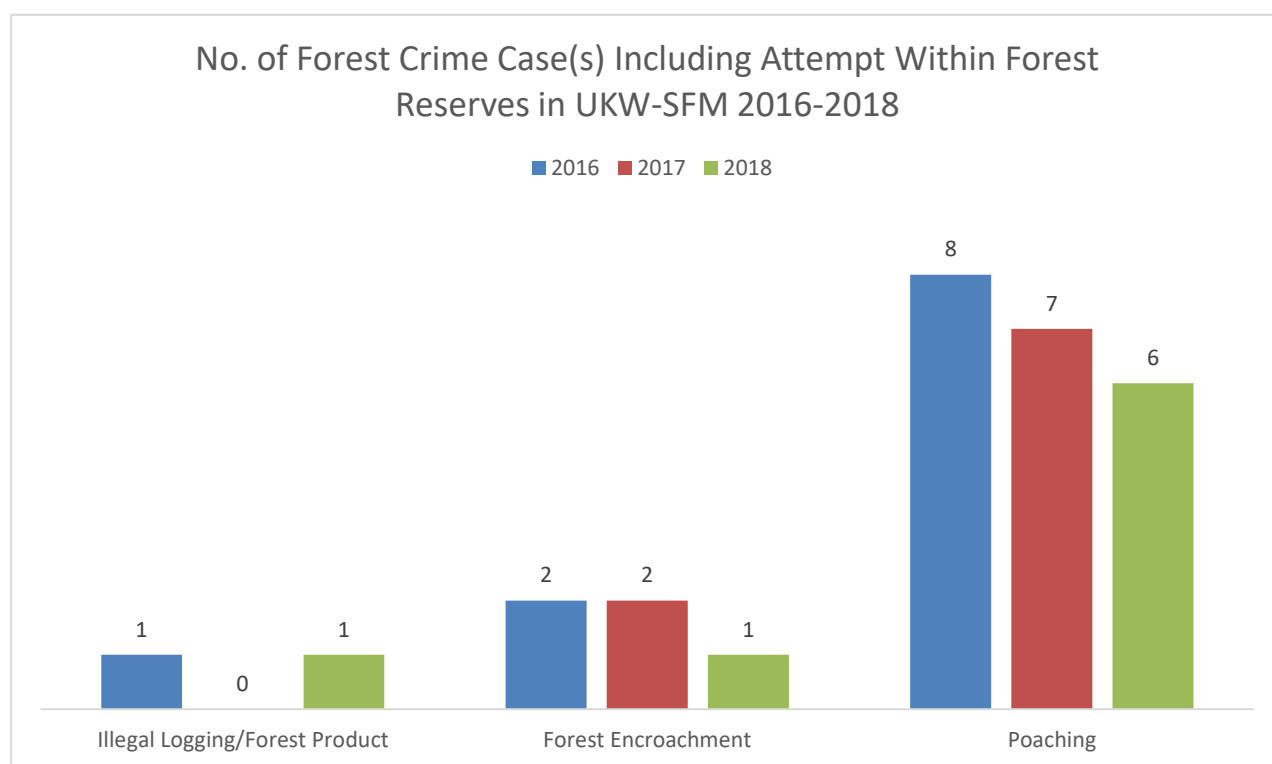


Figure 4.1 shows number of forest crime including attempt within UKW-SFM Project area since 2016 until 2018





Pict 4.1 shows signboard installing during patrolling



Pict 4.2 forest reserve boundary survey



Pict 4.3 aerial surveillance



Pict 4.4 OPS (anti-poaching operation with other district/MCEE Tawau)



## 5. FOREST CERTIFICATION

Ulu Kalumpang-Wullersdorf Sustainable Forest Management (UKW-SFM) Project area had been certified under FSC Certification since 16 May 2017 and have gone through surveillance evaluation every year to maintain the certificate during these 5 years period. The 2<sup>nd</sup> Surveillance Evaluation had been held in 03.09.2018 until 07.09.2018 lead by Dr. S.K. Yap from SCS Global Services. Based on the field inspection and documentation review, there were five Corrective Action Requests (CARs) consists of four Minor and one Observation received for UKW-SFM Project area and to be close during incoming 3<sup>rd</sup> Surveillance Evaluation in 2019.



Pict 5.1 Dr. S.K.Yap visit to FCS Landau during evaluation



Pict 5.2 Meeting with Kg. Airport community



Pict 5.3 documentation review and interview with SFD staffs



Pict 5.4 field inspection

## 6. FOREST ROAD

Road maintenance in UKW-SFM Project area for 2018 mainly focused on Forest Checking Station (FCS) road access area. There were two projects on road maintenance had been done that is both in Ulu Kalumpang Forest Reserve that is for Landau FCS and Sg. Mantri FCS. Road maintenance works was done by the appointed contractor from quotation. The achievement of the road maintenance works as follows:



No	Location	Target (km)	Achievement (km)
1	HS Ulu Kalumpang (Landau FCS)	2	2
2	HS Ulu Kalumpang (Sg. Mantri FCS)	2	2

Table 6.1 Maintenance of forest roads in 2018



Pict 6.1 road maintenance work by appointed contractor (Landau FCS)



Pict 6.2 road access to Landau FCS after road maintenance done



Pict 6.3 road maintenance work by appointed contractor (Sg. Mantri FCS)



Pict 6.4 road access to Sg. Mantri FCS after maintenance works done

## 7. TRAINING

Related training had been conducted for staffs both internally and externally with cooperation from other agencies/NGOs involved such as WWF Malaysia. Frequency of specific training depending on the current needs for staff's advancement both on the ground skills and documentation/general knowledge focusing on the UKW-SFM Project. In 2018, there are few training had been conducted and some of the training had also involved neighbouring stakeholders and communities within UKW-SFM Project area including; International Binding Agreement Training (with SFM NGR), Stakeholder Consultation, Wildlife and HCV Training (with WWF Malaysia, SFM NGR, SFM USM, SFM PINTAR),



Fire Drill Training (internal only) and etc. These training are important to expose the involved participants on UKW-SFM Project activities, gaining new knowledge and exchange information between both parties (SFD and other agencies/stakeholders/communities).



Pict 7.1 Stakeholder Consultation participants



Pict 7.2 Q&A Session during Stakeholder Consultation



Pict 7.3 Talk session in Wildlife and HCV Training



Pict 7.4 Presentation by participant of Wildlife and HCV Training



Pict 7.5 Briefing session in Fire Drill Training



Pict 7.6 Practical on fire extinguisher usage during training