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SURVEY BY RECCE WALK/TRANSECT LINE 2018 (JAN-DEC)

Recce walk/transect line is one of the method used by wildlife survey team for wildlife monitoring activities. 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.

1. ULU KALUMPANG FOREST RESERVE

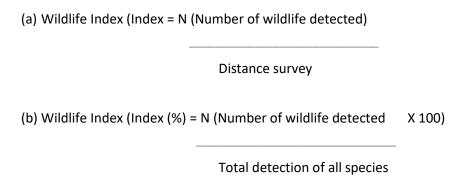
NO.	SPECIES	SCIENTIFIC NAME	QUARTER 1 (JAN-MARCH) 2018	QUARTER 2 (APR-JUNE) 2018	QUARTER 3 (JULY-SEPT) 2018	QUARTER 4 (OCT-DEC) 2018	SUB TOTAL (N)	TOTAL TRANSECT DISTANCE SURVEY FOR YEAR 2018	Index = N/DISTANCE	INDEX (%) = N/TOTAL DETECTION OF ALL SPECIES
1	Wild Pig/Bearded Pig	Sus barbatus	12	12	38	49	111	8	13.88	61.7
2	Lesser Mouse Deer	Tragulus javanicus	1	0	0	1	2	8	0.25	1.1
3	Bornean Gibbon	Hylobates muelleri	1	0	0	1	2	8	0.25	1.1
4	Sambar Deer	Cervus unicolor	2	3	20	12	37	8	4.63	20.6
5	Pig-tailed Macaque	Macaca nemestrina	2	1	0	0	3	8	0.38	1.7
6	Malay Badger	Mydaus javanensis	1	2	0	1	4	8	0.50	2.2
7	Sun Bear	Helarctos	0	2	0	0	2	8	0.25	1.1

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8	Bornean Red Muntjac	Muntiacus muntjak	0	0	2	0	2	8	0.25	1.1
9	Borneo Pygmy Elephant	Elephas maximus	0	0	6	9	15	8	1.88	8.3
10	Bornean Orangutan	Pongo pygmaeus	0	0	1	0	1	8	0.13	0.6
11	Greater Mouse Deer	Tragulus napu	0	0	0	1	1	8	0.13	0.6
		TOTAL	19	20	67	74	180	8	20.13	100.0

Table 1. Wildlife index percentages recorded through "Recce Walk" research method in Ulu Kalumpang FR for the year of 2018 (Jan-Dec)

Table 1. shows frequency number of wildlife recorded in Ulu Kalumpang Forest Reserve area from January - December 2018 where total of wildlife founded was 180. Summary of the analysis survey data as follows:



In the calculation, distance survey used for the year of 2018 (January-Dec) is 8km while the total detection of all species is 180.

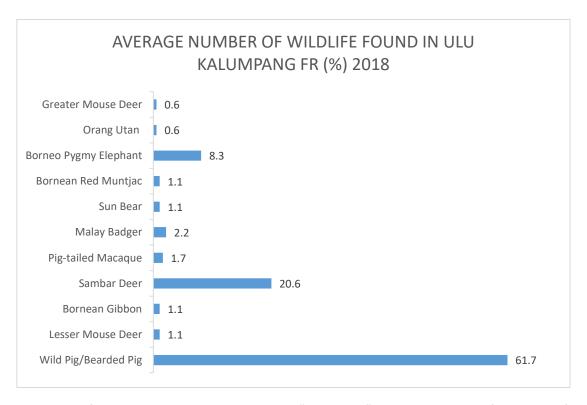


Figure 1. Chart shown Wildlife Index percentage recorded through "Recce Walk" in Ulu Kalumpang FR for the year of 2018 (Jan-Dec)

Figure 1. 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).

2. MT. WULLERSDORF FOREST RESERVE

NO.	SPECIES	SCIENTIFIC NAME	QUARTER 1 (JAN-MARCH) 2018	QUARTER 2 (APR-JUNE) 2018	QUARTER 3 (JULY-SEPT) 2018	QUARTER 4 (OCT-DEC) 2018	SUB TOTAL (N)	TOTAL TRANSECT DISTANCE SURVEY FOR YEAR 2018	Index = N/DISTANCE	INDEX (%) = N/TOTAL DETECTION OF ALL SPECIES
01.	Wild Pig/Bearded Pig	Sus barbatus	8	9	7	7	31	8	3.88	70.45
02.	Bornean Gibbon	Hylobates muelleri	1	1	1	0	3	8	0.38	6.82
03.	Malay badger	Mydaus javanensis	1	1	1	0	3	8	0.38	6.82
04.	Lesser Mouse Deer	Tragulus javanicus	0	0	1	3	4	8	0.50	9.09
05.	Red Langgur/Marron Leaf Monkey	Presbytis rubicunda	0	0	1	0	1	8	0.13	2.27
06.	Sambar Deer	Cervus unicolor	0	0	0	1	1	8	0.13	2.27
07.	Great Argus	Argusianus argus	0	0	0	1	1	8	0.13	2.27
	I	TOTAL:	10	11	11	12	44	8	5.5	100

Table 2. Wildlife index percentages recorded through "Recce Walk" research method in Mt. Wullersdorf FR for the year of 2018(Jan-Dec)

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Table 2. shows frequency number of wildlife recorded in Mt. Wullersdorf Forest Reserve area from January - December 2018 where total of wildlife founded was 44. Summary of the analysis from our survey data as follows:

In the calculation, distance survey used for the year 2018 (January-December) is 8km while the total detection of all species is 44.

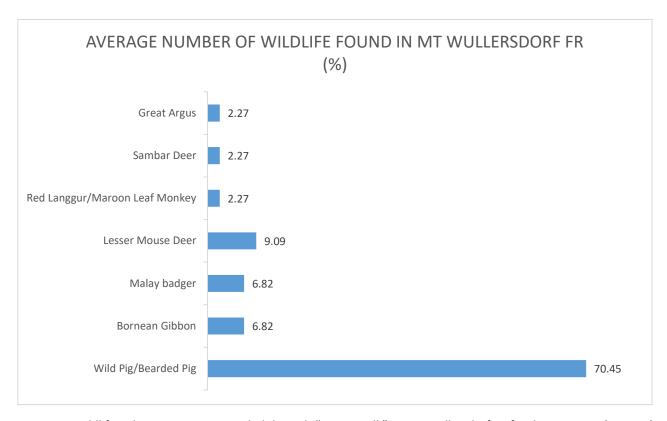


Figure 2. Wildlife Index percentage recorded through "Recce Walk" in Mt. Wullersdorf FR for the year 2018(Jan-Dec)

Figure 2. 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).

3. KALUMPANG VJR107D FOREST RESERVE

NO.	SPECIES	SCIENTIFIC NAME	QUARTER 1 (JAN-MARCH) 2018	QUARTER 2 (APR-JUNE) 2018	QUARTER 3 (JULY-SEPT) 2018	QUARTER 4 (OCT-DEC) 2018	SUB TOTAL (N)	TOTAL TRANSECT DISTANCE SURVEY FOR YEAR 2018	Index = N/DISTANCE	INDEX (%) = N/TOTAL DETECTION OF ALL SPECIES
01.	WIId Pig/Bearded Pig	Sus barbatus	14	13	13	10	50	8	6.25	72.46
02.	Greater Mouse Deer	Tragulus napu	1	0	1	1	3	8	0.38	4.35
03.	Bornean Gibbon	Hylobates muelleri	2	1	1	1	5	8	0.63	7.25
04.	Sambar Deer	Cervus unicolor	1	2	2	1	6	8	0.75	8.70
05.	Pig-tailed Macaque	Macaca nemestrina	0	1	0	0	1	8	0.13	1.45
06.	Great Argus	Argusianus argus	0	1	0	0	1	8	0.13	1.45
07.	Lesser Mouse Deer	Cervus unicolor	0	0	0	2	2	8	0.25	2.90
08.	Bornean Red Muntjac	Muntiacus muntjak	0	0	0	1	1	8	0.13	1.45
	,	TOTAL:	18	18	17	16	69	8	8.25	100

Table 3. Wildlife index percentages recorded through "Recce Walk" research method in Kalumpang VJR107D FR for the year of 2018(Jan-Dec)

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Table 3. shows frequency number of wildlife recorded in Kalumpang VJR107 Forest Reserve area from January - December 2018 where total of wildlife founded 69. Summary of the analysis from survey data as follows:

In the calculation, distance survey used for the year of 2018 (January-December) is 8km while the total detection of all species is 69.

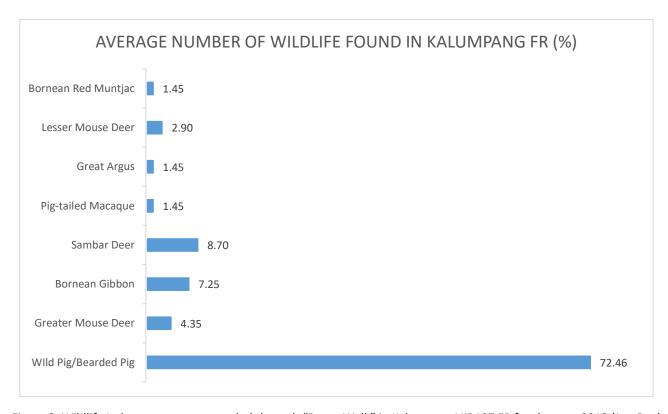


Figure 3. Wildlife Index percentage recorded through "Recce Walk" in Kalumpang VJR107 FR for the year 2018 (Jan-Dec)

Figure 3. 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).

4. MADAI BATURONG VJR107F (BINUANG) FOREST RESERVE

NO.	SPECIES	SCIENTIFIC NAME	QUARTER 1 (JAN-MARCH) 2018	QUARTER 2 (APR-JUNE) 2018	QUARTER 3 (JULY-SEPT) 2018	QUARTER 4 (OCT-DEC) 2018	SUB TOTAL	TOTAL TRANSECT DISTANCE SURVEY FOR YEAR 2018	Index = N/DISTANCE	INDEX (%) = N/TOTAL DETECTION OF ALL SPECIES
01.	Wild Pig/Bearded Pig	Sus barbatus	19	14	12	10	55	8	6.875	76.39
02.	Lesser Mouse Deer	Tragulus kanchil	1	1	0	1	3	8	0.375	4.17
03.	Pig-tailed Macaque	Macaca nemestrina	2	1	0	0	3	8	0.375	4.17
04.	Bornean Gibbon	Hylobates muelleri	0	1	0	0	1	8	0.125	1.39
05.	Sambar Deer	Cervus unicolor	0	2	2	2	6	8	0.75	8.33
06.	Long-tailed Macaque	Macaca fascicularis	0	1	0	0	1	8	0.125	1.39
07.	Great Argus	Argusianus argus	0	1	0	0	1	8	0.125	1.39
08.	Borneo Pygmy Elephant	Elephas maximus	0	0	1	0	1	8	0.125	1.39
09.	Bornean Red Muntjac	Muntiacus muntjak	0	0	0	1	1	8	0.125	1.39
	'	TOTAL:	22	21	15	14	72	8	8.75	100.00

Table 4. Wildlife index percentages recorded through "Recce Walk" research method in Madai Baturong FR for the year of 2018 (Jan-Dec)

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Table 4. shows frequency number of wildlife recorded in Madai Baturong VJR107F (Binuang) Forest Reserve area from January - December 2018 where total of wildlife founded 72. Summary of the analysis from our survey data as follows:

a)	Wildlife Index (Index = N (Number of wildlife detected)	
	Distance survey	
b) '	Wildlife Index (Index (%) = N (Number of wildlife detected	X 100)
	Total detection of all species	

In the calculation, distance survey used for the year of 2018 (January-December) is 8km while the total detection of all species is 72.

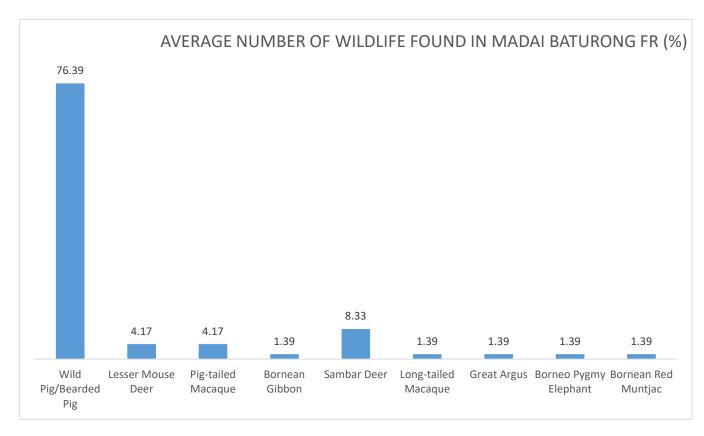


Figure 4. Wildlife Index percentage recorded through "Recce Walk" in Madai Baturong FR for the year 2018 (Jan-Dec)

Figure 4. 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.

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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).