

Summary Analysis of High Conservation Value in Entulu – Melatai FMU ((Jan-Dec 2024)

High Conservation Value (HCV)	Findings	
<p>HCV 1: Forest areas containing globally, nationally and regionally significant concentrations of biodiversity values (e.g. endemism, endangered species).</p>	Present	
<p>HCV 1.1: Protected areas Notes: This FMU is Classified as Protected Forest. There is no Totally Protected Area (TPA) inside the FMU.</p>		Not Present
<p>HCV 1.2: Rare, Threatened and Endangered Species Notes: Two target species identified as: i. Hornbills ii. Rajah Brooke’s Birdwings Butterfly iii. Sun bear iv. Pig-tailed macaque v. Bornean gibbon (<i>Empelium</i>)</p>	Present	
<p>HCV 1.3: Endemic Species Notes: One endemic species of Nepenthes, <i>periuk kera</i> and white orchids found in this FMU area particularly at peak hill area.</p>	Present	
<p>HCV 1.4: Critical Temporal use Notes: 1 new Saltlick/<i>Apan</i> was identified in Coupe 03A with GPS point as Latitude N01°25’ 22.8” and Longitude E113°31’ 18.0” in coupe 03A. Elevation of 1869 feet provides maintain significant temporal concentrations of species and is important to wildlife for feeding, nesting, roosting and migration purposes.</p>	Present	
<p>HCV 2: Forest areas containing regionally significant large landscape level forests contained within or containing the management unit where viable populations of most if not all naturally occur species exist in natural pattern of distribution and abundance. Notes: There is detection of abundance naturally hill MDF forests mainly in Terrain IV areas, buffer zone occurring species exist in natural pattern in Entulu - Melatai FMU.</p>	Present	
<p>HCV 3: Forest areas that are in or contain rare, threatened or endangered ecosystem. Notes: The re-entry hill mixed dipterocarp forest is to cover the vegetation’s growth is gaining momentum; thus the ecosystem is believed not endangered.</p>		Not Present

High Conservation Value (HCV)	Findings	
HCV 4: Forest areas that provide basic services of nature in critical conditions (e.g. watershed protection, erosion control).		
HCV 4.1: Forest Critical to water Catchments/Watershed Protection and Representative of Eco-system - Ecology Plot in Block 2 of Coupe 3A. Notes: One of the water catchment areas is outside the FMU area but inside licensed area and one within FMU area (Coupe 02A).	Present	
HCV 4.2: Forest critical to Erosion Control Notes: Risk of severe erosion is not likely as the FMU area is under Protected Forest and only control activities are to be implemented.	Present	
HCV 4.3: Forest areas Barriers to Destructive Fires. Notes: The FMU contains forest types that provide barriers to destructive fires.	Present	
HCV 5: Forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health, well-being etc). Notes: The social baseline study indicated that there are no settlements at adjacent/within to the protected forest sourcing the water intake by gravity feed from the protected forest. The finding also noted that there is no detection of settlements/longhouses within the protected forest. The only illegal activities are encroachment of shifting agriculture (if any) in the protected forest. According to the directive from Director of Forest, they can stay but no new opening allowed without consent from Forest Department Sarawak.	Present	

Management Approach and Monitoring Activities of Identified HCVF

As a standard concept, management activities in high conservation value forest shall maintain or enhance the attributes which define such forest. Decision regarding the high conservation value forest shall always be considered in the context of precautionary approach.

Since the whole area of the FMU is classified as protected forest for FMU and considered equivalent as high conservation value forest, only limited non-conservation usages, namely non-commercial flora and fauna collection, forest restoration and conservation of specific targets in the management zones were allowed. Therefore, the FMU is guided by the approved/revised conservation area in the management as in general harvesting plan (GP) and detailed harvesting plan (DP) besides the relevant SOPs, forest policies and DF Circulars in managing and monitoring the whole area inclusive the decided high conservation value forest set aside. Thus, whatever actions or strategies in the FMU area related with monitoring programme on the limited activities as summarized of which also incorporated in the revised conservation area in the general harvesting plan (GP) are also applicable in the HCVF.

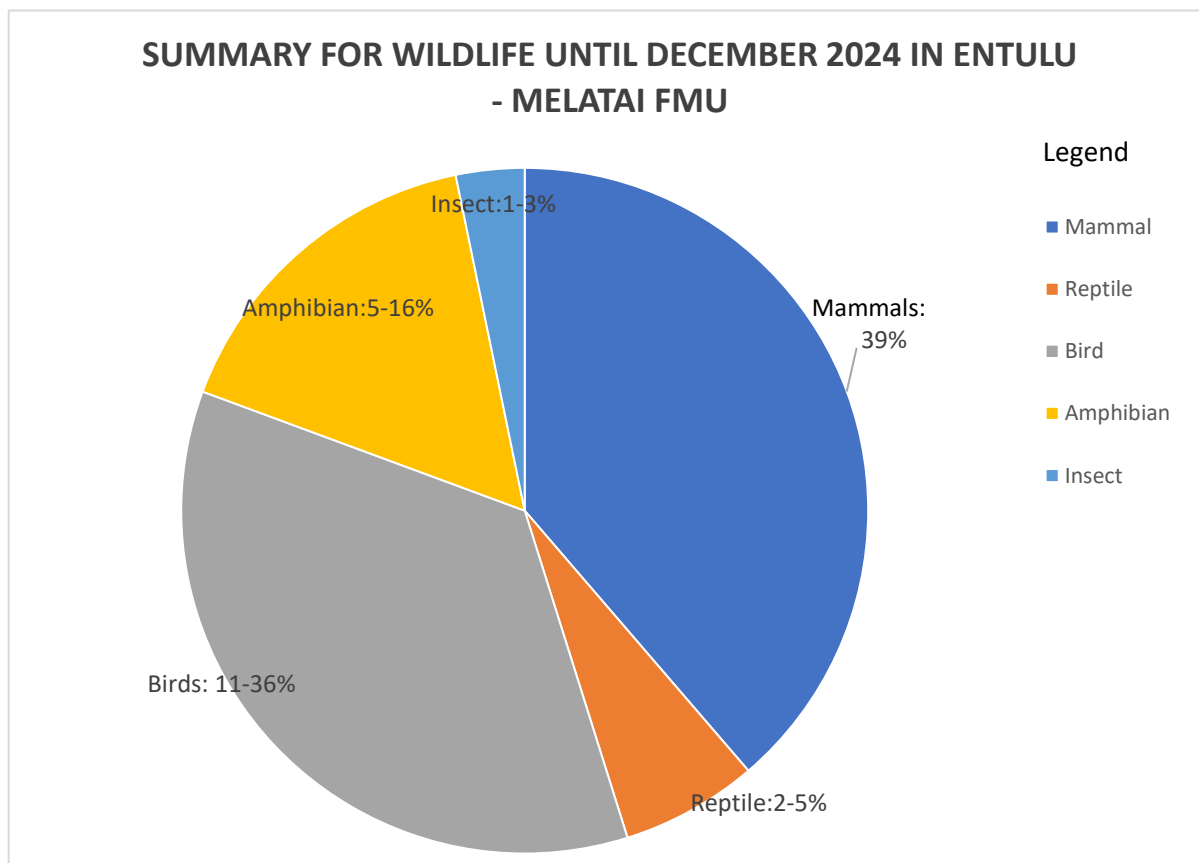
Summary of Monitoring Activities for HCVF Conservation Areas:

ITEM	TARGETS	INDICATOR	METHODOLOGY	FREQUENCY	RESPONSIBILITY
1	Saltlicks/Apan	Area of re-entry hill forest	Field survey	After each survey	THWR & surveyors
2	Terrain IV	Areas are not enlarged	Field survey	After each monitoring/patrolling survey	THWR & surveyors
3	Kerangas	Controlled Area	Field survey	After each monitoring/patrolling survey	THWR & surveyors
4	Silviculture Treatment	Replanting areas	Field survey	After each survey for post-harvesting	THWR & surveyors
5	Permanent Sample Plots(research purposes)	Growth and yield plots	Field survey	4/5 years or before next revised FMP	THWR & surveyors
6	Stream Buffer Zones	Demarcated forest boundaries are not encroached	Field survey	After each survey	THWR & surveyors
7	Hornbills	Population density/Species distributions of Hornbills	Plots and population survey	After each survey	THWR & surveyors
8	Rajah Brooke's Birdwing	Population density: Distribution and occurrence	Inspection and observation on fixed plots/transects	After each survey	THWR & surveyors

The summary of wildlife's recorded by animals' classification (Coupe 1A, 2A & 3A) in Year 2024 (January – December) as follows:-

No.	Mammal	Reptile	Bird	Insect	Amphibian
01	Barking deer	Monitor lizard	Common emerald dove	Rajah brooke's bridwing	Blyth's river frog
02	Malayan civet	Red-tailed green ratsnake	Oriental magpie robin		Common green frog
03	Pig-tailed macaque		Crested serpent eagle		Cascades frog
04	Bornean white-bearded gibbon		Bushy crested hornbill		Rana nigromaculata
05	Long-tailed macaque		Rhinoceros hornbill		Long nosed horned frog
06	Tufted ground squirrel		Pale blue flycatcher		
07	Malayan porcupine		Greater coucals		
08	Sun bear		Eurasian tree sparrow		
09	Brown rat		Chestnut-naped forktailed		
10	Eurasian otter		Flat-billed kingfisher		
11	Sambar deer		Argus pheasant		
12	Bornean bearded pig				
Total	12	2	11	1	5

Summary of Wildlife Patrolling and Monitoring Results as depicted in Pie-Chart for Year 2024 (January – December) as follows;



Wildlife’s Assessment Analysis based on the wildlife’s report of Year 2024:

It might be noted that:

- 1.) The FMU area had generally been a very minimum disturbance by reduced impact logging (RIL) system prior to the issue of the forest timber licence under reduced impact logging system.
- 2.) No further salvage logging harvesting took place prior to the release of coupes 1A, 2A and 3A with Operation 5 (Felling permit).
- 3.) The FMU has been in continuous timber harvesting operation for 4-5 years (As from 2020 to 2024).
- 4.) Hunting activities by the FMU forest workers/employees and contractors are prohibited and there is not much interest shown by locals in hunting and fishing for their own consumption within the FMU area because of far distance from their residential area.
- 5.) The conservation area covering an area of 7,486 ha in the forested FMU is designated as management protected/conservation zone. This means that there is already a very large forested area under protection and,

The first four points above are without doubt, 'conservational negatives' but it is quite clear from the EIA and the HCV report that, despite these negatives, an interesting degree of biological diversity has been maintained.

The fifth point is that the conservation area with (7,486 ha) of the FMU area was under management protected/conservation zone status and is therefore already protected from invasive human activity. This will surely lead to the existing diversity, already quite considerable, being quantitatively and qualitatively further enhanced over time.

The FMU wildlife's monitoring report of Year 2024 (January – December) shown that:

For **HCV 1 and 2:** the FMU area has covering some HCV attributes, e.g. the existence of RTE species and species endemic to Borneo. However, when the qualitative and quantitative aspects of these attributes are viewed in the context of relevance either to national and Sarawak State needs or to the FMU, there is no justification for

elevating any FMU forest conservation areas from the current protected status, HCV status under either HCV 1 or HCV 2 classification. This point is reinforced by the management protected zone providing an equal level of protection for mammals, reptiles, birds and insects that are free ranging which is not confined to limited areas of habitat.

- For **HCV 3:** reference is only made to riparian buffers zones the designation and protection of which are mandatory under the conditions attached to the FMP and EIA Report Approval certificate. This is stick to reserve of Kerangas areas in the FMU.
- For **HCV 4:** reference is made only to Terrain Class IV which is present to only a very limited extent in the FMU area but is all within the designated Conservation Areas and is thus fully protected.
- For **HCV 5:** the wildlife's report shows that there is no dependence on the forest products provided by the FMU area or indeed on those provided by the whole FMU area. The activity is the primary hunting and fishing and now verges on the purely recreational. The Timber Harvesting is the only harvested forest produce is collected/harvested. It is abundantly clear that there has been no socio-economic impact of the FMU area to the communities. However, most of who are local directly employed in the FMU as employment opportunities and provision of road access to *Nanga Gaat* and Kapit Town.
- For **HCV 6:** the FMU has no sites of cultural significance. There is one saltlick identified lies inside the FMU area (Coupe 3A) but is in any case fully protected by a buffer zone, albeit the locals are allowed to hunt there for their own consumption.

Social Multiple-Use

Hunting is prohibited other than by members of the local communities and then only for personal consumption/own subsistence. The opportunities for fishing within the MTCS area are extremely limited.

FMU is not multi-use of the forested area but there is however no Shifting Agriculture (SA) areas within the FMU.

Others

Entulu - Melatai FMU has entered into FMU management with 30 years timber licensed is falling within the Heart of Borneo (HOB) area as a part of the Protected Forest of Kapit division, as the results should benefit the protected forest area in the way of improved genetic material in time to come.

Conclusion

There was no harvesting operation encroachment into the protection/conservation area of Stream Buffer Zone, Kerangas, Terrain IV and saltlick as even though the harvesting operation was active at Coupe 3A (2023 and 2024).

There are many species of wildlife's was captured by camera trap during the monitoring activity at saltlick in Coupe 3A. This means that the animals were still presence in the FMU despite of the timber logging harvesting activities.

There were a number of species captured and observed meaning that these animals were still roaming around for food presence and breeding ground in both active and non-active coupes of the FMU. This means that these animals both fauna and avifauna species were still in sustainability even though there is logging harvesting activities.

There was no harvesting operation encroachment into the protection/conservation area of Stream Buffer Zone, Kerangas, Terrain IV and saltlick as even though the harvesting operation was active at Coupe 3A (2024).

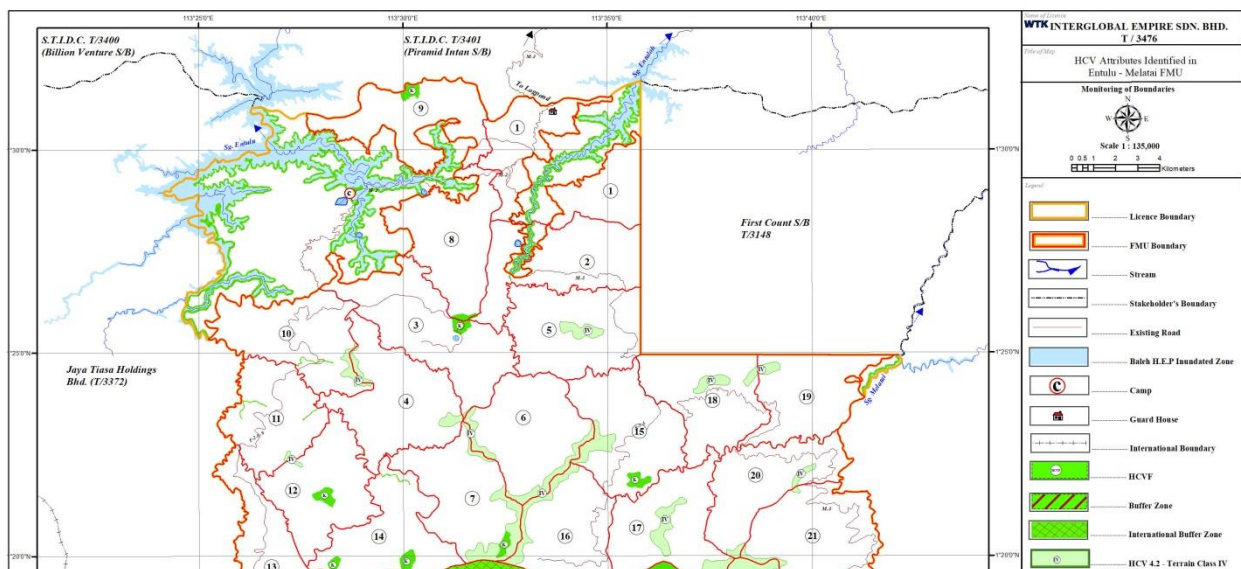
There are no significant changes in fauna under wildlife's monitoring as observed at Entulu – Melatai FMU. Until December, 2024 a total wildlife's recorded consist of 12 species were mammals, 11 birds, 5 reptiles, 2 amphibians and 1 insect.

In year 2024, 3 new species was reported at Entulu – Melatai FMU including species of Otter, *Musang Tenggalung* and Chesnut - naped fork tailed. All these species were observed during the wildlife's

patrolling and monitoring with the help of installing camera trap within the FMU areas. However, the presence of bearded pigs (*Sus Scrofa*) at the FMU is believed that there is no African Swine Fever (ASF) found and not related to timber logging harvesting impacts activities. According to the website, African Swine Flu (ASF) was first reported in the Kapit region in July, 2021. This means that the timber harvesting activities under reduced impact logging (RIL) system did not have any impact on the wildlife's activities in the FMU.

Entulu - Melatai being a signatory the convention on biological diversity is under legal obligation of DF circular 6/99 to fulfil or maintain the wildlife's targets in the forest management unit (FMU). The fact is that the management protected zone area such as stream buffer zone, kerangas, Terrain IV, water catchments and saltlicks have been declared as protected areas which will not be harvested during the logging harvesting of the FMU. This is to maintain the sustainability of ecosystems. The timber harvesting in Coupe 1A with 2,335 ha with conservation area of 29 ha, Coupe 2A covering 2,111 ha with conservation area of 47 ha and Coupe 3A covering 2,605 ha with conservation of 152 ha, covered a total conservation area of 228 ha. A close look at the wildlife's monitoring recorded in Coupe 1A, 2A, and 3A shows that the wildlife's is still in sustainability manner. This means that the reduced impact logging (RIL) harvesting system have benefits to wildlife's in the FMU and RIL logging harvesting system provides migratory path and escape route for the animals. Therefore, FMU is promoting accelerated assessment in the wildlife's resource in sustainability.

HCVF Map:



Wildlife survey transects Map:

