

# ROAD-KILL BUTTERFLIES & THEIR CONSERVATION IN WESTERN ASSAM, INDIA

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a presentation by  
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# Presentation outline

- Road-kill butterflies & their conservation in western Assam, India
- Introduction to butterflies of northeast India, Ripu-Chirang Reserve Forest
- Study Site
- Study objectives
- Methodology
- Results
- Discussion
- Conclusion



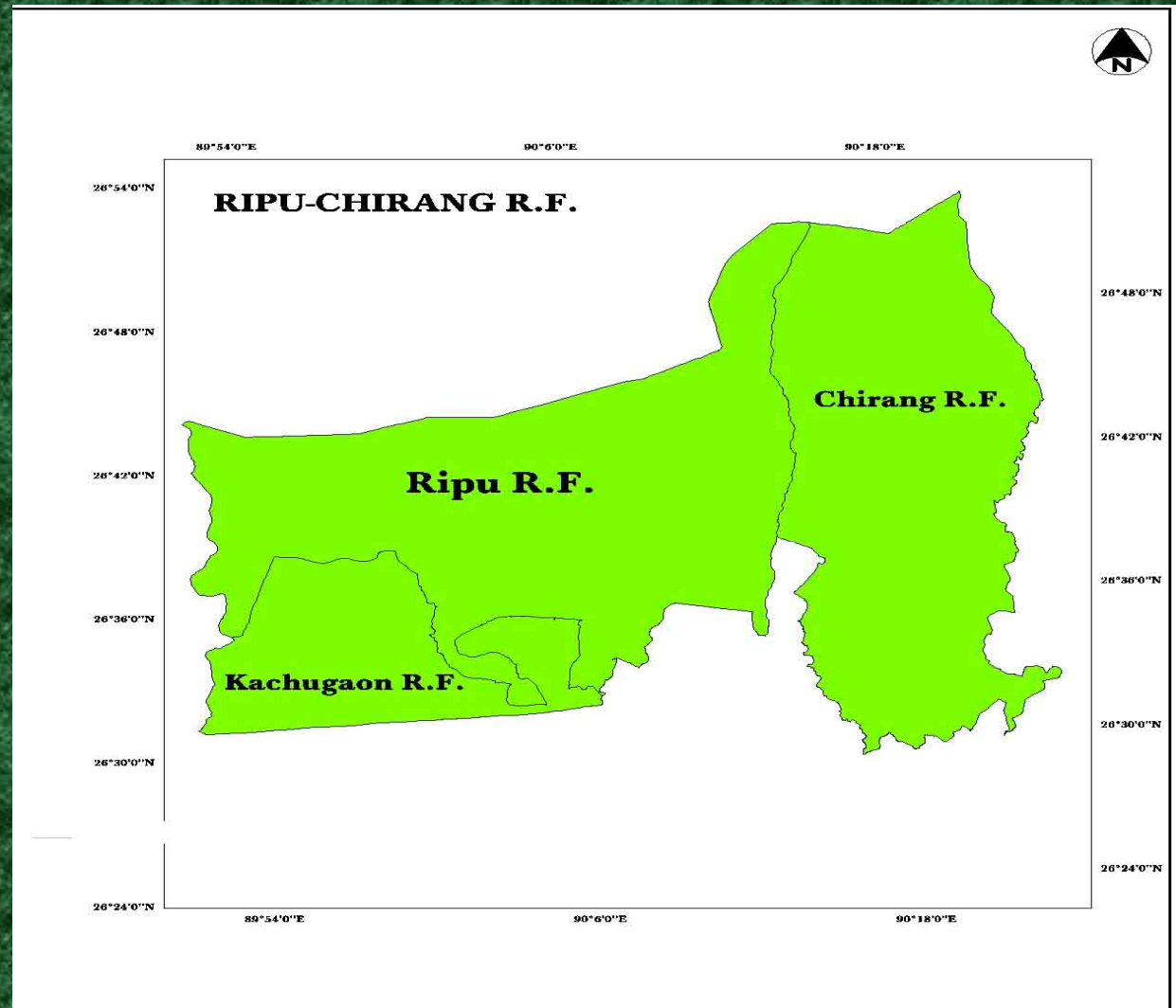
# Butterfly wealth of India

Indian - 1439 species  
NE Region - 953 species  
Ripu-Chirang – 194 species



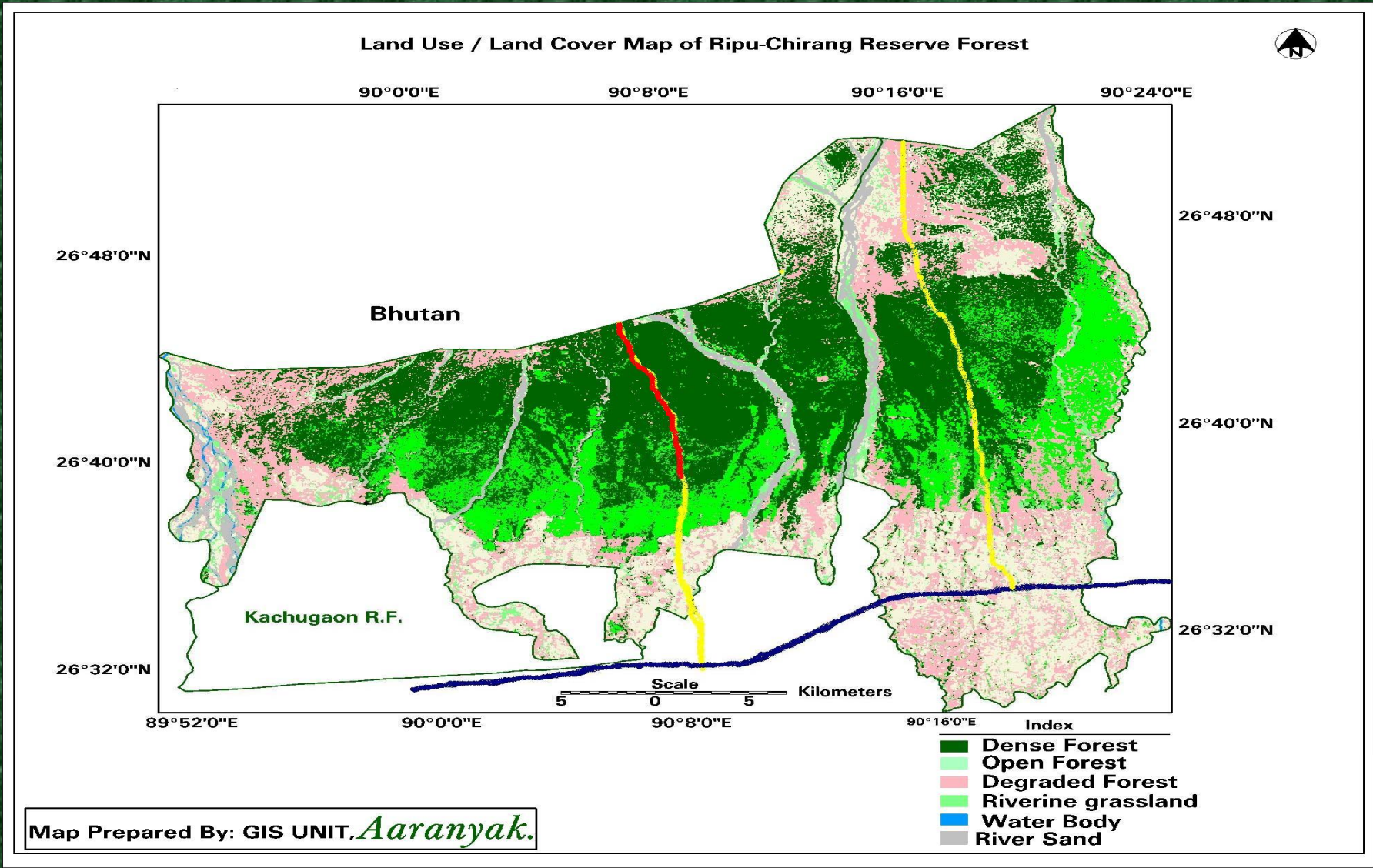
Family	Ind-sub	NE-India	RCRF
Papilionidae	94	62	24
Pieridae	99	52	20
Lycaenidae	459	243	51
Nymphalidae	480	407	81
Hesperiidae	307	189	18

# Study site Ripu-Chirang RF





# GIS image of RCRF



# Study objectives

To quantify the amount of road kill and its impact on the loss of butterfly diversity in Ripu-Chirang RF.

To design alternatives such as artificial mud-puddling sites away from points of heavy vehicular traffic and also to provide economic incentive to local villagers.



# Methodology

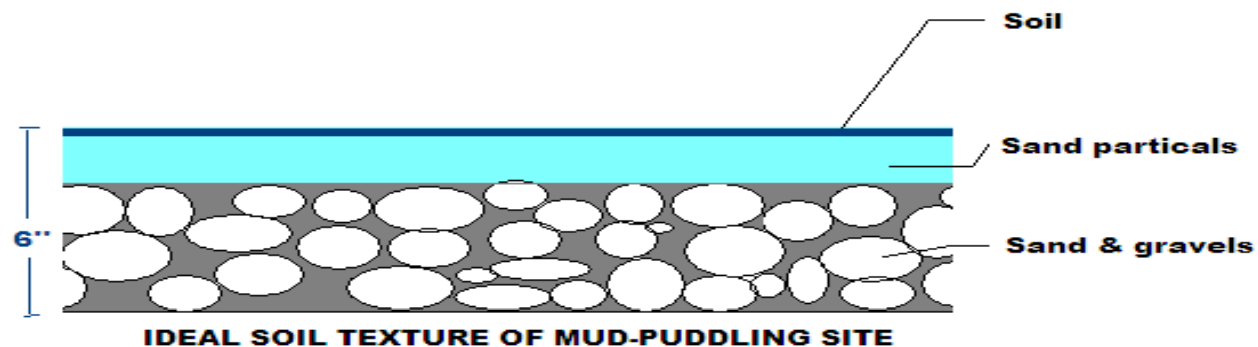
To enumerate road-kill of butterflies

- Used slow driving method
- Entire road was considered as a transect
- Total 96 sampling days
- Traffic load was enumerated

# Methodology

To reduce road-kill mortality

- Artificial mud-puddling site
- Ideal size 10 x 20 feet
- Soil texture
- Natural bites





# Result

- Total 7431 of 81 species were road-killed

Family	No. of individual sp.
PAPILIONIDAE	13
PEIRIDAE	12
NYMPHALIDAE	38
LYCAENIDAE	10
HESPERIDAE	8
Total	81



























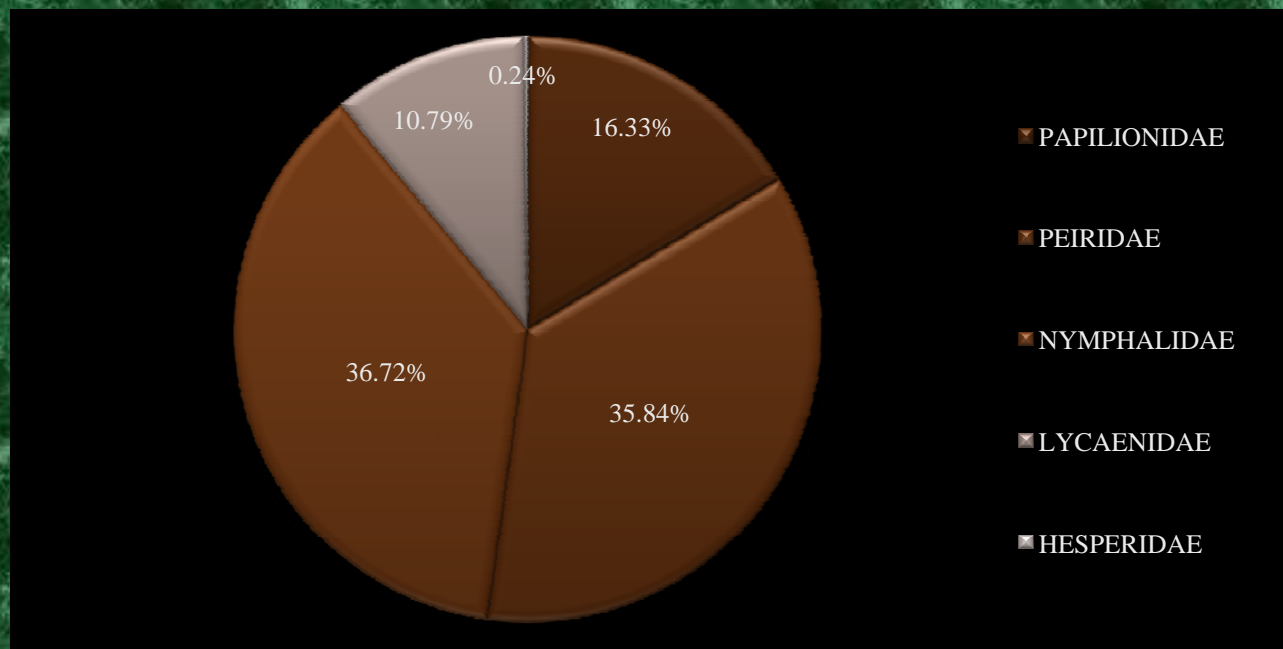




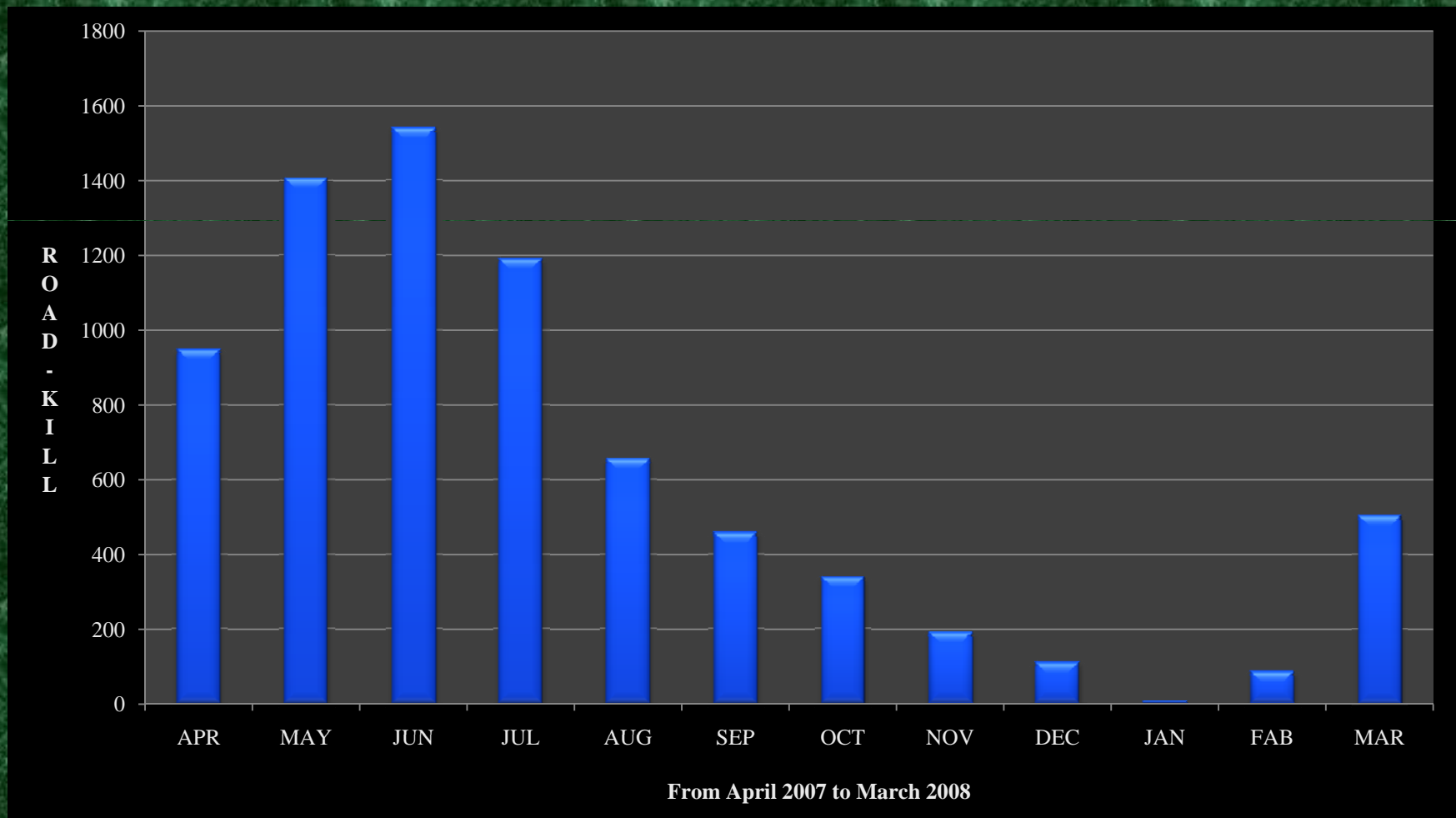




Family	Total road-kill individuals	%
PAPILIONIDAE	1214	16.33%
PEIRIDAE	2668	35.84%
NYMPHALIDAE	2729	36.72%
LYCAENIDAE	802	10.79%
HESPERIDAE	18	.24%



# Month wise road-kill of butterflies in the year (2007-08)



## Relation of road-kill with rainfall, relative humidity and mean temperature in the year (2007-08)





# Discussion

## Possible reasons for road-kill in RCRF

- Place for thermoregulation
- Winter migrants
- Mineral deposition & Fecal matters
- Lack of mud-puddling place during rainy season
- Certain species flourish during their peak-season i.e. summer
- etc



















# Alternatives suggested

- Artificial mud-puddling sites
- Providing cattle urine, occasional road killed carcasses, fruits and fecal matters
- Awareness among the drivers





















## Conclusion

- Eco-tourism spot & economic incentives to local people
- An excellent site for butterfly watching
- Need long term research and conservation

THANK YOU