

Comparison of the bats species recorded in the cow pastures at full moon vs New Moon



Presenter: Damion Whyte

Site description

- ▶ Cow pasture located near the Windsor Research centre
 - No trees



Methodology

- ▶ Assessment carried out in the area
 - Full moon
 - New moon
- ▶ Bat recordings
 - 1700 – 6:00 AM



Results: New Moon Vs Full Moon

Local Name	Sound Scape	Specialist	New moon	Full moon
Sooty Mustached Bat	Open space	Insectivore-aerial		R
Free tailed Bat	Open space	Insectivore-aerial	D	D
Antillean Ghost-faced	Open space and clutter edge	Insectivore-aerial	A	



Results: New Moon Vs Full Moon

Local Name	Sound Scape	Specialist	New moon	Full moon
Jamaican Fig-eating Bat	Clutter	Frugivore	R	
Leach's Single Leaf Bat	Clutter	Nectarivore		R
Brown Flower Bat	Clutter	Nectarivore	R	



Discussion

- ▶ Bats were present in open area the cow pasture
- ▶ Species abundance changes Full moon vs New moon
 - Availability of insects
 - Visibility



Discussion

- ▶ Bat species expected in the cow pastures
 - Insectivores and open space species
- ▶ Bat species present
 - Insectivores and open space species (**abundant**)
 - Nectivorous and Clutter species (**rare**)
 - Not expected
 - Omnivorous and Clutter species (**rare**)
 - Not expected



Food for thought

- ▶ Wind Turbines in open spaces
 - bats die not from colliding with the turbines, as a result of the change in pressure
 - Bat lungs cannot accommodate for the change in pressure
 - Most species cant detect it by echolocation
 - Impact fluctuates from region to region



Food for thought

- ▶ Research and Mitigation measures
 - Identification of flight paths
 - Seasonality
 - Migration?
 - Operation time for the turbine
 - Measures to make the turbine detectable by the bats



Thanks You

