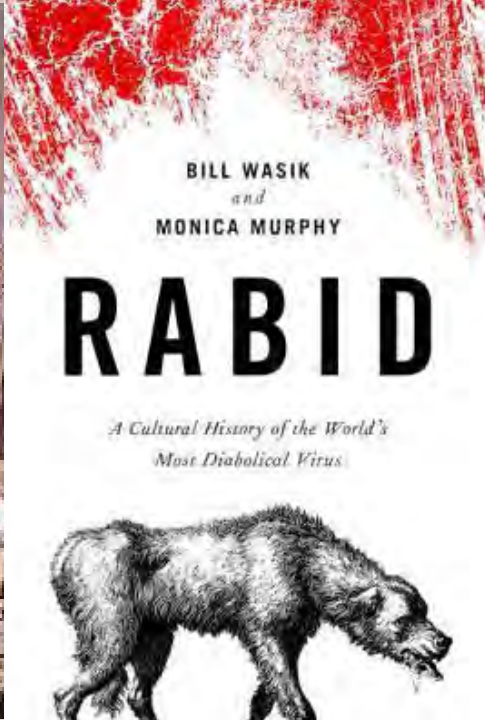


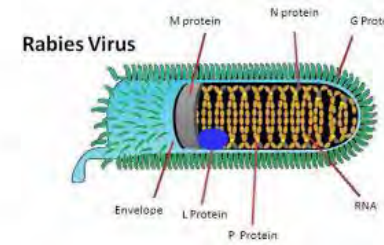
# Seasonal variation in Lagos bat virus neutralizing antibody levels present within a population of *Rousettus aegyptiacus* fruit bats in the Limpopo Province of South Africa

Stewart D. McCulloch, Teresa C. Kearney, Janusz Paweska, Ernest Seamark and Wanda Markotter





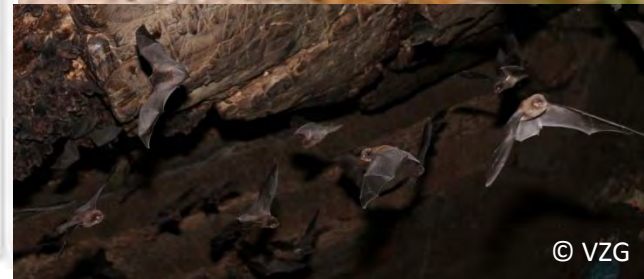
# Rabies related Lyssaviruses



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@Laura Adcock



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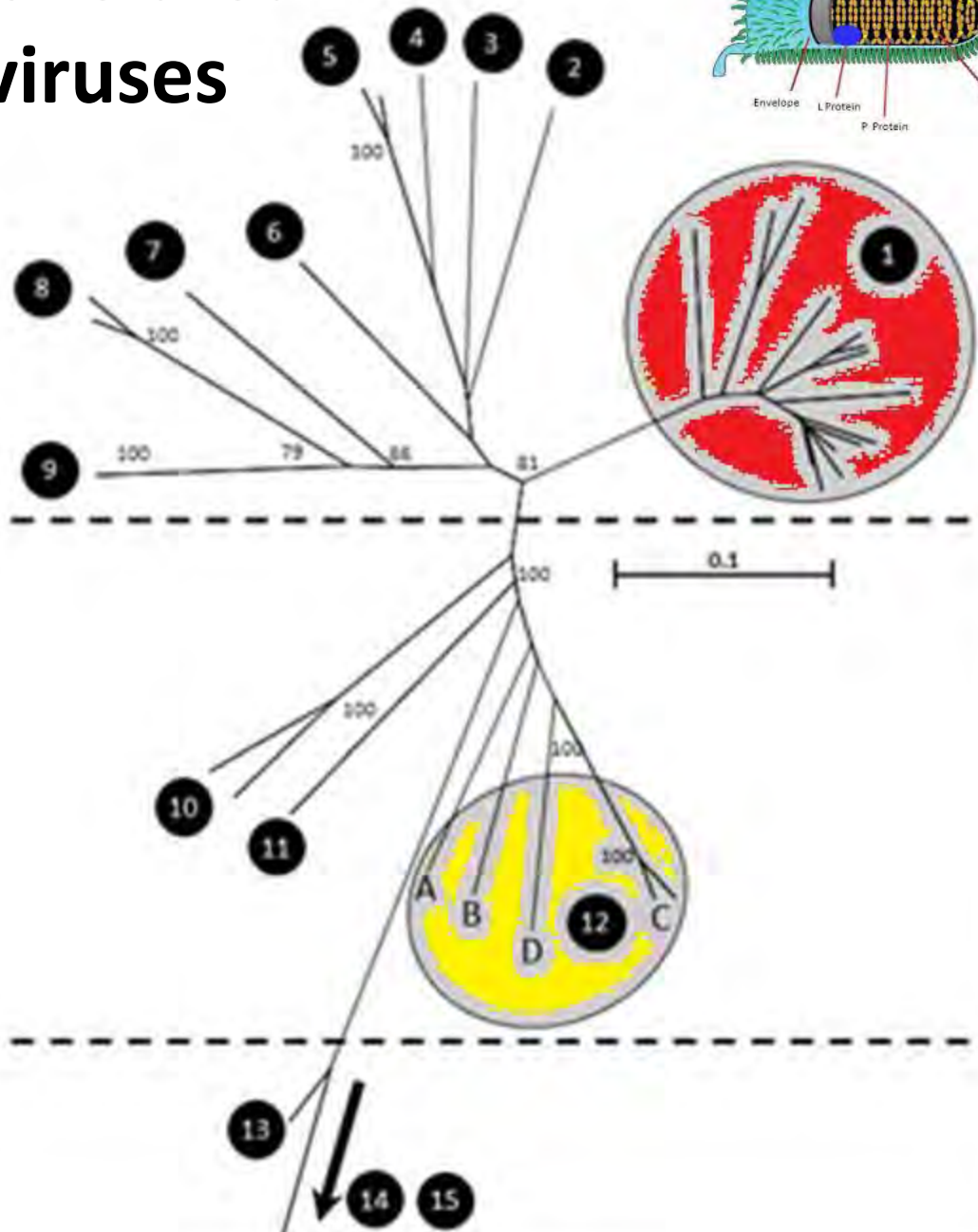
No.	Virus	Distribution
1	RABV	Global
2	ARAV	Eurasian
3	KHUV	Eurasian
4	BBLV	European
5	EBLV-2	Europe
6	ABLV	Australia
7	IRKV	Eurasian
8	EBLV-1	European
9	DUVV	African

10	MOKV	African
11	SHIBV	African
12	LBV	African

13	WCBV	Eurasian
14	IKOV	African
15	LLEBV	European

Phylogroup I  
Phylogroup II

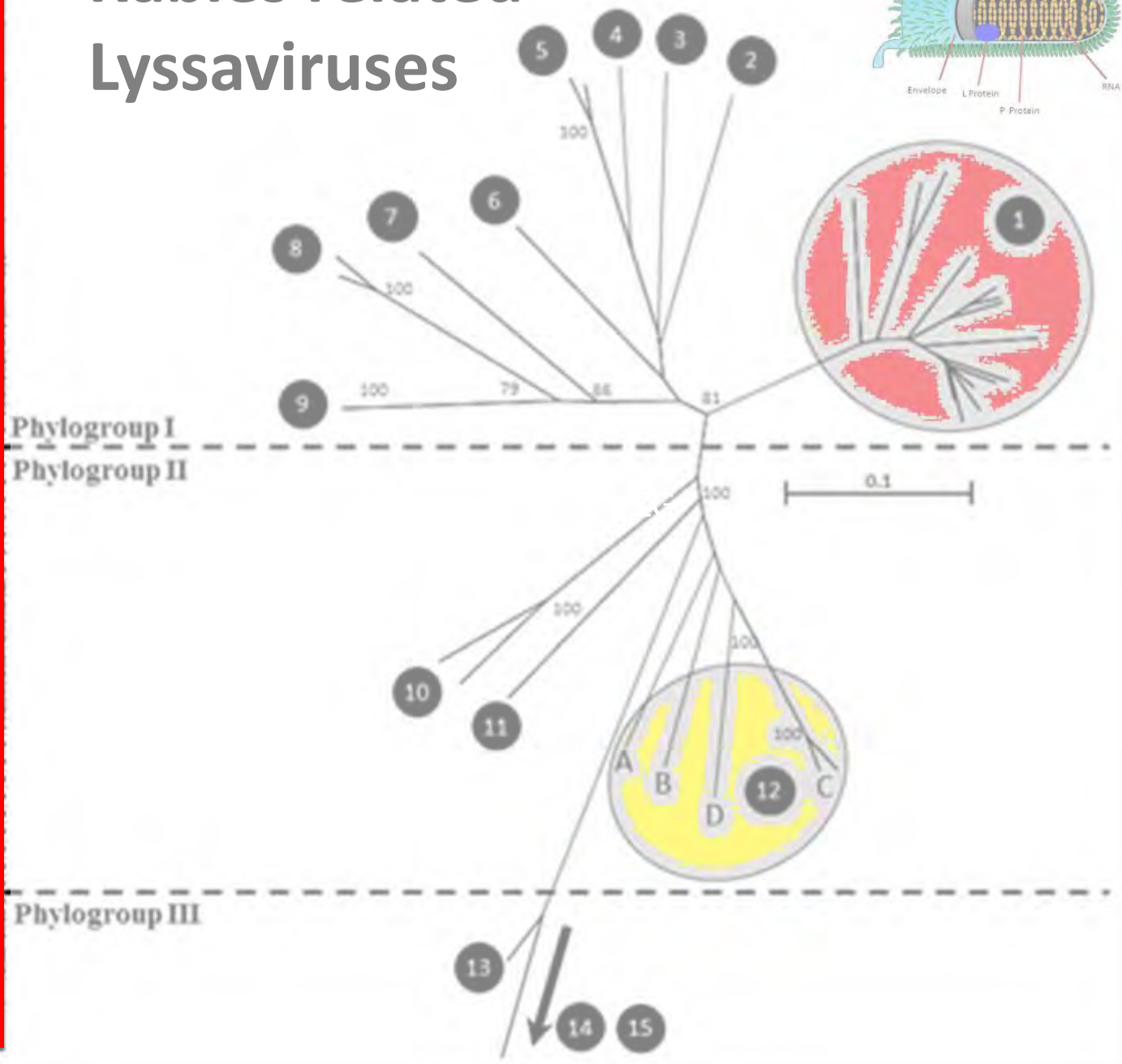
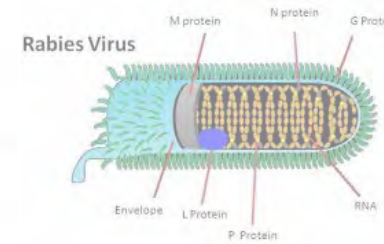
Phylogroup III





No.	Virus	Distribution
1	RABV	Global
2	ARAV	Eurasian
3	KHUV	Eurasian
4	BBLV	European
5	EBLV-2	Europe
6	ABLV	Australia
7	IRKV	Eurasian
8	EBLV-1	European
9	DUVV	African
Phylogroup I		
Phylogroup II		
10	MOKV	African
11	SHIBV	African
12	LBV	African
Phylogroup III		
13	WCBV	Eurasian
14	IKOV	African
15	LLEBV	European

# Rabies related Lyssaviruses



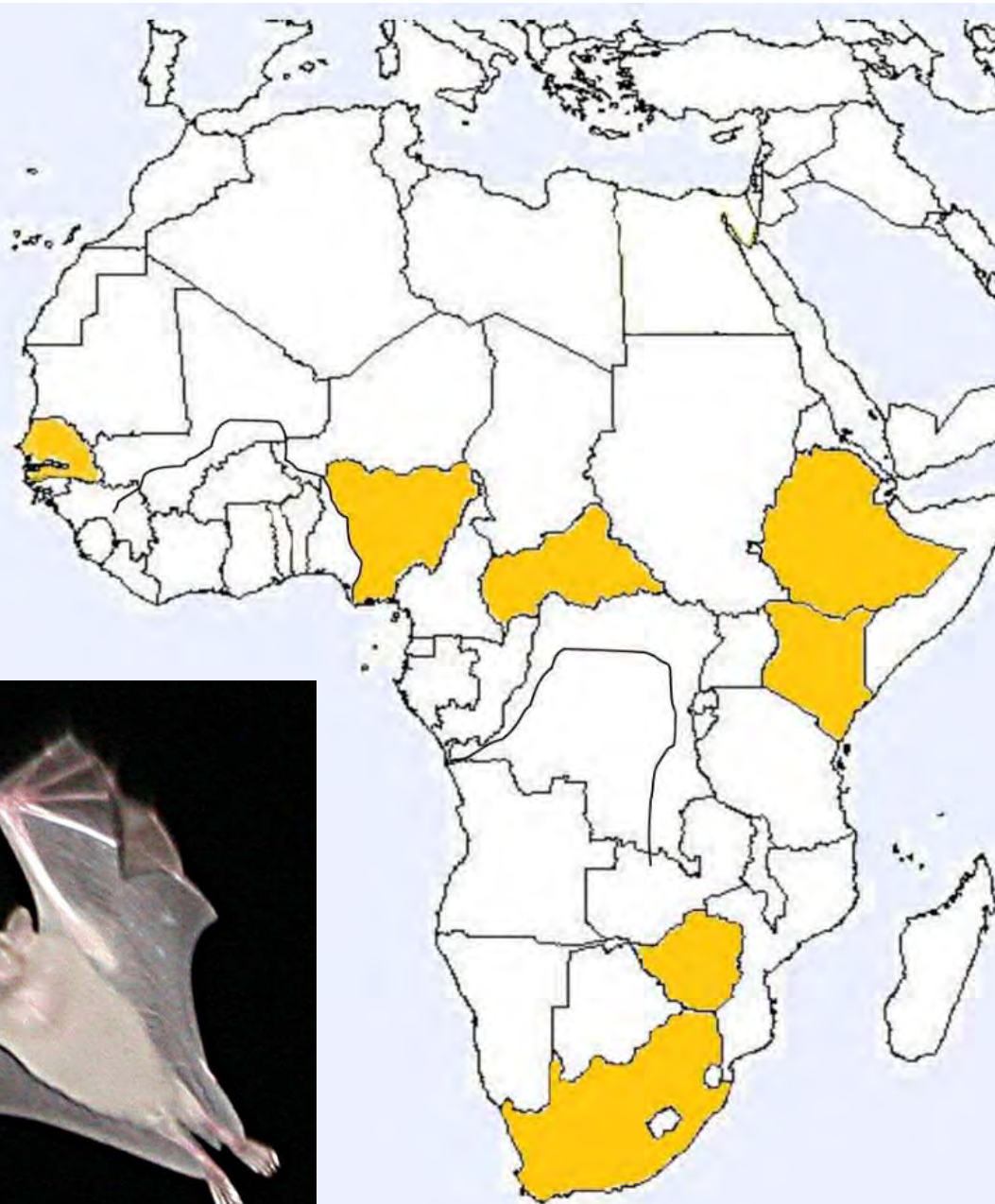
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# Lagos bat virus



@Merlin Tuttle



@Josh More







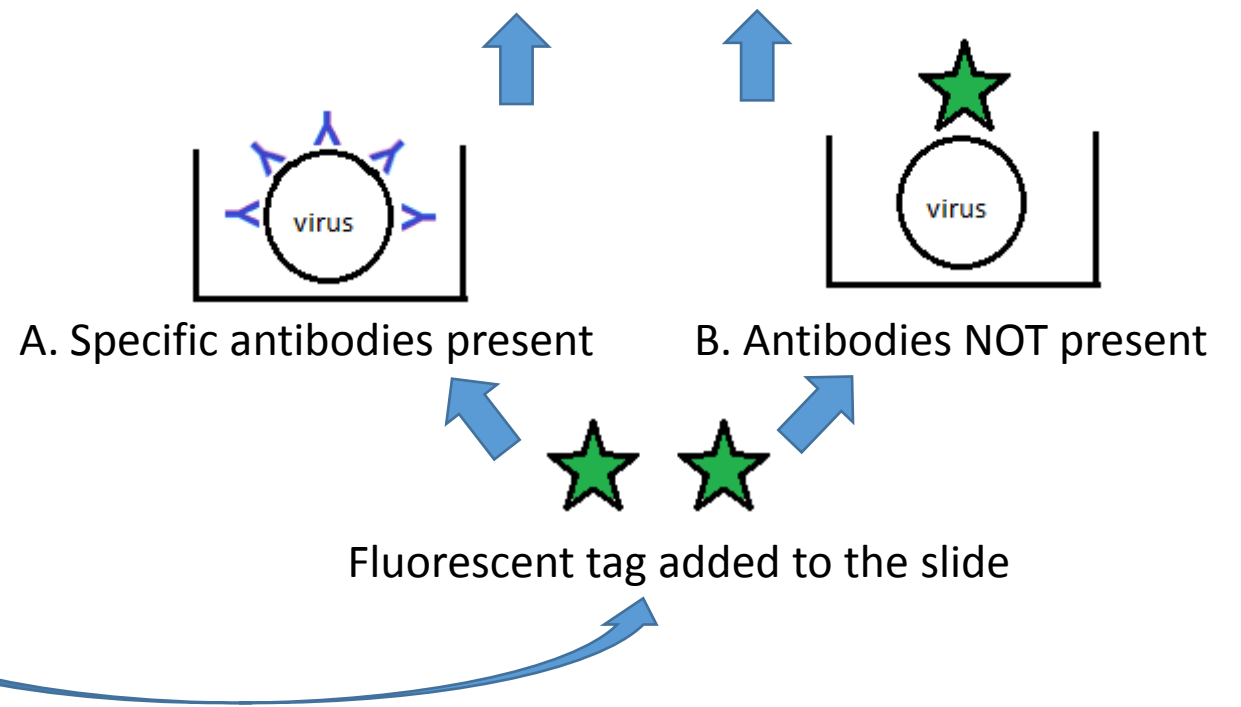
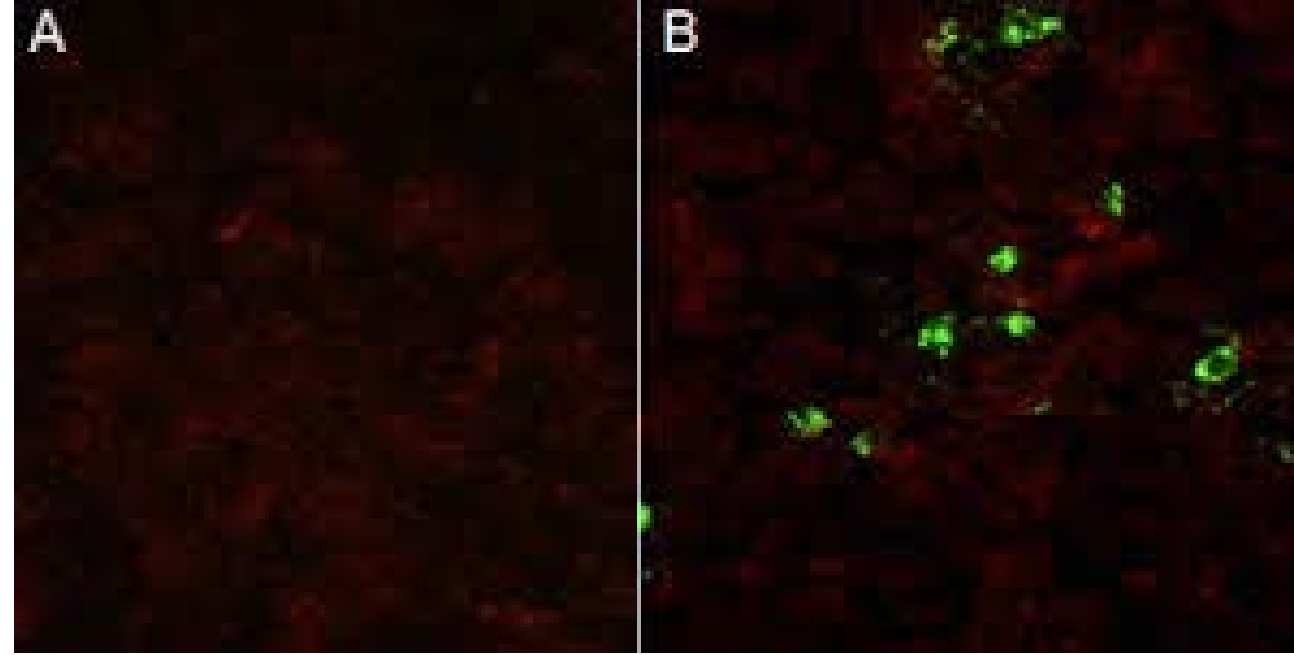
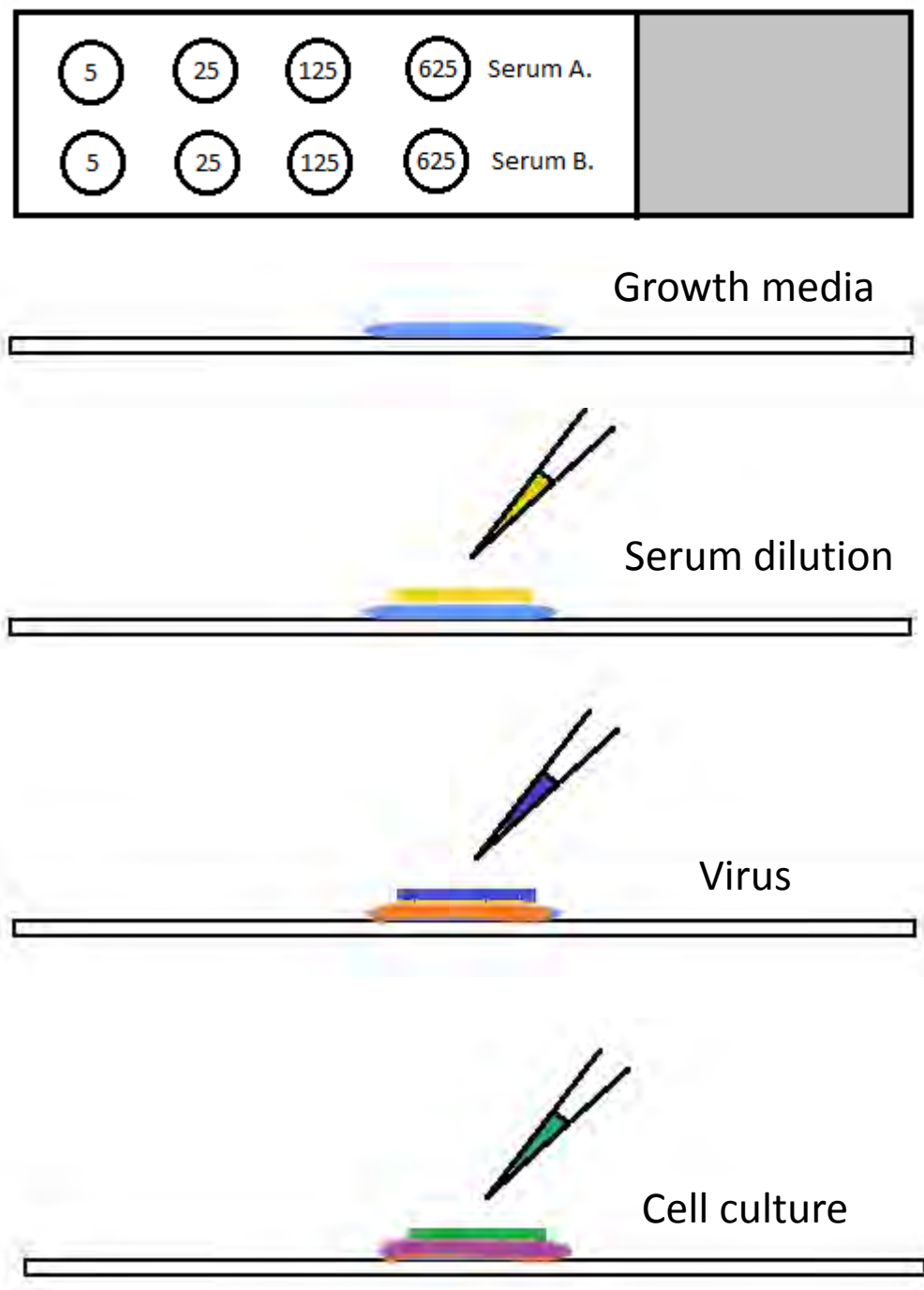
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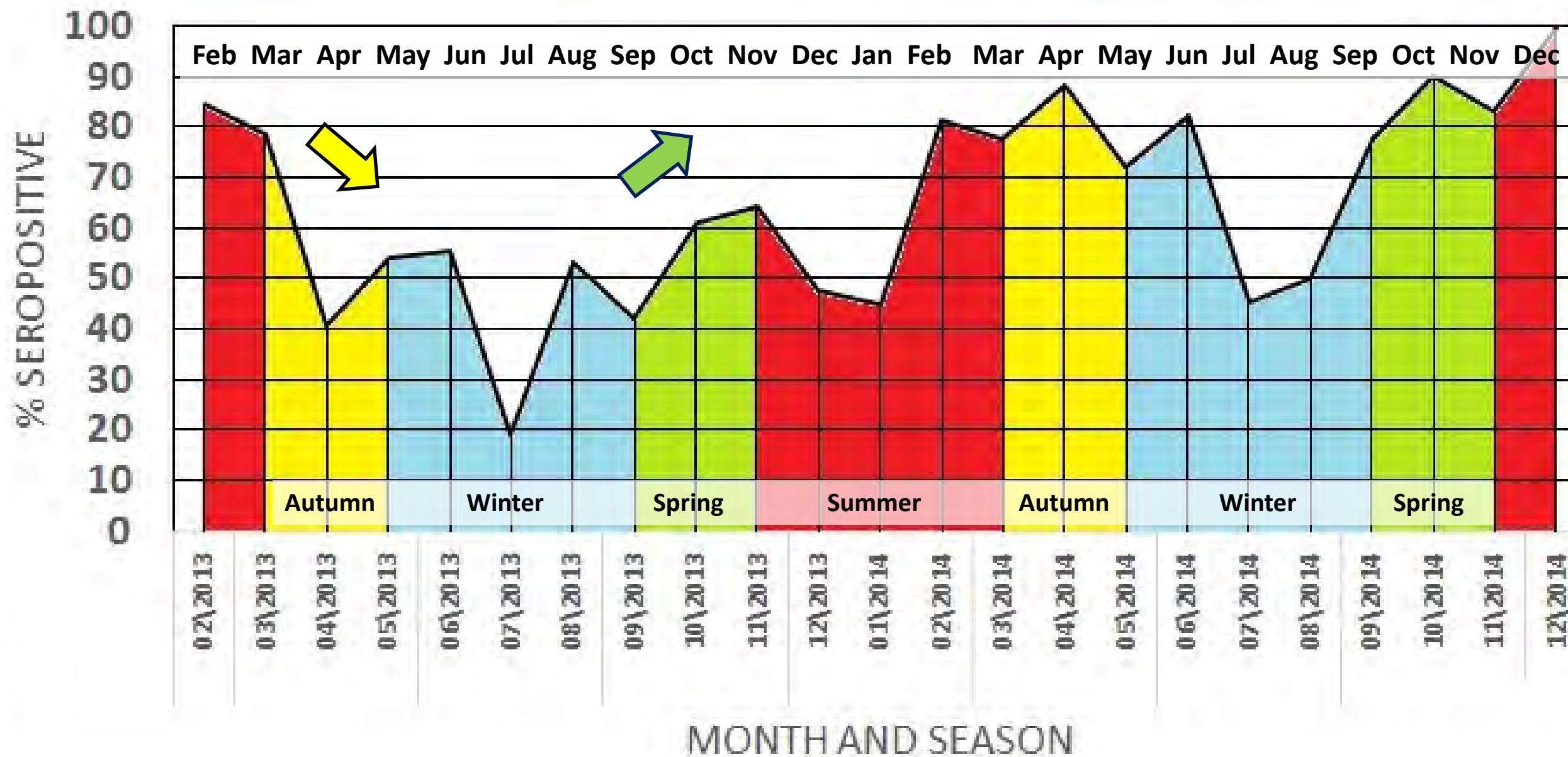


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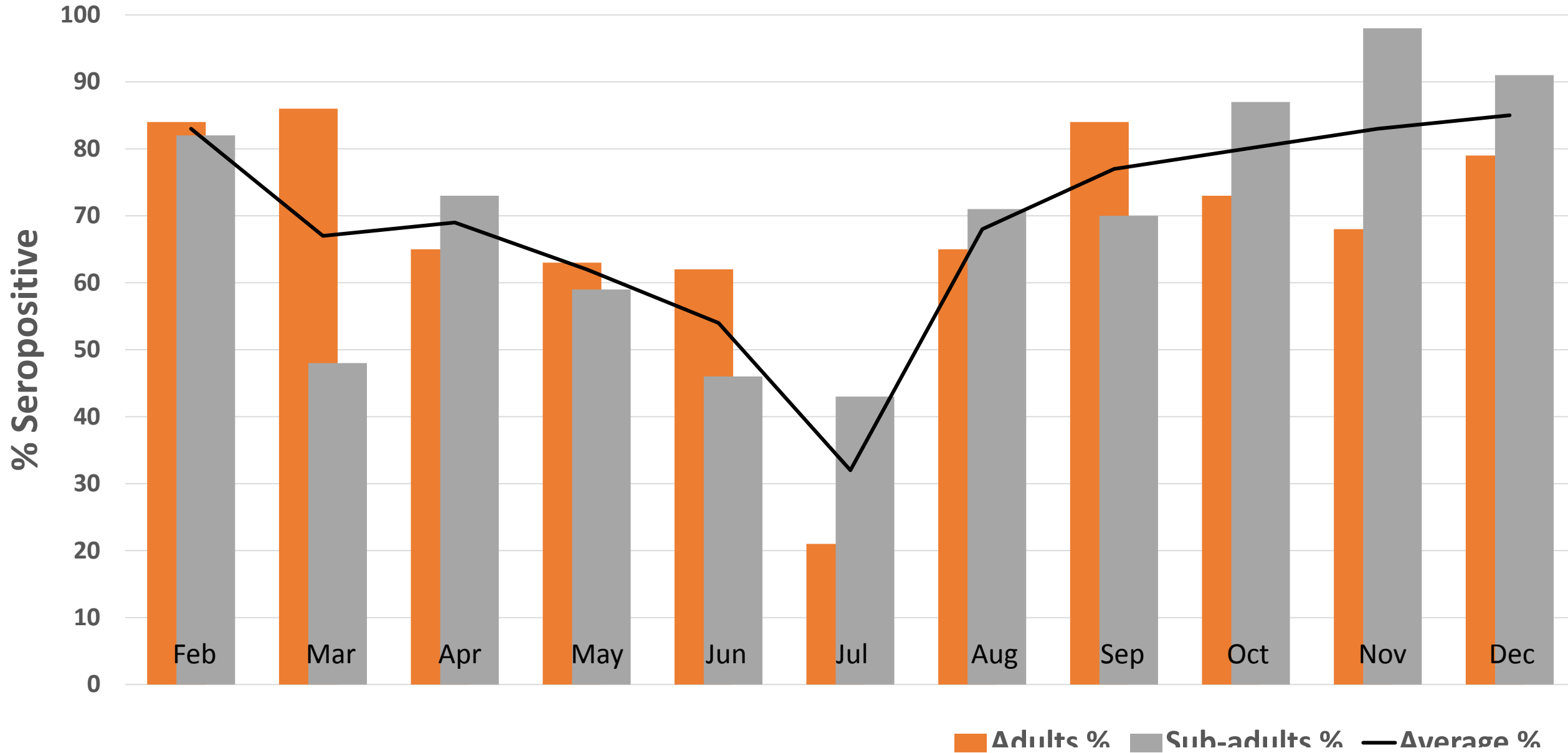




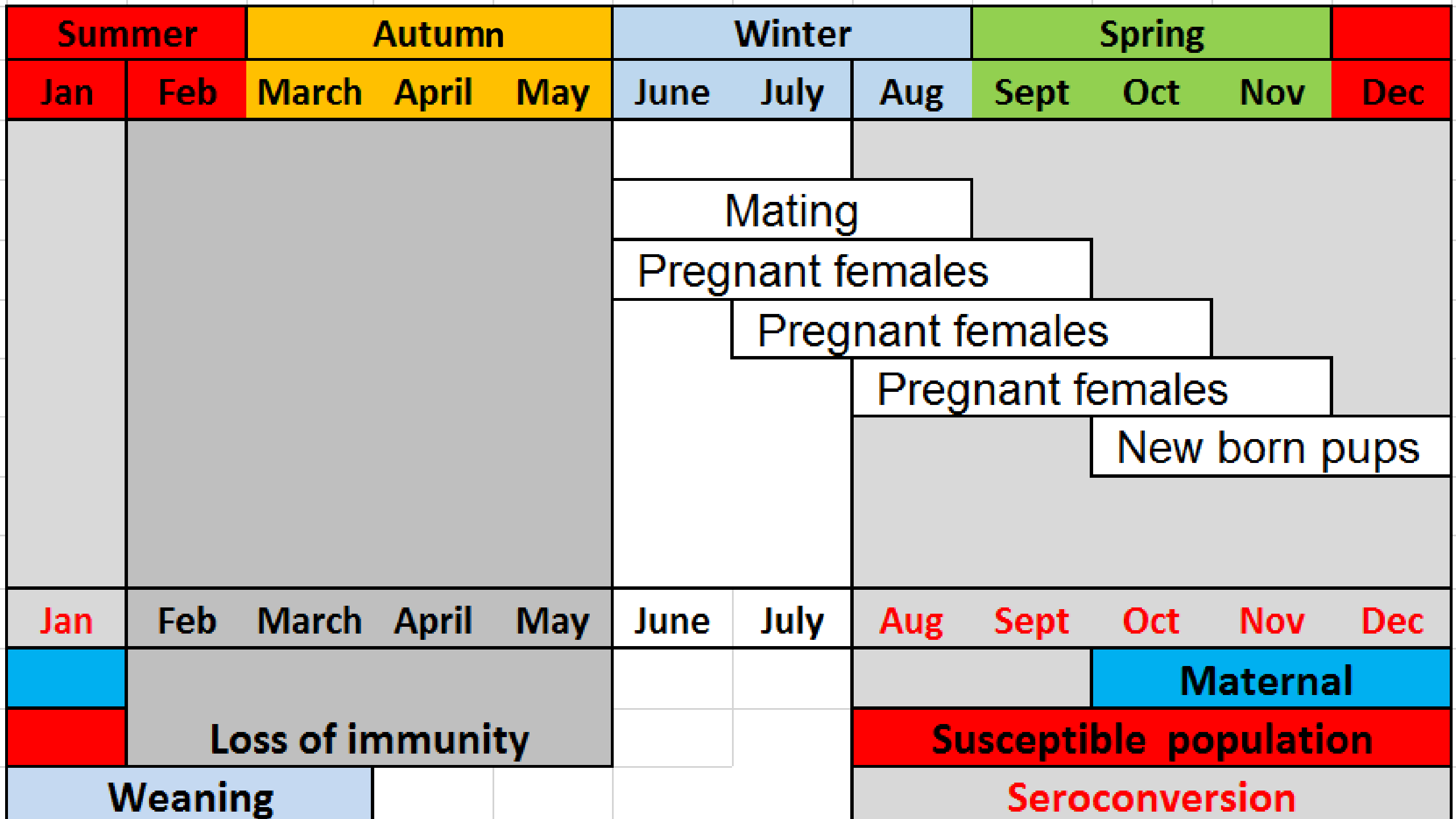
# Average Seropositivity

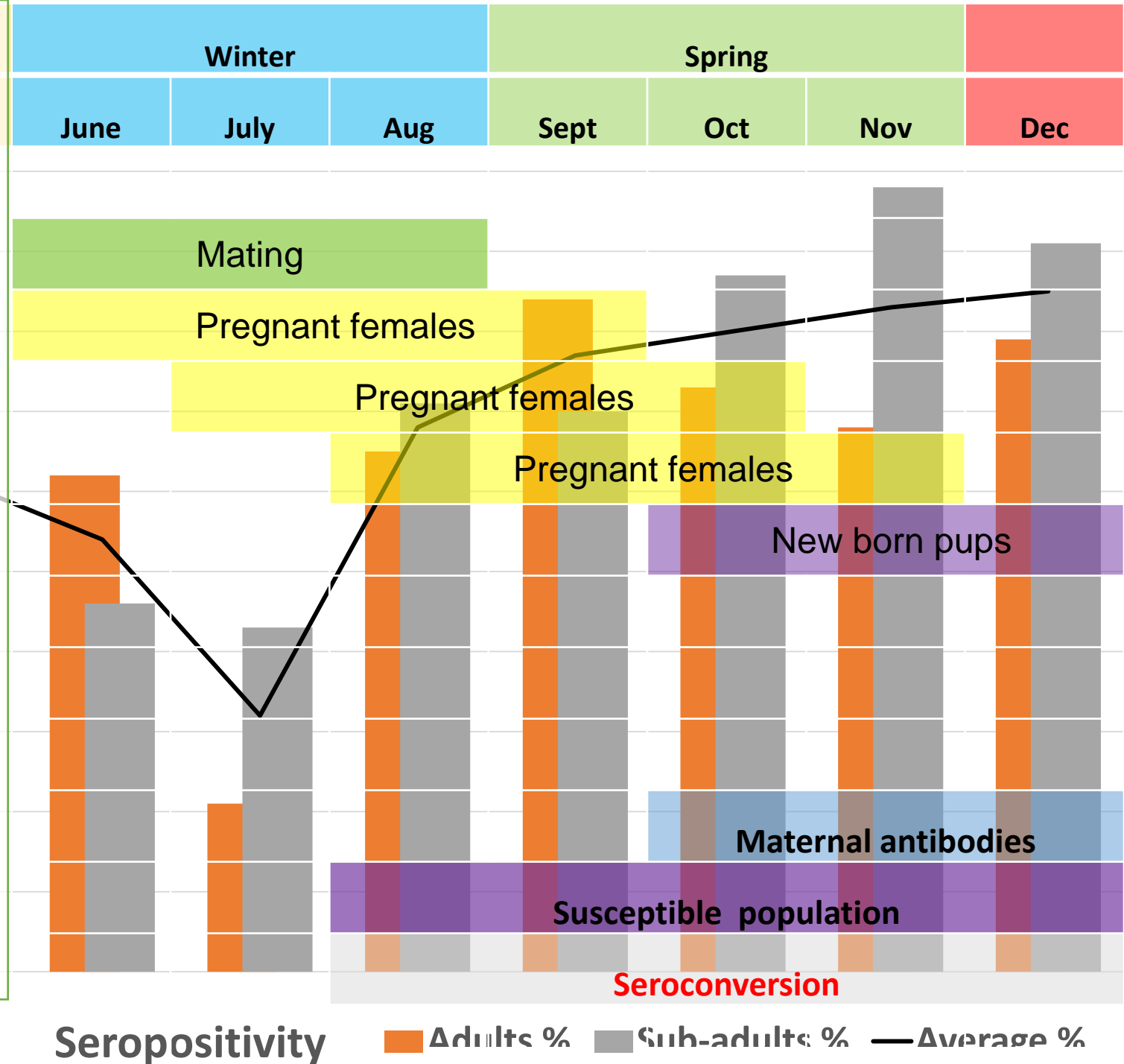


## Seropositivity

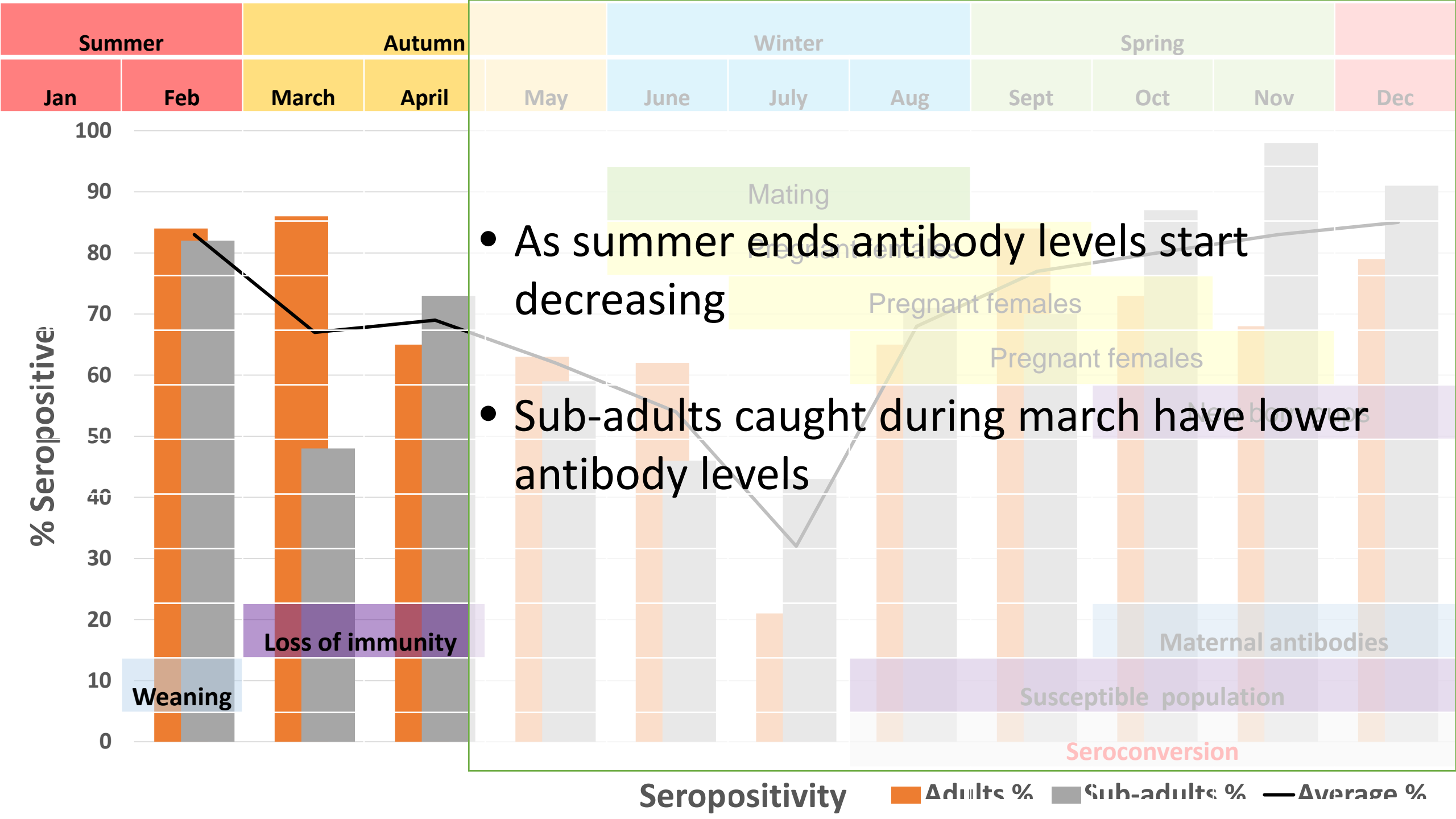


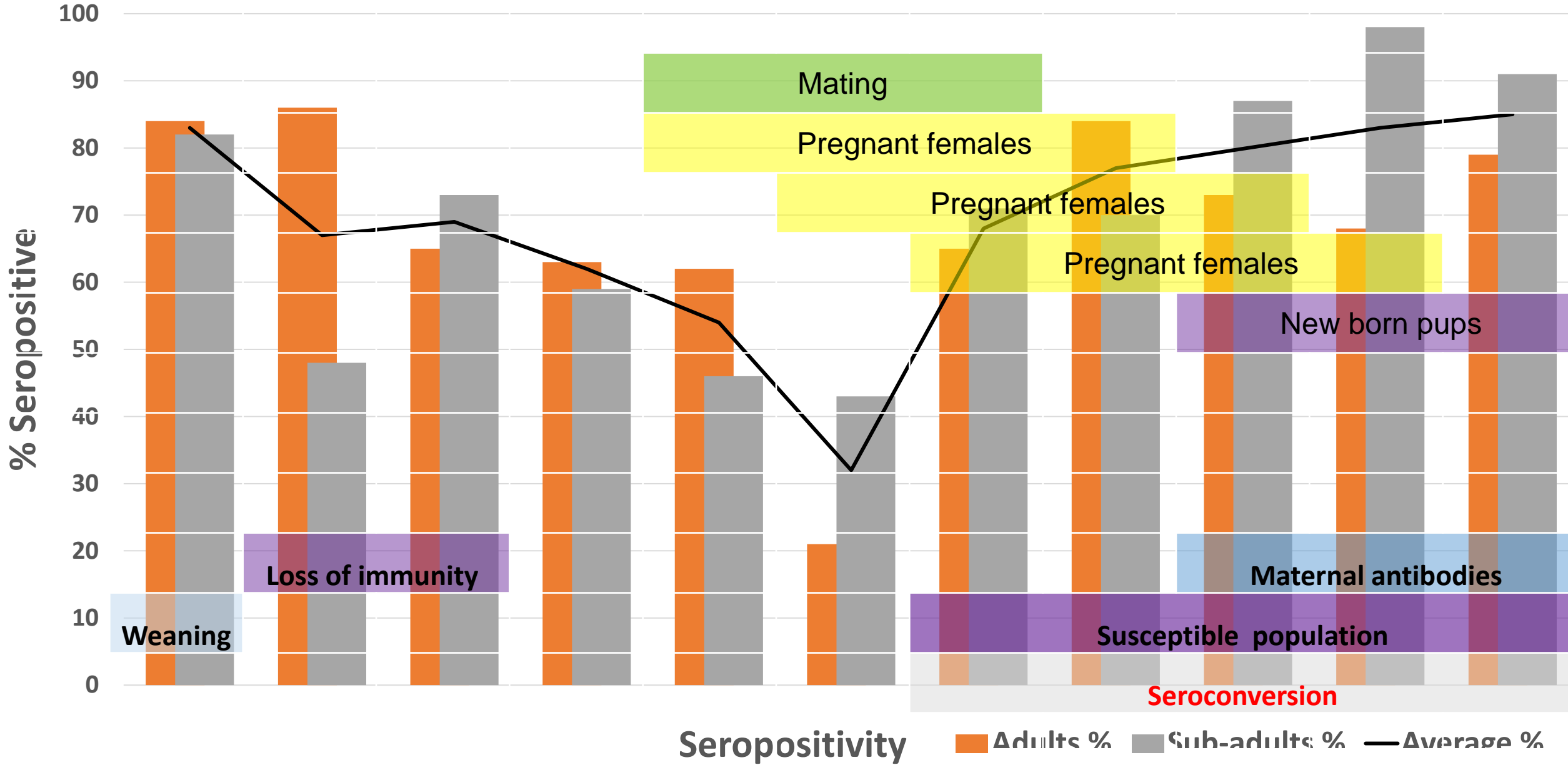




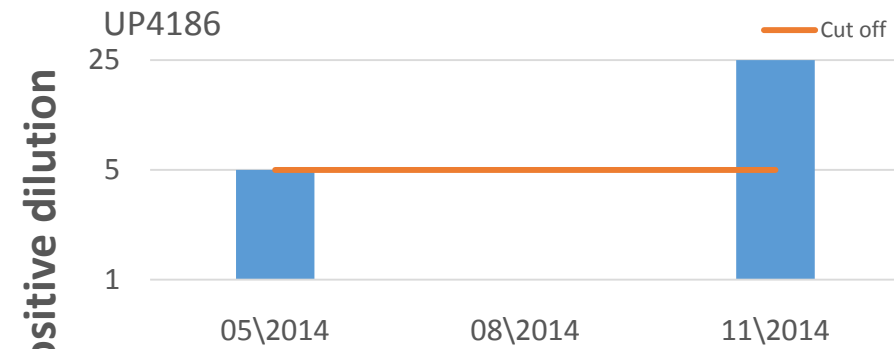




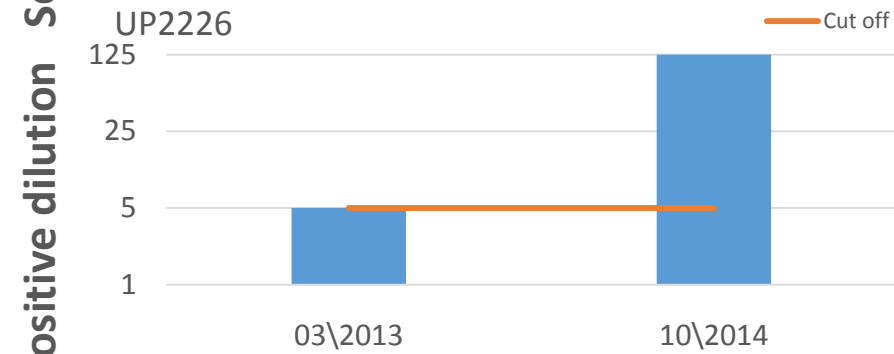




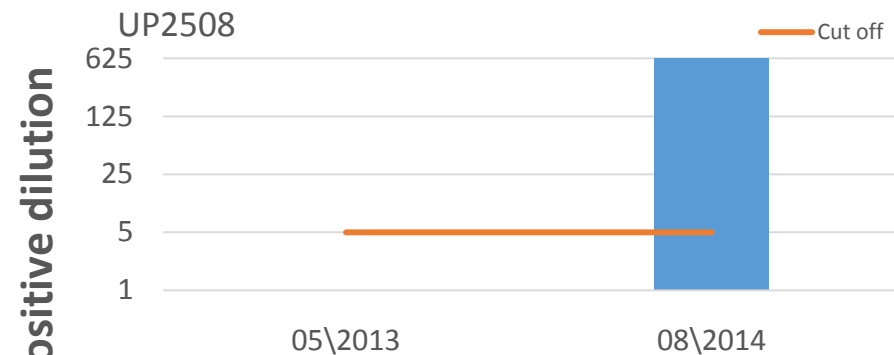




Winter to Summer

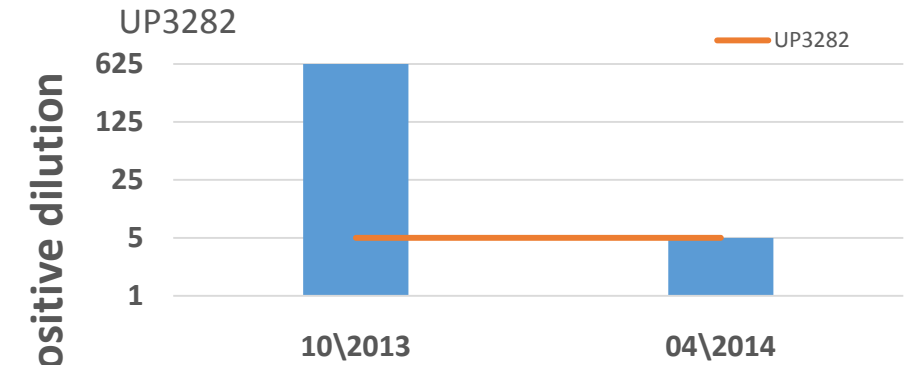


Winter to Summer



Winter to Summer

## Individual Recapture Serology



Summer to Winter

-79 Recapture events

-23 Increased antibodies

-22 Reduced antibodies

-34 Maintained antibodies

-Sero conversions occurred after July

-Loss of antibodies after February

-Recapture intervals between 1 and 17 months



# Conclusions

- Serology appears to be seasonal
- Antibody levels at the maximum around December
- June and July pose the greatest risk to humans entering the cave
- Antibodies against Lagos bat virus in the population of *Rousettus aegyptiacus* appear to last 3 to 6 months
- Virus exposure
  - Maintained within the population





Thank you for your  
attention



Special thanks to Mr Terence Scott