	Segment L				Segment M				Segment S			
	Tendency of sampled viral lineages to *avoid circulating* within specific environmental conditions		Tendency of sampled viral lineages to *preferentially circulate* within specific environmental conditions		Tendency of sampled viral lineages to *avoid circulating* within specific environmental conditions		Tendency of sampled viral lineages to *preferentially circulate* within specific environmental conditions		Tendency of sampled viral lineages to *avoid circulating* within specific environmental conditions		Tendency of sampled viral lineages to *preferentially circulate* within specific environmental conditions	
	<2023.5	>2023.5	<2023.5	>2023.5	<2023.5	>2023.5	<2023.5	>2023.5	<2023.5	>2023.5	<2023.5	>2023.5
Population density (log)	0.2	0	6.1	**99**	0.1	0	6.7	**>99**	0.1	0	6.7	**99**
Urban & built-up areas	0	0	**>99**	**>99**	0	0	**>99**	**>99**	0	0	**>99**	**>99**
Elevation	0.7	**24**	1.4	0	0.7	19	1.5	0.1	0.8	4.3	1.3	0.2
Herbaceous vegetation	0.5	1	1.9	1	0.4	0.7	2.4	1.4	0.2	0.6	4.3	1.7
Cultivated managed vegetation	0.1	0.6	10.1	1.6	0.1	0.3	13.3	3	0.1	0.2	7.3	4.9
Regularly flooded vegetation	0.9	2.1	1.1	0.5	0.6	1.3	1.7	0.8	0.2	1.9	5.7	0.5
C. quinquefasciatus ecological suitability	0.5	0	1.9	**>99**	0.3	0	3.2	**>99**	0.1	0	7.3	**>99**
C. paraensis ecological suitability	0.1	0	7.3	**>99**	0.1	0	13.3	**>99**	0	0	**>99**	**>99**
A. aegypti ecological suitability	15.7	0	0.1	**>99**	6.1	0	0.2	**>99**	2.3	0	0.4	**>99**
Soil moisture	4.3	2.1	0.2	0.5	4	2.6	0.2	0.4	6.7	6.1	0.1	0.2
Decidious broadleaf forests	0.2	1.8	4.9	0.6	0.2	1.7	5.7	0.6	0.1	1	7.3	1
Evergreen broadleaf forests	6.7	**49**	0.1	0	8.1	**49**	0.1	0	9	**>99**	0.1	0
Mixed trees forests	0.6	2	1.7	0.5	0.4	1.9	2.2	0.5	0.4	1.7	2.8	0.6
Grasslands	2.2	0.4	0.4	2.2	0.6	0.5	1.6	2	0.4	0.4	2.2	2.6
Shrublands	0.3	0.3	3.2	3.8	0.2	0.2	5.2	6.1	0.1	0.1	15.7	6.7
Savannas	0.6	0.7	1.6	1.4	0.4	0.9	2.8	1.2	0.2	0.6	4.3	1.6
Woody savannas	1.7	1.2	0.6	0.9	1.3	1.4	0.8	0.7	1	0.8	1	1.3
Croplands & natural vegetation	4	1.2	0.2	0.9	1.4	0.5	0.7	1.9	1.2	0.4	0.9	2.2
Croplands	0.7	7.3	1.5	0.1	0.4	3.8	2.2	0.3	0.2	2.4	4.3	0.4
Banana harvested area	0	0.1	**>99**	19	0	0.1	**32.3**	13.3	0	0	**>99**	**32.3**
Cassava harvested area	0.1	0.2	15.7	4.6	0.1	0.2	11.5	5.2	0	0.1	**32.3**	8.1
Cocoa harvested area	0.1	0	19	**99**	0.2	0	5.2	**>99**	0	0	**32.3**	**99**
Coffee harvested area	0	0.3	**49**	3	0.1	0.3	13.3	3.3	0	0.2	**24**	4
Maize harvested area	0.1	0.7	10.1	1.4	0.1	0.3	11.5	3.2	0	0.2	**24**	4.3
Soybean harvested area	0.7	5.7	1.5	0.2	0.3	3.8	3	0.3	0.2	1.9	4.6	0.5
Sugarcane harvested area	0.5	0.4	2	2.7	0.3	0.3	3.3	3.2	0.2	0.3	4.6	3.2
Cattle production	0	1.9	**24**	0.5	0.1	1.1	10.1	0.9	0	0.6	**32.3**	1.6
Forest loss (2020-2023)	1.3	1.9	0.8	0.5	2.2	2	0.4	0.5	1.5	1.7	0.7	0.6
Waterbodies	0.2	0.1	5.2	15.7	0.2	0.1	6.1	19	0.1	0.2	19	5.7
Mean annual precipitation	4.3	1.4	0.2	0.7	2.8	1.4	0.4	0.7	2.7	2.7	0.4	0.4
Mean annual temperature	1	0.3	1	3.8	0.4	0.2	2.4	4.3	0.1	0.8	7.3	1.2
	<2024	>2024	<2024	>2024	<2024	>2024	<2024	>2024	<2024	>2024	<2024	>2024
Population density (log)	0	0	**99**	**>99**	0	0	**>99**	**>99**	0	0	**49**	**>99**
Urban & built-up areas	0	0	**>99**	**>99**	0	0	**>99**	**>99**	0	0	**>99**	**>99**
Elevation	19	6.7	0.1	0.1	**24**	4.3	0	0.2	9	2	0.1	0.5
Herbaceous vegetation	0.5	0.9	1.9	1.1	0.4	0.7	2.3	1.4	0.3	0.5	3.3	1.9
Cultivated managed vegetation	0.5	0.6	1.9	1.6	0.3	0.2	3.2	4.3	0.4	0.2	2.8	5.2
Regularly flooded vegetation	3	0.9	0.3	1.2	1.1	1	0.9	1	0.8	1.6	1.3	0.6
C. quinquefasciatus ecological suitability	0	0	**>99**	**>99**	0	0	**>99**	**>99**	0	0	**>99**	**>99**
C. paraensis ecological suitability	0	0	**>99**	**>99**	0	0	**>99**	**>99**	0	0	**>99**	**>99**
A. aegypti ecological suitability	0.1	0	15.7	**99**	0	0	**32.3**	**>99**	0.2	0	5.7	**49**
Soil moisture	2	2.1	0.5	0.5	2.8	2.2	0.4	0.4	10.1	5.7	0.1	0.2
Decidious broadleaf forests	0.7	1.6	1.4	0.6	0.4	1.4	2.3	0.7	0.3	0.8	3.2	1.2
Evergreen broadleaf forests	13.3	**49**	0.1	0	**49**	**49**	0	0	**>99**	**99**	0	0
Mixed trees forests	1	1.9	1	0.5	1.6	1.6	0.6	0.6	1	1.6	1	0.6
Grasslands	0.2	1.2	5.7	0.9	0.2	0.8	6.1	1.3	0.1	0.7	8.1	1.5
Shrublands	0.5	0.1	2.1	9	0.3	0.1	3.8	10.1	0.2	0.1	4.3	7.3
Savannas	0.8	0.6	1.3	1.7	0.8	0.9	1.3	1.2	0.3	0.6	3	1.7
Woody savannas	2.3	1.2	0.4	0.9	1.8	1.1	0.6	0.9	0.9	0.7	1.1	1.4
Croplands & natural vegetation	0.8	1.2	1.3	0.8	0.4	0.5	2.4	2.1	0.4	0.4	2.8	2.2
Croplands	1.2	7.3	0.8	0.1	0.9	3.5	1.1	0.3	0.5	2.4	2	0.4
Banana harvested area	0	0	**49**	**24**	0.1	0	7.3	**32.3**	0.1	0	13.3	**49**
Cassava harvested area	0.3	0.2	3	5.2	0.3	0.1	3.3	11.5	0.2	0.1	5.7	11.5
Cocoa harvested area	0	0	**99**	**99**	0	0	**24**	**99**	0.1	0	19	**99**
Coffee harvested area	0.2	0.3	4.9	3.5	0.2	0.3	4.6	3.3	0.1	0.2	11.5	4.6
Maize harvested area	0.4	0.7	2.4	1.5	0.2	0.4	4.6	2.6	0.2	0.3	6.1	3.3
Soybean harvested area	1.3	6.1	0.8	0.2	0.6	3.5	1.7	0.3	0.3	1.7	3	0.6
Sugarcane harvested area	0.5	0.4	1.9	2.8	0.3	0.3	3	3.3	0.4	0.2	2.6	4
Cattle production	0.7	1.6	1.5	0.6	0.6	1	1.6	1	0.4	0.5	2.8	1.9
Forest loss (2020-2023)	1.2	2.4	0.9	0.3	1	3.3	1	0.4	0.8	2.6	1.3	0.4
Waterbodies	0.1	0.1	15.7	10.1	0	0.1	**32.3**	15.7	0.1	0.3	6.7	3.8
Mean annual precipitation	1.2	3.5	0.9	0.3	1	2.8	1	0.4	1.8	3.2	0.6	0.3
Mean annual temperature	0	1.9	**>99**	0.5	0	3	**>99**	0.3	0	2.8	**>99**	0.4