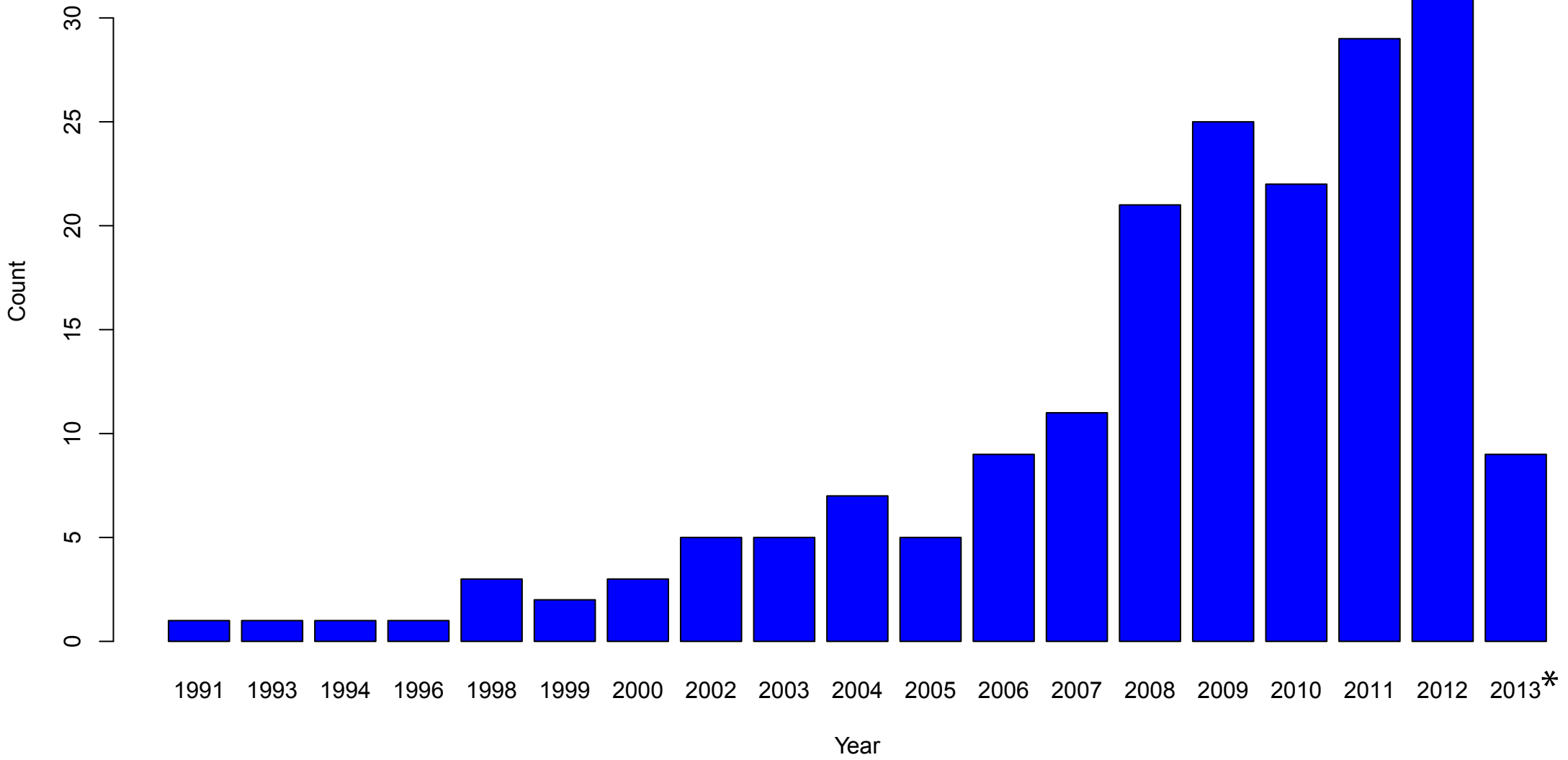


Figure-S1 Pinsent



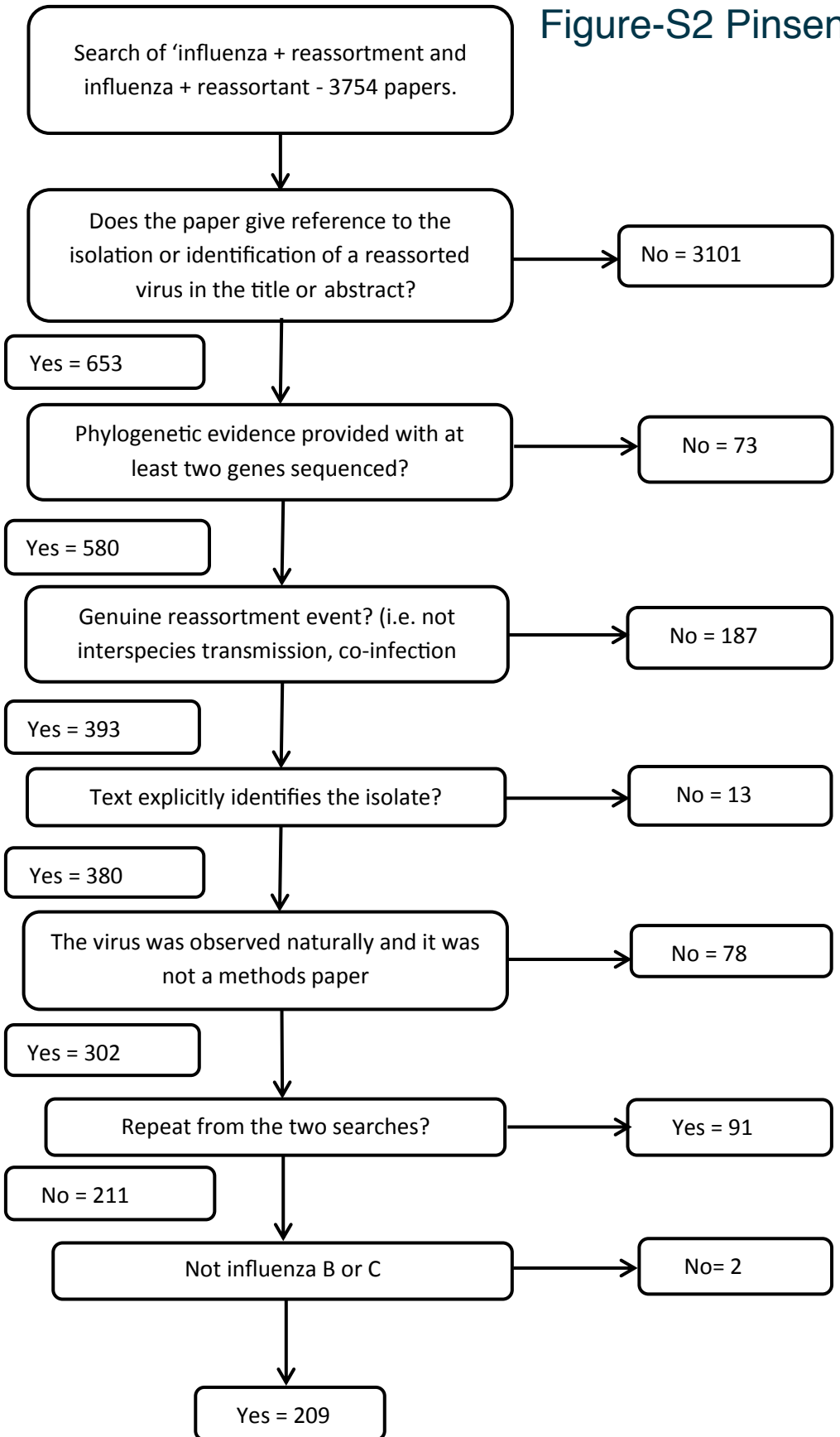


Figure-S3 Pinsent

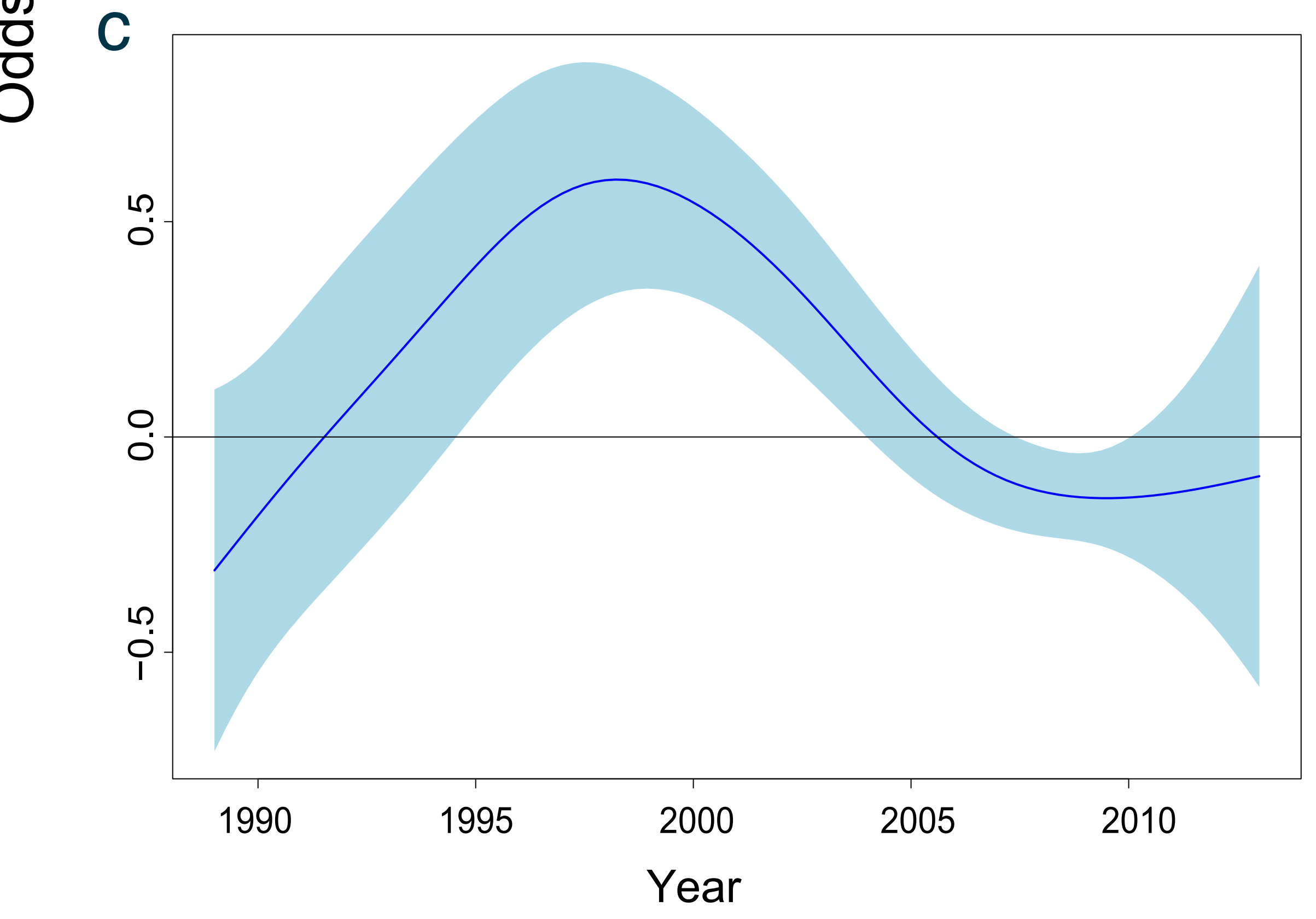
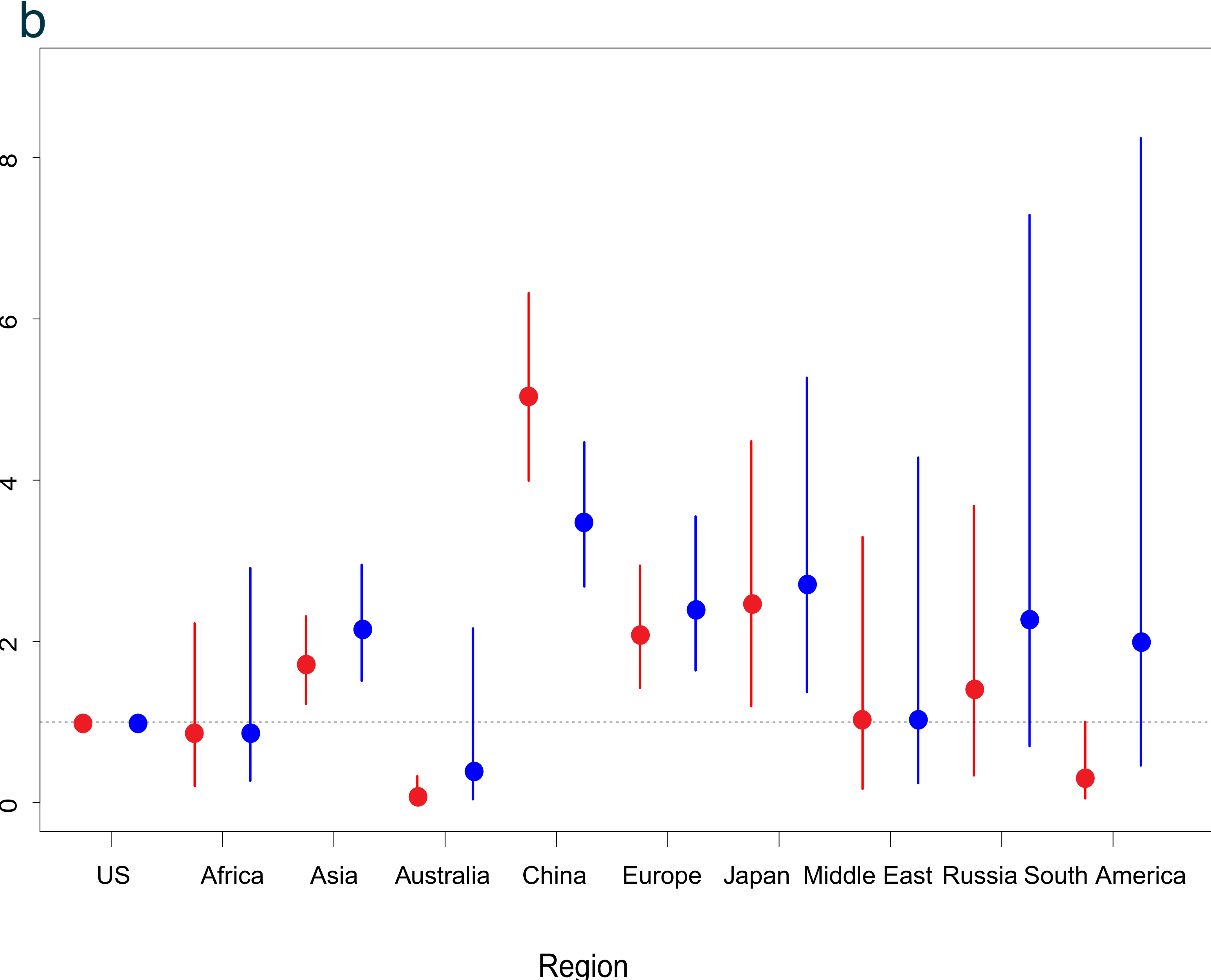
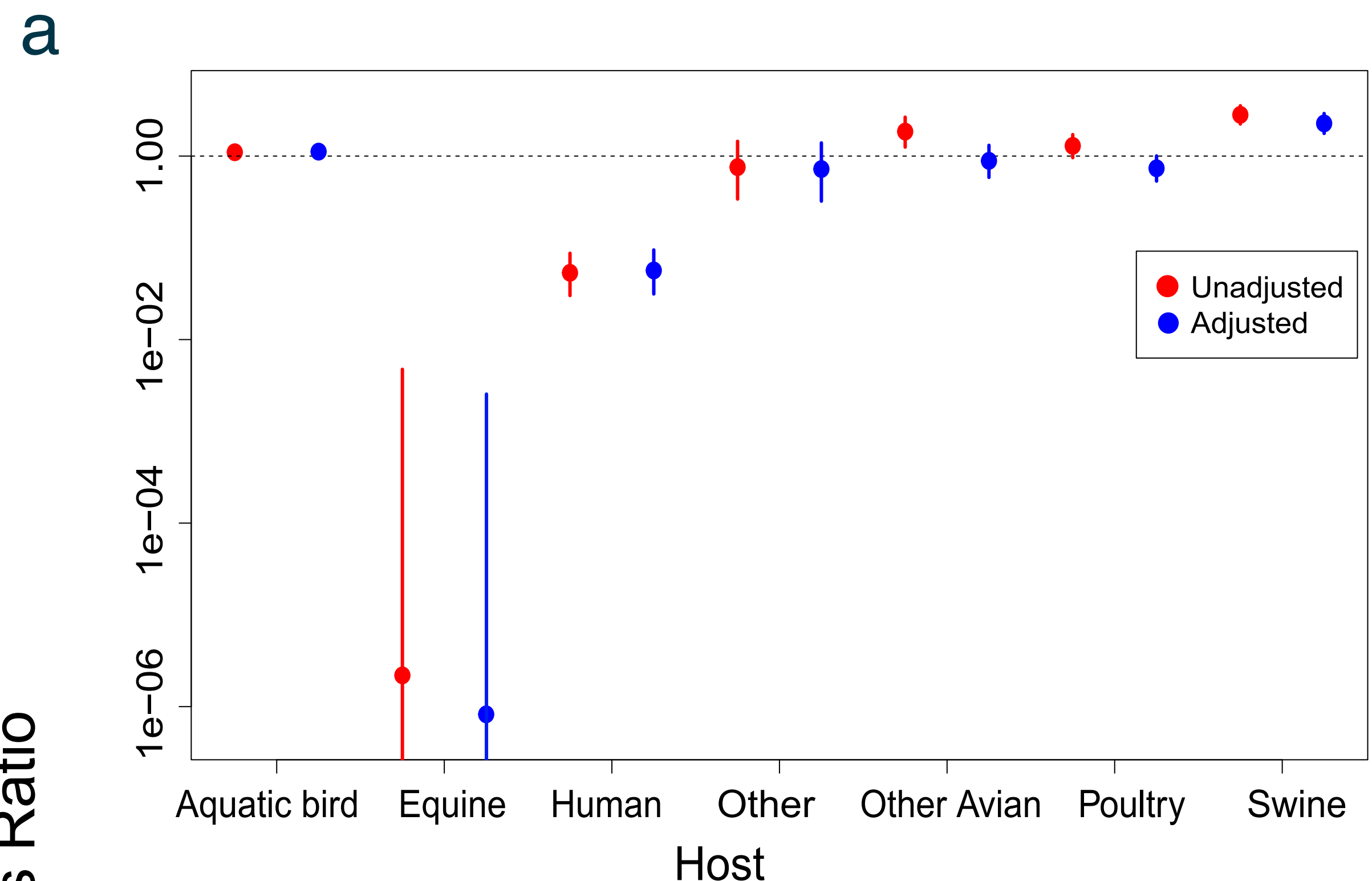
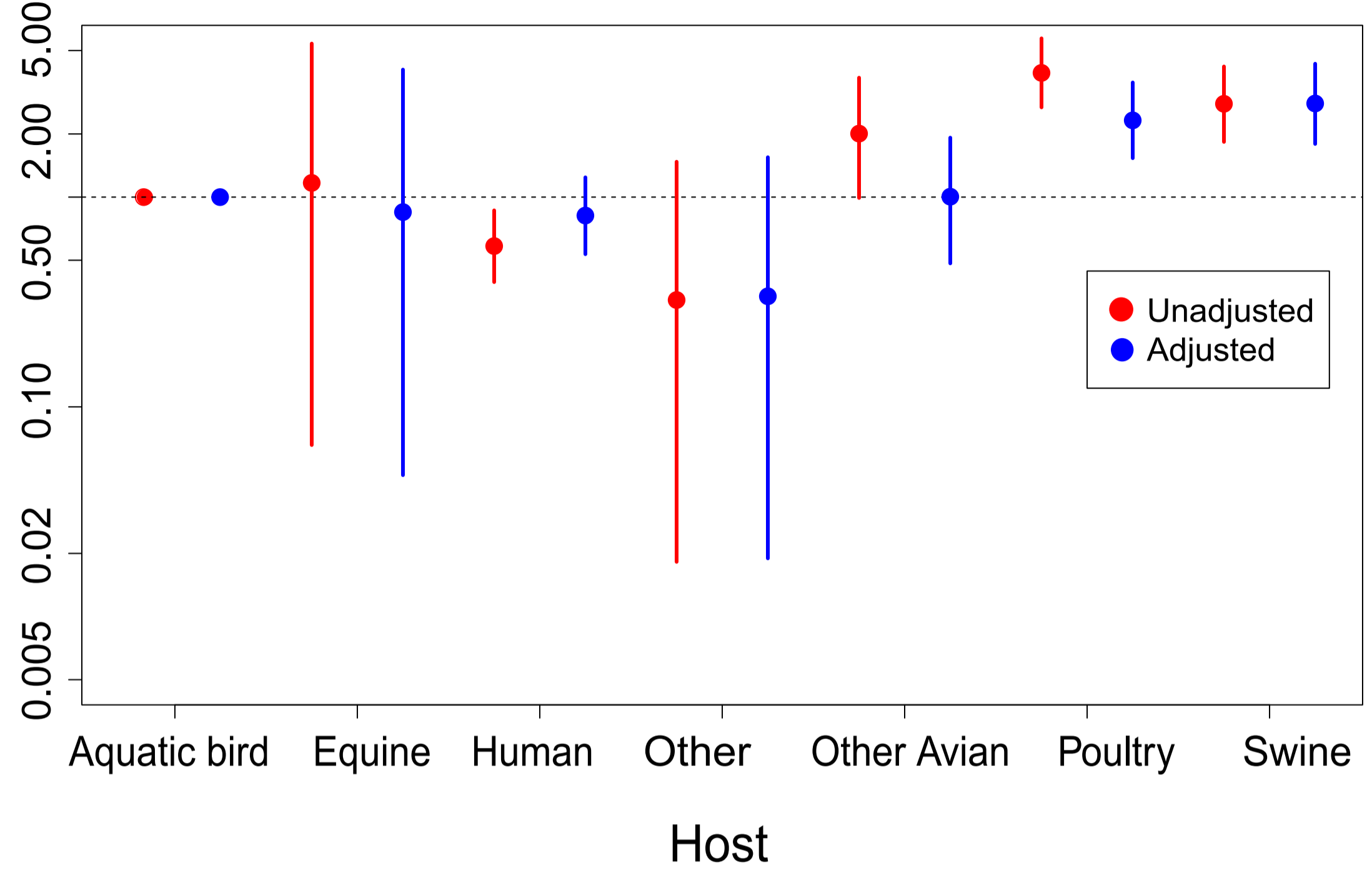
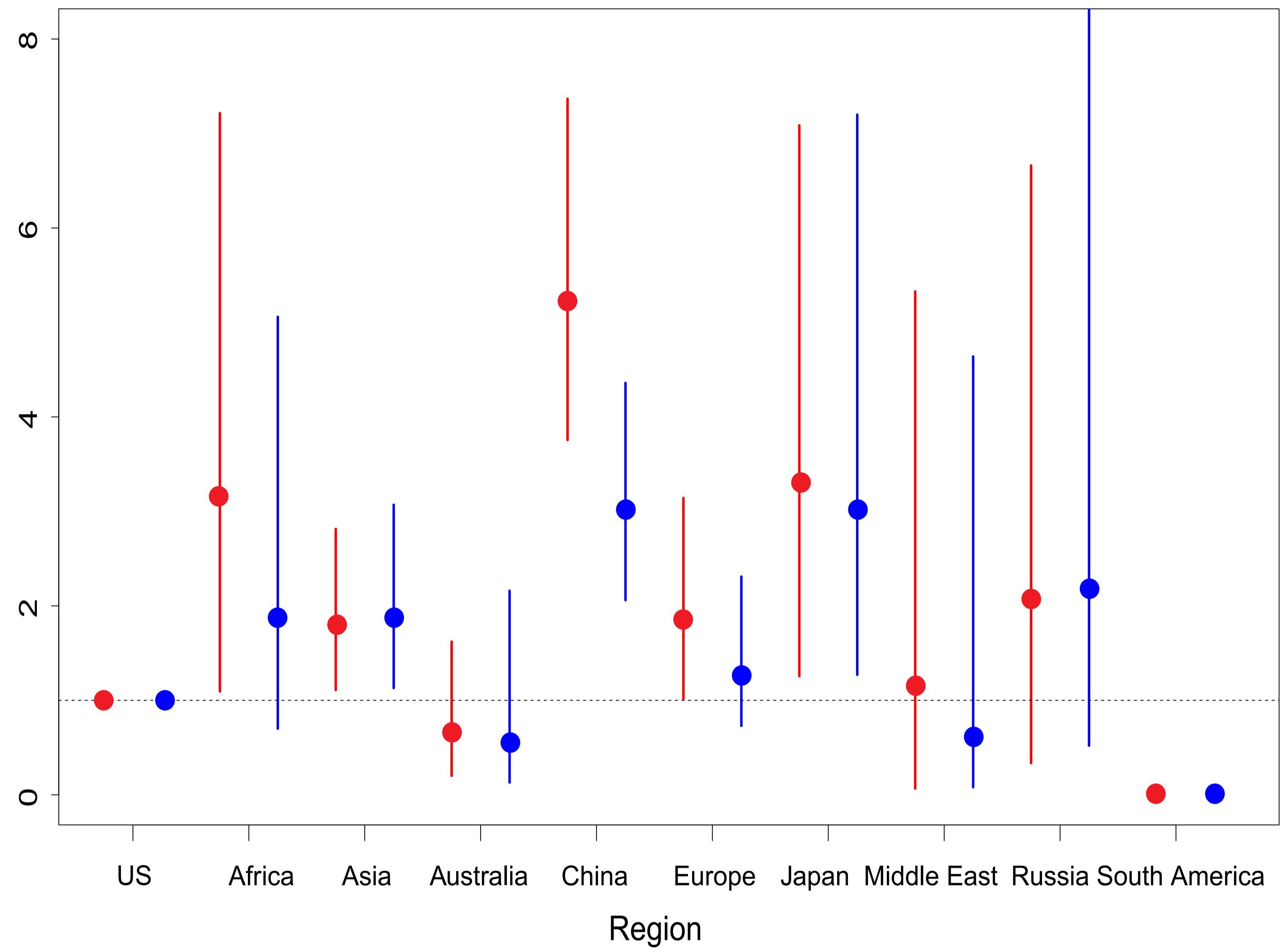


Figure-S4 Pinsent

a



b



c

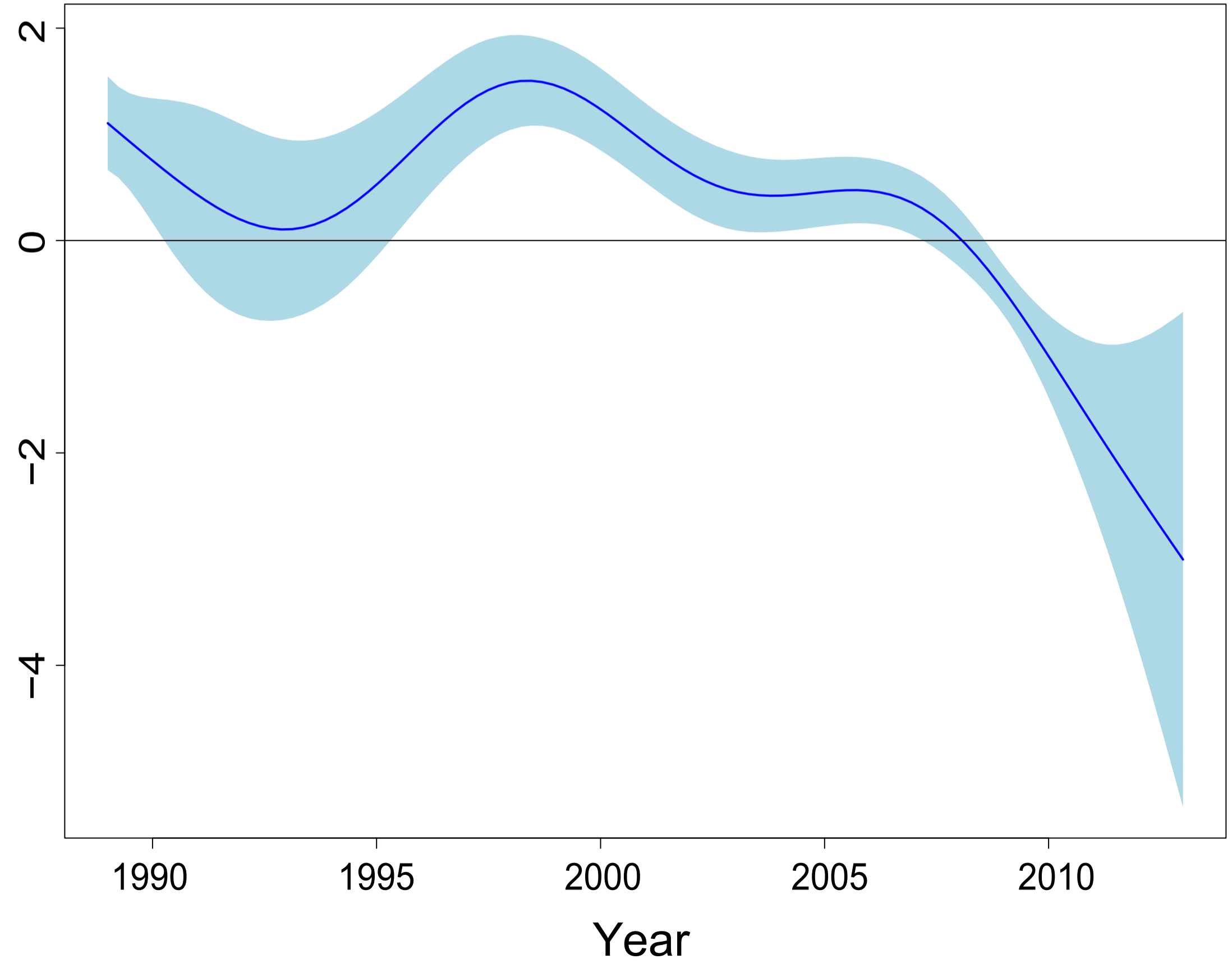
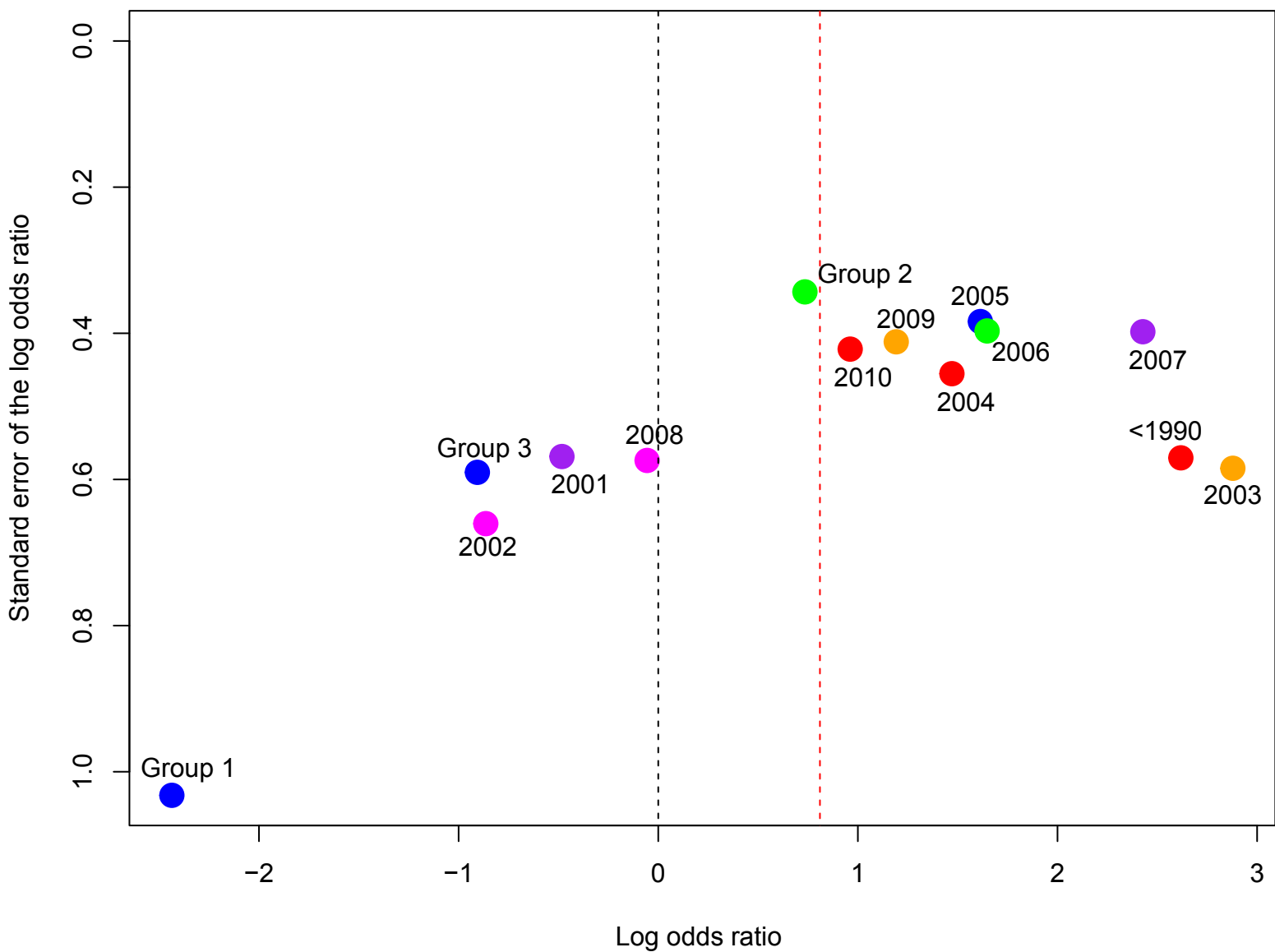


Figure S5 Pinsent

a **Swine**



b **China**

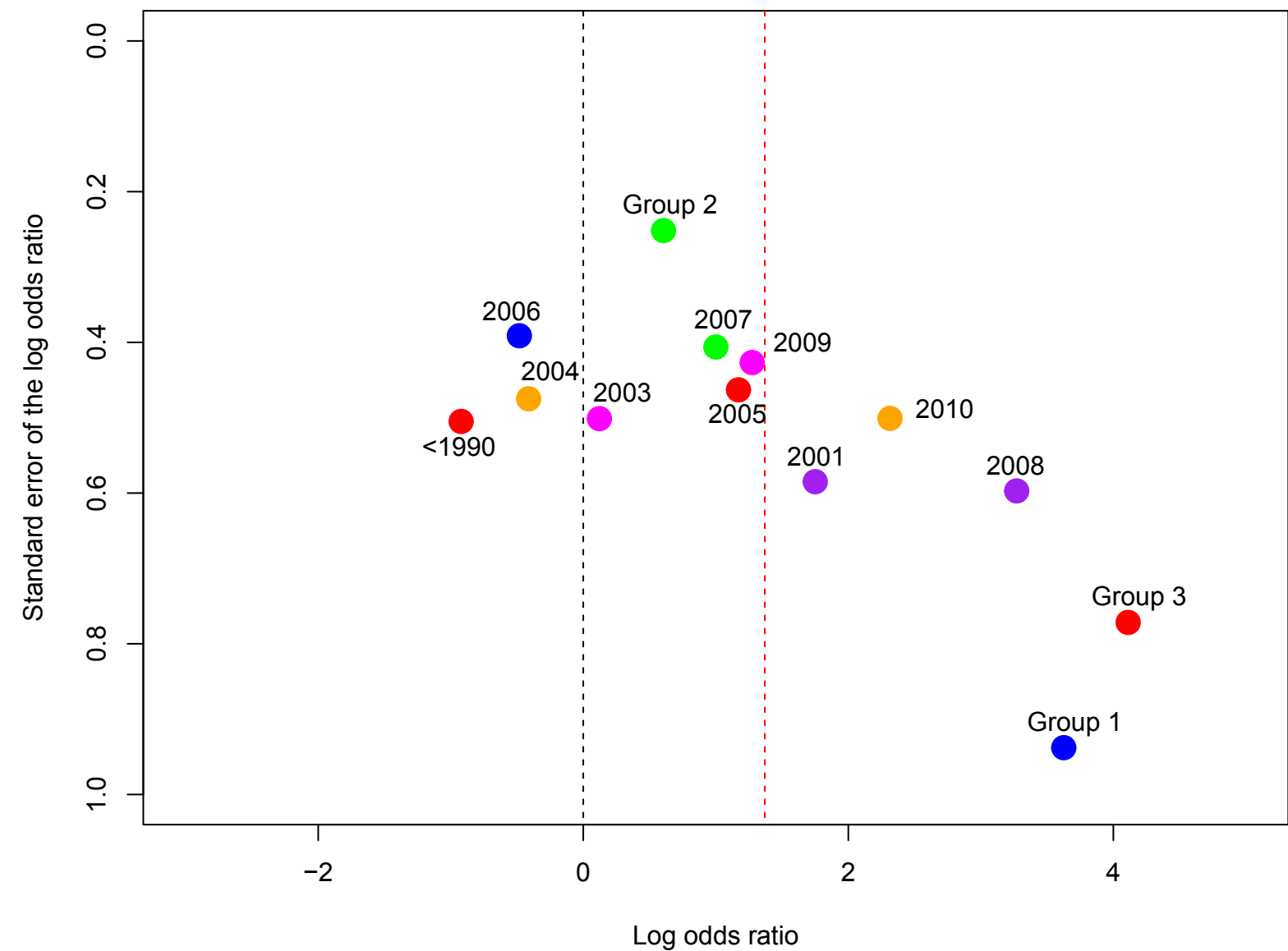


Table S1: Table for the univariate and multivariate odds for the general additive model analysis, for the 646 reported inter and intra-subtype reassortants.

	Odds Ratio (95% confidence interval) ²	<i>p</i> ³	Adjusted odds ratio (95% confidence interval) ⁴	<i>p</i> ⁵
Host¹				
Aquatic bird	1		1	
Equine	0.25 (0.01 – 1.16)		0.23 (0.03 – 1.73)	
Human	0.17 (0.12 – 0.22)	<0.001	0.19 (0.14 – 0.25)	<0.001
Other Avian	1.90 (1.24 – 2.62)	<0.001	0.89 (0.63 – 1.26)	
Other	0.65 (0.30 – 1.21)		0.63 (0.32 – 1.25)	
Poultry	1.91 (1.52 – 2.40)	<0.001	1.07 (0.83 – 1.37)	
Swine	2.87 (2.34 – 3.52)	<0.001	2.48 (1.99 – 3.09)	<0.001
Region				
Africa	1.55 (0.69 – 2.98)		1.44 (0.68 – 3.04)	
Asia	1.73 (1.32 – 2.24)	<0.001	2.07 (1.56 – 2.75)	
Australia	0.25 (0.08 – 0.55)	<0.01	0.51 (0.20 – 1.27)	
China	5.24 (4.33 – 6.36)	<0.001	3.45 (2.78 – 4.28)	<0.001
Europe	2.01 (1.46 – 2.71)	<0.001	1.92 (1.38 – 2.65)	<0.001
Japan	2.74 (1.56 – 4.49)	<0.001	2.80 (1.62 – 4.84)	<0.001
Middle East	1.07 (0.26 – 2.86)		0.88 (0.27 – 2.84)	
Russia	1.59 (0.56 – 3.53)		2.25 (0.90 – 5.64)	
South America	0.21 (0.03 – 0.68)	<0.05	0.78 (0.19 – 3.24)	
US	1		1	
Year				
<1990	1			
1990 [‡]	0 (0 – 0)			
1991	0.88 (0.21 – 2.48)			
1992	1.54 (0.45 – 3.94)			
1993	0.69 (0.12 – 1.74)			
1994	0.27 (0.04 – 0.88)	<0.1		
1995	0.36 (0.04 – 1.00)			
1996	0.84 (0.29 – 1.97)			
1997	3.70 (2.11 – 6.31)	<0.001		
1998	2.70 (1.49 – 4.70)	<0.001		
1999	1.79 (1.06 – 2.95)	<0.05		
2000	2.10 (1.34 – 3.26)	<0.001		
2001	1.69 (1.06 – 2.67)	<0.05		
2002	1.86 (1.20 – 2.86)	<0.01		
2003	1.33 (0.86 – 2.05)			
2004	1.21 (0.78 – 1.87)			
2005	1.06 (0.70 – 1.59)			
2006	1.16 (0.78 – 1.74)			
2007	0.74 (0.49 – 1.11)			
2008	0.71 (0.48 – 1.21)			
2009	0.24 (0.16 – 0.37)	<0.001		
2010	0.63 (0.41 – 0.98)	<0.05		
2011	0.64 (0.38 – 1.05)	<0.1		
2012	0.92 (0.47 – 1.68)			
2013	1.06 (0.05 – 5.20)			

Footnote: ¹ The covariate and each level that was analysed when the analysis was performed. ² The calculated unadjusted odds ratio for reporting inter- and intra-subtype reassortants for each covariate. Baseline levels for host, region of isolation and year are indicated in the table. Numbers in brackets indicate confidence intervals at the 95% level. ³ The p-value for each covariate for the unadjusted odds of reporting reassortants, calculated at the 95% significance level. ⁴ The calculated adjusted odds ratio for reporting inter- and intra-subtype reassortants for each covariate. Baseline levels for host, region of isolation and year are indicated in the table.

Numbers in brackets indicate confidence intervals at the 95% level. ⁵ The p-value for each covariate for the adjusted odds of reporting reassortants, calculated at the 95% significance level. We present the results for the univariate analysis for year, where year was treated as a categorical variable. Covaraites which have an * next to them have an estimated OR of 0, as no data on reported reassortants was identified for them.

Table S2: Table for the univariate and multivariate odds for the general additive model analysis, for the 416 reported inter-subtype reassortants.

	Odds Ratio (95% confidence interval) ²	<i>p</i> ³	Adjusted odds ratio (95% confidence interval) ⁴	<i>p</i> ⁵
Host¹				
Aquatic bird	1		1	
Equine*	0 (0 – 0)		0 (0 – 0)	
Human	0.05 (0.03 – 0.08)	<0.001	0.05 (0.03 – 0.09)	<0.001
Other Avian	1.84 (1.25 – 2.65)	<0.01	0.89 (0.60 – 1.33)	
Other	0.75 (0.34 – 1.45)		0.70 (0.34 – 1.45)	
Poultry	1.29 (0.96 – 1.71)	<0.1	0.76 (0.52 – 1.04)	<0.1
Swine	2.81 (2.23 – 3.53)	<0.001	2.28 (1.78 – 2.92)	<0.001
Region				
Africa	0.83 (0.20 – 2.22)		0.89 (0.27 – 2.91)	
Asia	1.69 (1.22 – 2.31)	<0.01	2.11 (1.51 – 2.95)	<0.001
Australia	0.07 (0.004 – 0.32)	<0.01	0.29 (0.04 – 2.16)	
China	5.01 (4.00 – 6.32)	<0.001	3.46 (2.68 – 4.47)	<0.001
Europe	2.06 (1.42 – 2.93)	<0.001	2.41 (1.64 – 3.55)	<0.001
Japan	2.45 (1.19 – 4.48)	<0.01	2.69 (1.37 – 5.27)	<0.01
Middle East	1.03 (0.17 – 3.29)		1.02 (0.24 – 4.28)	
Russia	1.37 (0.33 – 3.67)		2.26 (0.70 – 7.29)	
South America	0.31 (0.05 – 0.99)		1.95 (0.46 – 8.24)	
US	1		1	
Year				
<1990	1			
1990*	0 (0 – 0)			
1991	1.41 (0.22 – 4.97)			
1992	2.76 (0.63 – 8.34)			
1993	1.25 (0.29 – 3.73)			
1994	0.65 (0.10 – 2.28)			
1995	0.36 (0.04 – 1.79)			
1996	1.21 (0.28 – 3.61)			
1997	4.40 (1.99 – 9.27)	<0.001		
1998	4.60 (2.18 – 9.40)	<0.001		
1999	2.10 (0.98 – 4.31)	<0.05		
2000	2.90 (1.57 – 5.43)	<0.001		
2001	2.72 (1.47 – 5.09)	<0.01		
2002	2.93 (1.63 – 5.37)	<0.001		
2003	2.65 (1.52 – 4.77)	<0.001		
2004	1.80 (0.98 – 3.33)			
2005	1.52 (0.86 – 2.75)			
2006	2.00 (1.17 – 3.54)	<0.05		
2007	1.05 (0.59 – 1.91)			
2008	1.30 (0.71 – 2.42)			
2009	0.42 (0.24 – 0.76)	<0.01		
2010	1.39 (0.80 – 2.47)			
2011	1.42 (0.76 – 2.66)			
2012	2.24 (1.07 – 4.55)	<0.05		
2013	2.57 (0.14 – 0.13)			

Footnote: ¹ The covariate and each level that was analysed when the analysis was performed. ² The calculated unadjusted odds ratio for reporting inter-subtype reassortants for each covariate. Baseline levels for host, region of isolation and year are indicated in the table. Numbers in brackets indicate confidence intervals at the 95% level. ³ The p-value for each covariate for the unadjusted odds of reporting reassortants, calculated at the 95% significance level. ⁴ The calculated adjusted odds ratio for reporting inter-subtype reassortants for each covariate. Baseline levels for host, region of isolation and year are indicated in the table. Numbers in brackets

indicate confidence intervals at the 95% level.⁵ The p-value for each covariate for the adjusted odds of reporting reassortants, calculated at the 95% significance level. We present the results for the univariate analysis for year, where year was treated as a categorical variable. Covariates which have an * next to them have an estimated OR of 0, as no data on reported reassortants was identified for them.

Table S3: Table for the univariate and multivariate odds for the general additive model analysis, for the 230 reported intra-subtype reassortants.

	Odds Ratio (95% confidence interval) ²	<i>p</i> ³	Adjusted odds ratio (95% confidence interval) ⁴	<i>p</i> ⁵
Host¹				
Aquatic bird	1		1	
Equine	1.16 (0.06 – 5.39)		0.87 (0.11 – 6.50)	
Human	0.58 (0.39 – 0.86)	<0.01	0.77 (0.51 – 1.17)	
Other Avian	2.00 (0.99 – 3.70)	<0.05	0.98 (0.49 – 1.94)	
Other	0.32 (0.01 – 1.47)		0.34 (0.04 – 2.51)	
Poultry	3.91 (2.67 – 5.71)	<0.001	2.28 (1.51 – 3.44)	<0.001
Swine	2.78 (1.83 – 4.19)	<0.001	2.64 (1.70 – 4.08)	<0.001
Region				
Africa	3.15 (1.09 – 7.21)	<0.05	1.89 (0.70 – 5.06)	
Asia	1.78 (1.10 – 2.81)	<0.05	1.86 (1.13–3.07)	
Australia	0.66 (0.20 – 1.62)		0.53 (0.13 – 2.16)	
China	5.23 (3.75 – 7.36)	<0.001	3.00 (2.06–4.36)	<0.001
Europe	1.83 (1.01 – 3.14)	<0.05	1.30 (0.73 – 2.31)	
Japan	3.27 (1.25 – 7.08)	<0.01	3.02 (1.27–7.20)	<0.05
Middle East	1.16 (0.06 – 5.32)		0.62 (0.08 – 4.64)	
Russia	2.05 (0.33 – 6.66)		2.19 (0.52–9.15)	
South America	0 (0 – 0)		0 (0 – 0)	
US	1		1	
Year				
<1990	1			
1990*	0 (0 – 0)			
1991	0.50 (0.02 – 2.43)			
1992	0.65 (0.03 – 3.12)			
1993	0.30 (0.01 – 1.42)			
1994	0 (0 – 0)			
1995	0.26 (0.01 – 1.27)			
1996	0.58 (0.09 – 1.98)			
1997	2.88 (1.30 – 5.92)	<0.01		
1998	1.23 (0.41 – 3.00)			
1999	1.52 (0.73 – 3.00)			
2000	1.44 (0.75 – 2.70)			
2001	0.92 (0.43 – 1.83)			
2002	1.04 (0.52 – 1.97)			
2003	0.38 (0.15 – 0.84)	<0.001		
2004	0.77 (0.39 – 1.45)			
2005	0.72 (0.40 – 1.28)			
2006	0.55 (0.29 – 1.03)	<0.1		
2007	0.51 (0.28 – 0.92)	<0.05		
2008	0.39 (0.17 – 0.78)	<0.05		
2009	0.12 (0.06 – 0.23)	<0.001		
2010	0.10 (0.03 – 0.27)	<0.001		
2011	0.09 (0.01 – 0.30)	<0.01		
2012	0 (0 – 0)			
2013	0 (0 – 0)			

Footnote: ¹ The covariate and each level that was analysed when the analysis was performed. ² The calculated unadjusted odds ratio for reporting intra-subtype reassortants for each covariate. Baseline levels for host, region of isolation and year are indicated in the table. Numbers in brackets indicate confidence intervals at the 95% level. ³ The p-value for each covariate for the unadjusted odds of reporting reassortants, calculated at the 95% significance level. ⁴ The calculated adjusted odds ratio for reporting intra-subtype reassortants for each covariate. Baseline levels for host, region of isolation and year are indicated in the table. Numbers in brackets

indicate confidence intervals at the 95% level.⁵ The p-value for each covariate for the adjusted odds of reporting reassortants, calculated at the 95% significance level. We present the results for the univariate analysis for year, where year was treated as a categorical variable. Covaraites which have an * next to them have an estimated OR of 0, as no data on reported reassortants was identified for them.