

Table S2. Dataset summary before and after subsampling.

H9 AIV Sequences										
	Japan/ S Korea	E China	C China	W China	SE Asia	S Asia	Middle East	Europe	N America	Total
Domestic	100	570	816	129	17	91	326	11	9	2069
Wild	16	13	38	0	1	2	21	25	98	214
Region total	116	583	854	129	18	93	347	36	107	2283
<i>After subsampling</i>										
Domestic	100	134	141	94	17	91	189	11	0	777
Wild	16	13	38	0	1	2	21	25	62	178
Region total	116	147	179	94	18	93	210	36	62	955
H3 AIV Sequences										
		North Asia	Japan/ S Korea	E China	C China	SE Asia	Europe	N America	Total	
Domestic		0	62	23	31	24	0	3	143	
Wild		46	52	2	8	8	86	1039	1241	
Region total		46	114	25	39	32	86	1042	1384	
<i>After subsampling</i>										
Domestic		0	46	23	31	24	0	3	127	
Wild		46	52	2	8	8	63	508	687	
Region total		46	98	25	39	32	63	511	814	
H6 AIV Sequences										
	Japan/ S Korea	E China	C China	W China	SE Asia	Middle East	Europe	N America	Total	
Domestic	66	182	396	17	14	0	24	28	727	
Wild	20	17	31	0	8	5	109	430	620	
Region total	86	199	427	17	22	5	133	458	1347	
<i>After subsampling</i>										
Domestic	66	87	202	17	14	0	22	25	433	
Wild	18	17	31	0	8	5	88	288	455	
Region total	84	104	233	17	22	5	110	313	888	