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Supplementary Information for:

Genesis and spread of multiple reassortants during the 2016/2017 H5 avian influenza epidemic in Eurasia

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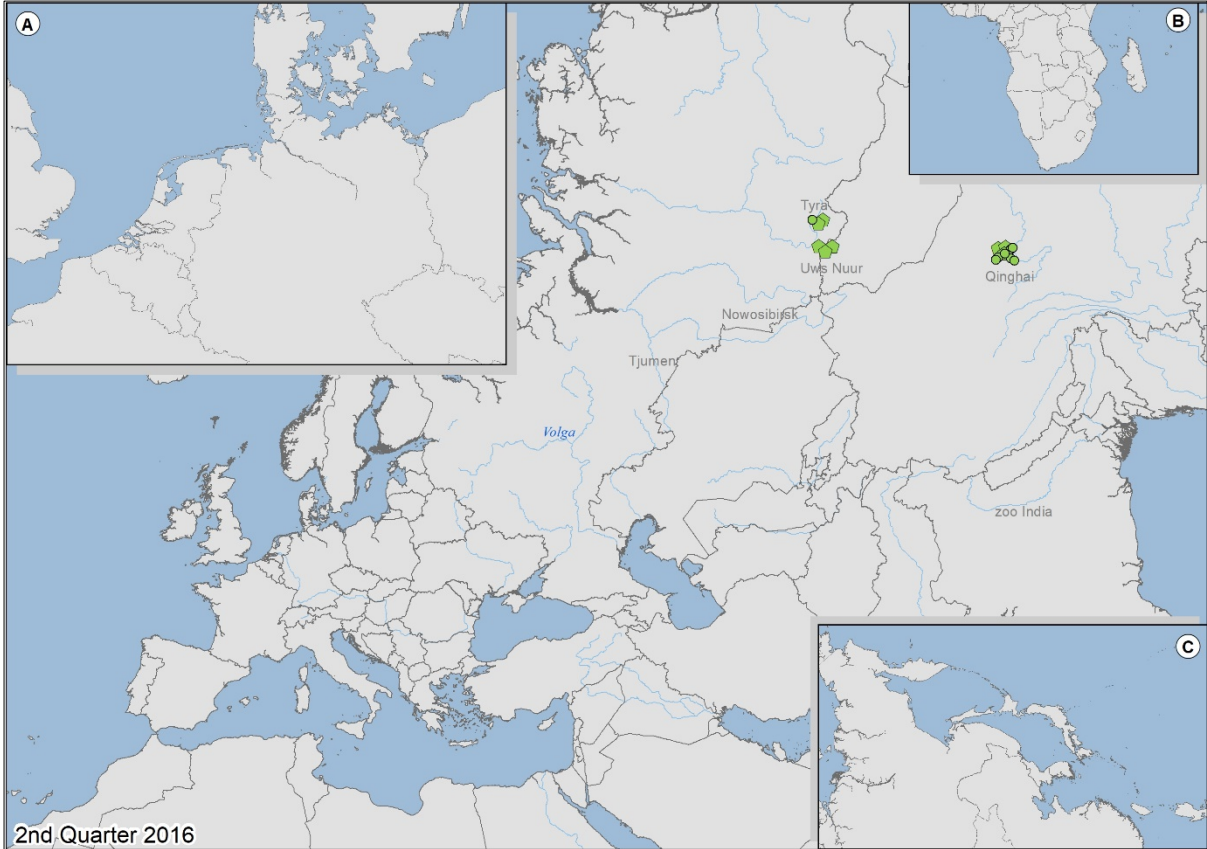
**This PDF file includes:**

Figures S1 to S13  
Tables S1 to S8  
Legends for Movie S1

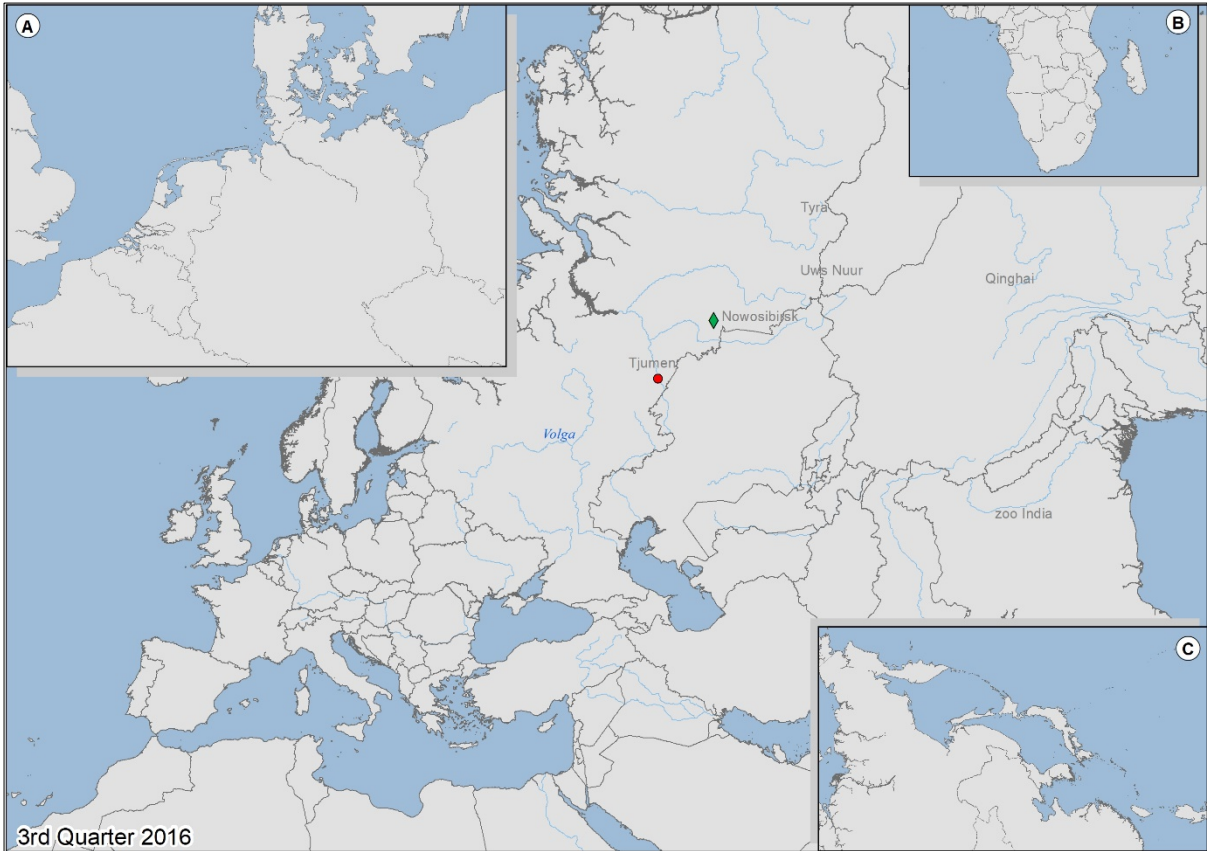
**Other supplementary materials for this manuscript include the following:**

Movie S1

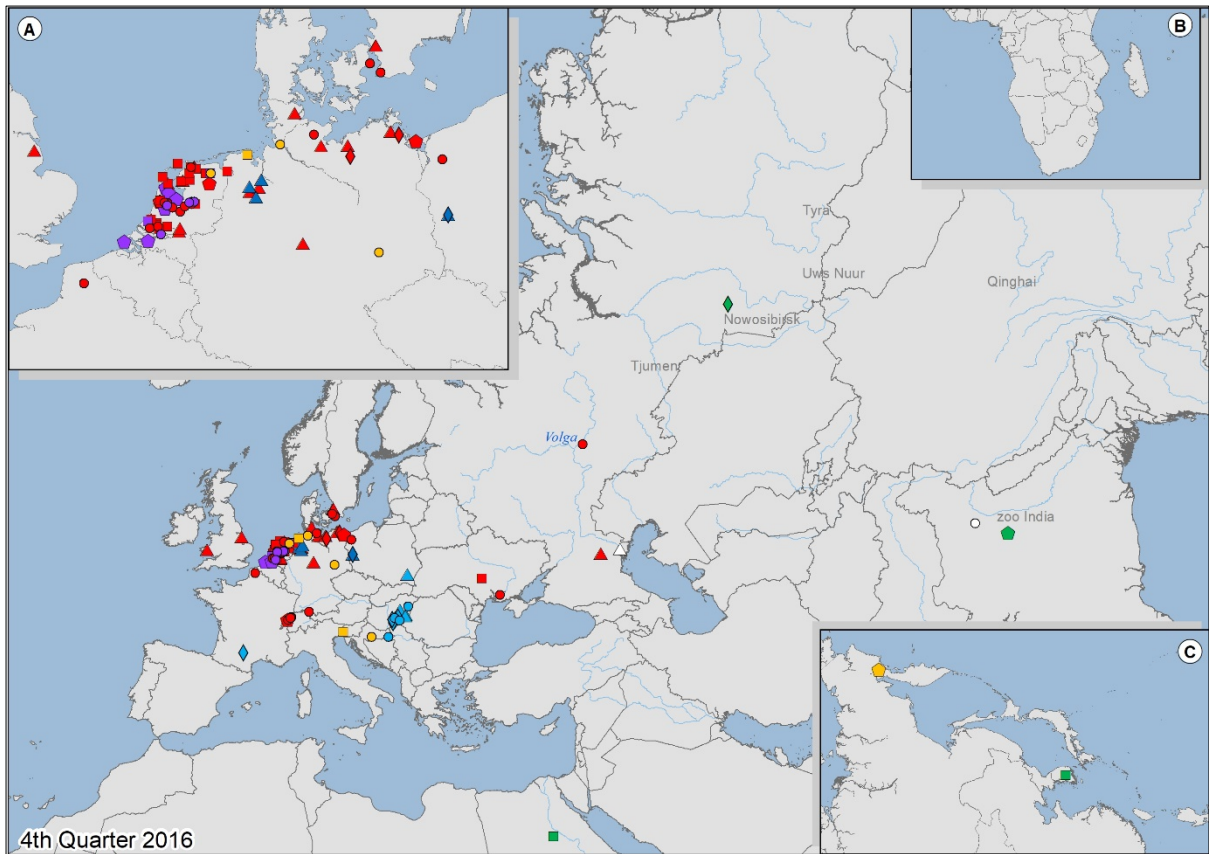
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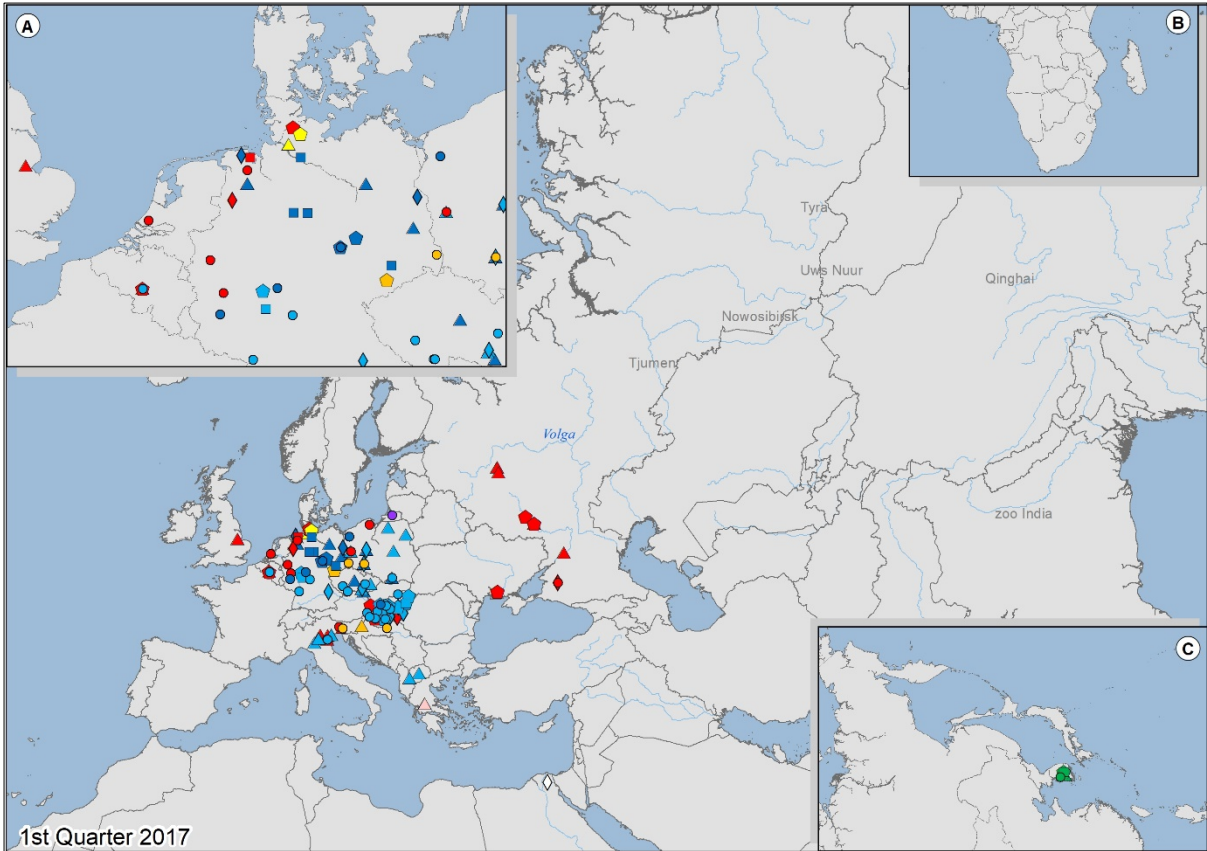
**Fig. S1.** H5NX HPAI viruses with full genome sequences detected in second quarter of 2016. The first viruses, all reassortant #1, were detected in wild birds in West Asia. Light green: reassortant #1. Dark green: reassortant #2. Red: reassortant #3. Purple: reassortant #4. Orange: reassortant #5. Light blue: reassortant #6. Dark blue: reassortant #7. Circle: Wild-ans. Square: Wild-ans-long. Pentagon: Wild-other. Rhomboid: Dom-ans. Triangle: Dom-gal. Inserts shows magnified maps of (a) the Northwest coast of Europe, (b) Southern Africa and (c) the East coast of Asia. Lambert conformal conic projection. Map images credit: Copyright © 1995–2020 Esri. All rights reserved. Published in the United States of America.



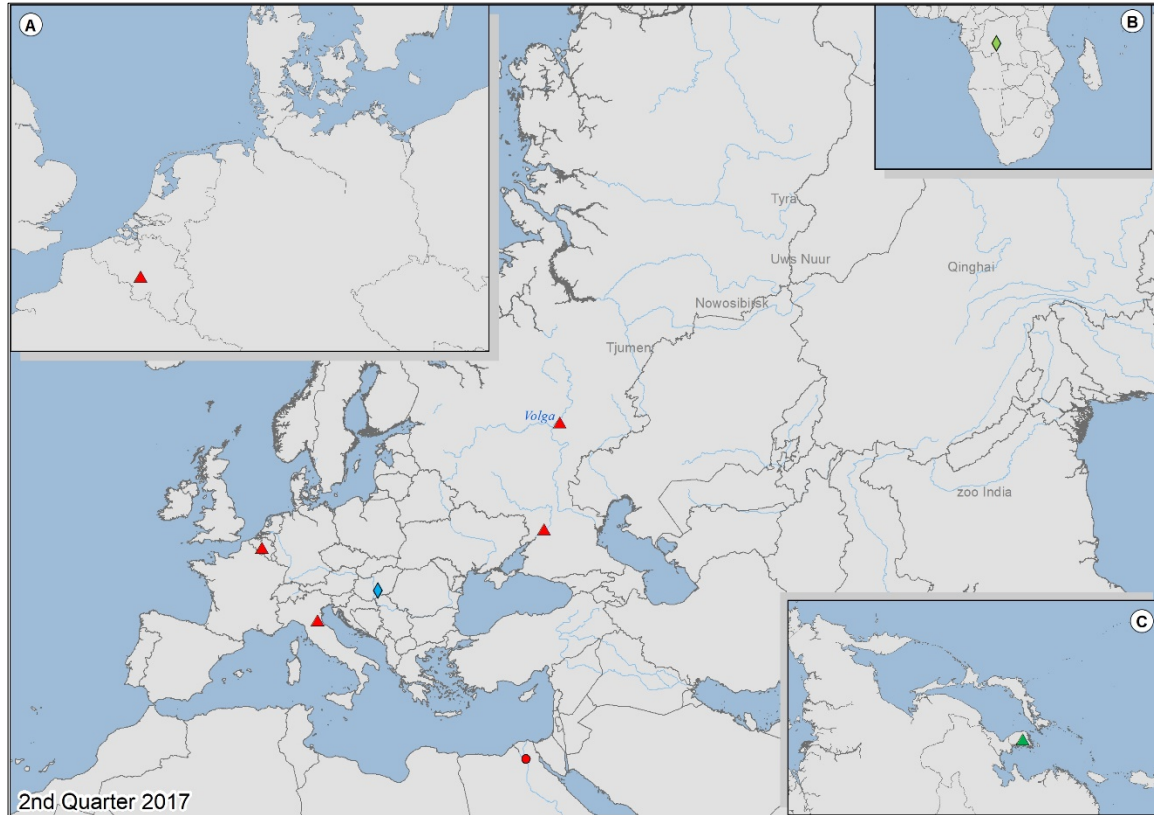
**Fig. S2.** H5NX HPAI viruses with full genome sequences detected in third quarter of 2016. Individual viruses of reassortants #2 and #3 were detected in wild birds at the border between Asia and Europe. For legend, see Fig. S1. Inserts show magnified maps of (a) the Northwest coast of Europe, (b) Southern Africa and (c) the East coast of Asia. Lambert conformal conic projection. Map images credit: Copyright © 1995–2020 Esri. All rights reserved. Published in the United States of America.



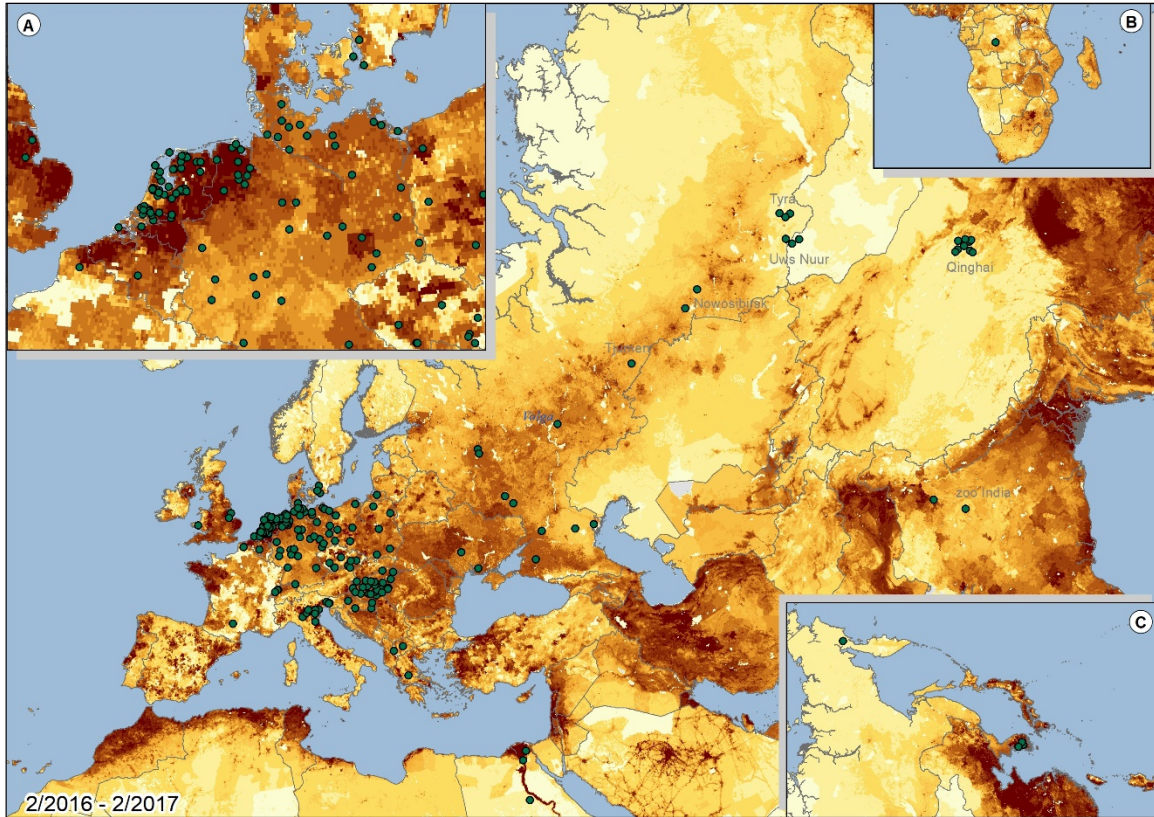
**Fig. S3.** H5NX HPAI viruses with full genome sequences detected in fourth quarter of 2016. Many viruses of reassortants #3, #4, #5, #6, and #7 were detected both in wild birds and poultry in different parts of Europe. A few viruses of reassortant #2 are detected in Northern Africa, South Asia, and East Asia, mainly in wild birds, but also in poultry. A virus of reassortant #3 was detected in a wild bird in east Asia. For legend, see Fig. S1. Inserts show magnified maps of (a) the Northwest coast of Europe, (b) Southern Africa and (c) the East coast of Asia. Lambert conformal conic projection. Map images credit: Copyright © 1995–2020 Esri. All rights reserved. Published in the United States of America.



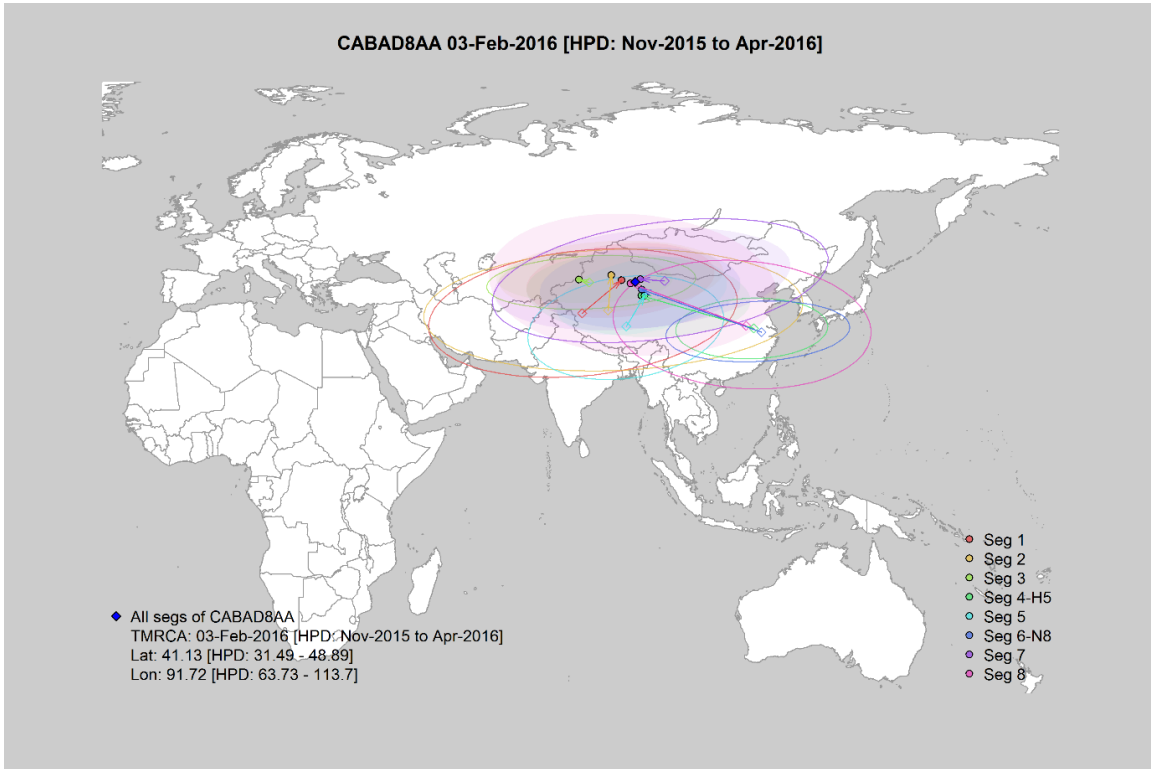
**Fig. S4.** H5NX HPAI viruses with full genome sequences detected in first quarter of 2017. Many viruses of reassortants #3, #4, #5, #6, and #7 were detected both in wild birds and poultry in different parts of Europe. A few viruses of reassortant #2 were detected in wild birds in East Asia. For legend, see Fig. S1. Inserts show magnified maps of (a) the Northwest coast of Europe, (b) Southern Africa and (c) the East coast of Asia. Lambert conformal conic projection. Map images credit: Copyright © 1995–2020 Esri. All rights reserved. Published in the United States of America.



**Fig. S5.** H5NX HPAI viruses with full genome sequences detected in second quarter of 2017. A few viruses of reassortant #3 were detected in poultry in different parts of Europe. Two viruses of reassortant #2 are detected in captive birds in central Africa and in poultry in East Asia. A virus of reassortant #6 was detected in captive birds in central Europe. For legend, see Fig. S1. Inserts show magnified maps of (a) the Northwest coast of Europe, (b) Southern Africa and (c) the East coast of Asia. Lambert conformal conic projection. Map images credit: Copyright © 1995–2020 Esri. All rights reserved. Published in the United States of America.

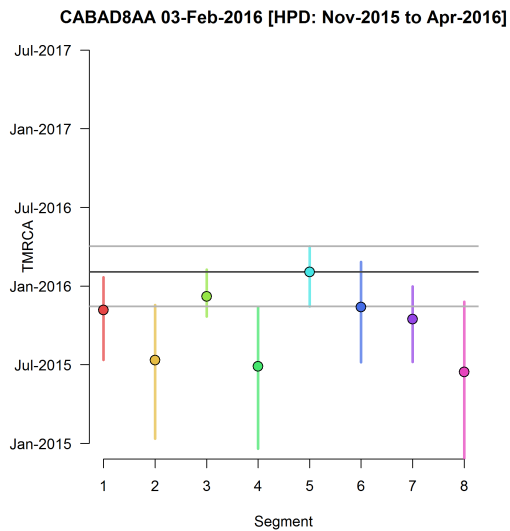


**Fig. S6.** Relationship between poultry density and H5NX HPAI viruses with full genome sequences detected between the second quarter of 2016 and second quarter of 2017. The figure indicates that there is no apparent spatial association between the two. Inserts show magnified maps of (a) the Northwest coast of Europe, (b) Southern Africa and (c) the East coast of Asia. Lambert conformal conic projection. Map images credit: Copyright © 1995–2020 Esri. All rights reserved. Published in the United States of America.



Origin map of CABAD8AA

Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor

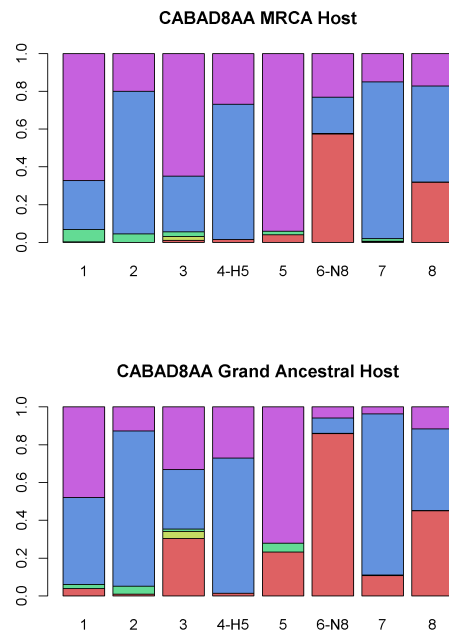
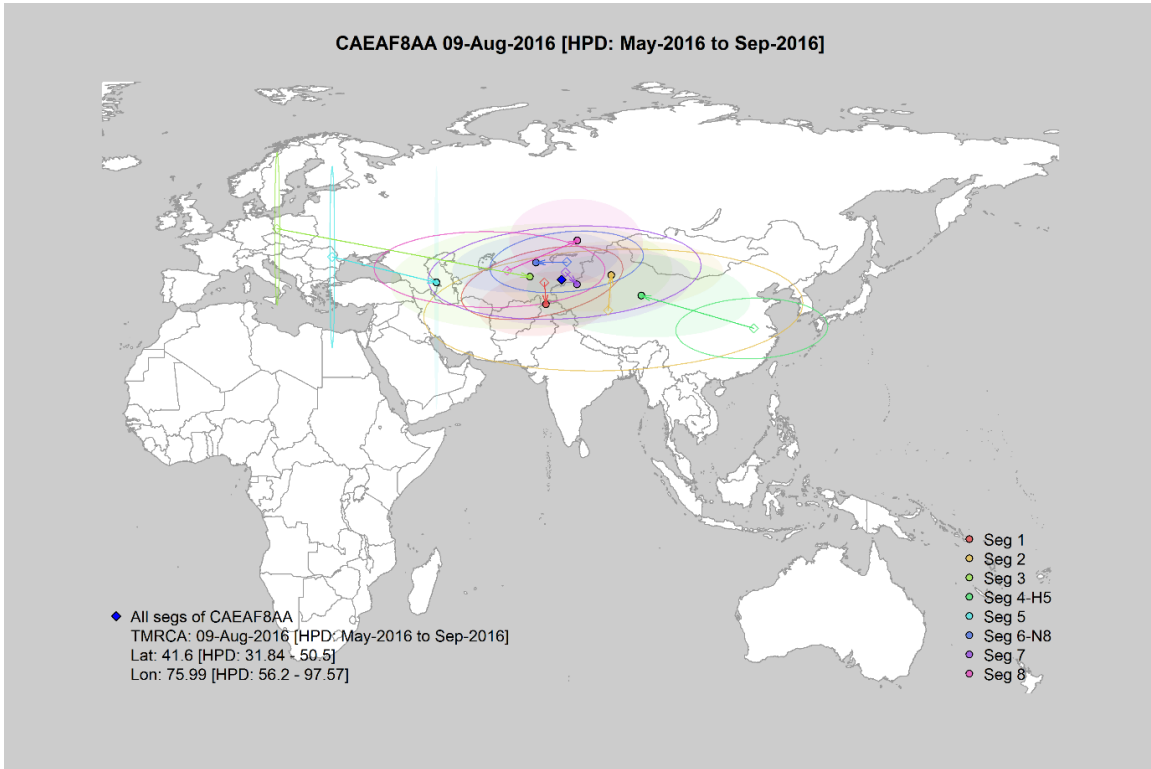


Fig. S7. Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #1 (CABAD8AA). For the inferred hosts: blue, long-distance wild anseriform birds; dark green, other wild anseriform birds; violet, other wild birds; red, domestic anseriform birds; light green, domestic galliform birds. Origin map: filled circles are

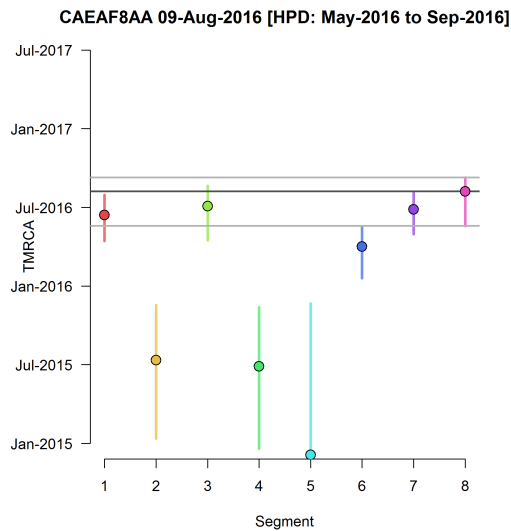


the origin estimates per segment (shaded ovals are the highest posterior density [HPD] confidence intervals); open diamonds are the location estimates of the grand ancestors (large open ovals are the confidence intervals); arrows show the inferred direction of from the grand ancestor to the origin estimates. Blue diamond: median origin estimate of the segments. Equirectangular projection.

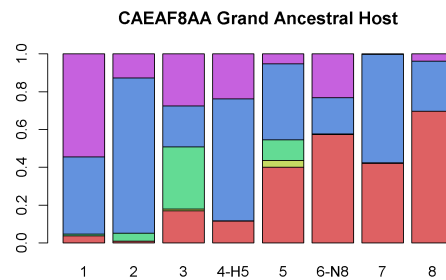
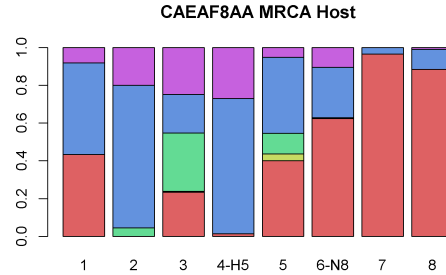


Origin map of CAEAF8AA

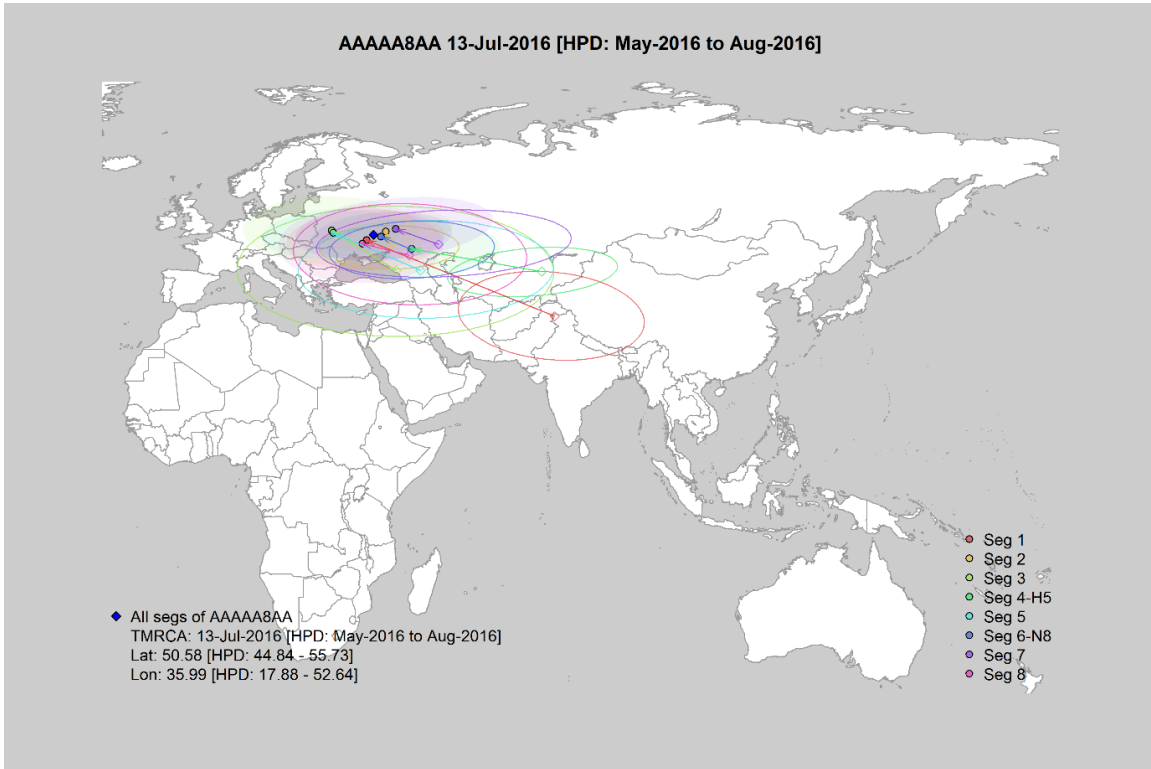
Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor

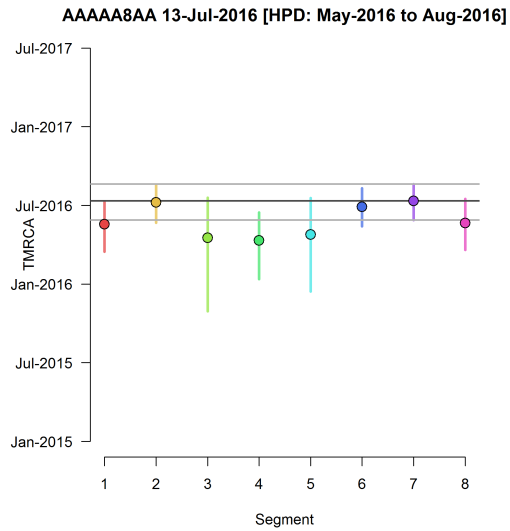


**Fig. S8.** Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #2 (CAEAF8AA). Legend for inferred hosts and elements of the origin map: see Fig. S7. Equirectangular projection.

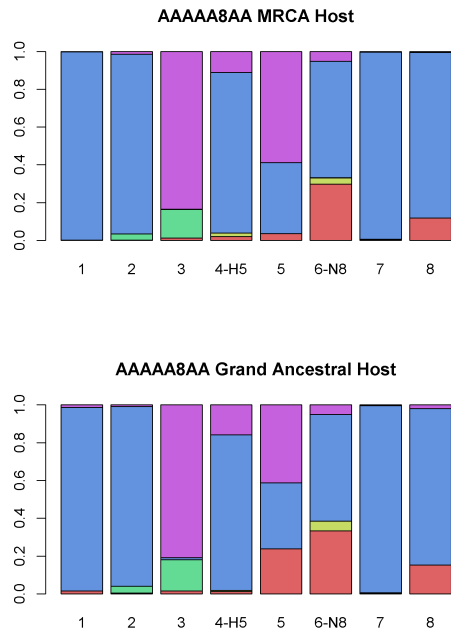


Origin map of AAAAA8AA

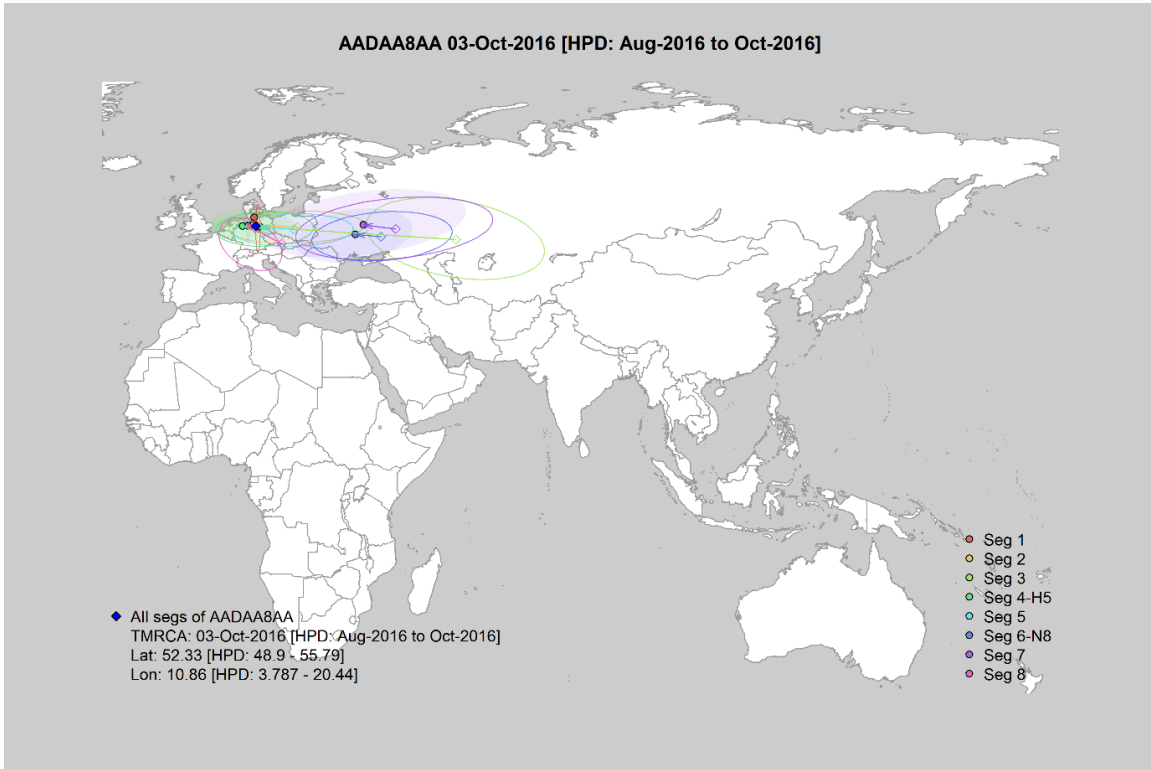
Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor

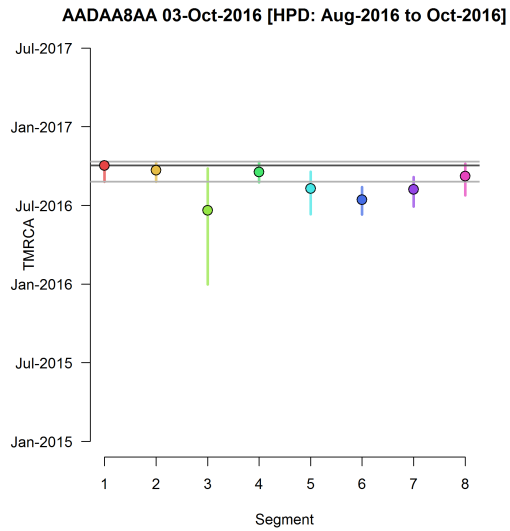


**Fig. S9.** Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #3 (AAAAA8AA). Legend for inferred hosts and elements of the origin map: see Fig. S7. Equirectangular projection.

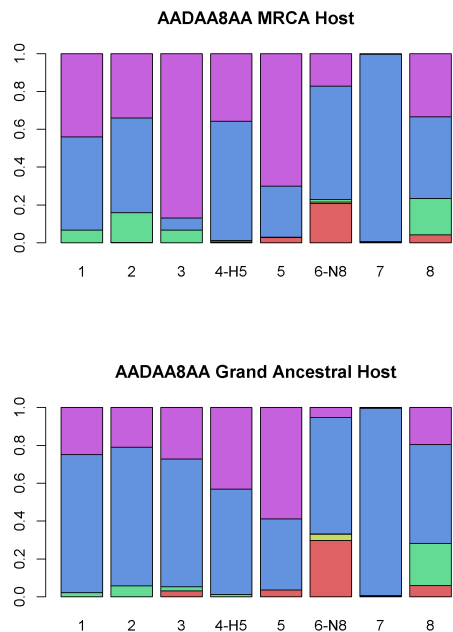


Origin map of AADAA8AA

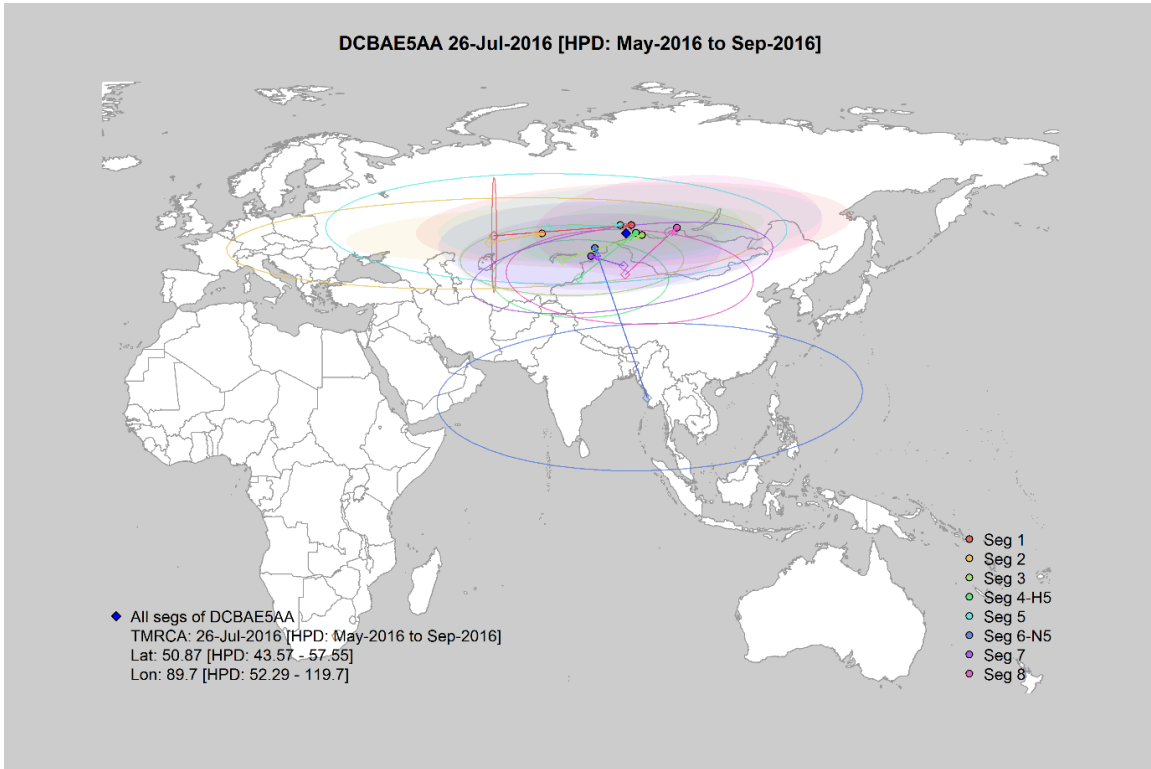
Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor

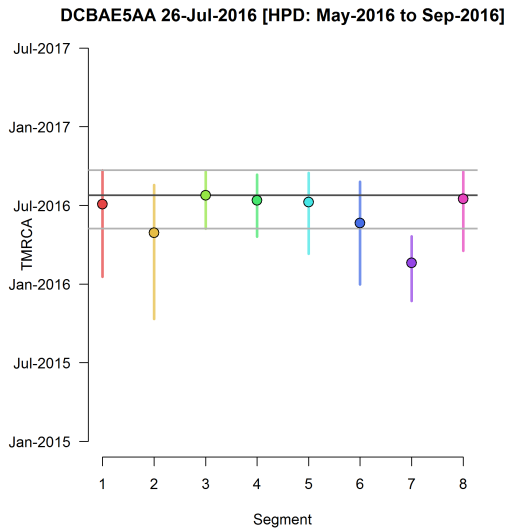


**Fig. S10.** Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #4 (AADAA8AA). Legend for inferred hosts and elements of the origin map: see Fig. S7. Equirectangular projection.

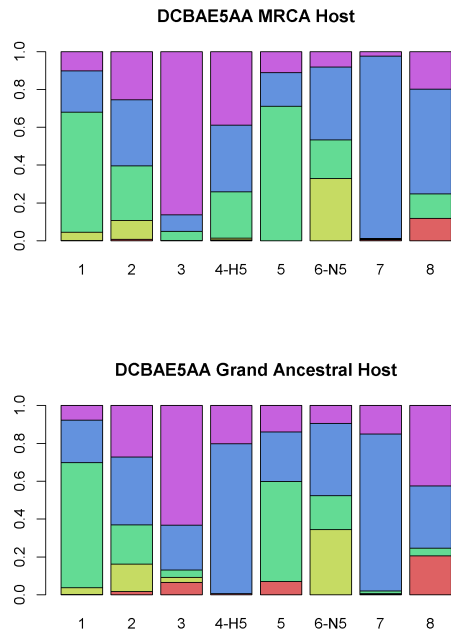


Origin map of DCBAE5AA

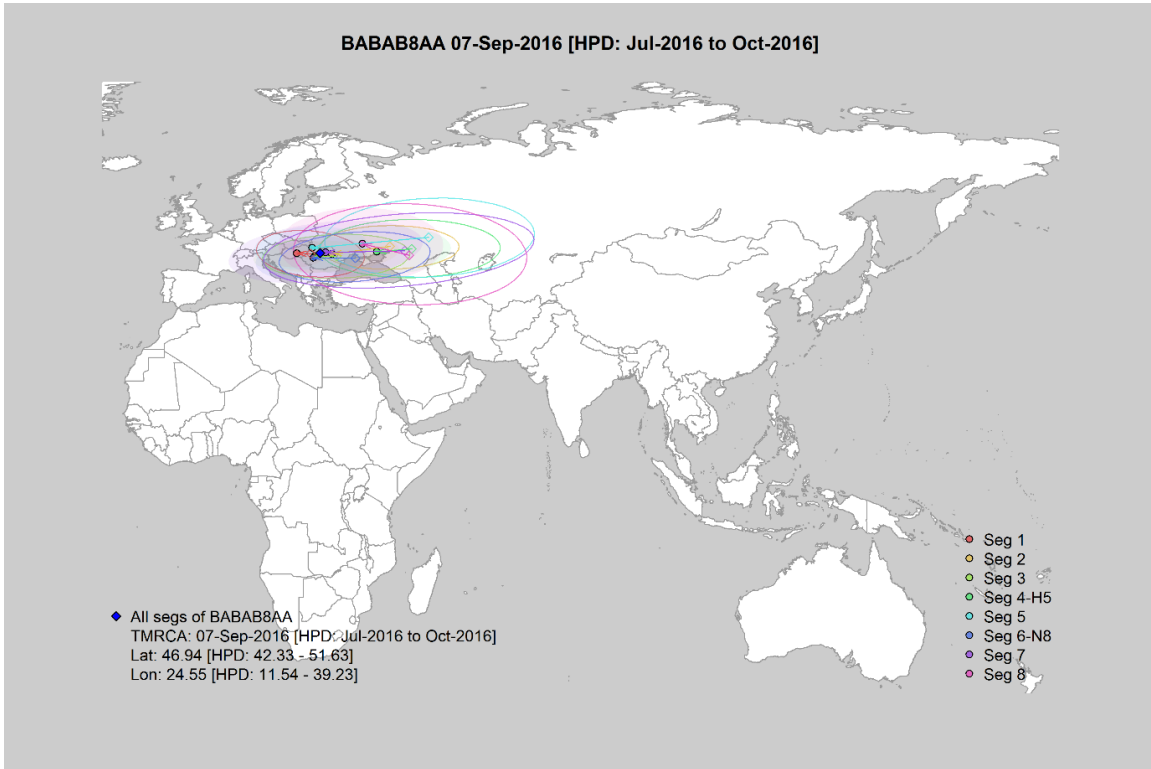
Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor

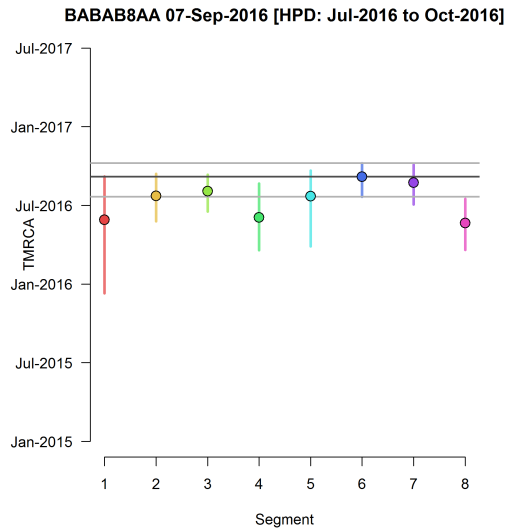


**Fig. S11.** Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #5 (DCBAE5AA). Legend for inferred hosts and elements of the origin map: see Fig. S7. Equirectangular projection.

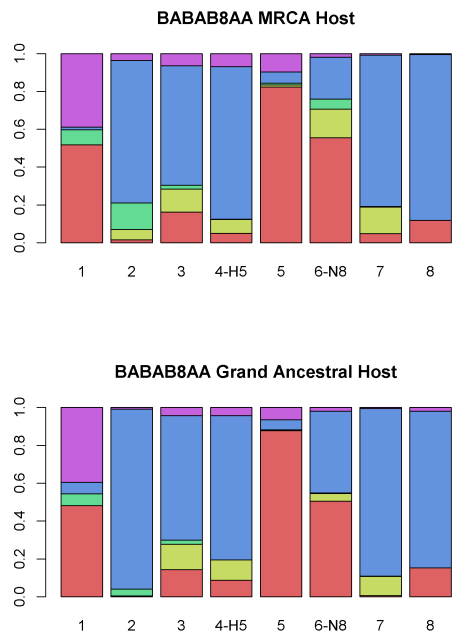


Origin map of BABAB8AA

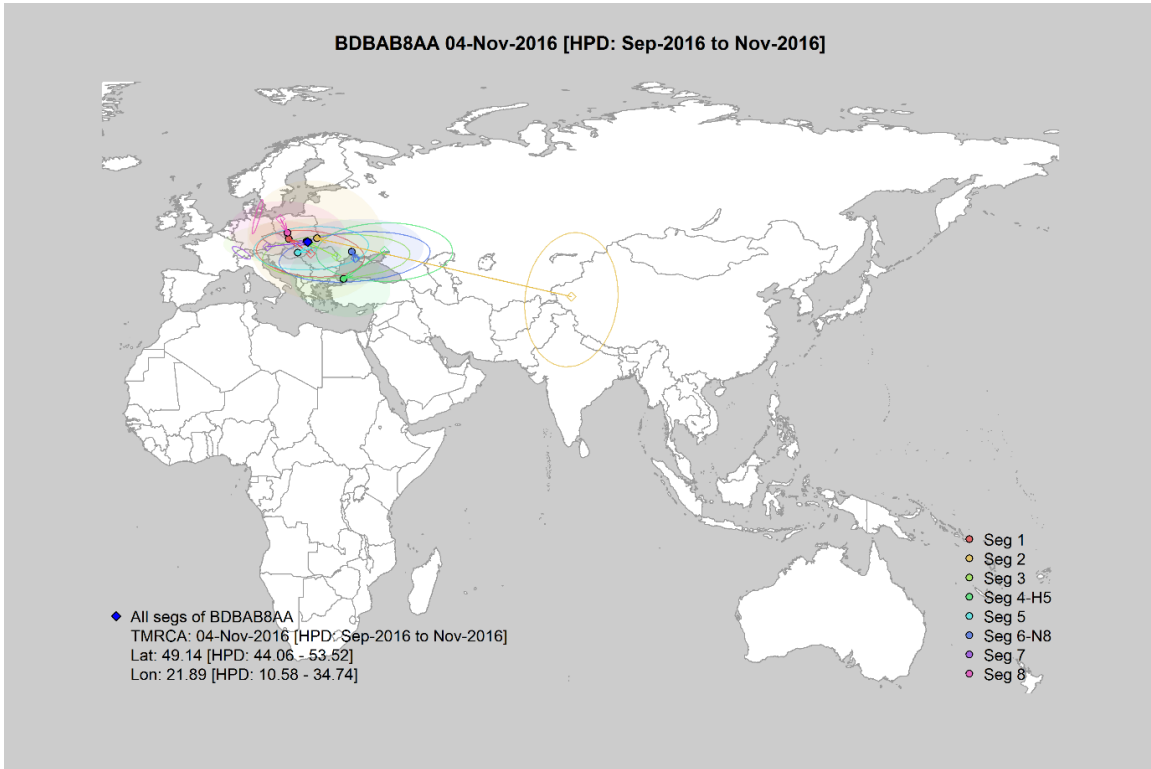
Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor

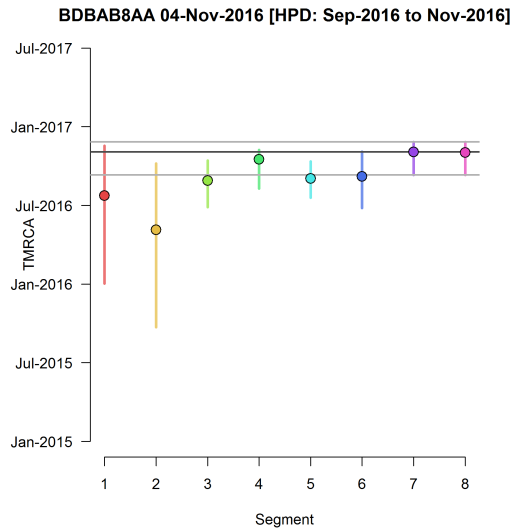


**Fig. S12.** Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #6 (BABAB8AA). Legend for inferred hosts and elements of the origin map: see Fig. S7. Equirectangular projection.

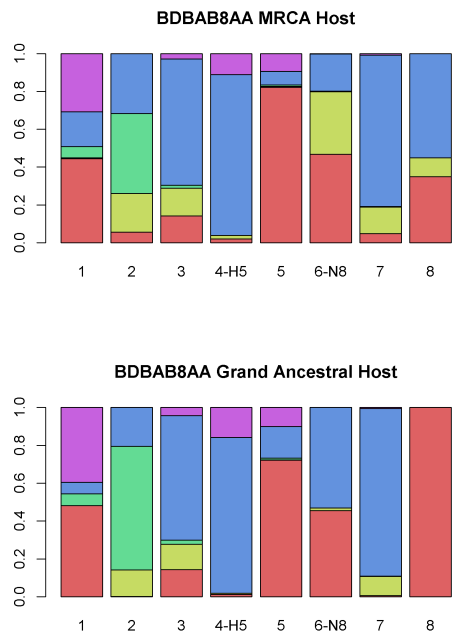


Origin map of BDBAB8AA

Origin time at MRCA (TMRCA)



Inferred Host at MRCA and Grand Ancestor



**Fig. S13.** Location of origin, date of origin, and inferred hosts of the most recent common ancestor (MRCA) and grand ancestor of reassortant #7 (BDBAB8AA). Legend for inferred hosts: see Fig. S7. Equirectangular projection.

**Table S1.** Categorisation of Asia and Europe into geographical subregions

Region	Subregion	Country or dependency
Asia	Central	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan
	East	China, Hong Kong, Macau, Japan, Mongolia, North Korea, South Korea, Taiwan
	North	Siberia, Ural, Russian Far East
	South	Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, India, Pakistan, Sri Lanka
	South-East	Northeast India (part of India east of Siliguri Corridor), Vietnam, Laos, Cambodia, Thailand, Myanmar, Malaysia, Andaman Islands, Nicobar Islands, Indonesia, Singapore, the Philippines, East Timor, Brunei, Christmas Island, Cocos (Keeling) Islands
	West	Abkhazia, Armenia, Artsakh, Azerbaijan, Bahrain, Cyprus, Egypt (Sinai Peninsula), Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Northern Cyprus, Oman, Palestine, Qatar, Saudi Arabia, South Ossetia, Syria, Turkey (Asian part), United Arab Emirates, Yemen
Europe	Central and East	Albania, Belarus, Bosnia/Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Moldova, Montenegro, Poland, Romania, Russia (west of Ural Mountains), Serbia, Slovakia, Slovenia, Ukraine
	North	Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden
	South	Greece, Italy, Portugal, Spain
	West	Austria, Belgium, France, Germany, Ireland, Luxemburg, The Netherlands, Switzerland, United Kingdom



**Table S2.** The division of sequences of H5 HPAI viruses among host categories

Reassortant			No. of sequences					
No.	Name	Group	Total	Domestic anseriformes	Domestic galliformes	Wild anseriformes	Wild long range	Wild other
1	CABAD8AA	I	16	3	0	5	0	8
2	CAEAF8AA	I	13	3	4	1	3	2
3	AAAAA8AA	II	109	9	29	30	27	14
4	AADAA8AA	II	14	1	0	4	1	8
5	DCBAE5AA	III	15	0	1	9	2	3
6	BABAB8AA	IV	56	17	17	14	2	6
7	BDBAB8AA	IV	6	2	2	1	1	0

**Table S3.** Dataset (i) of gene sequences of 240 isolates (232 complete genomes, 8 partial genomes) from 25 different countries in the period May 2016 to July 2017 with subtypes H5N8 (218), H5N5 (21) and H5N6 (1) used for BEAST analysis.

Accn_1	Accn_2	Accn_3	Accn_4.H5	Accn_5	Accn_6.N5	Accn_6.N8	Accn_7	Accn_8	Sub-type	Country	IsolateName	Decimal Date	WG_CODE
224580	224580	224580	224580	224580	0	224580	224580	224580	H5N8	Russia	A/great_crested_grebe/Uvs-Nuur_Lake/341/2016	2016.395	CABAD8AA
224726	224726	224726	224726	224726	0	224726	224726	224726	H5N8	China	A/Bar-headed_Goose/Qinghai/BTY11-LU/2016	2016.351	CABAD8AA
224740	224740	224740	224740	224740	0	224740	224740	224740	H5N8	China	A/Bar-headed_Goose/Qinghai/BTY18-LU/2016	2016.367	CABAD8AA
224743	224743	224743	224743	224743	0	224743	224743	224743	H5N8	China	A/Brown-headed_Gull/Qinghai/ZTO1-LU/2016	2016.329	CABAD8AA
224751	224751	224751	224751	224751	0	224751	224751	224751	H5N8	China	A/Brown-headed_Gull/Qinghai/ZTO6-MU/2016	2016.367	CABAD8AA
224752	224752	224752	224752	224752	0	224752	224752	224752	H5N8	China	A/Great_Black-headed_Gull/Qinghai/YO1-B/2016	2016.367	CABAD8AA
230820	230820	230820	230820	230820	0	230820	230820	230820	H5N8	Russia	A/great_crested_grebe/Tyva/34/2016	2016.395	CABAD8AA
231684	231684	231684	231684	231684	0	231684	231684	231684	H5N8	Russia	A/wild_duck/Tyva/35/2016	2016.395	CABAD8AA
231685	231685	231685	231685	231685	0	231685	231685	231685	H5N8	Russia	A/black-headed_gull/Tyva/41/2016	2016.395	CABAD8AA
234057	234057	234057	234057	234057	0	234057	234057	234057	H5N8	Russia	A/grey_heron_/Uvs-Nuur_Lake/20/2016	2016.395	CABAD8AA
234058	234058	234058	234058	234058	0	234058	234058	234058	H5N8	Russia	A/common_tern_/Uvs-Nuur_Lake/26/2016	2016.395	CABAD8AA
237553	237553	237553	237553	237553	0	237553	237553	237553	H5N8	India	A/duck/India/10CA01/2016	2016.792	CABAA8AA
237554	237554	237554	237554	237554	0	237554	237554	237554	H5N8	India	A/painted_stork/India/10CA03/2016	2016.8	CAEAF8AA
237730	237730	237730	237730	237730	0	237730	237730	237730	H5N8	Hungary	A/mute_swan/Hungary/51049/2016	2016.797	BABAB8AA
237731	237731	237731	237731	237731	0	237731	237731	237731	H5N8	Hungary	A/domestic_turkey/Hungary/53433/2016	2016.836	BABAB8AA
237921	237921	237921	237921	237921	0	237921	237921	237921	H5N8	Poland	A/wild_duck/Poland/82A/2016	2016.836	AAAAA8AA
237944	237944	237944	237944	237944	0	237944	237944	237944	H5N8	Germany	A/tufted_duck/Germany/AR8444-L01987/2016	2016.849	AAAAA8AA
237964	237964	237964	237964	237964	0	237964	237964	237964	H5N8	Hungary	A/duck/Hungary/54494/2016	2016.852	BABAB8AA
237965	237965	237965	237965	237965	0	237965	237965	237965	H5N8	Hungary	A/goose/Hungary/55128/2016	2016.86	BABAB8AA
238037	238037	238037	238037	238037	0	238037	238037	238037	H5N8	Germany	A/turkey/Germany-SH/R8595/2016	2016.855	AAAAA8AA
238196	238196	238196	238196	238196	0	238196	238196	238196	H5N8	Croatia	A/mute_swan/Croatia/70/2016	2016.827	BABAB8AA
238896	238896	238896	238896	238896	0	238896	238896	238896	H5N8	Sweden	A/Chicken/Sweden/SVA161122KU0453/SZ0209321/2016	2016.888	AAAAA8AA
238897	238897	238897	238897	238897	0	238897	238897	238897	H5N8	Sweden	A/Common_Golden_ey/Sweden/SVA161117KU0322/SZ002165/2016	2016.868	AAAAA8AA
239419	239419	239419	239419	239419	0	239419	239419	239419	H5N8	Hungary	A/chicken/Hungary/59048/2016	2016.899	BABAB8AA
239420	239420	239420	239420	239420	0	239420	239420	239420	H5N8	Hungary	A/duck/Hungary/60441/2016	2016.918	BABAB8AA
239436	239436	239436	239436	239436	0	239436	239436	239436	H5N8	Switzerland	A/tufted_duck/Switzerland/V237-L02003/2016	2016.871	AAAAA8AA
239437	239437	239437	239437	239437	0	239437	239437	239437	H5N8	Switzerland	A/caspian_gull/Switzerland/V247-L02004/2016	2016.871	AAAAA8AA
239801	239801	239801	239801	239801	0	239801	239801	239801	H5N8	U.K.	A/turkey/England/052131/2016	2016.953	AAAAA8AA
239997	239997	239997	239997	239997	0	239997	239997	239997	H5N8	France	A/decoy_duck/France	2016.901	AAAAA8AA

240012	240012	240012	240012	240012	0	240012	240012	240012	H5N8	France	ce/161104e/2016 A/duck/France/161108h/2016	2016.907	BABAB8AA
240101	240101	240101	240101	240101	240101	0	240101	240101	H5N5	Croatia	A/mute_swan/Croatia/102/2016	2016.986	DCBAE5AA
240102	240102	240102	240102	240102	0	240102	240102	240102	H5N8	Poland	A/domestic_goose/Poland/33/2016	2016.918	BDBAB8AA
240104	240104	240104	240104	240104	0	240104	240104	240104	H5N8	Poland	A/chicken/Poland/79A/2016	2016.959	BABAB8AA
240110	240110	240110	240110	240110	0	240110	240110	240110	H5N8	Russia	A/chicken/Astrakhan/3131/2016	2016.948	CABAE8AA
240677	240677	240677	240677	240677	0	240677	240677	240677	H5N8	Russia	A/domestic_duck/Siberia/103/2016	2016.756	CAEAF8AA
240893	240893	240893	240893	240893	240893	0	240893	240893	H5N5	Germany	A/swan/Germany-SN/R10645/2016	2016.948	DCBAE5AA
242902	242902	242902	242902	242902	0	242902	242902	242902	H5N8	Italy	A/wigeon/Italy/17VIR57-3/2017	2017.005	AAAAA8AA
243085	243085	243085	243085	243085	243085	0	243085	243085	H5N5	Italy	A/wigeon/Italy/16VIR9616-3/2016	2016.992	DCBAE5AA
243698	243698	243698	243698	243698	243698	0	243698	243698	H5N5	Croatia	A/mute_swan/Croatia/42/2017	2017.052	DCBAE5AA
247713	247713	247713	247713	247713	0	247713	247713	247713	H5N8	Denmark	A/tufted_duck/Denmark/17740-1/2016	2016.852	AAAAA8AA
247716	247716	247716	247716	247716	0	247716	247716	247716	H5N8	Russia	A/Ural_owl/Voronezh/14/2017	2017.014	AAAAA8AA
247717	247717	247717	247717	247717	0	247717	247717	247717	H5N8	Russia	A/long-eared_owl/Voronezh/16/2017	2017.014	AAAAA8AA
247720	247720	247720	247720	247720	0	247720	247720	247720	H5N8	Russia	A/chicken/Voronezh/20/2017	2017.014	AAAAA8AA
247721	247721	247721	247721	247721	0	247721	247721	247721	H5N8	Russia	A/turkey/Rostov/11/2017	2017	AAAAA8AA
247722	247722	247722	247722	247722	0	247722	247722	247722	H5N8	Russia	A/goose/Krasnodar/3144/2017	2017.014	AAAAA8AA
247723	247723	247723	247723	247723	0	247723	247723	247723	H5N8	Russia	A/mute_swan/Krasnodar/25/2017	2017.014	AAAAA8AA
247724	247724	247724	247724	247724	0	247724	247724	247724	H5N8	Russia	A/wild_duck/Tatarskaya/3059/2016	2016.751	AAAAA8AA
247725	247725	247725	247725	247725	0	247725	247725	247725	H5N8	Russia	A/chicken/Kalmykia/2643/2016	2016.888	AAAAA8AA
249682	249682	249682	249682	249682	0	249682	249682	249682	H5N8	Germany	A/domestic_goose/Germany-BY/R677/2017	2017.066	BABAB8AA
249691	249691	249691	249691	249691	0	249691	249691	249691	H5N8	Germany	A/chicken/Germany-MV/R10048/2016	2016.904	AAAAA8AA
249692	249692	249692	249692	249692	0	249692	249692	249692	H5N8	Germany	A/chicken/Germany-NI/R11406/2016	2016.978	AAAAA8AA
250231	250231	250231	250231	250231	0	250231	250231	250231	H5N8	Russia	A/domestic_duck/Siberia/49_feather	2016.69	CAEAF8AA
250885	250885	250885	250885	250885	0	250885	250885	250885	H5N8	Czechia	A/mute_swan/Czech Republic/54-17_2/2017_-H5N8-	2017.003	BABAB8AA
250887	250887	250887	250887	250887	0	250887	250887	250887	H5N8	Czechia	A/chicken/Czech Republic/55-17_1/2017_-H5N8-	2017.003	BABAB8AA
253036	253036	253036	253036	253036	0	253036	253036	253036	H5N8	U.K.	A/turkey/England/003778/2017	2017.038	AAAAA8AA
253037	253037	253037	253037	253037	0	253037	253037	253037	H5N8	U.K.	A/chicken/Wales/00023/2016	2016.997	AAAAA8AA
253038	253038	253038	253038	253038	0	253038	253038	253038	H5N8	U.K.	A/pochar_duck/England/SA12_157809/2016	2016.964	AAAAA8AA
254745	254745	254745	254745	254745	0	254745	254745	254745	H5N8	Korea	A/mallard_duck/Korea/WA137/2017	2017.063	CAEAF8AA
254814	254814	254814	254814	254814	0	254814	254814	254814	H5N8	Hungary	A/mallard/Hungary/57857/2016	2016.888	BABAB8AA
255181	255181	255181	255181	255181	0	255181	255181	255181	H5N8	Italy	A/swan/Italy/17VIR537-2/2017	2017.049	AAAAA8AA
255182	255182	255182	255182	255182	0	255182	255182	255182	H5N8	Italy	A/turkey/Italy/17VIR538-1/2017	2017.052	CAEAF8AA
255183	255183	255183	255183	255183	0	255183	255183	255183	H5N8	Italy	A/turkey/Italy/17VIR576-11/2017	2017.06	AAAAA8AA
255184	255184	255184	255184	255184	0	255184	255184	255184	H5N8	Italy	A/chicken/Italy/17VIR653-12/2017	2017.066	AAAAA8AA
255186	255186	255186	255186	255186	0	255186	255186	255186	H5N8	Italy	A/turkey/Italy/17VIR1338-3/2017	2017.121	BABAB8AA
255189	255189	255189	255189	255189	255189	0	255189	255189	H5N5	Italy	A/gadwall/Italy/17VIR133-2/2017	2017.025	DCBAE5AA
255190	255190	255190	255190	255190	0	255190	255190	255190	H5N8	Hungary	A/Mute_swan/Hungary/119/2017	2017.003	BABAB8AA
255191	255191	255191	255191	255191	0	255191	255191	255191	H5N8	Hungary	A/Harris_Hawk/Hungary/120/2017	2017.003	BABAB8AA
255193	255193	255193	255193	255193	0	255193	255193	255193	H5N8	Hungary	A/Duck/Hungary/984/2017	2017.027	BABAB8AA
255194	255194	255194	255194	255194	0	255194	255194	255194	H5N8	Hungary	A/Goose/Hungary/1030/2017	2017.027	AAAAA8AA
255196	255196	255196	255196	255196	0	255196	255196	255196	H5N8	Hungary	A/Grey_lag_goose/Hungary/1941/2017	2017.047	BABAB8AA

255197	255197	255197	255197	255197	0	255197	255197	255197	H5N8	Hungary	A/Mute_swan/Hungary/1955/2017	2017.047	BABAB8AA
255198	255198	255198	255198	255198	0	255198	255198	255198	H5N8	Hungary	A/Turkey/Hungary/2030/2017	2017.047	BABAB8AA
255200	255200	255200	255200	255200	0	255200	255200	255200	H5N8	Hungary	A/Mute_swan/Hungary/2508/2017	2017.058	BABAB8AA
255205	255205	255205	255205	255205	0	255205	255205	255205	H5N8	Hungary	A/Chicken/Hungary/2496/2017	2017.063	BABAB8AA
255206	255206	255206	255206	255206	0	255206	255206	255206	H5N8	Hungary	A/Peregrine_falcon/Hungary/4882/2017	2017.101	AAAAA8AA
255207	255207	255207	255207	255207	0	255207	255207	255207	H5N8	Hungary	A/Mute_swan/Hungary/5316/2017	2017.107	BABAB8AA
255208	255208	255208	255208	255208	0	255208	255208	255208	H5N8	Hungary	A/Common_buzzard/Hungary/7061/2017	2017.14	BABAB8AA
255209	255209	255209	255209	255209	0	255209	255209	255209	H5N8	Hungary	A/Common_tern/Hungary/8187/2017	2017.159	AAAAA8AA
255211	255211	255211	255211	255211	0	255211	255211	255211	H5N8	Hungary	A/Harris_hawk/Hungary/2762b/2017	2017.063	BABAB8AA
255212	255212	255212	255212	255212	0	255212	255212	255212	H5N8	Hungary	A/Grey_lag_goose/Hungary/320/2017	2017.008	AAAAA8AA
255213	255213	255213	255213	255213	0	255213	255213	255213	H5N8	Hungary	A/GuineaFowl/Hungary/596/2017	2017.014	BABAB8AA
255214	255214	255214	255214	255214	0	255214	255214	255214	H5N8	Hungary	A/Chicken/Hungary/1751/2017	2017.044	BABAB8AA
255216	255216	255216	255216	255216	0	255216	255216	255216	H5N8	Hungary	A/Mallard/Hungary/5821/2017	2017.118	BABAB8AA
255219	255219	255219	255219	255219	0	255219	255219	255219	H5N8	Hungary	A/White_froned_goose/Hungary/801/2017	2017.022	BABAB8AA
255220	255220	255220	255220	255220	0	255220	255220	255220	H5N8	Hungary	A/Mallard/Hungary/1574a/2017	2017.036	AAAAA8AA
255398	255398	255398	255398	255398	0	255398	255398	255398	H5N8	Hungary	A/Goose/Hungary/59712/2016	2016.901	BABAB8AA
255400	255400	255400	255400	255400	0	255400	255400	255400	H5N8	Netherlands	A/eurasian_wigeon/Netherlands/16015273-002/2016	2016.915	AAAAA8AA
255405	255405	255405	255405	255405	0	255405	255405	255405	H5N8	Netherlands	A/tufted_duck/Netherlands/16013976-001/2016	2016.855	AAAAA8AA
255409	255409	255409	255409	255409	0	255409	255409	255409	H5N8	Netherlands	A/duck/Netherlands/16014829-011-015/2016	2016.899	AAAAA8AA
255411	255411	255411	255411	255411	0	255411	255411	255411	H5N8	Netherlands	A/chicken/Netherlands/16016112-001-005	2016.945	AAAAA8AA
255626	255626	255626	255626	255626	0	255626	255626	255626	H5N8	France	A/eurasianwigeon/France/161323/2016	2016.97	AAAAA8AA
255627	255627	255627	255627	255627	0	255627	255627	255627	H5N8	France	A/duck/France/161587/2016	2016.995	BABAB8AA
255628	255628	255628	255628	255628	0	255628	255628	255628	H5N8	France	A/chicken/France/161585/2016	2016.995	AAAAA8AA
255629	255629	255629	255629	255629	0	255629	255629	255629	H5N8	France	A/duck/France/170437b/2016	2017.044	BABAB8AA
255891	255891	255891	255891	255891	0	255891	255891	255891	H5N8	Netherlands	A/Tufted_Duck/Netherlands/1/2016	2016.899	AAAAA8AA
255892	255892	255892	255892	255892	0	255892	255892	255892	H5N8	Netherlands	A/Great_Black-backed_Gull/Netherlands/2/2016	2016.893	AAAAA8AA
255910	255910	255910	255910	255910	0	255910	255910	255910	H5N8	Netherlands	A/Mew_Gull/Netherlands/1/2016	2016.893	AAAAA8AA
255913	255913	255913	255913	255913	0	255913	255913	255913	H5N8	Netherlands	A/Mallard/Netherlands/2/2017	2017.016	AAAAA8AA
255914	255914	255914	255914	255914	0	255914	255914	255914	H5N8	Netherlands	A/Eurasian_Wigeon/Netherlands/9/2016	2016.923	AAAAA8AA
255917	255917	255917	255917	255917	255917	0	0	255917	H5N5	Poland	A/mute_swan/Poland/64/2017	2017.082	DCBAE5AA
255933	255933	255933	255933	255933	0	255933	255933	255933	H5N8	Hungary	A/Cormorant/Hungary/6102/2017	2017.123	BABAB8AA
255936	255936	255936	255936	255936	0	255936	255936	255936	H5N8	Hungary	A/Pheasant/Hungary/6553/2017	2017.126	BABAB8AA
255937	255937	255937	255937	255937	0	255937	255937	255937	H5N8	Hungary	A/Pheasant/Hungary/7685/2017	2017.148	BABAB8AA
255938	255938	255938	255938	255938	0	255938	255938	255938	H5N8	Hungary	A/Rook/Hungary/4975/2017	2017.104	BABAB8AA
256298	256298	256298	256298	256298	0	256298	256298	256298	H5N8	Russia	A/gadwall/Kurgan/2442/2016	2016.652	AAAAA8AA
256300	256300	256300	256300	256300	0	256300	256300	256300	H5N8	Russia	A/chicken/Sergiyev_Posad/39/2017	2017.164	AAAAA8AA
256301	256301	256301	256301	256301	256301	0	256301	256301	H5N5	Russia	A/environment/Kamchatka/18/2016	2016.748	DCBAE5AA
256305	256305	256305	256305	256305	0	256305	256305	256305	H5N8	Italy	A/shelduck/Italy/17VIR1572-24/2017	2017.005	BABAB8AA
256306	256306	256306	256306	256306	0	256306	256306	256306	H5N8	Italy	A/turkey/Italy/17VIR1574-1/2017	2017.14	BABAB8AA
256308	256308	256308	256308	256308	0	256308	256308	256308	H5N8	Italy	A/chicken/Italy/17	2017.156	BABAB8AA

256453	256453	256453	256453	256453	0	256453	256453	256453	H5N8	Hungary	VIR1751-3/2017 A/Duck/Hungary/54738/2016	2016.855	BABAB8AA
256460	256460	256460	256460	256460	0	256460	256460	256460	H5N8	Hungary	A/Turkey/Hungary/53136/2016	2016.833	BABAB8AA
256462	256462	256462	256462	256462	256462	0	256462	256462	H5N5	Hungary	A/Mute_swan/Hungary/5879/2017	2017.121	DCBAE5AA
256818	256818	256818	256818	256818	0	256818	256818	256818	H5N8	Germany	A/domestic_duck/Germany-MV/R9764/2016	2016.888	AAAAA8AA
257411	257411	257411	257411	257411	257411	0	257411	257411	H5N5	Georgia	A/mallard/Republic_of_Georgia/1/2016	2016.945	DCBAE5AA
257423	257423	257423	257423	257423	0	257423	257423	257423	H5N8	Georgia	A/mallard/Republic_of_Georgia/2/2016	2016.937	AAAAA8AA
257699	257699	257699	257699	257699	0	257699	257699	257699	H5N8	Switzerland	A/Tufted_Duck/Switzerland/V237/2016	2016.866	AAAAA8AA
259074	259074	259074	259074	259074	259074	0	259074	259074	H5N5	Germany	A/common_buzzard/Germany-SN/R1117/2017	2017.099	DCBAE5AA
259525	259525	259525	259525	259525	0	0	259525	259525	H5N5	Germany	A/egret/Germany-SH/R1459/2017	2017.121	DEBAG5AA
260058	260058	260058	260058	260058	260058	0	260058	260058	H5N5	Germany	A/grey_heron/Germany-SN/R572/2017	2017.058	DCBAE5AA
260059	260059	260059	260059	260059	260059	0	260059	260059	H5N5	Germany	A/cormorant/Germany-SH/R896/2017	2017.079	DEBAG5AA
261332	261332	261332	261332	261332	261332	0	261332	261332	H5N5	Croatia	A/chicken/Croatia/104/2017	2017.178	DCBAE5AA
261634	261634	261634	261634	261634	0	261634	261634	261634	H5N8	Macedonia	A/chicken/Republic_of_Macedonia/AR1167-L02131/2017	2017.038	BABAB8AA
261687	261687	261687	261687	261687	0	261687	261687	261687	H5N8	Germany	A/black_swan/Germany-BW/R1364/2017	2017.115	BABAB8AA
261946	261946	261946	261946	261946	0	261946	261946	261946	H5N8	Israel	A/chicken/Israel/AR1794-L02146/2016	2016.855	CABAE8AA
262055	262055	262055	262055	262055	0	262055	262055	262055	H5N8	Germany	A/eurasian_wigeon/Germany-NI/AR249-L02143/2017_01/04/2017	2017.008	AAAAA8AA
262056	262056	262056	262056	262056	262056	0	262056	262056	H5N5	Germany	A/greylag_goose/Germany-NIAR11353-L02142/2016	2016.986	DCBAE5AA
262057	262057	262057	262057	262057	0	262057	262057	262057	H5N8	Germany	A/mute_swan/Germany-NI/AR1529-L02145/2017	2017.121	AAAAA8AA
262059	262059	262059	262059	262059	0	262059	262059	262059	H5N8	Germany	A/greylag_goose/Germany-NI/AR703-L02138/2017	2017.066	BDBAB8AA
266420	266420	266420	266420	266420	0	266420	266420	266420	H5N8	Korea	A/common_teal/Korea/W550/2016	2016.953	CAEAF8AA
266421	266421	266421	266421	266421	0	266421	266421	266421	H5N8	Korea	A/common_teal/Korea/W555/2017	2017.008	CAEAF8AA
266536	266536	266536	266536	266536	0	266536	266536	266536	H5N8	Belgium	A/chicken/Belgium/807/2017	2017.085	AAAAA8AA
266537	266537	266537	266537	266537	0	266537	266537	266537	H5N8	Belgium	A/peacock/Belgium/1017/2017	2017.104	AAAAA8AA
266538	266538	266538	266538	266538	0	266538	266538	266538	H5N8	Belgium	A/Cygnus_olor/Belgium/1567/2017	2017.14	BABAB8AA
267136	267136	267136	267136	267136	0	267136	267136	267136	H5N8	Egypt	A/green-winged_teal/Egypt/877/2016	2016.934	CAEAF8AA
268618	268618	268618	268618	268618	0	268618	268618	268618	H5N8	Netherlands	A/Bk_swan/NL-Den_Oever/16013973-002/2016	2016.858	AAAAA8AA
268619	268619	268619	268619	268619	0	268619	268619	268619	H5N8	Netherlands	A/Bl_H_gull/NL-Slootdorp/16014102-002/2016	2016.86	AAAAA8AA
268620	268620	268620	268620	268620	0	268620	268620	268620	H5N8	Netherlands	A/Buzzard/NL-Durgedam/16015100-004/2016	2016.912	AADA8AA
268621	268621	268621	268621	268621	0	268621	268621	268621	H5N8	Netherlands	A/C_Gull/NL-Slootdorp/16014102-003/2016	2016.86	AAAAA8AA
268622	268622	268622	268622	268622	0	268622	268622	268622	H5N8	Netherlands	A/Ch/NL-Abbeba/X16015736/2016	2016.945	AAAAA8AA
268623	268623	268623	268623	268623	0	268623	268623	268623	H5N8	Netherlands	A/Ch/NL-Boven_Leeuwen/16016151-006-010/2016	2016.964	AAAAA8AA
268624	268624	268624	268624	268624	0	268624	268624	268624	H5N8	Netherlands	A/Ch/NL-Den_Oever/16014231-001/2016	2016.871	AAAAA8AA
268625	268625	268625	268625	268625	0	268625	268625	268625	H5N8	Netherlands	A/Ch/NL-Hiaure/16016112-001-005/2016	2016.959	AAAAA8AA

268626	268626	268626	268626	268626	0	268626	268626	268626	H5N8	Netherlands	A/Ch/NL-Rhenen/16016141-006/2016	2016.959	AAAAA8AA
268627	268627	268627	268627	268627	0	268627	268627	268627	H5N8	Netherlands	A/Ch/NL-Zoeterwoude/16016484-021-025/2016	2016.978	AAAAA8AA
268628	268628	268628	268628	268628	0	268628	268628	268628	H5N8	Netherlands	A/Crow/NL-Oostwoud/16015372-004/2016	2016.926	AADA8AA
268629	268629	268629	268629	268629	0	268629	268629	268629	H5N8	Netherlands	A/Dk/NL-Biddinghuizen/16014829-011-015/2016	2016.899	AAAAA8AA
268630	268630	268630	268630	268630	0	268630	268630	268630	H5N8	Netherlands	A/Dk/NL-Biddinghuizen/16015083-016-020/2016	2016.912	AAAAA8AA
268632	268632	268632	268632	268632	0	268632	268632	268632	H5N8	Netherlands	A/Dk/NL-Kamperveen/16016104-001-005/2016	2016.953	AAAAA8AA
268633	268633	268633	268633	268633	0	268633	268633	268633	H5N8	Netherlands	A/Dk/NL-Rotterdam/16014008-001-005/2016	2016.858	AAAAA8AA
268634	268634	268634	268634	268634	0	268634	268634	268634	H5N8	Netherlands	A/Dk/NL-Stolwijk/16016291-016-020/2016	2016.97	AAAAA8AA
268635	268635	268635	268635	268635	0	268635	268635	268635	H5N8	Netherlands	A/Eur_Wig/NL-Akkrum/16015817-003/2016	2016.948	AAAAA8AA
268637	268637	268637	268637	268637	0	268637	268637	268637	H5N8	Netherlands	A/Eur_Wig/NL-De_Waal_Texel-/16014891-004/2016	2016.904	AAAAA8AA
268638	268638	268638	268638	268638	0	268638	268638	268638	H5N8	Netherlands	A/Eur_Wig/NL-Drieborg_Dollard-/16015513-001/2016	2016.929	AAAAA8AA
268639	268639	268639	268639	268639	0	268639	268639	268639	H5N8	Netherlands	A/Eur_Wig/NL-Ennematil-Groningen/16015704-001/2016	2016.942	AAAAA8AA
268640	268640	268640	268640	268640	0	268640	268640	268640	H5N8	Netherlands	A/Eur_Wig/NL-Ferwert/16015273-002/2016	2016.915	AAAAA8AA
268641	268641	268641	268641	268641	0	268641	268641	268641	H5N8	Netherlands	A/Eur_Wig/NL-Gouda/16015824-001/2016	2016.948	AAAAA8AA
268642	268642	268642	268642	268642	0	268642	268642	268642	H5N8	Netherlands	A/Eur_Wig/NL-Greonterp/16015653-001/2016	2016.934	AAAAA8AA
268643	268643	268643	268643	268643	0	268643	268643	268643	H5N8	Netherlands	A/Eur_Wig/NL-Groningen/16015376-003/2016	2016.926	AADA8AA
268644	268644	268644	268644	268644	0	268644	268644	268644	H5N8	Netherlands	A/Eur_Wig/NL-Leeuwarden/16015699-002/2016	2016.94	AAAAA8AA
268645	268645	268645	268645	268645	0	268645	268645	268645	H5N8	Netherlands	A/Eur_Wig/NL-Leidschendam/16015697-007/2016	2016.94	AAAAA8AA
268646	268646	268646	268646	268646	0	268646	268646	268646	H5N8	Netherlands	A/Eur_Wig/NL-Reeuwijk/16015903-003/2016	2016.948	AAAAA8AA
268647	268647	268647	268647	268647	0	268647	268647	268647	H5N8	Netherlands	A/Eur_Wig/NL-Terschelling/16015692-010/2016	2016.937	AAAAA8AA
268648	268648	268648	268648	268648	0	268648	268648	268648	H5N8	Netherlands	A/Eur_Wig/NL-Vianen/16015917-006/2016	2016.948	AAAAA8AA
268649	268649	268649	268649	268649	0	268649	268649	268649	H5N8	Netherlands	A/Eur_Wig/NL-Walterswald/16015923-003/2016	2016.951	AAAAA8AA
268650	268650	268650	268650	268650	0	268650	268650	268650	H5N8	Netherlands	A/Eur_Wig/NL-West_Graftdijk/16015746-003/2016	2016.945	AAAAA8AA
268651	268651	268651	268651	268651	0	268651	268651	268651	H5N8	Netherlands	A/Eur_Wig/NL-Wormer/16016143-002/2016	2016.962	AAAAA8AA
268652	268652	268652	268652	268652	0	268652	268652	268652	H5N8	Netherlands	A/Eur_Wig/NL-Zoeterwoude/16015702-010/2016	2016.94	AAAAA8AA
268653	268653	268653	268653	268653	0	268653	268653	268653	H5N8	Netherlands	A/Eur_Wig/NL-Zwolle/16015820-002/2016	2016.948	AAAAA8AA
268654	268654	268654	268654	268654	0	268654	268654	268654	H5N8	Netherlands	A/G_c_grebe/NL-Monnickendam/16013865-009-010/2016	2016.852	AADA8AA
268655	268655	268655	268655	268655	0	268655	268655	268655	H5N8	Netherlands	A/Go/NL-Roggebotsluis/1601	2016.877	AADA8AA

268656	268656	268656	268656	268656	0	268656	268656	268656	H5N8	Netherlands	A/Gr_bk_bd_gull/NL - Slootdorp/1601410 2-005/2016	2016.86	AAAAA8AA
268657	268657	268657	268657	268657	0	268657	268657	268657	H5N8	Netherlands	A/Grey_Go/NL-Groot-Ammers/16015901 -012/2016	2016.951	AAAAA8AA
268658	268658	268658	268658	268658	0	268658	268658	268658	H5N8	Netherlands	A/Gull/NL-Marker_Wadden/16 014466-020/2016	2016.877	AAAAA8AA
268659	268659	268659	268659	268659	0	268659	268659	268659	H5N8	Netherlands	A/Gull1/NL-Marker_Wadden/16 014466-011/2016	2016.877	AAAAA8AA
268660	268660	268660	268660	268660	0	268660	268660	268660	H5N8	Netherlands	A/Gull10/NL-Marker_Wadden/16 014466-014/2016	2016.877	AAAAA8AA
268661	268661	268661	268661	268661	0	268661	268661	268661	H5N8	Netherlands	A/L-bl-ba-gull/NL-Sovon/16014324-014/2016	2016.874	AAAAA8AA
268662	268662	268662	268662	268662	0	268662	268662	268662	H5N8	Netherlands	A/M_Swan/NL-Roggebotsluis/1601 4462-019/2016	2016.877	AAAAA8AA
268663	268663	268663	268663	268663	0	268663	268663	268663	H5N8	Netherlands	A/Magpie/NL-Volendam/1601433 1-002/2016	2016.874	AAAAA8AA
268664	268664	268664	268664	268664	0	268664	268664	268664	H5N8	Netherlands	A/Mal/NL-Ijsselmuider/16015 448-002/2016	2016.929	AAAAA8AA
268665	268665	268665	268665	268665	0	268665	268665	268665	H5N8	Netherlands	A/Mal/NL-Mastenbroek/1601 5378-002/2016	2016.926	AAAAA8AA
268666	268666	268666	268666	268666	0	268666	268666	268666	H5N8	Netherlands	A/P_falcon/NL-Vrouwenpolder_- Zeeland-/16015510-001/2016	2016.932	AAAAA8AA
268667	268667	268667	268667	268667	0	268667	268667	268667	H5N8	Netherlands	A/Sea_eagle/NL-Assen/16015398-002/2016	2016.926	AAAAA8AA
268668	268668	268668	268668	268668	0	268668	268668	268668	H5N8	Netherlands	A/T_Dk/NL-Almeerder_Zand/16 014341-003/2016	2016.874	AAAAA8AA
268669	268669	268669	268669	268669	0	268669	268669	268669	H5N8	Netherlands	A/T_Dk/NL-Monnickendam/160 13865-006-008/2016	2016.852	AAAAA8AA
268670	268670	268670	268670	268670	0	268670	268670	268670	H5N8	Netherlands	A/T_Dk/NL-Roggebotsluis/1601 4462-015/2016	2016.877	AAAAA8AA
268671	268671	268671	268671	268671	0	268671	268671	268671	H5N8	Netherlands	A/T_Dk/NL-Rotterdam/160141 55-001/2016	2016.868	AAAAA8AA
268673	268673	268673	268673	268673	0	268673	268673	268673	H5N8	Netherlands	A/T_Dk/NL-Werkendam/16014 159-003/2016	2016.868	AAAAA8AA
268679	268679	268679	268679	268679	0	268679	268679	268679	H5N8	Netherlands	A/T_Dk/NL-Zeevolde/1601397 6-006/2016	2016.855	AAAAA8AA
268681	268681	268681	268681	268681	0	268681	268681	268681	H5N8	Netherlands	A/T_Dk/NL-Zuidoost_Beemster/ 16014148-009/2016	2016.868	AAAAA8AA
268682	268682	268682	268682	268682	0	268682	268682	268682	H5N8	Netherlands	A/Teal/NL-Ferwert/16015273-013/2016	2016.915	AAAAA8AA
268947	268947	268947	268947	268947	0	268947	268947	268947	H5N8	Czechia	A/mallard/Czech_R epublic/1219- 17_1/2017_-H5N8-	2017.066	BABAB8AA
271705	271705	271705	271705	271705	0	271705	271705	271705	H5N8	Hungary	A/Goose/Hungary/ 15729/2017	2017.263	BABAB8AA
271706	271706	271706	271706	271706	0	271706	271706	271706	H5N8	Hungary	A/Goose/Hungary/ 17051/2017	2017.293	BABAB8AA
271709	271709	271709	271709	271709	0	271709	271709	271709	H5N8	Hungary	A/Goose/Hungary/ 59763/2016	2016.904	BABAB8AA
271710	271710	271710	271710	271710	0	271710	271710	271710	H5N8	Hungary	A/Mulard_duck/Hu ngary/60369/2016	2016.91	BABAB8AA
271713	271713	271713	271713	271713	0	271713	271713	271713	H5N8	Hungary	A/Goose/Hungary/ 64909/2016	2016.951	BABAB8AA
271714	271714	271714	271714	271714	0	271714	271714	271714	H5N8	Hungary	A/Mulard_duck/Hu ngary/59163/2016	2016.896	BABAB8AA
272859	272859	272859	272859	272859	0	272859	272859	272859	H5N8	Korea	A/grey_heron/W77 9/2017	2017.071	CAEAF8AA
273846	273846	273846	273846	273846	0	273846	273846	273846	H5N8	Italy	A/chicken/Italy/17 VIR3078/2017	2017.263	AAAAA8AA
273847	273847	273847	273847	273847	0	273847	273847	273847	H5N8	Italy	A/turkey/Italy/17V IR5878-3/2017	2017.556	AAAAA8AA
274385	274385	274385	274385	274385	0	274385	274385	274385	H5N8	U.K.	A/black_headed_gul	2016.964	AAAAA8AA

											l/England/SA12_157807/2016		
274386	274386	274386	274386	274386	0	274386	274386	274386	H5N8	U.K.	A/mute_swan/England/SA21_161831/2017	2017.164	CCBAD8AA
274387	274387	274387	274387	274387	0	274387	274387	274387	H5N8	U.K.	A/teal/Wales/SA26_312553/2016	2016.989	AAAAA8AA
274389	274389	274389	274389	274389	0	274389	274389	274389	H5N8	U.K.	A/wigeon/England/SA12_158143/2017	2017.008	AAAAA8AA
274390	274390	274390	274390	274390	0	274390	274390	274390	H5N8	U.K.	A/wigeon/Wales/052833/2016	2016.951	AAAAA8AA
274858	274858	274858	274858	274858	0	274858	274858	274858	H5N8	Russia	A/mute_swan/Kalinograd/132/2017	2017.118	AADA8AA
275283	275283	275283	275283	275283	0	275283	275283	275283	H5N8	Russia	A/chicken/Shchyolkovo/47/2017	2017.173	AAAAA8AA
275287	275287	275287	275287	275287	0	275287	275287	275287	H5N8	Russia	A/chicken/Rostov-on-Don/44/2017	2017.293	AAAAA8AA
275288	275288	275288	275288	275288	0	275288	275288	275288	H5N8	Russia	A/chicken/Tatarstan/88/2017	2017.348	AAAAA8AA
287564	287564	287564	287564	287564	287564	0	287564	287564	H5N5	Netherlands	A/T_Dk/NL-Werkendam/16014159-001/2016	2016.868	AAGAA5AA
287565	287565	287565	287565	287565	287565	0	287565	287565	H5N5	Netherlands	A/M_Swan/NL-Groningen/16015826-001/2016	2016.948	DCBAE5AA
288364	288364	288364	288364	288364	0	0	288364	288364	H5N6	Greece	A/chicken/Greece/39_2017b/2017	2017.099	AAAAA8AA
288438	288438	288438	288438	288438	0	288438	288438	288438	H5N8	Korea	A/chicken/Korea/Gunsan/2017	2017.419	CAEAF8AA
288439	288439	288439	288439	288439	0	288439	288439	288439	H5N8	Korea	A/chicken/Korea/Gimje2/2017	2017.099	CAEAF8AA
295492	295492	295492	295492	295492	0	295492	295492	295492	H5N8	China	A/Anser_cygnoides/Hubei/FW44/2016	2016.948	CAEAF8AA
295493	295493	295493	295493	295493	0	295493	295493	295493	H5N8	China	A/Cygnus atratus/Hubei/ZZ2-0/2016	2016.989	CABAD8AA
295494	295494	295494	295494	295494	0	295494	295494	295494	H5N8	China	A/Cygnus atratus/Hubei/HF-1/2016	2016.967	CABAD8AA
297388	297388	297388	297388	297388	0	297388	297388	297388	H5N8	Macedonia	A/chicken/Republic_of_Macedonia/466/2017	2017.074	BABAB8AA
300547	300547	300547	300547	300547	0	300547	300547	300547	H5N8	Ukraine	A/White-fronted_Goose/AN/1-15-12/2016	2016.953	AAAAA8AA
300548	300548	300548	300548	300548	0	300548	300548	300548	H5N8	Ukraine	A/Ruddy_Shelduck/AN/2-14-12/2016	2016.951	AAAAA8AA
300686	300686	300686	300686	300686	0	300686	300686	300686	H5N8	Poland	A/turkey/Poland/63/2016	2016.945	BDBAB8AA
300687	300687	300687	300687	300687	0	300687	300687	300687	H5N8	Poland	A/chicken/Poland/34/2017	2017.027	BDBAB8AA
300693	300693	300693	300693	300693	0	300693	300693	300693	H5N8	Poland	A/domestic_duck/Poland/47/2017	2017.041	BABAB8AA
300698	300698	300698	300698	300698	0	300698	300698	300698	H5N8	Poland	A/turkey/Poland/54/2017	2017.047	BABAB8AA
300699	300699	300699	300699	300699	0	300699	300699	300699	H5N8	Poland	A/domestic_goose/Poland/69/2017	2017.071	BDBAB8AA
300745	300745	300745	300745	300745	0	300745	300745	300745	H5N8	Poland	A/wild_duck/Poland/57/2017	2017.071	AAAAA8AA
300746	300746	300746	300746	300746	0	0	0	300746	H5N5	Poland	A/swan/Poland/81/2017	2017.088	DCBAE5AA
308802	308802	308802	308802	308802	0	308802	308802	308802	H5N8	Congo	A/duck/Democratic_Republic_of_the_Congo/17RS882-29/2017	2017.367	CABAD8AA
308804	308804	308804	308804	308804	0	308804	308804	308804	H5N8	Congo	A/duck/Democratic_Republic_of_the_Congo/17RS882-40/2017	2017.362	CABAD8AA
308806	308806	308806	308806	308806	0	308806	308806	308806	H5N8	Cameroon	A/chicken/Cameroon/17RS1661-1/2017	2017.038	CAEAF8AA
308807	308807	308807	308807	308807	0	308807	308807	308807	H5N8	Cameroon	A/duck/Cameroon/17RS1661-3/2017	2017.038	CABAD8AA
309194	309194	309194	309194	309194	0	309194	309194	309194	H5N8	Belgium	A/Anas_platyrhynchos/Belgium/1899/2017	2017.156	BABAB8AA
309195	309195	309195	309195	309195	0	309195	309195	309195	H5N8	Belgium	A/Cygnus_olor/Belgium/2967/2017	2017.216	BDBAB8AA
309196	309196	309196	309196	309196	0	309196	309196	309196	H5N8	Belgium	A/Buteo_buteo/Belgium/3022/2017	2017.222	BABAB8AA
309198	309198	309198	309198	309198	0	309198	309198	309198	H5N8	Belgium	A/Guinea_fowl/Belgium/6102/2017	2017.449	AAAAA8AA
0	0	0	243049	243049	243049	0	243049	243049	H5N5	Germany	A/turkey/Germany-SH/R425/2017	2017.058	000AG5AA
0	0	0	250920	0	250920	0	250920	0	H5N5	Czechia	A/mute_swan/Czech_Republic/2031-17/2017	2017.107	000A0A0A0
0	0	0	268981	0	0	0	0	0	H5N5	Czechia	A/spot-billed_pelican/Czech_Republic/2270-	2017.121	000A00000



0	0	0	268993	0	0	0	0	0	H5N8	Czechia	17/2017_-H5N5- A/chicken/Czech_R epublic/4231- 17_2/2017_-H5N8-	2017.216	000A00000
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**Table S4.** Expanded dataset (ii) of gene sequences, with 251-279 sequences per internal segment, 284 sequences for segment 4 (H5), 236 sequences for segment 6 (N8), and 20 sequences for segment 6 (N5), used for BEAST analysis.

SequenceName	Country	Bird	HostType <sup>a</sup>	Seg1	Seg2	Seg3	Seg4-H5	Seg5	Seg6-N5	Seg6-N8	Seg7	Seg8
253036 H5N8 U.K. A turkey/England/003778/2017 2017.038	U.K.	turkey	Dom-gal	A	A	A	A	A	0	A	A	A
239801 H5N8 U.K. A turkey/England/052131/2016 2016.953	U.K.	turkey	Dom-gal	A	A	A	A	A	0	A	A	A
274389 H5N8 U.K. A wigeon/England/SA12_158143/2017 2017.008	U.K.	wigeon	Wild-ans-long	A	A	A	A	A	0	A	A	A
253038 H5N8 U.K. A pochard_duck/England/SA12_157809/2016 2016.964	U.K.	pochardduck	Wild-ans	A	A	A	A	A	0	A	A	A
255913 H5N8 Netherlands A Mallard/Netherlands/2/2017 2017.016	Netherlands	mallard	Wild-ans	A	A	A	A	A	0	A	A	A
274387 H5N8 U.K. A teal/Wales/SA26_312553/2016 2016.989	U.K.	teal	Wild-ans	A	A	A	A	A	0	A	A	A
255891 H5N8 Netherlands A Tufted_Duck/Netherlands/1/2016 2016.899	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	0	A	A	A
262055 H5N8 Germany A eurasian_wigeon/Germany-NI/AR249-L02143/2017_01/04/2017 2017.008	Germany	eurasianwigeon	Wild-ans-long	A	A	A	A	A	0	A	A	A
253037 H5N8 U.K. A chicken/Wales/000023/2016 2016.997	U.K.	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
255184 H5N8 Italy A chicken/Italy/17VIR653-12/2017 2017.066	Italy	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
256298 H5N8 Russia A gadwall/Kurgan/2442/2016 2016.652	Russia	gadwall	Wild-ans	A	A	A	A	A	0	A	A	A
247724 H5N8 Russia A wild_duck/Tatarstan/3059/2016 2016.751	Russia	wildduck	Wild-ans	A	A	A	A	A	0	A	A	A
247725 H5N8 Russia A chicken/Kalmykia/2643/2016 2016.888	Russia	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
255212 H5N8 Hungary A Greylag_goose/Hungary/320/2017 2017.008	Hungary	greylaggoose	Wild-ans-long	A	A	A	A	A	0	A	A	A
255220 H5N8 Hungary A Mallard/Hungary/1574a/2017 2017.036	Hungary	mallard	Wild-ans	A	A	A	A	A	0	A	A	A
255206 H5N8 Hungary A Peregrine_falcon/Hungary/4882/2017 2017.101	Hungary	peregrinefalcon	Wild-other	A	A	A	A	A	0	A	A	A
257423 H5N8 Georgia A mallard/Republic_of_Georgia/2/2016 2016.937	Georgia	mallard	Wild-ans	A	A	A	A	A	0	A	A	A
255181 H5N8 Italy A swan/Italy/17VIR537-2/2017 2017.049	Italy	swan	Wild-ans	A	A	A	A	A	0	A	A	A
255194 H5N8 Hungary A Goose/Hungary/1030/2017 2017.027	Hungary	goose	Dom-ans	A	A	A	A	A	0	A	A	A
239997 H5N8 France A decoy_duck/France/161104e/2016 2016.901	France	decoyduck	Wild-ans	A	A	A	A	A	0	A	A	A
247721 H5N8 Russia A turkey/Rostov/11/2017 2017.000	Russia	turkey	Dom-gal	A	A	A	A	A	0	A	A	A
247720 H5N8 Russia A chicken/Voronezh/20/2017 2017.014	Russia	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
247716 H5N8 Russia A Ural_owl/Voronezh/14/2017 2017.014	Russia	uralowl	Wild-other	A	A	A	A	A	0	A	A	A
247717 H5N8 Russia A long-eared_owl/Voronezh/16/2017 2017.014	Russia	long-earedowl	Wild-other	A	A	A	A	A	0	A	A	A
247722 H5N8 Russia A goose/Krasnodar/3144/2017 2017.014	Russia	goose	Dom-ans	A	A	A	A	A	0	A	A	A
255183 H5N8 Italy A turkey/Italy/17VIR576-11/2017 2017.060	Italy	turkey	Dom-gal	A	A	A	A	A	0	A	A	A
247723 H5N8 Russia A mute_swan/Krasnodar/25/2017 2017.014	Russia	muteswan	Wild-ans	A	A	A	A	A	0	A	A	A
256300 H5N8 Russia A chicken/Sergiyev_Posad/39/2017 2017.164	Russia	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
266536 H5N8 Belgium A chicken/Belgium/807/2017 2017.085	Belgium	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
266537 H5N8 Belgium A peacock/Belgium/1017/2017 2017.104	Belgium	peacock	Wild-other	A	A	A	A	A	0	A	A	A
242902 H5N8 Italy A wigeon/Italy/17VIR57-3/2017 2017.005	Italy	wigeon	Wild-ans-long	A	A	A	A	A	0	A	A	A
238896 H5N8 Sweden A Chicken/Sweden/5VA161122KU0453/SZ0209321/2016 2016.888	Sweden	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
255892 H5N8 Netherlands A Great_Black-backed_Gull/Netherlands/2/2016 2016.893	Netherlands	greatblack-backedgull	Wild-other	A	A	A	A	A	0	A	A	A
255409 H5N8 Netherlands A duck/Netherlands/16014829-011-015/2016 2016.899	Netherlands	duck	Dom-ans	A	A	A	A	A	0	A	A	A
255628 H5N8 France A chicken/France/161585/2016 2016.995	France	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
262057 H5N8 Germany A mute_swan/Germany-NI/AR1529-L02145/2017 2017.121	Germany	muteswan	Wild-ans	A	A	A	A	A	0	A	A	A
255910 H5N8 Netherlands A Mew_Gull/Netherlands/1/2016 2016.893	Netherlands	mewgull	Wild-other	A	A	A	A	A	0	A	A	A
255411 H5N8 Netherlands A chicken/Netherlands/16016112-001-005 2016.945	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
274385 H5N8 U.K. A black_headed_gull/England/SA12_157807/2016 2016.964	U.K.	blackheadedgull	Wild-other	A	A	A	A	A	0	A	A	A
255400 H5N8 Netherlands A eurasian_wigeon	Netherlands	eurasianwigeon	Wild-ans-long	A	A	A	A	A	0	A	A	A

on/Netherlands/16015273-002/2016 2016.915													
274390 H5N8 U.K. A/wigeon/Wales/052833/2016 2016.951	U.K.	wigeon	Wild-ans-long	A	A	A	A	A	A	0	A	A	A
237921 H5N8 Poland A/wild_duck/Poland/82A/2016 2016.836	Poland	wildduck	Wild-ans	A	A	A	A	A	A	0	A	A	A
255626 H5N8 France A/eurasianwigeon/France/161323/2016 2016.970	France	eurasianwigeon	Wild-ans-long	A	A	A	A	A	A	0	A	A	A
239436 H5N8 Switzerland A/tufted_duck/Switzerland/V237-L02003/2016 2016.871	Switzerland	tuftedduck	Wild-ans	A	A	A	A	A	A	0	A	A	A
257699 H5N8 Switzerland A/Tufted_Duck/Switzerland/V237/2016 2016.866	Switzerland	tuftedduck	Wild-ans	A	A	A	A	A	A	0	A	A	A
255209 H5N8 Hungary A/Common_tern/Hungary/8187/2017 2017.159	Hungary	commontern	Wild-other	A	A	A	A	A	A	0	A	A	A
239437 H5N8 Switzerland A/caspian_gull/Switzerland/V247-L02004/2016 2016.871	Switzerland	caspian_gull	Wild-other	A	A	A	A	A	A	0	A	A	A
255405 H5N8 Netherlands A/tufted_duck/Netherlands/16013976-001/2016 2016.855	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	A	0	A	A	A
238897 H5N8 Sweden A/Common_Goldeneye/Sweden/SVA161117KU0322/SZ0002165/2016 2016.868	Sweden	commongoldeneye	Wild-ans	A	A	A	A	A	A	0	A	A	A
237944 H5N8 Germany A/tufted_duck/Germany/AR844-L01987/2016 2016.849	Germany	tuftedduck	Wild-ans	A	A	A	A	A	A	0	A	A	A
247713 H5N8 Denmark A/tufted_duck/Denmark/17740-1/2016 2016.852	Denmark	tuftedduck	Wild-ans	A	A	A	A	A	A	0	A	A	A
234057 H5N8 Russia A/grey_heron_/Uvs-Nuur_Lake/20/2016 2016.395	Russia	greyheron	Wild-other	C	A	B	A	D	D	0	A	A	A
230820 H5N8 Russia A/great_crested_grebe/Tyva/34/2016 2016.395	Russia	greatcrestedgrebe	Wild-other	C	A	B	A	D	D	0	A	A	A
231685 H5N8 Russia A/black-headed_gull/Tyva/41/2016 2016.395	Russia	black-headedgull	Wild-other	C	A	B	A	D	D	0	A	A	A
234058 H5N8 Russia A/common_tern_/Uvs-Nuur_Lake/26/2016 2016.395	Russia	commontern	Wild-other	C	A	B	A	D	D	0	A	A	A
231684 H5N8 Russia A/wild_duck/Tyva/35/2016 2016.395	Russia	wildduck	Wild-ans	C	A	B	A	D	D	0	A	A	A
224752 H5N8 China A/Great_Black-headed_Gull/Qinghai/YO1-B/2016 2016.367	China	greatblack-headedgull	Wild-other	C	A	B	A	D	D	0	A	A	A
224743 H5N8 China A/Brown-headed_Gull/Qinghai/ZT01-LU/2016 2016.329	China	brown-headedgull	Wild-other	C	A	B	A	D	D	0	A	A	A
224726 H5N8 China A/Bar-headed_Goose/Qinghai/BTY11-LU/2016 2016.351	China	bar-headedgoose	Wild-ans	C	A	B	A	D	D	0	A	A	A
224751 H5N8 China A/Brown-headed_Gull/Qinghai/ZT06-MU/2016 2016.367	China	brown-headedgull	Wild-other	C	A	B	A	D	D	0	A	A	A
274386 H5N8 U.K. A/mute_swan/England/S A21_161831/2017 2017.164	U.K.	muteswan	Wild-ans	C	C	B	A	D	D	0	A	A	A
224580 H5N8 Russia A/great_crested_grebe/Uvs-Nuur_Lake/341/2016 2016.395	Russia	greatcrestedgrebe	Wild-other	C	A	B	A	D	D	0	A	A	A
266421 H5N8 Korea A/common_teal/Korea/W555/2017 2017.008	Korea	commonteal	Wild-ans-long	C	A	E	A	F	F	0	A	A	A
266420 H5N8 Korea A/common_teal/Korea/W550/2016 2016.953	Korea	commonteal	Wild-ans-long	C	A	E	A	F	F	0	A	A	A
272859 H5N8 Korea A/grey_heron/W779/2017 2017.071	Korea	greyheron	Wild-other	C	A	E	A	F	F	0	A	A	A
254745 H5N8 Korea A/mallard_duck/Korea/WA137/2017 2017.063	Korea	mallard	Wild-ans	C	A	E	A	F	F	0	A	A	A
237554 H5N8 India A/painted_stork/India/10CA03/2016 2016.800	India	paintedstork	Wild-other	C	A	E	A	F	F	0	A	A	A
267136 H5N8 Egypt A/green-winged_teal/Egypt/877/2016 2016.934	Egypt	green-wingedteal	Wild-ans-long	C	A	E	A	F	F	0	A	A	A
255182 H5N8 Italy A/turkey/Italy/17VIR538-1/2017 2017.052	Italy	turkey	Dom-gal	C	A	E	A	F	F	0	A	A	A
250231 H5N8 Russia A/domestic_duck/Siberia/49_feather/2016 2016.690	Russia	domestic_duck	Dom-ans	C	A	E	A	F	F	0	A	A	A
240677 H5N8 Russia A/domestic_duck/Siberia/103/2016 2016.756	Russia	domesticduck	Dom-ans	C	A	E	A	F	F	0	A	A	A
237553 H5N8 India A/duck/India/10CA01/2016 2016.792	India	duck	Dom-ans	C	A	B	A	A	A	0	A	A	A
261946 H5N8 Israel A/chicken/Israel/AR1794-L02146/2016 2016.855	Israel	chicken	Dom-gal	C	A	B	A	E	E	0	A	A	A
240110 H5N8 Russia A/chicken/Astrakhan/3131/2016 2016.948	Russia	chicken	Dom-gal	C	A	B	A	E	E	0	A	A	A
224740 H5N8 China A/Bar-headed_Goose/Qinghai/BTY18-LU/2016_2016.367	China	bar-headedgoose	Wild-ans	C	A	B	A	D	D	0	A	A	A
238037 H5N8 Germany A/turkey/Germany-SH/R8595/2016 2016.855	Germany	turkey	Dom-gal	A	A	A	A	A	A	0	A	A	A
249691 H5N8 Germany A/chicken/Germany-MV/R10048/2016 2016.904	Germany	chicken	Dom-gal	A	A	A	A	A	A	0	A	A	A
249692 H5N8 Germany A/chicken/Germany-NI/R11406/2016 2016.978	Germany	chicken	Dom-gal	A	A	A	A	A	A	0	A	A	A
255914 H5N8 Netherlands A/Eurasian_Wigeon/Netherlands/9/2016 2016.923	Netherlands	eurasianwigeon	Wild-ans-long	A	A	A	A	A	A	0	A	A	A
256818 H5N8 Germany A/domestic_duck/Germany-MV/R9764/2016 2016.888	Germany	domesticduck	Dom-ans	A	A	A	A	A	A	0	A	A	A
268618 H5N8 Netherlands A/Bk_swan/NL-Den_Oever/16013973-002/2016 2016.858	Netherlands	blackswan	Wild-ans	A	A	A	A	A	A	0	A	A	A

268619 H5N8 Netherlands A Bl_H_gull/NL-Slootdorp/16014102-002/2016 2016.860	Netherlands	black-headedgull	Wild-other	A	A	A	A	A	0	A	A	A
268620 H5N8 Netherlands A Buzard/NL-Durgedam/16015100-004/2016 2016.912	Netherlands	buzzard	Wild-other	A	A	D	A	A	0	A	A	A
268621 H5N8 Netherlands A C_Gull/NL-Slootdorp/16014102-003/2016 2016.860	Netherlands	commongull	Wild-other	A	A	A	A	A	0	A	A	A
268622 H5N8 Netherlands A Ch/NL-Abbegea/X16015736/2016 2016.945	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
268623 H5N8 Netherlands A Ch/NL-Boven_Leeuwen/16016151-006-010/2016 2016.964	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
268624 H5N8 Netherlands A Ch/NL-Den_Oever/16014231-001/2016 2016.871	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
268625 H5N8 Netherlands A Ch/NL-Hiaure/16016112-001-005/2016 2016.959	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
268626 H5N8 Netherlands A Ch/NL-Rhenen/16016141-006/2016 2016.959	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
268627 H5N8 Netherlands A Ch/NL-Zoeterwoude/16016484-021-025/2016 2016.978	Netherlands	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
268628 H5N8 Netherlands A Crow/NL-Oostwoud/16015372-004/2016 2016.926	Netherlands	crow	Wild-other	A	A	D	A	A	0	A	A	A
268629 H5N8 Netherlands A Dk/NL-Biddinghuizen/16014829-011-015/2016 2016.899	Netherlands	duck	Dom-ans	A	A	A	A	A	0	A	A	A
268630 H5N8 Netherlands A Dk/NL-Biddinghuizen/16015083-016-020/2016 2016.912	Netherlands	duck	Dom-ans	A	A	A	A	A	0	A	A	A
268632 H5N8 Netherlands A Dk/NL-Kampervveen/16016104-001-005/2016 2016.953	Netherlands	duck	Dom-ans	A	A	A	A	A	0	A	A	A
268633 H5N8 Netherlands A Dk/NL-Rotterdam/16014008-001-005/2016 2016.858	Netherlands	duck	Dom-ans	A	A	A	A	A	0	A	A	A
268634 H5N8 Netherlands A Dk/NL-Stolwijk/16016291-016-020/2016 2016.970	Netherlands	duck	Dom-ans	A	A	A	A	A	0	A	A	A
268635 H5N8 Netherlands A Eur_Wig/NL-Akkrum/16015817-003/2016 2016.948	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268637 H5N8 Netherlands A Eur_Wig/NL-De_Waal_(Texel)/16014891-004/2016 2016.904	Netherlands	anaspenelope	Wild-ans-long	A	A	A	0	A	0	A	A	A
268638 H5N8 Netherlands A Eur_Wig/NL-Drieborg_(Dollard)/16015513-001/2016 2016.929	Netherlands	anaspenelope	Wild-ans-long	A	A	A	0	A	0	A	A	A
268639 H5N8 Netherlands A Eur_Wig/NL-Enumatil-Groningen/16015704-001/2016 2016.942	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268640 H5N8 Netherlands A Eur_Wig/NL-Ferwert/16015273-002/2016 2016.915	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268641 H5N8 Netherlands A Eur_Wig/NL-Gouda/16015824-001/2016 2016.948	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268642 H5N8 Netherlands A Eur_Wig/NL-Greonterp/16015653-001/2016 2016.934	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268643 H5N8 Netherlands A Eur_Wig/NL-Groningen/16015376-003/2016 2016.926	Netherlands	anaspenelope	Wild-ans-long	A	A	D	A	A	0	A	A	A
268644 H5N8 Netherlands A Eur_Wig/NL-Leeuwarden/16015699-002/2016 2016.940	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268645 H5N8 Netherlands A Eur_Wig/NL-Leidschendam/16015697-007/2016 2016.940	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268646 H5N8 Netherlands A Eur_Wig/NL-Reeuwijk/16015903-003/2016 2016.948	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268647 H5N8 Netherlands A Eur_Wig/NL-Terschelling/16015692-010/2016 2016.937	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268648 H5N8 Netherlands A Eur_Wig/NL-Vianen/16015917-006/2016 2016.948	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268649 H5N8 Netherlands A Eur_Wig/NL-Walterswald/16015923-003/2016 2016.951	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268650 H5N8 Netherlands A Eur_Wig/NL-West_Grafdijk/16015746-003/2016 2016.945	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268651 H5N8 Netherlands A Eur_Wig/NL-Wormer/16016143-002/2016 2016.962	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268652 H5N8 Netherlands A Eur_Wig/NL-Zoeterwoude/16015702-010/2016 2016.940	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268653 H5N8 Netherlands A Eur_Wig/NL-Zwolle/16015820-002/2016 2016.948	Netherlands	anaspenelope	Wild-ans-long	A	A	A	A	A	0	A	A	A
268654 H5N8 Netherlands A G_c_grebe/NL-Monnickendam/16013865-009-010/2016 2016.852	Netherlands	greatcrestedgrebe	Wild-other	A	A	D	A	A	0	A	A	A
268655 H5N8 Netherlands A Go/NL-Roggebotsluis/16014462-010/2016 2016.877	Netherlands	goose	Dom-ans	A	A	D	A	A	0	A	A	A
268656 H5N8 Netherlands A Gr_bk_bd_gull/NL-Slootdorp/16014102-005/2016 2016.860	Netherlands	greatblack-backedgull	Wild-other	A	A	D	A	A	0	A	A	A
268657 H5N8 Netherlands A Grey_Go/NL-	Netherlands	anseranser	Wild-ans-long	A	A	A	A	A	0	A	A	A

Groot-Ammers/16015901-012/2016 2016.951												
268658 H5N8 Netherlands A/Gull/NL-Marker_Wadden/16014466-020/2016 2016.877	Netherlands	gull	Wild-other	A	A	A	A	A	0	A	A	A
268659 H5N8 Netherlands A/Gull1/NL-Marker_Wadden/16014466-011/2016 2016.877	Netherlands	gull	Wild-other	A	A	D	A	A	0	A	A	A
268660 H5N8 Netherlands A/Gull10/NL-Marker_Wadden/16014466-014/2016 2016.877	Netherlands	gull	Wild-other	A	A	A	A	A	0	A	A	A
268661 H5N8 Netherlands A/L-bl-ba-gull/NL-Sovon/16014324-014/2016 2016.874	Netherlands	lesserblack-backedgull	Wild-other	A	A	D	A	A	0	A	A	A
268662 H5N8 Netherlands A/M_Swan/NL-Roggebotsluis/16014462-019/2016 2016.877	Netherlands	muteswan	Wild-ans	A	A	A	A	A	0	A	A	A
268663 H5N8 Netherlands A/Maggie/NL-Volendam/16014331-002/2016 2016.874	Netherlands	maggie	Wild-other	A	A	D	A	A	0	A	A	A
268664 H5N8 Netherlands A/Mal/NL-IJsselmuiden/16015448-002/2016 2016.929	Netherlands	anasplatyrhynch os	Wild-ans	A	A	A	A	A	0	A	A	A
268665 H5N8 Netherlands A/Mal/NL-Mastenbroek/16015378-002/2016 2016.926	Netherlands	anasplatyrhynch os	Wild-ans	A	A	D	A	A	0	A	A	A
268666 H5N8 Netherlands A/P_falcon/NL-Vrouwenpolder_(Zeeland)/16015510-001/2016 2016.932	Netherlands	peregrinefalcon	Wild-other	A	A	D	0	A	0	A	A	A
268667 H5N8 Netherlands A/Sea_eagle/NL-Aspen/16015398-002/2016 2016.926	Netherlands	seaeagle	Wild-other	A	A	A	A	A	0	A	A	A
268668 H5N8 Netherlands A/T_Dk/NL-Almeerder_Zand/16014341-003/2016 2016.874	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	0	A	A	A
268669 H5N8 Netherlands A/T_Dk/NL-Monnickendam/16013865-006-008/2016 2016.852	Netherlands	tuftedduck	Wild-ans	A	A	D	A	A	0	A	A	A
268670 H5N8 Netherlands A/T_Dk/NL-Roggebotsluis/16014462-015/2016 2016.877	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	0	A	A	A
268671 H5N8 Netherlands A/T_Dk/NL-Rotterdam/16014155-001/2016 2016.868	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	0	A	A	A
268673 H5N8 Netherlands A/T_Dk/NL-Werkendam/16014159-003/2016 2016.868	Netherlands	tuftedduck	Wild-ans	A	A	D	A	A	0	A	A	A
268679 H5N8 Netherlands A/T_Dk/NL-Zeewolde/16013976-006/2016 2016.855	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	0	A	A	A
268681 H5N8 Netherlands A/T_Dk/NL-Zuidoost_Beemster/16014148-009/2016 2016.868	Netherlands	tuftedduck	Wild-ans	A	A	A	A	A	0	A	A	A
268682 H5N8 Netherlands A/Teal/NL-Ferwert/16015273-013/2016 2016.915	Netherlands	teal	Wild-ans	A	A	A	A	A	0	A	A	A
273846 H5N8 Italy A/chicken/Italy/17VIR3078/2017 2017.263	Italy	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
273847 H5N8 Italy A/turkey/Italy/17VIR5878-3/2017 2017.556	Italy	turkey	Dom-gal	A	A	A	A	A	0	A	A	A
274858 H5N8 Russia A/mute_swan/Kaliningrad/132/2017 2017.118	Russia	muteswan	Wild-ans	A	A	D	A	A	0	A	A	A
275283 H5N8 Russia A/chicken/Shchyolkovo/47/2017 2017.173	Russia	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
275287 H5N8 Russia A/chicken/Rostov-on-Don/44/2017 2017.293	Russia	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
275288 H5N8 Russia A/chicken/Tatarstan/88/2017 2017.348	Russia	chicken	Dom-gal	A	A	A	A	A	0	A	A	A
287564 H5N8 Netherlands A/T_Dk/NL-Werkendam/16014159-001/2016 2016.868	Netherlands	tuftedduck	Wild-ans	A	A	0	A	A	A	0	A	A
288364 H5N6 Greece A/chicken/Greece/39_2017b/2017 2017.099	Greece	chicken	Dom-gal	A	A	A	A	A	0	0	A	A
288438 H5N8 Korea A/chicken/Korea/Gunsan/2017 2017.419	Korea	chicken	Dom-gal	C	A	E	A	F	0	A	A	A
288439 H5N8 Korea A/chicken/Korea/Gimje/2/2017 2017.099	Korea	chicken	Dom-gal	C	A	E	A	F	0	A	A	A
295492 H5N8 China A/Anser_cygnoides/Hubei/FW44/2016 2016.948	China	ansercygnoides	Dom-ans	C	A	E	A	F	0	A	A	A
295493 H5N8 China A/Cygnus_atratus/Hubei/222-0/2016 2016.989	China	cygnusatratus	Wild-ans	C	A	B	A	D	0	A	A	A
295494 H5N8 China A/Cygnus_atratus/Hubei/HF-1/2016 2016.967	China	cygnusatratus	Wild-ans	C	A	B	A	D	0	A	A	A
300547 H5N8 Ukraine A/White-fronted_Goose/AN/1-15-12/2016 2016.953	Ukraine	white-frontedgoose	Wild-ans-long	A	A	A	A	A	0	A	A	A
300548 H5N8 Ukraine A/Ruddy_Shelduck/AN/2-14-12/2016 2016.951	Ukraine	ruddyshelduck	Wild-ans	A	A	A	A	A	0	A	A	A
300745 H5N8 Poland A/wild_duck/Poland/57/2017 2017.071	Poland	wildduck	Wild-ans	A	A	A	A	A	0	A	A	A
308802 H5N8 Congo A/duck/Democratic_Republic_of_the_Congo/17RS882-29/2017 2017.367	Congo	duck	Dom-ans	C	A	B	A	D	0	A	A	A
308804 H5N8 Congo A/duck/Democratic_Republic_of_the_Congo/17RS882-40/2017 2017.362	Congo	duck	Dom-ans	C	A	B	A	D	0	A	A	A
308806 H5N8 Cameroon A/chicken/Cameroon	Cameroon	chicken	Dom-gal	C	A	E	A	F	0	A	A	A

on/17RS1661-1/2017 2017.038													
308807 H5N8 Cameroon A/duck/Cameroon/17RS1661-3/2017 2017.038	Cameroon	duck	Dom-ans	C	A	B	A	D	0	A	A	A	
309198 H5N8 Belgium A/Guinea_fowl/Belgium/6102/2017 2017.449	Belgium	guineafowl	Dom-gal	A	A	A	A	A	0	A	A	A	
257095 H7N1 Bangladesh A/duck/Bangladesh/24692/2015 2015.142	Bangladesh	duck	Dom-ans	X-A+C	X-D	0	0	0	0	0	0	0	
257087 H7N5 Bangladesh A/black-tailed_godwit/Bangladesh/24734/2015 2015.142	Bangladesh	black-tailed_godwit	Wild-other	X-A+C	0	X-D	0	0	X-A	0	X-A	0	
257066 H4N6 Bangladesh A/duck/Bangladesh/25891/2015 2015.521	Bangladesh	duck	Dom-ans	X-A+C	0	X-D	0	0	0	0	0	0	
257079 H3N6 Bangladesh A/duck/Bangladesh/26948/2015 2015.937	Bangladesh	duck	Dom-ans	X-A+C	0	0	0	0	0	0	0	0	
257089 H3N6 Bangladesh A/duck/Bangladesh/26974/2015 2015.940	Bangladesh	duck	Dom-ans	X-A+C	0	X-D	0	0	0	0	0	0	
250236 H1N1 Russia A/gadwall/Chany/315/2016 2016.773	Russia	gadwall	Wild-ans	X-A+C	0	0	0	0	0	0	X-A	0	
250237 H1N1 Russia A/mallard/Chany/355/2016 2016.773	Russia	mallard	Wild-ans	X-A+C	0	0	0	0	0	0	X-A	0	
240675 H1N1 Russia A/gadwall/Russia_Primorje/394/2016 2016.274	Russia	gadwall	Wild-ans	X-A+C	X-C	0	0	X-D	0	0	0	0	
240676 H1N1 Russia A/teal/Russia_Primorje/390/2016 2016.274	Russia	teal	Wild-ans	X-A+C	X-C	0	0	X-D	0	0	0	0	
224728 H5N8 China A/Bar-headed_Goose/Qinghai/BTY12-LU/2016 2016.362	China	Bar-headed_Goose	Wild-ans	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224748 H5N8 China A/Brown-headed_Gull/Qinghai/ZT05-K/2016 2016.364	China	Brown-headed_Gull	Wild-other	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224720 H5N8 China A/Bar-headed_Goose/Qinghai/BTY8-LU/2016 2016.353	China	Bar-headed_Goose	Wild-ans	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224713 H5N8 China A/Bar-headed_Goose/Qinghai/BTY5-B/2016 2016.359	China	Bar-headed_Goose	Wild-ans	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224718 H5N8 China A/Bar-headed_Goose/Qinghai/BTY7-LU2/2016 2016.356	China	Bar-headed_Goose	Wild-ans	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224746 H5N8 China A/Brown-headed_Gull/Qinghai/ZT04-B/2016 2016.356	China	Brown-headed_Gull	Wild-other	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224736 H5N8 China A/Bar-headed_Goose/Qinghai/BTY16-LU/2016 2016.364	China	Bar-headed_Goose	Wild-ans	X-A+C	X-A	X-B	X-A	X-D	0	X-A	X-A	X-A	
224745 H5N8 China A/Brown-headed_Gull/Qinghai/ZT03-LU/2016 2016.359	China	Brown-headed_Gull	Wild-other	X-A+C	X-A	X-B	X-A	X-D	0	X-A	0	X-A	
224741 H5N8 China A/Bar-headed_Goose/Qinghai/BTY18-MU/2016 2016.367	China	Bar-headed_Goose	Wild-ans	X-A+C	X-A	X-B	0	X-D	0	X-A	X-A	X-A	
254725 H5N8 Korea A/chicken/Korea/H903/2017 2017.104	Korea	chicken	Dom-gal	X-A+C	X-A	X-E	X-A	X-F	0	X-A	X-A	X-A	
240678 H5N8 Russia A/domestic_duck/Siberia/50K/2016 2016.773	Russia	domestic_duck	Dom-ans	X-A+C	0	X-E	X-A	X-F	0	X-A	X-A	X-A	
262059 H5N8 Germany A/greylag_goose/Germany-NI/AR703-L02138/2017 2017.066	Germany	greylaggoose	Wild-ans-long	B	D	B	A	B	0	A	A	A	
240102 H5N8 Poland A/domestic_goose/Poland/33/2016 2016.918	Poland	domesticgoose	Dom-ans	B	D	B	A	B	0	A	A	A	
256308 H5N8 Italy A/chicken/Italy/17VIR1751-3/2017 2017.156	Italy	chicken	Dom-gal	B	A	B	A	B	0	A	A	A	
271710 H5N8 Hungary A/Mulard_duck/Hungary/60369/2016 2016.910	Hungary	mulardduck	Dom-ans	B	A	B	A	B	0	A	A	A	
271713 H5N8 Hungary A/Goose/Hungary/64909/2016 2016.951	Hungary	goose	Dom-ans	B	A	B	A	B	0	A	A	A	
255196 H5N8 Hungary A/Greylag_goose/Hungary/1941/2017 2017.047	Hungary	greylaggoose	Wild-ans-long	B	A	B	A	B	0	A	A	A	
255190 H5N8 Hungary A/Mute_swan/Hungary/119/2017 2017.003	Hungary	muteswan	Wild-ans	B	A	B	A	B	0	A	A	A	
271706 H5N8 Hungary A/Goose/Hungary/17051/2017 2017.293	Hungary	goose	Dom-ans	B	A	B	A	B	0	A	A	A	
271705 H5N8 Hungary A/Goose/Hungary/15729/2017 2017.263	Hungary	goose	Dom-ans	B	A	B	A	B	0	A	A	A	
255191 H5N8 Hungary A/Harris_Hawk/Hungary/120/2017 2017.003	Hungary	harrishawk	Wild-other	B	A	B	A	B	0	A	A	A	
239420 H5N8 Hungary A/duck/Hungary/60441/2016 2016.918	Hungary	duck	Dom-ans	B	A	B	A	B	0	A	A	A	
271714 H5N8 Hungary A/Mulard_duck/Hungary/59163/2016 2016.896	Hungary	mulardduck	Dom-ans	B	A	B	A	B	0	A	A	A	
255216 H5N8 Hungary A/Mallard/Hungary/5821/2017 2017.118	Hungary	mallard	Wild-ans	B	A	B	A	B	0	A	A	A	
237964 H5N8 Hungary A/duck/Hungary/54494/2016 2016.852	Hungary	duck	Dom-ans	B	A	B	A	B	0	A	A	A	
256453 H5N8 Hungary A/Duck/Hungary/54738/2016 2016.855	Hungary	duck	Dom-ans	B	A	B	A	B	0	A	A	A	
271709 H5N8 Hungary A/Goose/Hungary/59763/2016 2016.904	Hungary	goose	Dom-ans	B	A	B	A	B	0	A	A	A	
237965 H5N8 Hungary A/goose/Hungary/55128/2016 2016.860	Hungary	goose	Dom-ans	B	A	B	A	B	0	A	A	A	

255200 H5N8 Hungary A Mute_swan/Hungary/2508/2017 2017.058	Hungary	mutesswan	Wild-ans	B	A	B	A	B	0	A	A	A
255198 H5N8 Hungary A/Turkey/Hungary/2030/2017 2017.047	Hungary	turkey	Dom-gal	B	A	B	A	B	0	A	A	A
237731 H5N8 Hungary A/domestic_turkey/Hungary/53433/2016 2016.836	Hungary	domesticturkey	Dom-gal	B	A	B	A	B	0	A	A	A
256460 H5N8 Hungary A/Turkey/Hungary/53136/2016 2016.833	Hungary	turkey	Dom-gal	B	A	B	A	B	0	A	A	A
237730 H5N8 Hungary A/mute_swan/Hungary/51049/2016 2016.797	Hungary	mutesswan	Wild-ans	B	A	B	A	B	0	A	A	A
255214 H5N8 Hungary A/Chicken/Hungary/1751/2017 2017.044	Hungary	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
255933 H5N8 Hungary A/Cormorant/Hungary/6102/2017 2017.123	Hungary	cormorant	Wild-other	B	A	B	A	B	0	A	A	A
266538 H5N8 Belgium A/Cygnus_olor/Belgium/1567/2017 2017.140	Belgium	cygnusolor	Wild-ans	B	A	B	A	B	0	A	A	A
249682 H5N8 Germany A/domestic_goose/Germany-BY/R677/2017 2017.066	Germany	domesticgoose	Dom-ans	B	A	B	A	B	0	A	A	A
240104 H5N8 Poland A/chicken/Poland/79A/2016 2016.959	Poland	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
240012 H5N8 France A/duck/France/161108h/2016 2016.907	France	duck	Dom-ans	B	A	B	A	B	0	A	A	A
255267 H5N8 France A/duck/France/161587/2016 2016.995	France	duck	Dom-ans	B	A	B	A	B	0	A	A	A
255629 H5N8 France A/duck/France/170437b/2016 2017.044	France	duck	Dom-ans	B	A	B	A	B	0	A	A	A
256306 H5N8 Italy A/turkey/Italy/17VIR1574-1/2017 2017.140	Italy	turkey	Dom-gal	B	A	B	A	B	0	A	A	A
255186 H5N8 Italy A/turkey/Italy/17VIR1338-3/2017 2017.121	Italy	turkey	Dom-gal	B	A	B	A	B	0	A	A	A
254814 H5N8 Hungary A/mallard/Hungary/57857/2016 2016.888	Hungary	mallard	Wild-ans	B	A	B	A	B	0	A	A	A
255193 H5N8 Hungary A/Duck/Hungary/984/2017 2017.027	Hungary	duck	Dom-ans	B	A	B	A	B	0	A	A	A
255205 H5N8 Hungary A/Chicken/Hungary/2496/2017 2017.063	Hungary	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
255197 H5N8 Hungary A/Mute_swan/Hungary/1955/2017 2017.047	Hungary	mutesswan	Wild-ans	B	A	B	A	B	0	A	A	A
239419 H5N8 Hungary A/chicken/Hungary/59048/2016 2016.899	Hungary	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
255398 H5N8 Hungary A/Goose/Hungary/59712/2016 2016.901	Hungary	goose	Dom-ans	B	A	B	A	B	0	A	A	A
255936 H5N8 Hungary A/Pheasant/Hungary/6553/2017 2017.126	Hungary	pheasant	Dom-gal	B	A	B	A	B	0	A	A	A
255937 H5N8 Hungary A/Pheasant/Hungary/7685/2017 2017.148	Hungary	pheasant	Dom-gal	B	A	B	A	B	0	A	A	A
238196 H5N8 Croatia A/mute_swan/Croatia/70/2016 2016.827	Croatia	mutesswan	Wild-ans	B	A	B	A	B	0	A	A	A
256305 H5N8 Italy A/shelduck/Italy/17VIR1572-24/2017 2017.005	Italy	shelduck	Wild-ans	B	A	B	A	B	0	A	A	A
255938 H5N8 Hungary A/Rook/Hungary/4975/2017 2017.104	Hungary	rook	Wild-other	B	A	B	A	B	0	A	A	A
255213 H5N8 Hungary A/GuineaFowl/Hungary/596/2017 2017.014	Hungary	guineafowl	Dom-gal	B	A	B	A	B	0	A	A	A
261634 H5N8 Republic_of_Macedonia A/chicken/Republic_of_Macedonia/AR1167-L02131/2017 2017.038	Republic_of_Macedonia	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
255219 H5N8 Hungary A/White_froned_goose/Hungary/801/2017 2017.022	Hungary	white-frontedgoose	Wild-ans-long	B	A	B	A	B	0	A	A	A
255207 H5N8 Hungary A/Mute_swan/Hungary/5316/2017 2017.107	Hungary	mutesswan	Wild-ans	B	A	B	A	B	0	A	A	A
255208 H5N8 Hungary A/Common_buzzard/Hungary/7061/2017 2017.140	Hungary	commonbuzzard	Wild-other	B	A	B	A	B	0	A	A	A
255211 H5N8 Hungary A/Harris_hawk/Hungary/2762b/2017 2017.063	Hungary	harrishawk	Wild-other	B	A	B	A	B	0	A	A	A
250885 H5N8 Czechia A/mute_swan/Czech_Republic/54-17_2/2017 2017.003	Czechia	mutesswan	Wild-ans	B	A	B	A	B	0	A	A	A
250887 H5N8 Czechia A/chicken/Czech_Republic/55-17_1/2017 2017.003	Czechia	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
261687 H5N8 Germany A/black_swan/Germany-BW/R1364/2017 2017.115	Germany	blackswan	Wild-ans	B	A	B	A	B	0	A	A	A
268947 H5N8 Czechia A/mallard/Czech_Republic/1219-17_1/2017 2017.066	Czechia	mallard	Wild-ans	B	A	B	A	B	0	A	A	A
297388 H5N8 Macedonia A/chicken/Republic_of_Macedonia/466/2017 2017.074	Macedonia	chicken	Dom-gal	B	A	B	A	B	0	A	A	A
300686 H5N8 Poland A/turkey/Poland/63/2016 2016.945	Poland	turkey	Dom-gal	B	D	B	A	B	0	A	A	A
300687 H5N8 Poland A/chicken/Poland/34/2017 2017.027	Poland	chicken	Dom-gal	B	D	B	A	B	0	A	A	A
300693 H5N8 Poland A/domestic_duck/Poland/47/2017 2017.041	Poland	domesticduck	Dom-ans	B	A	B	A	B	0	A	A	A
300698 H5N8 Poland A/turkey/Poland/54/2017 2017.047	Poland	turkey	Dom-gal	B	A	B	A	B	0	A	A	A
300699 H5N8 Poland A/domestic_goose/Poland/69/2017 2017.071	Poland	domesticgoose	Dom-ans	B	D	B	A	B	0	A	A	A
309194 H5N8 Belgium A/Anas_platyrhynchos/Belgium/1899/2017 2017.156	Belgium	anasplatyrhynchos	Wild-ans	B	A	B	A	B	0	A	A	A
309195 H5N8 Belgium A/Cygnus_olor/Belgium/1899/2017 2017.156	Belgium	cygnusolor	Wild-ans	B	D	B	A	B	0	A	A	A

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309196 H5N8 Belgium A/Buteo_buteo/Belgium/3022/2017/2017.222	Belgium	buteobuteo	Wild-other	B	A	B	A	B	0	A	A	A
256785 H10N1 Bangladesh A/duck/Bangladesh/24035/2014/2014.992	Bangladesh	duck	Dom-ans	X-B	X-D	X-D	0	0	0	0	0	0
257411 H5N5 Georgia A/mallard/Republic_of_Georgia/1/2016/2016.945	Georgia	mallard	Wild-ans	D	C	B	A	E	A	0	A	A
256301 H5N5 Russia A/environment/Kamchatka/18/2016/2016.748	Russia	larusschistisagus	Wild-other	D	C	B	A	E	A	0	A	A
243698 H5N5 Croatia A/mute_swan/Croatia/42/2017/2017.052	Croatia	muteswan	Wild-ans	D	C	B	A	E	A	0	A	A
240101 H5N5 Croatia A/mute_swan/Croatia/102/2016/2016.986	Croatia	muteswan	Wild-ans	D	C	B	A	E	A	0	A	A
262056 H5N5 Germany A/greylag_goose/Germany-NIAR11353-L02142/2016/2016.986	Germany	greylaggoose	Wild-ans-long	D	C	B	A	E	A	0	A	A
261332 H5N5 Croatia A/chicken/Croatia/104/2017/2017.178	Croatia	chicken	Dom-gal	D	C	B	A	E	A	0	A	A
255189 H5N5 Italy A/gadwall/Italy/17VIR133-2/2017/2017.025	Italy	gadwall	Wild-ans	D	C	B	A	E	A	0	A	A
243085 H5N5 Italy A/wigeon/Italy/16VIR9616-3/2016/2016.992	Italy	wigeon	Wild-ans-long	D	C	B	A	E	A	0	A	A
255917 H5N5 Poland A/mute_swan/Poland/64/2017/2017.082	Poland	muteswan	Wild-ans	D	C	B	A	E	A	0	0	A
256462 H5N5 Hungary A/Mute_swan/Hungary/5879/2017/2017.121	Hungary	muteswan	Wild-ans	D	C	B	A	E	A	0	A	A
240893 H5N5 Germany A/swan/Germany-SN/R10645/2016/2016.948	Germany	swan	Wild-ans	D	C	B	A	E	A	0	A	A
259074 H5N5 Germany A/common_buzzard/Germany-SN/R1117/2017/2017.099	Germany	commonbuzzard	Wild-other	D	C	B	A	E	A	0	A	A
259525 H5N5 Germany A/egret/Germany-SH/R1459/2017/2017.121	Germany	egret	Wild-other	D	0	B	A	0	0	0	A	A
260058 H5N5 Germany A/grey_heron/Germany-SN/R572/2017/2017.058	Germany	greyheron	Wild-other	D	C	B	A	E	A	0	A	A
260059 H5N5 Germany A/cormorant/Germany-SH/R896/2017/2017.079	Germany	cormorant	Wild-other	D	0	B	A	0	A	0	A	A
287565 H5N5 Netherlands A/M_Swan/NL-Groningen/16015826-001/2016/2016.948	Netherlands	muteswan	Wild-ans	D	C	B	A	E	A	0	A	A
300746 H5N5 Poland A/swan/Poland/81/2017/2017.088	Poland	swan	Wild-ans	D	C	B	A	E	0	0	0	A
267243 H3N6 Netherlands A/barnacle_goose/Netherlands/2/2014/2014.953	Netherlands	barnacle_goose	Wild-ans	X-D	0	0	0	0	0	0	0	0
206308 H10N3 Mongolia A/duck/Mongolia/326/2015/2015.619	Mongolia	duck	Dom-ans	X-D	0	0	0	0	0	0	0	0
181451 H10N3 China A/duck/Jiangxi/15867/2013/2013.474	China	duck	Dom-ans	0	X-A	0	0	0	0	0	0	0
257070 H3N6 Bangladesh A/duck/Bangladesh/26918/2015/2015.937	Bangladesh	duck	Dom-ans	0	X-A	0	0	0	0	0	0	0
209127 H3N6 Mongolia A/duck/Mongolia/405/2015/2015.663	Mongolia	duck	Dom-ans	0	X-A	0	0	0	0	0	0	0
209114 H4N6 Mongolia A/duck/Mongolia/118/2015/2015.660	Mongolia	duck	Dom-ans	0	X-A	0	0	0	0	0	0	0
267352 H6N2 Netherlands A/mallard_duck/Netherlands/9/2014/2014.822	Netherlands	mallard_duck	Wild-ans	0	X-A	0	0	0	0	0	0	0
209131 H4N6 Mongolia A/duck/Mongolia/543/2015/2015.663	Mongolia	duck	Dom-ans	0	X-A	0	0	0	0	0	X-A	0
205121 H5N6 China A/duck/Taizhou/TZYG12/2015/2015.038	China	duck	Dom-ans	0	X-	X-	X-A	0	0	0	0	0
205119 H5N6 China A/duck/Wenzhou/YHQ122/2014/2014.038	China	duck	Dom-ans	0	X-	X-	X-A	0	0	0	0	0
206307 H10N3 Mongolia A/duck/Mongolia/245/2015/2015.619	Mongolia	duck	Dom-ans	0	X-C	0	0	0	0	0	0	0
209129 H1N1 Mongolia A/duck/Mongolia/520/2015/2015.663	Mongolia	duck	Dom-ans	0	X-C	0	0	0	0	0	0	0
206696 H10N7 Mongolia A/duck/Mongolia/709/2015/2015.663	Mongolia	duck	Dom-ans	0	X-C	0	0	X-D	0	0	X-A	0
252819 H6N2 China A/duck/Hubei/ZYSYG8/2015/2015.888	China	duck	Dom-ans	0	X-C	0	0	0	0	0	0	0
243666 H11N9 Netherlands A/mallard_duck/Netherlands/26/2011/2011.773	Netherlands	mallard_duck	Wild-ans	0	X-C	0	0	0	0	0	0	0
257092 H6N1 Bangladesh A/duck/Bangladesh/25767/2015/2015.523	Bangladesh	duck	Dom-ans	0	X-D	0	0	X-E	0	0	X-A	0
240672 H3N8 Russia A/shoveler/Chany/82K/2014/2014.690	Russia	shoveler	Wild-ans	0	X-D	0	0	0	0	0	0	0
252465 H6N2 India A/duck/India/11CL01/2014/2014.871	India	duck	Dom-ans	0	X-D	0	0	0	0	0	0	0
257048 H7N9 Bangladesh A/duck/Bangladesh/26980/2015/2015.940	Bangladesh	duck	Dom-ans	0	X-D	0	0	0	0	0	0	0
207030 H3N8 Mongolia A/duck/Mongolia/83/2015/2015.660	Mongolia	duck	Dom-ans	0	X-D	0	0	0	0	0	0	0
207029 H3N8 Mongolia A/duck/Mongolia/20/2015/2015.658	Mongolia	duck	Dom-ans	0	X-D	0	0	0	0	0	0	0
189700 H6N2 Georgia A/mallard/Republic_of_Georgia/13/2011/2011.901	Georgia	mallard	Wild-ans	0	0	X-A	0	0	0	0	0	0
257053 H5N1 Bangladesh A/duck/Bangladesh/25845/2015/2015.523	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0
257052 H5N1 Bangladesh A/duck/Bangladesh/28250/2016/2016.093	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0
257097 H5N1 Bangladesh A/duck/Bangladesh/28250/2016/2016.093	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0



sh/27892/2015 2015.975												
257073 H5N1 Bangladesh A/duck/Bangladesh/28389/2016 2016.162	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0
257088 H5N1 Bangladesh A/duck/Bangladesh/26182/2015 2015.696	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0
257056 H5N1 Bangladesh A/duck/Bangladesh/25887/2015 2015.521	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0
257046 H5N1 Bangladesh A/duck/Bangladesh/25683/2015 2015.482	Bangladesh	duck	Dom-ans	0	0	X-B	0	0	0	0	0	0
206694 H10N3 Mongolia A/duck/Mongolia/518/2015 2015.663	Mongolia	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
209111 H3N8 Mongolia A/duck/Mongolia/30/2015 2015.658	Mongolia	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
209118 H3N8 Mongolia A/duck/Mongolia/167/2015 2015.660	Mongolia	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
209124 H3N8 Mongolia A/duck/Mongolia/208/2015 2015.663	Mongolia	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
209132 H2N3 Mongolia A/duck/Mongolia/655/2015 2015.663	Mongolia	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
240673 H5N3 Russia A/mallard/Chany/260U/2014 2014.690	Russia	mallard	Wild-ans	0	0	X-D	0	0	0	0	0	0
240680 H5N3 Russia A/mallard/Chany/126K/2014 2014.693	Russia	mallard	Wild-ans	0	0	X-D	0	0	0	0	X-A	0
240681 H8N4 Russia A/mallard/Chany/126K-2/2014 2014.693	Russia	mallard	Wild-ans	0	0	X-D	0	0	0	0	0	0
250232 H3N8 Russia A/teal/Chany/135/2016 2016.690	Russia	teal	Wild-ans	0	0	X-D	0	X-A+B	0	0	X-A	0
250233 H3N8 Russia A/mallard/Chany/185/2016 2016.690	Russia	mallard	Wild-ans	0	0	X-D	0	X-A+B	0	0	X-A	0
250234 H3N8 Russia A/pintail/Chany/198/2016 2016.690	Russia	pintail	Wild-ans	0	0	X-D	0	X-A+B	0	0	X-A	0
250238 H6N8 Russia A/domestic_duck/Siberia/49_feather/2016 2016.500	Russia	domestic_duck	Dom-ans	0	0	X-D	0	X-E	0	0	X-A	0
257067 H3N6 Bangladesh A/duck/Bangladesh/26920/2015 2015.937	Bangladesh	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
257071 H7N1 Bangladesh A/duck/Bangladesh/24705/2015 2015.142	Bangladesh	duck	Dom-ans	0	0	X-D	0	0	0	0	0	0
257076 H15N9 Bangladesh A/duck/Bangladesh/24697/2015 2015.142	Bangladesh	duck	Dom-ans	0	0	X-D	0	0	0	0	X-A	0
205833 H5N1 U.K. A/chicken/Scotland/532/2016 2016.022	U.K.	chicken	Dom-gal	0	0	X-E	0	X-E	0	0	0	0
224581 H7N9 Netherlands A/chicken/Netherlands/16007311-037041/2016 2016.433	Netherlands	chicken	Dom-gal	0	0	X-E	0	0	0	0	X-A	0
224753 H10N7 Netherlands A/chicken/Netherlands/15007212/15 2015.323	Netherlands	chicken	Dom-gal	0	0	X-E	0	0	0	0	0	0
267238 H12N3 Netherlands A/Bewick_swan/Netherlands/1/2014 2014.915	Netherlands	Bewick_swan	Wild-ans	0	0	X-E	0	X-F	0	0	0	0
180649 H5N1 China A/goose/Shandong/k1201/2009 2009.940	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0
250920 H5N5 Czechia A/mute_swan/Czech_Republic/2031-17/2017 2017.107	Czechia	muteswan	Wild-ans	0	0	0	A	0	A	0	A	0
243049 H5N5 Germany A/turkey/Germany-SH/R425/2017 2017.058	Germany	turkey	Dom-gal	0	0	0	A	0	A	0	A	A
139385 H5N8 China A/duck/Jiangsu/k1203/2010 2010.926	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
208828 H5N8 China A/duck/Eastern_China/L1021/2012 2012.803	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
206490 H5N8 China A/goose/Jiangsu/QD5/2014 2014.156	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0
222132 H5N8 China A/duck/Eastern_China/JY/2014 2014.008	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
206492 H5N8 China A/goose/Yangzhou/0420/2014 2014.299	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	X-A
206491 H5N8 China A/goose/Shandong/WFSG1/2014 2014.274	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	X-A
196592 H5N8 China A/goose/Jiangsu/WX202/2014 2014.123	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0
162301 H5N8 China A/duck/Zhejiang/6D18/2013 2013.951	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
208840 H5N8 China A/goose/Eastern_China/S0408/2014 2014.266	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0
171695 H5N8 Korea A/Baikal_teal/Korea/H52/2014 2014.052	Korea	Baikal_teal	Wild-ans-long	0	0	0	X-A	0	0	0	0	0
157609 H5N8 Korea A/breeder_duck/Korea/Gochang1/2014 2014.041	Korea	breeder_duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
208832 H5N8 China A/duck/Eastern_China/S1210/2013 2013.940	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
162300 H5N8 China A/duck/Zhejiang/W24/2013 2013.868	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
270371 H5N8 China A/falcated_duck/Shanghai/PD1121-27/2013 2013.888	China	falcated_duck	Wild-ans	0	0	0	X-A	0	0	0	0	0
203751 H5N8 China A/duck/Zhejiang/925169/2014 2014.732	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0
222134 H5N8 China A/goose/Eastern_China/CZ/2013 2013.860	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0
270369 H5N8 China A/mallard/Shanghai/S-H-9/2013 2013.866	China	mallard	Wild-ans	0	0	0	X-A	0	0	0	0	0
156815 H5N8 China A/mallard_duck/Shang	China	mallard_duck	Wild-ans	0	0	0	X-A	0	0	0	0	0

hai/SH-9/2013 2013.879													
270363 H5N8 China A/common_teal/Shang hai/PD1118-1/2013 2013.879	China	common_teal	Wild-ans-long	0	0	0	X-A	0	0	0	0	0	0
270368 H5N8 China A/common_teal/Shang hai/PD1121-18/2013 2013.888	China	common_teal	Wild-ans-long	0	0	0	X-A	0	0	0	0	0	0
270367 H5N8 China A/common_teal/Shang hai/PD1202-9/2013 2013.918	China	common_teal	Wild-ans-long	0	0	0	X-A	0	0	0	0	0	0
270372 H5N8 China A/spot-billed_duck/Shanghai/PD1202-3/2013 2013.918	China	spot-billed_duck	Wild-ans	0	0	0	X-A	0	0	0	0	0	0
203753 H5N8 China A/goose/Zhejiang/925104/2014 2014.732	China	goose	Dom-ans	0	0	0	X-A	0	0	X-A	0	0	0
208841 H5N8 China A/duck/Eastern_China/S1109/2014 2014.855	China	duck	Dom-ans	0	0	0	X-A	0	0	X-A	0	X-A	0
240109 H5N8 Russia A/chicken/Kalmykia/2661/2016 2016.893	Russia	chicken	Dom-gal	0	0	0	X-A	0	0	X-A	0	0	0
239802 H5N8 Egypt A/Common-coot/Egypt/CA285/2016 2016.901	Egypt	Common-coot	Wild-other	0	0	0	X-A	0	0	X-A	0	0	0
202558 H5N8 China A/duck/Liaoning/S1001/2014 2014.337	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
208835 H5N8 China A/duck/Eastern_China/S0215/2014 2014.123	China	duck	Dom-ans	0	0	0	X-A	0	0	X-A	0	0	0
208826 H5N8 China A/duck/Eastern_China/L0611/2011 2011.441	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
208825 H5N8 China A/duck/Eastern_China/L0423/2011 2011.307	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
137255 H5N2 China A/duck/Hebei/3/2011 2011.932	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
208831 H5N8 China A/goose/Eastern_China/L1204/2012 2012.923	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
201799 H5N8 China A/duck/Guangdong/s14044/2014 2014.014	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
201798 H5N8 China A/goose/Guangdong/s13124/2013 2013.945	China	goose	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
167178 H5N8 China A/duck/Shandong/Q1/2013 2013.312	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
208829 H5N8 China A/duck/Eastern_China/L1120/2012 2012.885	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
208827 H5N8 China A/duck/Eastern_China/L0722/2012 2012.553	China	duck	Dom-ans	0	0	0	X-A	0	0	0	0	0	0
240679 H5N8 Kazakhstan A/graylag_goose/Kazakhstan/KR/2016 2016.619	Kazakhstan	graylag_goose	Wild-ans	0	0	0	0	X-D	0	X-A	X-A	0	0
257090 H7N9 Bangladesh A/duck/Bangladesh/26992/2015 2015.940	Bangladesh	duck	Dom-ans	0	0	0	0	X-D	0	0	X-A	0	0
260526 H7N7 Netherlands A/mallard/Netherlands/15/2015 2015.490	Netherlands	mallard	Wild-ans	0	0	0	0	X-E	0	0	0	0	0
267219 H6N2 Netherlands A/mallard_duck/Netherlands/11/2014 2014.890	Netherlands	mallard_duck	Wild-ans	0	0	0	0	X-E	0	0	0	0	0
243620 H6N2 Netherlands A/mallard_duck/Netherlands/7/2014 2014.748	Netherlands	mallard_duck	Wild-ans	0	0	0	0	X-E	0	0	0	0	0
267194 H2N9 Netherlands A/mallard_duck/Netherlands/14/2014 2014.652	Netherlands	mallard_duck	Wild-ans	0	0	0	0	X-F	0	0	0	0	0
267297 H2N9 Netherlands A/mallard_duck/Netherlands/16/2014 2014.658	Netherlands	mallard_duck	Wild-ans	0	0	0	0	X-F	0	0	0	0	0
267135 H5N8 Egypt A/green-winged_teal/Egypt/871/2016 2016.934	Egypt	green-winged_teal	Wild-ans-long	0	0	0	0	X-F	0	X-A	0	0	0
229599 H9N2 Egypt A/pigeon/Egypt/S10409A/2014 2014.937	Egypt	pigeon	Wild-other	0	0	0	0	X-F	0	0	0	0	0
203617 H9N5 Singapore A/common_redshank/Singapore/F83-2/2015 2015.688	Singapore	common_redshank	Wild-other	0	0	0	0	0	X-A	0	0	0	0
266417 H5N8 Korea A/common_teal/Korea/W547/2016 2016.953	Korea	common_teal	Wild-ans-long	0	0	0	0	0	0	X-A	0	0	0
224744 H5N8 China A/Brown-headed_Gull/Qinghai/ZT03-B/2016 2016.359	China	Brown-headed_Gull	Wild-other	0	0	0	0	0	0	0	X-A	0	0
209119 H3N8 Mongolia A/duck/Mongolia/173/2015 2015.660	Mongolia	duck	Dom-ans	0	0	0	0	0	0	0	X-A	0	0
179385 H3N6 Vietnam A/duck/Vietnam/LB M798/2014 2014.923	Vietnam	duck	Dom-ans	0	0	0	0	0	0	0	X-A	0	0
266413 H1N1 China A/Anseriformes/Anhui/L25/2014 2014.973	China	Anseriformes	Wild-ans	0	0	0	0	0	0	0	X-A	0	0
266407 H1N1 China A/Anseriformes/Anhui/S3/2014 2014.978	China	Anseriformes	Wild-ans	0	0	0	0	0	0	0	X-A	0	0
257730 H1N1 Korea A/wild_bird/Korea/SK14/2014 2014.918	Korea	wild_bird	Wild-other	0	0	0	0	0	0	0	X-A	0	0
205145 H6N2 China A/wild_bird/Wuhan/C DHN15/2015 2015.038	China	wild_bird	Wild-other	0	0	0	0	0	0	0	X-A	0	0
243612 H7N7 Netherlands A/mallard_duck/Netherlands/2/2015 2015.041	Netherlands	mallard_duck	Wild-ans	0	0	0	0	0	0	0	X-A	0	0
243563 H7N7 Netherlands A/mallard_duck/Netherlands/3/2015 2015.063	Netherlands	mallard_duck	Wild-ans	0	0	0	0	0	0	0	X-A	0	0
267186 H7N5 Netherlands A/mallard_duck/Netherlands/8/2014 2014.822	Netherlands	mallard_duck	Wild-ans	0	0	0	0	0	0	0	X-A	0	0
258657 H5N2 SouthAfrica A/ostrich/South_Africa/325863/2015 2015.496	SouthAfrica	ostrich	Wild-other	0	0	0	0	0	0	0	X-A	0	0
209115 H4N6 Mongolia A/duck/Mongolia/127/2015 2015.660	Mongolia	duck	Dom-ans	0	0	0	0	0	0	0	X-A	0	0

<sup>a</sup>Host species were categorized as follows: domestic anseriform birds (Dom-ans), domestic galliform birds (Dom-gal), long-range migratory wild anseriform birds (Wild-ans-long), other wild anseriform birds (Wild-ans), and other wild birds (Wild-other).



224745	Asia / China / Qinghai Province	A/Brown-headed Gull/Qinghai/ZTO3-LU/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
224746	Asia / China / Qinghai Province	A/Brown-headed Gull/Qinghai/ZTO4-B/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
224747	Asia / China / Qinghai Province	A/Brown-headed Gull/Qinghai/ZTO5-B/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
224748	Asia / China / Qinghai Province	A/Brown-headed Gull/Qinghai/ZTO5-K/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
224750	Asia / China / Qinghai Province	A/Brown-headed Gull/Qinghai/ZTO6-SP/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
224751	Asia / China / Qinghai Province	A/Brown-headed Gull/Qinghai/ZTO6-MU/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
224752	Asia / China / Qinghai Province	A/Great Black-headed Gull/Qinghai/YO1-B/2016	State Key Laboratory of Virology and Wuhan Institute of Virology, Chinese Academy of Sciences	Wuhan Institute of Virology
230820	Europe / Russian Federation / Tyva Republic	A/great crested grebe/Tyva/34/2016	State Research Center of Virology and Biotechnology (VECTOR)	WHO National Influenza Centre Russian Federation
231684	Europe / Russian Federation / Tyva Republic	A/wild duck/Tyva/35/2016	State Research Center of Virology and Biotechnology (VECTOR)	WHO National Influenza Centre Russian Federation
231685	Europe / Russian Federation / Tyva Republic	A/black-headed gull/Tyva/41/2016	State Research Center of Virology and Biotechnology (VECTOR)	WHO National Influenza Centre Russian Federation
234057	Europe / Russian Federation / Tyva Republic	A/grey heron /Uvs-Nuur Lake/20/2016	Research Institute of Experimental and Clinical Medicine	Research Institute of Experimental and Clinical Medicine
234058	Europe / Russian Federation / Tyva Republic	A/common tern /Uvs-Nuur Lake/26/2016	Research Institute of Experimental and Clinical Medicine	Research Institute of Experimental and Clinical Medicine
237553	Asia / India / National Capital Territory of Delhi	A/duck/India/10CA01/2016	ICAR-National Institute of High Security Animal Diseases	ICAR-National Institute of High Security Animal Diseases
237554	Asia / India / Madhya Pradesh / Gwalior	A/painted stork/India/10CA03/2016	ICAR-National Institute of High Security Animal Diseases	ICAR-National Institute of High Security Animal Diseases
237730	Europe / Hungary / Csongrad megye	A/mute_swan/Hungary/51049/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
237731	Europe / Hungary / Bekes megye	A/domestic_turkey/Hungary/53433/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
237733	Europe / Germany / Schleswig-Holstein / Lake Plön	A/tufted_duck/Germany/AR8444-L01986/2016		Friedrich-Loeffler-Institut
237921	Europe / Poland / West Pomeranian Voivodeship	A/wild duck/Poland/82A/2016		National Veterinary Research Institut Poland, PIWet-PIB
237944	Europe / Germany / Schleswig-Holstein / Lake Plön	A/tufted_duck/Germany/AR8444-L01987/2016		Friedrich-Loeffler-Institut
237945	Europe / Germany / Baden-Wuerttemberg / Lake Constance	A/tufted_duck/Germany/AR8459-L01988/2016		Friedrich-Loeffler-Institut
237958	Europe / Germany / Schleswig-Holstein	A/tufted duck/Germany-SH/R8444/2016		Friedrich-Loeffler-Institut
237964	Europe / Hungary / Bacs-Kiskun / Kiskunmajsa	A/Mulard_duck/Hungary/54494/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
237965	Europe / Hungary / Bacs-Kiskun / Bugac	A/goose/Hungary/55128/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
237966	Europe / Hungary / Bacs-Kiskun / Kiszállás	A/duck/Hungary/55191/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
238037	Europe / Germany / Schleswig-Holstein	A/turkey/Germany-SH/R8595/2016		Friedrich-Loeffler-Institut
238038	Europe / Germany / Mecklenburg-Vorpommern	A/chicken/Germany-MV/R8790/2016		Friedrich-Loeffler-Institut
238039	Europe / Germany / Schleswig-Holstein	A/chicken/Germany-SH/R8758/2016		Friedrich-Loeffler-Institut
238196	Europe / Croatia / Vukovarsko-Srijemska Zupanija / Cerna, river Bid	A/mute swan/Croatia/70/2016		Croatian Veterinary Institute
238893	Europe / Sweden / Skane Lan / Helsingborgs Kommun	A/Chicken/Sweden/SVA161122KU0453/SZ0209316/2016	National Veterinary Institute	National Veterinary Institute
238894	Europe / Sweden / Skane Lan / Helsingborgs Kommun	A/Chicken/Sweden/SVA161122KU0453/SZ0209317/2016	National Veterinary Institute	National Veterinary Institute
238895	Europe / Sweden / Skane Lan / Helsingborgs	A/Chicken/Sweden/SVA161122KU0453/SZ0209318/2016	National Veterinary Institute	National Veterinary Institute

	Kommun			
238896	Europe / Sweden / Skane Lan / Helsingborgs Kommun	A/Chicken/Sweden/SVA161122KU0453/SZ0209321/2016	National Veterinary Institute	National Veterinary Institute
238897	Europe / Sweden / Skane Lan / Vellinge Kommun / Vellinge, Höllviken	A/Common Goldeneye/Sweden/SVA161117KU0322/SZ0002165/2016	National Veterinary Institute	National Veterinary Institute
239419	Europe / Hungary / Jasz-Nagykun-Szolnok	A/chicken/Hungary/59048/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
239420	Europe / Hungary / Bacs-Kiskun	A/duck/Hungary/60441/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
239434	Europe / Switzerland / Neuenburgersee	A/tufted_duck/Switzerland/V246-L02001/2016	Institut für Virologie und Immunologie - Bundesamt für Lebensmittelsicherheit und Veterinärwesen	Friedrich-Loeffler-Institut
239435	Europe / Switzerland / Lake Constance	A/tufted_duck/Switzerland/V254-L02002/2016	Institut für Virologie und Immunologie - Bundesamt für Lebensmittelsicherheit und Veterinärwesen	Friedrich-Loeffler-Institut
239436	Europe / Switzerland / Bielsee	A/tufted_duck/Switzerland/V237-L02003/2016	Institut für Virologie und Immunologie - Bundesamt für Lebensmittelsicherheit und Veterinärwesen	Friedrich-Loeffler-Institut
239437	Europe / Switzerland / Neuenburgersee	A/caspian_gull/Switzerland/V247-L02004/2016	Institut für Virologie und Immunologie - Bundesamt für Lebensmittelsicherheit und Veterinärwesen	Friedrich-Loeffler-Institut
239801	Europe / United Kingdom / Lincolnshire / Louth	A/turkey/England/052131/2016	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)
239997	Europe / France / Region Nord-Pas-De Calais / Departement du Pas-de-Calais	A/decoy_duck/France/161104e/2016	Anses (Ploufragan-Plouzané)	ANSES Agence Nationale De Securite Sanitaire De L'alimentation
240012	Europe / France / Midi-Pyrenees / Departement du Tarn	A/duck/France/161108h/2016		ANSES Agence Nationale De Securite Sanitaire De L'alimentation
240101	Europe / Croatia / Sisacko-Moslavacka Zupanija / Crkveni Bok	A/mute swan/Croatia/102/2016		Croatian Veterinary Institute
240102	Europe / Poland / Lubusz Voivodeship	A/domestic goose/Poland/33/2016		National Veterinary Research Institut Poland, PIWet-PIB
240104	Europe / Poland / Subcarpathian Voivodeship	A/chicken/Poland/79A/2016		National Veterinary Research Institut Poland, PIWet-PIB
240110	Europe / Russian Federation / Astrakhan Oblast	A/chicken/Astrakhan/3131/2016		State Research Center of Virology and Biotechnology (VECTOR)
240111	Europe / Poland / West Pomeranian Voivodeship / Swinoujscie	A/herring gull/Poland/84/2016		National Veterinary Research Institut Poland, PIWet-PIB
240677	Europe / Russian Federation / Novosibirsk Oblast	A/domestic duck/Siberia/103/2016	Research Institute of Experimental and Clinical Medicine	Research Institute of Experimental and Clinical Medicine
240892	Europe / Germany / Lower Saxony	A/turkey/Germany-NI/R10523/2016		Friedrich-Loeffler-Institut
240893	Europe / Germany / Saxony	A/swan/Germany-SN/R10645/2016		Friedrich-Loeffler-Institut
241249	Europe / Germany / Mecklenburg-Vorpommern	A/domestic duck/Germany-MV/R9869/2016		Friedrich-Loeffler-Institut
242817	Europe / Czech Republic / South Moravian Region / Okres Breclav / Brod nad Dují	A/chicken/Czech Republic/206-17_2/2017(H5N8)		State Veterinary Institute Prague
242902	Europe / Italy / Friuli-Venezia Giulia / Province of Gorizia	A/wigeon/Italy/17VIR57-3/2017	Istituto Zooprofilattico Sperimentale Delle Veneziae	Istituto Zooprofilattico Sperimentale Delle Veneziae
243049	Europe / Germany / Schleswig-Holstein	A/turkey/Germany-SH/R425/2017		Friedrich-Loeffler-Institut
243050	Europe / Germany / Schleswig-Holstein	A/barnacle goose/Germany-SH/R11505/2016		Friedrich-Loeffler-Institut
243085	Europe / Italy / Friuli-Venezia Giulia / Province of Gorizia	A/wigeon/Italy/16VIR9616-3/2016	Istituto Zooprofilattico Sperimentale Delle Veneziae	Istituto Zooprofilattico Sperimentale Delle Veneziae
243698	Europe / Croatia / Osjecko-Baranjska Zupanija	A/mute swan/Croatia/42/2017		Croatian Veterinary Institute
247429	Europe / Germany / Brandenburg	A/domestic duck/Germany-BB/R681ff/2017		Friedrich-Loeffler-Institut
247713	Europe / Denmark / Region Hovedstaden / Kobenhavns Kommune / Christiania	A/tufted duck/Denmark/17740-1/2016	Technical University of Denmark	Animal and Plant Health Agency (APHA)

247715	Europe / Russian Federation / Voronezh Oblast	A/long-eared owl/Voronezh/15/2017		State Research Center of Virology and Biotechnology (VECTOR)
247716	Europe / Russian Federation / Voronezh Oblast	A/Ural owl/Voronezh/14/2017		State Research Center of Virology and Biotechnology (VECTOR)
247717	Europe / Russian Federation / Voronezh Oblast	A/long-eared owl/Voronezh/16/2017		State Research Center of Virology and Biotechnology (VECTOR)
247718	Europe / Russian Federation / Voronezh Oblast	A/chicken/Voronezh/18/2017		State Research Center of Virology and Biotechnology (VECTOR)
247719	Europe / Russian Federation / Voronezh Oblast	A/chicken/Voronezh/19/2017		State Research Center of Virology and Biotechnology (VECTOR)
247720	Europe / Russian Federation / Voronezh Oblast	A/chicken/Voronezh/20/2017		State Research Center of Virology and Biotechnology (VECTOR)
247721	Europe / Russian Federation / Rostov Oblast	A/turkey/Rostov-on-Don/11/2017		State Research Center of Virology and Biotechnology (VECTOR)
247722	Europe / Russian Federation / Krasnodar Krai	A/goose/Krasnodar/3144/2017		State Research Center of Virology and Biotechnology (VECTOR)
247723	Europe / Russian Federation / Krasnodar Krai	A/mute swan/Krasnodar/25/2017		State Research Center of Virology and Biotechnology (VECTOR)
247724	Europe / Russian Federation / Republic of Tatarstan	A/wild duck/Tatarstan/3059/2016		State Research Center of Virology and Biotechnology (VECTOR)
247725	Europe / Russian Federation / Republic of Kalmykia	A/chicken/Kalmykia/2643/2016		State Research Center of Virology and Biotechnology (VECTOR)
249681	Europe / Germany / Brandenburg / LK Ostprignitz-Ruppin	A/turkey/Germany-BB/R234ff/2017		Friedrich-Loeffler-Institut
249682	Europe / Germany / Bavaria / LK Regensburg	A/domestic goose/Germany-BY/R677/2017		Friedrich-Loeffler-Institut
249691	Europe / Germany / Mecklenburg-Vorpommern / Neukloster	A/chicken/Germany-MV/R10048/2016		Friedrich-Loeffler-Institut
249692	Europe / Germany / Lower Saxony / LK Northeim	A/chicken/Germany-NI/R11406/2016		Friedrich-Loeffler-Institut
250231	Europe / Russian Federation / Novosibirsk Oblast / Chany lake	A/domestic_duck/Siberia/49_feather/2016	Research Institute of Experimental and Clinical Medicine	WHO National Influenza Centre Russian Federation
250885	Europe / Czech Republic / South Moravian Region / Okres Blansko	A/mute swan/Czech Republic/54-17_2/2017 (H5N8)		State Veterinary Institute Prague
250887	Europe / Czech Republic / South Moravian Region / Okres Znojmo	A/chicken/Czech Republic/55-17_1/2017 (H5N8)		State Veterinary Institute Prague
253036	Europe / United Kingdom / Lincolnshire	A/turkey/England/003778/2017	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)
253037	Europe / United Kingdom / County of Carmarthenshire	A/chicken/Wales/000023/2016	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)
254725	Asia / Korea, Republic of / Jeollabuk-do	A/chicken/Korea/H903/2017	Animal and Plant Quarantine Agency (O-2015)	Animal and Plant Quarantine Agency (S-2026)
254745	Asia / Korea, Republic of / Chungcheongnam-do	A/mallard duck/Korea/WA137/2017	Animal and Plant Quarantine Agency (O-2015)	Animal and Plant Quarantine Agency (S-2026)
254814	Europe / Hungary / Hajdu-Bihar	A/mallard/Hungary/57857/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255174	Europe / Hungary / Hajdu-Bihar	A/Goose/Hungary/65817/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255181	Europe / Italy / Udine	A/swan/Italy/17VIR537-2/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
255182	Europe / Italy / Venezia	A/turkey/Italy/17VIR538-1/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
255183	Europe / Italy / Padova	A/turkey/Italy/17VIR576-11/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
255184	Europe / Italy / Rovigo	A/chicken/Italy/17VIR653-12/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
255185	Europe / Italy / Parma	A/turkey/Italy/17VIR973-2/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia

255186	Europe / Italy / Mantova	A/turkey/Italy/17VIR1338-3/2017	Istituto Zooprofilattico Sperimentale Delle Venezie	Istituto Zooprofilattico Sperimentale Delle Venezie
255187	Europe / Italy / Verona	A/turkey/Italy/17VIR1452-22/2017	Istituto Zooprofilattico Sperimentale Delle Venezie	Istituto Zooprofilattico Sperimentale Delle Venezie
255189	Europe / Italy / Gorizia	A/gadwall/Italy/17VIR133-2/2017	Istituto Zooprofilattico Sperimentale Delle Venezie	Istituto Zooprofilattico Sperimentale Delle Venezie
255190	Europe / Hungary / Somogy megye / Somogy	A/Mute swan/Hungary/119/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255191	Europe / Hungary / Budapest fovaros / Budapest	A/Harris Hawk/Hungary/120/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255192	Europe / Hungary / Jasz-Nagykun-Szolnok	A/Goose/Hungary/982/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255193	Europe / Hungary / Bekes megye	A/Duck/Hungary/984/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255194	Europe / Hungary / Csongrad megye	A/Goose/Hungary/1030/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255195	Europe / Hungary / Bacs-Kiskun	A/Duck/Hungary/1588/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255196	Europe / Hungary / Fejer megye	A/Greylag_goose/Hungary/1941/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255197	Europe / Hungary / Veszprem megye	A/Mute swan/Hungary/1955/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255198	Europe / Hungary / Veszprem megye	A/Turkey/Hungary/2030/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255199	Europe / Hungary / Borsod-Abauj-Zemlen	A/Mute swan/Hungary/2193/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255200	Europe / Hungary / Somogy megye / Somogy	A/Mute swan/Hungary/2508/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255201	Europe / Hungary / Tolna megye / Tolna	A/Mute swan/Hungary/2825/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255202	Europe / Hungary / Zala	A/Mute swan/Hungary/3139/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255203	Europe / Hungary / Vas	A/Mute swan/Hungary/3513/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255204	Europe / Hungary / Budapest fovaros	A/Mute swan/Hungary/3542/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255205	Europe / Hungary / Jasz-Nagykun-Szolnok	A/Chicken/Hungary/2496/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255206	Europe / Hungary / Gyor-Moson-Sopron	A/Peregrine_falcon/Hungary/4882/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255207	Europe / Hungary / Tolna megye / Tolna	A/Mute swan/Hungary/5316/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255208	Europe / Hungary / Tolna megye / Tolna	A/Common_buzzard/Hungary/7061/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255209	Europe / Hungary / Tolna megye	A/Common_tern/Hungary/8187/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255210	Europe / Hungary / Pest megye / Pest	A/Harris_hawk/Hungary/2762a/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255211	Europe / Hungary / Pest megye / Pest	A/Harris_hawk/Hungary/2762b/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255212	Europe / Hungary / Somogy megye / Somogy	A/Greylag_goose/Hungary/320/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255213	Europe / Hungary / Hajdu-Bihar	A/GuineaFowl/Hungary/596/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255214	Europe / Hungary / Gyor-Moson-Sopron	A/Chicken/Hungary/1751/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255215	Europe / Hungary / Zala	A/Mute swan/Hungary/3137/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255216	Europe / Hungary / Zala	A/Mallard/Hungary/5821/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic



				Directorate
255218	Europe / Hungary / Somogy megye / Somogy	A/Mallard/Hungary/1574b/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255219	Europe / Hungary / Hajdu-Bihar	A/White_fronted_goose/Hungary/801/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255220	Europe / Hungary / Somogy megye / Somogy	A/Mallard/Hungary/1574a/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255398	Europe / Hungary / Csongrad megye / Csongrad	A/Goose/Hungary/59712/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255891	Europe / Netherlands / Provincie Noord-Holland / Edam-Volendam	A/Tufted Duck/Netherlands/1/2016	Erasmus Medical Center	Erasmus Medical Center
255892	Europe / Netherlands / Provincie Noord-Holland	A/Great Black-backed Gull/Netherlands/2/2016	Erasmus Medical Center	Erasmus Medical Center
255910	Europe / Netherlands / Provincie Noord-Holland	A/Mew Gull/Netherlands/1/2016	Erasmus Medical Center	Erasmus Medical Center
255912	Europe / Netherlands / South Holland	A/Eurasian Wigeon/Netherlands/4/2016	Erasmus Medical Center	Erasmus Medical Center
255913	Europe / Netherlands / South Holland	A/Mallard/Netherlands/2/2017	Erasmus Medical Center	Erasmus Medical Center
255914	Europe / Netherlands / Provincie Noord-Holland	A/Eurasian Wigeon/Netherlands/9/2016	Erasmus Medical Center	Erasmus Medical Center
255917	Europe / Poland / Lower Silesian Voivodeship	A/mute swan/Poland/64/2017		National Veterinary Research Institut Poland, PIWet-PIB
255933	Europe / Hungary / Komárom-Esztergom	A/Cormorant/Hungary/6102/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255934	Europe / Hungary / Komárom-Esztergom	A/Mute swan/Hungary/6092/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255935	Europe / Hungary / Zala	A/Mute swan/Hungary/6276/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255936	Europe / Hungary / Jász-Nagykun-Szolnok	A/Pheasant/Hungary/6553/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255937	Europe / Hungary / Jász-Nagykun-Szolnok	A/Pheasant/Hungary/7685/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
255938	Europe / Hungary / Szabolcs-Szatmár-Bereg	A/Rook/Hungary/4975/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
256298	Europe / Russian Federation / Kurgan Oblast	A/gadwall/Kurgan/2442/2016		State Research Center of Virology and Biotechnology (VECTOR)
256299	Europe / Russian Federation / Moscow Oblast	A/chicken/Sergiyev Posad/38/2017		State Research Center of Virology and Biotechnology (VECTOR)
256300	Europe / Russian Federation / Moscow Oblast	A/chicken/Sergiyev Posad/39/2017		State Research Center of Virology and Biotechnology (VECTOR)
256301	Europe / Russian Federation / Kamchatka Krai	A/environment/Kamchatka/18/2016		State Research Center of Virology and Biotechnology (VECTOR)
256305	Europe / Italy / Rovigo	A/shelduck/Italy/17VIR1572-24/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
256306	Europe / Italy / Mantova	A/turkey/Italy/17VIR1574-1/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
256307	Europe / Italy / Venezia	A/chicken/Italy/17VIR1684-2/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
256308	Europe / Italy / Venezia	A/chicken/Italy/17VIR1751-3/2017	Istituto Zooprofilattico Sperimentale Delle Venezia	Istituto Zooprofilattico Sperimentale Delle Venezia
256453	Europe / Hungary / Bacs-Kiskun	A/Duck/Hungary/54738/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
256457	Europe / Hungary / Bacs-Kiskun	A/Duck/Hungary/55764/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
256460	Europe / Hungary / Bekes megye / Bekes	A/Turkey/Hungary/53136/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
256462	Europe / Hungary / Budapest fovaros	A/Mute swan/Hungary/5879/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
256817	Europe / Germany / Lower Saxony	A/turkey/Germany-NI/R9807/2016		Friedrich-Loeffler-Institut

256818	Europe / Germany / Mecklenburg-Vorpommern	A/domestic duck/Germany-MV/R9764/2016		Friedrich-Loeffler-Institut
257004	Europe / Czech Republic	A/chicken/Czech Republic/206-17_2/2017		Other Database Import
257699	Europe / Switzerland / Kanton Bern / Amt Biel / Lake Biel	A/Tufted Duck/Switzerland/V237/2016	Institute of Virology and Immunology IVI	Faculty of Veterinary Medicine at the University of Bern
257731	Europe / Germany / Brandenburg	A/turkey/Germany-BB/R377ff/2017		Friedrich-Loeffler-Institut
259074	Europe / Germany / Saxony	A/common buzzard/Germany-SN/R1117/2017		Friedrich-Loeffler-Institut
260058	Europe / Germany / Saxony	A/grey heron/Germany-SN/R572/2017		Friedrich-Loeffler-Institut
260059	Europe / Germany / Schleswig-Holstein	A/cormorant/Germany-SH/R896/2017		Friedrich-Loeffler-Institut
261332	Europe / Croatia / Krapinsko-Zagorska Zupanija / Špičkovina	A/chicken/Croatia/104/2017		Croatian Veterinary Institute
261634	Europe / Macedonia, the former Yugoslav Republic of	A/chicken/Republic of Macedonia/AR1167-L02131/2017	University "Ss. Cyril and Methodius", Veterinary Institute, Department of Avian diseases	Friedrich-Loeffler-Institut
261687	Europe / Germany / Baden-Wuerttemberg	A/black swan/Germany-BW/R1364/2017		Friedrich-Loeffler-Institut
262055	Europe / Germany / Lower Saxony / Wilhelmshaven	A/eurasian wigeon/Germany-NI/AR249-L02143/2017		Friedrich-Loeffler-Institut
262056	Europe / Germany / Lower Saxony / Wangerland	A/greylag goose/Germany-NI/AR11353-L02142/2016		Friedrich-Loeffler-Institut
262057	Europe / Germany / Lower Saxony / Ammerland	A/mute swan/Germany-NI/AR1529-L02145/2017		Friedrich-Loeffler-Institut
262058	Europe / Germany / Lower Saxony / Peine	A/greylag goose/Germany-NI/AR1395-L02144/2017		Friedrich-Loeffler-Institut
262059	Europe / Germany / Lower Saxony / Hemmingen	A/greylag goose/Germany-NI/AR703-L02138/2017		Friedrich-Loeffler-Institut
263097	Europe / Germany / Lower Saxony / Kreis Wittmund	A/domestic_duck/Germany-NI/AR2054-L02155/2017		Friedrich-Loeffler-Institut
263099	Europe / Germany / Lower Saxony / Kreis Emsland	A/domestic_goose/Germany-NI/AR519-L02153/2017		Friedrich-Loeffler-Institut
263101	Europe / Germany / Lower Saxony / Kreis Cloppenburg	A/turkey/Germany-NI/AR2659-L02159/2017		Friedrich-Loeffler-Institut
263103	Europe / Germany / Lower Saxony / Kreis Cloppenburg	A/turkey/Germany-NI/AR01-L02115/2017		Friedrich-Loeffler-Institut
263117	Europe / Germany / Lower Saxony / Kreis Oldenburg	A/turkey/Germany-NI/AR11365-L02128/2016		Friedrich-Loeffler-Institut
263118	Europe / Germany / Lower Saxony / Kreis Cloppenburg	A/turkey/Germany-NI/AR11416-L02124/2016		Friedrich-Loeffler-Institut
263119	Europe / Germany / Lower Saxony / Kreis Oldenburg	A/turkey/Germany-NI/AR11461-L02127-40/2016		Friedrich-Loeffler-Institut
263120	Europe / Germany / Lower Saxony / Kreis Oldenburg	A/turkey/Germany-NI/AR11550-L02126/2016		Friedrich-Loeffler-Institut
266417	Asia / Korea, Republic of	A/common teal/Korea/W547/2016		Other Database Import
266418	Asia / Korea, Republic of	A/common teal/Korea/W549/2016		Other Database Import
266419	Asia / Korea, Republic of	A/common teal/Korea/W548/2016		Other Database Import
266420	Asia / Korea, Republic of	A/common teal/Korea/W550/2016		Other Database Import
266421	Asia / Korea, Republic of	A/common teal/Korea/W555/2017		Other Database Import
266536	Europe / Belgium	A/chicken/Belgium/807/2017	Sciensano	Sciensano
266537	Europe / Belgium	A/peacock/Belgium/1017/2017	Sciensano	Sciensano
266538	Europe / Belgium	A/Cygnus olor/Belgium/1567/2017	Sciensano	Sciensano
266944	Europe / Germany / Saxony-Anhalt	A/emu/Germany-ST/R321/2017		Friedrich-Loeffler-Institut
266945	Europe / Germany / Saxony	A/greylag goose/Germany-SN/R513/2017		Friedrich-Loeffler-Institut
266946	Europe / Germany / Schleswig-Holstein	A/egret/Germany-SH/R1315/2017		Friedrich-Loeffler-Institut
267135	Africa / Egypt	A/green-winged teal/Egypt/871/2016		Other Database Import

267136	Africa / Egypt	A/green-winged teal/Egypt/877/2016		Other Database Import
268021	Africa / Egypt / Sharqia	A/duck/Egypt/SS19/2017	National Laboratory for Veterinary Quality Control on Poultry production- Animal Health Research Institute	Animal Health Research Institute
268513	Africa / Egypt / Cairo	A/duck/Egypt/F446/2017	National Laboratory for Veterinary Quality Control on Poultry production- Animal Health Research Institute	Animal Health Research Institute
268618	Europe / Netherlands / Provincie Noord-Holland / Den Oever	A/Bk_swan/NL-Den Oever/16013973-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268619	Europe / Netherlands / Provincie Noord-Holland / Slootdorp	A/Bl_H_gull/NL-Slootdorp/16014102-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268620	Europe / Netherlands / Provincie Noord-Holland / Durgerdam	A/Buzzard/NL-Durgerdam/16015100-004/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268621	Europe / Netherlands / Provincie Noord-Holland / Slootdorp	A/C_Gull/NL-Slootdorp/16014102-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268622	Europe / Netherlands / Provincie Friesland / Abbega	A/Ch/NL-Abbega/X16015736/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268623	Europe / Netherlands / Provincie Gelderland / Boven Leeuwen	A/Ch/NL-Boven Leeuwen/16016151-006-010/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268624	Europe / Netherlands / Provincie Noord-Holland / Den Oever	A/Ch/NL-Den Oever/16014231-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268625	Europe / Netherlands / Provincie Friesland / Hiaure	A/Ch/NL-Hiaure/16016112-001-005/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268626	Europe / Netherlands / Provincie Utrecht / Gemeente Rhenen	A/Ch/NL-Rhenen/16016141-006/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268627	Europe / Netherlands / South Holland / Gemeente Zoeterwoude	A/Ch/NL-Zoeterwoude/16016484-021-025/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268628	Europe / Netherlands / Provincie Noord-Holland / Oostwoud	A/Crow/NL-Oostwoud/16015372-004/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268629	Europe / Netherlands / Provincie Flevoland / Biddinghuizen	A/Dk/NL-Biddinghuizen/16014829-011-015/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268630	Europe / Netherlands / Provincie Flevoland / Biddinghuizen	A/Dk/NL-Biddinghuizen/16015083-016-020/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268631	Europe / Netherlands / Provincie Flevoland / Biddinghuizen	A/Dk/NL-Biddinghuizen/16015145-021-025/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268632	Europe / Netherlands / Provincie Overijssel / Kamperveen	A/Dk/NL-Kamperveen/16016104-001-005/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268633	Europe / Netherlands / South Holland / Gemeente Rotterdam	A/Dk/NL-Rotterdam/16014008-001-005/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268634	Europe / Netherlands / South Holland / Stolwijk	A/Dk/NL-Stolwijk/16016291-016-020/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268635	Europe / Netherlands / Provincie Friesland / Akkrum	A/Eur_Wig/NL-Akkrum/16015817-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268636	Europe / Netherlands / Provincie Noord-Holland / De Waal (Texel)	A/Eur_Wig/NL-De Waal (Texel)/16014891-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268637	Europe / Netherlands / Provincie Noord-Holland / De Waal (Texel)	A/Eur_Wig/NL-De Waal (Texel)/16014891-004/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268638	Europe / Netherlands / Provincie Groningen / Drieborg (Dollard)	A/Eur_Wig/NL-Drieborg (Dollard)/16015513-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268639	Europe / Netherlands / Provincie Groningen / Enumatil-Groningen	A/Eur_Wig/NL-Enumatil-Groningen/16015704-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268640	Europe / Netherlands / Provincie Friesland / Ferwert	A/Eur_Wig/NL-Ferwert/16015273-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268641	Europe / Netherlands / South Holland / Gemeente Gouda	A/Eur_Wig/NL-Gouda/16015824-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268642	Europe / Netherlands / Provincie Friesland / Greonterp	A/Eur_Wig/NL-Greonterp/16015653-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268643	Europe / Netherlands / Provincie Groningen	A/Eur_Wig/NL-Groningen/16015376-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research

	/ Gemeente Groningen			
268644	Europe / Netherlands / Provincie Friesland / Gemeente Leeuwarden	A/Eur_Wig/NL-Leeuwarden/16015699-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268645	Europe / Netherlands / South Holland / Leidschendam	A/Eur_Wig/NL-Leidschendam/16015697-007/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268646	Europe / Netherlands / South Holland / Gemeente Reeuwijk	A/Eur_Wig/NL-Reeuwijk/16015903-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268647	Europe / Netherlands / Provincie Friesland / Gemeente Terschelling	A/Eur_Wig/NL-Terschelling/16015692-010/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268648	Europe / Netherlands / Provincie Utrecht / Gemeente Vianen	A/Eur_Wig/NL-Vianen/16015917-006/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268649	Europe / Netherlands / Provincie Friesland / Walterswald	A/Eur_Wig/NL-Walterswald/16015923-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268650	Europe / Netherlands / Provincie Noord-Holland / West Grafdijk	A/Eur_Wig/NL-West Grafdijk/16015746-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268651	Europe / Netherlands / Provincie Noord-Holland / Wormer	A/Eur_Wig/NL-Wormer/16016143-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268652	Europe / Netherlands / South Holland / Gemeente Zoeterwoude	A/Eur_Wig/NL-Zoeterwoude/16015702-010/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268653	Europe / Netherlands / Provincie Overijssel / Gemeente Zwolle	A/Eur_Wig/NL-Zwolle/16015820-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268654	Europe / Netherlands / Provincie Noord-Holland / Monnickendam	A/G_c_grebe/NL-Monnickendam/16013865-009-010/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268655	Europe / Netherlands / Provincie Flevoland / Roggebotsluis	A/Go/NL-Roggebotsluis/16014462-010/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268656	Europe / Netherlands / Provincie Noord-Holland / Slootdorp	A/Gr_bk_bd_gull/NL-Slootdorp/16014102-005/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268657	Europe / Netherlands / South Holland / Groot-Ammers	A/Grey_Go/NL-Groot-Ammers/16015901-012/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268658	Europe / Netherlands / Marker Wadden	A/Gull/NL-Marker Wadden/16014466-020/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268659	Europe / Netherlands / Marker Wadden	A/Gull1/NL-Marker Wadden/16014466-011/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268660	Europe / Netherlands / Marker Wadden	A/Gull10/NL-Marker Wadden/16014466-014/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268661	Europe / Netherlands	A/L-bl-ba-gull/NL-Sovon/16014324-014/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268662	Europe / Netherlands / Provincie Flevoland / Roggebotsluis	A/M_Swan/NL-Roggebotsluis/16014462-019/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268663	Europe / Netherlands / Provincie Noord-Holland / Edam-Volendam	A/Magpie/NL-Volendam/16014331-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268664	Europe / Netherlands / Provincie Overijssel / IJsselmuiden	A/Mal/NL-IJsselmuiden/16015448-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268665	Europe / Netherlands / Provincie Overijssel / Mastenbroek	A/Mal/NL-Mastenbroek/16015378-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268666	Europe / Netherlands / Provincie Zeeland / Vrouwenpolder	A/P_falcon/NL-Vrouwenpolder (Zeeland)/16015510-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268667	Europe / Netherlands / Provincie Drenthe / Gemeente Assen	A/Sea_eagle/NL-Assen/16015398-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268668	Europe / Netherlands / Provincie Flevoland / Almeerder Zand	A/T_Dk/NL-Almeerder Zand/16014341-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268669	Europe / Netherlands / Provincie Noord-Holland / Monnickendam	A/T_Dk/NL-Monnickendam/16013865-006-008/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268670	Europe / Netherlands / Provincie Flevoland / Roggebotsluis	A/T_Dk/NL-Roggebotsluis/16014462-015/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research

268671	Europe / Netherlands / South Holland / Gemeente Rotterdam	A/T_Dk/NL-Rotterdam/16014155-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268672	Europe / Netherlands / North Brabant / Gemeente Werkendam	A/T_Dk/NL-Werkendam/16014159-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268673	Europe / Netherlands / North Brabant / Gemeente Werkendam	A/T_Dk/NL-Werkendam/16014159-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268674	Europe / Netherlands / Provincie Flevoland / Gemeente Zeewolde	A/T_Dk/NL-Zeewolde/16013976-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268675	Europe / Netherlands / Provincie Flevoland / Gemeente Zeewolde	A/T_Dk/NL-Zeewolde/16013976-001-003/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268676	Europe / Netherlands / Provincie Flevoland / Gemeente Zeewolde	A/T_Dk/NL-Zeewolde/16013976-004/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268677	Europe / Netherlands / Provincie Flevoland / Gemeente Zeewolde	A/T_Dk/NL-Zeewolde/16013976-004-006/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268678	Europe / Netherlands / Provincie Flevoland / Gemeente Zeewolde	A/T_Dk/NL-Zeewolde/16013976-005/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268679	Europe / Netherlands / Provincie Flevoland / Gemeente Zeewolde	A/T_Dk/NL-Zeewolde/16013976-006/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268680	Europe / Netherlands / Provincie Noord-Holland / Zuidoost Beemster	A/T_Dk/NL-Zuidoost Beemster/16014148-002/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268681	Europe / Netherlands / Provincie Noord-Holland / Zuidoost Beemster	A/T_Dk/NL-Zuidoost Beemster/16014148-009/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268682	Europe / Netherlands / Provincie Friesland / Ferwert	A/Teal/NL-Ferwert/16015273-013/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
268930	Europe / Czech Republic / South Moravian Region / Mesto Brno	A/goose/Czech Republic/136-17_1/2017 (H5N8)	State Veterinary Institute Prague	State Veterinary Institute Prague
268940	Europe / Czech Republic / Jihocesky Kraj / Okres Ceske Budejovice	A/mute swan/Czech Republic/1058-17/2017 (H5N8)	State Veterinary Institute Prague	State Veterinary Institute Prague
268941	Europe / Czech Republic / Jihocesky Kraj / Okres Ceske Budejovice	A/mute swan/Czech Republic/1060-17/2017 (H5N8)	State Veterinary Institute Prague	State Veterinary Institute Prague
268947	Europe / Czech Republic / Jihocesky Kraj / Okres Strakonice / Blatná	A/mallard/Czech Republic/1219-17_1/2017 (H5N8)	State Veterinary Institute Prague	State Veterinary Institute Prague
271704	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/17261/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271705	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/15729/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271706	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/17051/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271707	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/17580/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271708	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/17985/2017	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271709	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/59763/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271710	Europe / Hungary / Bacs-Kiskun	A/Mulard_duck/Hungary/60369/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271711	Europe / Hungary / Csongrad megye / Csongrad	A/Mulard_duck/Hungary/62902/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271712	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/63743/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
271713	Europe / Hungary / Bacs-Kiskun	A/Goose/Hungary/64909/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate

271714	Europe / Hungary / Bacs-Kiskun	A/Mulard_duck/Hungary/59163/2016	National Food Chain Safety Office Veterinary Diagnostic Directorate Laboratory for Molecular Biology	Central Agricultural Office Veterinary Diagnostic Directorate
272859	Asia / Korea, Republic of	A/grey heron/W779/2017		Other Database Import
273846	Europe / Italy / Emilia-Romagna / Province of Bologna / Mordano	A/chicken/Italy/17VIR3078/2017	Istituto Zooprofilattico Sperimentale Delle Veneziae	Istituto Zooprofilattico Sperimentale Delle Veneziae
273847	Europe / Italy / Veneto / Province of Verona / Albaredo d'Adige	A/turkey/Italy/17VIR5878-3/2017	Istituto Zooprofilattico Sperimentale Delle Veneziae	Istituto Zooprofilattico Sperimentale Delle Veneziae
274858	Europe / Russian Federation / Kaliningrad Oblast	A/mute swan/Kaliningrad/132/2017		State Research Center of Virology and Biotechnology (VECTOR)
275283	Europe / Russian Federation / Moscow Oblast	A/chicken/Shcholkovo/47/2017		State Research Center of Virology and Biotechnology (VECTOR)
275287	Europe / Russian Federation / Rostov Oblast	A/chicken/Rostov-on-Don/44/2017		State Research Center of Virology and Biotechnology (VECTOR)
275288	Europe / Russian Federation / Republic of Tatarstan	A/chicken/Tatarstan/88/2017		State Research Center of Virology and Biotechnology (VECTOR)
277134	Europe / Germany / Saxony-Anhalt / Kreis Mansfeld-Südharz	A/swan/Germany-ST/AR3396-L02292/2017		Friedrich-Loeffler-Institut
277135	Europe / Germany / Saxony-Anhalt / Kreis Mansfeld-Südharz	A/swan/Germany-ST/AR3397-L02293/2017		Friedrich-Loeffler-Institut
277137	Europe / Germany / Saxony-Anhalt / Kreis Mansfeld-Südharz	A/swan/Germany-ST/AR1166-L02295/2017		Friedrich-Loeffler-Institut
280672	Europe / Germany / Saxony-Anhalt / Kreis Mansfeld-Südharz	A/buzzard/Germany-ST/AR1959-L02305/2017		Friedrich-Loeffler-Institut
280674	Europe / Switzerland / Yverdon-les-Bains	A/mute_swan/Switzerland/V0244.2-L02307/2017	Institut für Virologie und Immunologie - Bundesamt für Lebensmittelsicherheit und Veterinärwesen	Friedrich-Loeffler-Institut
282133	Europe / Czech Republic / South Moravian Region / Okres Brno-Venkov	A/turkey/Czech Republic/38-17_1/2017 (H5N8)	State Veterinary Institute Prague	State Veterinary Institute Prague
282141	Europe / Italy / Lombardy / Province of Bergamo / Mozzanica	A/swan/Italy/17VIR7064-1/2017	Istituto Zooprofilattico Sperimentale Delle Veneziae	Istituto Zooprofilattico Sperimentale Delle Veneziae
282143	Europe / Italy / Lombardy / Province of Pavia / Chignolo Po	A/goose/Italy/17VIR6358-3/2017	Istituto Zooprofilattico Sperimentale Delle Veneziae	Istituto Zooprofilattico Sperimentale Delle Veneziae
283129	Europe / Czech Republic / Olomoucky Kraj / Okres Prerov / Lověšice	A/chicken/Czech Republic/988-17/2017 (H5N8)	State Veterinary Institute Prague	State Veterinary Institute Prague
284004	Africa / South Africa / Province of the Western Cape	A/Chicken/South_Africa/S2017/08_0336_P3/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285601	Africa / South Africa / Province of the Western Cape	A/Geese/South_Africa/S2017/09_0065_P1/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285602	Africa / South Africa / Province of the Western Cape	A/Geese/South_Africa/S2017/09_0065_P2/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285604	Africa / South Africa / Province of the Western Cape	A/Ostrich/South_Africa/S2017/08_0046_P3/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285606	Africa / South Africa / Province of the Western Cape	A/Duck/South_Africa/S2017/08_0340_P1/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285624	Africa / South Africa / Province of the Western Cape	A/Chicken/South_Africa/S2017/09_0050_56/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285648	Africa / South Africa / Province of the Western Cape	A/Geese/South_Africa/S2017/09_0055_P1/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285649	Africa / South Africa / Province of the Western Cape	A/Chicken/South_Africa/S2017/09_0184_63/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285650	Africa / South Africa / Province of the Western Cape	A/Ostrich/South_Africa/S2017/08_0046_AF/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285651	Africa / South Africa / Province of the Western Cape	A/Guineafowl/South_Africa/S2017/08_0190_9/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285652	Africa / South Africa / Province of the Western Cape	A/Guineafowl/South_Africa/S2017/08_0243_P2/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases

	Western Cape			
285655	Africa / South Africa / Province of the Western Cape	A/Geese/South_Africa/S2017/08_0558_P1/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
285658	Africa / South Africa / Province of the Western Cape	A/Chicken/South_Africa/S2017/08_0561_P1/2017	Western Cape Provincial Veterinary Laboratory	National Institute for Communicable Diseases
287564	Europe / Netherlands / North Brabant / Gemeente Werkendam / Werkendam	A/T_Dk/NL-Werkendam/16014159-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
287565	Europe / Netherlands / Provincie Groningen / Gemeente Groningen / Groningen	A/M_Swan/NL-Groningen/16015826-001/2016	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
287800	Asia / Taiwan	A/spoonbill/Taiwan/DB645/2017		Animal Health Research Institute
287906	Europe / Netherlands / Provincie Flevoland / Gemeente Dronten / Biddinghuizen	A/Duck/Netherlands/17017236-001-005/2017	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
287907	Europe / Netherlands / Provincie Flevoland / Gemeente Dronten / Biddinghuizen	A/Duck/Netherlands/17017237-001-005/2017	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
288362	Europe / Greece	A/chicken/Greece/39_2017/2017	Thessalonica Veterinary Centre (TVC)	Animal and Plant Health Agency (APHA)
288363	Europe / Greece	A/chicken/Greece/39_2017a/2017	Thessalonica Veterinary Centre (TVC)	Animal and Plant Health Agency (APHA)
288364	Europe / Greece	A/chicken/Greece/39_2017b/2017	Thessalonica Veterinary Centre (TVC)	Animal and Plant Health Agency (APHA)
288409	Europe / Netherlands / Provincie Gelderland / Hulshorst	A/Mute Swan/Netherlands/17017367-012/2017	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
288410	Europe / Netherlands / Provincie Gelderland / Gemeente Elburg	A/Mute Swan/Netherlands/17017377-001/2017	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
288412	Europe / Netherlands / Provincie Gelderland / Hulshorst	A/Tufted Duck/Netherlands/17017367-007/2017	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research
288436	Asia / Korea, Republic of / Jeju-teukbyeoljachido	A/mallard/Korea/Jeju-H24/2017	Animal and Plant Quarantine Agency (O-2144)	Animal and Plant Quarantine Agency (S-2145)
288437	Asia / Korea, Republic of / Jeollabuk-do	A/duck/Korea/HD1/2017	Animal and Plant Quarantine Agency (O-2144)	Animal and Plant Quarantine Agency (S-2145)
288438	Asia / Korea, Republic of / Jeollabuk-do	A/chicken/Korea/Gunsan/2017	Animal and Plant Quarantine Agency (O-2144)	Animal and Plant Quarantine Agency (S-2145)
288734	Europe / Germany / North Rhine-Westphalia / Regierungsbezirk Dusseldorf / Düsseldorf	A/mute swan/Germany-NW/AR108/2017		Friedrich-Loeffler-Institut
288736	Europe / Germany / Rhineland-Palatinate / Zell	A/mute swan/Germany-RP/AR416/2017		Friedrich-Loeffler-Institut
288737	Europe / Germany / Hamburg	A/greylag goose/Germany-HH/AR477/2017		Friedrich-Loeffler-Institut
288746	Europe / Germany / Bavaria / Lower Franconia / Gemünden	A/mute swan/Germany-BY/AR857/2017		Friedrich-Loeffler-Institut
288747	Europe / Germany / Rhineland-Palatinate / Bad Breisig, Kreis Bad Neuenahr-Ahrweiler	A/tufted duck/Germany-RP/AR1181/2017		Friedrich-Loeffler-Institut
289068	Europe / Germany / Hessen / Regierungsbezirk Giessen / Gießem	A/great egret/Germany-HE/AR1208/2017		Friedrich-Loeffler-Institut
289173	Asia / Japan / Shimane	A/mute swan/Shimane/3211A001/2017		Other Database Import
289713	Europe / Netherlands / Provincie Noord-Holland / De Kreupel	A/Great Black-backed Gull/Netherlands/1/2017	Erasmus Medical Center	Erasmus Medical Center
289714	Europe / Netherlands / Provincie Noord-Holland / De Kreupel	A/Black-headed Gull/Netherlands/29/2017	Erasmus Medical Center	Erasmus Medical Center
291103	Europe / Germany / Hessen / Nentershausen, Kreis Hersfeld Rothenburg	A/mute swan/Germany_HE/AR195/2017		Friedrich-Loeffler-Institut

291109	Europe / Germany / Bavaria	A/common_pochard/Germany-BY/AR09-18-L02421/2017		Friedrich-Loeffler-Institut
291110	Europe / Switzerland / Erlach	A/mute_swan/Switzerland/V361-L02422/2017	Institut für Virologie und Immunologie - Bundesamt für Lebensmittelsicherheit und Veterinärwesen	Friedrich-Loeffler-Institut
292223	Europe / United Kingdom / Dorset / Abbotsbury	A/mute_swan/England/AVP_18_001986/2017	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)
292224	Europe / United Kingdom / Dorset / Abbotsbury	A/pochard_duck/England/AVP_18_003254/2018	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)
292225	Europe / United Kingdom / Dorset / Abbotsbury	A/canada_goose/England/AV58_18OPp oolEP1/2018	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)
295027	Europe / Russian Federation / Kostroma Oblast	A/chicken/Kostroma/1718/2017		State Research Center of Virology and Biotechnology (VECTOR)
297234	Europe / Russian Federation / Rostov Oblast	A/chicken/Rostov-on-Don/1321/2017		State Research Center of Virology and Biotechnology (VECTOR)
297235	Europe / Russian Federation / Rostov Oblast	A/chicken/Rostov-on-Don/1598/2017		State Research Center of Virology and Biotechnology (VECTOR)
297388	Europe / Macedonia, the former Yugoslav Republic of / Opstina Struga	A/chicken/Republic of Macedonia/466/2017	Faculty of Veterinary Medicine Skopje	Croatian Veterinary Institute
297463	Europe / Russian Federation / Kostroma Oblast	A/chicken/Kostroma/1717/2017		State Research Center of Virology and Biotechnology (VECTOR)
297464	Europe / Russian Federation / Kostroma Oblast	A/chicken/Kostroma/1719/2017		State Research Center of Virology and Biotechnology (VECTOR)
297465	Europe / Russian Federation / Kostroma Oblast	A/chicken/Kostroma/1720/2017		State Research Center of Virology and Biotechnology (VECTOR)
297466	Europe / Russian Federation / Kostroma Oblast	A/chicken/Kostroma/1721/2017		State Research Center of Virology and Biotechnology (VECTOR)
300547	Europe / Ukraine	A/White-fronted Goose/AN/1-15-12/2016	NSC Institute of Experimental and Clinical Veterinary Medicine	Friedrich-Loeffler-Institut
300548	Europe / Ukraine / Kherson Oblast	A/Ruddy Shelduck/AN/2-14-12/2016	NSC Institute of Experimental and Clinical Veterinary Medicine	Friedrich-Loeffler-Institut
300562	Europe / Ukraine / Kherson Oblast	A/Environmental (EM) /AN/2/17	NSC Institute of Experimental and Clinical Veterinary Medicine	Friedrich-Loeffler-Institut
300686	Europe / Poland / Lubusz Voivodeship	A/turkey/Poland/63/2016	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300687	Europe / Poland / Lesser Poland Voivodeship	A/chicken/Poland/34/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300693	Europe / Poland / Greater Poland Voivodeship	A/domestic_duck/Poland/47/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300698	Europe / Poland / Masovian Voivodeship	A/turkey/Poland/54/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300699	Europe / Poland / Greater Poland Voivodeship	A/domestic_goose/Poland/69/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300700	Europe / Poland / Warmian-Masurian Voivodeship	A/turkey/Poland/72/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300701	Europe / Poland / Greater Poland Voivodeship	A/turkey/Poland/94/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300702	Europe / Poland / Lower Silesian Voivodeship	A/chicken/Poland/101/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300703	Europe / Poland / Lower Silesian Voivodeship	A/domestic_goose/Poland/124/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300704	Europe / Poland / Podlasie Voivodeship	A/turkey/Poland/192/2017	National Veterinary Research Institut Poland, PIWet-PIB	National Veterinary Research Institut Poland, PIWet-PIB
300712	Europe / Poland / Lubusz Voivodeship	A/chicken/Poland/263/2017		National Veterinary Research Institut Poland, PIWet-PIB
300743	Europe / Poland / West Pomeranian Voivodeship	A/mallard/Poland/17/2017		National Veterinary Research Institut Poland, PIWet-PIB
300744	Europe / Poland / Lesser Poland Voivodeship	A/swan/Poland/32/2017		National Veterinary Research Institut Poland, PIWet-PIB
300745	Europe / Poland / Lubusz Voivodeship	A/wild duck/Poland/57/2017		National Veterinary Research Institut Poland, PIWet-PIB



300746	Europe / Poland / Lower Silesian Voivodeship	A/swan/Poland/81/2017		National Veterinary Research Institut Poland, PIWet-PIB
300747	Europe / Poland / Pomeranian Voivodeship	A/mute_swan/Poland/137/2017		National Veterinary Research Institut Poland, PIWet-PIB
303637	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K17-1887/2017	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
303638	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K17-1889/2017	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
303639	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K17-1891/2017	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
303640	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K17-1893/2017	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
303641	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K17-1894/2017	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
303642	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K17-1896/2017	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
303643	Asia / Korea, Republic of / Chungcheongnam-do / Gokgyo-cheon	A/Mandarin_duck/Korea/K18-3/2018	Avian diseases laboratory, College of Veterinary Medicine, Konkuk University	Konkuk University
304701	Europe / Germany / Hessen / Regierungsbezirk Darmstadt	A/greylag goose/Germany-HE/AR1667/2017		Friedrich-Loeffler-Institut
305416	Europe / Netherlands / Provincie Overijssel / Gemeente Kampen	A/Domestic_Duck/Netherlands/EMC-2/2018	Erasmus Medical Center	Erasmus Medical Center
305417	Europe / Netherlands / Provincie Overijssel / Gemeente Kampen	A/Domestic_Duck/Netherlands/EMC-6/2018	Erasmus Medical Center	Erasmus Medical Center
305453	Europe / Germany / Schleswig-Holstein / Nordfriesland	A/chicken/Germany-SH/AR163-L02542/2018		Friedrich-Loeffler-Institut
305454	Europe / Germany / Schleswig-Holstein / Nordfriesland	A/chicken/Germany-SH/AR164-L02543/2018		Friedrich-Loeffler-Institut
305455	Europe / Germany / Schleswig-Holstein / Nordfriesland	A/duck/Germany-SH/AR165-L02544/2018		Friedrich-Loeffler-Institut
306989	Europe / Germany / Schleswig-Holstein / Nordfriesland	A/turkey/Germany-SH/AR185-L02549/2018		Friedrich-Loeffler-Institut
308781	Asia / Japan / Hyogo	A/jungle crow/Hyogo/2803A002/2018		Other Database Import
308782	Asia / Japan / Hyogo	A/jungle crow/Hyogo/2803E011/2018		Other Database Import
308783	Asia / Japan / Hyogo	A/jungle crow/Hyogo/2803E022/2018		Other Database Import
308802	Africa / Congo, the Democratic Republic of	A/duck/Democratic Republic of the Congo/17RS882-29/2017		Other Database Import
308803	Africa / Congo, the Democratic Republic of	A/duck/Democratic Republic of the Congo/17RS882-33/2017		Other Database Import
308804	Africa / Congo, the Democratic Republic of	A/duck/Democratic Republic of the Congo/17RS882-40/2017		Other Database Import
308805	Africa / Congo, the Democratic Republic of	A/duck/Democratic Republic of the Congo/17RS882-5/2017		Other Database Import
309197	Europe / Belgium	A/Brahma chicken/Belgium/6153/2017	Sciensano	Sciensano
309198	Europe / Belgium	A/Guinea fowl/Belgium/6102/2017	Sciensano	Sciensano
312376	Asia / Georgia / Mtkvari River, Tbilisi	A/Armenian Gull/Republic of Georgia/4/2017	National Center for Disease Control and Public Health, Georgia	Erasmus Medical Center
313226	Europe / Germany / Lower Saxony / Vechta	A/white stork/Germany-NI/AR251/2018	Niedersaechsisches Landesgesundheitsamt	Friedrich-Loeffler-Institut
313227	Europe / Germany / North Rhine-Westphalia / Herford	A/buzzard/Germany-NRW/AR279/2018	Chemisches und Veterinäruntersuchungsamt Ostwestfalen-Lippe	Friedrich-Loeffler-Institut

319652	Asia / Japan / Shimane	A/tufted duck/Shimane/3211TY001/2017		Other Database Import
320607	Europe / Russian Federation / Kursk Oblast	A/chicken/Kursk/284/2018		State Research Center of Virology and Biotechnology (VECTOR)
320608	Europe / Russian Federation / Kursk Oblast	A/chicken/Kursk/526/2018		State Research Center of Virology and Biotechnology (VECTOR)
320657	Europe / Russian Federation / Samara Oblast	A/chicken/Samara/446/2018		State Research Center of Virology and Biotechnology (VECTOR)
320658	Europe / Russian Federation / Samara Oblast	A/chicken/Samara/447/2018		State Research Center of Virology and Biotechnology (VECTOR)
320659	Europe / Russian Federation / Samara Oblast	A/duck/Samara/452/2018		State Research Center of Virology and Biotechnology (VECTOR)
320660	Europe / Russian Federation / Samara Oblast	A/goose/Samara/455/2018		State Research Center of Virology and Biotechnology (VECTOR)
320661	Europe / Russian Federation / Samara Oblast	A/goose/Samara/459/2018		State Research Center of Virology and Biotechnology (VECTOR)
320662	Europe / Russian Federation / Penza Oblast	A/chicken/Penza/300/2018		State Research Center of Virology and Biotechnology (VECTOR)
320663	Europe / Russian Federation / Penza Oblast	A/chicken/Penza/301/2018		State Research Center of Virology and Biotechnology (VECTOR)
320664	Europe / Russian Federation / Oryol Oblast	A/chicken/Orel/533/2018		State Research Center of Virology and Biotechnology (VECTOR)
320674	Europe / Russian Federation / Rostov Oblast	A/chicken/Rostov-on-Don/766/2018		State Research Center of Virology and Biotechnology (VECTOR)
320675	Europe / Russian Federation / Rostov Oblast	A/turkey/Rostov-on-Don/817/2018		State Research Center of Virology and Biotechnology (VECTOR)
320676	Europe / Russian Federation / Penza Oblast	A/chicken/Penza/605/2018		State Research Center of Virology and Biotechnology (VECTOR)
320677	Europe / Russian Federation / Penza Oblast	A/chicken/Penza/607/2018		State Research Center of Virology and Biotechnology (VECTOR)
320678	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/805/2018		State Research Center of Virology and Biotechnology (VECTOR)
320679	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/806/2018		State Research Center of Virology and Biotechnology (VECTOR)
320680	Europe / Russian Federation / Kursk Oblast	A/chicken/Kursk/757/2018		State Research Center of Virology and Biotechnology (VECTOR)
320681	Europe / Russian Federation / Kursk Oblast	A/chicken/Kursk/760/2018		State Research Center of Virology and Biotechnology (VECTOR)
320682	Europe / Russian Federation / Kursk Oblast	A/chicken/Kursk/762/2018		State Research Center of Virology and Biotechnology (VECTOR)
320683	Europe / Russian Federation / Samara Oblast	A/goose/Samara/673/2018		State Research Center of Virology and Biotechnology (VECTOR)
320684	Europe / Russian Federation / Samara Oblast	A/goose/Samara/675/2018		State Research Center of Virology and Biotechnology (VECTOR)
320685	Europe / Russian Federation / Samara Oblast	A/chicken/Samara/679/2018		State Research Center of Virology and Biotechnology (VECTOR)
320953	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/849/2018		State Research Center of Virology and Biotechnology (VECTOR)
320954	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/850/2018		State Research Center of Virology and Biotechnology (VECTOR)
320955	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/851/2018		State Research Center of Virology and Biotechnology (VECTOR)
320956	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/853/2018		State Research Center of Virology and Biotechnology (VECTOR)
320957	Europe / Russian Federation / Chuvash Republic-Chuvashia	A/chicken/Cheboksary/854/2018		State Research Center of Virology and Biotechnology (VECTOR)
320958	Europe / Russian Federation / Republic of Tatarstan	A/chicken/Tatarstan/7/2018		State Research Center of Virology and Biotechnology (VECTOR)

322179	Europe / Germany / Mecklenburg- Vorpommern / Nordwestmecklenbur g	A/domestic duck/Germany-MV/AR613- L02727/2018		Friedrich-Loeffler-Institut
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**Table S6.** Summary of data of different clades per gene segment. Based on extended dataset (ii) shown in Table S4.

Clade	Seg1	Seg2	Seg3	Seg4-H5	Seg5	Seg6-N5	Seg6-N8	Seg7	Seg8
A	124	212	109	234	125	18	217	236	237
B	62	0	99	0	62	0	0	0	0
C	33	16	0	0	0	0	0	0	0
D	17	6	14	0	17	0	0	0	0
E	0	0	13	0	17	0	0	0	0
F	0	0	0	0	13	0	0	0	0
X-	0	2	2	0	0	0	0	0	0
X-A	0	16	1	50	0	2	19	37	14
X-A+B	0	0	0	0	3	0	0	0	0
X-A+C	20	0	0	0	0	0	0	0	0
X-B	1	0	16	0	0	0	0	0	0
X-C	0	7	0	0	0	0	0	0	0
X-D	2	8	19	0	14	0	0	0	0
X-E	0	0	6	0	6	0	0	0	0
X-F	0	0	0	0	7	0	0	0	0
<b>total</b>	<b>259</b>	<b>267</b>	<b>279</b>	<b>284</b>	<b>264</b>	<b>20</b>	<b>236</b>	<b>273</b>	<b>251</b>

**Table S7.** Summary of data of different clades per gene segment. Based on host species names as provided in extended dataset (ii) shown in Table S4.

Bird	Dom-ans	Dom-gal	Wild-ans	Wild-ans-long	Wild-other
Anas penelope				18	
Anas platyrhynchos			3		
Anser anser				1	
Anser cygnoides	1				
Bar-headed goose			2		
Black-headed gull					3
Black swan			2		
Brown-headed gull					2
Buteo buteo					1
Buzzard					1
Caspian gull					1
Chicken		38			
Common buzzard					2
Common goldeneye			1		
Common gull					1
Common teal				2	
Common tern					2
Cormorant					2
Crow					1
Cygnus atratus			2		
Cygnus olor			2		
Decoy duck			1		
Domestic duck	4				
Domestic goose	3				
Domestic turkey		1			
Duck	17				
Egret					1
Eurasian wigeon				4	
Gadwall			2		
Goose	9				
Great black-backed gull					2
Great black-headed gull					1
Great crested grebe					3
Green-winged teal				1	
Grey heron					3
Grey lag goose				4	
Guineafowl		2			
Gull					3
Harris hawk					2
Laruss chistisagus					1
Lesser black-backed gull					1
Long-eared owl					1
Magpie					1
Mallard			8		
Mew gull					1
Mulard duck	2				
Mute swan			18		

Painted stork					1
Peacock					1
Peregrine falcon					2
Pheasant		2			
Pochard duck			1		
Rook					1
Ruddy shelduck			1		
Seaeagle					1
Shelduck			1		
Spot-billed Pelican					1
Swan			3		
Teal			2		
Tufted duck			14		
Turkey		14			
Ural owl					1
White-fronted goose				2	
Wigeon				4	
Wild duck			4		
Total no. of isolates per category	36	57	69	36	44

**Table S8.** Dataset gene sequences used for IRIS analysis.

id	latitude	longitude	Collection Date	Reassortant name 1	Reassortant name 2	Domst atus 2 <sup>a</sup>	Domstatu s <sup>b</sup>	Reassortant colour
224580_A_great_crested_grebe_Uvs-Nuur_Lake_341_2016_H5N8_2016-May-25	50,3997872	92,6902698	2016-May-25	H5N8_0516	CABAD8AA	w	Wild-other	lime
224704_A_Bar-headed_Goose_Qinghai_BTY1-B_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224707_A_Bar-headed_Goose_Qinghai_BTY2-B_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224708_A_Bar-headed_Goose_Qinghai_BTY2-LU_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224709_A_Bar-headed_Goose_Qinghai_BTY3-B_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224710_A_Bar-headed_Goose_Qinghai_BTY3-LU_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224711_A_Bar-headed_Goose_Qinghai_BTY4-B_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224712_A_Bar-headed_Goose_Qinghai_BTY4-LU_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224713_A_Bar-headed_Goose_Qinghai_BTY5-B_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224714_A_Bar-headed_Goose_Qinghai_BTY6-B_2016_H5N8_2016-May-11	36,7599029	100,3497895	2016-May-11	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224715_A_Bar-headed_Goose_Qinghai_BTY6-LU_2016_H5N8_2016-May-11	36,7599029	100,3497895	2016-May-11	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224716_A_Bar-headed_Goose_Qinghai_BTY7-B_2016_H5N8_2016-May-11	36,7599029	100,3497895	2016-May-11	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224717_A_Bar-headed_Goose_Qinghai_BTY7-LU1_2016_H5N8_2016-May-11	36,7599029	100,3497895	2016-May-11	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224718_A_Bar-headed_Goose_Qinghai_BTY7-LU2_2016_H5N8_2016-May-11	36,7599029	100,3497895	2016-May-11	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224719_A_Bar-headed_Goose_Qinghai_BTY8-B_2016_H5N8_2016-May-10	36,7599029	100,3497895	2016-May-10	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224720_A_Bar-headed_Goose_Qinghai_BTY8-LU_2016_H5N8_2016-May-10	36,7599029	100,3497895	2016-May-10	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224721_A_Bar-headed_Goose_Qinghai_BTY9-B_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224722_A_Bar-headed_Goose_Qinghai_BTY9-LU_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224723_A_Bar-headed_Goose_Qinghai_BTY10-B_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224724_A_Bar-headed_Goose_Qinghai_BTY10-LU_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224725_A_Bar-headed_Goose_Qinghai_BTY11-B_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224726_A_Bar-headed_Goose_Qinghai_BTY11-LU_2016_H5N8_2016-May-09	36,7599029	100,3497895	2016-May-09	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224727_A_Bar-headed_Goose_Qinghai_BTY12-B_2016_H5N8_2016-May-13	36,7599029	100,3497895	2016-May-13	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224728_A_Bar-headed_Goose_Qinghai_BTY12-LU_2016_H5N8_2016-May-13	36,7599029	100,3497895	2016-May-13	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224729_A_Bar-headed_Goose_Qinghai_BTY13-B_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224730_A_Bar-headed_Goose_Qinghai_BTY13-LU_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224731_A_Bar-headed_Goose_Qinghai_BTY14-B_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224732_A_Bar-headed_Goose_Qinghai_BTY14-LU_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224733_A_Bar-headed_Goose_Qinghai_BTY15-B_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224734_A_Bar-headed_Goose_Qinghai_BTY15-LU_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224735_A_Bar-headed_Goose_Qinghai_BTY16-B_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224736_A_Bar-headed_Goose_Qinghai_BTY16-LU_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224737_A_Bar-headed_Goose_Qinghai_BTY17-B_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224738_A_Bar-headed_Goose_Qinghai_BTY17-LU_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224739_A_Bar-headed_Goose_Qinghai_BTY18-B_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224740_A_Bar-headed_Goose_Qinghai_BTY18-LU_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224742_A_Brown-headed_Gull_Qinghai_ZTO1-B_2016_H5N8_2016-May-01	36,7599029	100,3497895	2016-May-01	H5N8_0516	CABAD8AA	w	Wild-other	lime
224743_A_Brown-headed_Gull_Qinghai_ZTO1-LU_2016_H5N8_2016-May-01	36,7599029	100,3497895	2016-May-01	H5N8_0516	CABAD8AA	w	Wild-ans	lime
224744_A_Brown-headed_Gull_Qinghai_ZTO3-B_2016_H5N8_2016-May-12	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-other	lime
224745_A_Brown-headed_Gull_Qinghai_ZTO3-	36,7599029	100,3497895	2016-May-12	H5N8_0516	CABAD8AA	w	Wild-	lime

LU_2016_H5N8_2016-May-12								other	
224746_A_Brown-headed_Gull_Qinghai_ZTO4-B_2016_H5N8_2016-May-11	36,7599029	100,3497895	2016-May-11	H5N8_0516	CABAD8AA	w		Wild-other	lime
224747_A_Brown-headed_Gull_Qinghai_ZTO5-B_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w		Wild-other	lime
224748_A_Brown-headed_Gull_Qinghai_ZTO5-K_2016_H5N8_2016-May-14	36,7599029	100,3497895	2016-May-14	H5N8_0516	CABAD8AA	w		Wild-other	lime
224750_A_Brown-headed_Gull_Qinghai_ZTO6-SP_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w		Wild-other	lime
224751_A_Brown-headed_Gull_Qinghai_ZTO6-MU_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w		Wild-ans	lime
224752_A_Great_Black-headed_Gull_Qinghai_YO1-B_2016_H5N8_2016-May-15	36,7599029	100,3497895	2016-May-15	H5N8_0516	CABAD8AA	w		Wild-other	lime
230820_A_great_crested_grebe_Tyva_34_2016_H5N8_2016-May-25	51,8872669	95,6260172	2016-May-25	H5N8_0516	CABAD8AA	w		Wild-other	lime
231684_A_wild_duck_Tyva_35_2016_H5N8_2016-May-25	51,8872669	95,6260172	2016-May-25	H5N8_0516	CABAD8AA	w		Wild-ans	lime
231685_A_black-headed_gull_Tyva_41_2016_H5N8_2016-May-25	51,8872669	95,6260172	2016-May-25	H5N8_0516	CABAD8AA	w		Wild-other	lime
234057_A_grey_heron_Uvs-Nuur_Lake_20_2016_H5N8_2016-May-25	50,3997872	92,6902698	2016-May-25	H5N8_0516	CABAD8AA	w		Wild-other	lime
234058_A_common_tern_Uvs-Nuur_Lake_26_2016_H5N8_2016-May-25	50,3997872	92,6902698	2016-May-25	H5N8_0516	CABAD8AA	w		Wild-other	lime
237553_A_duck_India_10CA01_2016_H5N8_2016-Oct-17	28,7040592	77,1024902	2016-Oct-17	H5N8	CABAA8AA	w		Wild-ans	silver
237554_A_painted_stork_India_10CA03_2016_H5N8_2016-Oct-20	26,2182871	78,1828308	2016-Oct-20	H5N8_0916	CAEAF8AA	w		Wild-other	green
237730_A_mute_swan_Hungary_51049_2016_H5N8_2016-Oct-19	46,416705	20,2566161	2016-Oct-19	H5N8_1216.1	BABAB8AA	w		Wild-ans	aqua
237731_A_domestic_turkey_Hungary_53433_2016_H5N8_2016-Nov-02	46,6704899	21,0434996	2016-Nov-02	H5N8_1216.1	BABAB8AA	d		Dom-gal	aqua
237733_A_tufted_duck_Germany_AR8444-L01986_2016_H5N8_2016-Nov-07	54,1210641	10,4062216	2016-Nov-07	H5N8_1116	AAAAA8AA	w		Wild-ans	red
237921_A_wild_duck_Poland_82A_2016_H5N8_2016-Nov-02	53,4657891	15,1822581	2016-Nov-02	H5N8_1116	AAAAA8AA	w		Wild-ans	red
237944_A_tufted_duck_Germany_AR8444-L01987_2016_H5N8_2016-Nov-07	54,1210641	10,4062216	2016-Nov-07	H5N8_1116	AAAAA8AA	w		Wild-ans	red
237945_A_tufted_duck_Germany_AR8459-L01988_2016_H5N8_2016-Nov-08	47,6363377	9,3892445	2016-Nov-08	H5N8_1116	AAAAA8AA	w		Wild-ans	red
237958_A_tufted_duck_Germany-SH_R8444_2016_H5N8_2016-Nov-07	54,1210641	10,4062216	2016-Nov-07	H5N8_1116	AAAAA8AA	w		Wild-ans	red
237964_A_Mulard_duck_Hungary_54494_2016_H5N8_2016-Nov-08	46,4904848	19,7366569	2016-Nov-08	H5N8_1216.1	BABAB8AA	d		Dom-ans	aqua
237965_A_goose_Hungary_55128_2016_H5N8_2016-Nov-11	46,6883076	19,6833655	2016-Nov-11	H5N8_1216.1	BABAB8AA	w		Wild-ans	aqua
237966_A_duck_Hungary_55191_2016_H5N8_2016-Nov-11	46,2791272	19,4908079	2016-Nov-11	H5N8_1216.1	BABAB8AA	d		Dom-ans	aqua
238037_A_turkey_Germany-SH_R8595_2016_H5N8_2016-Nov-09	53,8654673	10,6865593	2016-Nov-09	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238038_A_chicken_Germany-MV_R8790_2016_H5N8_2016-Nov-11	54,149867	13,3165829	2016-Nov-11	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238039_A_chicken_Germany-SH_R8758_2016_H5N8_2016-Nov-11	54,6002536	9,6782757	2016-Nov-11	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238196_A_mute_swan_Croatia_70_2016_H5N8_2016-Oct-30	45,189484	18,6873659	2016-Oct-30	H5N8_1216.1	BABAB8AA	w		Wild-ans	aqua
238893_A_Chicken_Sweden_SVA161122KU0453_SZ0209316_2016_H5N8_2016-Nov-21	56,0582236	12,8798087	2016-Nov-21	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238894_A_Chicken_Sweden_SVA161122KU0453_SZ0209317_2016_H5N8_2016-Nov-21	56,0582236	12,8798087	2016-Nov-21	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238895_A_Chicken_Sweden_SVA161122KU0453_SZ0209318_2016_H5N8_2016-Nov-21	56,0582236	12,8798087	2016-Nov-21	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238896_A_Chicken_Sweden_SVA161122KU0453_SZ0209321_2016_H5N8_2016-Nov-21	56,0582236	12,8798087	2016-Nov-21	H5N8_1116	AAAAA8AA	d		Dom-gal	red
238897_A_Common_Goldeneye_Sweden_SVA16117KU0322_SZ0002165_2016_H5N8_2016-Nov-14	55,4708928	13,0199899	2016-Nov-14	H5N8_1116	AAAAA8AA	w		Wild-ans	red
239419_A_chicken_Hungary_59048_2016_H5N8_2016-Nov-25	47,2555579	20,5232456	2016-Nov-25	H5N8_1216.1	BABAB8AA	d		Dom-gal	aqua
239420_A_duck_Hungary_60441_2016_H5N8_2016-Dec-02	46,5661437	19,4272464	2016-Dec-02	H5N8_1216.1	BABAB8AA	d		Dom-ans	aqua
239434_A_tufted_duck_Switzerland_V246-L02001_2016_H5N8_2016-Nov	46,9106751	6,8721318	2016-Nov	H5N8_1116	AAAAA8AA	w		Wild-ans	red
239435_A_tufted_duck_Switzerland_V254-L02002_2016_H5N8_2016-Nov	47,6363377	9,3892445	2016-Nov	H5N8_1116	AAAAA8AA	w		Wild-ans	red
239436_A_tufted_duck_Switzerland_V237-L02003_2016_H5N8_2016-Nov	47,0811046	7,1696396	2016-Nov	H5N8_1116	AAAAA8AA	w		Wild-ans	red
239437_A_caspian_gull_Switzerland_V247-L02004_2016_H5N8_2016-Nov	46,9106751	6,8721318	2016-Nov	H5N8_1116	AAAAA8AA	w		Wild-other	red
239801_A_turkey_England_052131_2016_H5N8_2016-Dec-15	53,365962	-0,007711	2016-Dec-15	H5N8_1116	AAAAA8AA	d		Dom-gal	red
239997_A_decoy_duck_France_161104e_2016_H5N8_2016-Nov-26	50,5732769	2,3244679	2016-Nov-26	H5N8_1116	AAAAA8AA	na		Wild-ans	red
240012_A_duck_France_161108h_2016_H5N8	43,9264401	1,9881527	2016-Nov-28	H5N8_1216.1	BABAB8AA	d		Dom-ans	aqua



2016-Nov-28								
240101_A_mute_swan_Croatia_102_2016_H5N5_2016-Dec-27	45,3455244	16,7145278	2016-Dec-27	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
240102_A_domestic_goose_Poland_33_2016_H5N8_2016-Dec-02	52,2274612	15,2559103	2016-Dec-02	H5N8_1216.2	BDBAB8AA	d	Dom-ans	blue
240104_A_chicken_Poland_79A_2016_H5N8_2016-Dec-17	50,0574749	22,0895691	2016-Dec-17	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
240110_A_chicken_Astrakhan_3131_2016_H5N8_2016-Dec-13	46,1321166	48,0610115	2016-Dec-13	H5N8	CABAE8AA	d	Dom-gal	silver
240111_A_herring_gull_Poland_84_2016_H5N8_2016-Nov-09	53,9100327	14,2475775	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-other	red
240677_A_domestic_duck_Siberia_103_2016_H5N8_2016-Oct-04	55,4467133	80,1043923	2016-Oct-04	H5N8_0916	CAEAF8AA	d	Dom-ans	green
240892_A_turkey_Germany-NI_R10523_2016_H5N8_2016-Dec-13	52,7292252	8,2838762	2016-Dec-13	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
240893_A_swan_Germany-SN_R10645_2016_H5N5_2016-Dec-13	51,477101	12,6941161	2016-Dec-13	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
241249_A_domestic_duck_Germany-MV_R9869_2016_H5N8_2016-Nov-23	53,6289326	11,7691945	2016-Nov-23	H5N8_1116	AAAAA8AA	d	Dom-ans	red
242817_A_chicken_Czech_Republic_206-17_2_2017_H5N8_2017-Jan-06	48,8752087	16,535382	2017-Jan-06	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
242902_A_wigeon_Italy_17VIR57-3_2017_H5N8_2017-Jan-03	45,9053899	13,5163725	2017-Jan-03	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
243049_A_turkey_Germany-SH_R425_2017_H5N5_2017-Jan-22	53,8425913	9,5386481	2017-Jan-22	H5N5_1216.2	DEBAG5AA	d	Dom-gal	yellow
243050_A_barnacle_goose_Germany-SH_R11505_2016_H5N5_2016-Dec-22	53,8988902	9,1338853	2016-Dec-22	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
243085_A_wigeon_Italy_16VIR9616-3_2016_H5N5_2016-Dec-29	45,9053899	13,5163725	2016-Dec-29	H5N5_1216.1	DCBAE5AA	w	Wild-ans-long	orange
243698_A_mute_swan_Croatia_42_2017_H5N5_2017-Jan-20	45,6721313	18,843553	2017-Jan-20	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
247429_A_domestic_duck_Germany-BB_R681ff_2017_H5N8_2017-Jan-26	52,6	14,2500001	2017-Jan-26	H5N8_1216.2	BDBAB8AA	d	Dom-ans	blue
247713_A_tufted_duck_Denmark_17740-1_2016_H5N8_2016-Nov-08	55,6760425	12,6081154	2016-Nov-08	H5N8_1116	AAAAA8AA	w	Wild-ans	red
247715_A_long-eared_owl_Voronezh_15_2017_H5N8_2017-Jan-06	50,8589713	39,8644374	2017-Jan-06	H5N8_1116	AAAAA8AA	w	Wild-other	red
247716_A_Ural_owl_Voronezh_14_2017_H5N8_2017-Jan-06	51,6754966	39,2088823	2017-Jan-06	H5N8_1116	AAAAA8AA	w	Wild-other	red
247717_A_long-eared_owl_Voronezh_16_2017_H5N8_2017-Jan-06	50,8589713	39,8644374	2017-Jan-06	H5N8_1116	AAAAA8AA	w	Wild-other	red
247718_A_chicken_Voronezh_18_2017_H5N8_2017-Jan-06	50,8589713	39,8644374	2017-Jan-06	H5N8_1116	AAAAA8AA	d	Dom-gal	red
247719_A_chicken_Voronezh_19_2017_H5N8_2017-Jan-06	50,8589713	39,8644374	2017-Jan-06	H5N8_1116	AAAAA8AA	d	Dom-gal	red
247720_A_chicken_Voronezh_20_2017_H5N8_2017-Jan-06	50,8589713	39,8644374	2017-Jan-06	H5N8_1116	AAAAA8AA	d	Dom-gal	red
247721_A_turkey_Rostov-on-Don_11_2017_H5N8_2017-Jan-01	47,6853247	41,8258952	2017-Jan-01	H5N8_1116	AAAAA8AA	d	Dom-gal	red
247722_A_goose_Krasnodar_3144_2017_H5N8_2017-Jan-06	45,6415289	39,7055977	2017-Jan-06	H5N8_1116	AAAAA8AA	d	Dom-ans	red
247723_A_mute_swan_Krasnodar_25_2017_H5N8_2017-Jan-06	45,6415289	39,7055977	2017-Jan-06	H5N8_1116	AAAAA8AA	w	Wild-ans	red
247724_A_wild_duck_Tatarstan_3059_2016_H5N8_2016-Oct-02	55,1802364	50,7263945	2016-Oct-02	H5N8_1116	AAAAA8AA	w	Wild-ans	red
247725_A_chicken_Kalmykia_2643_2016_H5N8_2016-Nov-21	46,5676845	45,7731614	2016-Nov-21	H5N8_1116	AAAAA8AA	d	Dom-gal	red
249681_A_turkey_Germany-BB_R234ff_2017_H5N8_2017-Jan-09	52,9432288	12,3961713	2017-Jan-09	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
249682_A_domestic_goose_Germany-BY_R677_2017_H5N8_2017-Jan-25	49,0134297	12,1016236	2017-Jan-25	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
249691_A_chicken_Germany-MV_R10048_2016_H5N8_2016-Nov-27	53,8647592	11,6859731	2016-Nov-27	H5N8_1116	AAAAA8AA	d	Dom-gal	red
249692_A_chicken_Germany-NI_R11406_2016_H5N8_2016-Dec-24	51,7001785	9,9959057	2016-Dec-24	H5N8_1116	AAAAA8AA	d	Dom-gal	red
250231_A_gadwall_Chany_97_2016_H5N8_2016-Sep-10	55,3135139	76,7761387	2016-Sep-10	H5N8_0916	CAEAF8AA	w	Dom-ans	green
250885_A_mute_swan_Czech_Republic_54-17_2_2017_H5N8_2017-Jan-02	49,4499651	16,7179572	2017-Jan-02	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
250887_A_chicken_Czech_Republic_55-17_1_2017_H5N8_2017-Jan-02	49,0351529	16,3193591	2017-Jan-02	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
253036_A_turkey_England_003778_2017_H5N8_2017-Jan-15	52,9451889	-0,1601246	2017-Jan-15	H5N8_1116	AAAAA8AA	d	Dom-gal	red
253037_A_chicken_Wales_000023_2016_H5N8_2016-Dec-31	51,8572309	-4,3115959	2016-Dec-31	H5N8_1116	AAAAA8AA	d	Dom-gal	red
254725_A_chicken_Korea_H903_2017_H5N8_2017-Feb-08	35,7175	127,153	2017-Feb-08	H5N8_0916	CAEAF8AA	d	Dom-gal	green
254745_A_mallard_duck_Korea_WA137_2017_H5N8_2017-Jan-24	36,5184	126,8	2017-Jan-24	H5N8_0916	CAEAF8AA	w	Wild-ans	green
254814_A_mallard_Hungary_57857_2016_H5N8_2016-Nov-21	47,4688355	21,5453227	2016-Nov-21	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255174_A_Goose_Hungary_65817_2016_H5N8_2016-Dec-18	47,4688355	21,5453227	2016-Dec-18	H5N8_1216.2	BDBAB8AA	na	Dom-ans	blue

255181_A_swan_Italy_17VIR537-2_2017_H5N8_2017-Jan-19	46,0710668	13,2345794	2017-Jan-19	H5N8_1116	AAAAA8AA	w	Wild-ans	red
255182_A_turkey_Italy_17VIR538-1_2017_H5N8_2017-Jan-20	45,4408474	12,3155151	2017-Jan-20	H5N8_0916	CAEAF8AA	d	Dom-gal	green
255183_A_turkey_Italy_17VIR576-11_2017_H5N8_2017-Jan-23	45,4064349	11,8767611	2017-Jan-23	H5N8_1116	AAAAA8AA	d	Dom-gal	red
255184_A_chicken_Italy_17VIR653-12_2017_H5N8_2017-Jan-25	45,0698118	11,7902158	2017-Jan-25	H5N8_1116	AAAAA8AA	d	Dom-gal	red
255185_A_turkey_Italy_17VIR973-2_2017_H5N8_2017-Feb-01	44,801485	10,3279036	2017-Feb-01	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
255186_A_turkey_Italy_17VIR1338-3_2017_H5N8_2017-Feb-14	45,1564168	10,7913751	2017-Feb-14	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
255187_A_turkey_Italy_17VIR1452-22_2017_H5N8_2017-Feb-16	45,4383842	10,9916215	2017-Feb-16	H5N8_1116	AAAAA8AA	d	Dom-gal	red
255189_A_gadwall_Italy_17VIR133-2_2017_H5N5_2017-Jan-10	45,9401812	13,6201754	2017-Jan-10	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
255190_A_Mute_swan_Hungary_119_2017_H5N8_2017-Jan-02	46,554859	17,5866732	2017-Jan-02	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255191_A_Harris_Hawk_Hungary_120_2017_H5N8_2017-Jan-02	47,497912	19,040235	2017-Jan-02	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
255192_A_Goose_Hungary_982_2017_H5N8_2017-Jan-11	47,2555579	20,5232456	2017-Jan-11	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
255193_A_Duck_Hungary_984_2017_H5N8_2017-Jan-11	46,6704899	21,0434996	2017-Jan-11	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
255194_A_Goose_Hungary_1030_2017_H5N8_2017-Jan-11	46,416705	20,2566161	2017-Jan-11	H5N8_1116	AAAAA8AA	na	Dom-ans	red
255195_A_Duck_Hungary_1588_2017_H5N8_2017-Jan-16	46,5661437	19,4272464	2017-Jan-16	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
255196_A_Greylag_goose_Hungary_1941_2017_H5N8_2017-Jan-18	47,1217932	18,5294815	2017-Jan-18	H5N8_1216.1	BABAB8AA	w	Wild-ans-long	aqua
255197_A_Mute_swan_Hungary_1955_2017_H5N8_2017-Jan-18	47,0930974	17,9100763	2017-Jan-18	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255198_A_Turkey_Hungary_2030_2017_H5N8_2017-Jan-18	47,0930974	17,9100763	2017-Jan-18	H5N8_1216.1	BABAB8AA	w	Dom-gal	aqua
255199_A_Mute_swan_Hungary_2193_2017_H5N8_2017-Jan-19	48,2939401	20,6934112	2017-Jan-19	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255200_A_Mute_swan_Hungary_2508_2017_H5N8_2017-Jan-22	47,162494	19,5033041	2017-Jan-22	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255201_A_Mute_swan_Hungary_2825_2017_H5N8_2017-Jan-24	46,4258265	18,7752069	2017-Jan-24	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255202_A_Mute_swan_Hungary_3139_2017_H5N8_2017-Jan-26	46,7384404	16,9152252	2017-Jan-26	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255203_A_Mute_swan_Hungary_3513_2017_H5N8_2017-Jan-27	47,0929111	16,6812183	2017-Jan-27	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255204_A_Mute_swan_Hungary_3542_2017_H5N8_2017-Jan-29	47,497912	19,040235	2017-Jan-29	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255205_A_Chicken_Hungary_2496_2017_H5N8_2017-Jan-24	47,2555579	20,5232456	2017-Jan-24	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
255206_A_Peregrine_falcon_Hungary_4882_2017_H5N8_2017-Feb-07	47,6509285	17,2505883	2017-Feb-07	H5N8_1116	AAAAA8AA	w	Wild-other	red
255207_A_Mute_swan_Hungary_5316_2017_H5N8_2017-Feb-09	46,4258265	18,7752069	2017-Feb-09	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255208_A_Common_buzzard_Hungary_7061_2017_H5N8_2017-Feb-21	46,4258265	18,7752069	2017-Feb-21	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
255209_A_Common_tern_Hungary_8187_2017_H5N8_2017-Feb-28	46,4762754	18,5570627	2017-Feb-28	H5N8_1116	AAAAA8AA	w	Wild-other	red
255210_A_Harris_hawk_Hungary_2762a_2017_H5N8_2017-Jan-24	47,4480001	19,4618128	2017-Jan-24	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
255211_A_Harris_hawk_Hungary_2762b_2017_H5N8_2017-Jan-24	47,4480001	19,4618128	2017-Jan-24	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
255212_A_Greylag_goose_Hungary_320_2017_H5N8_2017-Jan-04	46,554859	17,5866732	2017-Jan-04	H5N8_1116	AAAAA8AA	w	Wild-other	red
255213_A_GuineaFowl_Hungary_596_2017_H5N8_2017-Jan-06	47,4688355	21,5453227	2017-Jan-06	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
255214_A_Chicken_Hungary_1751_2017_H5N8_2017-Jan-17	47,6509285	17,2505883	2017-Jan-17	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
255215_A_Mute_swan_Hungary_3137_2017_H5N8_2017-Jan-26	46,7384404	16,9152252	2017-Jan-26	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255216_A_Mallard_Hungary_5821_2017_H5N8_2017-Feb-13	46,7384404	16,9152252	2017-Feb-13	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255218_A_Mallard_Hungary_1574b_2017_H5N8_2017-Jan-14	46,554859	17,5866732	2017-Jan-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
255219_A_White_fronted_goose_Hungary_801_2017_H5N8_2017-Jan-09	47,4688355	21,5453227	2017-Jan-09	H5N8_1216.1	BABAB8AA	w	Wild-ans-long	aqua
255220_A_Mallard_Hungary_1574a_2017_H5N8_2017-Jan-14	46,554859	17,5866732	2017-Jan-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
255398_A_Goose_Hungary_59712_2016_H5N8_2016-Nov-26	46,7084264	20,1436061	2016-Nov-26	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
255891_A_Tufted_Duck_Netherlands_1_2016_H5N8_2016-Nov-25	52,5045411	5,045998	2016-Nov-25	H5N8_1116	AAAAA8AA	w	Wild-ans	red
255892_A_Great_Black-backed_Gull_Netherlands_2_2016_H5N8_2016-Nov-23	52,5205869	4,788474	2016-Nov-23	H5N8_1116	AAAAA8AA	w	Wild-other	red
255910_A_Mew_Gull_Netherlands_1_2016_H5N8_2016-Nov-23	52,5205869	4,788474	2016-Nov-23	H5N8_1116	AAAAA8AA	w	Wild-other	red

255912_A_Eurasian_Wigeon_Netherlands_4_2016_H5N8_2016-Dec-09	52,0207975	4,4937836	2016-Dec-09	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
255913_A_Mallard_Netherlands_2_2017_H5N8_2017-Jan-07	52,0207975	4,4937836	2017-Jan-07	H5N8_1116	AAAAA8AA	w	Wild-ans	red
255914_A_Eurasian_Wigeon_Netherlands_9_2016_H5N8_2016-Dec-04	52,5205869	4,788474	2016-Dec-04	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
255917_A_mute_swan_Poland_64_2017_H5N5_2017-Jan-31	51,1339861	16,8841961	2017-Jan-31	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
255933_A_Cormorant_Hungary_6102_2017_H5N8_2017-Feb-15	47,6291394	18,4014586	2017-Feb-15	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
255934_A_Mute_swan_Hungary_6092_2017_H5N8_2017-Feb-15	47,6291394	18,4014586	2017-Feb-15	H5N8_1216.2	BDBAB8AA	w	Wild-ans	blue
255935_A_Mute_swan_Hungary_6276_2017_H5N8_2017-Feb-16	46,7384404	16,9152252	2017-Feb-16	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
255936_A_Pheasant_Hungary_6553_2017_H5N8_2017-Feb-16	47,2555579	20,5232456	2017-Feb-16	H5N8_1216.1	BABAB8AA	na	Wild-other	aqua
255937_A_Pheasant_Hungary_7685_2017_H5N8_2017-Feb-24	47,2555579	20,5232456	2017-Feb-24	H5N8_1216.1	BABAB8AA	na	Wild-other	aqua
255938_A_Rook_Hungary_4975_2017_H5N8_2017-Feb-08	48,0394954	22,00333	2017-Feb-08	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua
256298_A_gadwall_Kurgan_2442_2016_H5N8_2016-Aug-27	55,4481548	65,1180975	2016-Aug-27	H5N8_1116	AAAAA8AA	w	Wild-ans	red
256299_A_chicken_Sergiyev_Posad_38_2017_H5N8_2017-Mar-02	56,3242317	38,1452115	2017-Mar-02	H5N8_1116	AAAAA8AA	d	Dom-gal	red
256300_A_chicken_Sergiyev_Posad_39_2017_H5N8_2017-Mar-02	56,3242317	38,1452115	2017-Mar-02	H5N8_1116	AAAAA8AA	d	Dom-gal	red
256301_A_environment_Kamchatka_18_2016_H5N5_2016-Oct-01	61,4343981	166,7884131	2016-Oct-01	H5N5_1216.1	DCBAE5AA	w	Wild-other	orange
256305_A_shelduck_Italy_17VIR1572-24_2017_H5N8_2017-Jan-03	45,0698118	11,7902158	2017-Jan-03	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
256306_A_turkey_Italy_17VIR1574-1_2017_H5N8_2017-Feb-21	45,1564168	10,7913751	2017-Feb-21	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
256307_A_chicken_Italy_17VIR1684-2_2017_H5N8_2017-Feb-27	45,4408474	12,3155151	2017-Feb-27	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
256308_A_chicken_Italy_17VIR1751-3_2017_H5N8_2017-Feb-27	45,4408474	12,3155151	2017-Feb-27	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
256453_A_Duck_Hungary_54738_2016_H5N8_2016-Nov-09	46,5661437	19,4272464	2016-Nov-09	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
256457_A_Duck_Hungary_55764_2016_H5N8_2016-Nov-11	46,5661437	19,4272464	2016-Nov-11	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
256460_A_Turkey_Hungary_53136_2016_H5N8_2016-Nov-01	46,7711185	21,1289753	2016-Nov-01	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
256462_A_Mute_swan_Hungary_5879_2017_H5N5_2017-Feb-14	47,497912	19,040235	2017-Feb-14	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
256817_A_turkey_Germany-NI_R9807_2016_H5N8_2016-Nov-22	52,844198	8,0530158	2016-Nov-22	H5N8_1116	AAAAA8AA	d	Dom-gal	red
256818_A_domestic_duck_Germany-MV_R9764_2016_H5N8_2016-Nov-21	54,0660319	13,6112761	2016-Nov-21	H5N8_1116	AAAAA8AA	d	Dom-ans	red
257004_A_chicken_Czech_Republic_206-17_2_2017_H5N8_2017-Jan-06	49,817492	15,472962	2017-Jan-06	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
257699_A_Tufted_Duck_Switzerland_V237_2016_H5N8_2016-Nov-13	47,134821	7,248602	2016-Nov-13	H5N8_1116	AAAAA8AA	w	Wild-ans	red
257731_A_turkey_Germany-BB_R377ff_2017_H5N8_2017-Jan-17	51,9155157	14,0424255	2017-Jan-17	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
259074_A_common_buzzard_Germany-SN_R1117_2017_H5N5_2017-Feb-06	51,2937	14,8024606	2017-Feb-06	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
260058_A_grey_heron_Germany-SN_R572_2017_H5N5_2017-Jan-22	50,7893112	13,0104598	2017-Jan-22	H5N5_1216.1	DCBAE5AA	w	Wild-other	orange
260059_A_cormorant_Germany-SH_R896_2017_H5N5_2017-Jan-30	54,0729431	9,9840158	2017-Jan-30	H5N5_1216.2	DEBAG5AA	w	Wild-other	yellow
261332_A_chicken_Croatia_104_2017_H5N5_2017-Mar-07	46,0263862	15,9597619	2017-Mar-07	H5N5_1216.1	DCBAE5AA	d	Dom-gal	orange
261634_A_chicken_Republic_of_Macedonia_AR1167-L02131_2017_H5N8_2017-Jan-21	41,608635	21,745275	2017-Jan-21	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
261687_A_black_swan_Germany-BW_R1364_2017_H5N8_2017-Feb-12	49,052867	8,3745	2017-Feb-12	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
262055_A_eurasian_wigeon_Germany-NI_AR249-L02143_2017_H5N8_2017-Jan-04	53,5323403	8,1068722	2017-Jan-04	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
262056_A_greylag_goose_Germany-NI-AR11353-L02142_2016_H5N5_2016-Dec-27	53,6623106	7,9165173	2016-Dec-27	H5N5_1216.1	DCBAE5AA	w	Wild-ans-long	orange
262057_A_mute_swan_Germany-NI_AR1529-L02145_2017_H5N8_2017-Feb-14	53,2512996	8,0110148	2017-Feb-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
262058_A_greylag_goose_Germany-NI_AR1395-L02144_2017_H5N8_2017-Feb-02	52,3204095	10,243267	2017-Feb-02	H5N8_1216.2	BDBAB8AA	w	Wild-ans-long	blue
262059_A_greylag_goose_Germany-NI_AR703-L02138_2017_H5N8_2017-Jan-25	52,3223313	9,7299802	2017-Jan-25	H5N8_1216.2	BDBAB8AA	w	Wild-ans-long	blue
263097_A_domestic_duck_Germany-NI_AR2054-L02155_2017_H5N8_2017-Mar-08	53,5766311	7,773289	2017-Mar-08	H5N8_1216.2	BDBAB8AA	d	Dom-ans	blue
263099_A_domestic_goose_Germany-NI_AR519-L02153_2017_H5N8_2017-Jan-23	52,5714393	7,495371	2017-Jan-23	H5N8_1116	AAAAA8AA	d	Dom-ans	red
263101_A_turkey_Germany-NI_AR2659-L02159_2017_H5N8_2017-Mar-22	52,9531085	8,0255988	2017-Mar-22	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
263103_A_turkey_Germany-NI_AR01-L02115_2017_H5N8_2017-Jan-02	52,9531085	8,0255988	2017-Jan-02	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
263117_A_turkey_Germany-NI_AR11365-	52,9354504	8,3807889	2016-Dec-24	H5N8_1116	AAAAA8AA	d	Dom-gal	red

L02128_2016_H5N8_2016-Dec-24									
263118_A_turkey_Germany-NL_AR11416-L02124_2016_H5N8_2016-Dec-25	52,9531085	8,0255988	2016-Dec-25	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue	
263119_A_turkey_Germany-NL_AR11461-L02127_40_2016_H5N8_2016-Dec-27	53,1082424	8,4691725	2016-Dec-27	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
263120_A_turkey_Germany-NL_AR11550-L02126_2016_H5N8_2016-Dec-29	53,1082424	8,4691725	2016-Dec-29	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue	
266417_A_common_teal_Korea_W547_2016_H5N8_2016-Dec-15	35,907757	127,766922	2016-Dec-15	H5N8_0916	CAEAF8AA	w	Wild-ans-long	green	
266418_A_common_teal_Korea_W549_2016_H5N8_2016-Dec-15	35,907757	127,766922	2016-Dec-15	H5N8_0916	CAEAF8AA	w	Wild-ans-long	green	
266419_A_common_teal_Korea_W548_2016_H5N8_2016-Dec-15	35,907757	127,766922	2016-Dec-15	H5N8_0916	CAEAF8AA	d	Wild-ans-long	green	
266420_A_common_teal_Korea_W550_2016_H5N8_2016-Dec-15	35,907757	127,766922	2016-Dec-15	H5N8_0916	CAEAF8AA	w	Wild-ans-long	green	
266421_A_common_teal_Korea_W555_2017_H5N8_2017-Jan-04	35,907757	127,766922	2017-Jan-04	H5N8_0916	CAEAF8AA	w	Wild-ans-long	green	
266536_A_chicken_Belgium_807_2017_H5N8_2017-Feb-01	50,503887	4,469936	2017-Feb-01	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
266537_A_peacock_Belgium_1017_2017_H5N8_2017-Feb-08	50,503887	4,469936	2017-Feb-08	H5N8_1116	AAAAA8AA	na	Wild-other	red	
266538_A_Cygnus_olor_Belgium_1567_2017_H5N8_2017-Feb-21	50,503887	4,469936	2017-Feb-21	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua	
266944_A_emu_Germany-ST_R321_2017_H5N8_2017-Jan-03	51,7505762	11,9802357	2017-Jan-03	H5N8_1216.2	BDBAB8AA	d	Wild-other	blue	
266945_A_greylag_goose_Germany-SN_R513_2017_H5N8_2017-Jan-21	51,1045407	13,2017384	2017-Jan-21	H5N8_1216.2	BDBAB8AA	w	Wild-ans-long	blue	
266946_A_egret_Germany-SH_R1315_2017_H5N8_2017-Mar-11	54,2193672	9,6961167	2017-Mar-11	H5N8_1116	AAAAA8AA	w	Wild-other	red	
267135_A_green-winged_teal_Egypt_871_2016_H5N8_2016-Dec-08	26,820553	30,802498	2016-Dec-08	H5N8_0916	CAEAF8AA	w	Wild-ans-long	green	
267136_A_green-winged_teal_Egypt_877_2016_H5N8_2016-Dec-08	26,820553	30,802498	2016-Dec-08	H5N8_0916	CAEAF8AA	w	Wild-ans-long	green	
268021_A_duck_Egypt_SS19_2017_H5N8_2017-Jan-12	30,7326622	31,7195459	2017-Jan-12	H5N8	NA	d	Dom-ans	silver	
268513_A_duck_Egypt_F446_2017_H5N8_2017-Apr-06	30,0444196	31,2357116	2017-Apr-06	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
268618_A_Bk_swan_NL-Den_Oever_16013973-002_2016_H5N8_2016-Nov-10	52,9343779	5,0282699	2016-Nov-10	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red	
268619_A_Bl_H_gull_NL-Slootdorp_16014102-002_2016_H5N8_2016-Nov-11	52,8451344	4,9686855	2016-Nov-11	H5N8_1116	AAAAA8AA	w	Wild-other	red	
268620_A_Buzzard_NL-Dursterdam_16015100-004_2016_H5N8_2016-Nov-30	52,3780596	4,9903771	2016-Nov-30	H5N8_1116.2	AADAA8AA	w	Wild-other	purple	
268621_A_C_Gull_NL-Slootdorp_16014102-003_2016_H5N8_2016-Nov-11	52,8451344	4,9686855	2016-Nov-11	H5N8_1116	AAAAA8AA	w	Wild-other	red	
268622_A_Ch_NL-Abbege_X16015736_2016_H5N8_2016-Dec-12	53,0192891	5,5716955	2016-Dec-12	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
268623_A_Ch_NL-Boven_Leeuwen_16016151-006-010_2016_H5N8_2016-Dec-19	51,885586	5,551554	2016-Dec-19	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
268624_A_Ch_NL-Den_Oever_16014231-001_2016_H5N8_2016-Nov-15	52,9343779	5,0282699	2016-Nov-15	H5N8_1116	AAAAA8AA	w	Dom-gal	red	
268625_A_Ch_NL-Hiaure_16016112-001-005_2016_H5N8_2016-Dec-17	53,3472454	5,9730214	2016-Dec-17	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
268626_A_Ch_NL-Rhenen_16016141-006_2016_H5N8_2016-Dec-17	51,9621397	5,5711155	2016-Dec-17	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
268627_A_Ch_NL-Zoeterwoude_16016484-021-025_2016_H5N8_2016-Dec-24	52,1208305	4,5165697	2016-Dec-24	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
268628_A_Crow_NL-Oostwoud_16015372-004_2016_H5N8_2016-Dec-05	52,7252238	5,0905909	2016-Dec-05	H5N8_1116.2	AADAA8AA	w	Wild-other	purple	
268629_A_Dk_NL-Biddinghuizen_16014829-011-015_2016_H5N8_2016-Nov-25	52,4552356	5,692693	2016-Nov-25	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
268630_A_Dk_NL-Biddinghuizen_16015083-016-020_2016_H5N8_2016-Nov-30	52,4552356	5,692693	2016-Nov-30	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
268631_A_Dk_NL-Biddinghuizen_16015145-021-025_2016_H5N8_2016-Dec-01	52,4552356	5,692693	2016-Dec-01	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
268632_A_Dk_NL-Kamperveen_16016104-001-005_2016_H5N8_2016-Dec-15	52,5092678	5,9151615	2016-Dec-15	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
268633_A_Dk_NL-Rotterdam_16014008-001-005_2016_H5N8_2016-Nov-10	51,9244201	4,4777326	2016-Nov-10	H5N8_1116	AAAAA8AA	na	Dom-ans	red	
268634_A_Dk_NL-Stolwijk_16016291-016-020_2016_H5N8_2016-Dec-21	51,9736881	4,7721019	2016-Dec-21	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
268635_A_Eur_Wig_NL-Akkrum_16015817-003_2016_H5N8_2016-Dec-13	53,0493736	5,8341466	2016-Dec-13	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red	
268636_A_Eur_Wig_NL-De_Waal_Texel_16014891-003_2016_H5N8_2016-Nov-27	53,0729311	4,8201727	2016-Nov-27	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red	
268637_A_Eur_Wig_NL-De_Waal_Texel_16014891-004_2016_H5N8_2016-Nov-27	53,0729311	4,8201727	2016-Nov-27	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red	
268638_A_Eur_Wig_NL-Drieborg_Dollard_16015513-001_2016_H5N8_2016-Dec-06	53,2822961	7,1872298	2016-Dec-06	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red	
268639_A_Eur_Wig_NL-Enumatil-	53,2156499	6,4071406	2016-Dec-11	H5N8_1116	AAAAA8AA	w	Wild-ans-	red	

Groningen_16015704-001_2016_H5N8_2016-Dec-11							long	
268640_A_Eur_Wig_NL-Ferwert_16015273-002_2016_H5N8_2016-Dec-01	53,3377628	5,824424	2016-Dec-01	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268641_A_Eur_Wig_NL-Gouda_16015824-001_2016_H5N8_2016-Dec-13	52,0115205	4,7104633	2016-Dec-13	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268642_A_Eur_Wig_NL-Greonterp_16015653-001_2016_H5N8_2016-Dec-08	53,0155037	5,5190502	2016-Dec-08	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268643_A_Eur_Wig_NL-Groningen_16015376-003_2016_H5N8_2016-Dec-05	53,2193835	6,5665017	2016-Dec-05	H5N8_1116.2	AADA8AA	w	Wild-ans-long	purple
268644_A_Eur_Wig_NL-Leeuwarden_16015699-002_2016_H5N8_2016-Dec-10	53,1971234	5,7964815	2016-Dec-10	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268645_A_Eur_Wig_NL-Leidschendam_16015697-007_2016_H5N8_2016-Dec-10	52,0798176	4,3996122	2016-Dec-10	H5N8_1116.2	AADA8AA	w	Wild-ans-long	purple
268646_A_Eur_Wig_NL-Reeuwijk_16015903-003_2016_H5N8_2016-Dec-13	52,0459962	4,7235288	2016-Dec-13	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268647_A_Eur_Wig_NL-Terschelling_16015692-010_2016_H5N8_2016-Dec-09	53,3978747	5,3466786	2016-Dec-09	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268648_A_Eur_Wig_NL-Vianen_16015917-006_2016_H5N8_2016-Dec-13	51,9902756	5,1030332	2016-Dec-13	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268649_A_Eur_Wig_NL-Walterswald_16015923-003_2016_H5N8_2016-Dec-14	53,3007978	6,0313682	2016-Dec-14	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268650_A_Eur_Wig_NL-West_Grafdijk_16015746-003_2016_H5N8_2016-Dec-12	52,5542536	4,7950025	2016-Dec-12	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268651_A_Eur_Wig_NL-Wormer_16016143-002_2016_H5N8_2016-Dec-18	52,4986623	4,8124621	2016-Dec-18	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268652_A_Eur_Wig_NL-Zoeterwoude_16015702-010_2016_H5N8_2016-Dec-10	52,1208305	4,5165697	2016-Dec-10	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268653_A_Eur_Wig_NL-Zwolle_16015820-002_2016_H5N8_2016-Dec-13	52,5167747	6,0830219	2016-Dec-13	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268654_A_G_c_grebe_NL-Monnickendam_16013865-009-010_2016_H5N8_2016-Nov-08	52,4555687	5,0392316	2016-Nov-08	H5N8_1116.2	AADA8AA	w	Wild-other	purple
268655_A_Go_NL-Roggebotsluis_16014462-010_2016_H5N8_2016-Nov-17	52,55	5,85	2016-Nov-17	H5N8_1116.2	AADA8AA	w	Wild-ans	purple
268656_A_Gr_bk_bd_gull_NL-Slootdorp_16014102-005_2016_H5N8_2016-Nov-11	52,8451344	4,9686855	2016-Nov-11	H5N8_1116.2	AADA8AA	w	Wild-other	purple
268657_A_Grey_Go_NL-Groot-Ammers_16015901-012_2016_H5N8_2016-Dec-14	51,9246393	4,8253021	2016-Dec-14	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
268658_A_Gull_NL-Marker_Wadden_16014466-020_2016_H5N8_2016-Nov-17	52,6003207	5,3912293	2016-Nov-17	H5N8_1116	AAAAA8AA	w	Wild-other	red
268659_A_Gull1_NL-Marker_Wadden_16014466-011_2016_H5N8_2016-Nov-17	52,6003207	5,3912293	2016-Nov-17	H5N8_1116.2	AADA8AA	w	Wild-other	purple
268660_A_Gull10_NL-Marker_Wadden_16014466-014_2016_H5N8_2016-Nov-17	52,6003207	5,3912293	2016-Nov-17	H5N8_1116	AAAAA8AA	w	Wild-other	red
268661_A_L-bl-ba-gull_NL-Sovon_16014324-014_2016_H5N8_2016-Nov-16	51,6414435	4,4748695	2016-Nov-16	H5N8_1116.2	AADA8AA	w	Wild-other	purple
268662_A_M_Swan_NL-Roggebotsluis_16014462-019_2016_H5N8_2016-Nov-17	52,55	5,85	2016-Nov-17	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268663_A_Maggie_NL-Volendam_16014331-002_2016_H5N8_2016-Nov-16	52,5045411	5,045998	2016-Nov-16	H5N8_1116.2	AADA8AA	w	Wild-other	purple
268664_A_Mal_NL-IJsselmuiden_16015448-002_2016_H5N8_2016-Dec-06	52,5653152	5,9325723	2016-Dec-06	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268665_A_Mal_NL-Mastenbroek_16015378-002_2016_H5N8_2016-Dec-05	52,5737209	6,0224387	2016-Dec-05	H5N8_1116.2	AADA8AA	w	Wild-ans	purple
268666_A_P_falcon_NL-Vrouwenpolder_Zeeland_16015510-001_2016_H5N8_2016-Dec-07	51,5772562	3,6187496	2016-Dec-07	H5N8_1116.2	AADA8AA	w	Wild-other	purple
268667_A_Sea_eagle_NL-Assen_16015398-002_2016_H5N8_2016-Dec-05	52,992753	6,5642284	2016-Dec-05	H5N8_1116	AAAAA8AA	w	Wild-other	red
268668_A_T_DK_NL-Almeerder_Zand_16014341-003_2016_H5N8_2016-Nov-16	52,4105136	5,2496439	2016-Nov-16	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268669_A_T_DK_NL-Monnickendam_16013865-006-008_2016_H5N8_2016-Nov-08	52,4555687	5,0392316	2016-Nov-08	H5N8_1116.2	AADA8AA	w	Wild-ans	purple
268670_A_T_DK_NL-Roggebotsluis_16014462-015_2016_H5N8_2016-Nov-17	52,55	5,85	2016-Nov-17	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268671_A_T_DK_NL-Rotterdam_16014155-001_2016_H5N8_2016-Nov-14	51,9244201	4,4777326	2016-Nov-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268672_A_T_DK_NL-Werkendam_16014159-002_2016_H5N8_2016-Nov-14	51,8081653	4,891848	2016-Nov-14	H5N8_1116.2	AADA8AA	w	Wild-ans	purple
268673_A_T_DK_NL-Werkendam_16014159-003_2016_H5N8_2016-Nov-14	51,8081653	4,891848	2016-Nov-14	H5N8_1116.2	AADA8AA	w	Wild-ans	purple
268674_A_T_DK_NL-Zeewolde_16013976-001_2016_H5N8_2016-Nov-09	52,331128	5,540495	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-ans	red

268675_A_T_Dk_NL-Zeewolde_16013976-001-003_2016_H5N8_2016-Nov-09	52,331128	5,540495	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268676_A_T_Dk_NL-Zeewolde_16013976-004_2016_H5N8_2016-Nov-09	52,331128	5,540495	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268677_A_T_Dk_NL-Zeewolde_16013976-004-006_2016_H5N8_2016-Nov-09	52,331128	5,540495	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268678_A_T_Dk_NL-Zeewolde_16013976-005_2016_H5N8_2016-Nov-09	52,331128	5,540495	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268679_A_T_Dk_NL-Zeewolde_16013976-006_2016_H5N8_2016-Nov-09	52,331128	5,540495	2016-Nov-09	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268680_A_T_Dk_NL-Zuidoost_Beemster_16014148-002_2016_H5N8_2016-Nov-14	52,5151991	4,9421222	2016-Nov-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268681_A_T_Dk_NL-Zuidoost_Beemster_16014148-009_2016_H5N8_2016-Nov-14	52,5151991	4,9421222	2016-Nov-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268682_A_Teal_NL-Ferwert_16015273-013_2016_H5N8_2016-Dec-01	53,3377628	5,824424	2016-Dec-01	H5N8_1116	AAAAA8AA	w	Wild-ans	red
268930_A_goose_Czech_Republic_136-17_1_2017_H5N8_2017-Jan-04	49,0947528	16,3690246	2017-Jan-04	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
268940_A_mute_swan_Czech_Republic_1058-17_2017_H5N8_2017-Jan-18	48,9761906	14,472753	2017-Jan-18	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
268941_A_mute_swan_Czech_Republic_1060-17_2017_H5N8_2017-Jan-19	48,9775553	14,5150747	2017-Jan-19	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
268947_A_mallard_Czech_Republic_1219-17_1_2017_H5N8_2017-Jan-25	49,424893	13,8817644	2017-Jan-25	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
271704_A_Goose_Hungary_17261_2017_H5N8_2017-Apr-18	46,5661437	19,4272464	2017-Apr-18	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271705_A_Goose_Hungary_15729_2017_H5N8_2017-Apr-07	46,5661437	19,4272464	2017-Apr-07	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271706_A_Goose_Hungary_17051_2017_H5N8_2017-Apr-18	46,5661437	19,4272464	2017-Apr-18	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271707_A_Goose_Hungary_17580_2017_H5N8_2017-Apr-19	46,5661437	19,4272464	2017-Apr-19	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271708_A_Goose_Hungary_17985_2017_H5N8_2017-Apr-20	46,5661437	19,4272464	2017-Apr-20	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271709_A_Goose_Hungary_59763_2016_H5N8_2016-Nov-27	46,5661437	19,4272464	2016-Nov-27	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
271710_A_Mulard_duck_Hungary_60369_2016_H5N8_2016-Nov-29	46,5661437	19,4272464	2016-Nov-29	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
271711_A_Mulard_duck_Hungary_62902_2016_H5N8_2016-Dec-07	46,7084264	20,1436061	2016-Dec-07	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
271712_A_Goose_Hungary_63743_2016_H5N8_2016-Dec-11	46,5661437	19,4272464	2016-Dec-11	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271713_A_Goose_Hungary_64909_2016_H5N8_2016-Dec-14	46,5661437	19,4272464	2016-Dec-14	H5N8_1216.1	BABAB8AA	na	Dom-ans	aqua
271714_A_Mulard_duck_Hungary_59163_2016_H5N8_2016-Nov-24	46,5661437	19,4272464	2016-Nov-24	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
272859_A_grey_heron_W779_2017_H5N8_2017-Jan-27	35,907757	127,766922	2017-Jan-27	H5N8_0916	CAEAF8AA	w	Wild-other	green
273846_A_chicken_Italy_17VIR3078_2017_H5N8_2017-Apr-07	44,3951148	11,8101028	2017-Apr-07	H5N8_1116	AAAAA8AA	d	Dom-gal	red
273847_A_turkey_Italy_17VIR5878-3_2017_H5N8_2017-Jul-23	45,3169971	11,2761608	2017-Jul-23	H5N8_1116	AAAAA8AA	d	Dom-gal	red
274858_A_mute_swan_Kaliningrad_132_2017_H5N8_2017-Feb-13	54,8235292	21,4816162	2017-Feb-13	H5N8_1116.2	AADA8AA	w	Wild-ans	purple
275283_A_chicken_Schtyolkovo_47_2017_H5N8_2017-Mar-05	55,917038	38,0369348	2017-Mar-05	H5N8_1116	AAAAA8AA	d	Dom-gal	red
275287_A_chicken_Rostov-on-Don_44_2017_H5N8_2017-Apr-18	47,6853247	41,8258952	2017-Apr-18	H5N8_1116	AAAAA8AA	d	Dom-gal	red
275288_A_chicken_Tatarstan_88_2017_H5N8_2017-May-08	55,1802364	50,7263945	2017-May-08	H5N8_1116	AAAAA8AA	d	Dom-gal	red
277134_A_swan_Germany-ST_AR3396-L02292_2017_H5N8_2017-Aug-22	51,5509411	11,4071798	2017-Aug-22	H5N8_1116	AAAAA8AA	w	Wild-ans	red
277135_A_swan_Germany-ST_AR3397-L02293_2017_H5N8_2017-Aug-22	51,5509411	11,4071798	2017-Aug-22	H5N8_1116	AAAAA8AA	w	Wild-ans	red
277137_A_swan_Germany-ST_AR1166-L02295_2017_H5N8_2017-Feb-02	51,5509411	11,4071798	2017-Feb-02	H5N8_1216.2	BDBAB8AA	w	Wild-ans	blue
280672_A_buzzard_Germany-ST_AR1959-L02305_2017_H5N8_2017-Feb-28	51,5509411	11,4071798	2017-Feb-28	H5N8_1216.2	BDBAB8AA	w	Wild-other	blue
280674_A_mute_swan_Switzerland_V0244_2-L02307_2017_H5N8_2017-Aug-10	46,7784736	6,641183	2017-Aug-10	H5N8_1116	AAAAA8AA	w	Wild-ans	red
282133_A_turkey_Czech_Republic_38-17_1_2017_H5N8_2017-Jan-03	49,0947528	16,3690246	2017-Jan-03	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
282141_A_swan_Italy_17VIR7064-1_2017_H5N8_2017-Aug-25	45,4692736	9,6827845	2017-Aug-25	H5N8_1116	AAAAA8AA	w	Wild-ans	red
282143_A_goose_Italy_17VIR6358-3_2017_H5N8_2017-Aug-05	45,1495718	9,4859449	2017-Aug-05	H5N8_1116	AAAAA8AA	d	Dom-ans	red
283129_A_chicken_Czech_Republic_988-17_2017_H5N8_2017-Jan-20	49,4270709	17,4488408	2017-Jan-20	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
284004_A_Chicken_South_Africa_S2017_08_03_36_P3_2017_H5N8_2017-Aug-21	-33,2277918	21,8568586	2017-Aug-21	H5N8_0916	CAEAF8AA	d	Dom-gal	green
285601_A_Geese_South_Africa_S2017_09_006_5_P1_2017_H5N8_2017-Sep-04	-33,2277918	21,8568586	2017-Sep-04	H5N8_0916	CAEAF8AA	na	Wild-ans	green
285602_A_Geese_South_Africa_S2017_09_006	-33,2277918	21,8568586	2017-Sep-04	H5N8_0916	CAEAF8AA	na	Wild-ans	green

5_P2_2017_H5N8_2017-Sep-04									
285604_A_Ostrich_South_Africa_S2017_08_004_6_P3_2017_H5N8_2017-Aug-03	-33,2277918	21,8568586	2017-Aug-03	H5N8_0916	CAEAF8AA	na	Wild-ans	green	
285606_A_Duck_South_Africa_S2017_08_0340_P1_2017_H5N8_2017-Aug-22	-33,2277918	21,8568586	2017-Aug-22	H5N8_0916	CAEAF8AA	na	Wild-ans	green	
285624_A_Chicken_South_Africa_S2017_09_00_50_56_2017_H5N8_2017-Sep-04	-33,2277918	21,8568586	2017-Sep-04	H5N8_0916	CAEAF8AA	na	Dom-gal	green	
285648_A_Geese_South_Africa_S2017_09_005_5_P1_2017_H5N8_2017-Sep-04	-33,2277918	21,8568586	2017-Sep-04	H5N8_0916	CAEAF8AA	na	Wild-ans	green	
285649_A_Chicken_South_Africa_S2017_09_01_84_63_2017_H5N8_2017-Sep-08	-33,2277918	21,8568586	2017-Sep-08	H5N8_0916	CAEAF8AA	d	Dom-gal	green	
285650_A_Ostrich_South_Africa_S2017_08_004_6_AF_2017_H5N8_2017-Aug-03	-33,2277918	21,8568586	2017-Aug-03	H5N8_0916	CAEAF8AA	na	Wild-other	green	
285651_A_Guineafowl_South_Africa_S2017_08_0190_9_2017_H5N8_2017-Aug-14	-33,2277918	21,8568586	2017-Aug-14	H5N8_0916	CAEAF8AA	w	Wild-other	green	
285652_A_Guineafowl_South_Africa_S2017_08_0243_P2_2017_H5N8_2017-Aug-16	-33,2277918	21,8568586	2017-Aug-16	H5N8_0916	CAEAF8AA	na	Wild-other	green	
285655_A_Geese_South_Africa_S2017_08_055_8_P1_2017_H5N8_2017-Aug-29	-33,2277918	21,8568586	2017-Aug-29	H5N8_0916	CAEAF8AA	na	Wild-ans	green	
285658_A_Chicken_South_Africa_S2017_08_05_61_P1_2017_H5N8_2017-Aug-29	-33,2277918	21,8568586	2017-Aug-29	H5N8_0916	CAEAF8AA	na	Dom-gal	green	
287564_A_T_DK_NL-Werkendam_16014159-001_2016_H5N5_2016-Nov-14	51,8081653	4,891848	2016-Nov-14	H5N5_1116.2	AAGAA5AA	w	Wild-ans	blueviolet	
287565_A_M_Swan_NL-Groningen_16015826-001_2016_H5N5_2016-Dec-13	53,2193835	6,5665017	2016-Dec-13	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange	
287800_A_spoonbill_Taiwan_DB645_2017_H5N6_2017-Dec-01	23,69781	120,960515	2017-Dec-01	H5N6_0217	NA	w	Wild-other	pink	
287906_A_Duck_Netherlands_17017236-001-005_2017_H5N6_2017-Dec-07	52,4552356	5,692693	2017-Dec-07	H5N6_1217.2	NA	d	Dom-ans	fuchsia	
287907_A_Duck_Netherlands_17017237-001-005_2017_H5N6_2017-Dec-07	52,4552356	5,692693	2017-Dec-07	H5N6_1217.2	NA	d	Dom-ans	fuchsia	
288362_A_chicken_Greece_39_2017_2017_H5N6_2017-Feb-06	39,074208	21,824312	2017-Feb-06	H5N6_0217	AAAAA6AA	d	Dom-gal	lightpink	
288363_A_chicken_Greece_39_2017a_2017_H5N6_2017-Feb-06	39,074208	21,824312	2017-Feb-06	H5N6_0217	AAAAA6AA	d	Dom-gal	lightpink	
288364_A_chicken_Greece_39_2017b_2017_H5N6_2017-Feb-06	39,074208	21,824312	2017-Feb-06	H5N6_0217	AAAAA6AA	d	Dom-gal	lightpink	
288409_A_Mute_Swan_Netherlands_17017367-012_2017_H5N6_2017-Dec-09	52,3624138	5,7252759	2017-Dec-09	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
288410_A_Mute_Swan_Netherlands_17017377-001_2017_H5N6_2017-Dec-09	52,4492631	5,8345193	2017-Dec-09	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
288412_A_Tufted_Duck_Netherlands_17017367-007_2017_H5N6_2017-Dec-09	52,3624138	5,7252759	2017-Dec-09	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
288436_A_mallard_Korea_Jeju-H24_2017_H5N6_2017-Nov-27	33,4890113	126,4983023	2017-Nov-27	H5N6_0217	NA	na	Wild-ans	pink	
288437_A_duck_Korea_HD1_2017_H5N6_2017-Nov-17	35,907757	127,766922	2017-Nov-17	H5N6_0217	NA	na	Wild-ans	pink	
288438_A_chicken_Korea_Gunsan_2017_H5N8_2017-Jun-03	35,907757	127,766922	2017-Jun-03	H5N8_0916	CAEAF8AA	d	Dom-gal	green	
288734_A_mute_swan_Germany-NW_AR108_2017_H5N8_2017-Jan	51,2277411	6,7734556	2017-Jan	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
288736_A_mute_swan_Germany-RP_AR416_2017_H5N8_2017-Jan	50,0324264	7,1964981	2017-Jan	H5N8_1216.2	BDBAB8AA	w	Wild-ans	blue	
288737_A_greylag_goose_Germany-HH_AR477_2017_H5N8_2017-Jan	53,5510846	9,9936819	2017-Jan	H5N8_1216.2	BDBAB8AA	w	Wild-ans-long	blue	
288746_A_mute_swan_Germany-BY_AR857_2017_H5N8_2017-Jan-01	50,0494605	9,7059316	2017-Jan-01	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua	
288747_A_tufted_duck_Germany-RP_AR1181_2017_H5N8_2017-Feb	50,5061497	7,28973	2017-Feb	H5N8_1116	AAAAA8AA	w	Wild-ans	red	
289068_A_great_egret_Germany-HE_AR1208_2017_H5N8_2017-Feb	50,5840512	8,6784031	2017-Feb	H5N8_1216.1	BABAB8AA	w	Wild-other	aqua	
289173_A_mute_swan_Shimane_3211A001_2017_H5N6_2017-Nov-05	35,4722952	133,0504997	2017-Nov-05	H5N6_0217	NA	w	Wild-ans	pink	
289713_A_Great_Black-backed_Gull_Netherlands_1_2017_H5N6_2017-Dec-18	52,799529	5,226264	2017-Dec-18	H5N6_1217.1	NA	w	Wild-other	hotpink	
289714_A_Black-headed_Gull_Netherlands_29_2017_H5N6_2017-Dec-18	52,7417364	5,1809356	2017-Dec-18	H5N6_1217.2	NA	w	Wild-other	fuchsia	
291103_A_mute_swan_Germany-HE_AR195_2017_H5N8_2017-Jan	50,6520515	9,1624376	2017-Jan	H5N8_1216.2	BDBAB8AA	w	Wild-ans	blue	
291109_A_common_pochard_Germany-BY_AR09-18-L02421_2017_H5N6_2017-Dec-28	48,2629984	11,4339022	2017-Dec-28	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
291110_A_mute_swan_Switzerland_V361-L02422_2017_H5N6_2017-Dec-18	47,0434885	7,0968065	2017-Dec-18	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
292223_A_mute_swan_England_AVP_18_00198_6_2017_H5N6_2017-Dec-31	50,6655598	-2,5995788	2017-Dec-31	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
292224_A_pochard_duck_England_AVP_18_003_254_2018_H5N6_2018-Jan-10	50,6655598	-2,5995788	2018-Jan-10	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
292225_A_canada_goose_England_AV58_180P_poolEP1_2018_H5N6_2018-Jan-05	50,6655598	-2,5995788	2018-Jan-05	H5N6_1217.2	NA	w	Wild-ans	fuchsia	
295027_A_chicken_Kostroma_1718_2017_H5N2_2017-Dec-22	57,7774816	40,9698928	2017-Dec-22	H5N2_1217	NA	d	Dom-gal	brown	
297234_A_chicken_Rostov-on-Don_1321_2017_H5N8_2017-Oct-18	47,2357137	39,701505	2017-Oct-18	H5N8_1216.2	BDBAB8AA	w	Dom-gal	blue	

297235_A_chicken_Rostov-on-Don_1598_2017_H5N8_2017-Nov-17	47,6853247	41,8258952	2017-Nov-17	H5N8_1116	AAAAA8AA	d	Dom-gal	red
297388_A_chicken_Republic_of_Macedonia_466_2017_H5N8_2017-Jan-28	41,3173744	20,6645683	2017-Jan-28	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
297463_A_chicken_Kostroma_1717_2017_H5N2_2017-Dec-22	57,7774816	40,9698928	2017-Dec-22	H5N2_1217	NA	d	Dom-gal	brown
297464_A_chicken_Kostroma_1719_2017_H5N2_2017-Dec-22	57,7774816	40,9698928	2017-Dec-22	H5N2_1217	NA	d	Dom-gal	brown
297465_A_chicken_Kostroma_1720_2017_H5N2_2017-Dec-22	57,7774816	40,9698928	2017-Dec-22	H5N2_1217	NA	d	Dom-gal	brown
297466_A_chicken_Kostroma_1721_2017_H5N2_2017-Dec-22	57,7774816	40,9698928	2017-Dec-22	H5N2_1217	NA	d	Dom-gal	brown
300547_A_White-fronted_Goose_AN_1-15-12_2016_H5N8_2016-Dec-15	48,379433	31,1655799	2016-Dec-15	H5N8_1116	AAAAA8AA	w	Wild-ans-long	red
300548_A_Ruddy_Shelduck_AN_2-14-12_2016_H5N8_2016-Dec-14	46,635417	32,616867	2016-Dec-14	H5N8_1116	AAAAA8AA	w	Wild-ans	red
300562_A_Environmental_EM__AN_2_17_H5N8_2017-Jan-27	46,635417	32,616867	_AN_2_17	H5N8_1116	AAAAA8AA	na	Wild-other	red
300686_A_turkey_Poland_63_2016_H5N8_2016-Dec-12	52,2274612	15,2559103	2016-Dec-12	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
300687_A_chicken_Poland_34_2017_H5N8_2017-Jan-11	49,7225306	20,2503358	2017-Jan-11	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
300693_A_domestic_duck_Poland_47_2017_H5N8_2017-Jan-16	52,279986	17,3522939	2017-Jan-16	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
300698_A_turkey_Poland_54_2017_H5N8_2017-Jan-18	51,8927182	21,0021679	2017-Jan-18	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
300699_A_domestic_goose_Poland_69_2017_H5N8_2017-Jan-27	52,279986	17,3522939	2017-Jan-27	H5N8_1216.2	BDBAB8AA	d	Dom-ans	blue
300700_A_turkey_Poland_72_2017_H5N8_2017-Jan-27	53,8671117	20,7027861	2017-Jan-27	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
300701_A_turkey_Poland_94_2017_H5N8_2017-Feb-03	52,279986	17,3522939	2017-Feb-03	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
300702_A_chicken_Poland_101_2017_H5N8_2017-Feb-03	51,1339861	16,8841961	2017-Feb-03	H5N8_1216.2	BDBAB8AA	d	Dom-gal	blue
300703_A_domestic_goose_Poland_124_2017_H5N8_2017-Feb-06	51,1339861	16,8841961	2017-Feb-06	H5N8_1216.1	BABAB8AA	d	Dom-ans	aqua
300704_A_turkey_Poland_192_2017_H5N8_2017-Feb-20	53,0697159	22,9674639	2017-Feb-20	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
300712_A_chicken_Poland_263_2017_H5N8_2017-Mar-04	52,2274612	15,2559103	2017-Mar-04	H5N8_1216.1	BABAB8AA	d	Dom-gal	aqua
300743_A_mallard_Poland_17_2017_H5N8_2017-Jan-13	53,4657891	15,1822581	2017-Jan-13	H5N8_1216.2	BDBAB8AA	w	Wild-ans	blue
300744_A_swan_Poland_32_2017_H5N8_2017-Jan-19	49,7225306	20,2503358	2017-Jan-19	H5N8_1216.1	BABAB8AA	w	Wild-ans	aqua
300745_A_wild_duck_Poland_57_2017_H5N8_2017-Jan-27	52,2274612	15,2559103	2017-Jan-27	H5N8_1116	AAAAA8AA	w	Wild-ans	red
300746_A_swan_Poland_81_2017_H5N5_2017-Feb-02	51,1339861	16,8841961	2017-Feb-02	H5N5_1216.1	DCBAE5AA	w	Wild-ans	orange
300747_A_mute_swan_Poland_137_2017_H5N8_2017-Feb-21	54,2944252	18,1531164	2017-Feb-21	H5N8_1116	AAAAA8AA	w	Wild-ans	red
303637_A_Mandarin_duck_Korea_K17-1887_2017_H5N6_2017-Dec-23	36,5184	126,8	2017-Dec-23	H5N6_1217.1	NA	w	Wild-ans	hotpink
303638_A_Mandarin_duck_Korea_K17-1889_2017_H5N6_2017-Dec-23	36,5184	126,8	2017-Dec-23	H5N6_1217.1	NA	w	Wild-ans	hotpink
303639_A_Mandarin_duck_Korea_K17-1891_2017_H5N6_2017-Dec-23	36,5184	126,8	2017-Dec-23	H5N6_1217.1	NA	w	Wild-ans	hotpink
303640_A_Mandarin_duck_Korea_K17-1893_2017_H5N6_2017-Dec-23	36,5184	126,8	2017-Dec-23	H5N6_1217.1	NA	w	Wild-ans	hotpink
303641_A_Mandarin_duck_Korea_K17-1894_2017_H5N6_2017-Dec-23	36,5184	126,8	2017-Dec-23	H5N6_1217.1	NA	w	Wild-ans	hotpink
303642_A_Mandarin_duck_Korea_K17-1896_2017_H5N6_2017-Dec-23	36,5184	126,8	2017-Dec-23	H5N6_1217.1	NA	w	Wild-ans	hotpink
303643_A_Mandarin_duck_Korea_K18-3_2018_H5N6_2018-Jan-18	36,5184	126,8	2018-Jan-18	H5N6_1217.1	NA	w	Wild-ans	hotpink
304701_A_greylag_goose_Germany-HE_AR1667_2017_H5N8_2017-Feb	50,1805574	8,7955644	2017-Feb	H5N8_1216.1	BABAB8AA	w	Wild-ans-long	aqua
305416_A_Domestic_Duck_Netherlands EMC-2_2018_H5N6_2018-Mar-13	52,5321284	5,9490114	2018-Mar-13	H5N6_1217.2	NA	d	Dom-ans	fuchsia
305417_A_Domestic_Duck_Netherlands EMC-6_2018_H5N6_2018-Mar-13	52,5321284	5,9490114	2018-Mar-13	H5N6_1217.2	NA	d	Dom-ans	fuchsia
305453_A_chicken_Germany-SH_AR163-L02542_2018_H5N6_2018-Mar-19	54,4637993	8,5533346	2018-Mar-19	H5N6_1217.2	NA	d	Dom-gal	fuchsia
305454_A_chicken_Germany-SH_AR164-L02543_2018_H5N6_2018-Mar-19	54,4637993	8,5533346	2018-Mar-19	H5N6_1217.2	NA	d	Dom-gal	fuchsia
305455_A_duck_Germany-SH_AR165-L02543_2018_H5N6_2018-Mar-19	54,4637993	8,5533346	2018-Mar-19	H5N6_1217.2	NA	d	Dom-ans	fuchsia
306989_A_turkey_Germany-SH_AR185-L02549_2018_H5N6_2018-Mar-19	54,4637993	8,5533346	2018-Mar-19	H5N6_1217.2	NA	d	Dom-gal	fuchsia
308781_A_jungle_crow_Hyogo_2803A002_2018_H5N6_2018-Mar-01	34,6912688	135,1830706	2018-Mar-01	H5N6_0217	NA	w	Wild-other	pink
308782_A_jungle_crow_Hyogo_2803E011_2018_H5N6_2018-Mar-03	34,6912688	135,1830706	2018-Mar-03	H5N6_0217	NA	w	Wild-other	pink
308783_A_jungle_crow_Hyogo_2803E022_2018_H5N6_2018-Mar-06	34,6912688	135,1830706	2018-Mar-06	H5N6_0217	NA	w	Wild-other	pink
308802_A_duck_Democratic_Republic_of_the_	-4,038333	21,758664	2017-May-15	H5N8_0516	CABAD8AA	na	Dom-ans	lime



Congo_17RS882-29_2017_H5N8_2017-May-15									
308803_A_duck_Democratic_Republic_of_the_Congo_17RS882-33_2017_H5N8_2017-May-14	-4,038333	21,758664	2017-May-14	H5N8_0516	CABAD8AA	na	Dom-ans	lime	
308804_A_duck_Democratic_Republic_of_the_Congo_17RS882-40_2017_H5N8_2017-May-13	-4,038333	21,758664	2017-May-13	H5N8_0516	CABAD8AA	na	Dom-ans	lime	
308805_A_duck_Democratic_Republic_of_the_Congo_17RS882-5_2017_H5N8_2017-May-14	-4,038333	21,758664	2017-May-14	H5N8_0516	CABAD8AA	na	Dom-ans	lime	
309197_A_Brahma_chicken_Belgium_6153_2017_H5N8_2017-Jun-15	50,503887	4,469936	2017-Jun-15	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
309198_A_Guinea_fowl_Belgium_6102_2017_H5N8_2017-Jun-14	50,503887	4,469936	2017-Jun-14	H5N8_1116	AAAAA8AA	d	Dom-gal	red	
312376_A_Armenian_Gull_Republic_of_Georgia_4_2017_H5N6_2017-Dec-27	41,7151377	44,827096	2017-Dec-27	H5N6	NA	w	Wild-other	silver	
313226_A_white_stork_Germany-NI_AR251_2018_H5N6_2018-Apr	52,6353154	8,1727077	2018-Apr	H5N6_1217.2	NA	w	Wild-other	fuchsia	
313227_A_buzzard_Germany-NRW_AR279_2018_H5N6_2018-May	52,1759015	8,5988205	2018-May	H5N6_1217.2	NA	w	Wild-other	fuchsia	
319652_A_tufted_duck_Shimane_3211TY001_2017_H5N6_2017-Nov-07	35,4722952	133,0504997	2017-Nov-07	H5N6_0217	NA	w	Wild-ans	pink	
320607_A_chicken_Kursk_284_2018_H5N8_2018-Jun-11	51,7091957	36,1562241	2018-Jun-11	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320608_A_chicken_Kursk_526_2018_H5N8_2018-Jun-15	51,7091957	36,1562241	2018-Jun-15	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320657_A_chicken_Samara_446_2018_H5N8_2018-Jun-22	53,2415041	50,2212463	2018-Jun-22	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320658_A_chicken_Samara_447_2018_H5N8_2018-Jun-22	53,2415041	50,2212463	2018-Jun-22	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320659_A_duck_Samara_452_2018_H5N8_2018-Jun-22	53,2415041	50,2212463	2018-Jun-22	H5N8_1116	AAAAA8AA	d	Dom-ans	maroon	
320660_A_goose_Samara_455_2018_H5N8_2018-Jun-22	53,2415041	50,2212463	2018-Jun-22	H5N8_1116	AAAAA8AA	d	Dom-ans	maroon	
320661_A_goose_Samara_459_2018_H5N8_2018-Jun-22	53,2415041	50,2212463	2018-Jun-22	H5N8_1116	AAAAA8AA	d	Dom-ans	maroon	
320662_A_chicken_Penza_300_2018_H5N8_2018-Jun-15	53,2272903	45	2018-Jun-15	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320663_A_chicken_Penza_301_2018_H5N8_2018-Jun-15	53,2272903	45	2018-Jun-15	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320664_A_chicken_Orel_533_2018_H5N8_2018-Jun-20	52,9668468	36,0624898	2018-Jun-20	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320674_A_chicken_Rostov-on-Don_766_2018_H5N8_2018-Jul-09	47,2357137	39,701505	2018-Jul-09	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320675_A_turkey_Rostov-on-Don_817_2018_H5N8_2018-Jul-16	47,2357137	39,701505	2018-Jul-16	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320676_A_chicken_Penza_605_2018_H5N8_2018-Jun-19	53,2272903	45	2018-Jun-19	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320677_A_chicken_Penza_607_2018_H5N8_2018-Jun-19	53,2272903	45	2018-Jun-19	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320678_A_chicken_Cheboksary_805_2018_H5N8_2018-Jul-16	56,1167663	47,262782	2018-Jul-16	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320679_A_chicken_Cheboksary_806_2018_H5N8_2018-Jul-16	56,1167663	47,262782	2018-Jul-16	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320680_A_chicken_Kursk_757_2018_H5N8_2018-Jun-20	51,7091957	36,1562241	2018-Jun-20	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320681_A_chicken_Kursk_760_2018_H5N8_2018-Jun-26	51,7091957	36,1562241	2018-Jun-26	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320682_A_chicken_Kursk_762_2018_H5N8_2018-Jun-26	51,7091957	36,1562241	2018-Jun-26	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320683_A_goose_Samara_673_2018_H5N8_2018-Jul-04	53,2415041	50,2212463	2018-Jul-04	H5N8_1116	AAAAA8AA	d	Dom-ans	maroon	
320684_A_goose_Samara_675_2018_H5N8_2018-Jul-04	53,2415041	50,2212463	2018-Jul-04	H5N8_1116	AAAAA8AA	d	Dom-ans	maroon	
320685_A_chicken_Samara_679_2018_H5N8_2018-Jul-04	53,2415041	50,2212463	2018-Jul-04	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320953_A_chicken_Cheboksary_849_2018_H5N8_2018-Jul-20	56,1167663	47,262782	2018-Jul-20	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320954_A_chicken_Cheboksary_850_2018_H5N8_2018-Jul-20	56,1167663	47,262782	2018-Jul-20	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320955_A_chicken_Cheboksary_851_2018_H5N8_2018-Jul-20	56,1167663	47,262782	2018-Jul-20	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320956_A_chicken_Cheboksary_853_2018_H5N8_2018-Jul-31	56,1167663	47,262782	2018-Jul-31	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320957_A_chicken_Cheboksary_854_2018_H5N8_2018-Jul-31	56,1167663	47,262782	2018-Jul-31	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
320958_A_chicken_Tatarstan_7_2018_H5N8_2018-Aug-01	55,1802364	50,7263945	2018-Aug-01	H5N8_1116	AAAAA8AA	d	Dom-gal	maroon	
322179_A_domestic_duck_Germany-MV_AR613-102727_2018_H5N6_2018-Aug-31	53,8979416	11,4516022	2018-Aug-31	H5N6_1217.2	NA	d	Dom-ans	fuchsia	

<sup>a</sup>Host species were categorized as either wild (w) or domestic (d).

<sup>b</sup>Host species were categorized as follows: domestic anseriform birds (Dom-ans), domestic galliform birds (Dom-gal), long-range migratory wild anseriform birds (Wild-ans-long), other wild anseriform birds (Wild-ans), and other wild birds (Wild-other).

**Movie S1 (separate file).** Video illustrating temporal and spatial spread across Eurasia of seven main H5 reassortant viruses from deduced site of origin. The video is based on the dataset (i) (Table S1). Reassortment clades (or subtype) were mapped for segments 1, 2, 3, 5, and 6 (segments 7 and 8 stayed the same) onto the tree of segment 4 independently, using discrete traits (asymmetric BSSVS [Bayesian Stochastic Search Variable Selection]). Subsequently, the full code was reconstructed at the nodes.

**Global Consortium for H5N8 and Related Influenza Viruses**

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