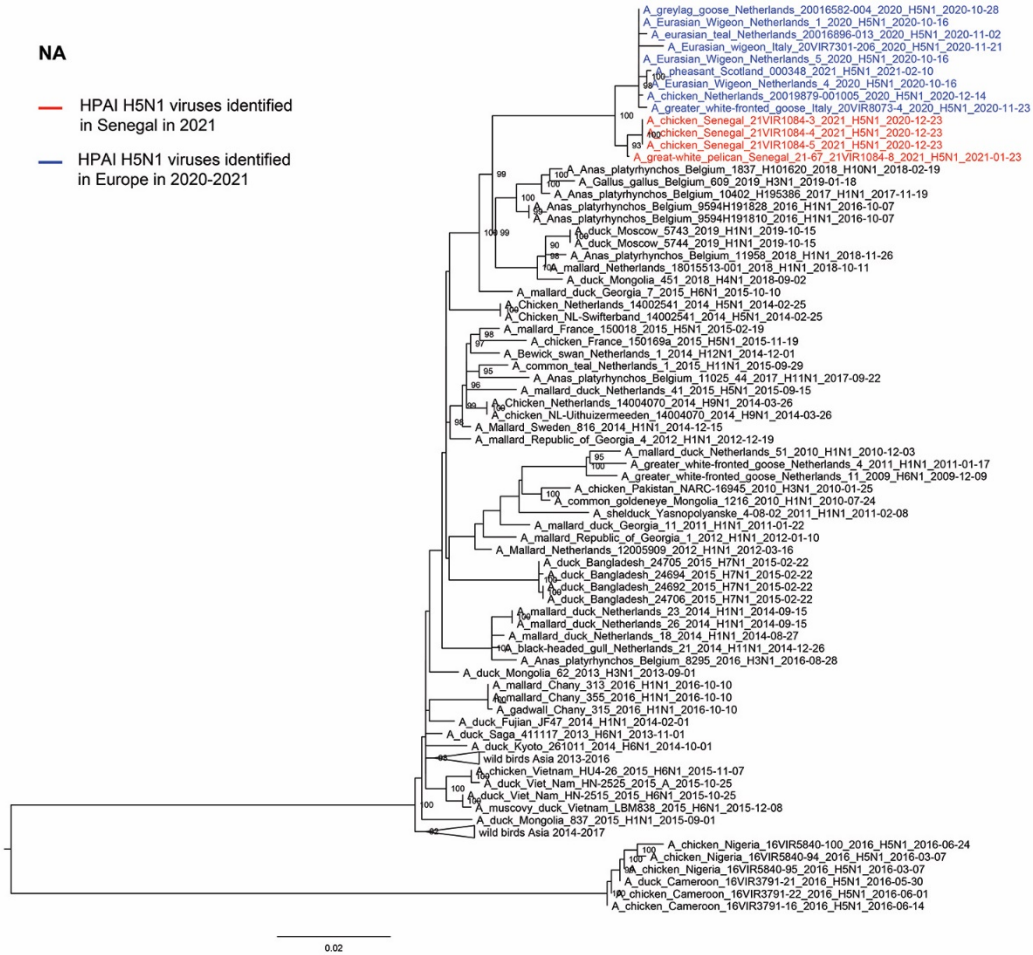


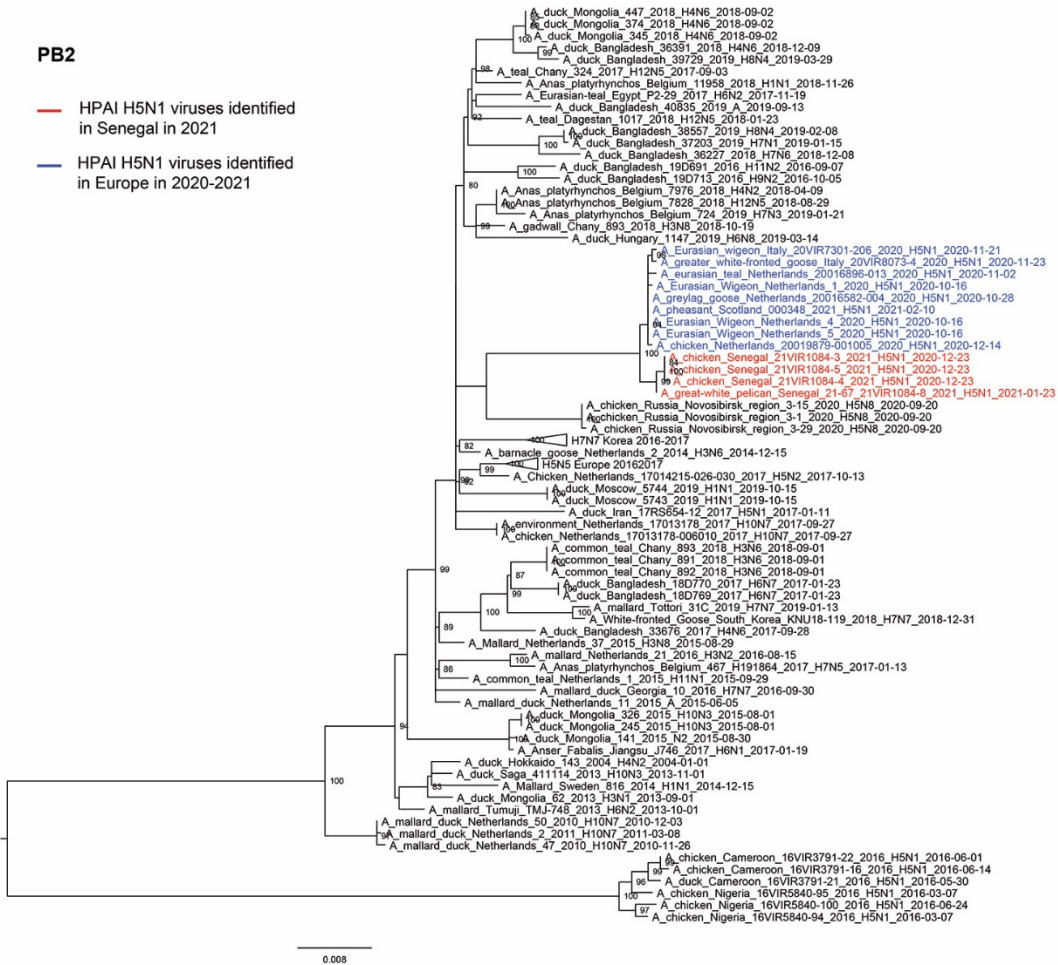


NA

- HPAI H5N1 viruses identified in Senegal in 2021
- HPAI H5N1 viruses identified in Europe in 2020-2021



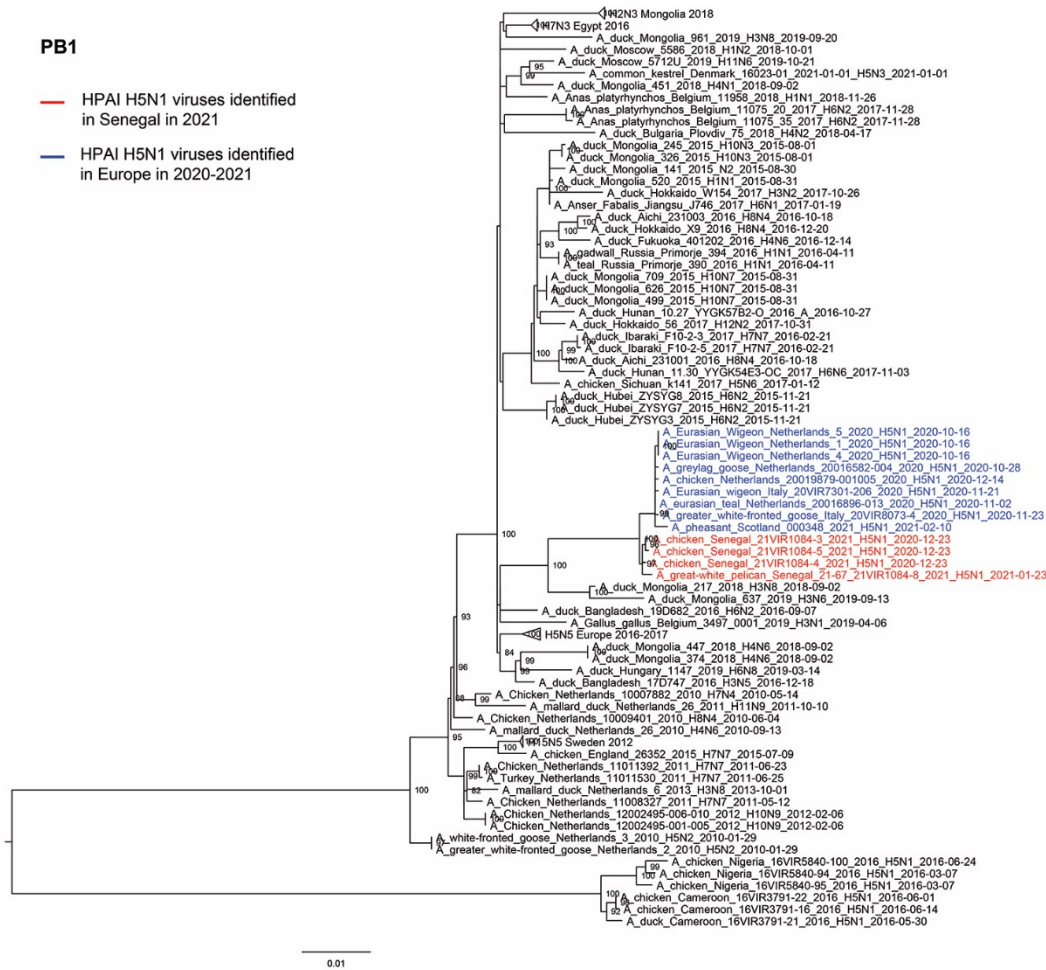
**Appendix Figure 2.** Maximum likelihood phylogenetic tree of the neuraminidase (NA) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.



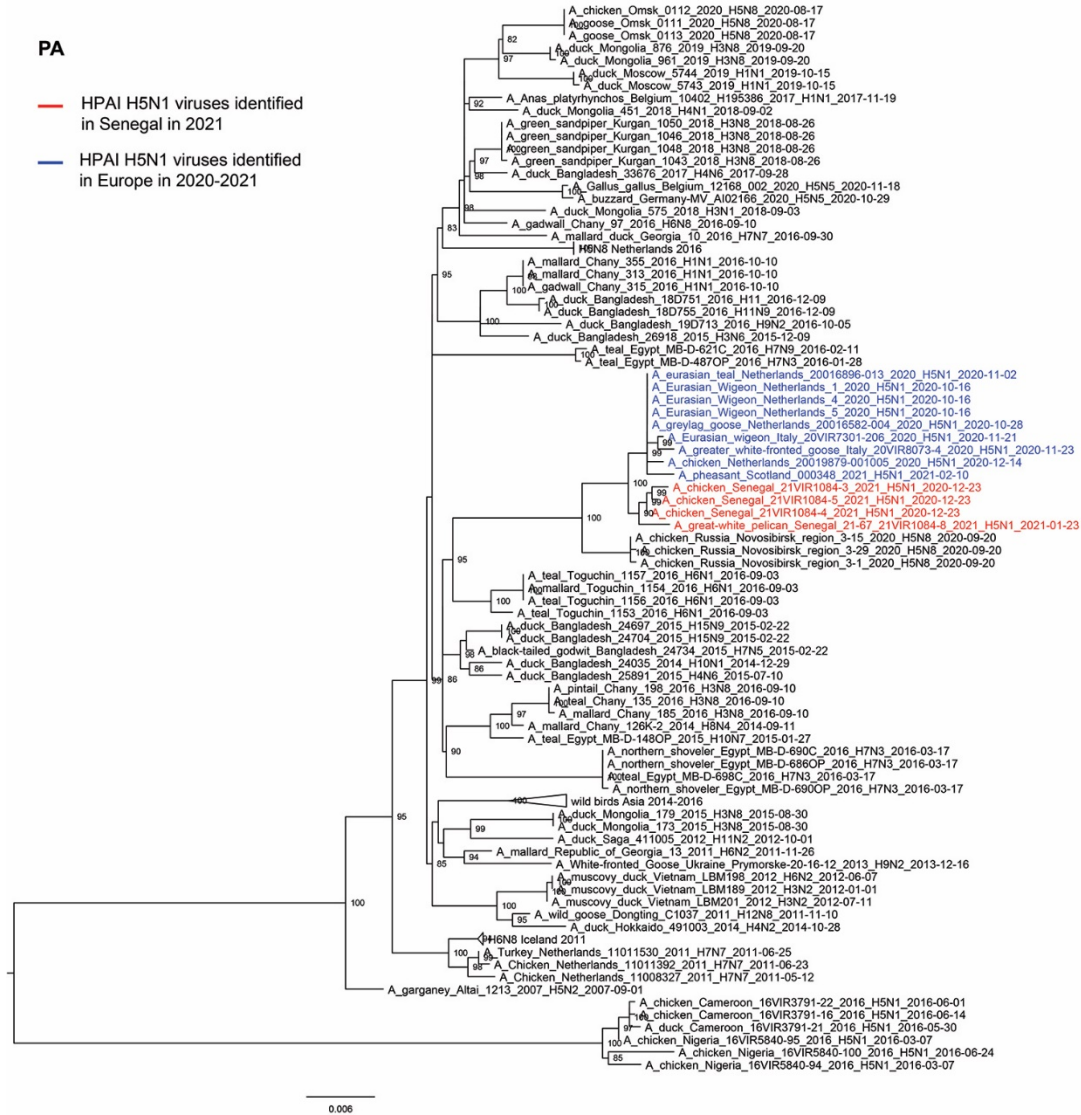
**Appendix Figure 3.** Maximum likelihood phylogenetic tree of the polymerase basic 2 (PB2) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.

**PB1**

- HPAI H5N1 viruses identified in Senegal in 2021
- HPAI H5N1 viruses identified in Europe in 2020-2021

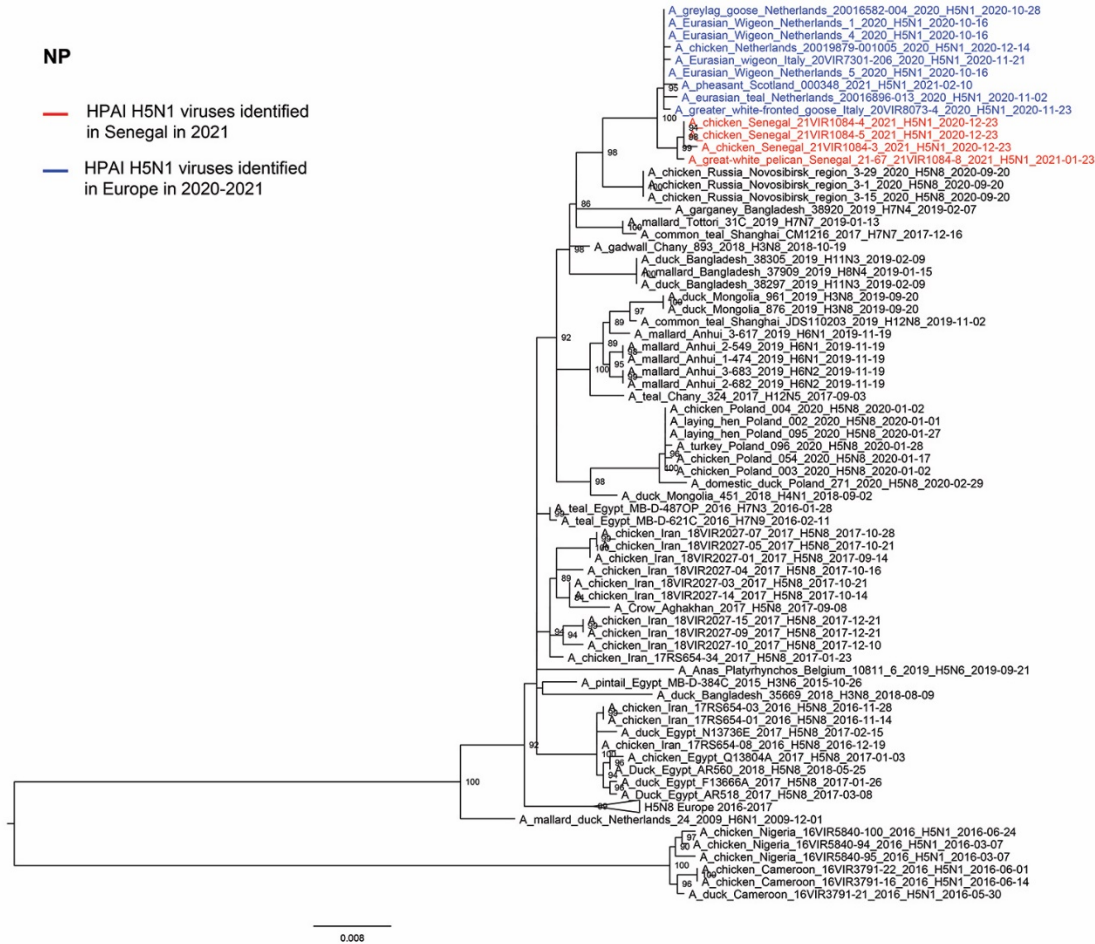


**Appendix Figure 4.** Maximum likelihood phylogenetic tree of the polymerase basic 1 (PB1) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.



**Appendix Figure 5.** Maximum likelihood phylogenetic tree of the polymerase acidic (PA) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.



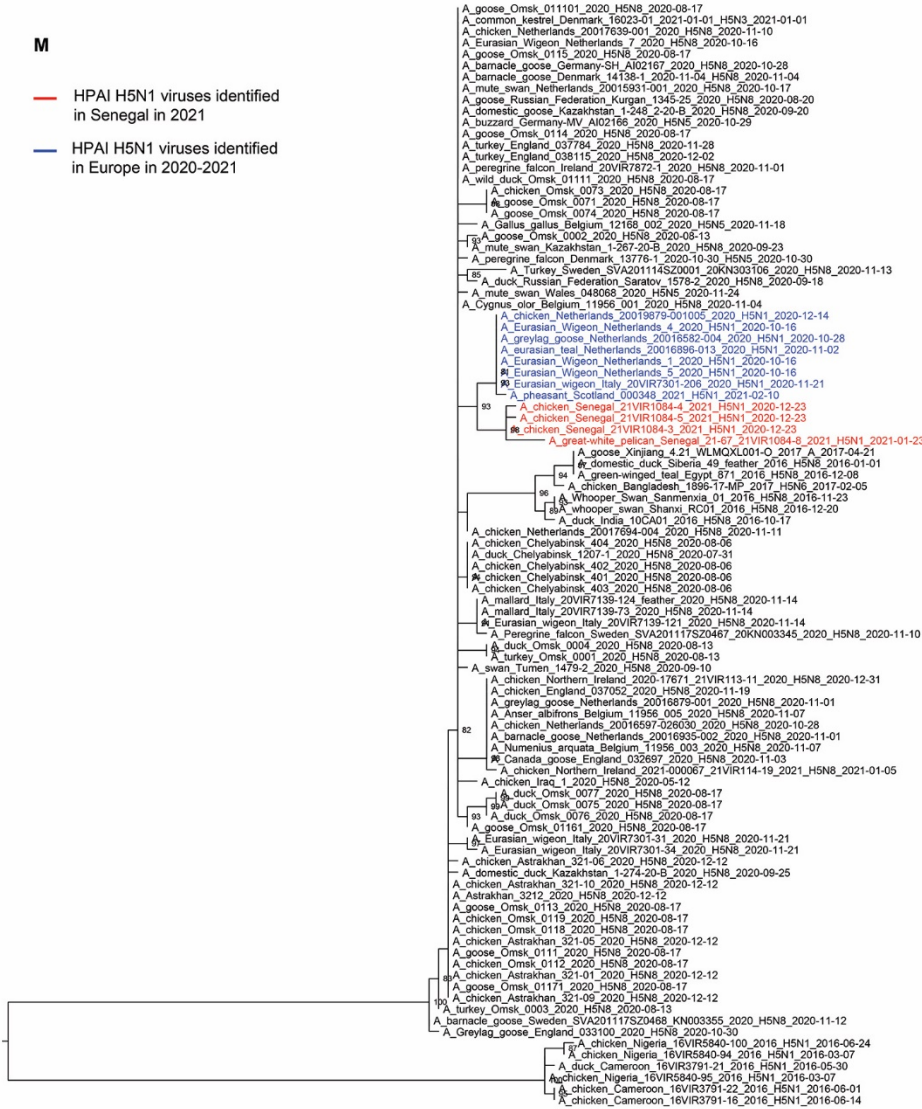


**Appendix Figure 6.** Maximum likelihood phylogenetic tree of the nucleoprotein (NP) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.

M

— HPAI H5N1 viruses identified in Senegal in 2021

— HPAI H5N1 viruses identified in Europe in 2020-2021



**Appendix Figure 7.** Maximum likelihood phylogenetic tree of the matrix (M) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.

NS

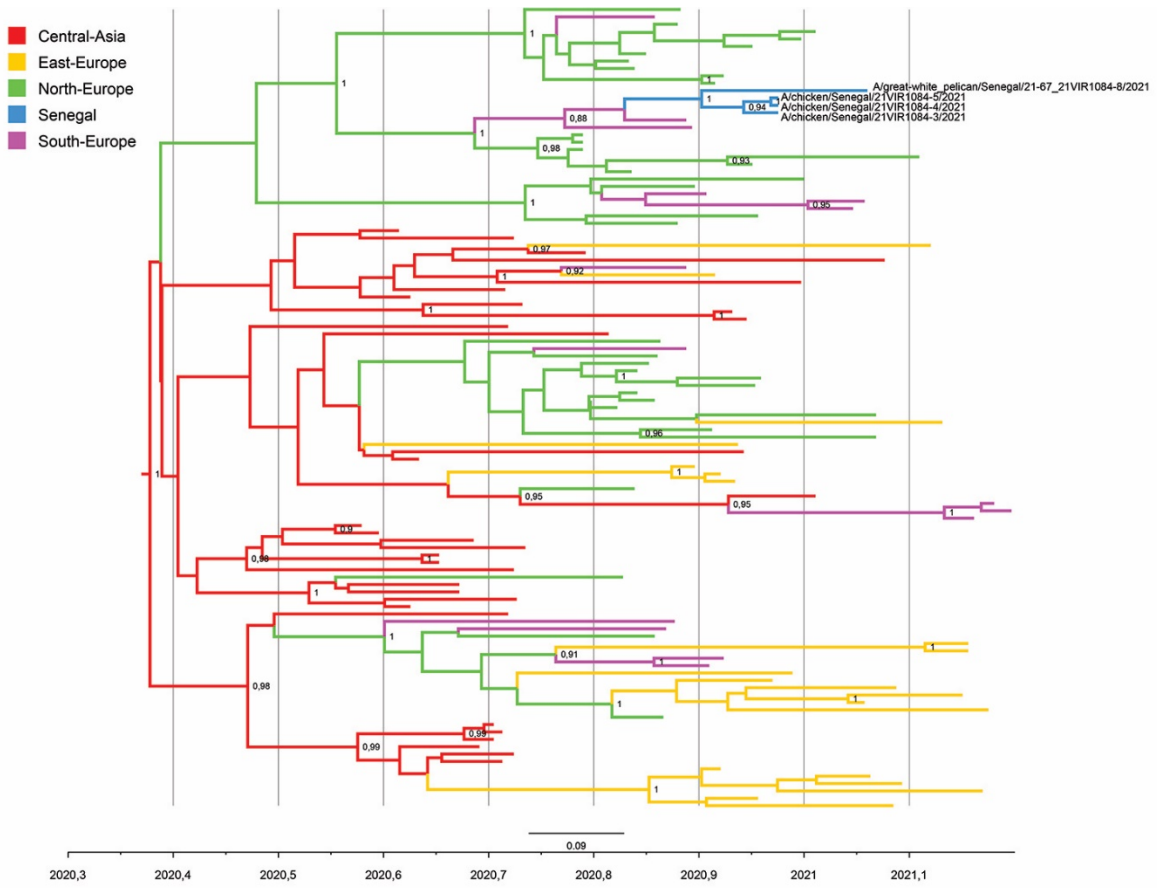
— HPAI H5N1 viruses identified in Senegal in 2021

— HPAI H5N1 viruses identified in Europe in 2020-2021



**Appendix Figure 8.** Maximum likelihood phylogenetic tree of the non-structural (NS) gene obtained by using IQTREE version 1.6.6. The HPAI H5N1 viruses from Senegal are marked in red; the HPAI H5N1 viruses from Europe are marked in blue. Ultrafast bootstrap supports >80 are indicated next to the nodes. HPAI, highly pathogenic avian influenza.





**Appendix Table.** Acknowledgment table of the authors and the originating and submitting laboratories of the sequences from the GISAID EpiFlu Database on which this research is partly based

Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<a href="#">EPI1813749</a>	Denmark	2020 Oct 30	<a href="#">EPI_ISL_644737</a>	A/peregrine_falcon/Denmark/13776-1/2020-10-30	Statens Serum Institut	Statens Serum Institut	Charlotte Hjulsager
<a href="#">EPI1814727</a>	Sweden	2020 Nov 10	<a href="#">EPI_ISL_668456</a>	A/Peregrine_falcon/Sweden/SVA201117SZ0467/20KN003345/2020	National Veterinary Institute, SVA	National Veterinary Institute	
<a href="#">EPI1847780</a>	Denmark	2021 Jan 1	<a href="#">EPI_ISL_1063993</a>	A/common_kestrel/Denmark/16023-01/2021-01-01	Statens Serum Institut	Statens Serum Institut	Charlotte Hjulsager, Jesper Schak Krog
<a href="#">EPI1843642</a>	Italy	2020 Nov 23	<a href="#">EPI_ISL_956412</a>	A/greater_white-fronted_goose/Italy/20VIR8073-4/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	B. Zecchin, A. Fusaro, A. Milani, A. Schivo, A. Salviato, A. Pastori, G. Zamperin, I. Monne, C. Terregino
<a href="#">EPI1811671</a>	Russian Federation	2020 Oct 2	<a href="#">EPI_ISL_626648</a>	A/goose/Russian_Federation/Omsk/1680-6/2020	Federal Centre for Animal Health (ARRIAH)	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1814684</a>	Russian Federation	2020 Sep 10	<a href="#">EPI_ISL_661178</a>	A/swan/Tumen/1479-2/2020	Federal Centre for Animal Health (ARRIAH) OIE Regional Reference Laboratory	Federal Centre for Animal Health (ARRIAH)	N. Zinyakov, P. Akshalova, P. Zhestkov, A. Kozlov, A. Andriyasov, E. Ovchinnikova, Z. Nikonova, V. Sosipatorova, L. Scherbakova, D. Andreychuk, I. Chvala Elliot Whittard
<a href="#">EPI1811584</a>	Kazakhstan	2020 Sep 23	<a href="#">EPI_ISL_614401</a>	A/mute_swan/Kazakhstan/1-267-20-B/2020	National Veterinary Reference Center	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1813730</a>	Belgium	2020 Nov 4	<a href="#">EPI_ISL_644735</a>	A/Cygnus_olor/Belgium/11956_001/2020	Sciensano - Animal Infectious Diseases	Sciensano, Department of Animal Infectious Diseases	Steven Van Borm, Elisabeth Mathijs, Thierry van den Berg, Bénédicte Lambrecht, Mieke Steensels
<a href="#">EPI1815183</a>	United Kingdom	2020 Nov 24	<a href="#">EPI_ISL_683999</a>	A/mute_swan/Wales/048068/2020	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1806859</a>	Netherlands	2020 Oct 17	<a href="#">EPI_ISL_591075</a>	A/mute_swan/Netherlands/20015931-001/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<a href="#">EPI1837949</a>	United Kingdom	2020 Dec 2	<a href="#">EPI_ISL_710505</a>	A/turkey/England/038115/2020	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1837933</a>	United Kingdom	2020 Nov 28	<a href="#">EPI_ISL_710504</a>	A/turkey/England/037784/2020	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1846961</a>	Russian Federation	2020 Dec 12	<a href="#">EPI_ISL_1038924</a>	A/Astrakhan/3212/2020	Center of Hygiene and Epidemiology in Astrakhan Region	State Research Center of Virology and Biotechnology (VECTOR)	O. Pyankova, I. Susloparov, V. Marchenko, A. Ryzhikov

Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<a href="#">EPI1807267</a>	Netherlands	2020 Oct 16	<a href="#">EPI_ISL_603136</a>	A/Eurasian_Wigeon/Netherlands/7/2020	Erasmus Medical Center	Erasmus Medical Center	
<a href="#">EPI1807259</a>	Netherlands	2020 Oct 16	<a href="#">EPI_ISL_603135</a>	A/Eurasian_Wigeon/Netherlands/5/2020	Erasmus Medical Center	Erasmus Medical Center	
<a href="#">EPI1807251</a>	Netherlands	2020 Oct 16	<a href="#">EPI_ISL_603134</a>	A/Eurasian_Wigeon/Netherlands/4/2020	Erasmus Medical Center	Erasmus Medical Center	
<a href="#">EPI1807243</a>	Netherlands	2020 Oct 16	<a href="#">EPI_ISL_603133</a>	A/Eurasian_Wigeon/Netherlands/1/2020	Erasmus Medical Center	Erasmus Medical Center	
<a href="#">EPI1846305</a>	United Kingdom	2021 Jan 5	<a href="#">EPI_ISL_996003</a>	A/chicken/Northern_Ireland/2021-000067_21VIR114-19/2021	AFBI - Agri-Food & Bioscience Institute	Istituto Zooprofilattico Sperimentale Delle Venezie	M.J. McMenamy, V. Harkin, K. Lemon, B. Zecchin, A. Fusaro, A. Schivo, A. Salviato, A. Pastori, I. Monne, C. Terregino
<a href="#">EPI1846297</a>	United Kingdom	2020 Dec 31	<a href="#">EPI_ISL_995172</a>	A/chicken/Northern_Ireland/2020-17671_21VIR113-11/2020	AFBI - Agri-Food & Bioscience Institute	Istituto Zooprofilattico Sperimentale Delle Venezie	M.J. McMenamy, V. Harkin, K. Lemon, B. Zecchin, A. Fusaro, A. Schivo, A. Salviato, A. Pastori, I. Monne, C. Terregino
<a href="#">EPI1811657</a>	Russian Federation	2020 Oct 2	<a href="#">EPI_ISL_626647</a>	A/chicken/Russian_Federation/Omsk/1680-10/2020	Federal Centre for Animal Health (ARRIAH)	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1811628</a>	Iraq	2020 May 12	<a href="#">EPI_ISL_623074</a>	A/chicken/Iraq/1/2020	Central Veterinary Labs	Animal and Plant Health Agency (APHA)	
<a href="#">EPI1838673</a>	Netherlands	2020 Dec 14	<a href="#">EPI_ISL_711055</a>	A/chicken/Netherlands/20019879-001005/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<a href="#">EPI1813085</a>	Netherlands	2020 Nov 11	<a href="#">EPI_ISL_641395</a>	A/chicken/Netherlands/20017694-004/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<a href="#">EPI1813077</a>	Netherlands	2020 Nov 10	<a href="#">EPI_ISL_641394</a>	A/chicken/Netherlands/20017639-001/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<a href="#">EPI1812965</a>	Netherlands	2020 Nov 2	<a href="#">EPI_ISL_641377</a>	A/chicken/Netherlands/20016978-001/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink

Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<u>EPI1812533</u>	Russian Federation	2020 Jul 31	<u>EPI_ISL_637098</u>	A/duck/Chelyabinsk/1207-1/2020	Federal Centre for Animal Health (ARRIAH) OIE Regional Reference Laboratory	Federal Centre for Animal Health (ARRIAH)	N. Zinyakov, P. Akshalova, P. Zhestkov, A. Kozlov, A. Andriyasov, E. Ovchinnikova, Z. Nikonova, V. Sosipatorova, L. Scherbakova, D. Andreychuk, I. Chvala
<u>EPI1837899</u>	United Kingdom	2020 Nov 18	<u>EPI_ISL_710512</u>	A/whistling_duck/England/035643/2020	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)	
<u>EPI1811696</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_626650</u>	A/duck/Russian_Federation/Omsk/1328-2/2020	Federal Centre for Animal Health (ARRIAH)	Animal and Plant Health Agency (APHA)	
<u>EPI1811611</u>	Kazakhstan	2020 Sep 25	<u>EPI_ISL_615072</u>	A/domestic_duck/Kazakhstan/1-274-20-B/2020	National Veterinary Reference Center	Animal and Plant Health Agency (APHA)	
<u>EPI1813249</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644138</u>	A/wild_duck/Omsk/01111/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasilii Marchenko, Alexander Ryzhikov
<u>EPI1811564</u>	Germany	2020 Oct 29	<u>EPI_ISL_614399</u>	A/buzzard/Germany-MV/AI02166/2020	Landesamt für Landwirtschaft, Lebensmittelsicherheit und Fischerei (LALLF)	Friedrich-Loeffler-Institut	
<u>EPI1837941</u>	United Kingdom	2020 Nov 3	<u>EPI_ISL_710506</u>	A/Canada_goose/England/032697/2020	Animal and Plant Health Agency (APHA)	Animal and Plant Health Agency (APHA)	
<u>EPI1841769</u>	Ireland	2020 Nov 1	<u>EPI_ISL_813979</u>	A/peregrine_falcon/Ireland/20VIR7872-1/2020	Central Veterinary Research Laboratory	Istituto Zooprofilattico Sperimentale Delle Venezie	O. Flynn, E. Connaghan, C. Byrne, L. Garza Cuartero, R. O'Neill, B. Zecchin, A. Fusaro, A. Pastori, A. Salviato, A. Schivo, I. Monne, C. Terregino
<u>EPI1815373</u>	Italy	2020 Nov 21	<u>EPI_ISL_683752</u>	A/Eurasian_wigeon/Italy/20VIR7301-34/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	
<u>EPI1815381</u>	Italy	2020 Nov 21	<u>EPI_ISL_683751</u>	A/Eurasian_wigeon/Italy/20VIR7301-31/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	

Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<u>EPI1815150</u>	Italy	2020 Nov 14	<u>EPI_ISL_683593</u>	A/Eurasian_wigeon/Italy/20VI R7139-121/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	B. Zecchin, A. Fusaro, A. Pastori, A. Milani, A. Salviato, A. Schivo, I. Monne, C. Terregino
<u>EPI1815142</u>	Italy	2020 Nov 21	<u>EPI_ISL_683592</u>	A/Eurasian_wigeon/Italy/20VI R7301-206/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	B. Zecchin, A. Fusaro, A. Pastori, A. Milani, A. Salviato, A. Schivo, I. Monne, C. Terregino
<u>EPI1815159</u>	Italy	2020 Nov 14	<u>EPI_ISL_683594</u>	A/mallard/Italy/20VIR7139-124_feather/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	B. Zecchin, A. Fusaro, A. Pastori, A. Milani, A. Salviato, A. Schivo, I. Monne, C. Terregino
<u>EPI1814606</u>	Italy	2020 Nov 14	<u>EPI_ISL_654958</u>	A/mallard/Italy/20VIR7139-73/2020	Istituto Zooprofilattico Sperimentale delle Venezie, EU/OIE/Reference Laboratory and FAO Reference Centre for AI and ND	Istituto Zooprofilattico Sperimentale Delle Venezie	B. Zecchin, A. Fusaro, A. Pastori, A. Milani, A. Salviato, A. Schivo, I. Monne, C. Terregino
<u>EPI1814694</u>	Belgium	2020 Nov 7	<u>EPI_ISL_664102</u>	A/Numenius_arquata/Belgium /11956_003/2020	Sciensano - Animal Infectious Diseases	Sciensano, Department of Animal Infectious Diseases	Steven Van Borm, Elisabeth Mathijs, Frank Vandenbussche, Thierry van den Berg, Bénédicte Lambrecht, Mieke Steensels
<u>EPI1812399</u>	Netherlands	2020 Nov 1	<u>EPI_ISL_632318</u>	A/greylag_goose/Netherlands /20016879-001/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<u>EPI1812367</u>	Netherlands	2020 Oct 28	<u>EPI_ISL_632314</u>	A/greylag_goose/Netherlands /20016582-004/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<u>EPI1813753</u>	Denmark	2020 Nov 4	<u>EPI_ISL_644824</u>	A/barnacle_goose/Denmark/1 4138-1/2020-11-04	Statens Serum Institut	Statens Serum Institut	Charlotte, Hjulsager



Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<u>EPI1811572</u>	Germany	2020 Oct 28	<u>EPI_ISL_614400</u>	A/barnacle_goose/Germany-SH/AI02167/2020	Landeslabor Schleswig-Holstein	Friedrich-Loeffler-Institut	
<u>EPI1812391</u>	Netherlands	2020 Nov 1	<u>EPI_ISL_632317</u>	A/barnacle_goose/Netherlands/20016935-002/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<u>EPI1814735</u>	Sweden	2020 Nov 12	<u>EPI_ISL_668457</u>	A/barnacle_goose/Sweden/VA201117SZ0468/KN003355/2020	National Veterinary Institute, SVA	National Veterinary Institute	
<u>EPI1814627</u>	Belgium	2020 Nov 18	<u>EPI_ISL_660264</u>	A/Gallus_gallus/Belgium/12168_002/2020	Sciensano - Animal Infectious Diseases	Sciensano, Department of Animal Infectious Diseases	Steven Van Borm, Elisabeth Mathijs, Frank Vandebussche, Thierry van den Berg, Bénédicte Lambrecht, Mieke Steensels
<u>EPI1844083</u>	Czech Republic	2021 Jan 22	<u>EPI_ISL_977513</u>	A/chicken/Czech_Republic/1566-1/2021	State Veterinary Institute Prague	State Veterinary Institute Prague	A. Nagy, L. Cernikova, M. Stara
<u>EPI1847025</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039240</u>	A/chicken/Astrakhan/321-10/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1847017</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039239</u>	A/chicken/Astrakhan/321-10/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1847009</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039238</u>	A/chicken/Astrakhan/321-09/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1847001</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039236</u>	A/chicken/Astrakhan/321-06/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov

Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<u>EPI1846993</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039235</u>	A/chicken/Astrakhan/321-05/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1846985</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039234</u>	A/chicken/Astrakhan/321-05/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	
<u>EPI1846977</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039232</u>	A/chicken/Astrakhan/321-01/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	
<u>EPI1846969</u>	Russian Federation	2020 Dec 12	<u>EPI_ISL_1039231</u>	A/chicken/Astrakhan/321-01/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	
<u>EPI1813433</u>	Russian Federation	2020 Aug 6	<u>EPI_ISL_644161</u>	A/chicken/Chelyabinsk/404/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813425</u>	Russian Federation	2020 Aug 6	<u>EPI_ISL_644160</u>	A/chicken/Chelyabinsk/403/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813409</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644158</u>	A/chicken/Omsk/0073/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813385</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644155</u>	A/chicken/Omsk/0119/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov

Segment ID	Country	Collection date	Isolate-ID	Isolate name	Originating Laboratory	Submitting Laboratory	Authors
<u>EPI1813377</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644154</u>	A/chicken/Omsk/0118/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813345</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644150</u>	A/chicken/Omsk/0112/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813329</u>	Russian Federation	2020 Aug 6	<u>EPI_ISL_644148</u>	A/chicken/Chelyabinsk/404/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813321</u>	Russian Federation	2020 Aug 6	<u>EPI_ISL_644147</u>	A/chicken/Chelyabinsk/403/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813313</u>	Russian Federation	2020 Aug 6	<u>EPI_ISL_644146</u>	A/chicken/Chelyabinsk/402/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813305</u>	Russian Federation	2020 Aug 6	<u>EPI_ISL_644145</u>	A/chicken/Chelyabinsk/401/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813265</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644140</u>	A/chicken/Omsk/0073/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy

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<u>EPI1813225</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644135</u>	A/chicken/Omsk/0119/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Marchenko, Alexander Ryzhikov Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813217</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644134</u>	A/chicken/Omsk/0118/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813153</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644126</u>	A/chicken/Omsk/0112/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1837917</u>	United Kingdom	2020 Nov 9	<u>EPI_ISL_710509</u>	A/chicken/England/033708/20	Animal and Plant Health Agency (APHA) Wageningen	Animal and Plant Health Agency (APHA)	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Germeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<u>EPI1807231</u>	Netherlands	2020 Oct 28	<u>EPI_ISL_603132</u>	A/chicken/Netherlands/20016597-026030/2020	Biovetinary Research	Wageningen Bioveterinary Research	
<u>EPI1813393</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644156</u>	A/goose/Omsk/011101/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813361</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644152</u>	A/goose/Omsk/01161/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813353</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644151</u>	A/goose/Omsk/0114/2020	State Research Center of Virology and	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey

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					Biotechnology (VECTOR)		Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<a href="#">EPI1813273</a>	Russian Federation	2020 Aug 17	<a href="#">EPI_ISL_644141</a>	A/goose/Omsk/0074/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<a href="#">EPI1813257</a>	Russian Federation	2020 Aug 17	<a href="#">EPI_ISL_644139</a>	A/goose/Omsk/0071/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<a href="#">EPI1813233</a>	Russian Federation	2020 Aug 17	<a href="#">EPI_ISL_644136</a>	A/goose/Omsk/011101/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<a href="#">EPI1813201</a>	Russian Federation	2020 Aug 17	<a href="#">EPI_ISL_644132</a>	A/goose/Omsk/01171/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<a href="#">EPI1813185</a>	Russian Federation	2020 Aug 17	<a href="#">EPI_ISL_644130</a>	A/goose/Omsk/01161/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<a href="#">EPI1813177</a>	Russian Federation	2020 Aug 17	<a href="#">EPI_ISL_644129</a>	A/goose/Omsk/0115/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov



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<u>EPI1813169</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644128</u>	A/goose/Omsk/0114/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813161</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644127</u>	A/goose/Omsk/0113/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813145</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644125</u>	A/goose/Omsk/0111/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813121</u>	Russian Federation	2020 Aug 13	<u>EPI_ISL_644122</u>	A/goose/Omsk/0002/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1814675</u>	Belgium	2020 Nov 7	<u>EPI_ISL_661313</u>	A/Anser_albifrons/Belgium/11956_005/2020	Sciensano - Animal Infectious Diseases	Sciensano, Department of Animal Infectious Diseases	Steven Van Borm, Elisabeth Mathijs, Frank Vandebussche, Thierry van den Berg, Bénédicte Lambrecht, Mieke Steensels
<u>EPI1813417</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644159</u>	A/duck/Omsk/0076/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813337</u>	Russian Federation	2020 Aug 13	<u>EPI_ISL_644149</u>	A/duck/Omsk/0004/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov

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<u>EPI1813297</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644144</u>	A/duck/Omsk/0077/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813289</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644143</u>	A/duck/Omsk/0076/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813281</u>	Russian Federation	2020 Aug 17	<u>EPI_ISL_644142</u>	A/duck/Omsk/0075/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813137</u>	Russian Federation	2020 Aug 13	<u>EPI_ISL_644124</u>	A/duck/Omsk/0004/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1812375</u>	Netherlands	2020 Nov 2	<u>EPI_ISL_632315</u>	A/eurasian_teal/Netherlands/20016896-013/2020	Wageningen Bioveterinary Research	Wageningen Bioveterinary Research	Nancy Beerens, Frank Harders, Sylvia Verschuren-Pritz, Marit Roose, Evelien Gemeraad, Marc Engelsma, Alex Bossers, Rene Heutink
<u>EPI1813129</u>	Russian Federation	2020 Aug 13	<u>EPI_ISL_644123</u>	A/turkey/Omsk/0003/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov
<u>EPI1813113</u>	Russian Federation	2020 Aug 13	<u>EPI_ISL_644121</u>	A/turkey/Omsk/0001/2020	State Research Center of Virology and Biotechnology (VECTOR)	State Research Center of Virology and Biotechnology (VECTOR)	Natalia Goncharova, Ivan Susloparov, Natalia Kolosova, Alexey Danilenko, Juliya Bulanovich, Vasiliy Marchenko, Alexander Ryzhikov

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<u>EPI1813830</u>	Sweden	2020 Nov 13	<u>EPI_ISL_647969</u>	A/Turkey/Sweden/SVA20111 4SZ0001/20KN303106/2020	National Veterinary Institute, SVA	National Veterinary Institute	

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\*GISAID, <https://www.gisaid.org>.