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# Supplementary material

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Phylogenetic analysis of avian influenza viruses from migratory waterfowl at Pacific wetlands

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Table S1. Number of reads obtained

Sample	all reads	unique reads <sup>1</sup>	influenza reads
A/green winged teal/Mexico-Sonora/1116/2009 (H10N7)	5 2 6 0 5 9 9	548 112	382 955
A/green winged teal/Mexico-Sonora/1132/2009 (H10N3)	7318431	2 106 937	192 033
A/green winged teal/Mexico-Sonora/266/2008 (H6N1)	8 9 9 0 4 3 8	813 130	122616
A/redhead/Mexico-Sonora/408/2008 (H5N2)	7011978	834 433	235 457
A/green winged teal/Mexico-Sonora/701/2008 (H11N3)	7 561 429	832 664	224200
A/northern shoveler/Mexico-Sonora/738/2008 (H6N1)	6081579	503 53 1	302830
A/American wigeon/Mexico-Sonora/769/2008 (H9N2)	10 008 629	1910239	580 907
A/northern shoveler/Mexico-Sonora/797/2008 H5N3)	10902300	2589322	582 465
A/green winged teal/Mexico-Sonora/829/2009 (H6N5)	7855551	1928906	310219

<sup>&</sup>lt;sup>1</sup> Low quality reads were eliminated and duplicated reads were colapsed.

Table S2. Number of sequences used in phylogenetic analyses

	Segment	Number of selected sequences	This study sequences	Total sequences
	PB1	95	5	100
	PB2	78	6	84
	PA	67	5	72
	NP	89	7	96
	M	49	5	54
	NS	98	6	104
	H5	81	1	82
	H6	62	3	65
	H9	96	1	97
	H10	30	1	31
	H11	22	1	23
	N1	177	2	179
	N2	297	1	298
	N3	41	2	43
	N5	42	1	43
	N7	32	1	33

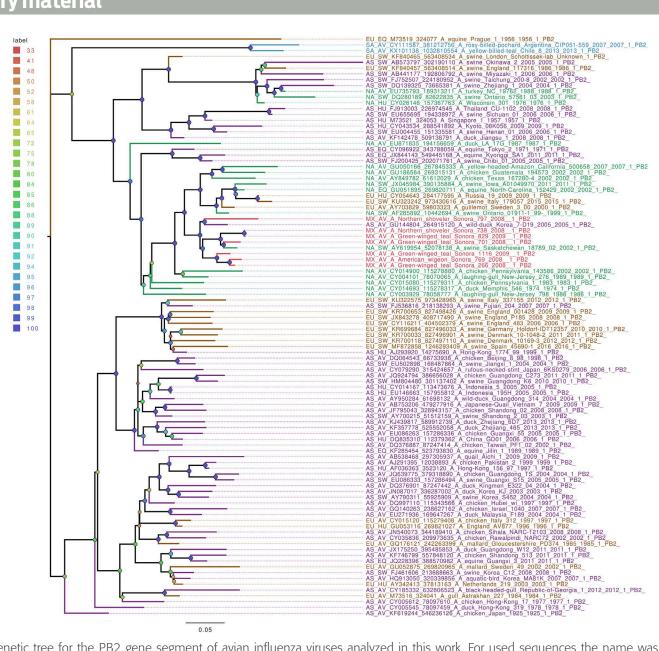


Figure S1. The phylogenetic tree for the PB2 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

Figure S2. The phylogenetic tree for the PB1 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

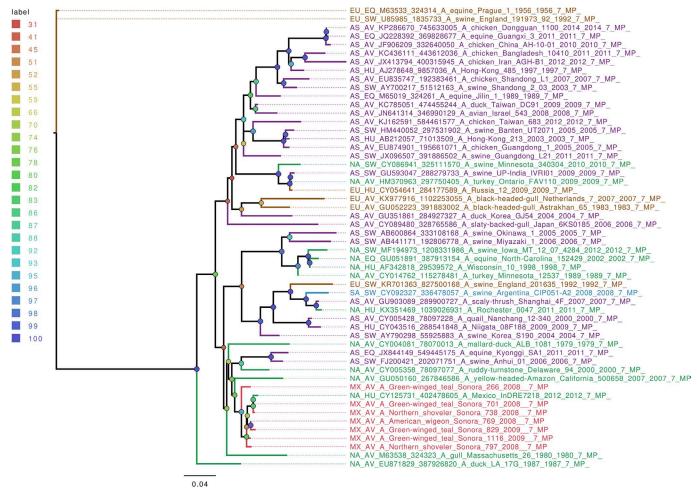


Figure S3. The phylogenetic tree for the M gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

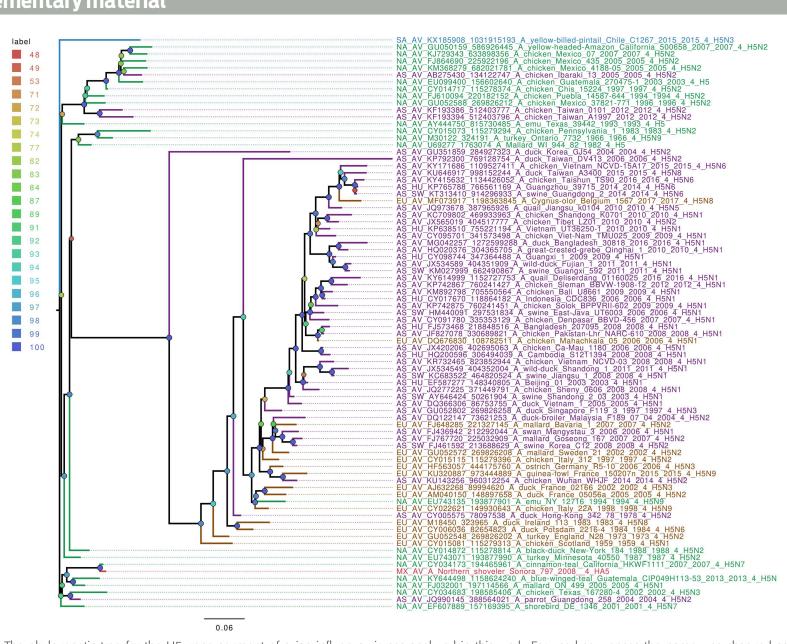


Figure S4. The phylogenetic tree for the H5 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

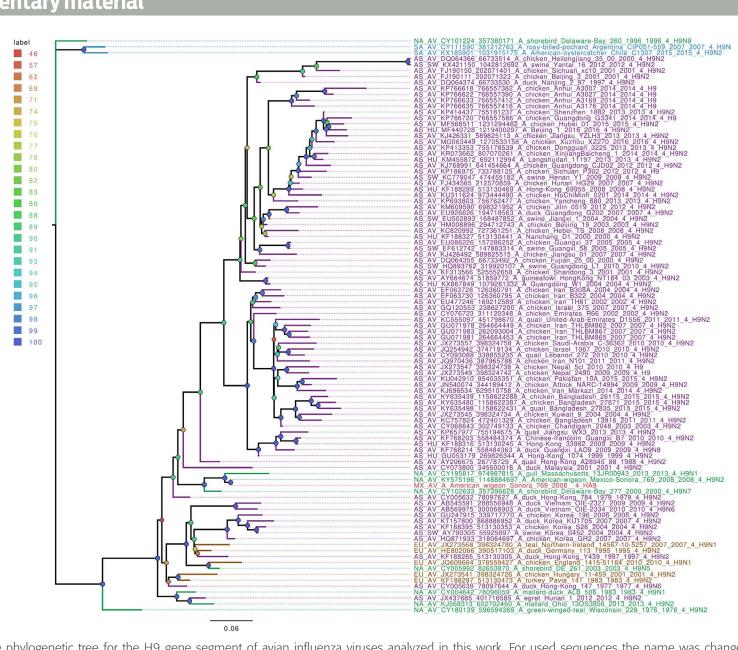


Figure S5. The phylogenetic tree for the H9 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

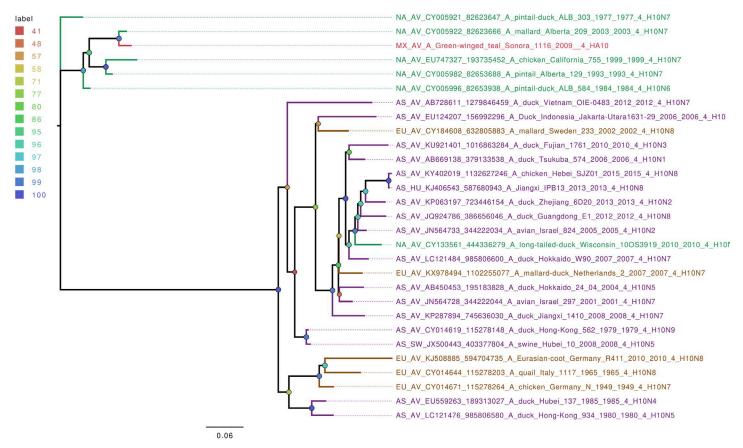


Figure S6. The phylogenetic tree for the H10 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

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Figure S7. The phylogenetic tree for the N1 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

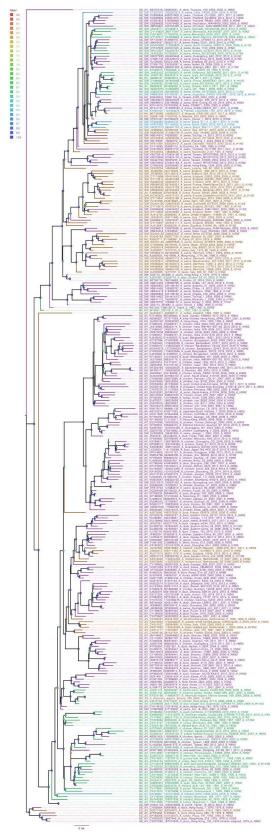


Figure S8. The phylogenetic tree for the N2 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

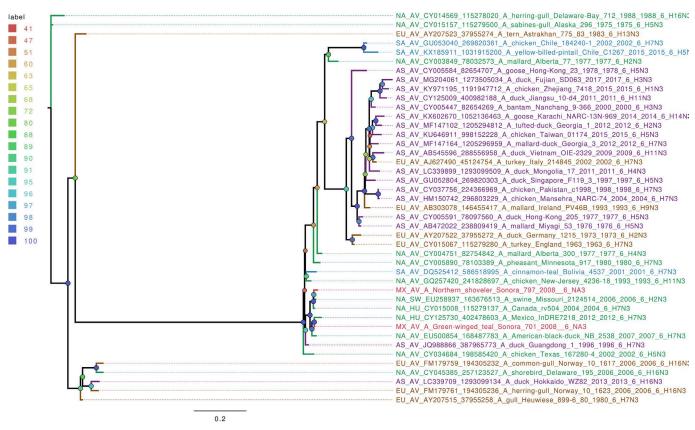


Figure S9. The phylogenetic tree for the N3 gene segment of avian influenza viruses analyzed in this work. For used seguences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

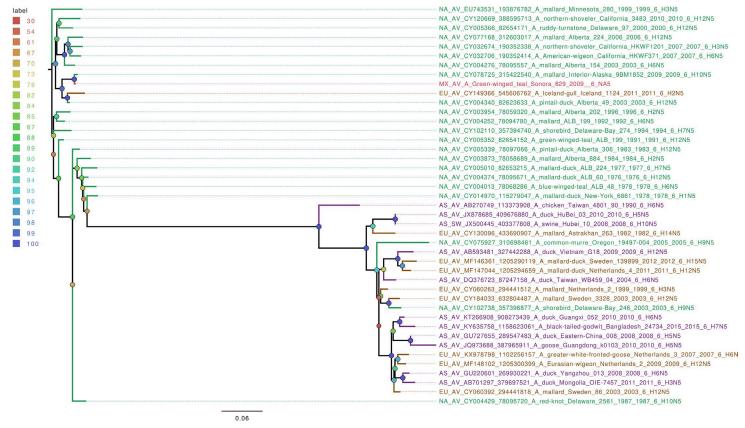


Figure S10. The phylogenetic tree for the N5 gene segment of avian influenza viruses analyzed in this work. For used sequences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).

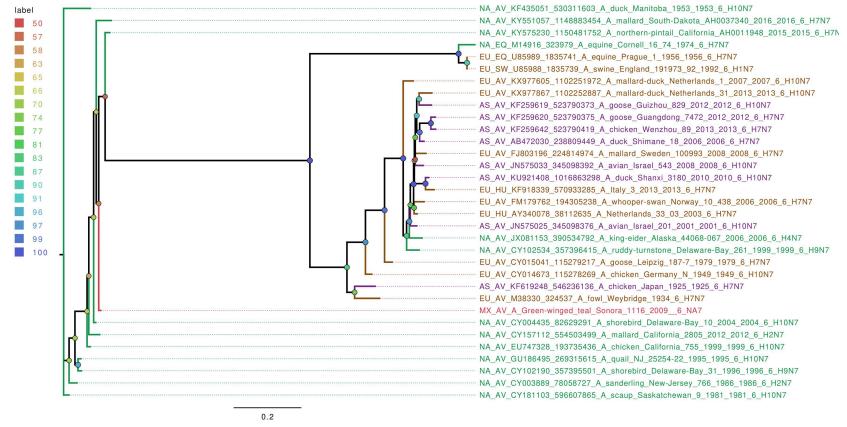


Figure S11. The phylogenetic tree for the N7 gene segment of avian influenza viruses analyzed in this work. For used seguences the name was changed as follows: continent of origin, source, gi and accession number, virus name, segment number and segment name. In phylogenetic trees, following area code was used: Europe (EU), North America (NA), South America (SA), Asia (AS) and Mexico-this work (MX). The bootstrap value for each split is shown in a circle with the intensity color code indicating its value as a percentage. Color code of continent of origin is as follows: green North America (NA), blue South America (SA), brown Europe (EU) purple Asia (AS), red samples sequences in this work (MX).