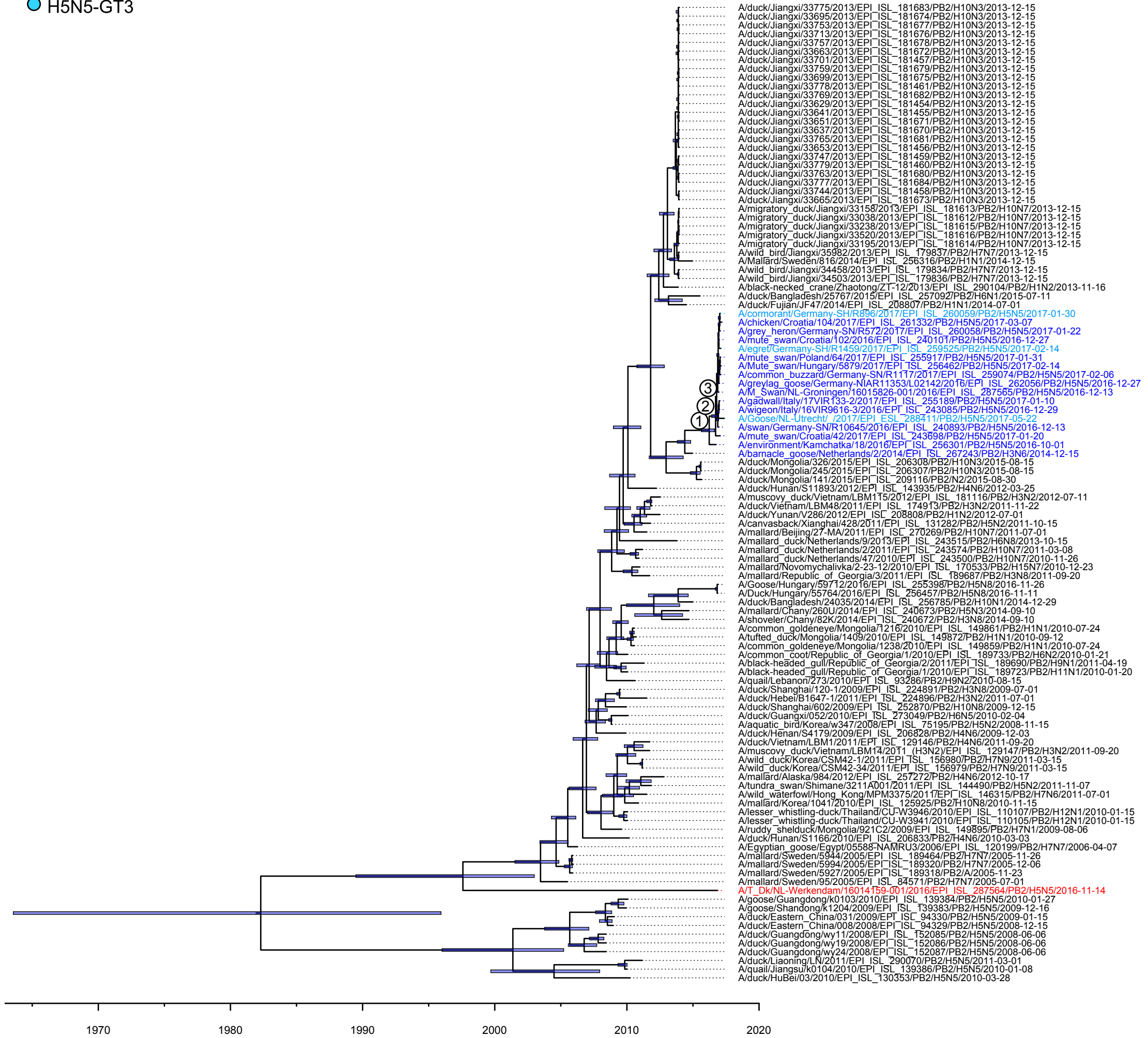


Figure S3. Maximum clade credibility trees. Maximum clade credibility (MCC) trees were generated to estimate the median time to the most recent common ancestor (TMRCA) for each gene segment of highly pathogenic avian influenza (HPAI) H5N5 viruses isolated during the HPAI H5 2016-2017 epizootic. The H5N5 virus sequences are coloured according to their genotype (H5N5-GT1, red; H5N5-GT2, dark blue; H5N5-GT3, light blue). The median TMRCAs estimates were determined for H5N5-GT2 viruses (node 1), European H5N5-GT2 viruses (node 2), and H5N5-GT3 viruses (node 3). The estimated TMRCAs, the 95% highest posterior density (HPD) intervals and posterior values for each of the numbered nodes are listed in Table 2. PB2, polymerase basic 2; PB1, polymerase basic 1; PA, polymerase acidic; HA, hemagglutinin; NP, nucleoprotein; NA, neuraminidase; MP, matrix protein; NS, nonstructural protein.

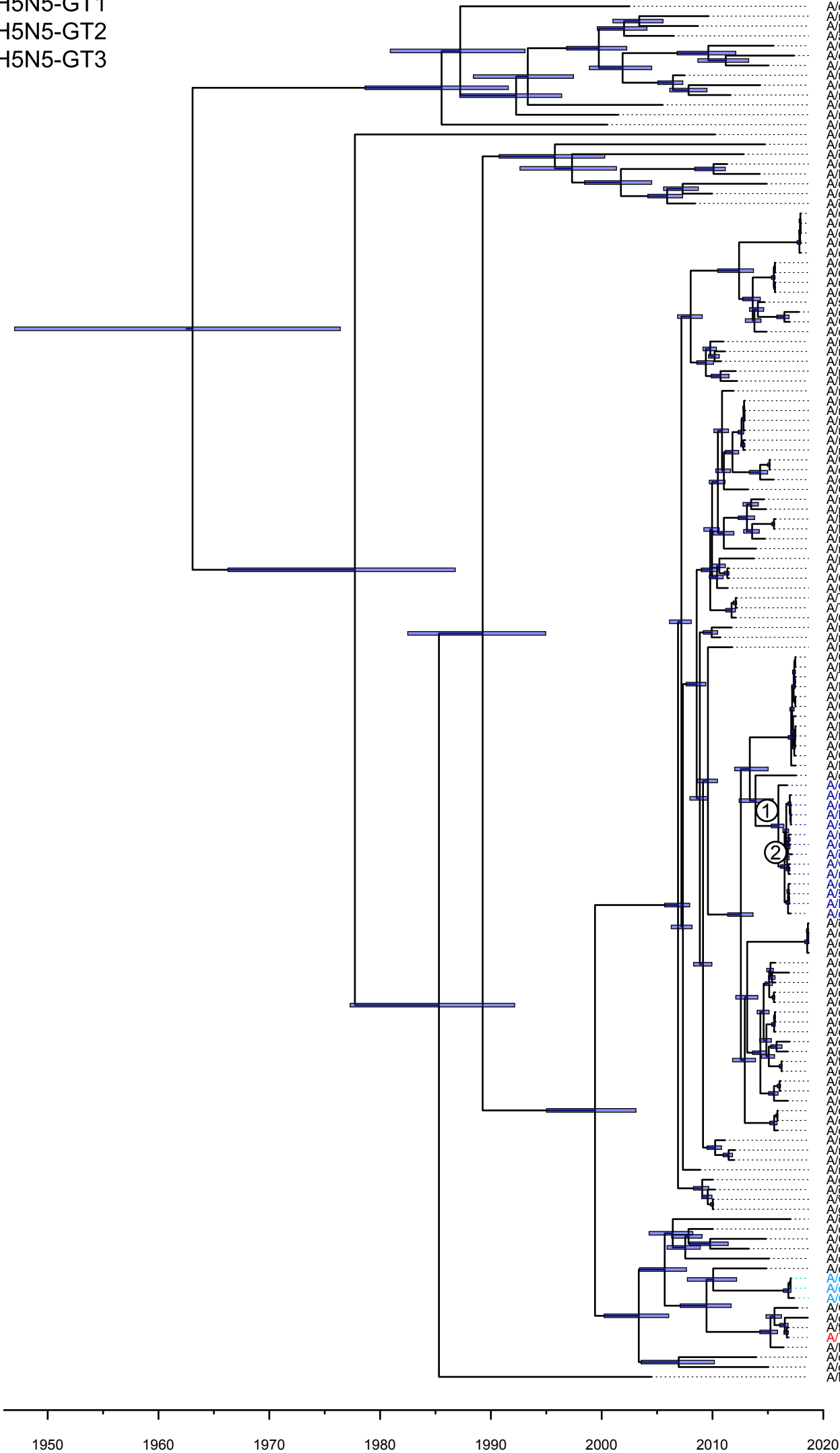
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- H5N5-GT2
- H5N5-GT3



PB1 H5N5-GT2

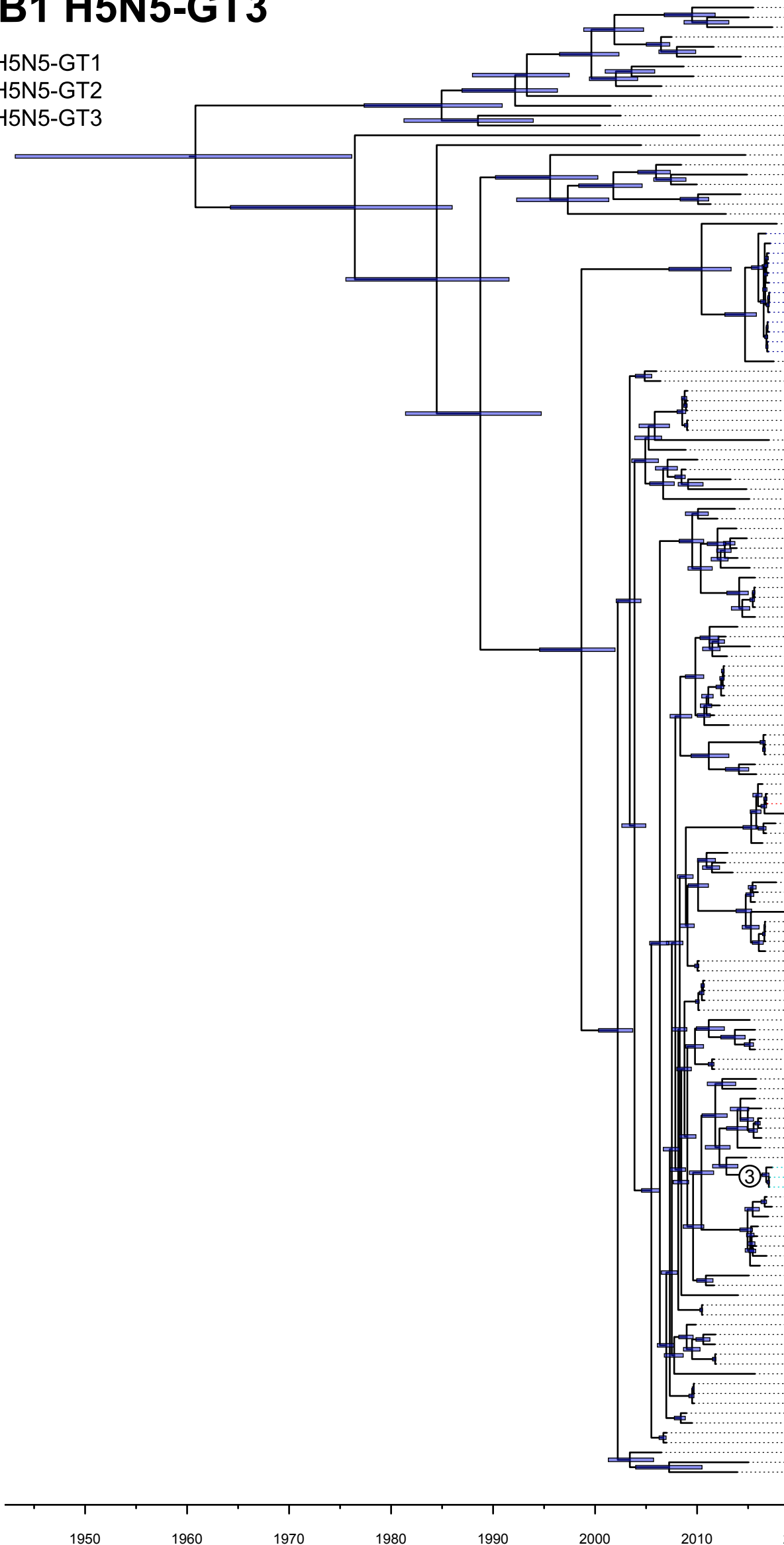
- H5N5-GT1
- H5N5-GT2
- H5N5-GT3



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PB1 H5N5-GT3

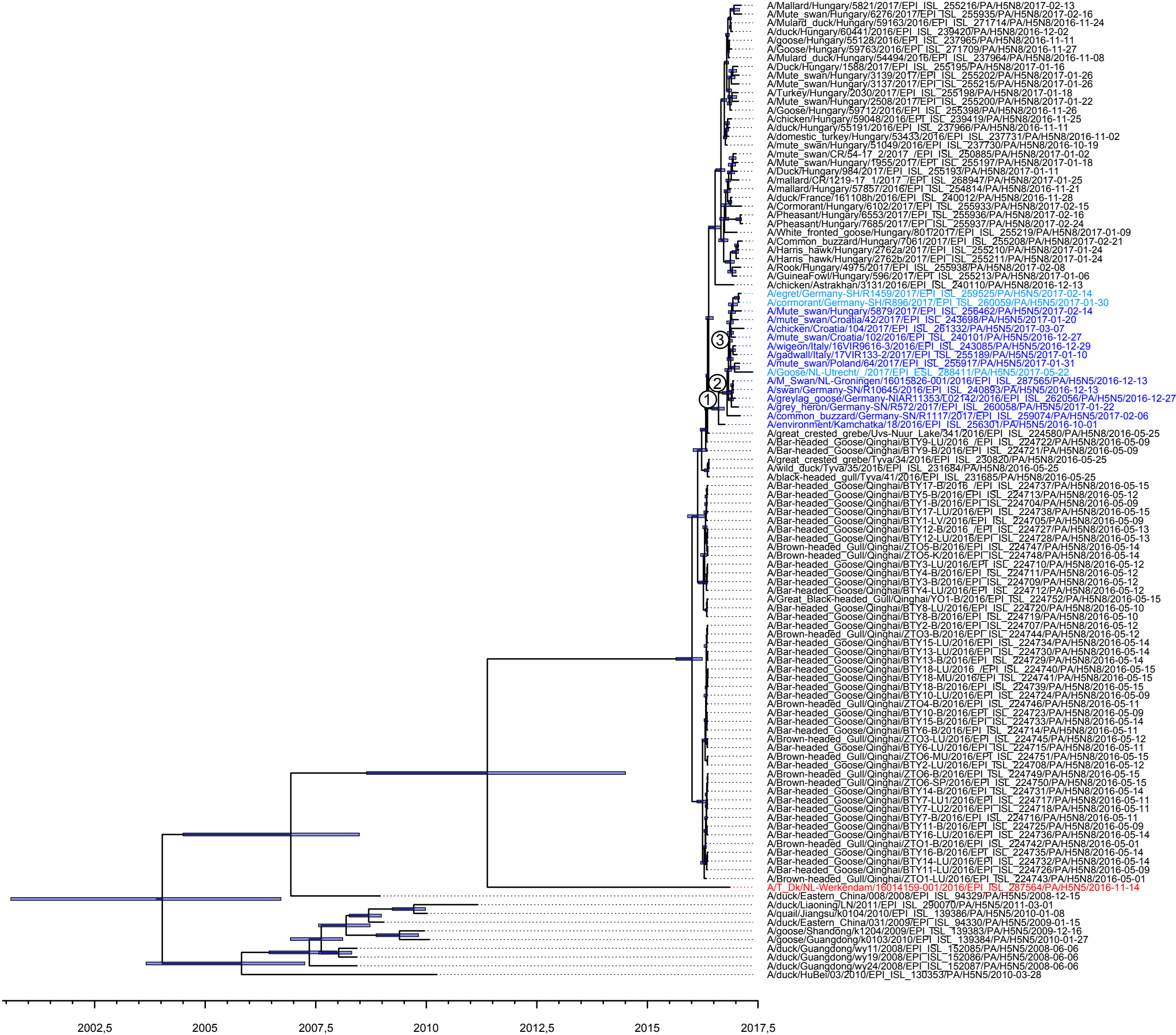
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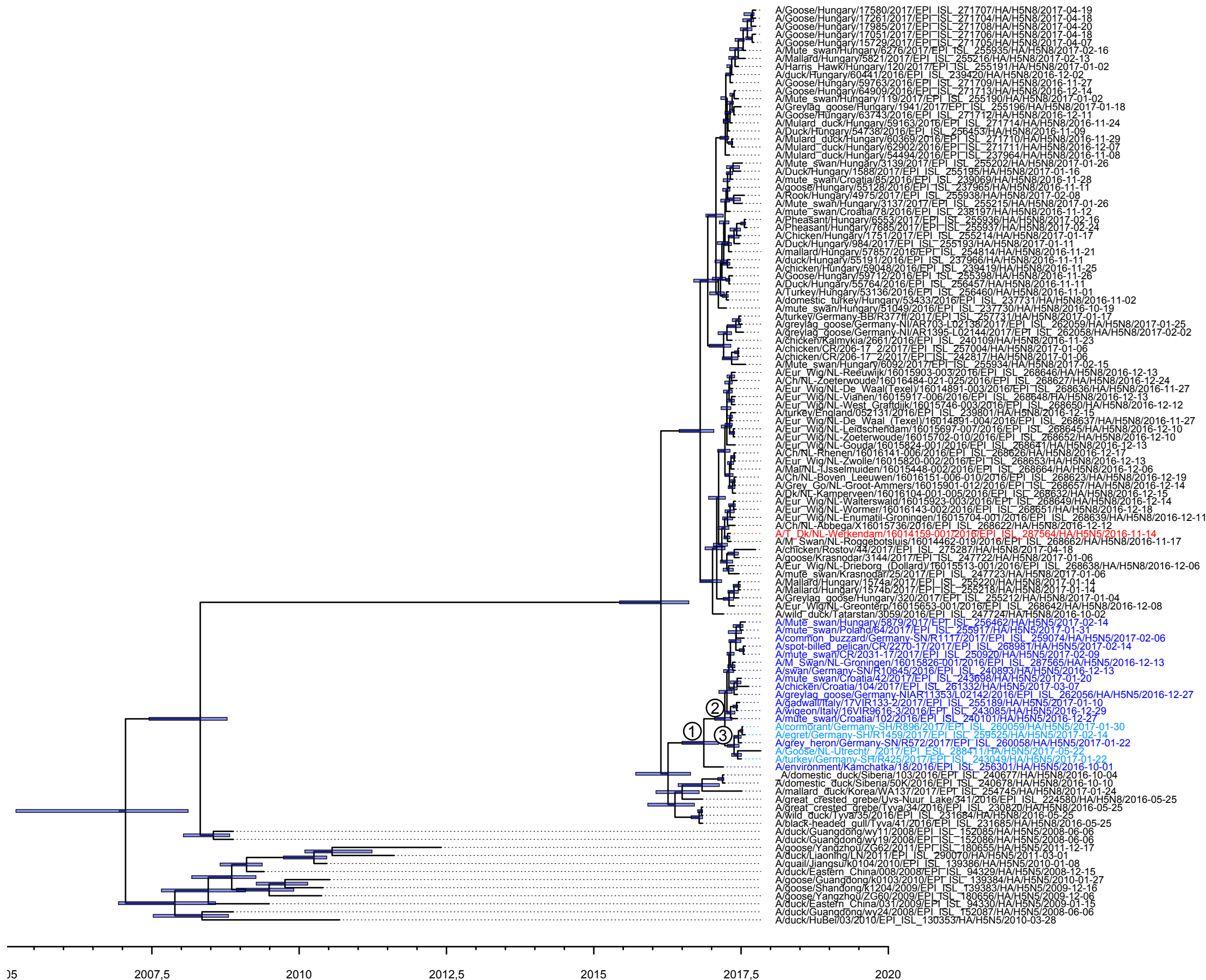
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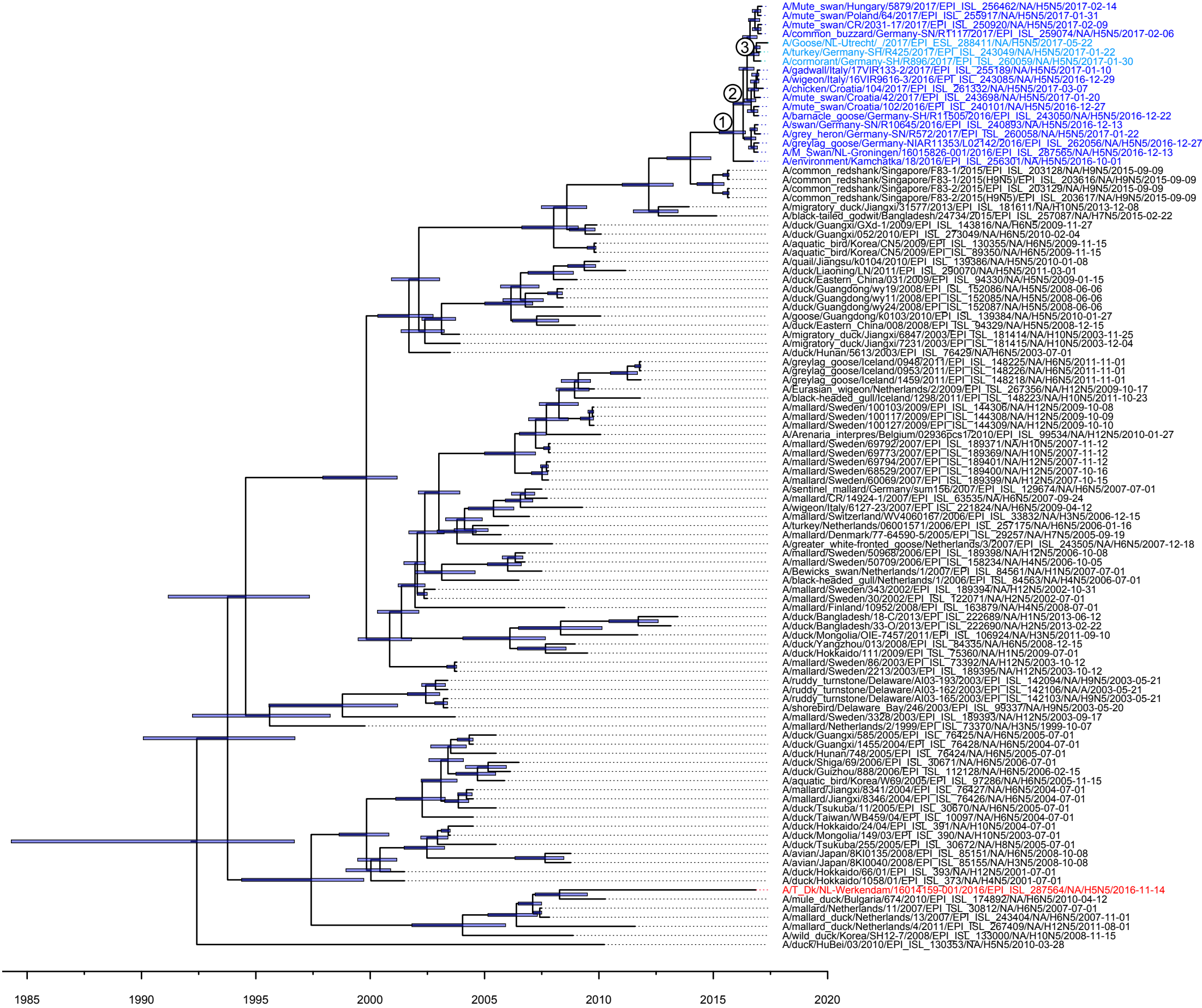
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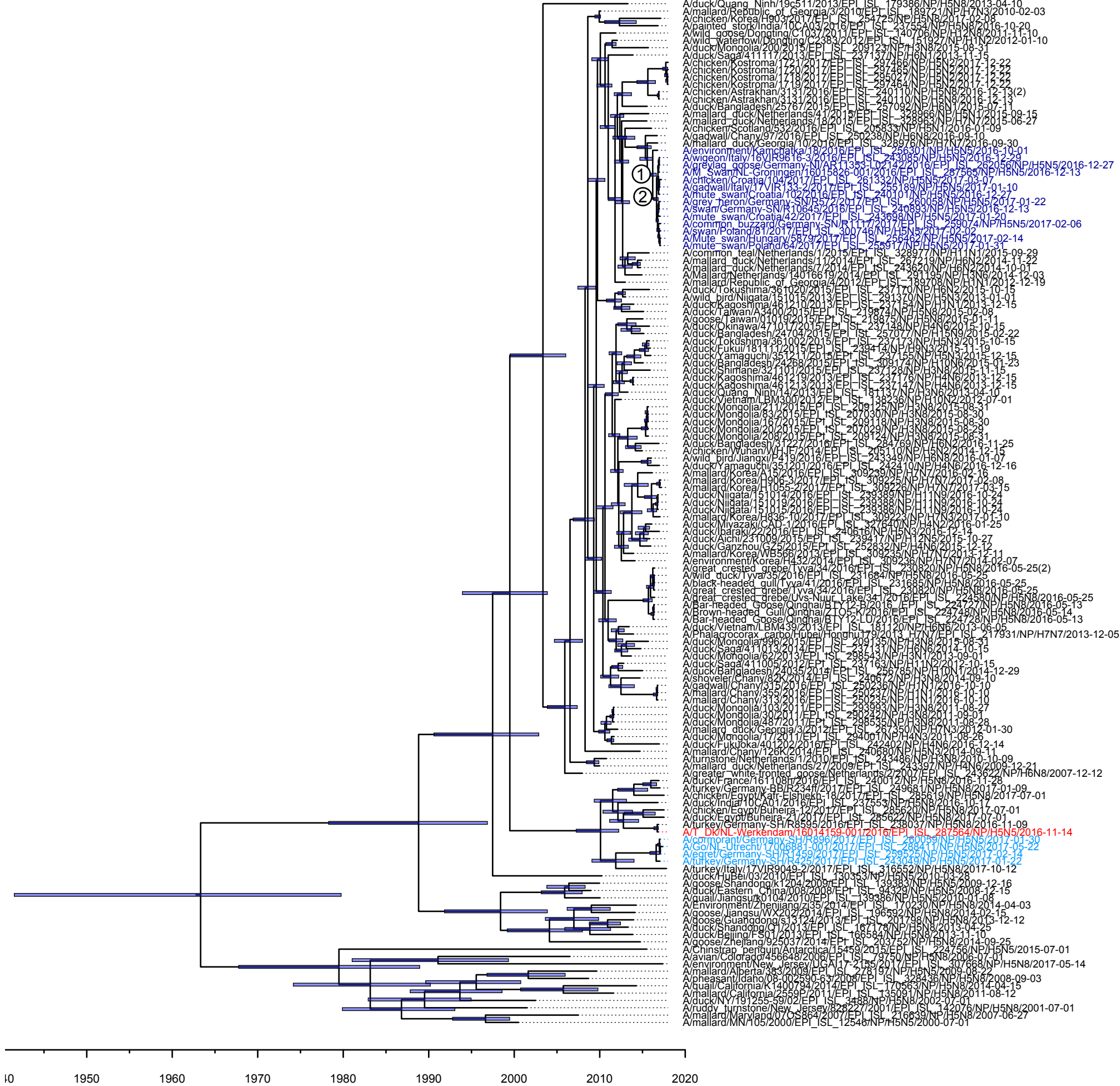
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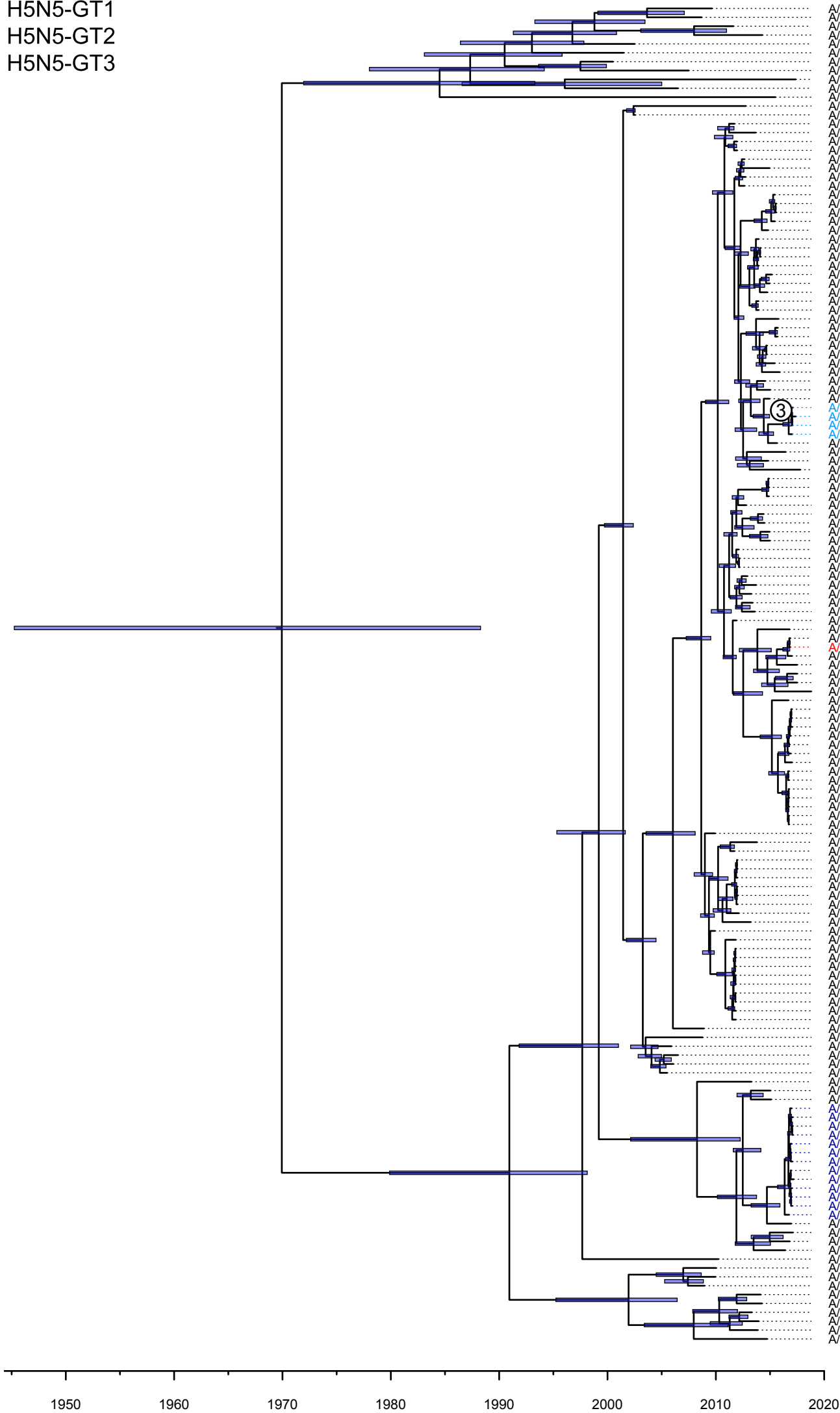
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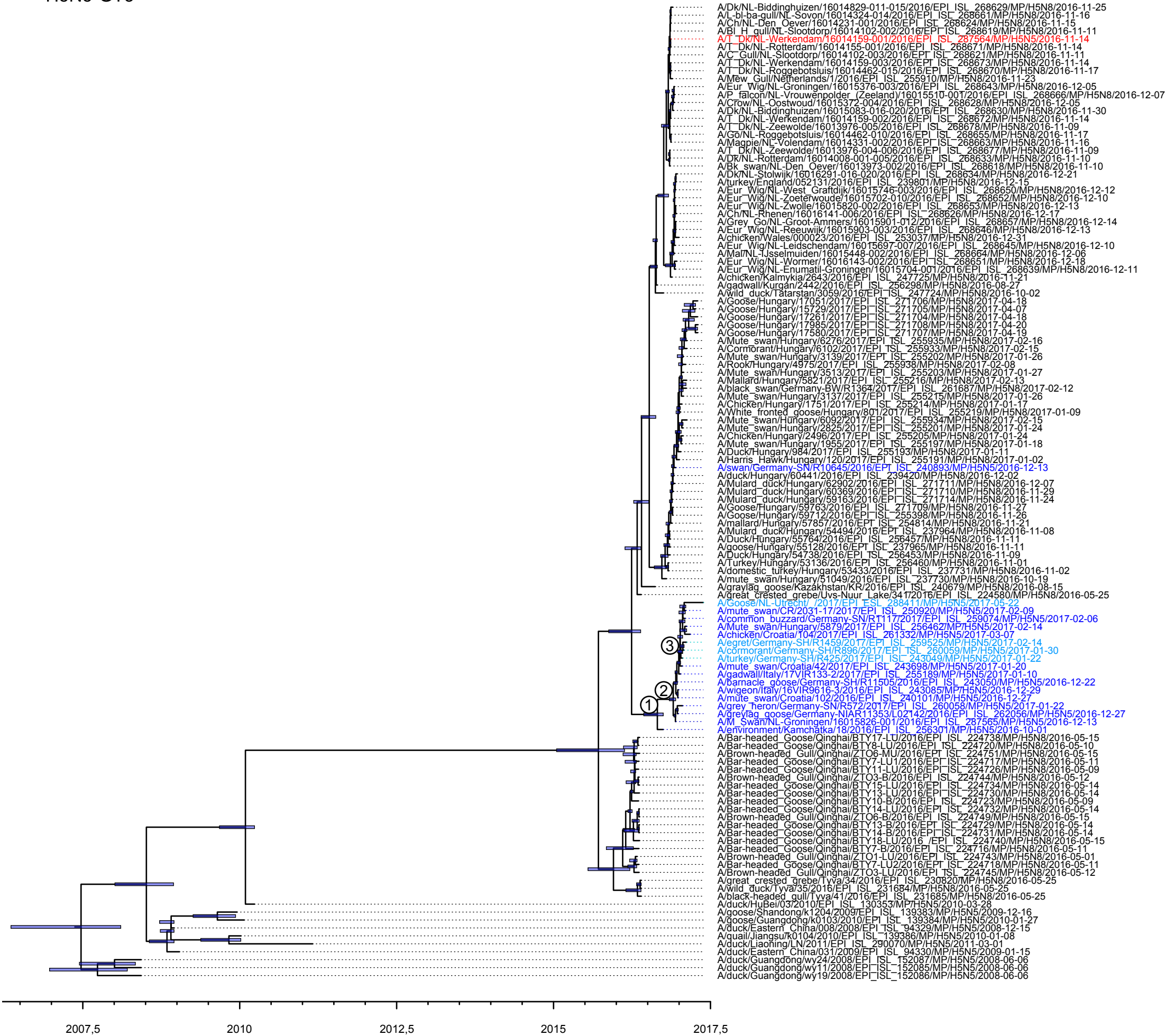
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A/greylag goose/Iceland/0961/2017/EPI_ISL_148227/NP/H6N8/2011-11-01
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A/greylag goose/Iceland/0980/2017/EPI_ISL_148228/NP/H6N8/2011-11-01
A/greylag goose/Iceland/1482/2017/EPI_ISL_148220/NP/H6N8/2011-11-01
A/mallard Sweden/80415/2008/EPI_ISL_68367/NP/A/2008-10-08
A/mallard duck/Netherlands/6/2005/EPI_ISL_239036/NP/H5N2/2005-11-25
A/Eurasian wigeon/Netherlands/1/2006/EPI_ISL_30804/NP/H3N8/2006-07-01
A/greater white-fronted goose/Netherlands/4/2006/EPI_ISL_23599/NP/H6N8/2006-01-27
A/black-headed gull/Netherlands/1/2006/EPI_ISL_30809/NP/H6N8/2006-07-01
A/goose/Taiwan/01019/2015/EPI_ISL_219875/NP/H5N8/2015-01-14
A/duck/Taiwan/A3400/2015/EPI_ISL_219874/NP/H5N8/2015-02-08
A/mute swan/Croatia/102/2016/EPI_ISL_240101/NP/H5N5/2016-12-27
A/common buzzard/Germany-NI/AR1353-102/2016/EPI_ISL_282056/NP/H5N5/2016-12-06
A/mute swan/Poland/64/2017/EPI_ISL_255917/NP/H5N5/2017-01-31
A/mute swan/Hungary/5879/2017/EPI_ISL_256452/NP/H5N5/2017-02-14
A/greylag goose/Germany-NI/AR1353-102/2016/EPI_ISL_282056/NP/H5N5/2016-12-27
A/swan/Germany-SH/R10845/2016/EPI_ISL_240808/NP/H5N5/2017-01-22
A/grey heron/Germany-SH/R35/2016/EPI_ISL_287565/NP/H5N5/2016-12-13
A/mute swan/NL-Groningen/16015826-001/2018/EPI_ISL_287565/NP/H5N5/2016-12-13
A/chicken/Croatia/104/2017/EPI_ISL_281332/NP/H5N5/2017-03-07
A/qadwall/Italy/16VR616-2/2017/EPI_ISL_253081/NP/H5N8/2016-01-10
A/wigeon/Italy/16VR616-2/2017/EPI_ISL_253081/NP/H5N8/2016-01-10
A/mute swan/Croatia/42/2017/EPI_ISL_243698/NP/H5N5/2017-01-20
A/environment/Kamchatka/18/2016/EPI_ISL_256301/NP/H5N5/2016-10-01
A/chicken/Astrakhan/3/31/2018/EPI_ISL_230710/NP/H5N8/2016-12-13
A/chicken/Korea/H9/2018/EPI_ISL_230710/NP/H5N8/2016-12-13
A/painted stork/India/10CA03/2018/EPI_ISL_237553/NP/H5N8/2016-10-20
A/great crested grebe/Lyva/34/2016/EPI_ISL_230820/NP/H5N8/2016-05-25
A/duck/HuBei/03/2010/EPI_ISL_130333/NP/H5N5/2010-01-08
A/quail/Jiangsu/K104/2010/EPI_ISL_130333/NP/H5N5/2010-01-08
A/goose/Shandong/K1204/2009/EPI_ISL_139383/NP/H5N5/2009-12-16
A/duck/Eastern China/008/2008/EPI_ISL_94329/NP/H5N5/2008-12-15
A/goose/Jiangsu/WX202/2014/EPI_ISL_195592/NP/H5N8/2014-02-15
A/environment/Zhejiang/135/2015/EPI_ISL_167187/NP/H5N8/2015-04-03
A/goose/Guangdong/13124/2013/EPI_ISL_201798/NP/H5N8/2013-12-12
A/duck/Beijing/FS01/2013/EPI_ISL_166584/NP/H5N8/2013-11-10
A/goose/Zhejiang/925037/2014/EPI_ISL_203752/NP/H5N8/2014-09-25

MP

- H5N5-GT1
- H5N5-GT2
- H5N5-GT3



NS

- H5N5-GT1
- H5N5-GT2
- H5N5-GT3

