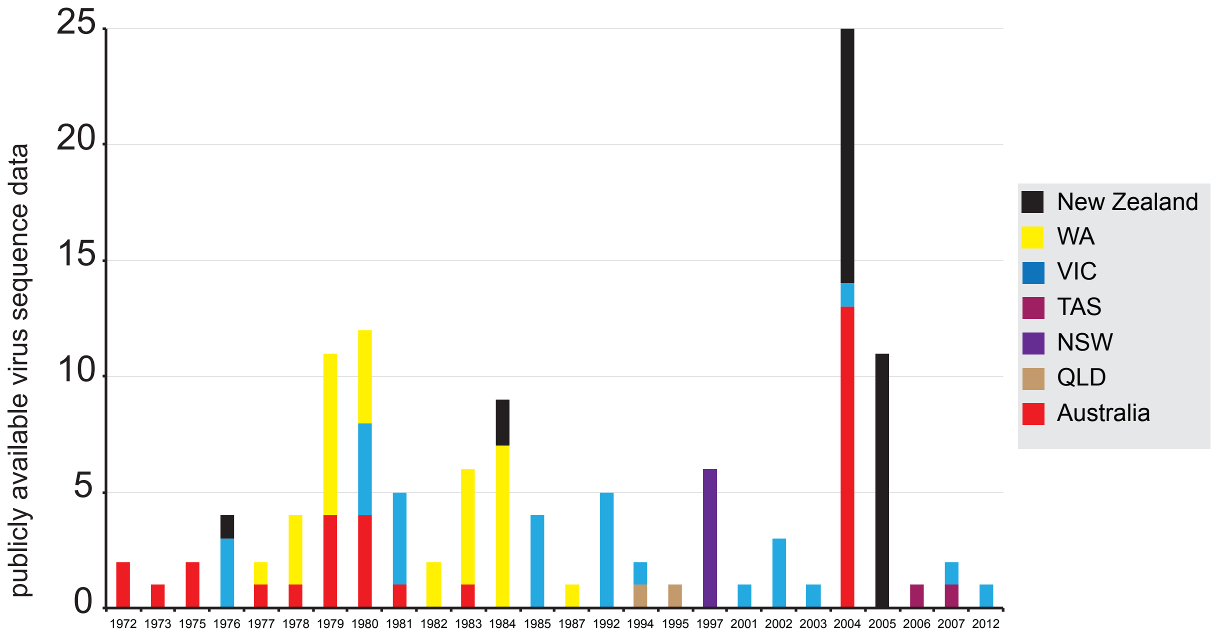
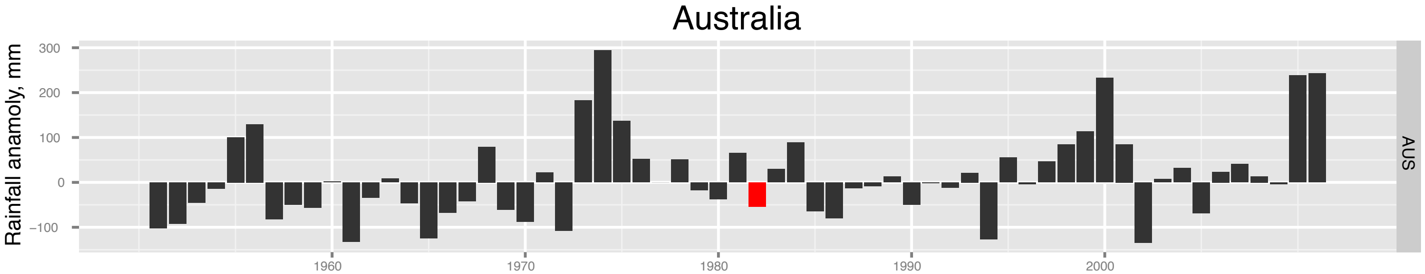


Fig S1. Distrubution of full genome sequences of avian influenza A viruses from New Zealand and all states of Australia. Viruses for which state locations are unknown are listed under Australia in red.

Fig S2. (see page 2) Annual anamoly in average rainfall during 1950–2011 in Australia. Average anamoly in rainfall for all seven states, including New South Wales, Northern Territory, Queensland, South Australia, Tasmania, Victoria and Western Australia and also six major climatological regions as listed by the Bureau of Meteorology, Australian Government are presented. Red highlights the lowest rainfall observed during 1982 across several regions in Australia.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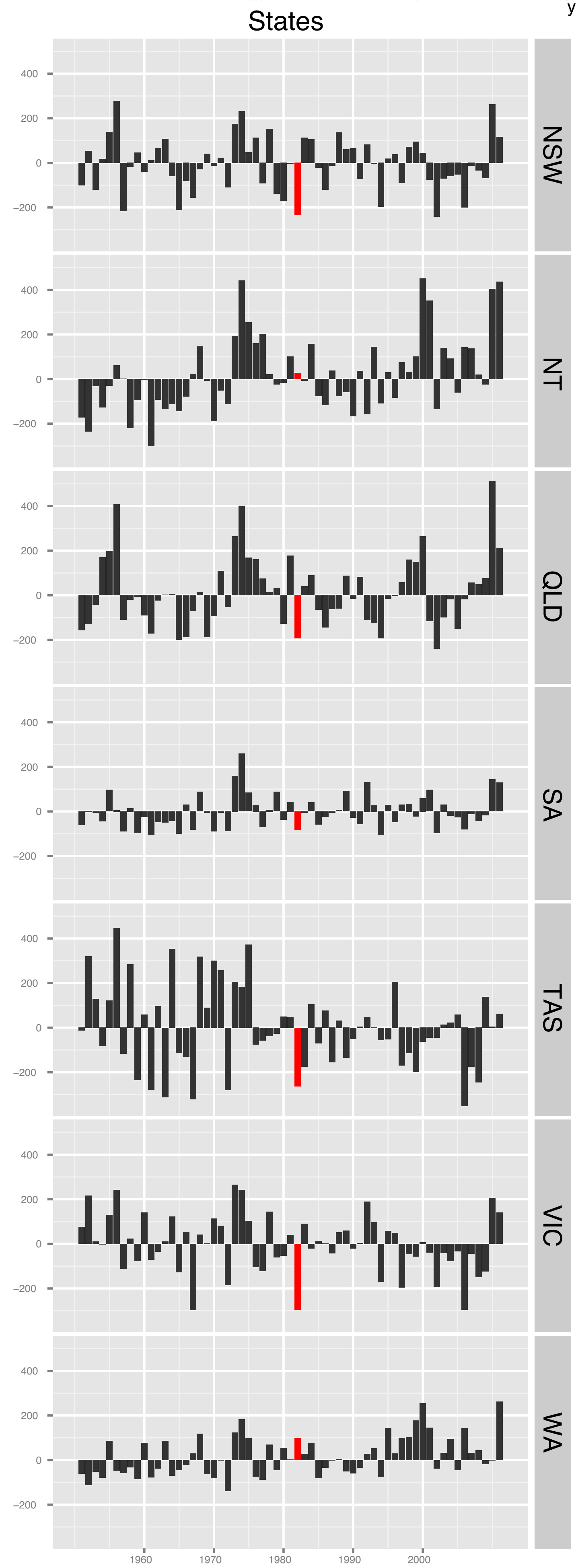
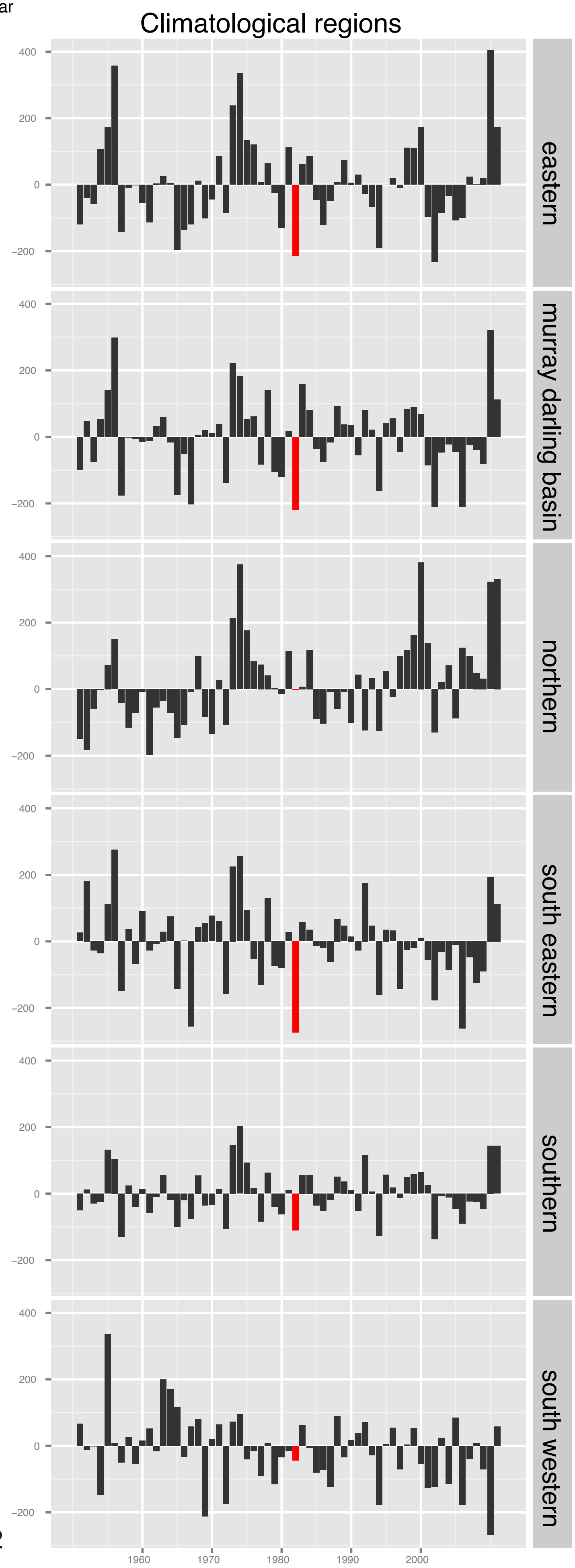
Rainfall anamoly, mm
300
200
100
0
−100
1960
1970
1980
1990
2000
year
AUS


States
400
200
0
−200
NSW
NT
QLD
SA
TAS
VIC
WA
1960
1970
1980
1990
2000


Climatological regions
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200
0
−200
eastern
murray darling basin
northern
south eastern
southern
south western
1960
1970
1980
1990
2000

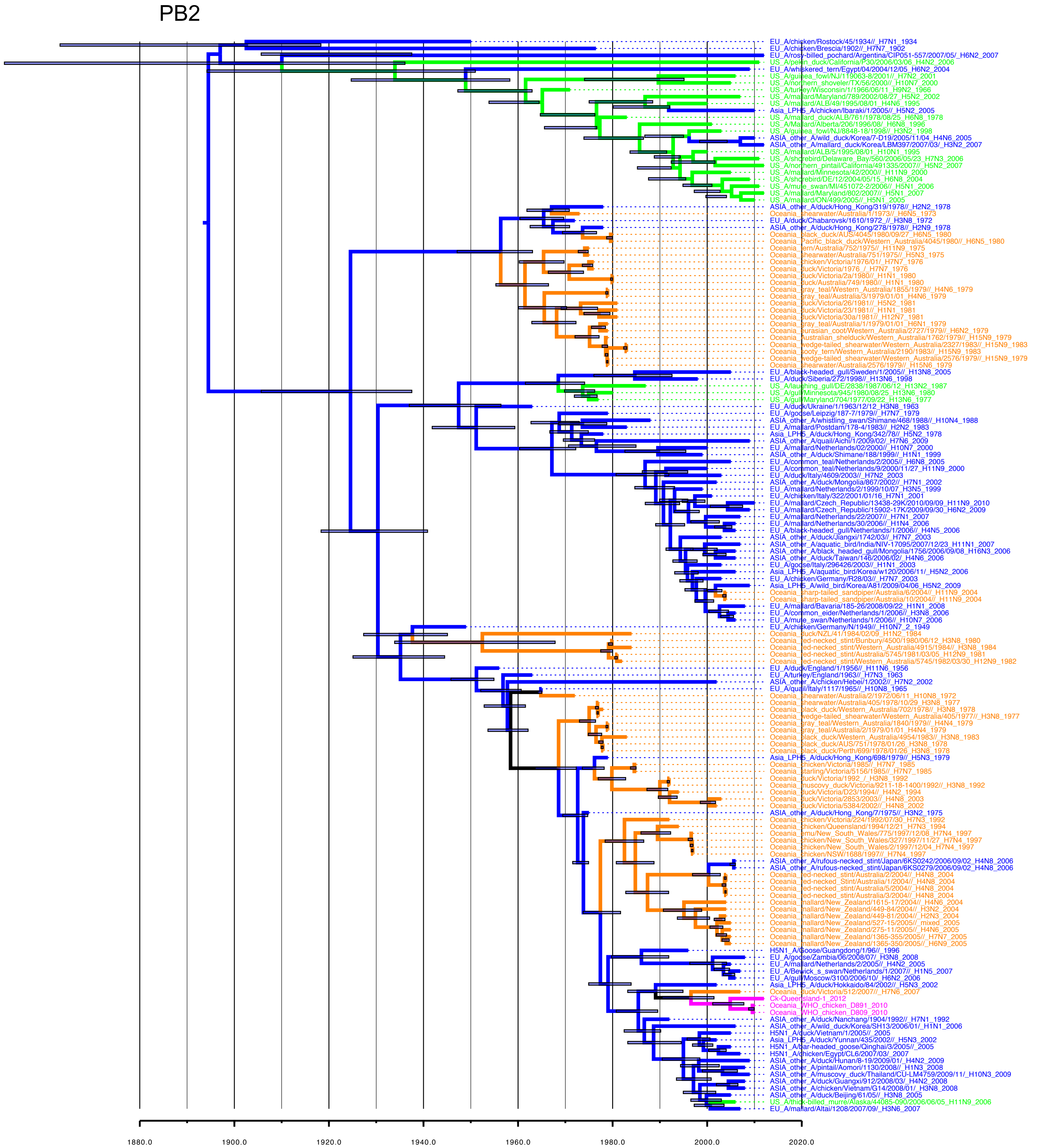
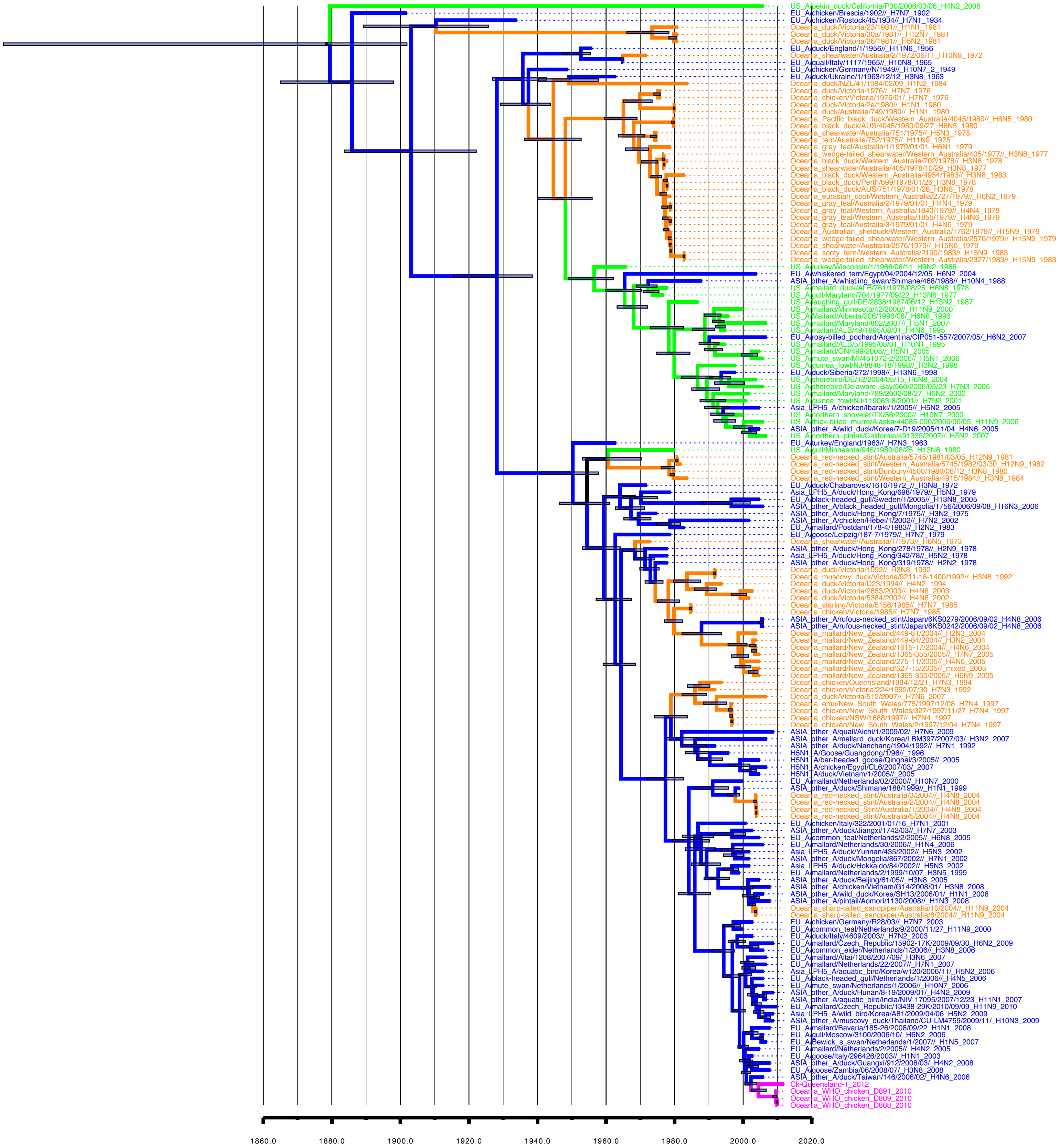


Fig S3. Phylogenies presented in Fig 3 of the main text are shown here with virus names. Phylogenetic relationship of the (a) polymerase basic 2 (PB2), (b) polymerase basic 1 (PB1), (c) polymerase acidic (PA), (d) nucleoprotein (NP), (e) matrix (M) and (f) non-structural (NS) protein genes of avian influenza viruses isolated from Oceania (orange), Eurasia (blue) and America (green) of all subtypes. Influenza A H10N7 subtype viruses isolated from Australia during 2009-2012 are highlighted in pink. The 95% credible intervals of the age of internal nodes are repreesented by blue bars

PB1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Oceania_duck/Victoria/23/1981//_H1N1_1981
Oceania_duck/Victoria/30a/1981//_H12N7_1981
Oceania_duck/Victoria/26/1981//_H5N2_1981
EU_A/duck/England/1/1956//_H11N6_1956
Oceania_shearwater/Australia/2/1972/06/11_H10N8_1972
EU_A/quail/Italy/1117/1965//_H10N8_1965
EU_A/chicken/Germany/N/1949//_H10N7_2_1949
EU_A/duck/Ukraine/1/1963/12/12_H3N8_1963
Oceania_duck/NZL/41/1984/02/09_H1N2_1984
Oceania_duck/Victoria/1976//_H7N7_1976
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Oceania_duck/Australia/749/1980//_H1N1_1980
Oceania_Pacific_black_duck/Western_Australia/4045/1980//_H6N5_1980
Oceania_black_duck/AUS/4045/1980/09/27_H6N5_1980
Oceania_shearwater/Australia/751/1975//_H5N3_1975
Oceania_tern/Australia/752/1975//_H11N9_1975
Oceania_gray_teal/Australia/1/1979/01/01_H6N1_1979
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Oceania_eurasian_coot/Western_Australia/2727/1979//_H6N2_1979
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Oceania_wedge-tailed_shearwater/Western_Australia/2327/1983//_H15N9_1983
US_A/turkey/Wisconsin/1/1966/06/11_H9N2_1966
EU_A/whiskered_tern/Egypt/04/2004/12/05_H6N2_2004
ASIA_other_A/whistling_swan/Shimane/468/1988//_H10N4_1988
US_A/mallard_duck/ALB/761/1978/08/25_H6N8_1978
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US_A/mallard/Maryland/802/2007//_H5N1_2007
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EU_A/rosy-billed_pochard/Argentina/CIP051-557/2007/05/_H6N2_2007
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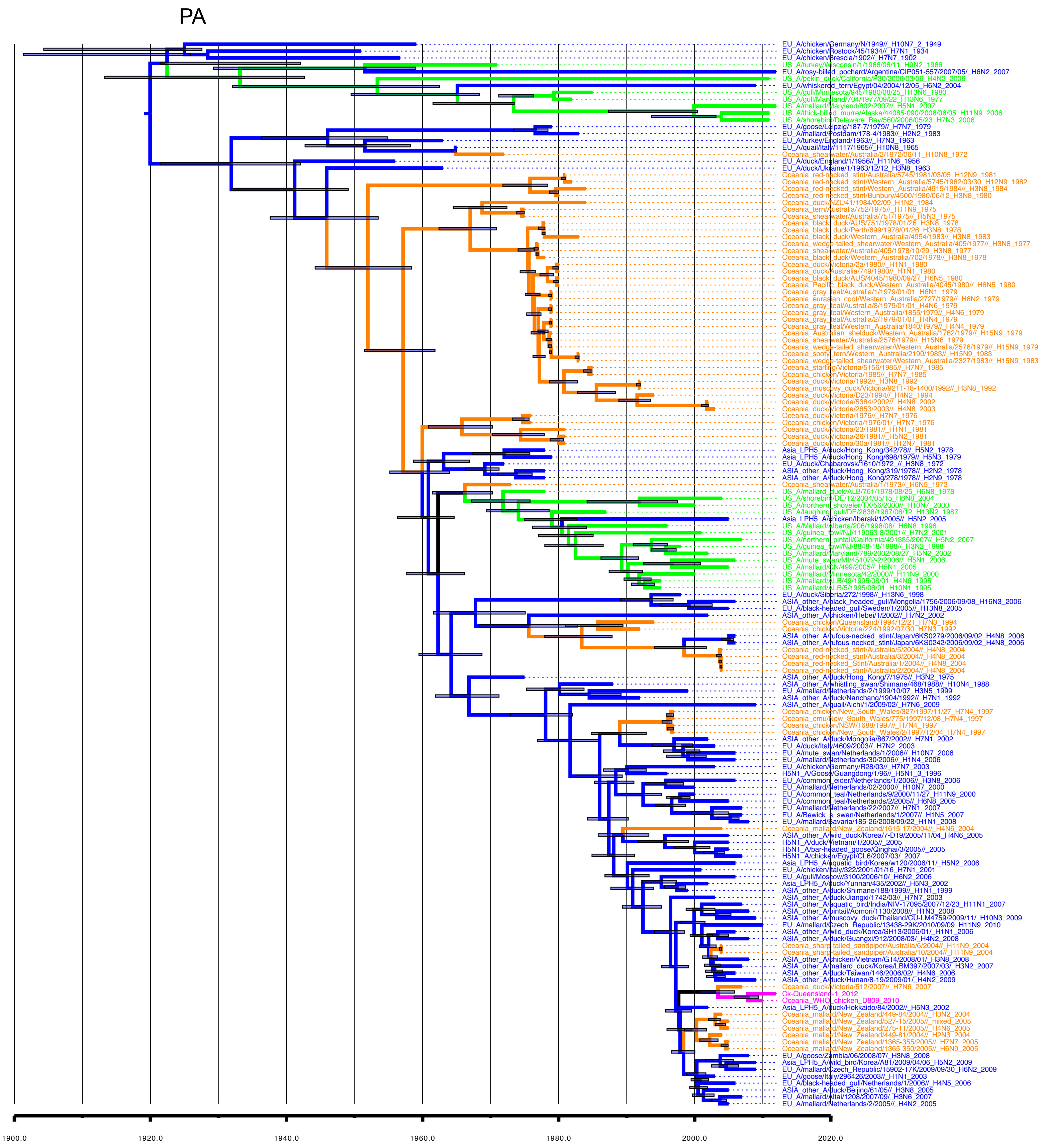
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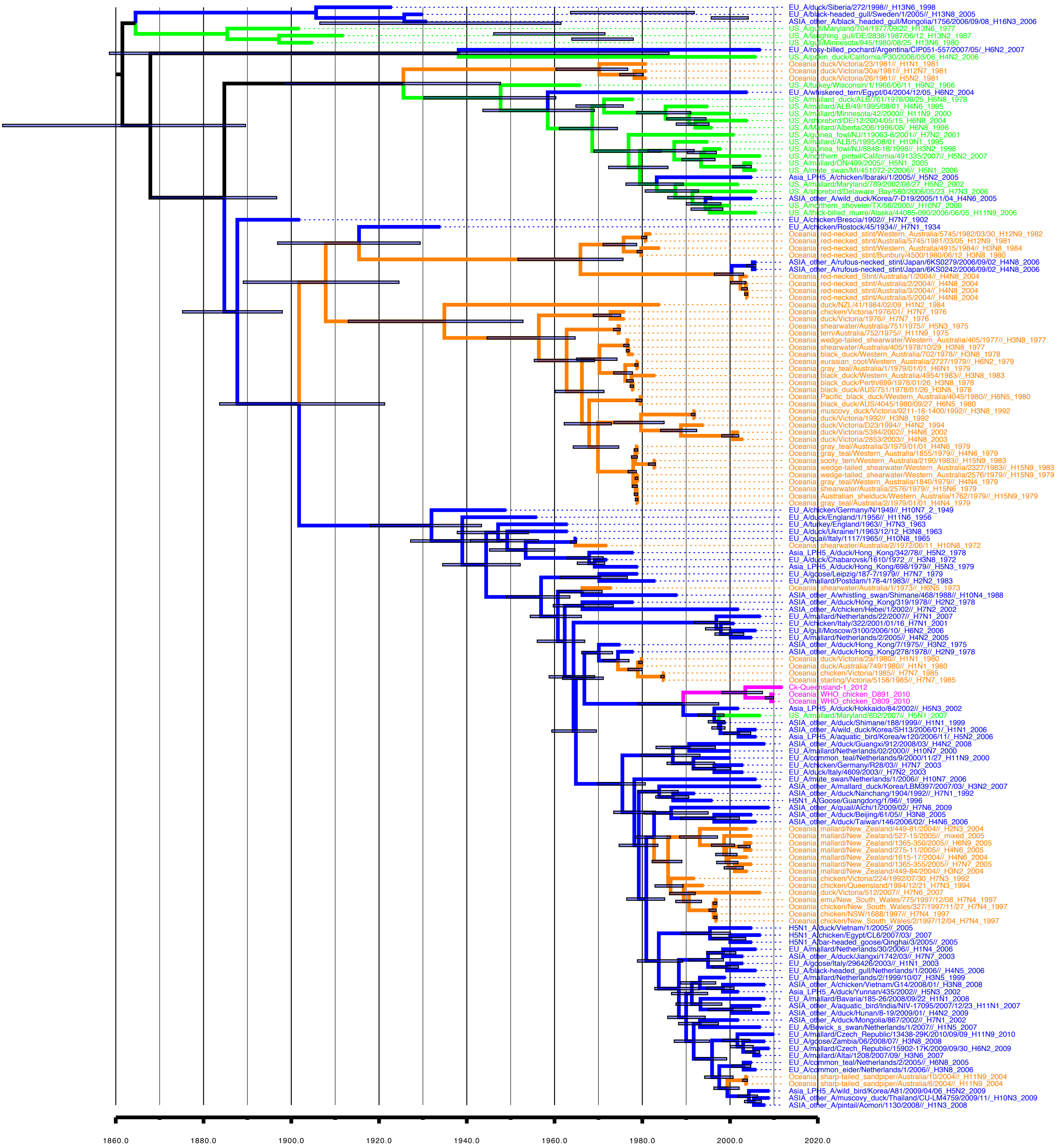

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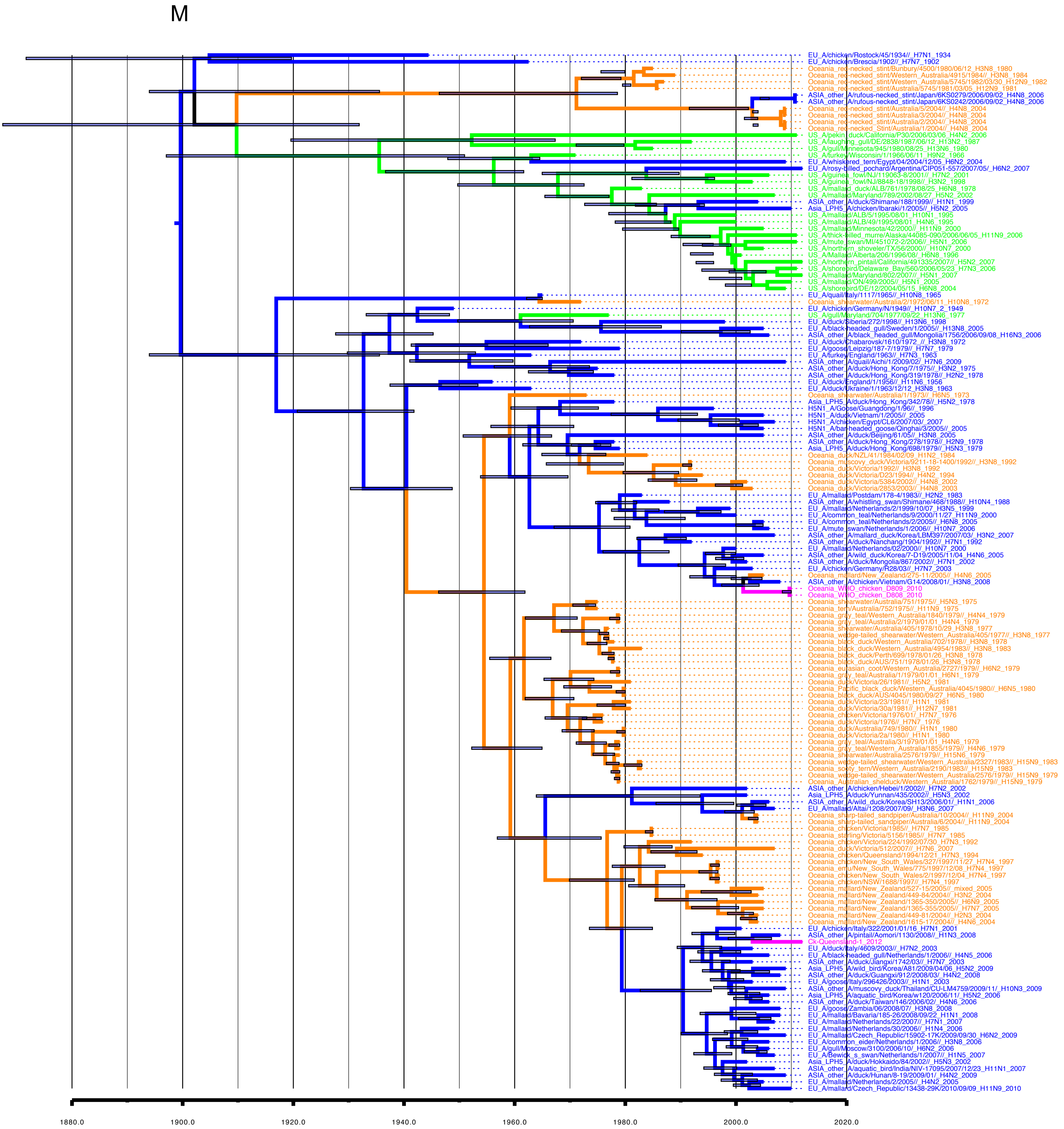
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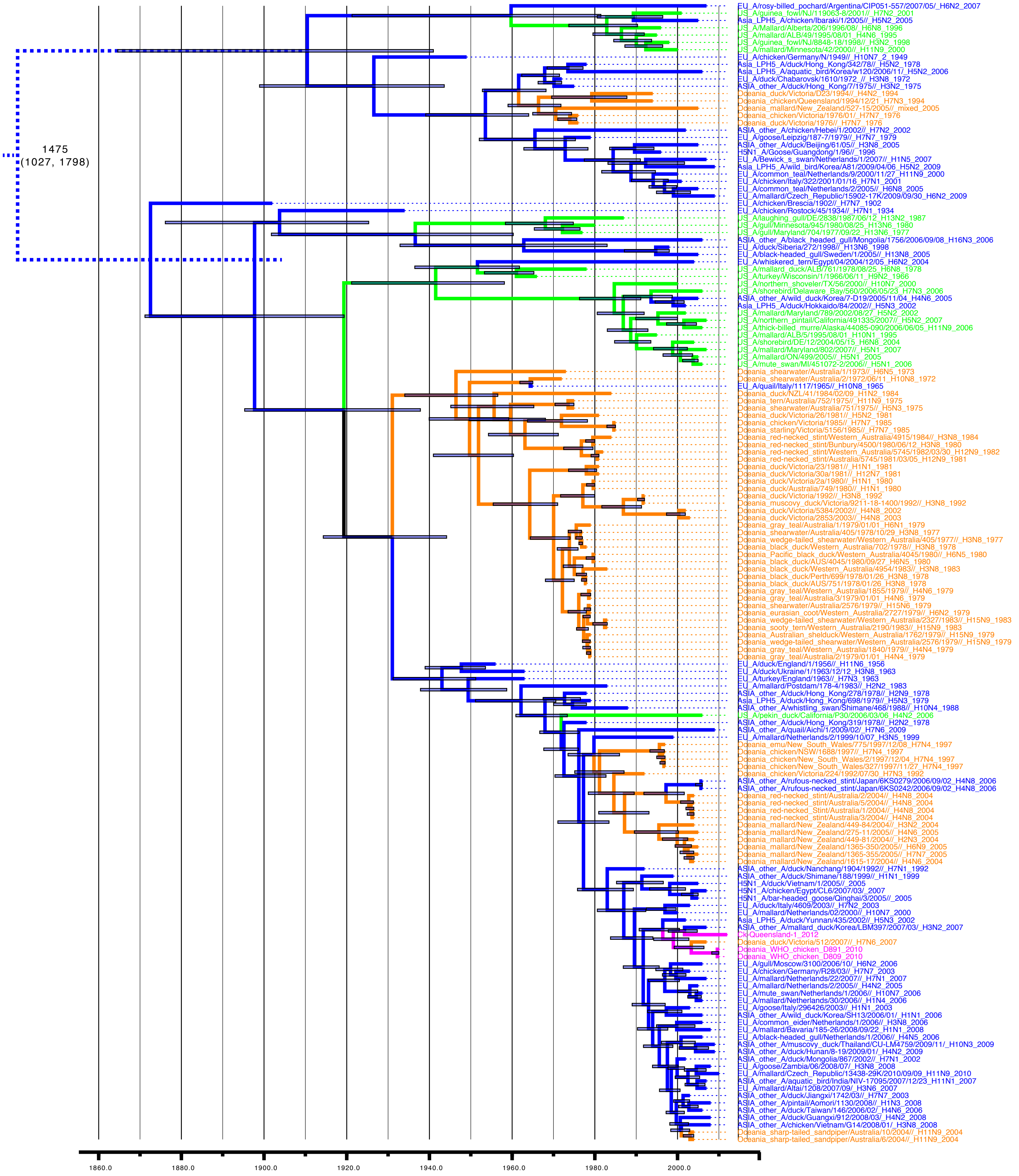
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