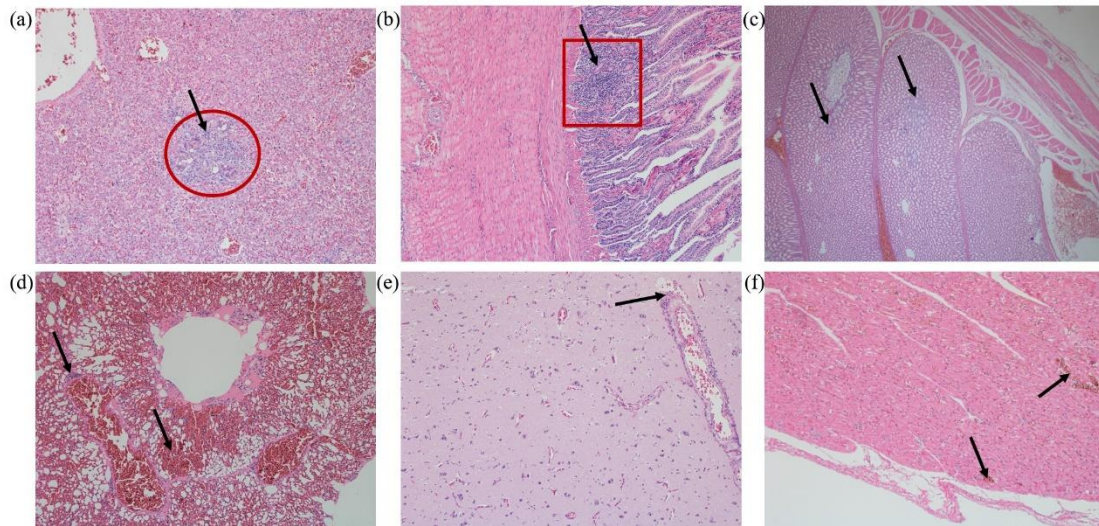


**Supplementary figure 1** Pathogenicity of dead *Pavo Cristatus*. (a) The *Pavo Cristatus* dead due to highly contagious infectious disease. In addition, Intestine necrosis (b), stomach lesions (c), pulmonary hemorrhage (d), meningorrhagia (e), and heart hemorrhage were noted.

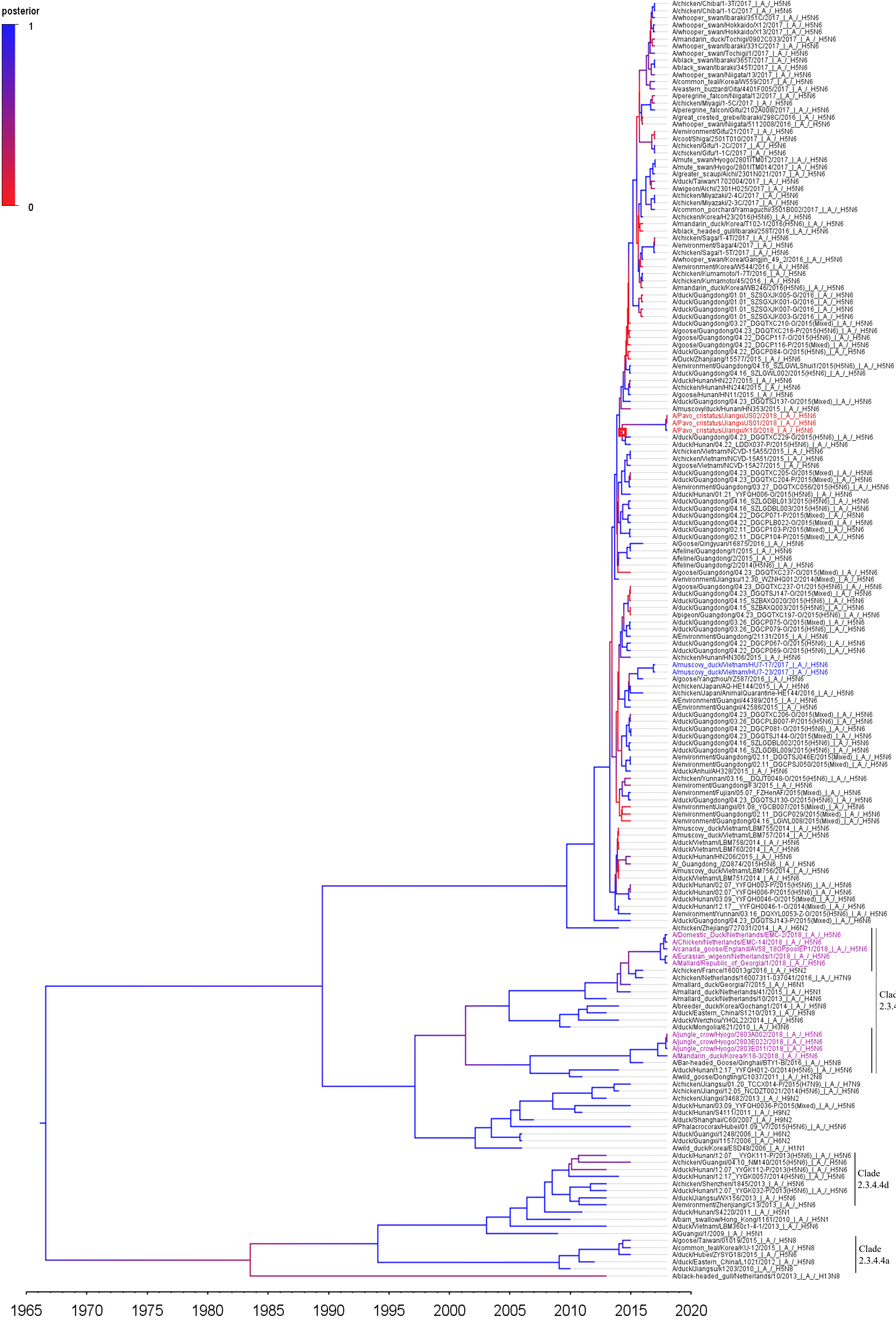


**Supplementary figure 2** Histopathological analysis of dead *Pavo Cristatus*.

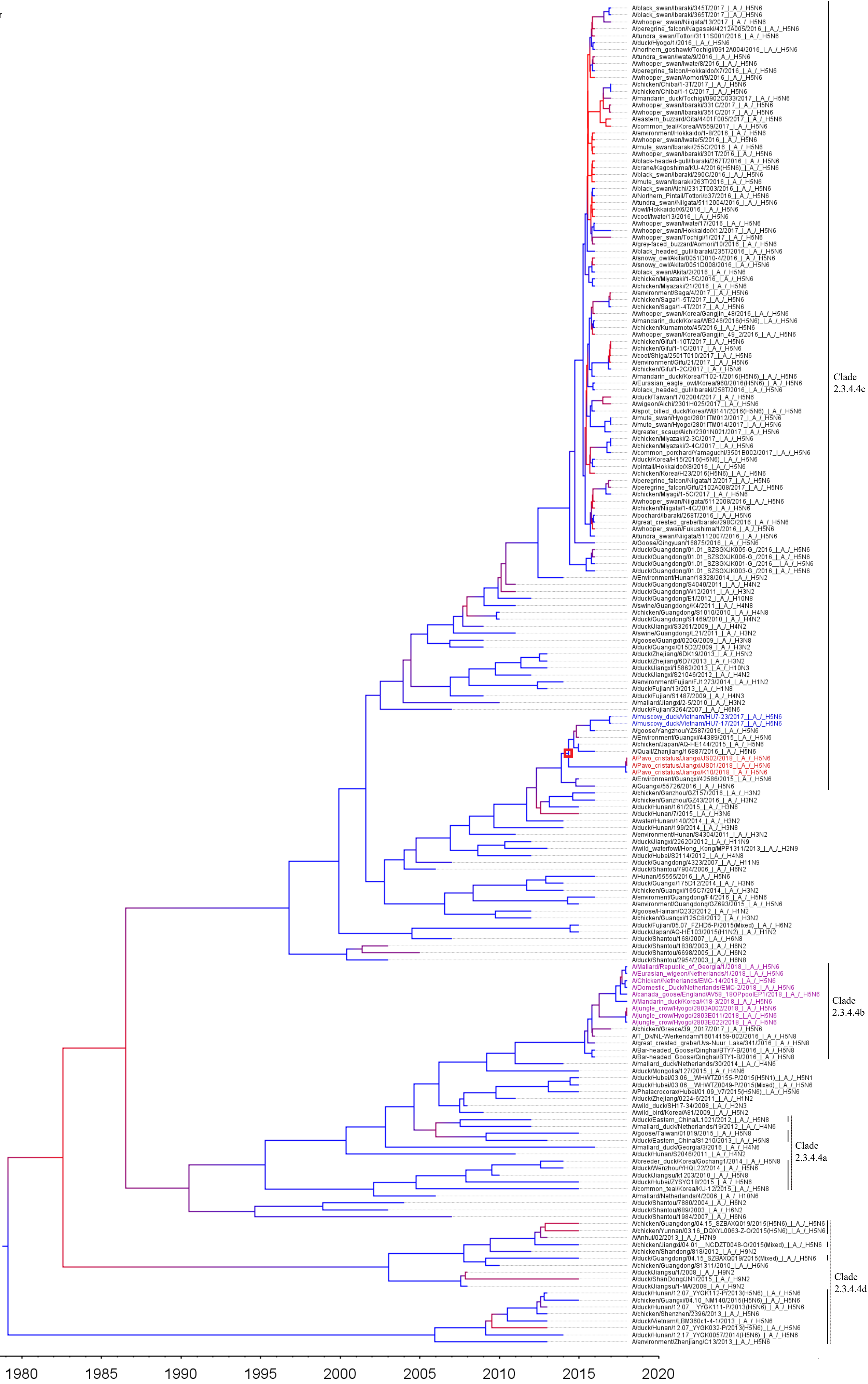
Inflammatory cells infiltration were observed in liver (a), intestine (b), stomach (c), lung (d), and brain(e). In addition, erythrocyte diapedesis were noted in lung (d) and heart (f).



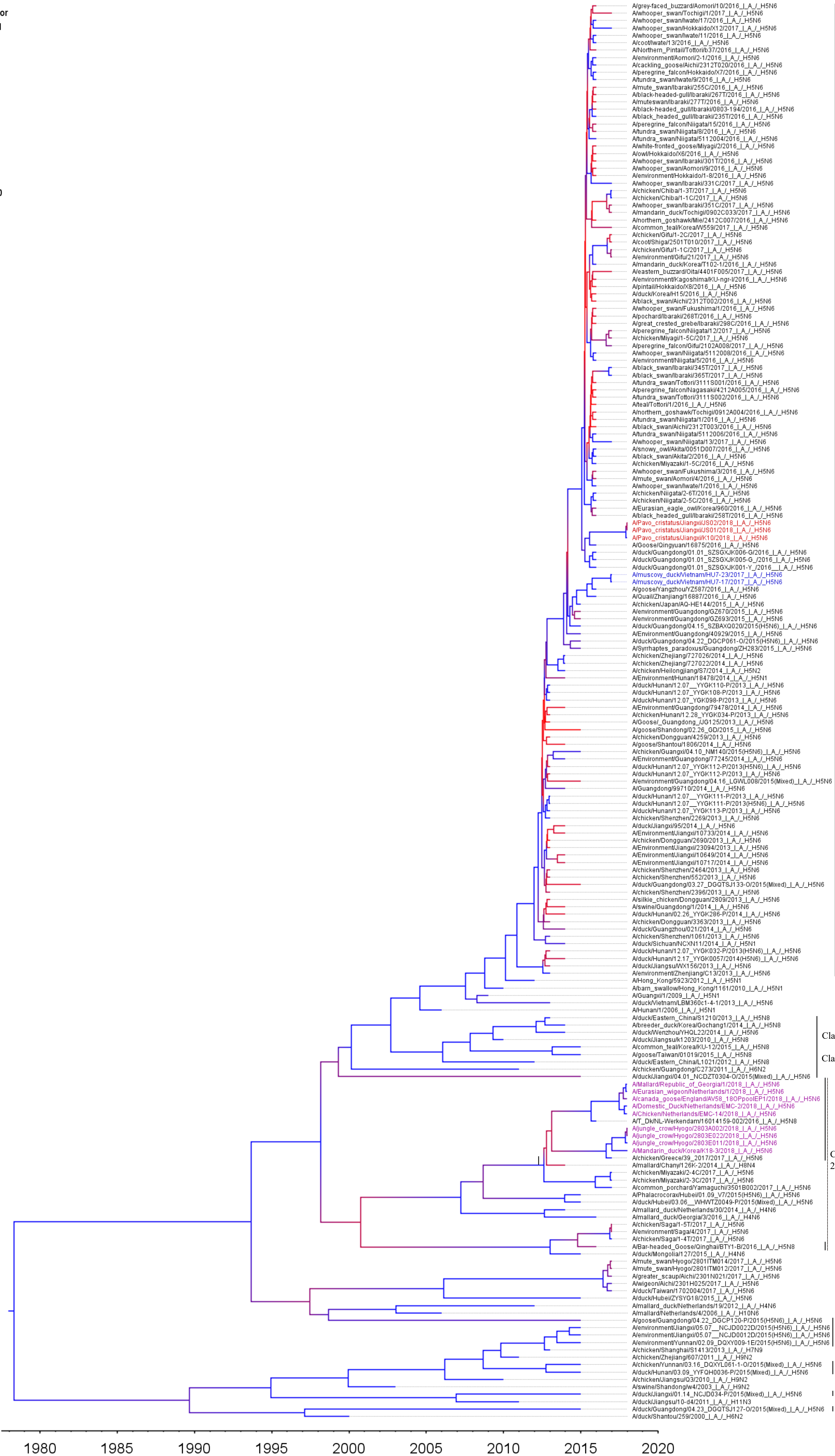
a) PB2











Clade  
2.3.4.4c

Clade 2.3.4.4a  
and  
Clade 2.3.4.4b

Clade  
2.3.4.4b

Clade  
2.3.4.4d



d) HA



1995

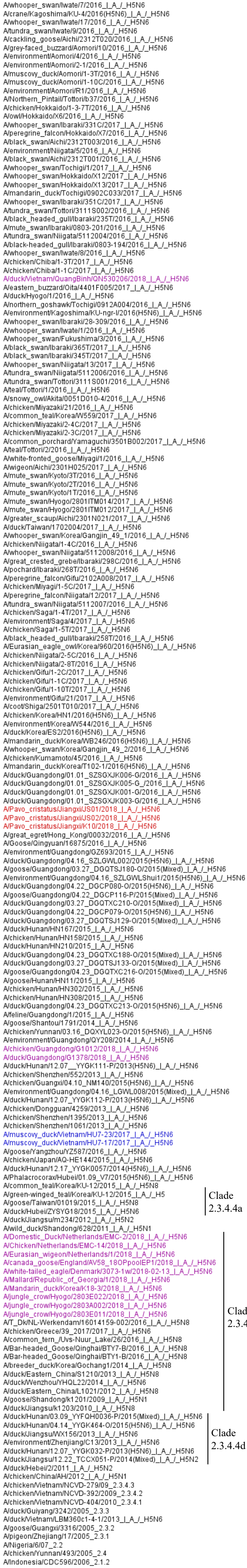
2000

2005

2010

2015

2020



Clade  
2.3.4.4c

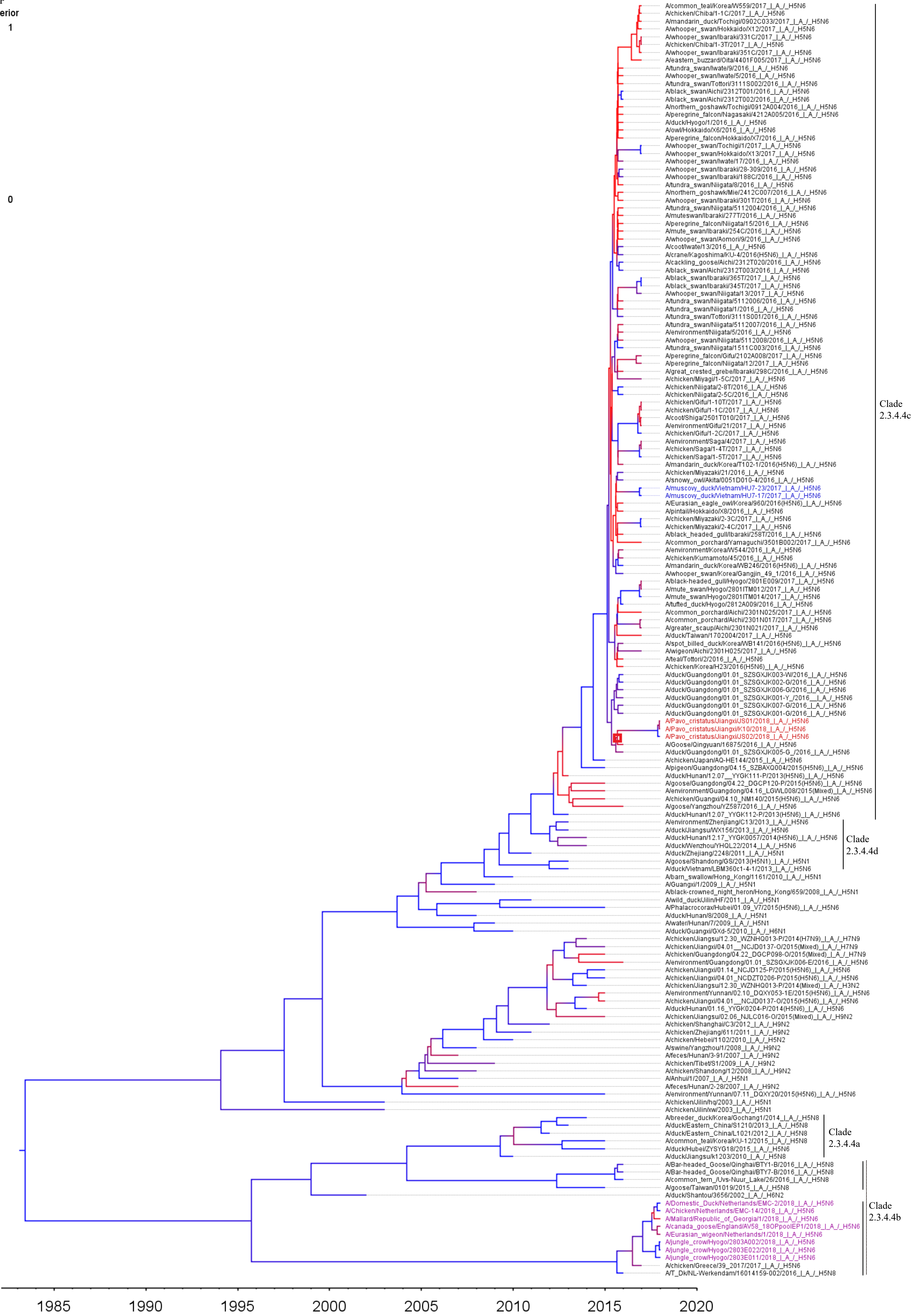
Clade  
2.3.4.4a

Clade  
2.3.4.4b

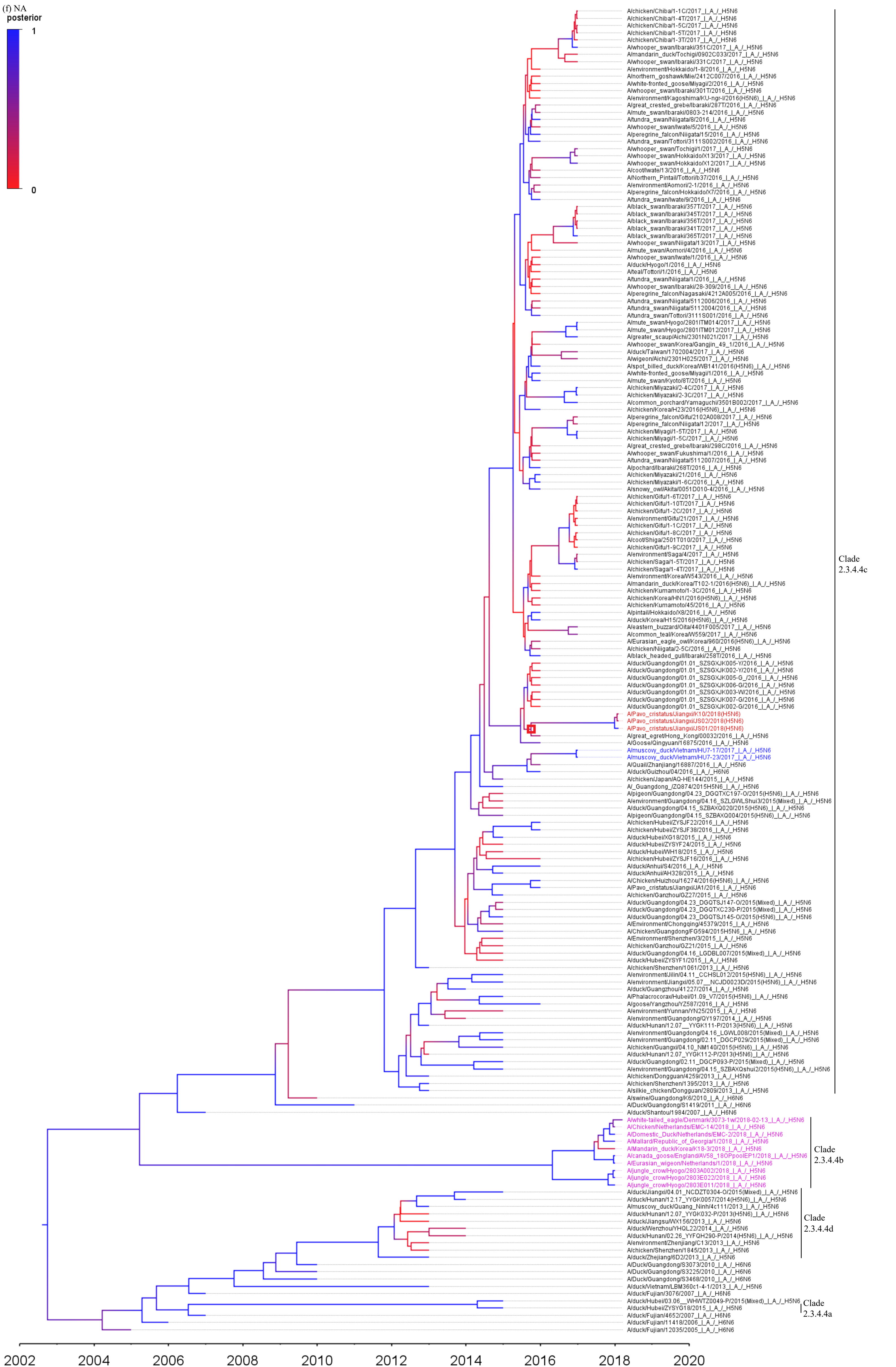
Clade  
2.3.4.4d



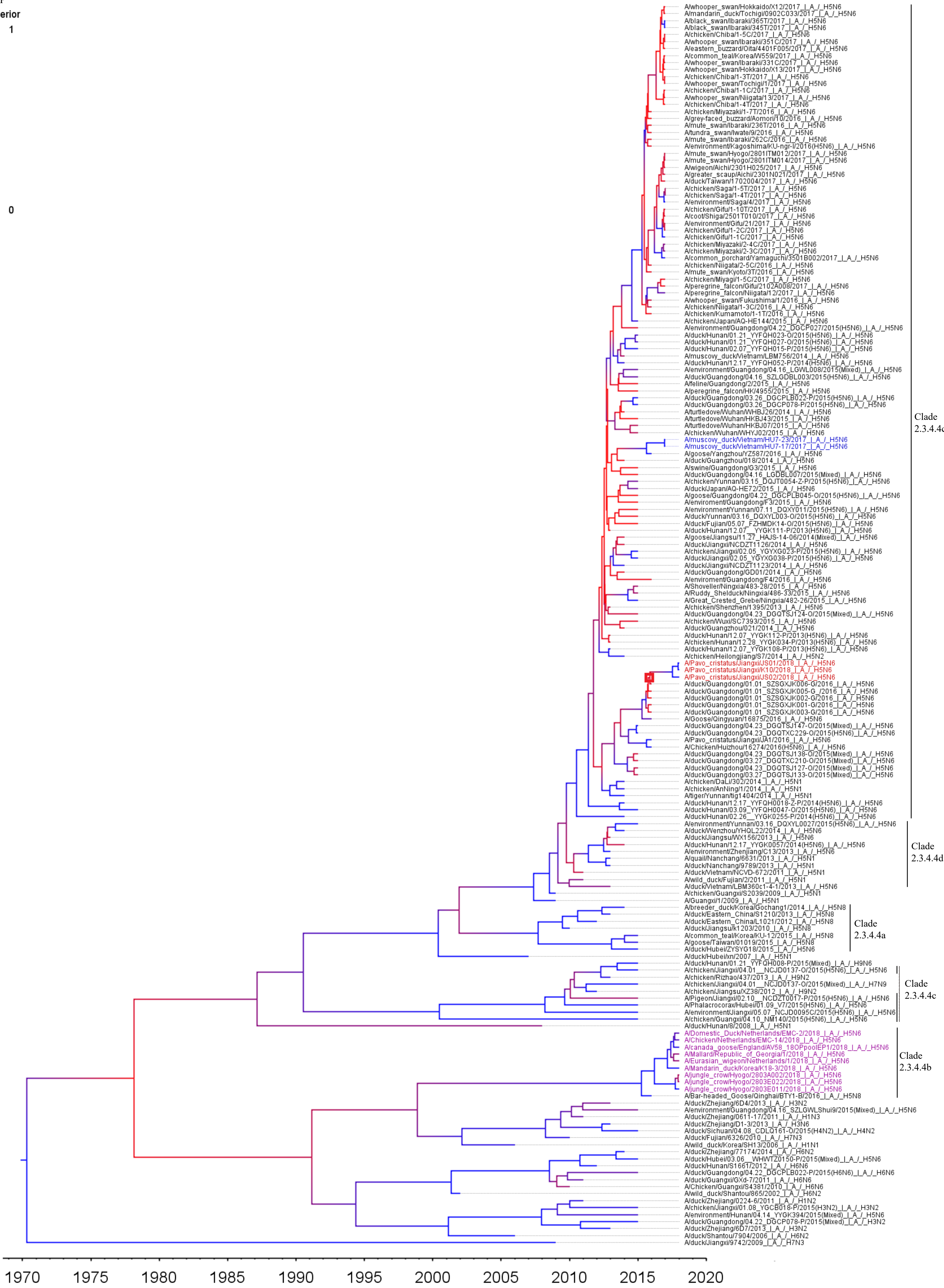
(e) NP



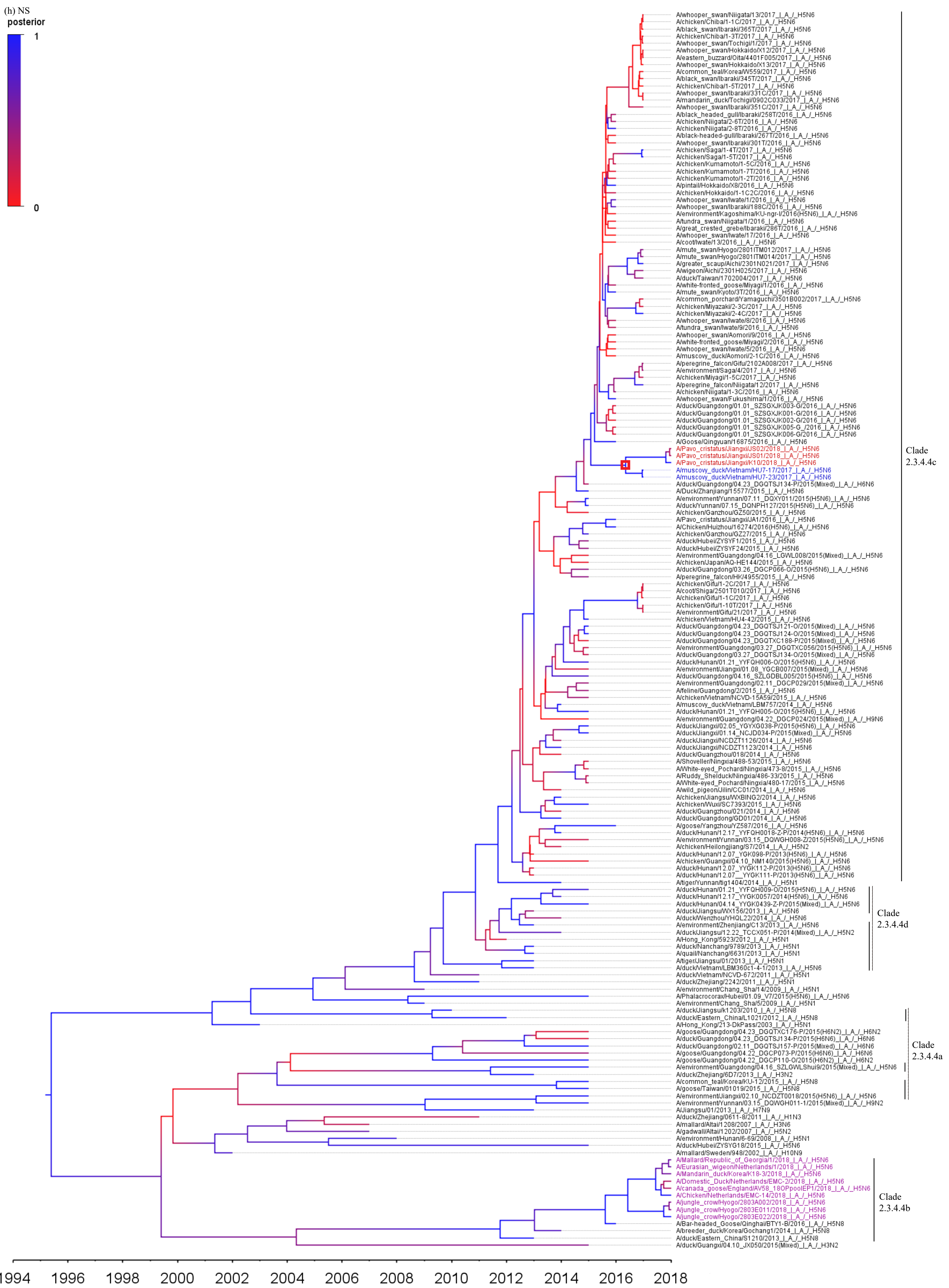














**Supplementary figure 3** MCC trees of influenza viruses internal genes generated by BEAST software (v1.8.4). Red squares represents the most recent common ancestor of the JS01, JS02, and K10 AIVs. The JS01, JS02, and K10 AIVs were marked by red text, the Hu7-17 and Hu7-23 AIVs were marked by blue text, and H5N6 AIVs isolated in 2018 were marked in purple text.