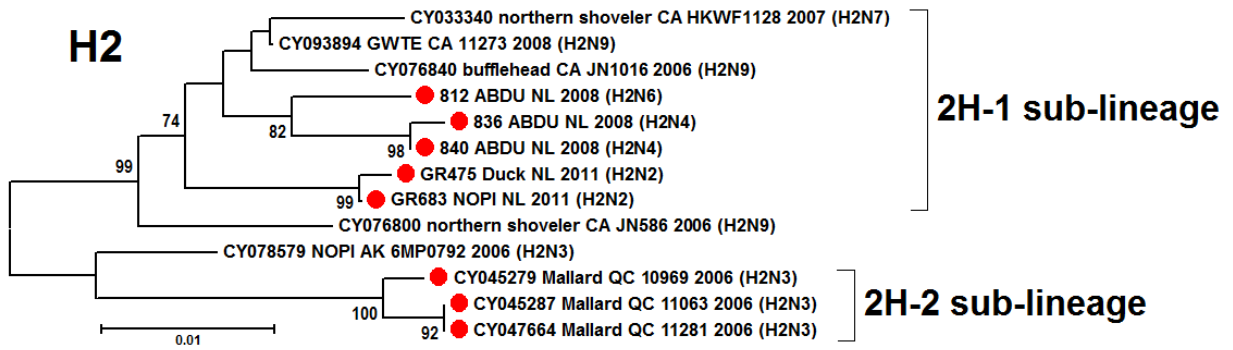
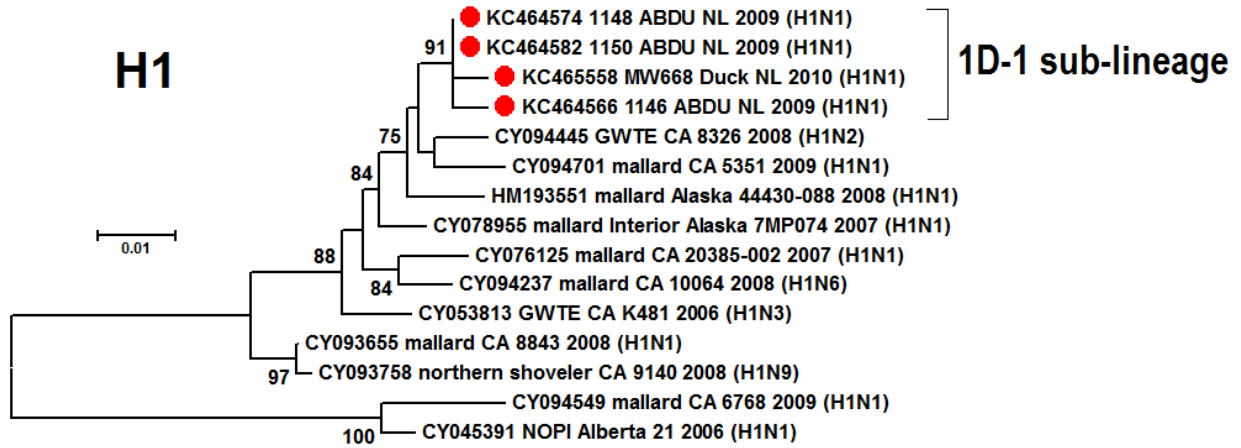
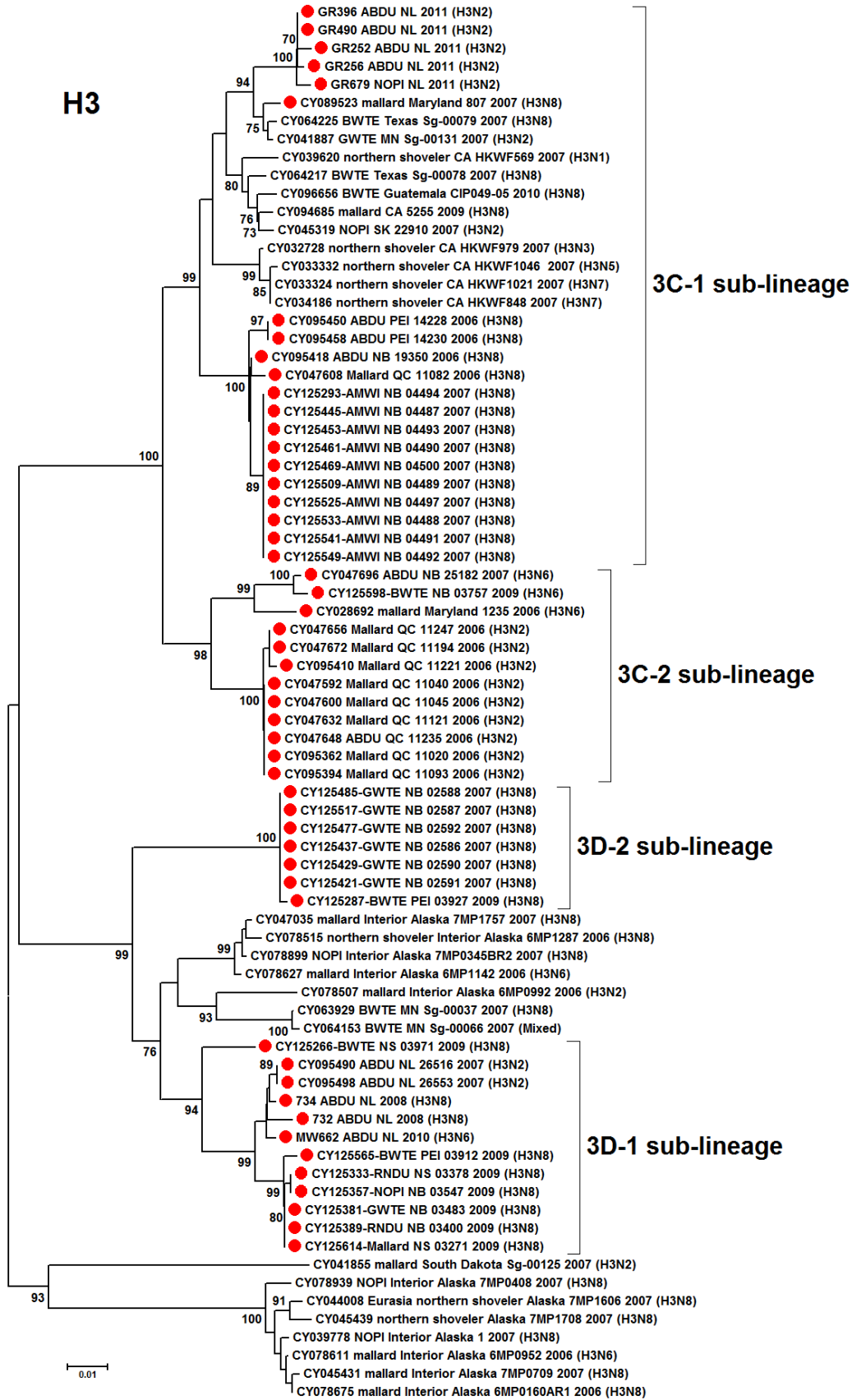
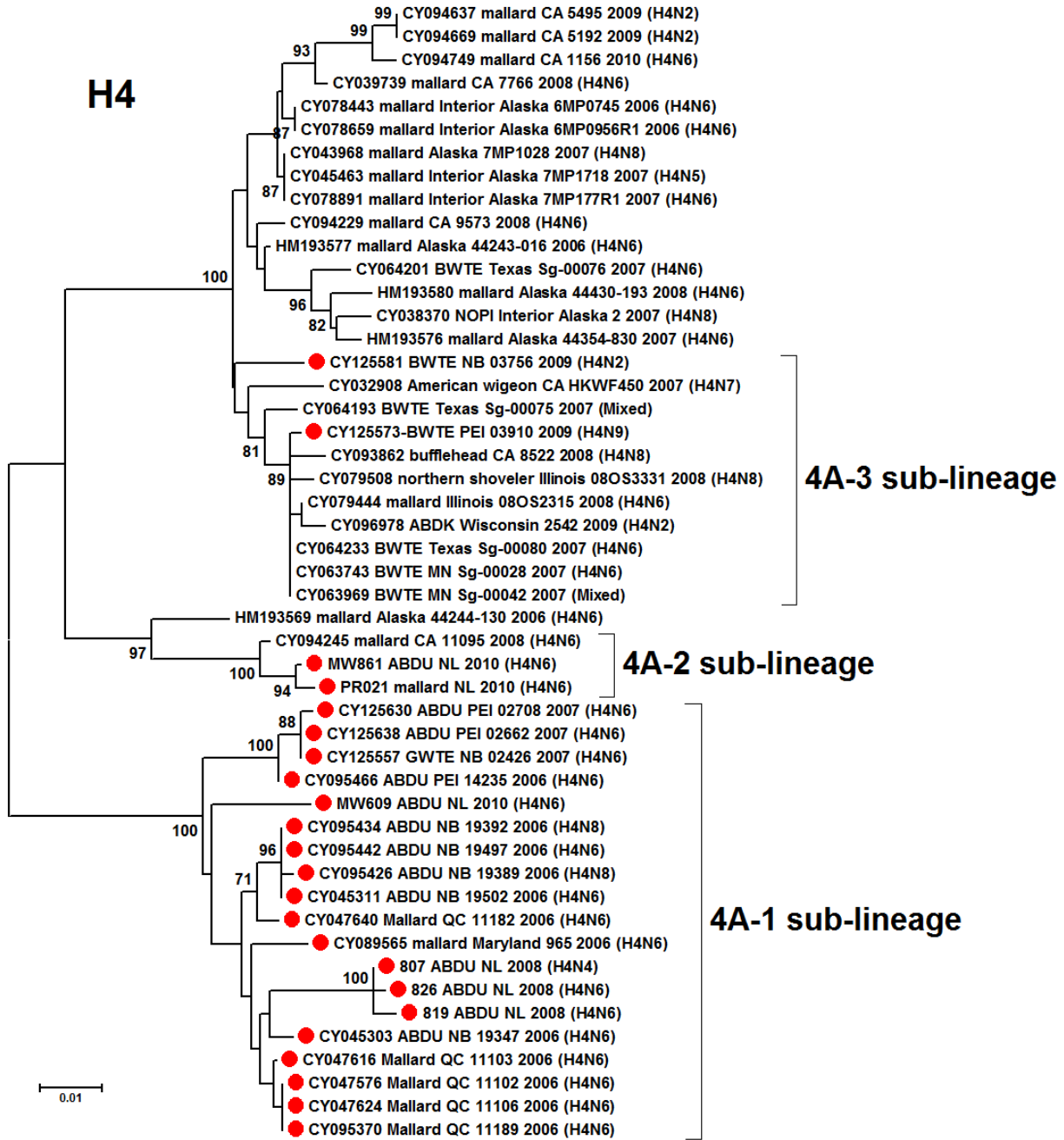
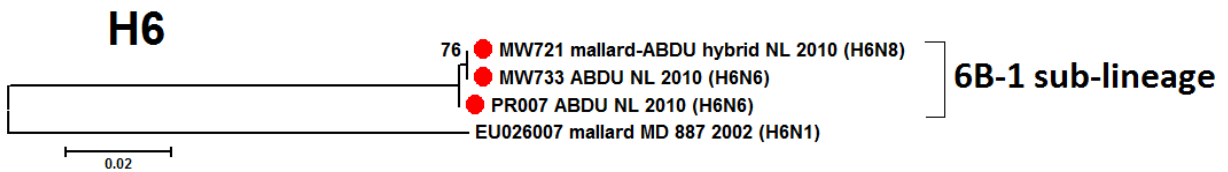
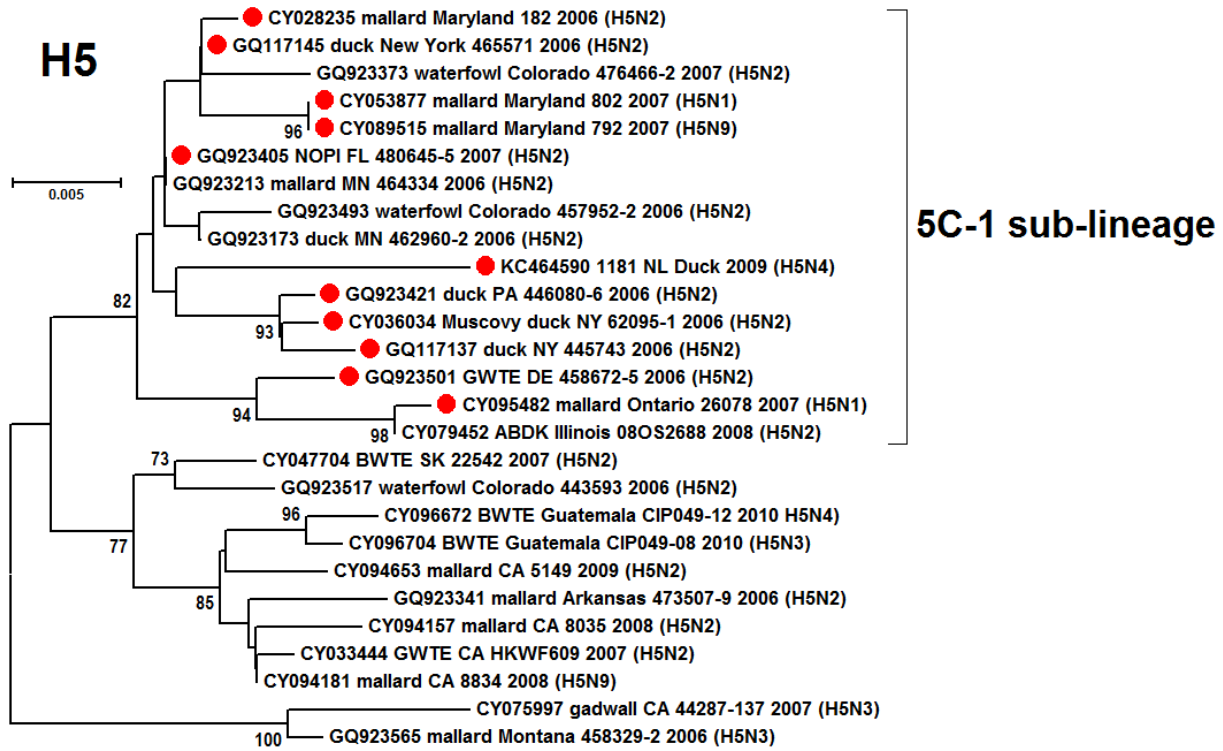


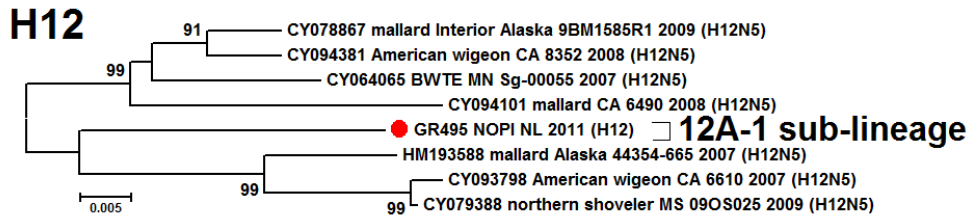
**Figure S1. Phylogenetic analysis of the 8 segments of the 2006-2011 Atlantic flyway duck AIVs.** Phylogenetic trees are shown for each segment of the 109 Atlantic flyway duck AIVs (indicated with red circles), with separate trees for the different HA and NA subtypes. The sub-lineages ( $\geq 95\%$  nucleotide identity within a sub-lineage) of the AIV genes from the Atlantic flyway are labelled on the right. The neighbour-joining trees were constructed with MEGA5 and support values based on 1000 bootstrap replicates are shown as percentages where  $\geq 70\%$ . The scale bars indicate nucleotide substitutions per site. The full identification information for the Atlantic flyway viruses is provided in Table S2. Abbreviations: ABDU, American Black Duck; RNDU, Ring-necked Duck; GWTE, Green-winged Teal; BWTE, Blue-winged Teal; AMWI, American Widgeon; NOPI, Northern Pintail; NL, Newfoundland; QC, Quebec; NS, Nova Scotia; NB, New Brunswick; NY, New York; PEI, Prince Edward Island; NS, Nova Scotia; PA, Pennsylvania; DE, Delaware; MD, Maryland; FL, Florida; AK, Alaska; CA, California; MN, Minnesota; MS, Missouri; SK, Saskatchewan.

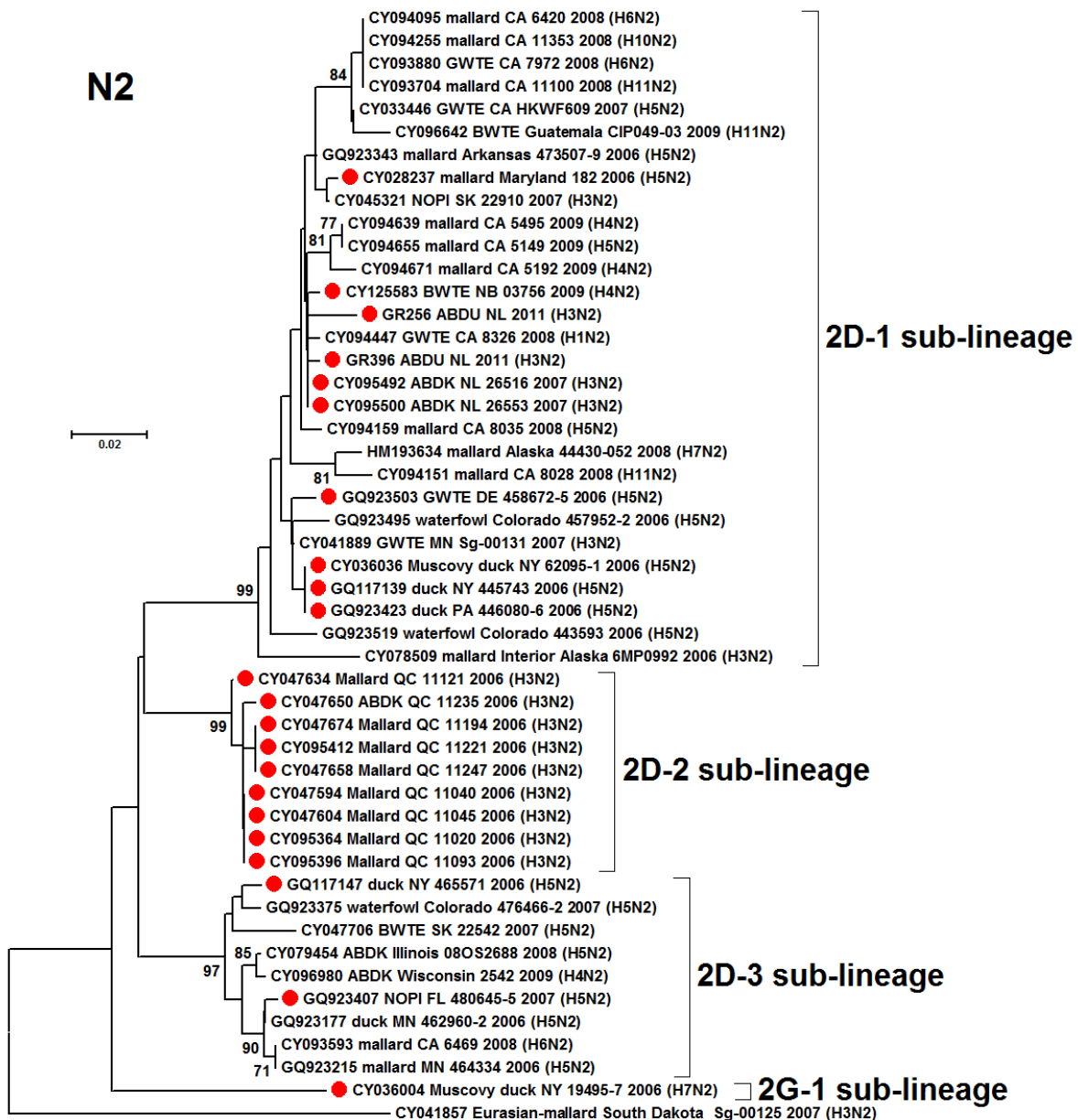
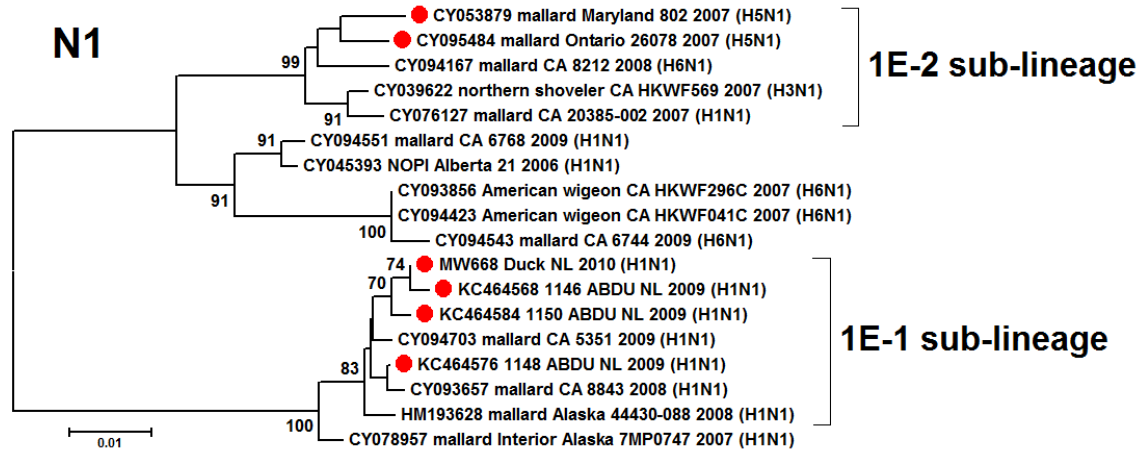


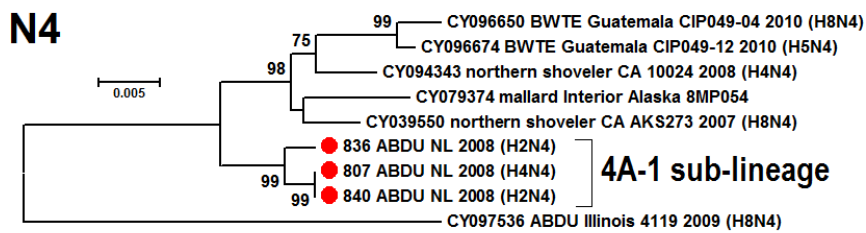
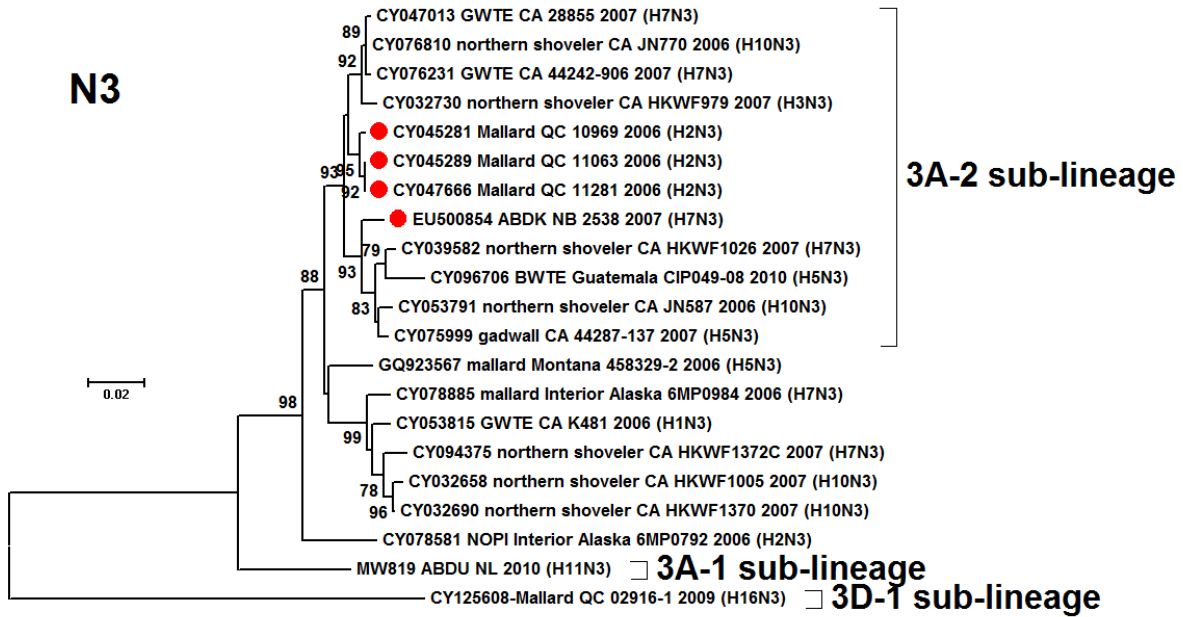




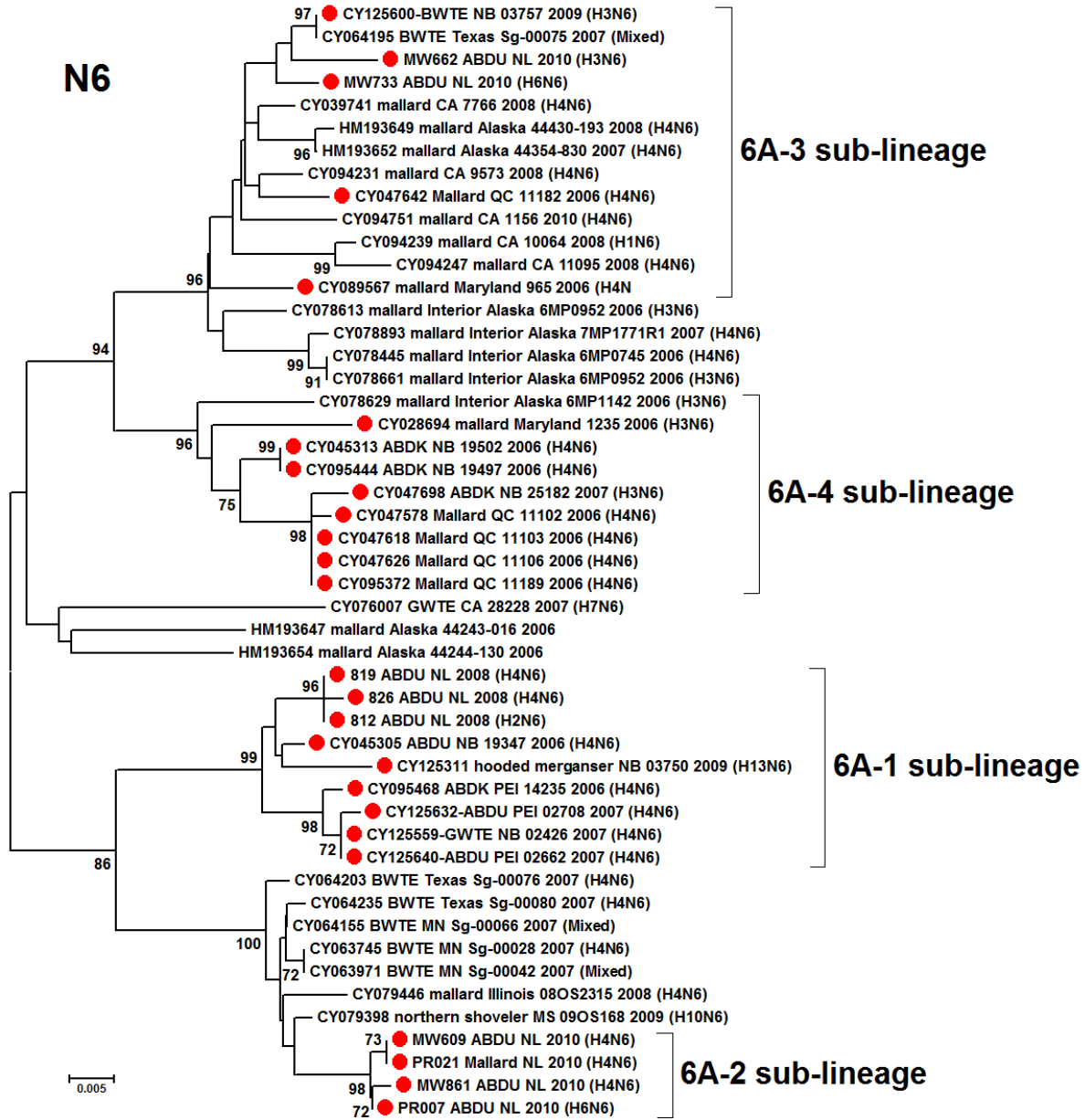


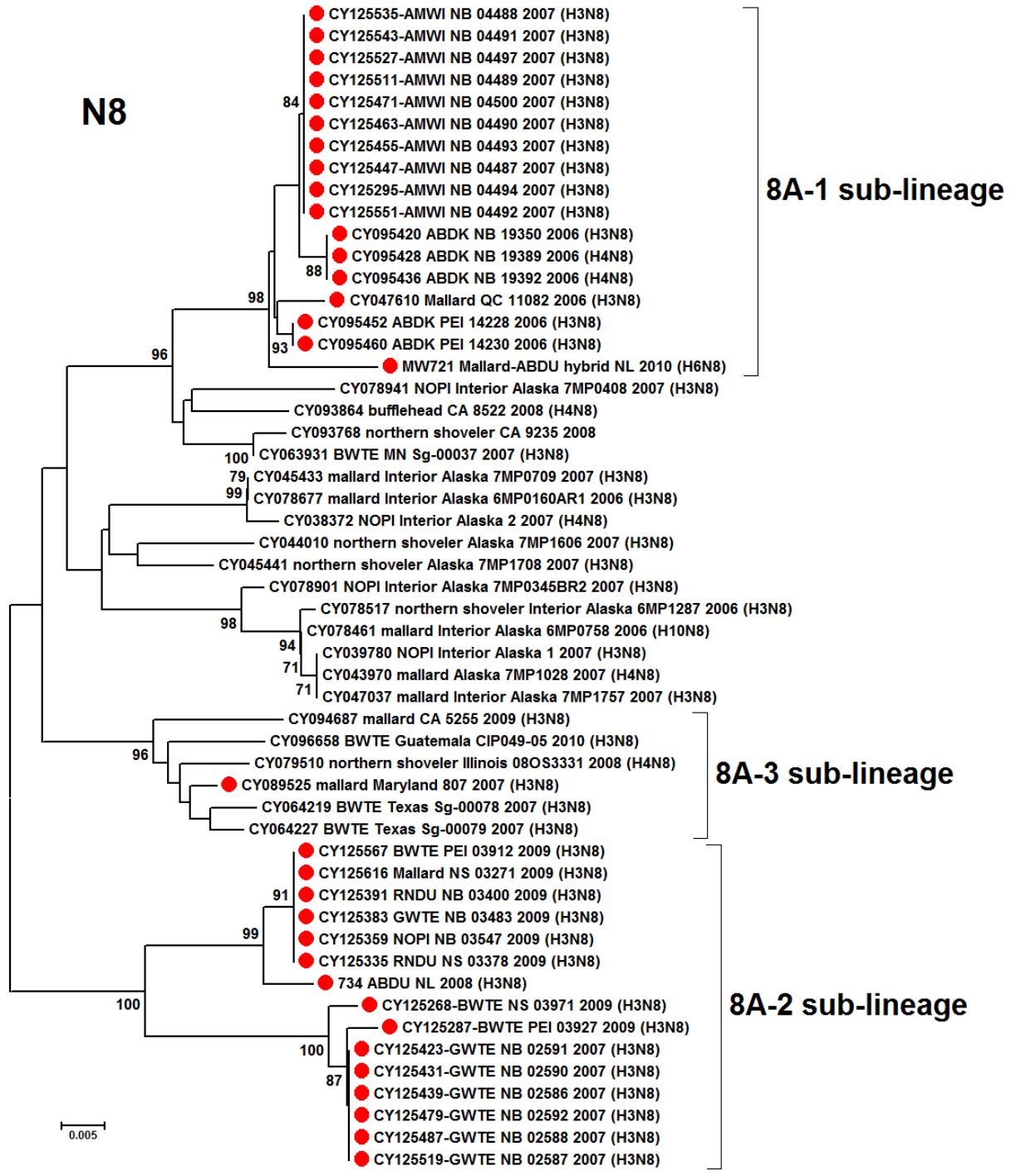






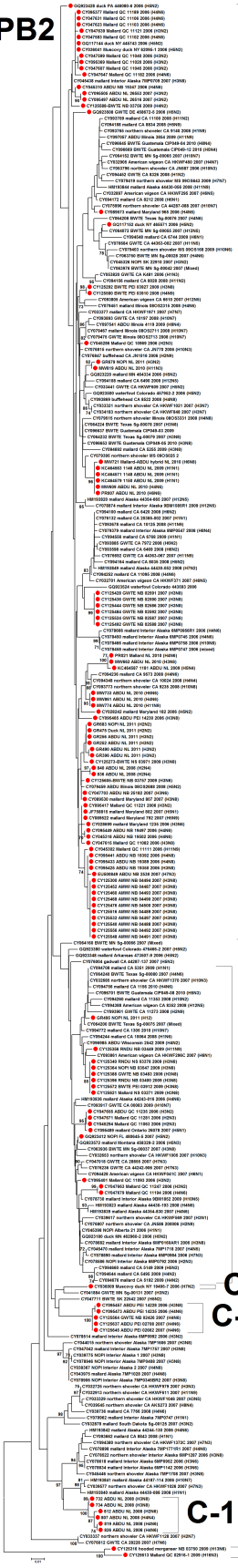








PB2



C-2 sub-lineage

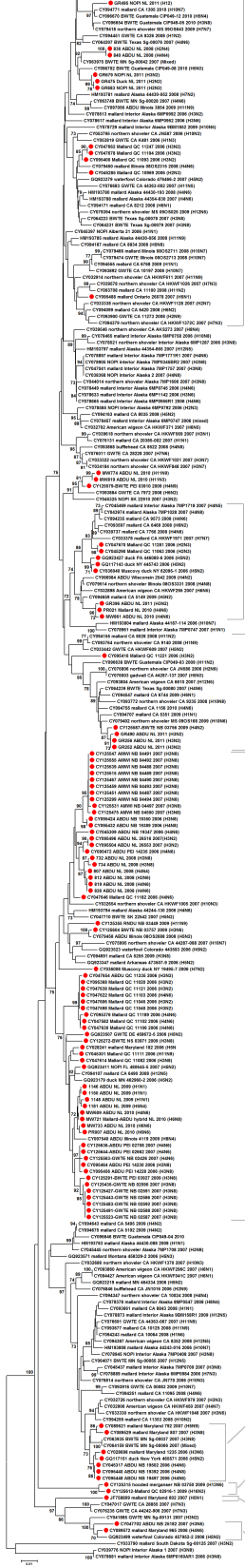
C-3 sub-lineage

C-5 sub-lineage  
C-4 sub-lineage

C-1 sub-lineage

J-1 sub-lineage

**PB1**



**F-4 sub-lineage**

**F-1 sub-lineage**

**F-2 sub-lineage**

**F-3 sub-lineage**

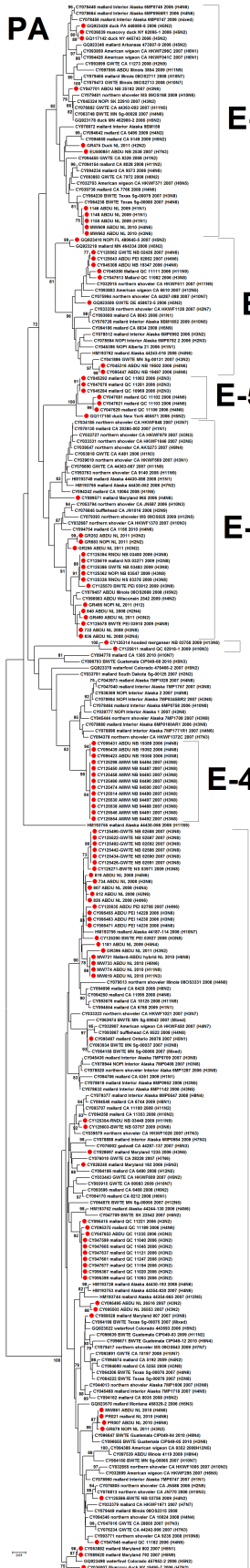
**F-5 sub-lineage**

**F-8 sub-lineage**

**F-7 sub-lineage**

**F-6 sub-lineage**

PA



E-1 sub-lineage

E-3 sub-lineage

E-5 sub-lineage

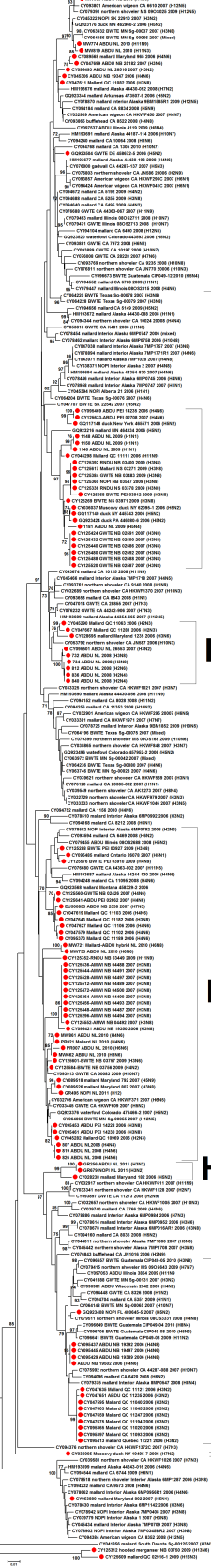
E-2 sub-lineage

E-6 sub-lineage

E-4 sub-lineage

H-1 sub-lineage

NP



H-2 sub-lineage

H-4 sub-lineage

H-3 sub-lineage

H-1 sub-lineage

H-5 sub-lineage

H-6 sub-lineage

H-7 sub-lineage

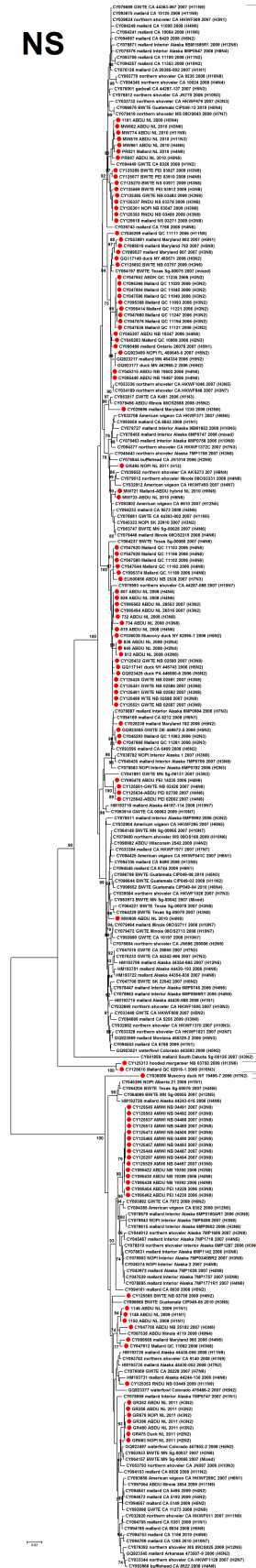
F-1 sub-lineage

D-1 sub-lineage





NS



1D-1 sub-lineage

1C-1 sub-lineage  
2B-2 sub-lineage

2B-1 sub-lineage