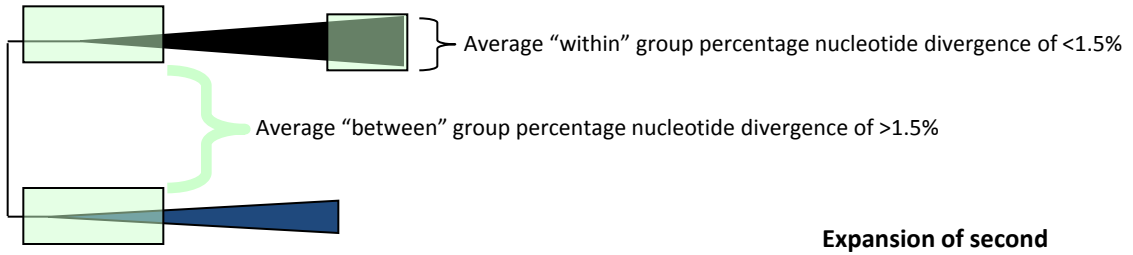
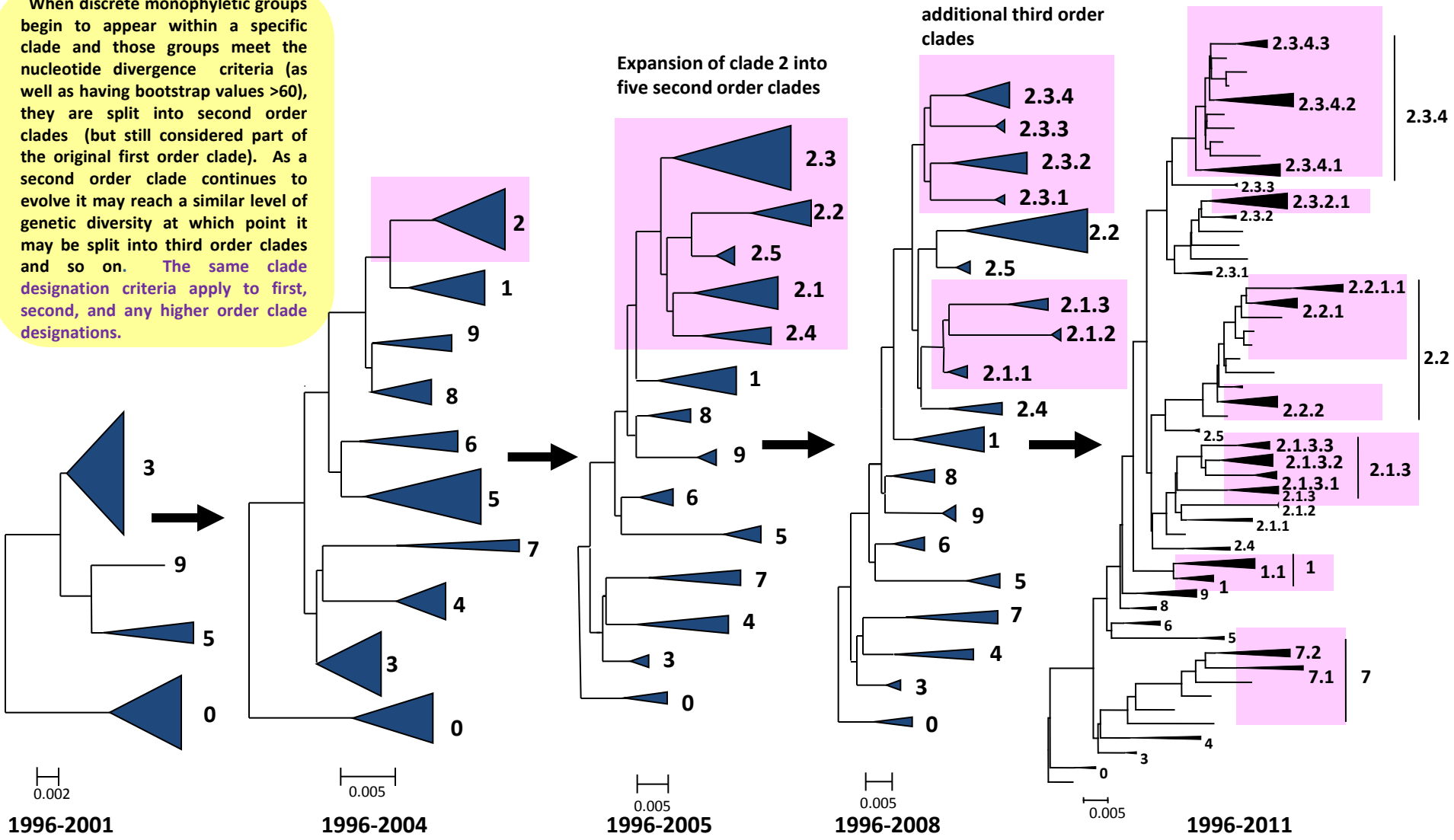
Evolution of the Asian H5 Hemagglutinin



When discrete monophyletic groups begin to appear within a specific clade and those groups meet the nucleotide divergence criteria (as well as having bootstrap values >60), they are split into second order clades (but still considered part of the original first order clade). As a second order clade continues to evolve it may reach a similar level of genetic diversity at which point it may be split into third order clades and so on. The same clade designation criteria apply to first, second, and any higher order clade designations.

Expansion of clade 2 into five second order clades

Expansion of second order clades into additional third order clades

Expansion of first, second and third order clades into additional second, third and fourth order clades