

**Figure S4:** Detailed haplotype maps, networks and sequence alignment with all 4 primer combinations and replicates for selected taxa. **a**, Haplotype maps for both replicates with each of the four primer combinations. For *A. aquaticus* only the 10 most common haplotypes are indicated with different colors (remaining ones in white). For each primer combination, the haplotypes in the map and network have the same corresponding colors. **b**, haplotype networks for each primer pair. Each cross line represents one base pair difference between the respective haplotypes. Haplotypes present in just one replicate are indicated by A or B next to the network node. **c**, Quantification of similarity between both replicates, by plotting abundance of individual haplotypes of each sampling point against each other. The red line is indicating the best fit (with significance and adjusted  $R^2$  value given in each plot). **d**, Sequence alignment of all haplotypes, with mismatching nucleotides between sequences being highlighted (Green = T, Red = A, Yellow = G and Blue = C).

See the following pages for example plots of;

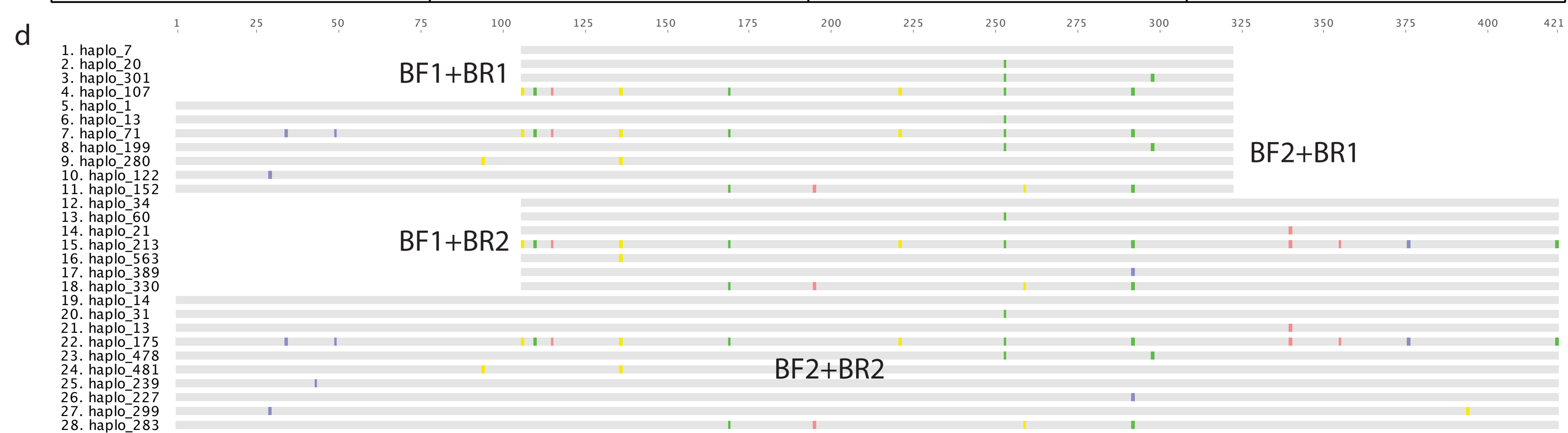
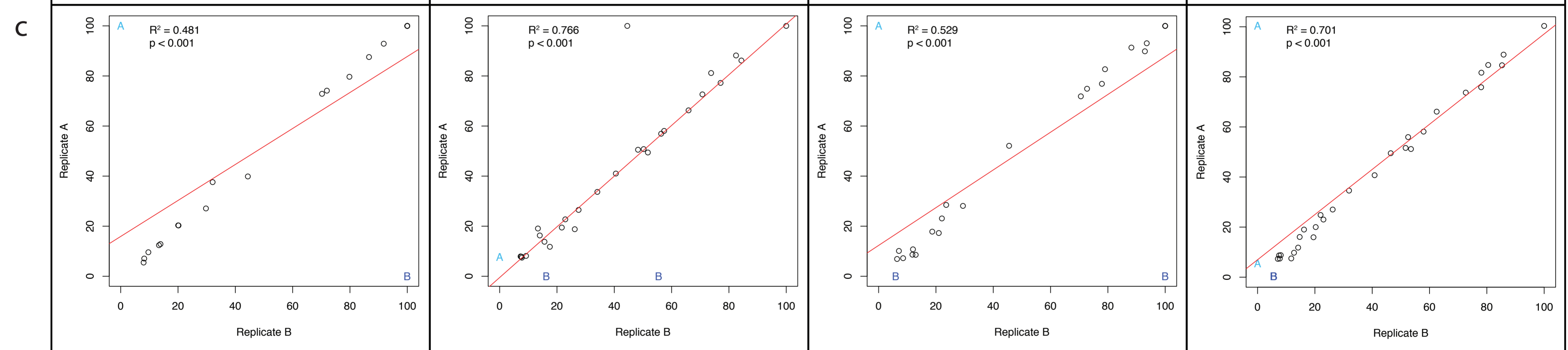
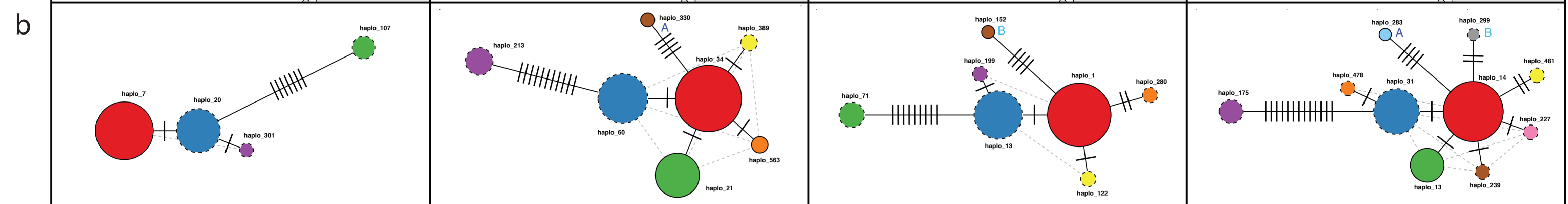
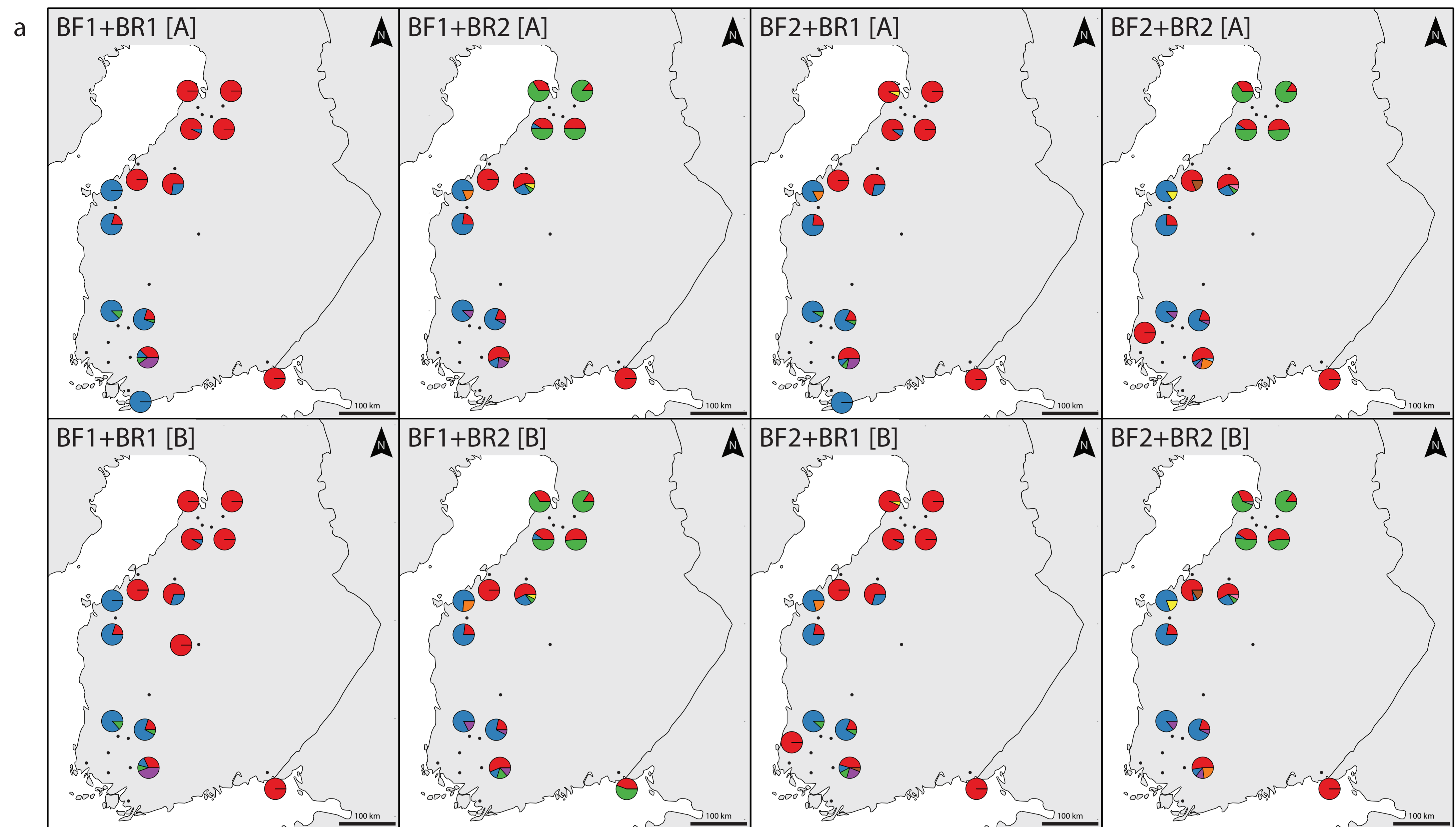
Page 2: *Taeniopteryx nebulosa*

Page 3: *Hydropsche pellucidula*

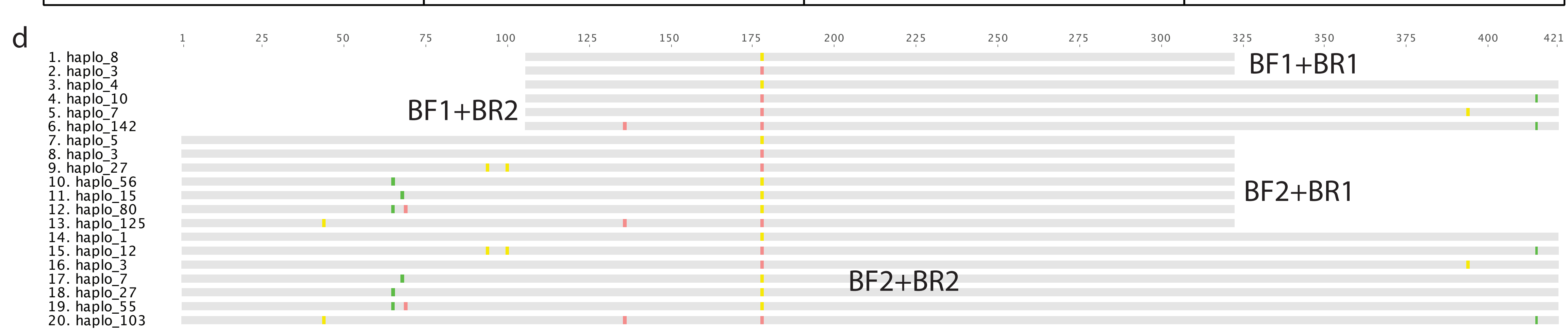
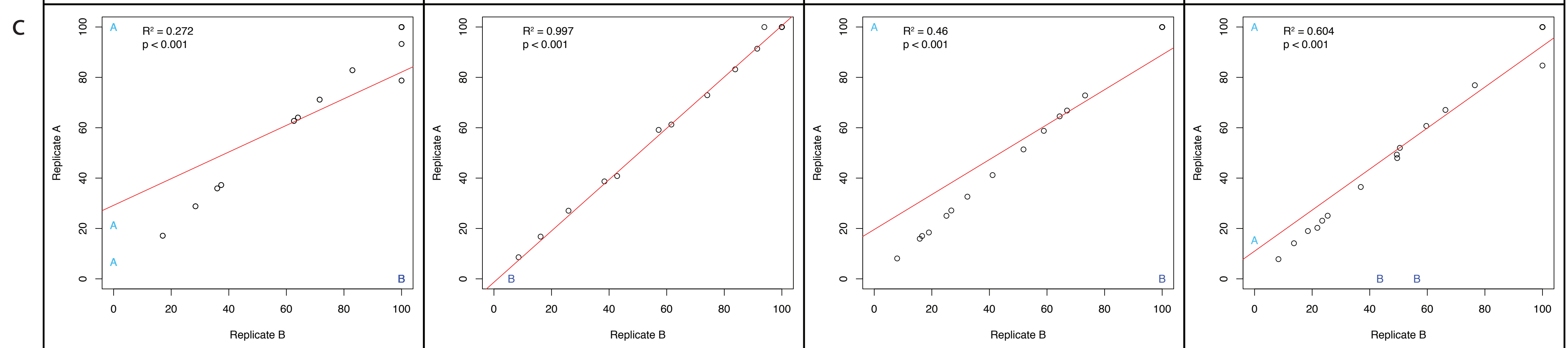
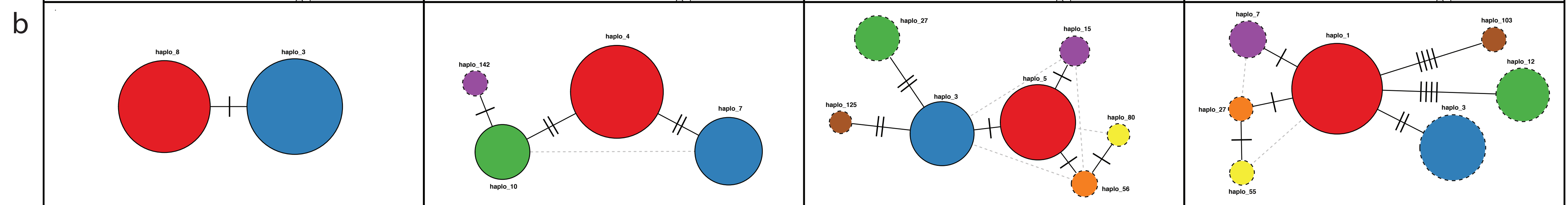
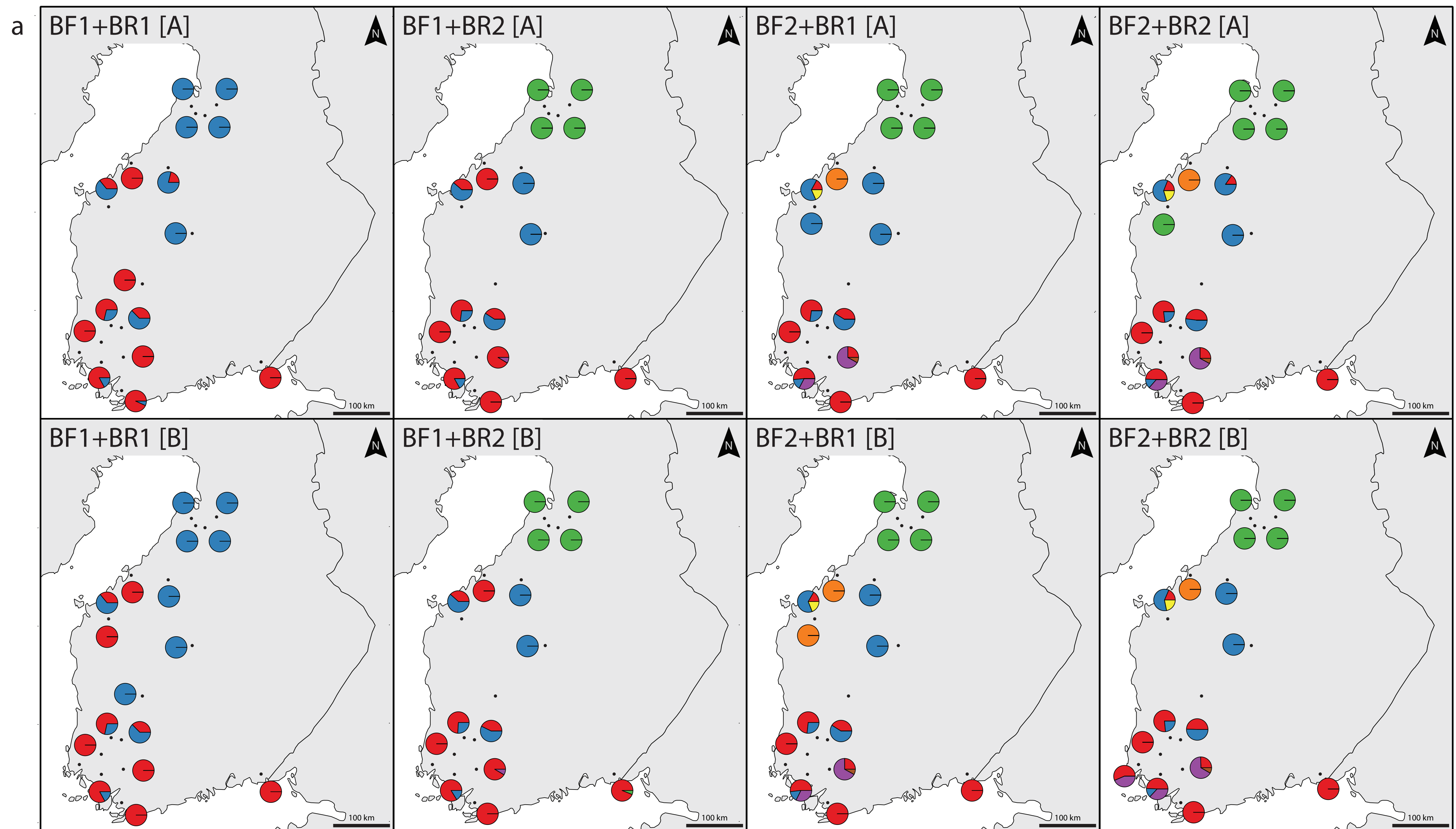
Page 4: *Oulimnius tuberculatus*

Page 5: *Asellus aquaticus*

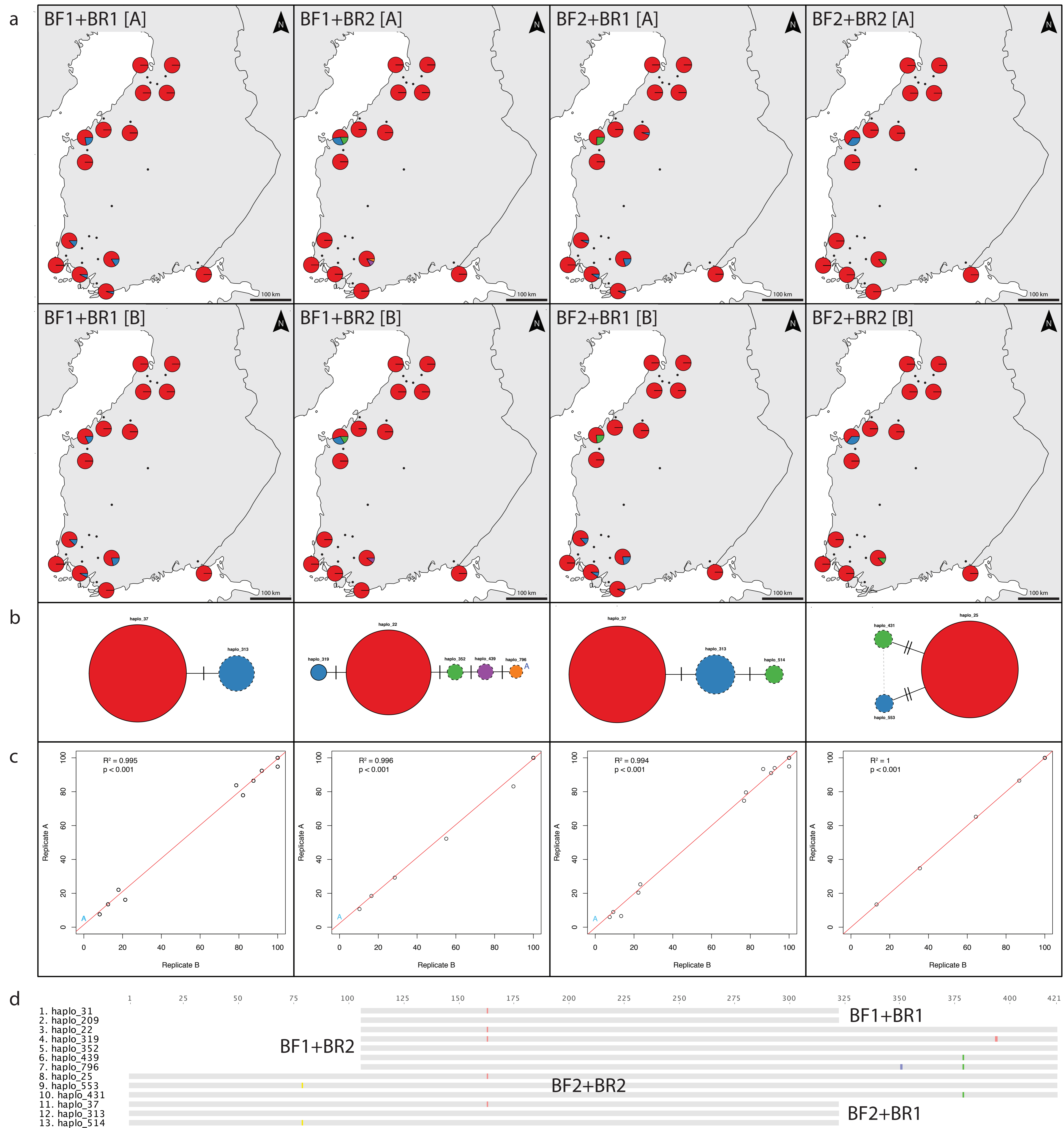
# I) *Taeniopteryx nebulosa* (Plecoptera)



## II) *Hydropsyche pellucidula* (Trichoptera)



### III ) *Oulimnius tuberculatus* (Coleoptera)



# IV) *Asellus aquaticus* (Isopoda)

