

**Genetic diversity, population structure and clonal verification in South African avocado cultivars using single nucleotide polymorphism (SNP) markers**

Tree Genetics & Genomes

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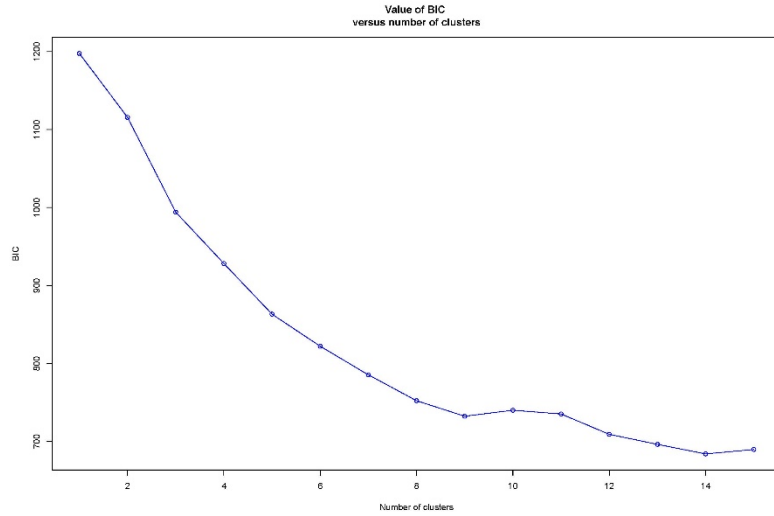
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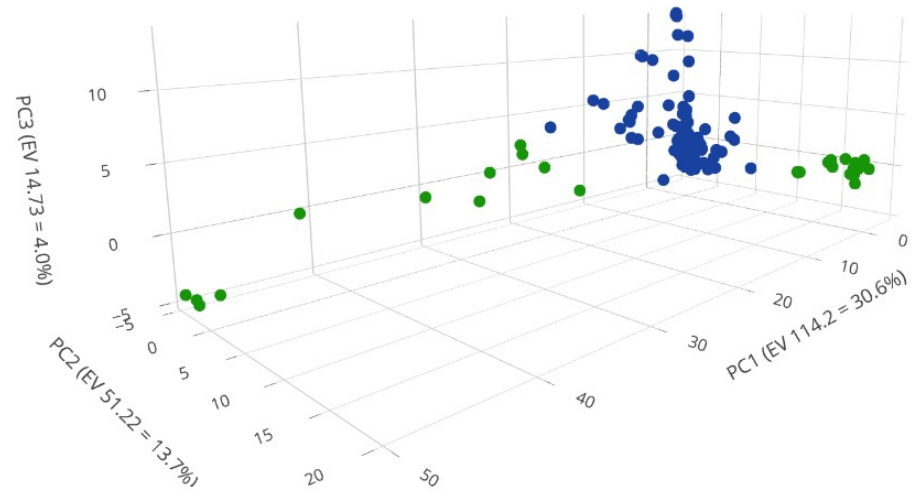
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$K = 2$

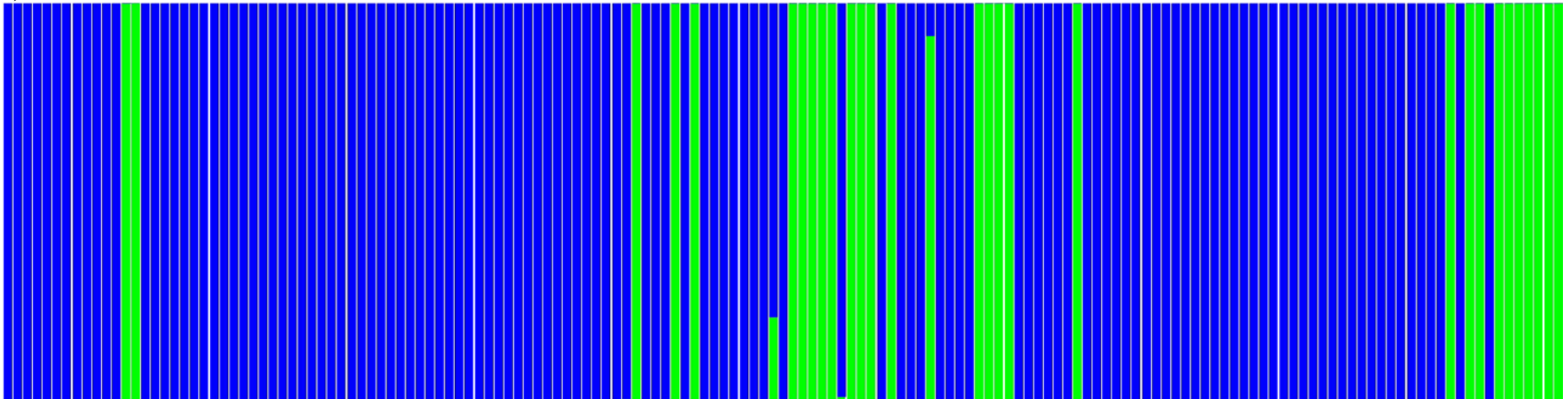
a)



b)

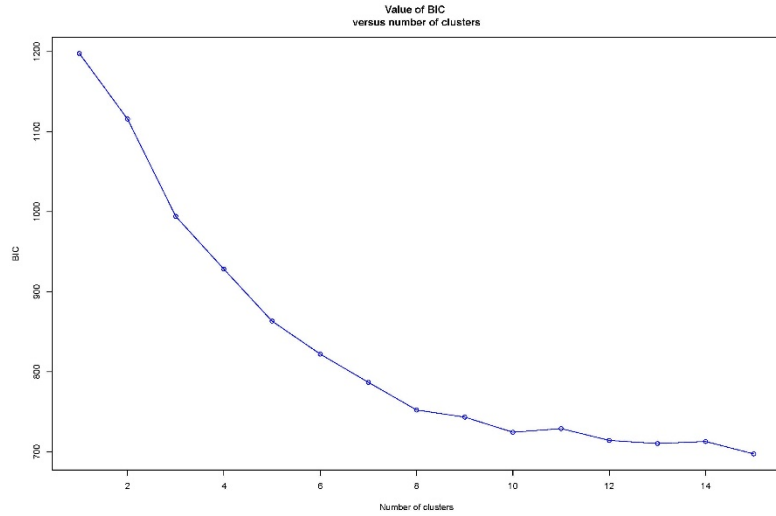


c)

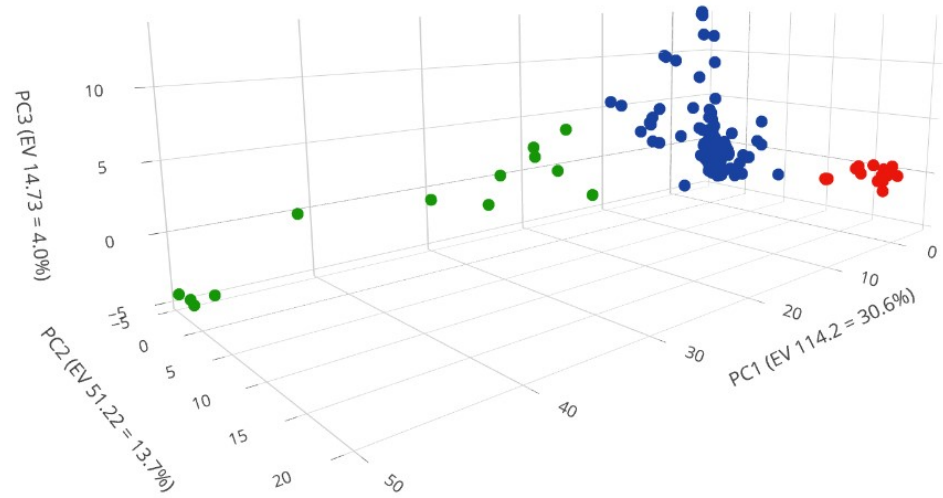


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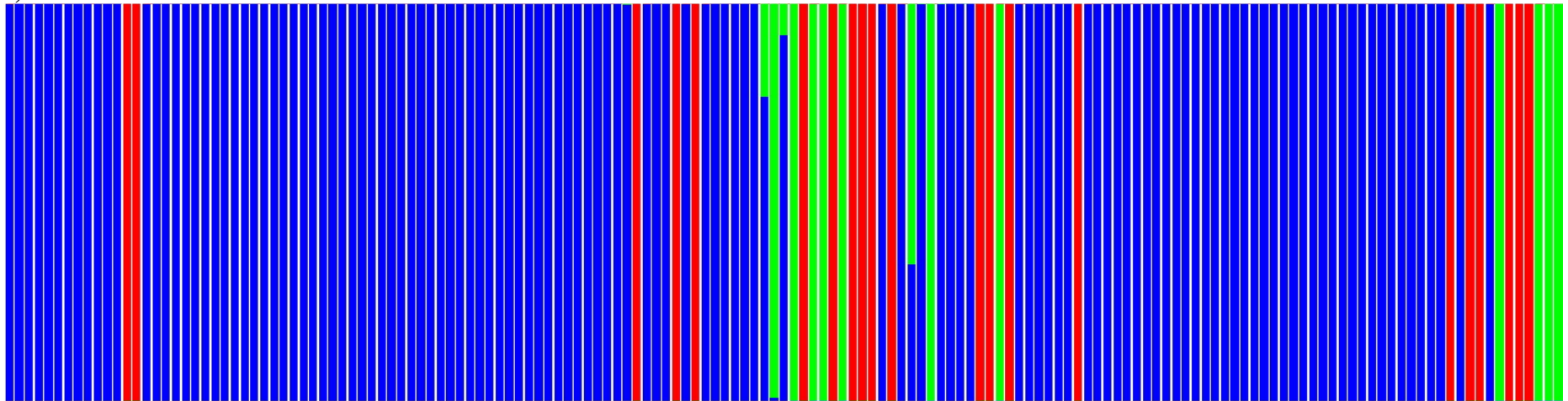
**a)**



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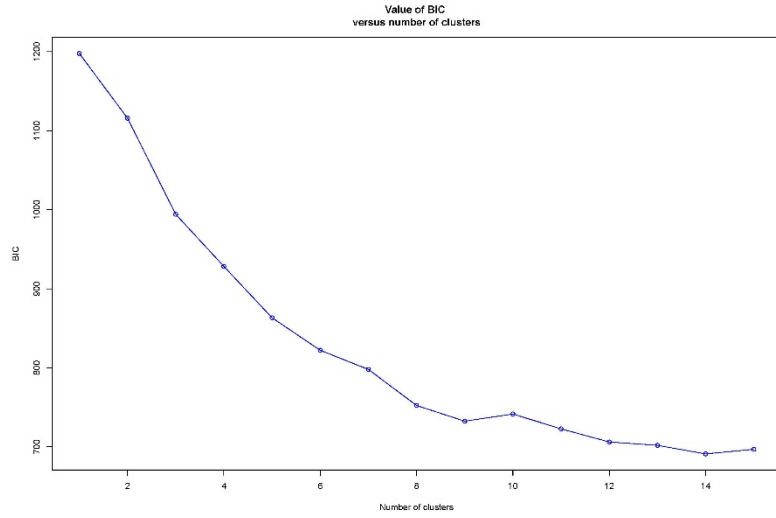


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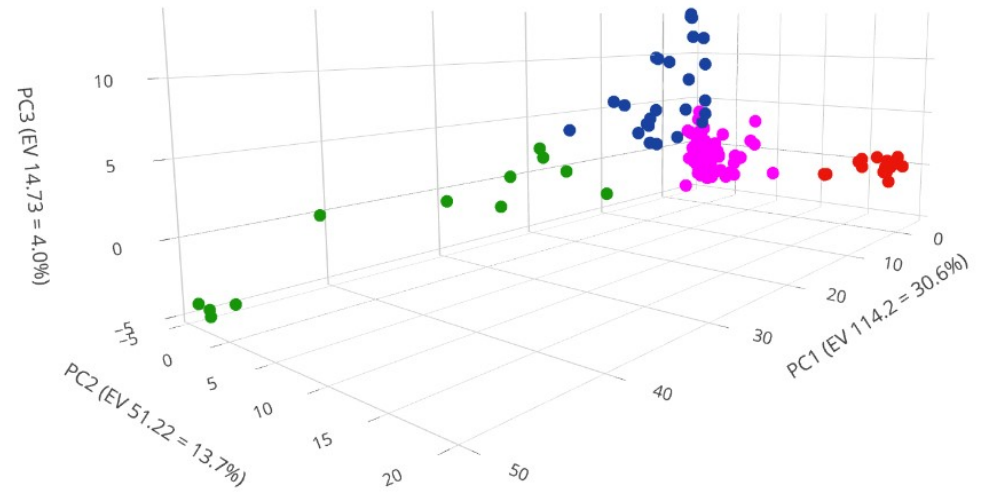


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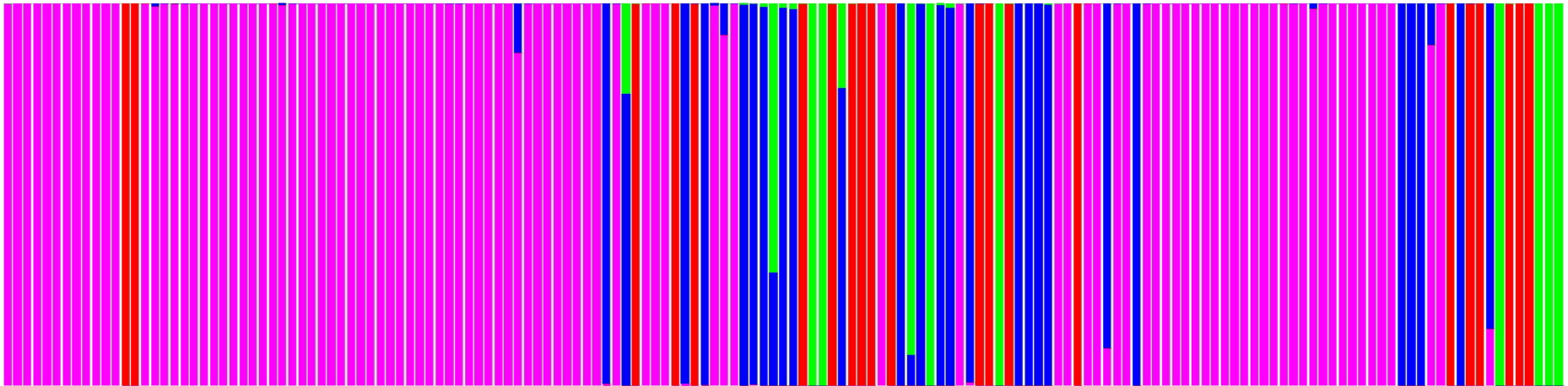
**a)**



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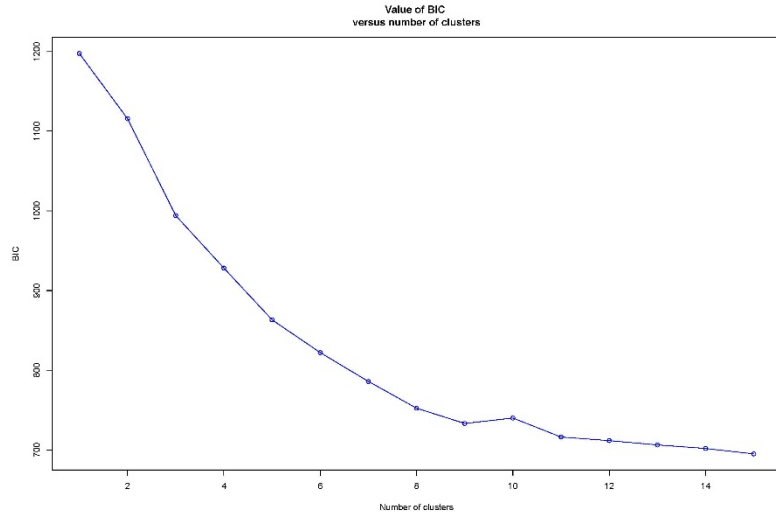


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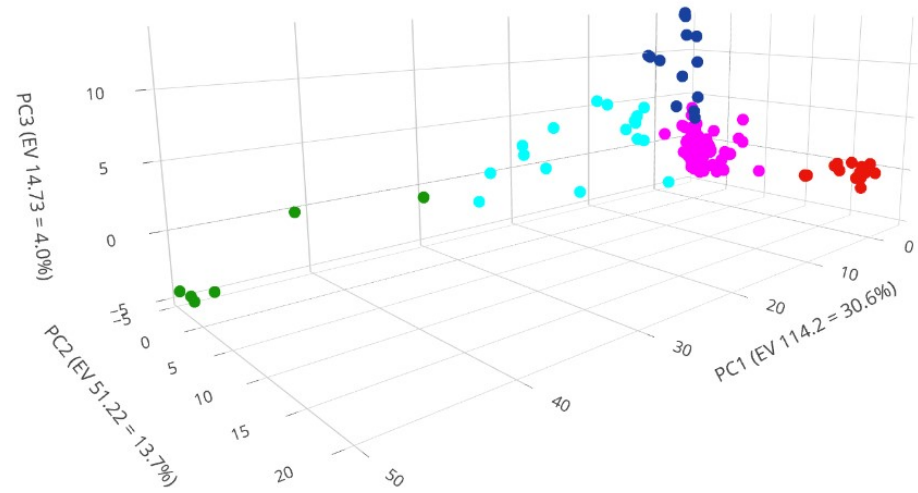


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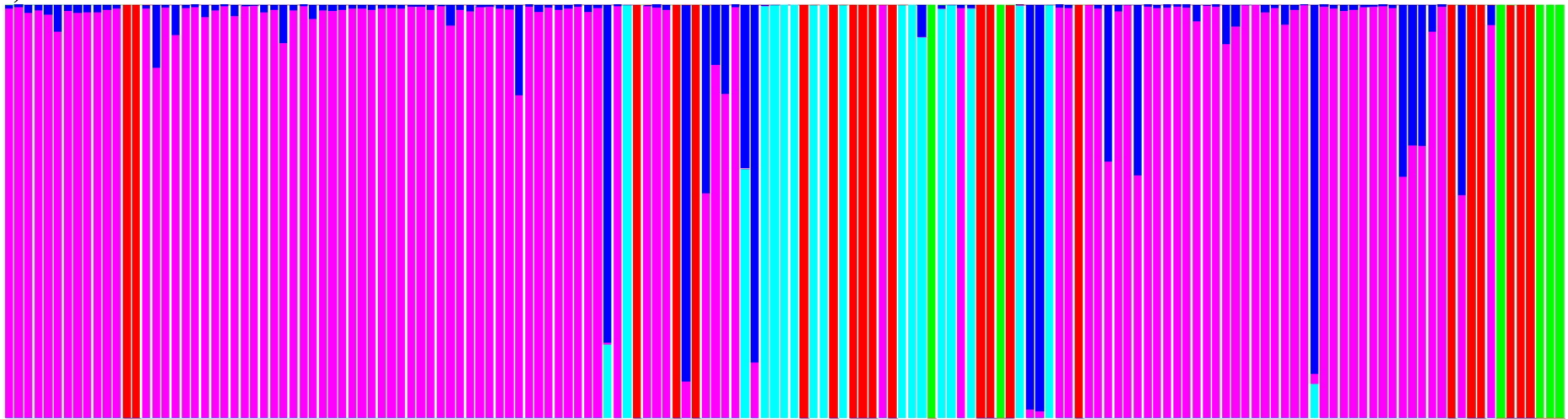
**a)**



**b)**

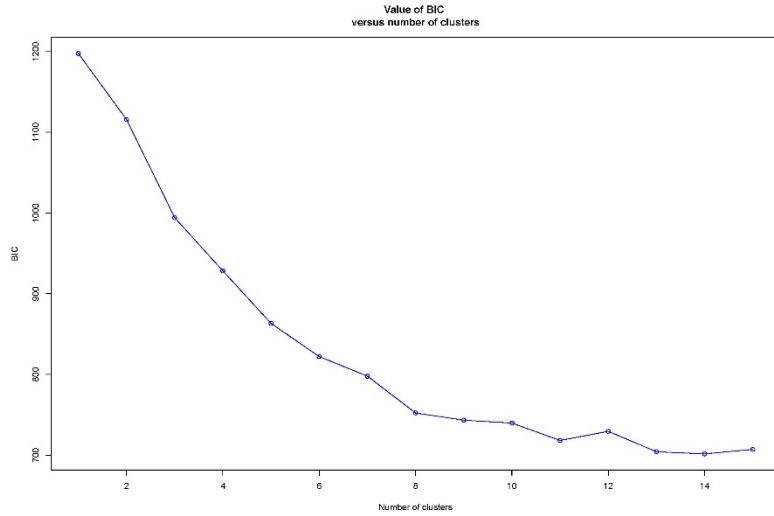


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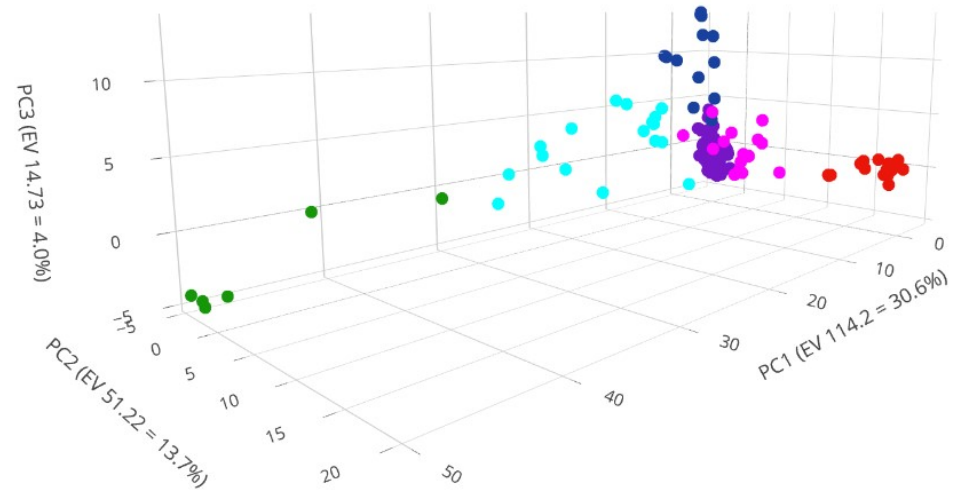


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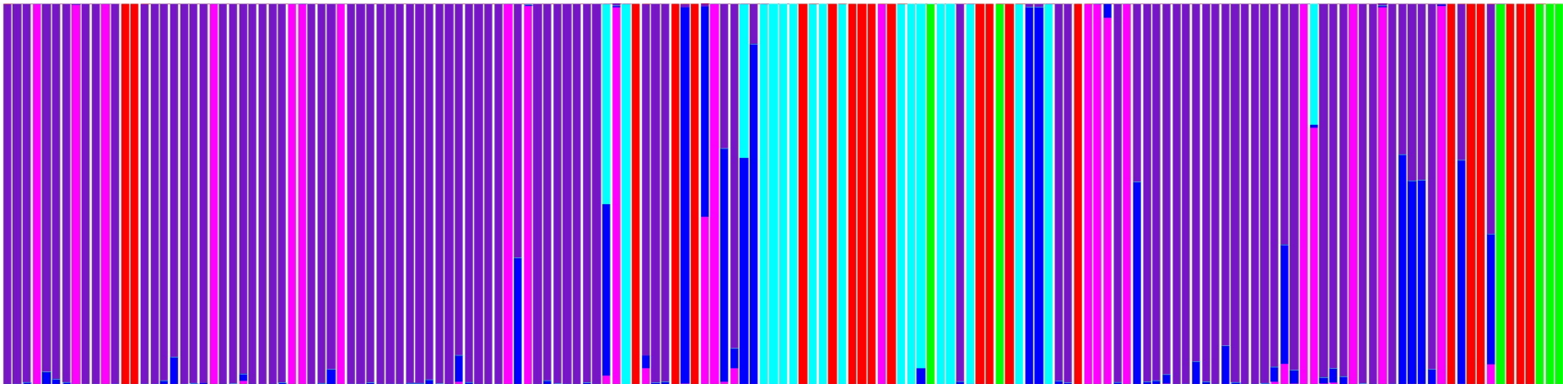
**a)**



**b)**

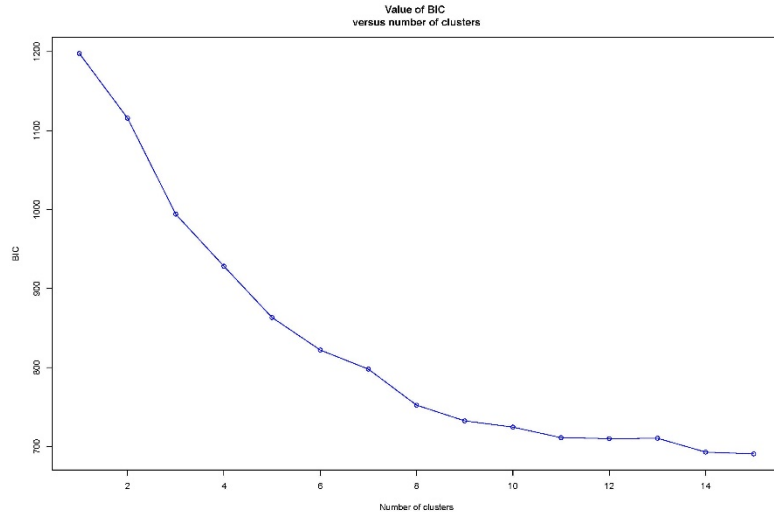


**c)**

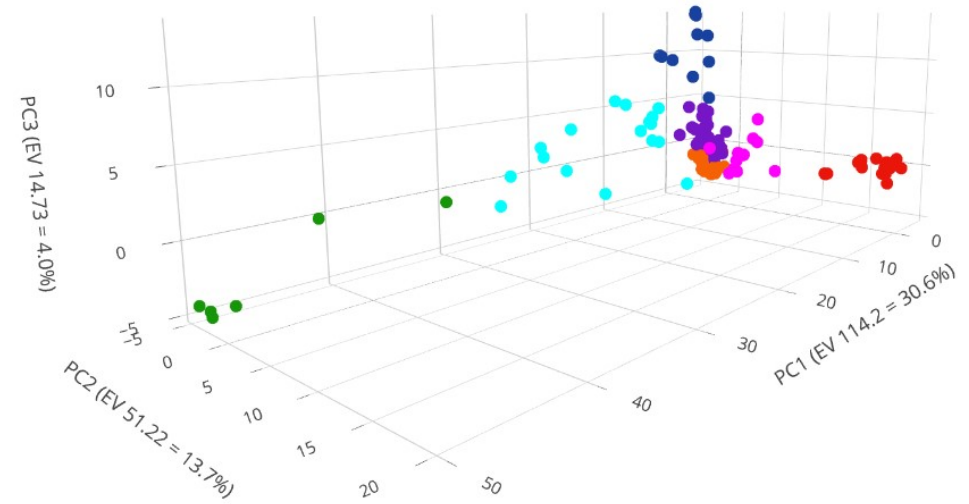


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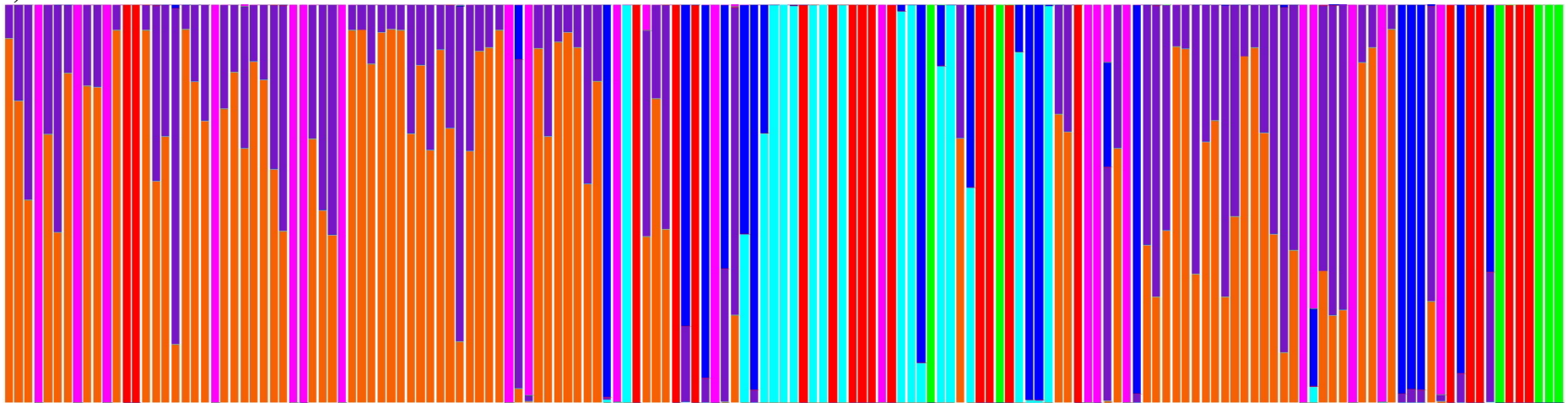
**a)**



**b)**



**c)**



**Supplementary Fig 1** DAPC analysis of 159 genotypes indicating the cluster's composition from  $K = 2$  until  $K = 7$  a) Bayesian information criterion (BIC) plot b) DAPC scatterplot - The eigenvalues and variance of each PC are found within parentheses on each axis. Individuals are represented as dots c) Genomic composition plot - Each thin vertical line in the bar plot represents one individual and each colour represents one inferred ancestral population. The length of each colour in a vertical bar represents the proportion of that individual's ancestry that is derived from the inferred ancestral population corresponding to that colour. The same colour in different individuals indicates that they belong to the same cluster, indicating admixture