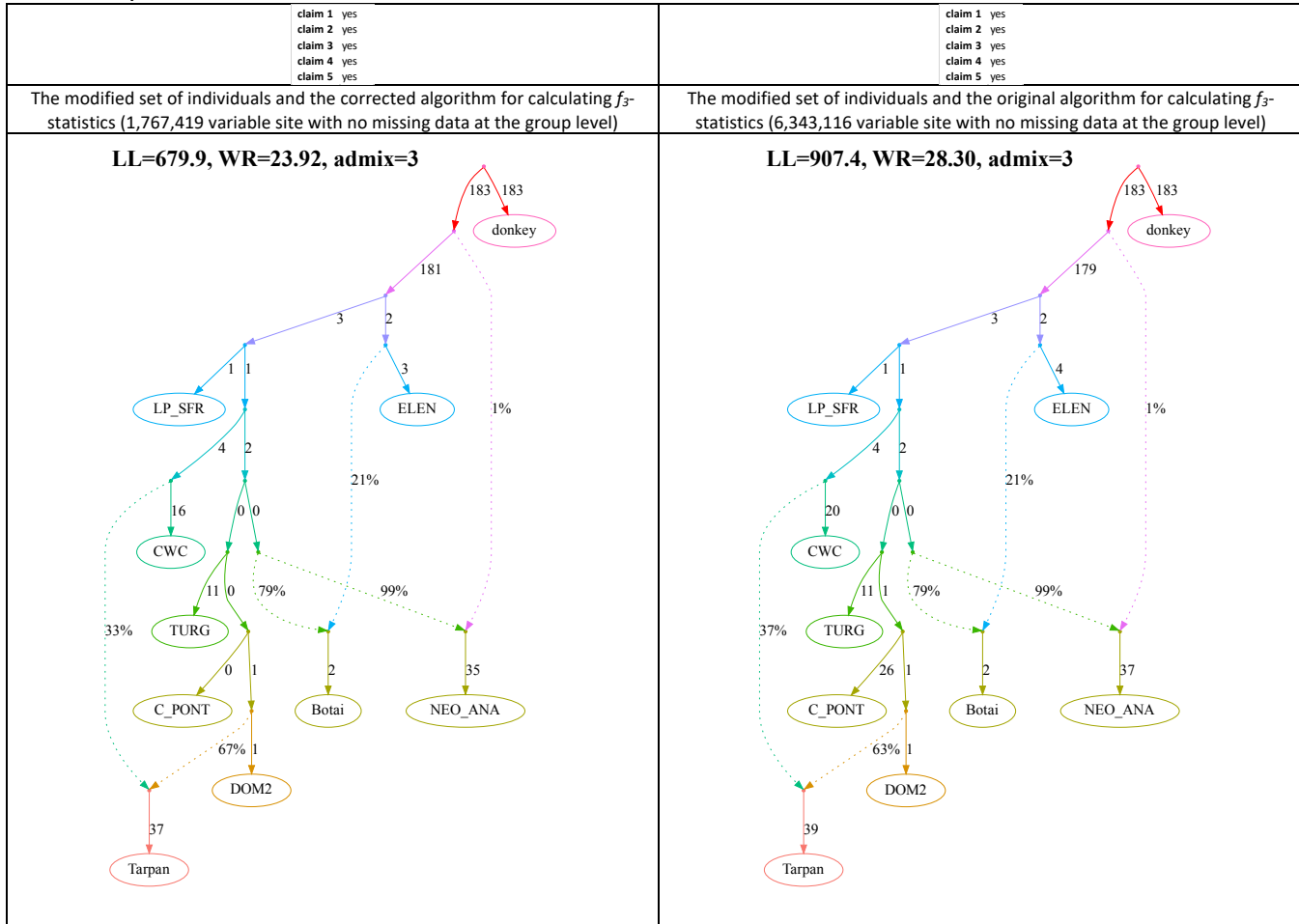


Figure S8

Figure S8. Published admixture graphs from Librado *et al.* (2019) and alternative graphs found with *findGraphs* (10 populations, 3 to 5 admixture events) for the modified group composition and using the updated algorithm for calculating f_3 -statistics. The graphs were also re-fitted on the original set of SNPs/individuals and using the original algorithm for calculating f_3 -statistics. Selected alternative graphs found with *findGraphs* when more admixture events were allowed (from 6 to 9) are also shown. Model parameters (graph edges) that were inferred to be unidentifiable are plotted in red.

a, published model, 3 admixture events



Claims by Librado *et al.* 2021 relying on the admixture graph:

- 1) NEO-ANA-related admixture is absent in DOM2;
- 2) DOM2 and C-PONT are sister groups;
- 3) there is no gene flow connecting the CWC and the cluster associated with Yamnaya horses and horses of the later Sintashta culture whose ancestry is maximized in the Western Steppe (DOM2, C-PONT, TURG);
- 4) there was a gene flow from a deep-branching ghost group to NEO-ANA;
- 5) Tarpan is a mixture of a CWC-related and a DOM2-related lineage.

Figure S8

b, an alternative model with 3 admixture events fitting significantly better than the published one

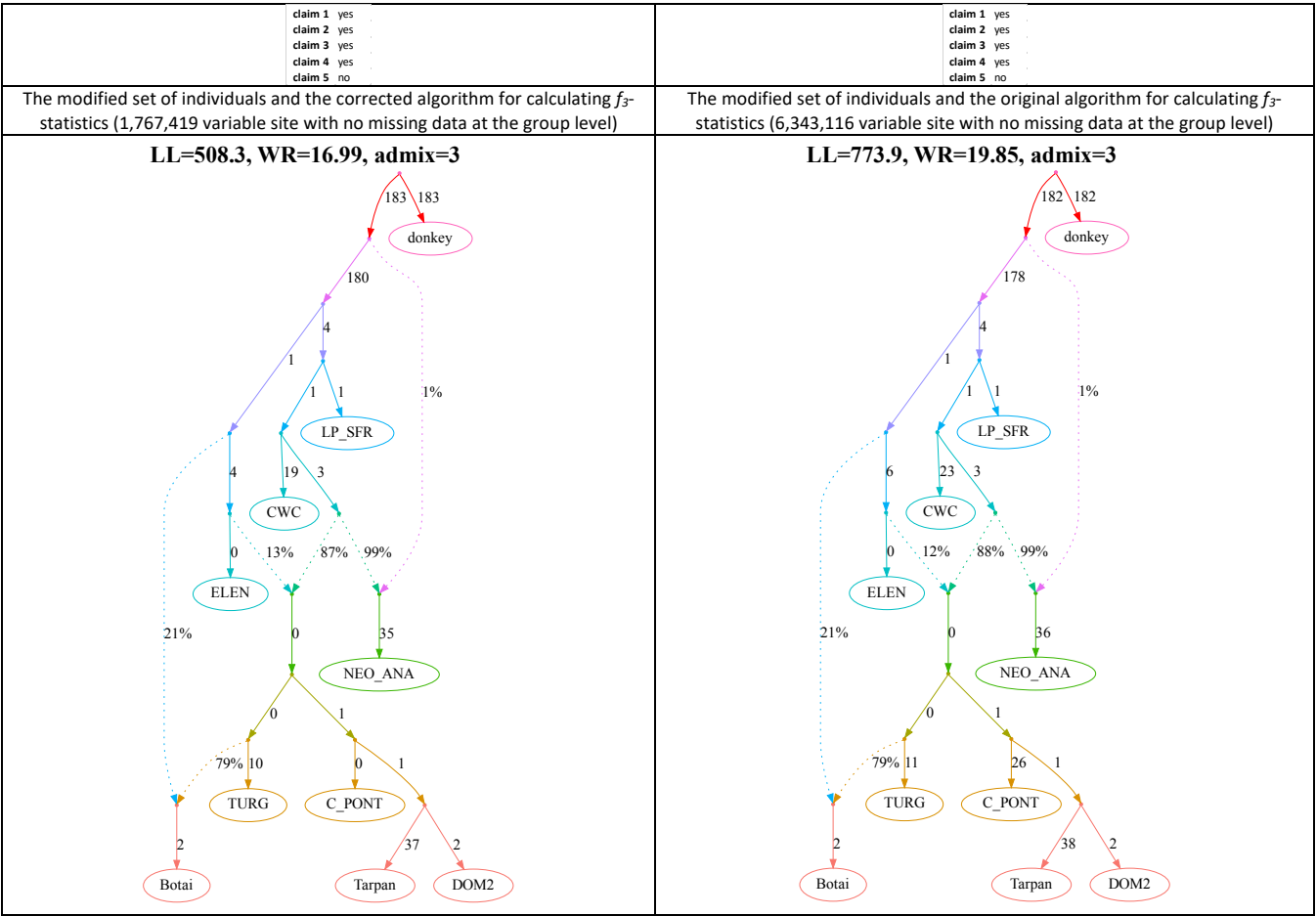


Figure S8

c, published model, 4 admixture events

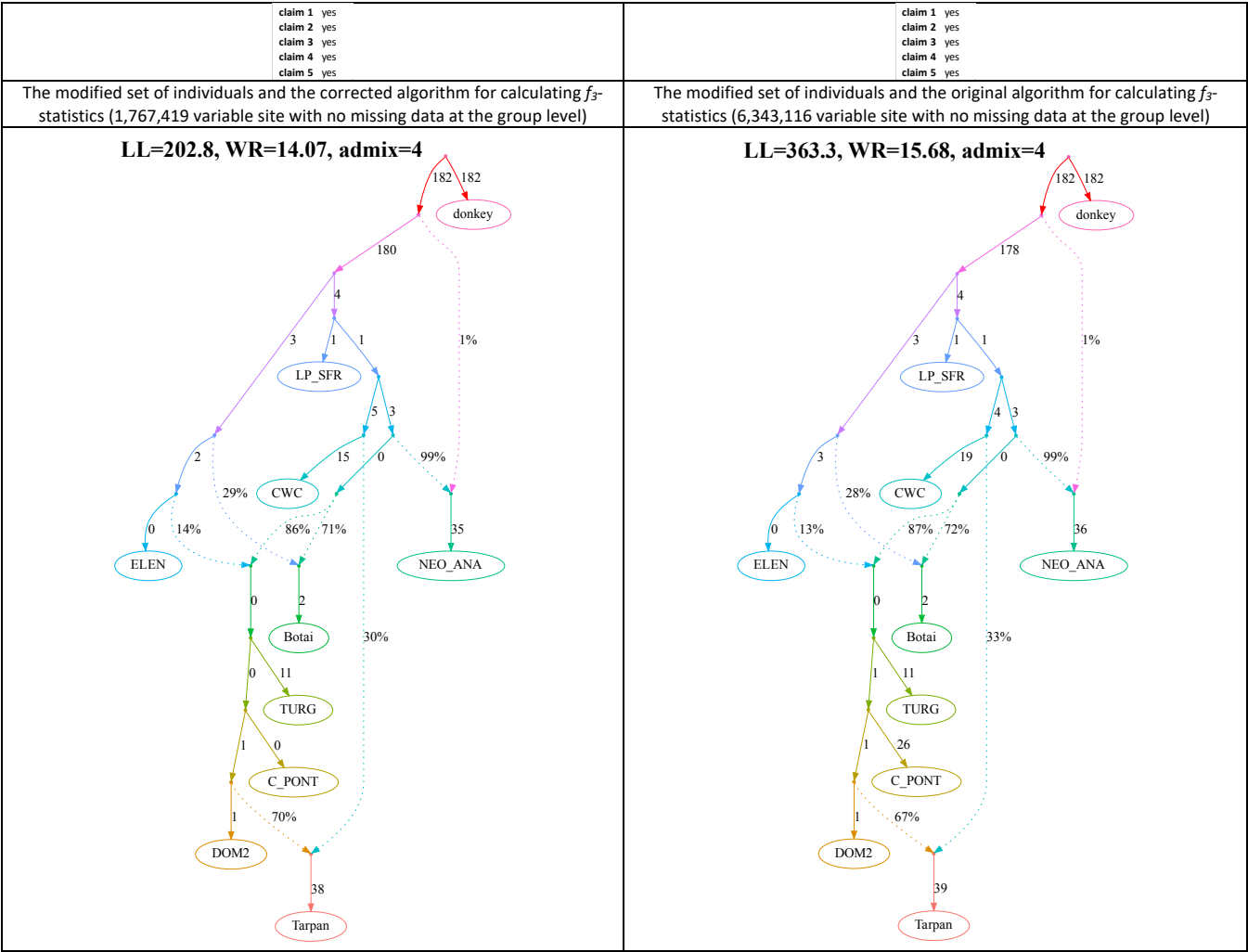


Figure S8

d, an alternative model with 4 admixture events fitting not significantly worse than the published one

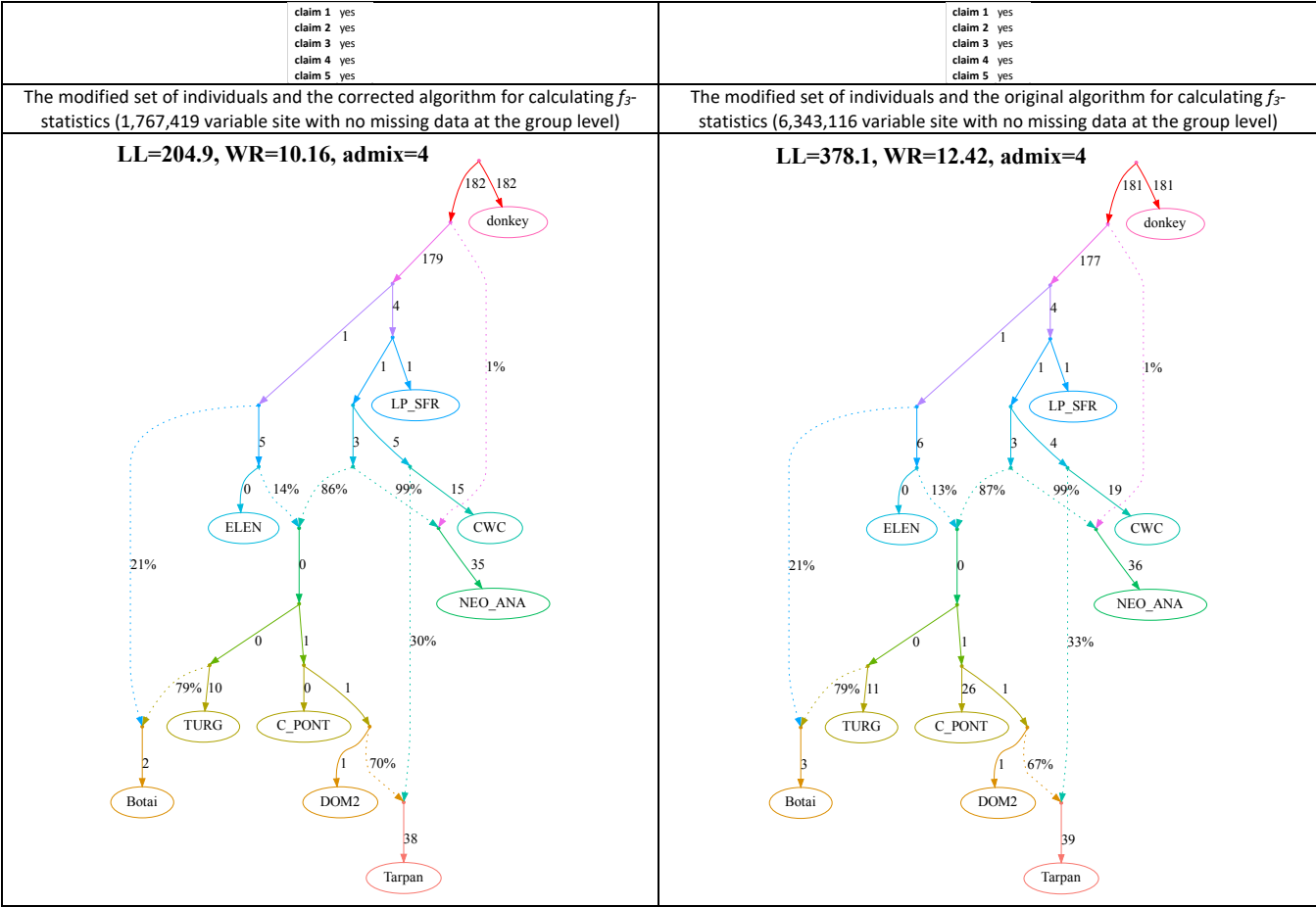


Figure S8

e, published model, 5 admixture events

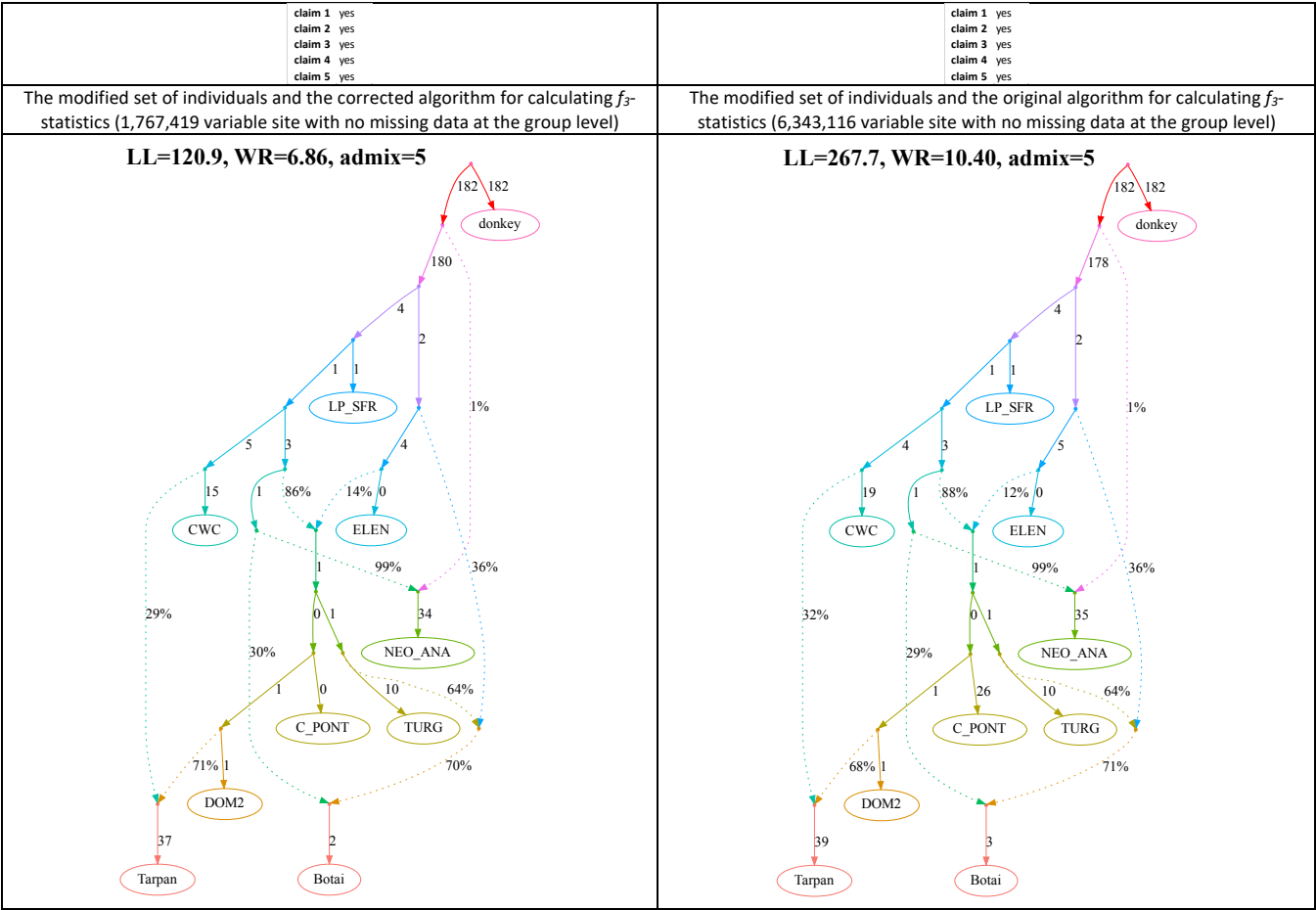


Figure S8

f, an alternative model with 5 admixture events fitting not significantly worse than the published one

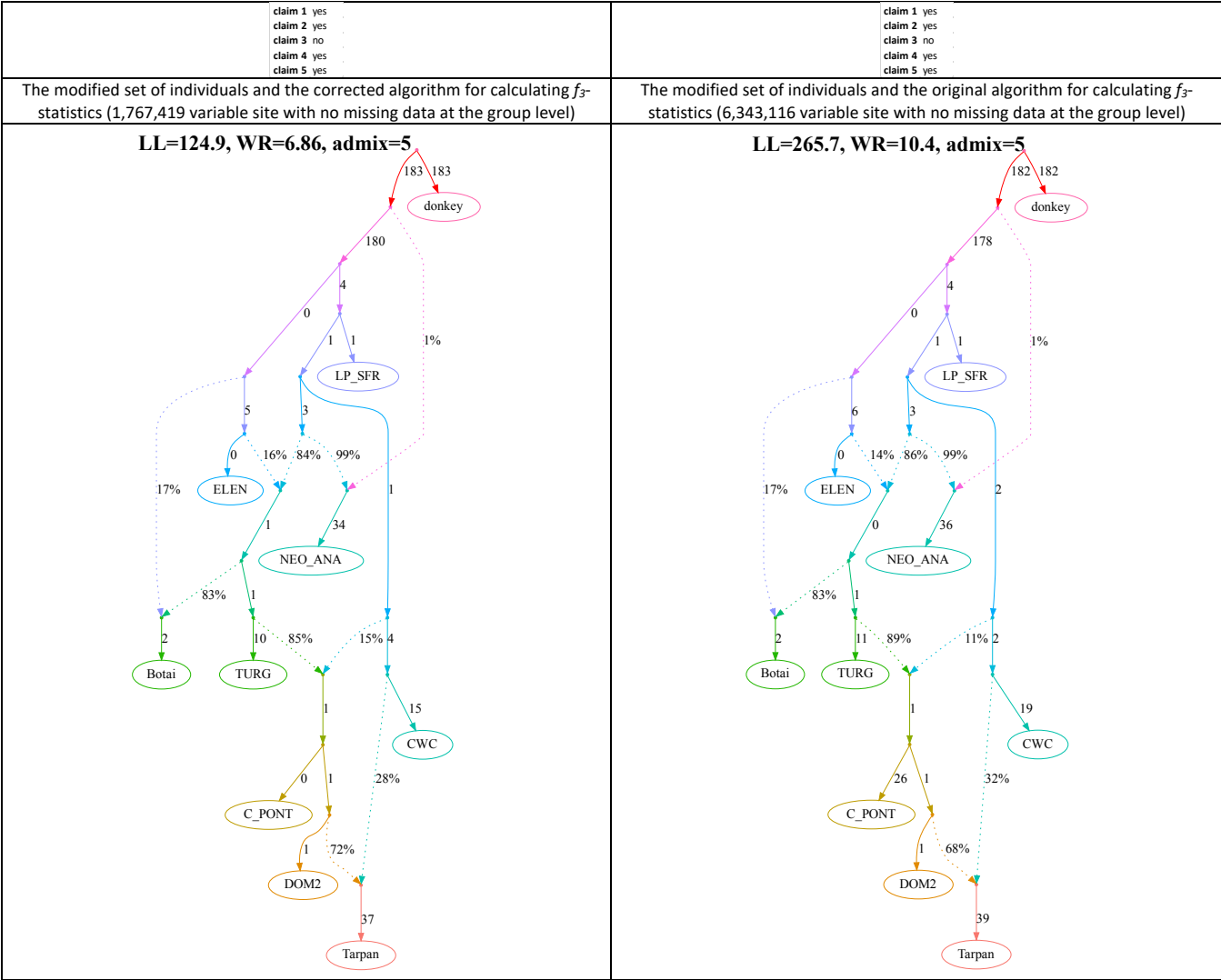


Figure S8

g, selected models with 6 admixture events

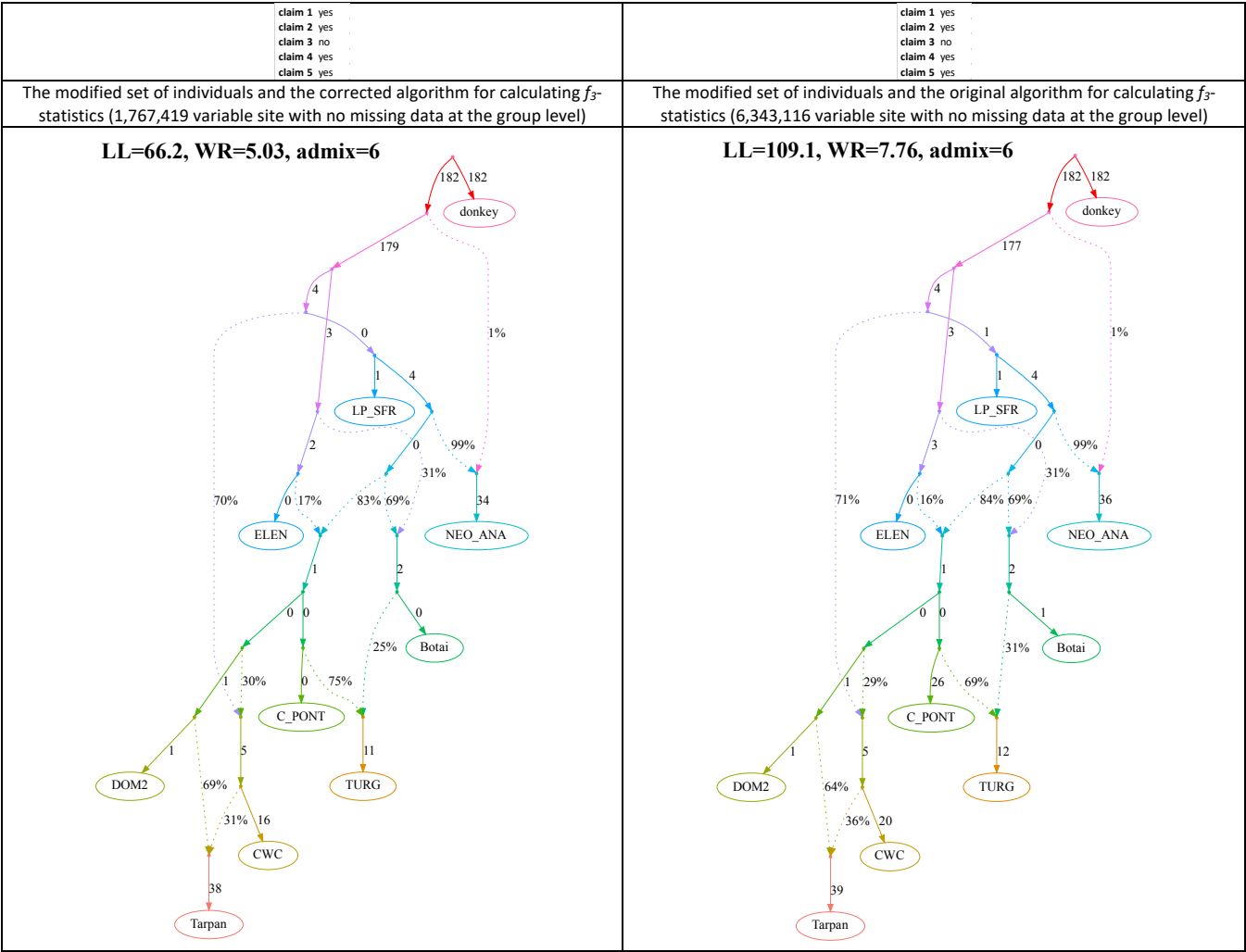
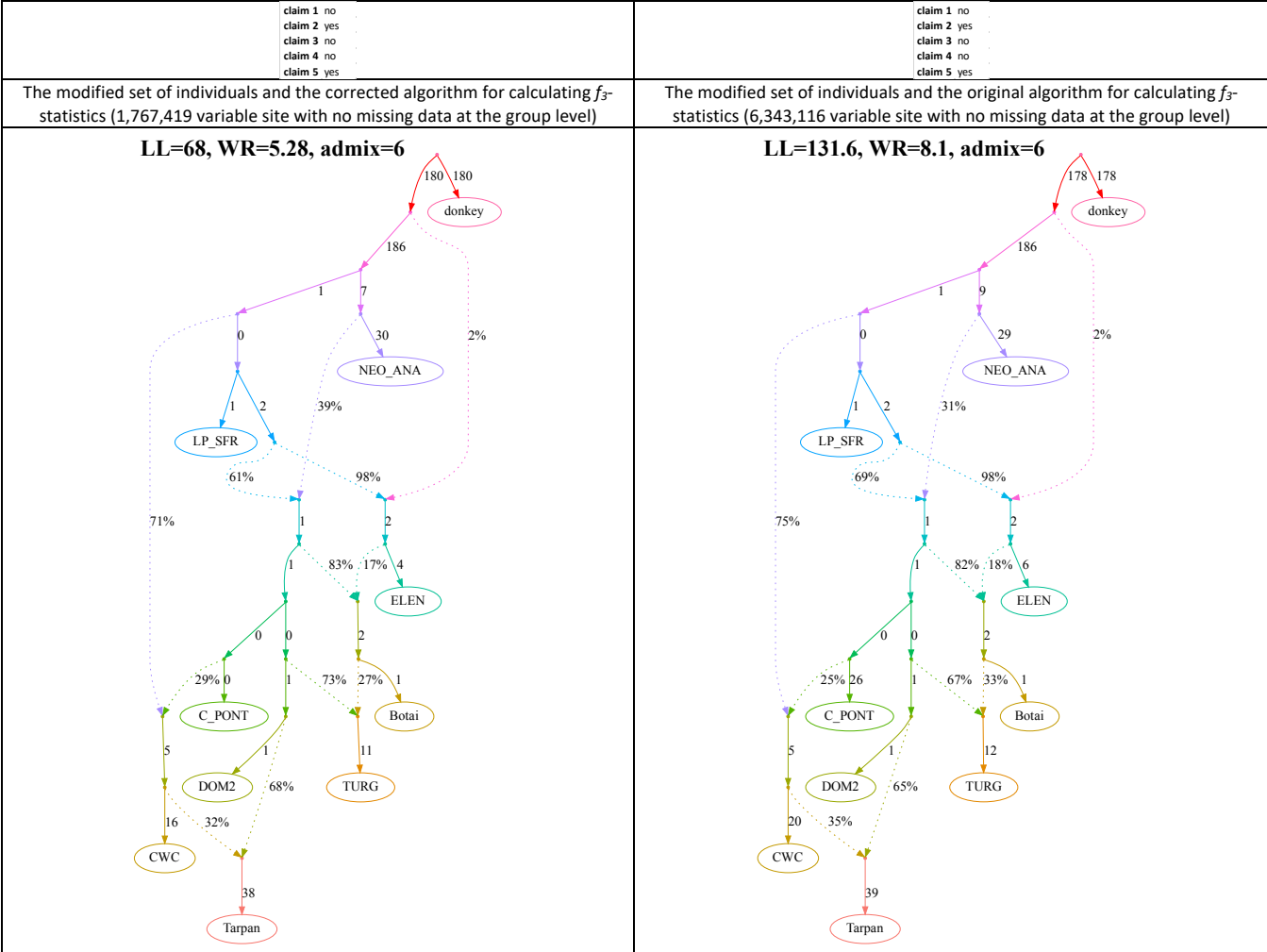


Figure S8



h, selected models with 7 admixture events (all plausible models with $WR < 5$ SE)



Figure S8

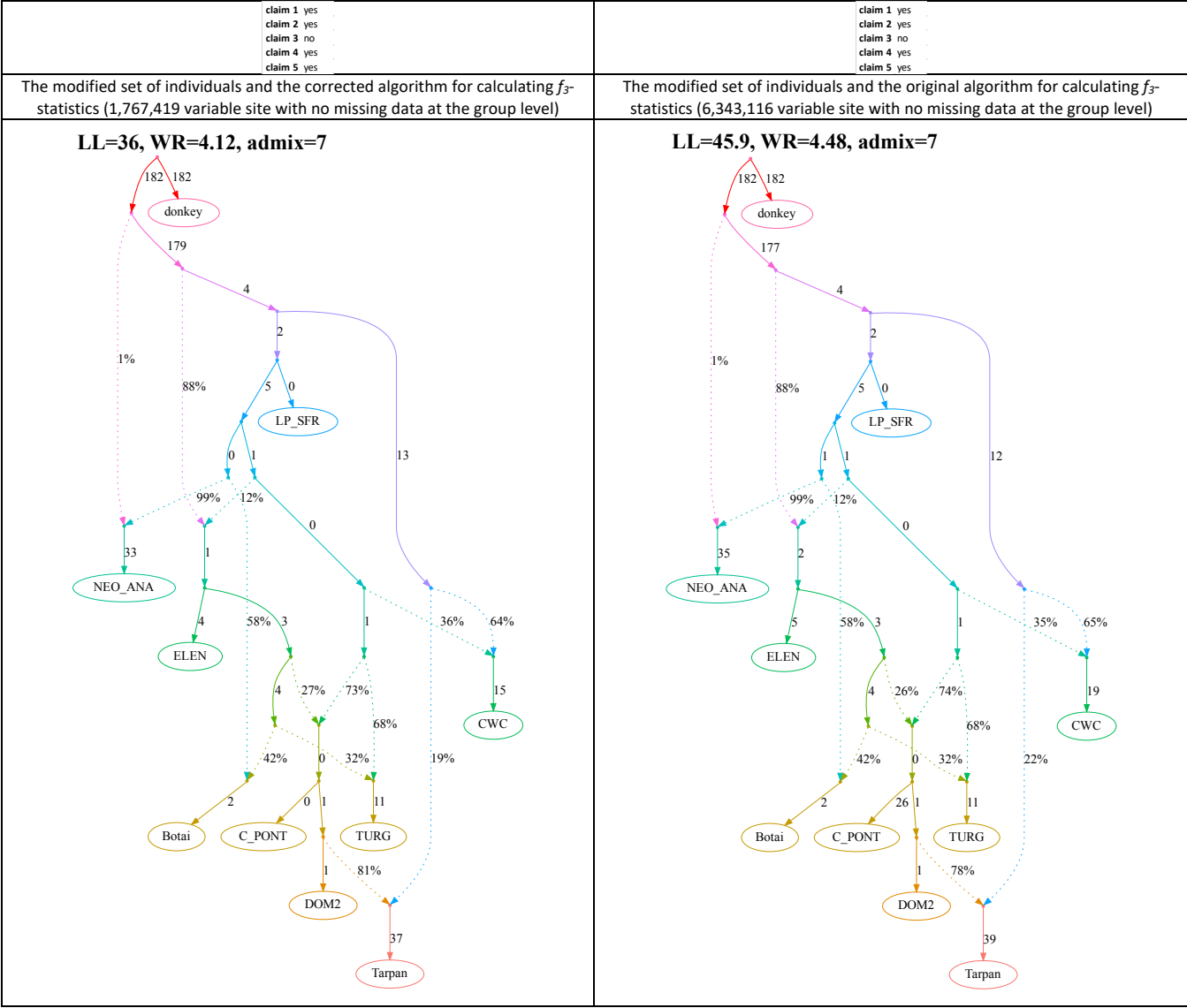


Figure S8

i, selected models with 7 admixture events (all plausible models with $WR < 5$ SE)

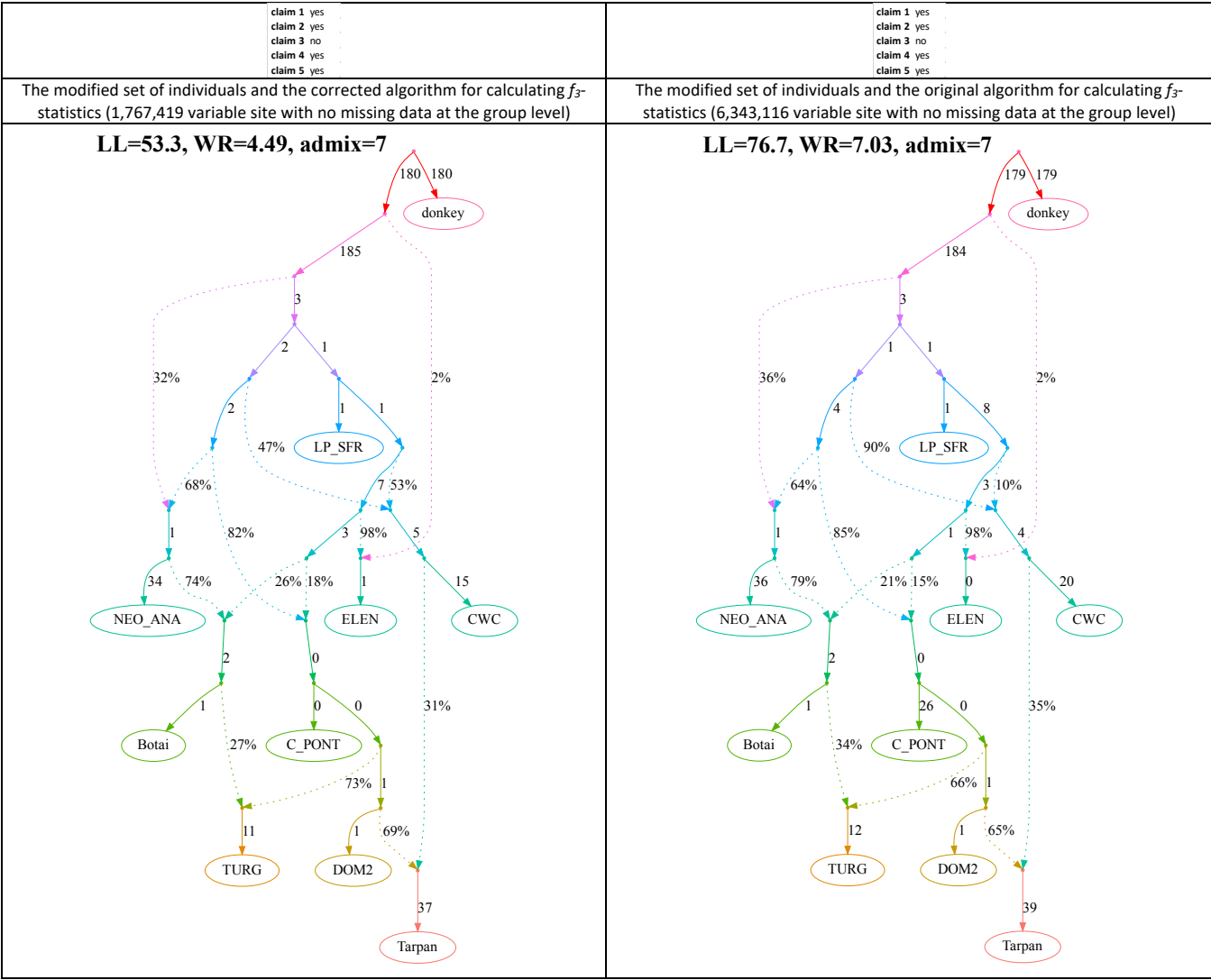
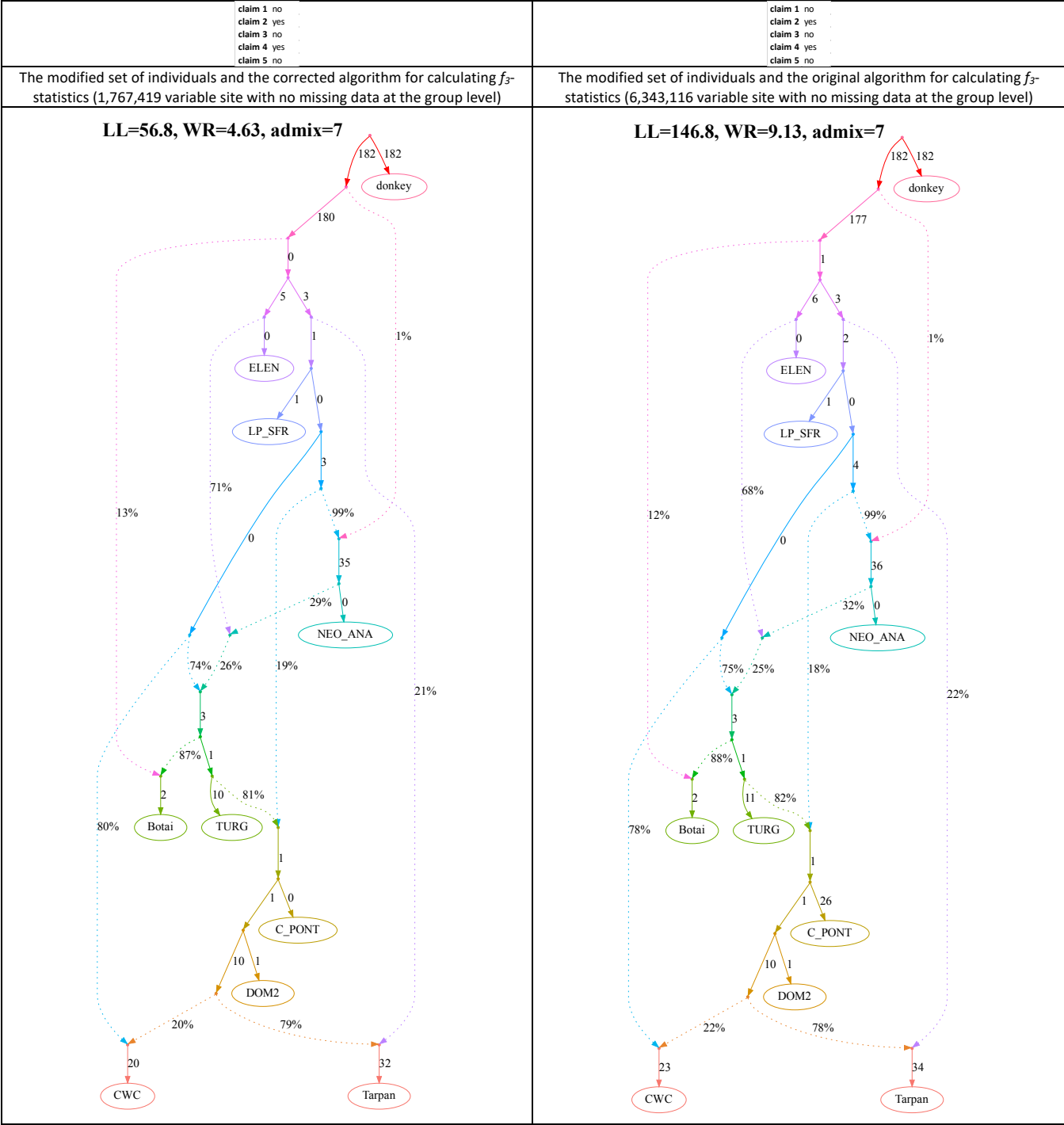


Figure S8



j, selected models with 8 admixture events (all plausible models with $WR < 4$ SE)



Figure S8

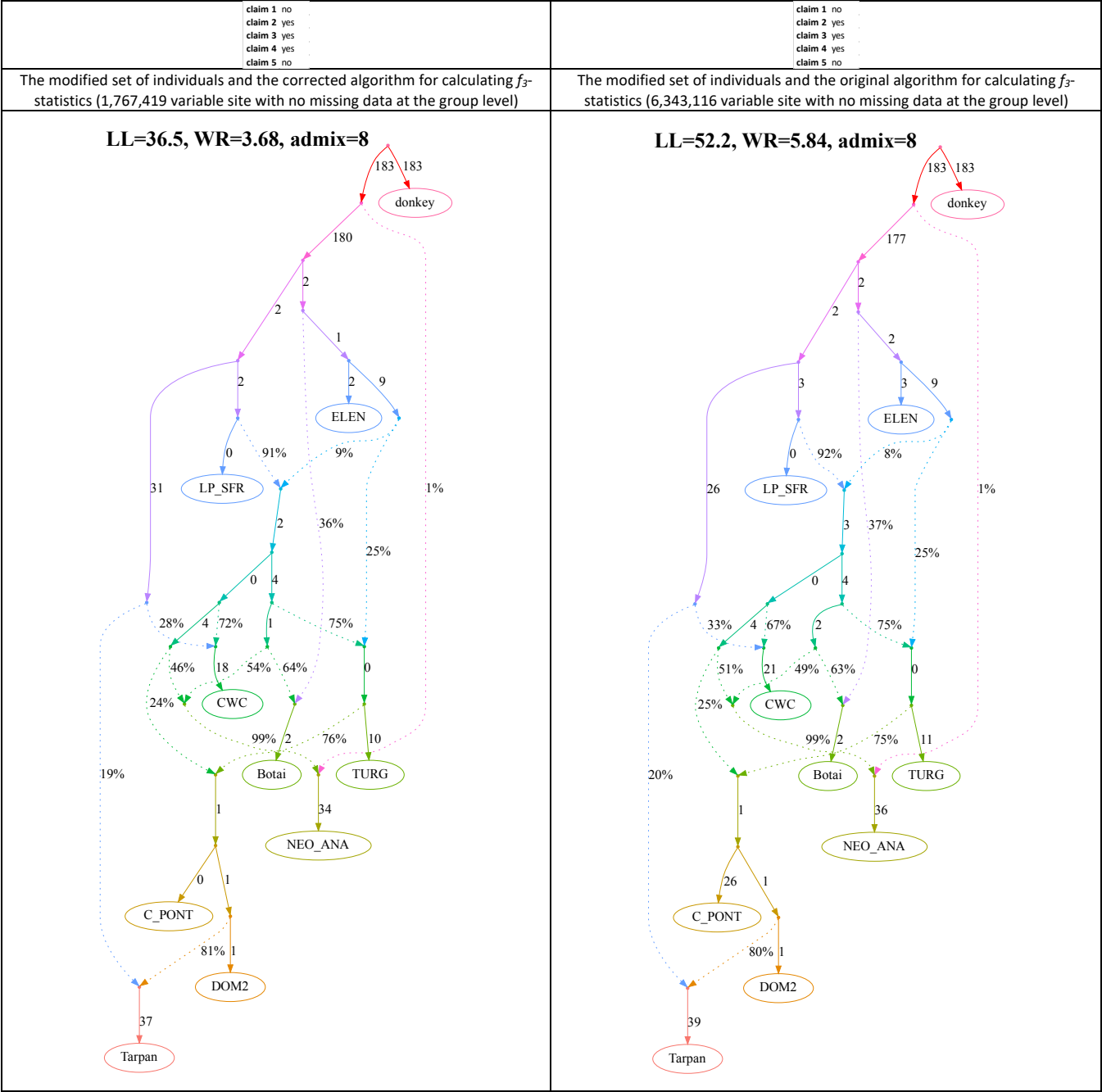


Figure S8

k, selected models with 8 admixture events (all plausible models with WR < 4 SE)



Figure S8

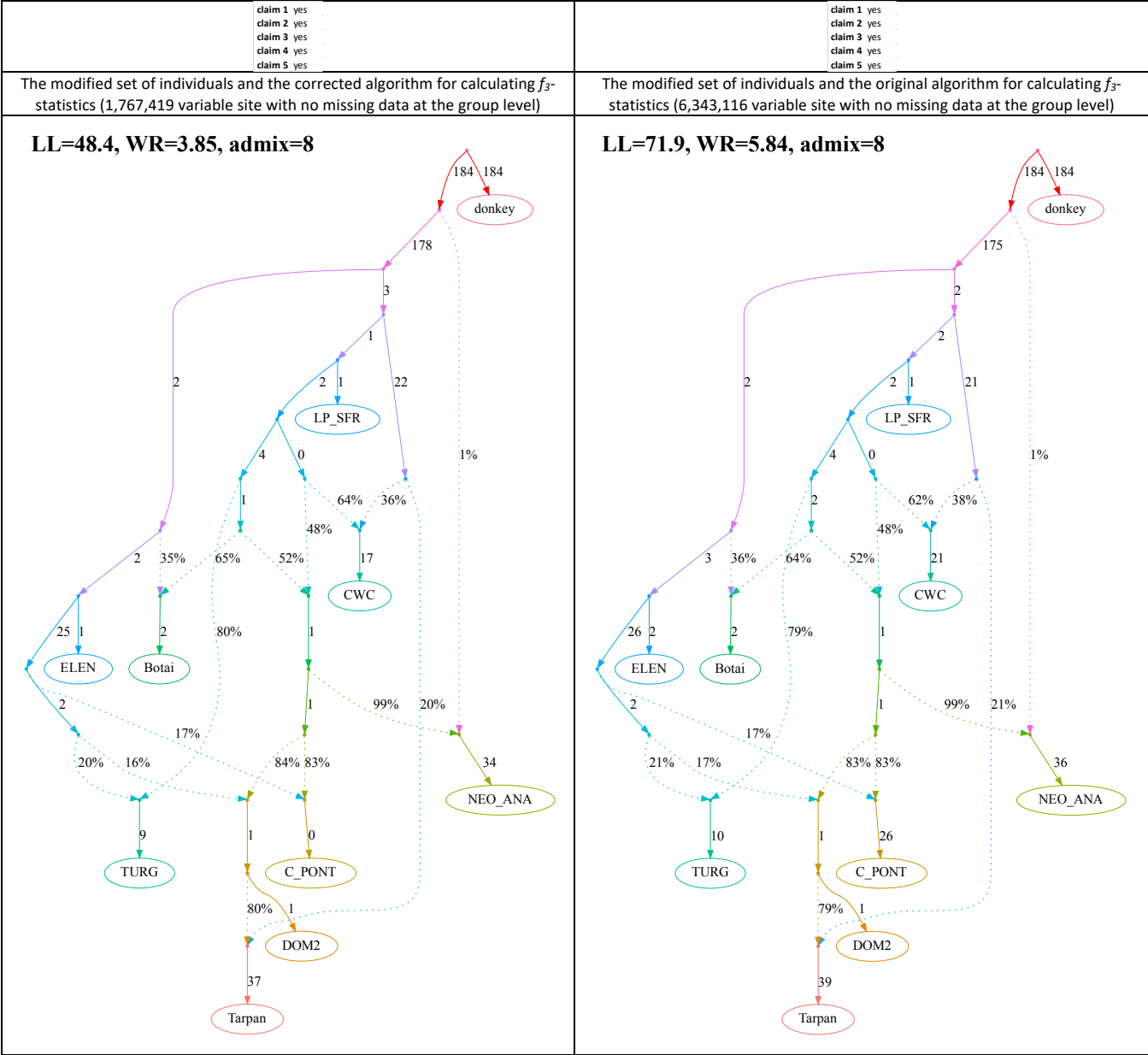


Figure S8

I, selected models with 8 admixture events (all plausible models with $WR < 4$ SE)

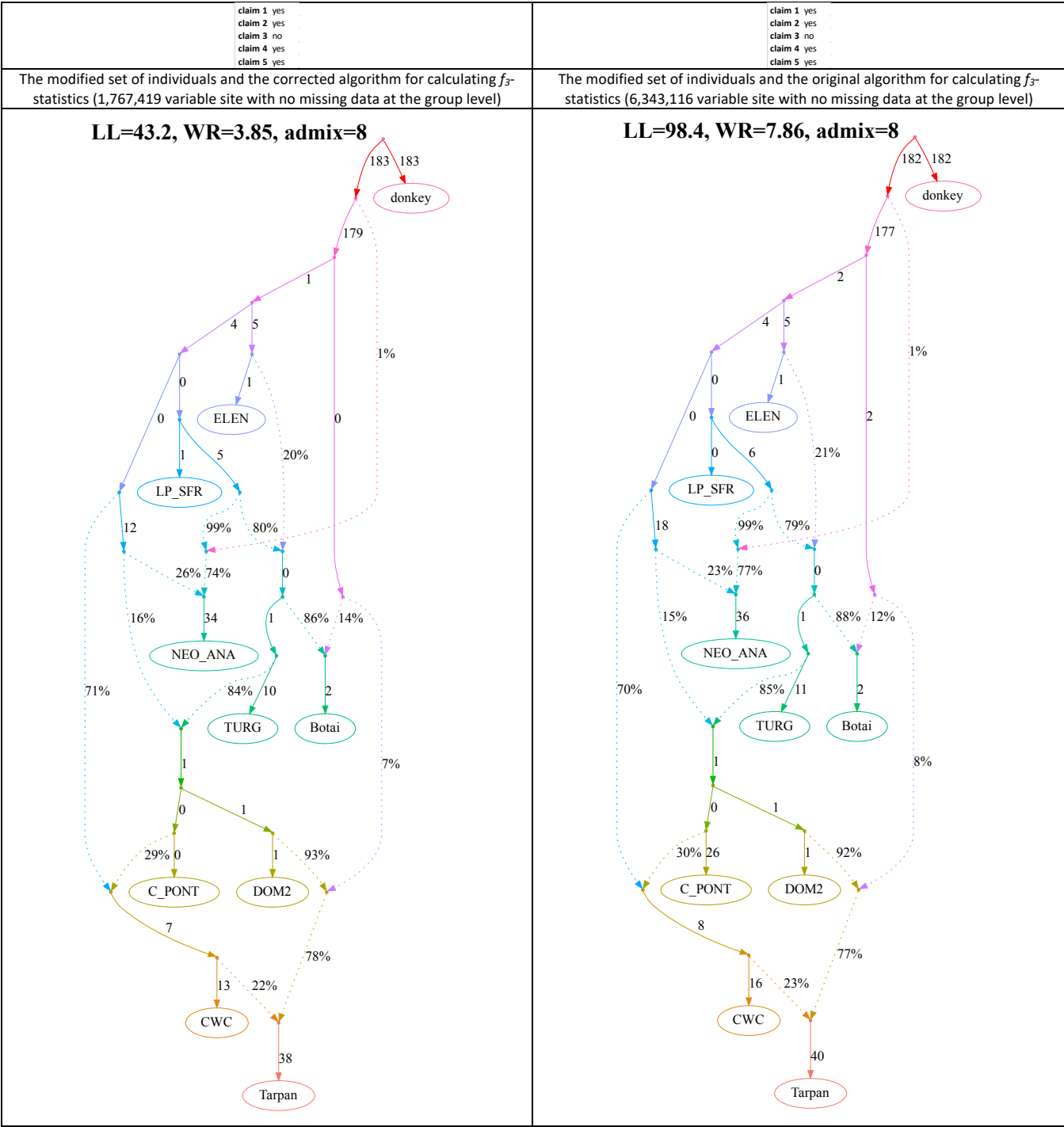


Figure S8

m, selected models with 9 admixture events (all plausible models with WR < 4 SE)

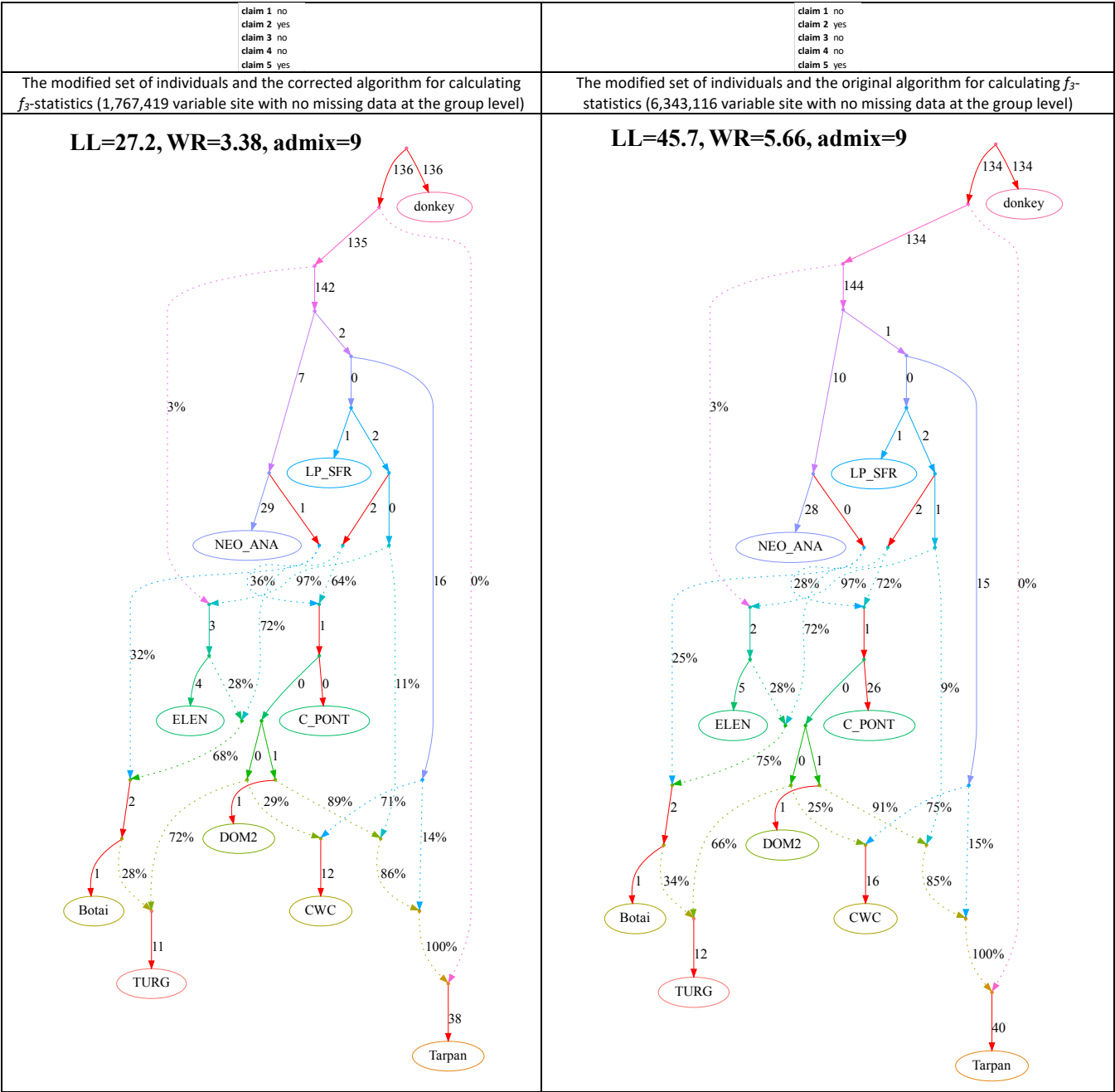
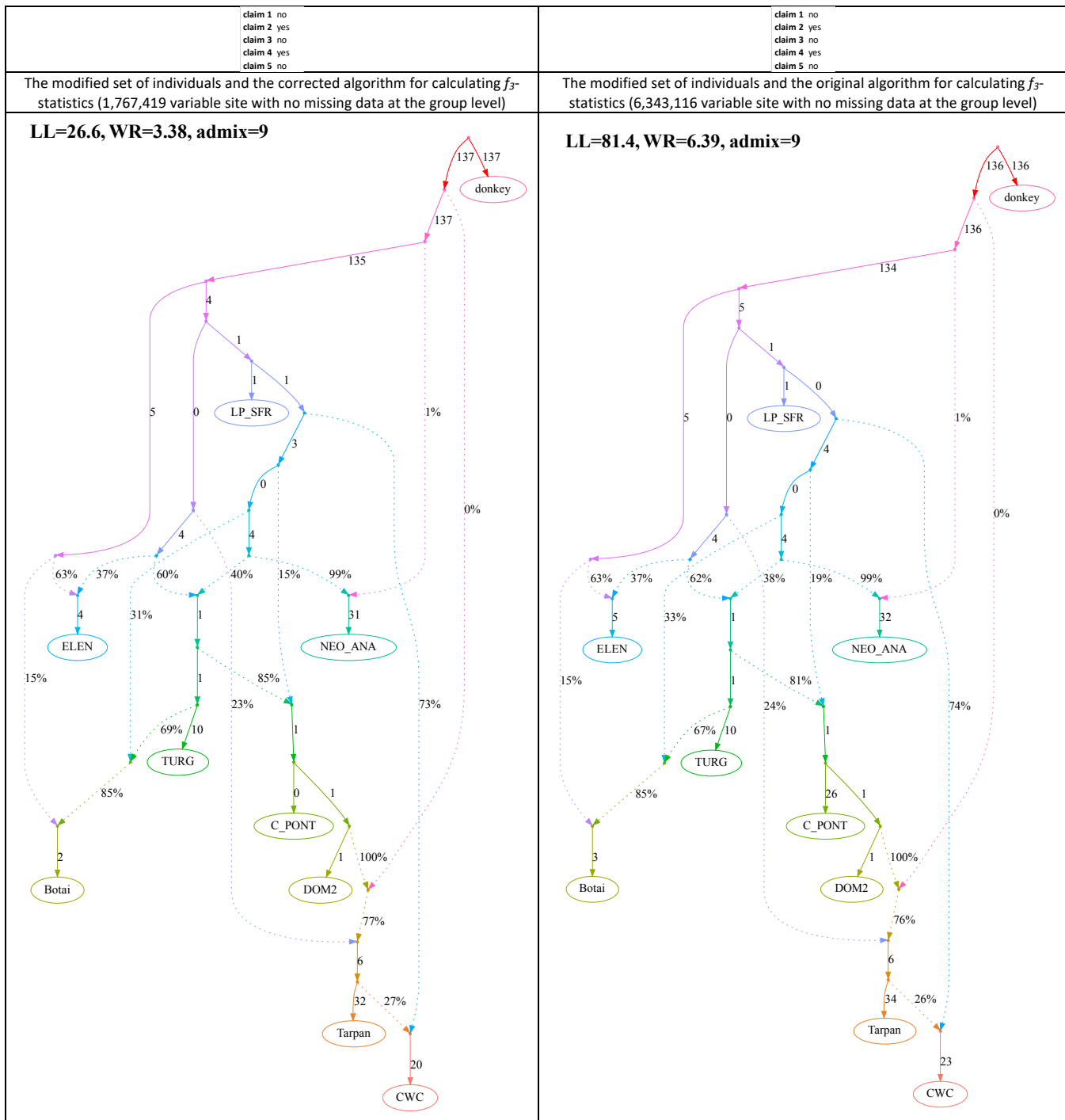


Figure S8



n, selected models with 9 admixture events (all plausible models with $WR < 4$ SE)



Figure S8

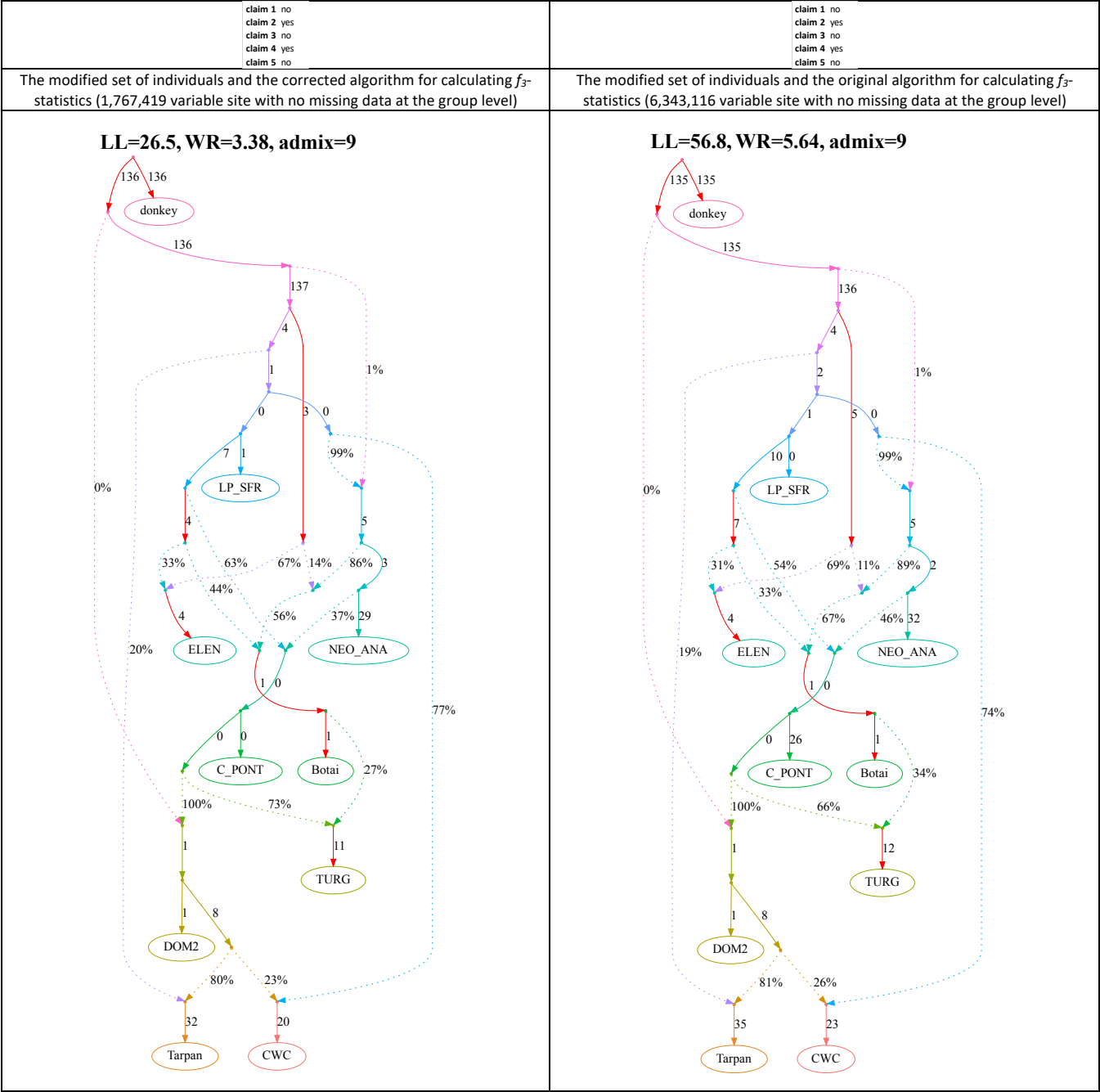


Figure S8

o, selected models with 9 admixture events (all plausible models with WR < 4 SE)

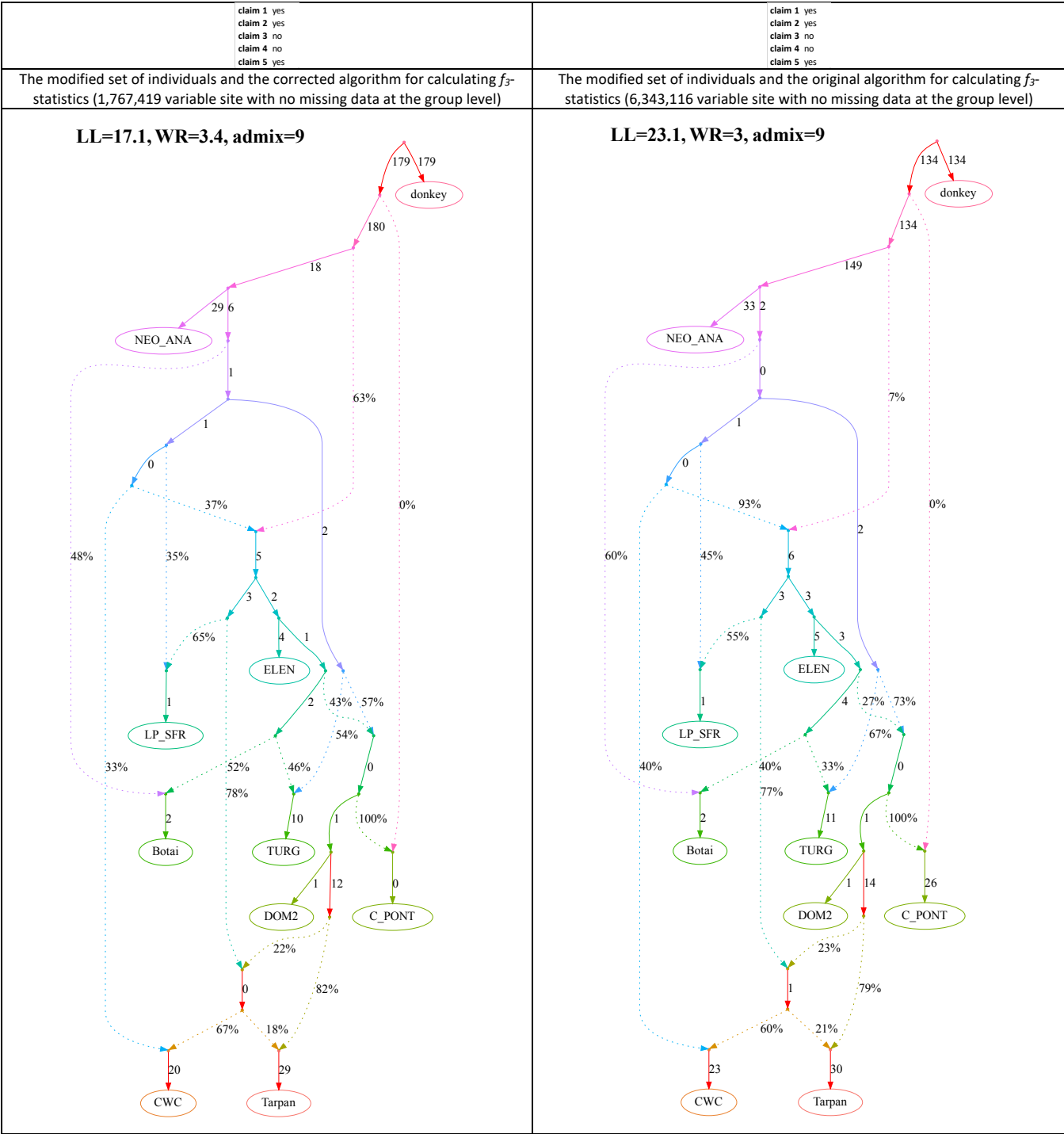
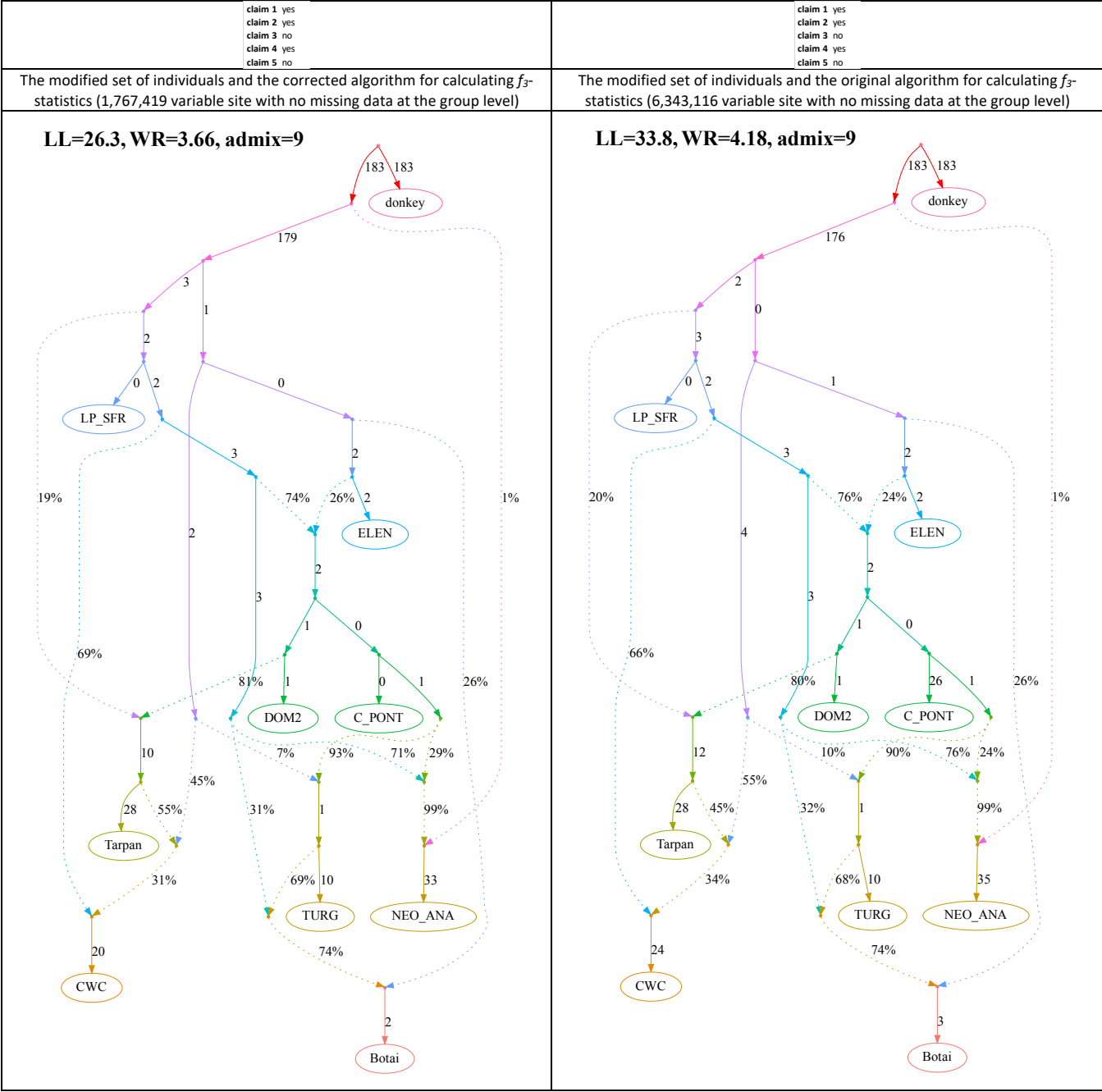


Figure S8



p, selected models with 9 admixture events (all plausible models with WR < 4 SE)



Figure S8

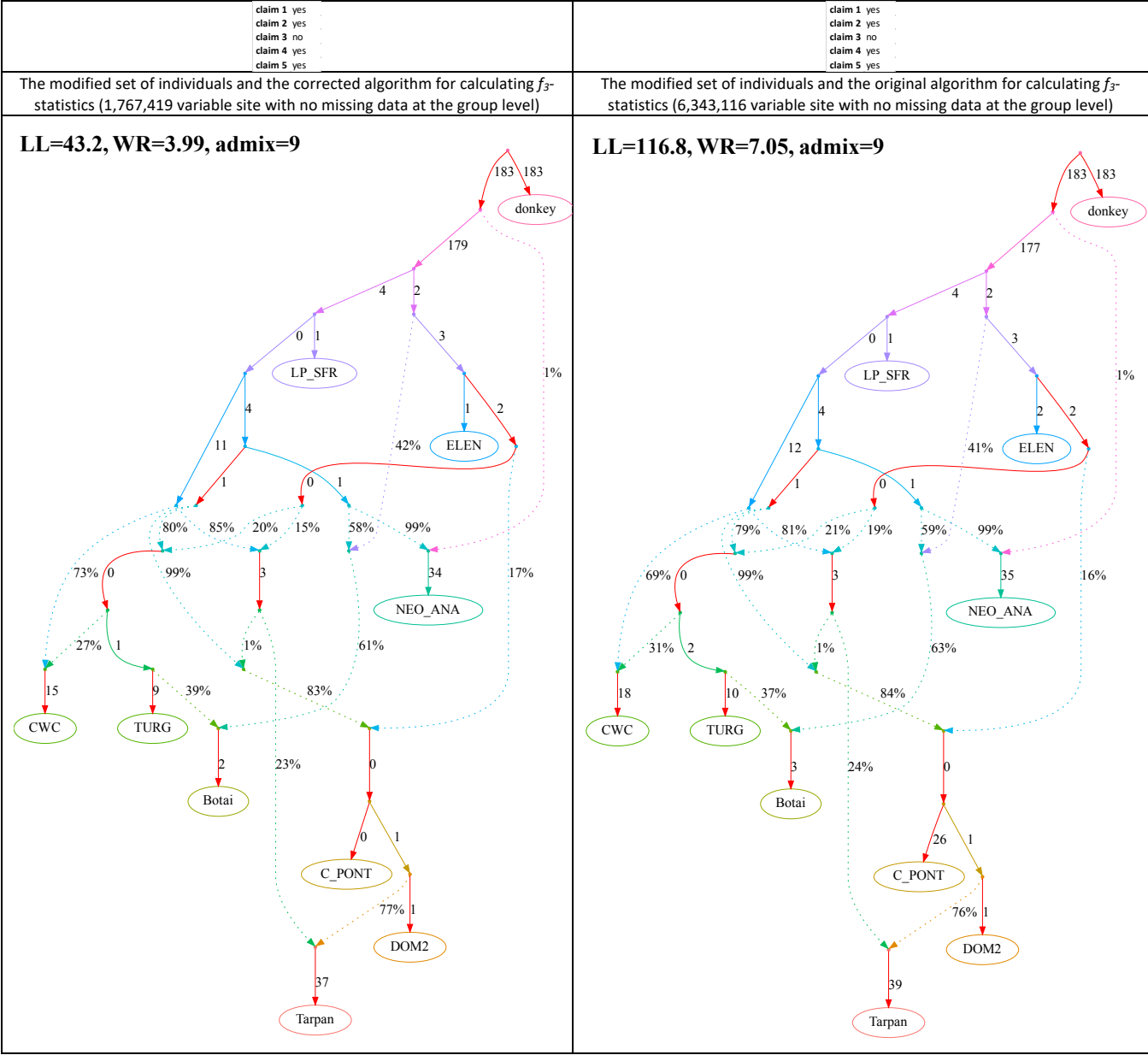


Figure S8

q, selected models with 9 admixture events (all plausible models with $WR < 4$ SE)

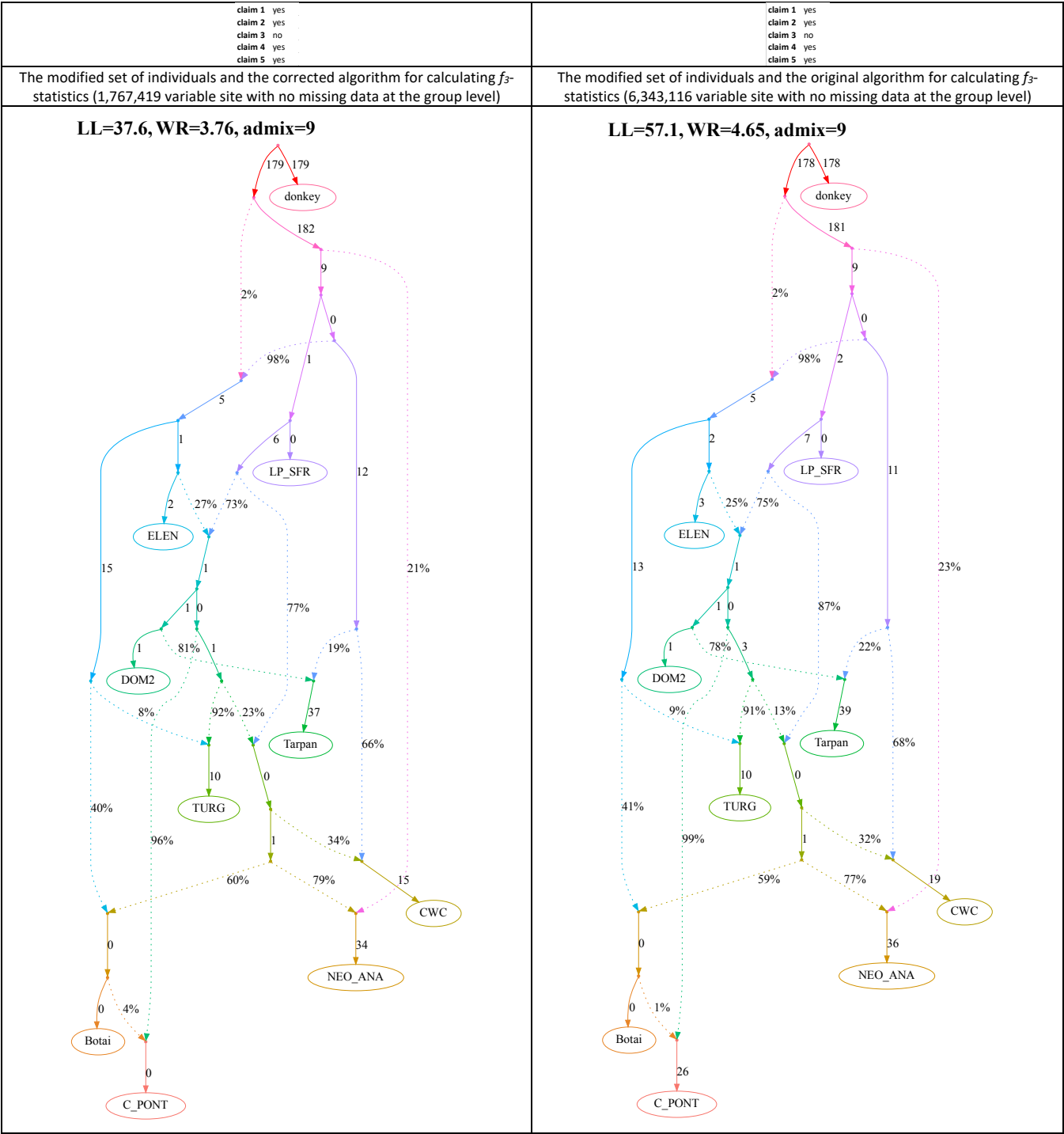


Figure S8

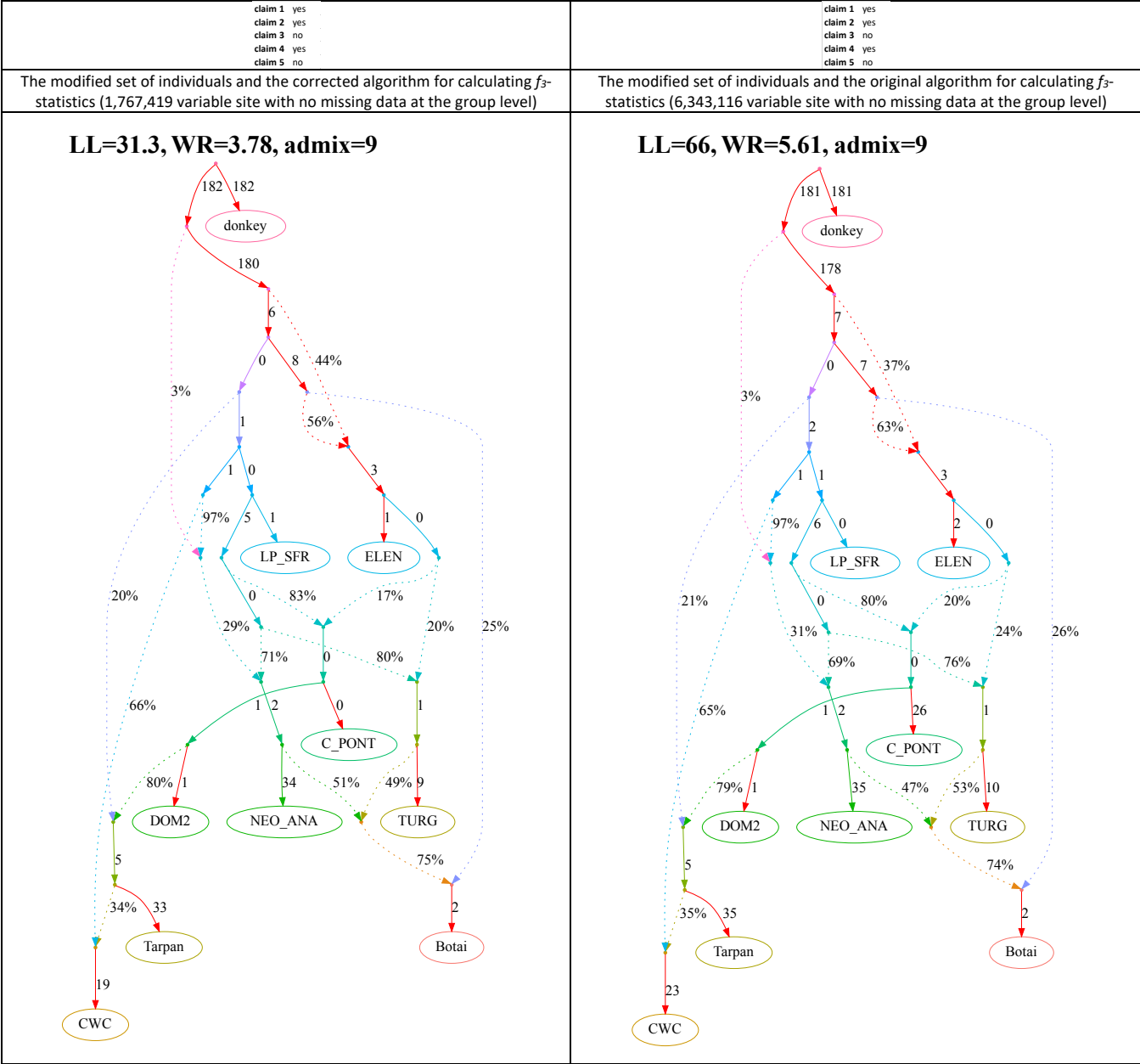


Figure S8

r, selected models with 9 admixture events (all plausible models with WR < 4 SE)

