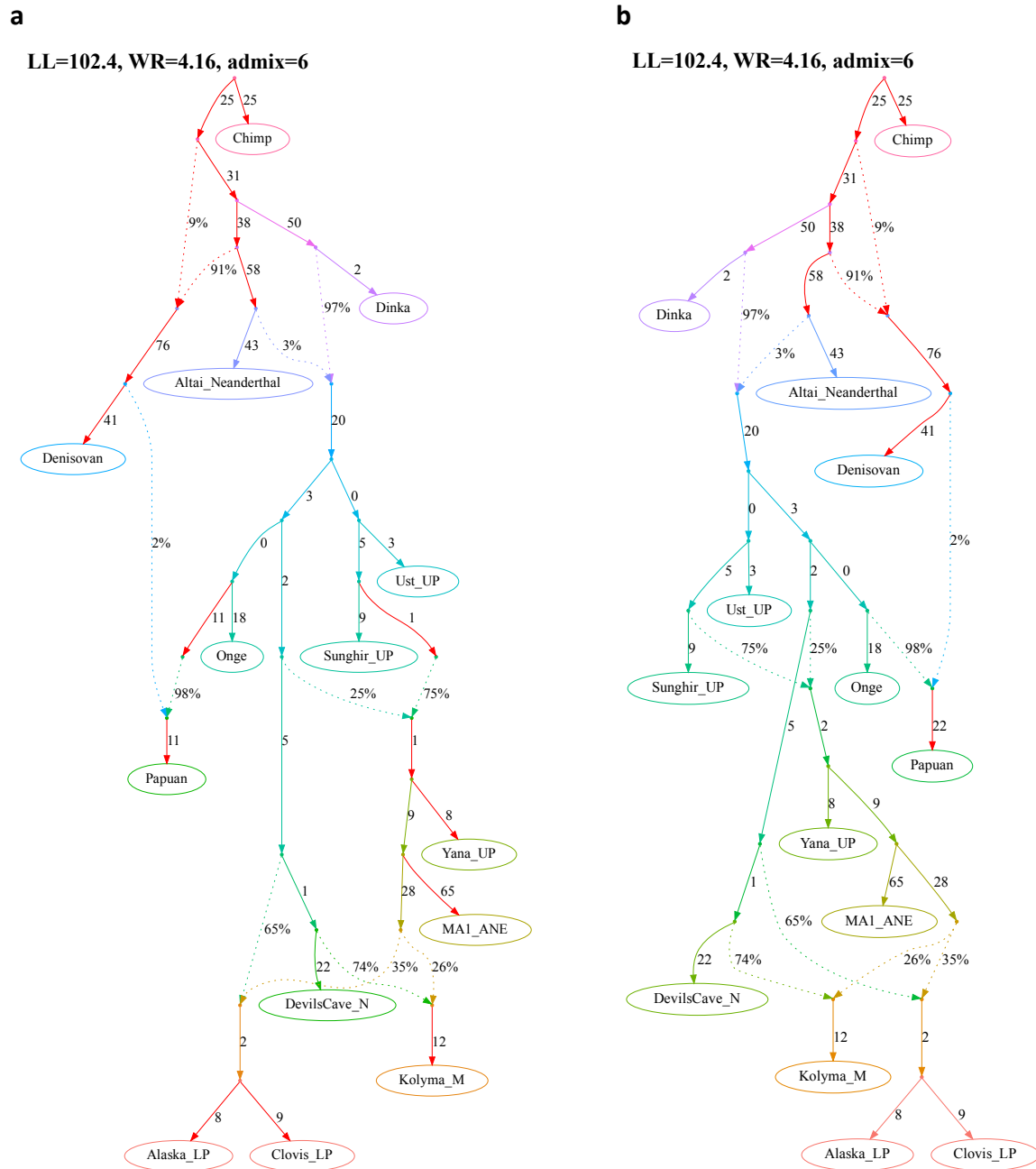


**Figure 4—source data 4.** Simplified published admixture graph for East Eurasian groups from Sikora *et al.* (2019) and alternative graphs found with *findGraphs* (14 populations, 6 admixture events). Model parameters (graph edges) that were inferred to be unidentifiable are plotted in red.

**a**, published model, with chimpanzee added as an outgroup and 4 low-level gene flows from the Neanderthal lineage dropped. **b**, the same model as above, simplified by dropping unidentifiable edges

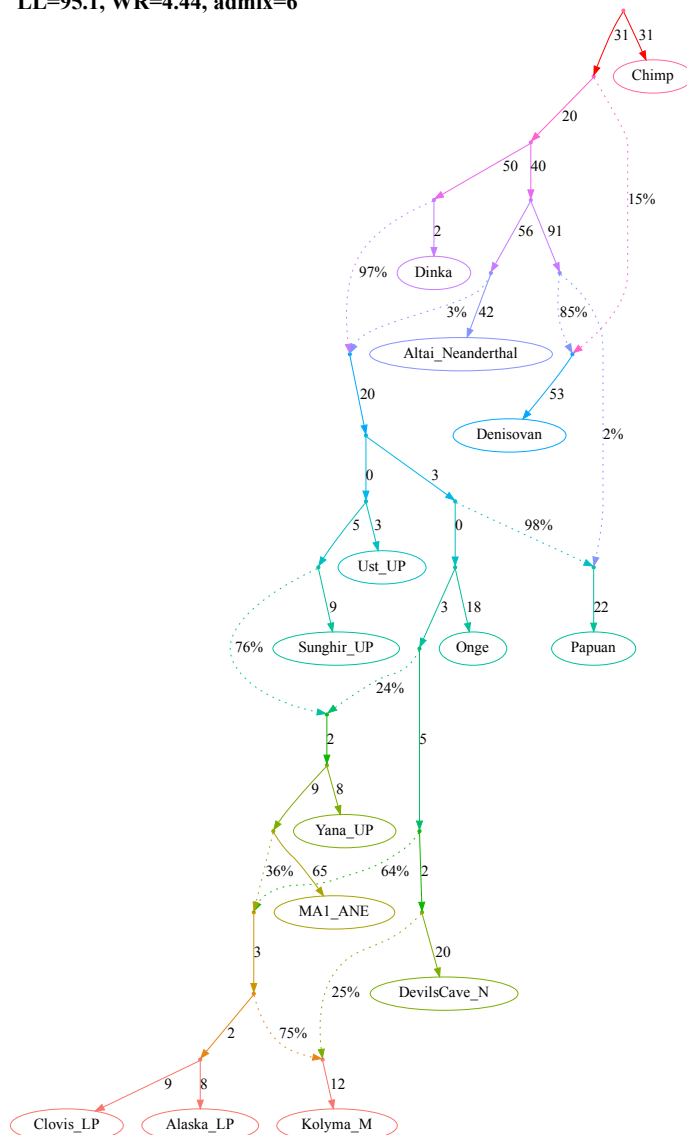


Claims by Sikora *et al.* 2019 relying on the admixture graph above:

- 1) The Mal'ta (MA1\_ANE) and Yana (Yana\_UP) lineages receive a gene flow from an Asian source diverging before the Devil's Cave (DevilsCave\_N), Kolyma (Kolyma\_M), USR1 (Alaska\_LP), and Clovis (Clovis\_LP) lineages;
- 2) European ancestry in the Kolyma, USR1, and Clovis lineages is closer to Mal'ta than to Yana;
- 3) The Devil's Cave lineage receives no European-related gene flows, and Kolyma has less European-related ancestry than ancient Americans (USR1 and Clovis).

c, an alternative model fitting nominally better than the published one and supporting all 3 claims

LL=95.1, WR=4.44, admix=6



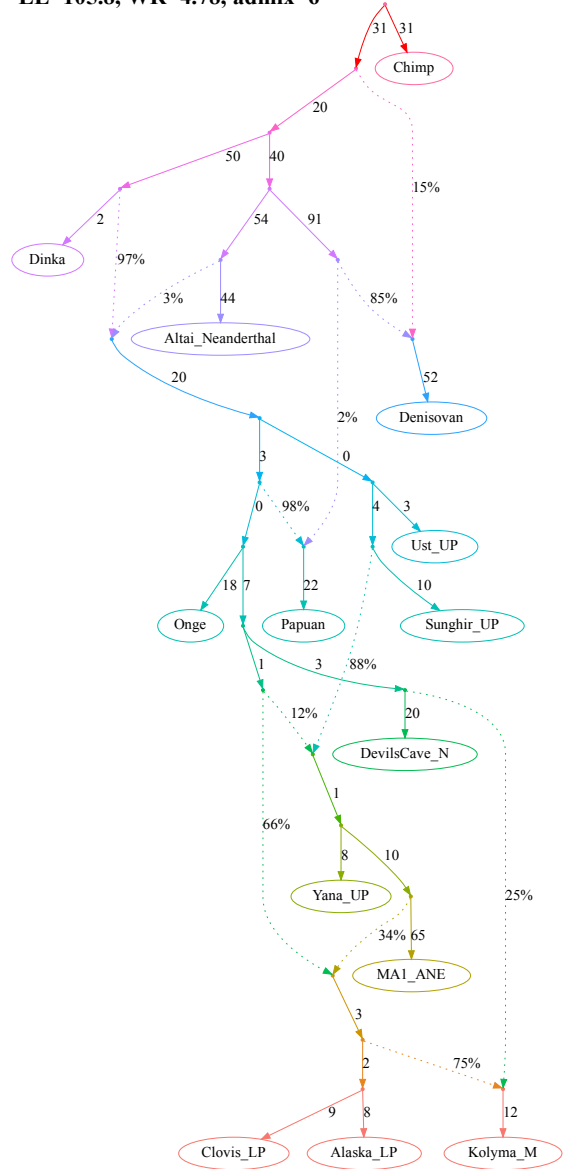
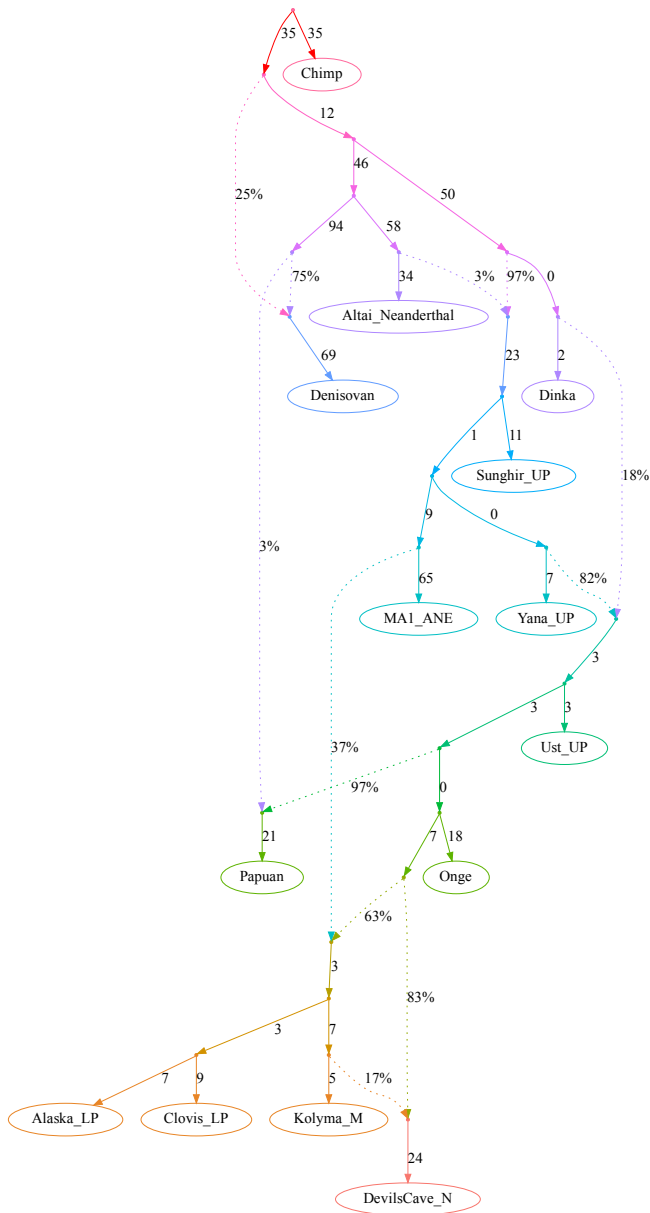
**d, alternative models fitting not significantly worse than the published model**

claims 1&3 not supported, claim 2 supported

claims 1 not supported, claims 2&3 supported

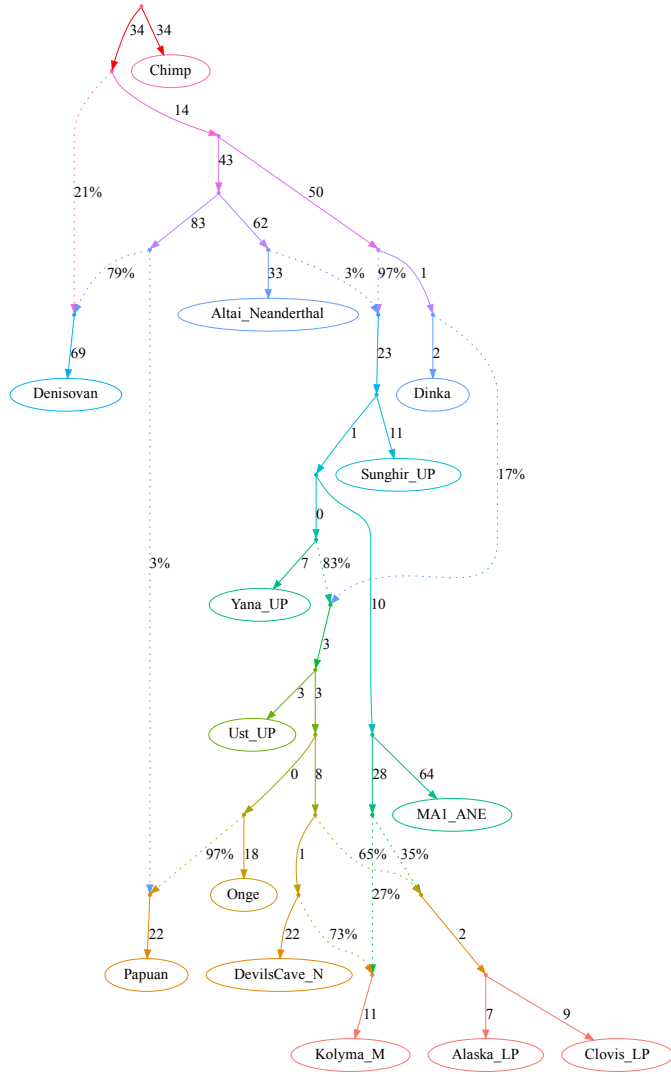
**LL=104.3, WR=4.05, admix=6**

**LL=105.8, WR=4.78, admix=6**



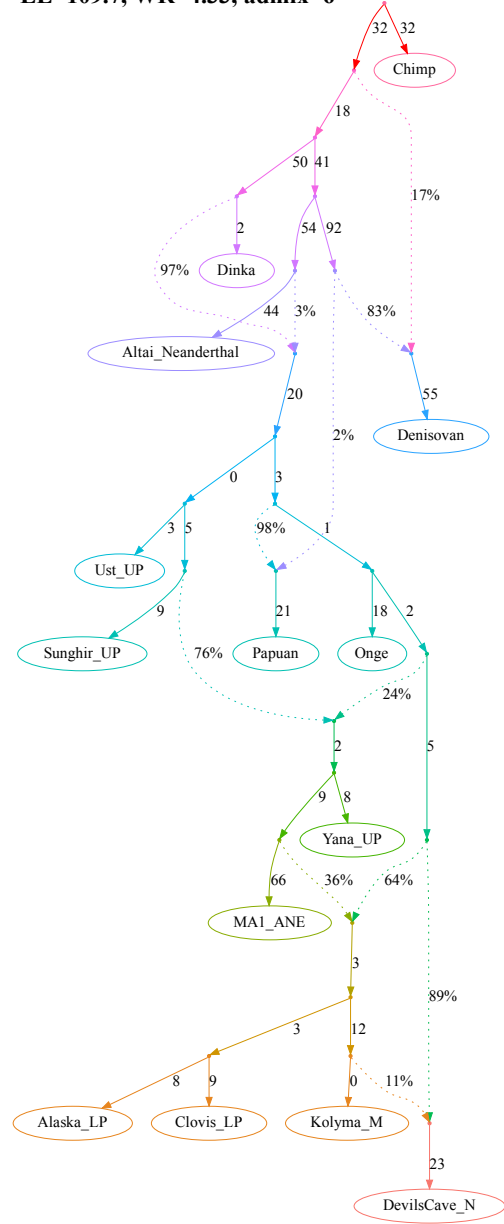
claim 1 not supported, claims 2&3 supported

LL=105.9, WR=4.58, admix=6



claims 1&2 supported, claim 3 not supported

LL=109.7, WR=4.33, admix=6

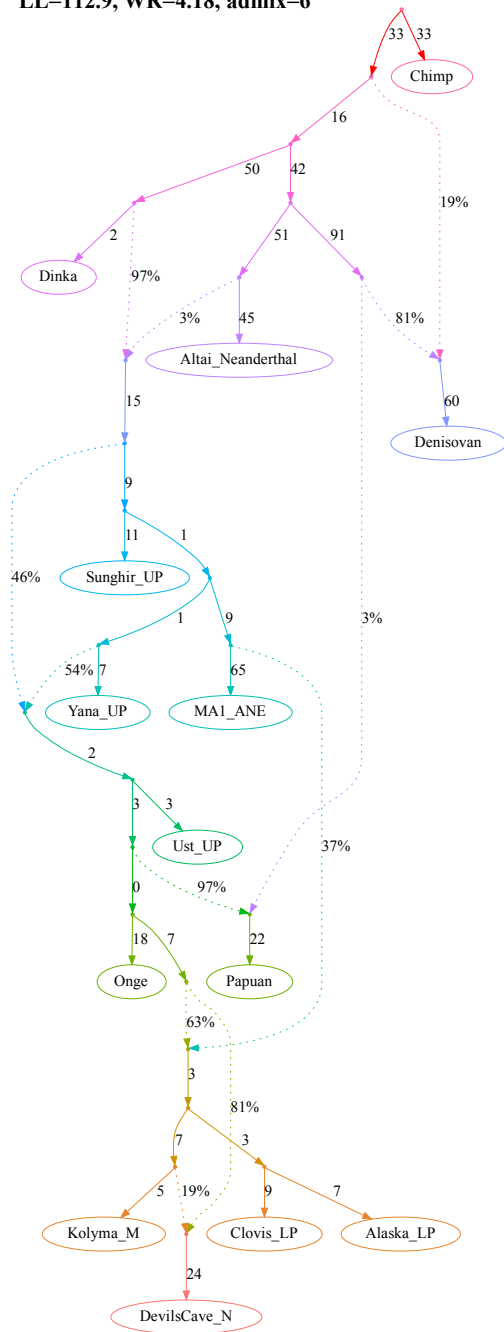


**e, alternative models fitting not significantly worse than the published model**

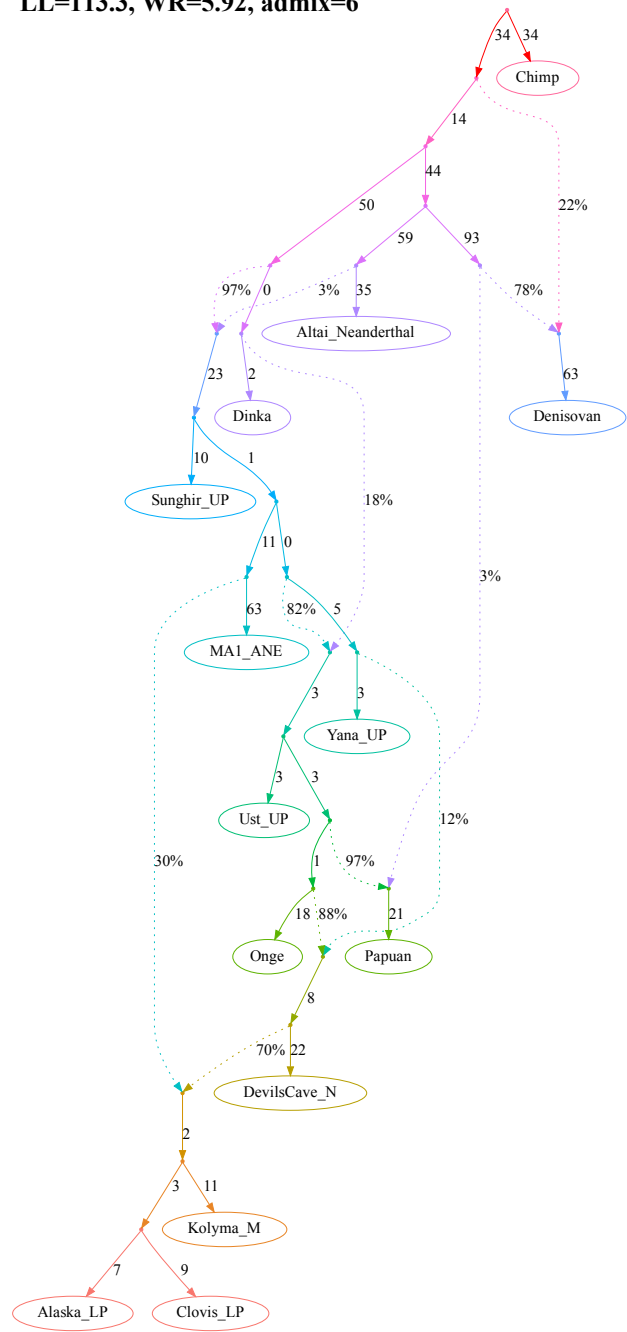
claim 1 not supported, claims 2&3 supported

claims 1&3 not supported, claim 2 supported

LL=112.9, WR=4.18, admix=6

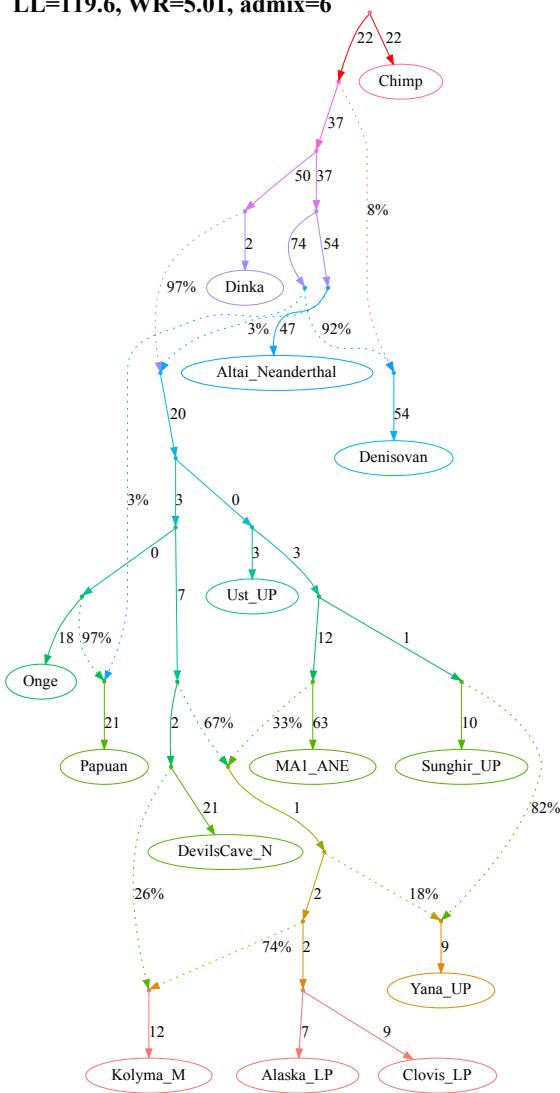


LL=113.3, WR=5.92, admix=6



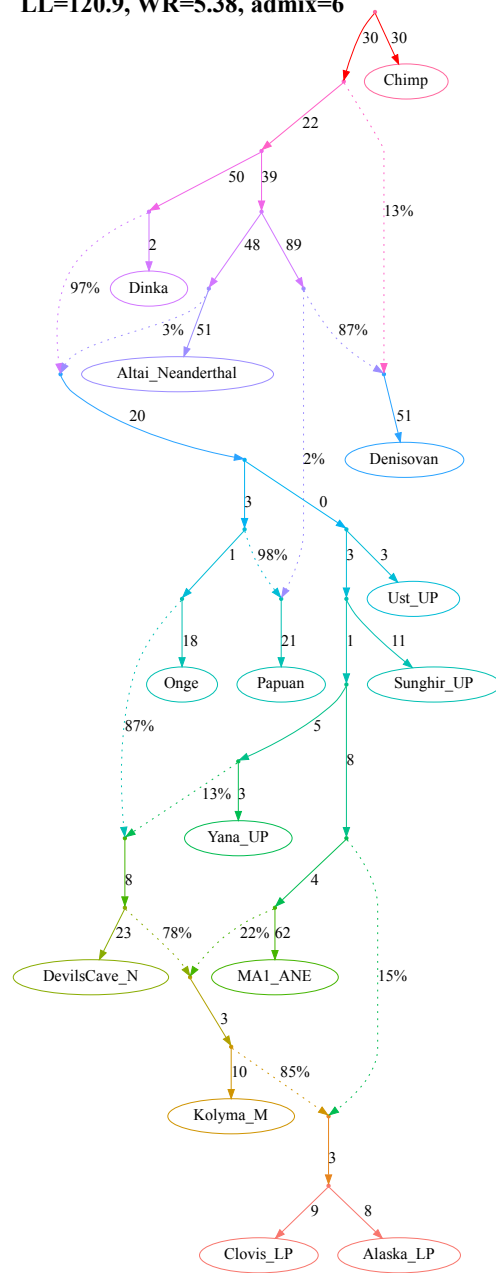
claim 1 not supported, claims 2&3 supported

**LL=119.6, WR=5.01, admix=6**



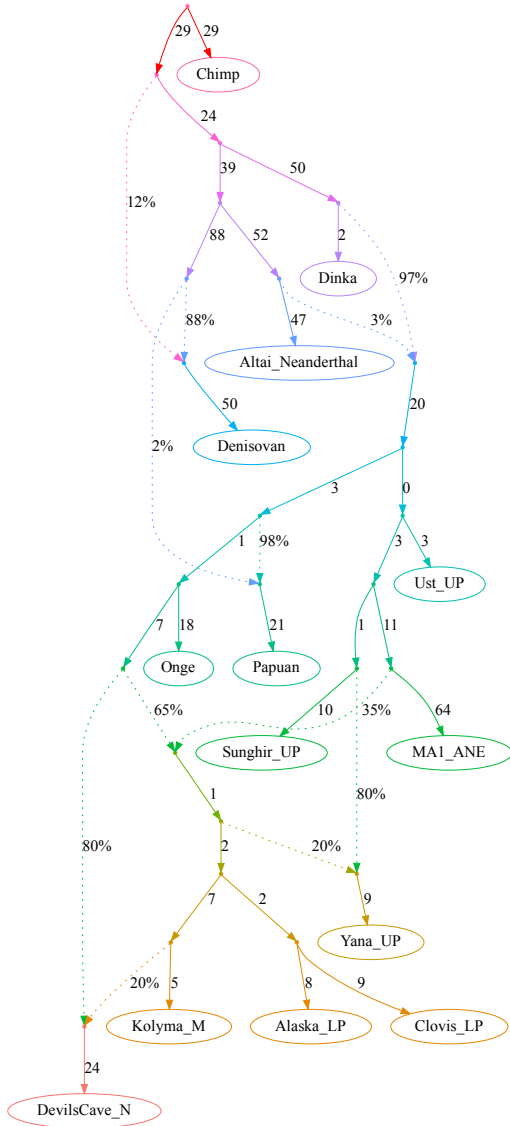
claim 1 not supported, claims 2&3 supported

**LL=120.9, WR=5.38, admix=6**

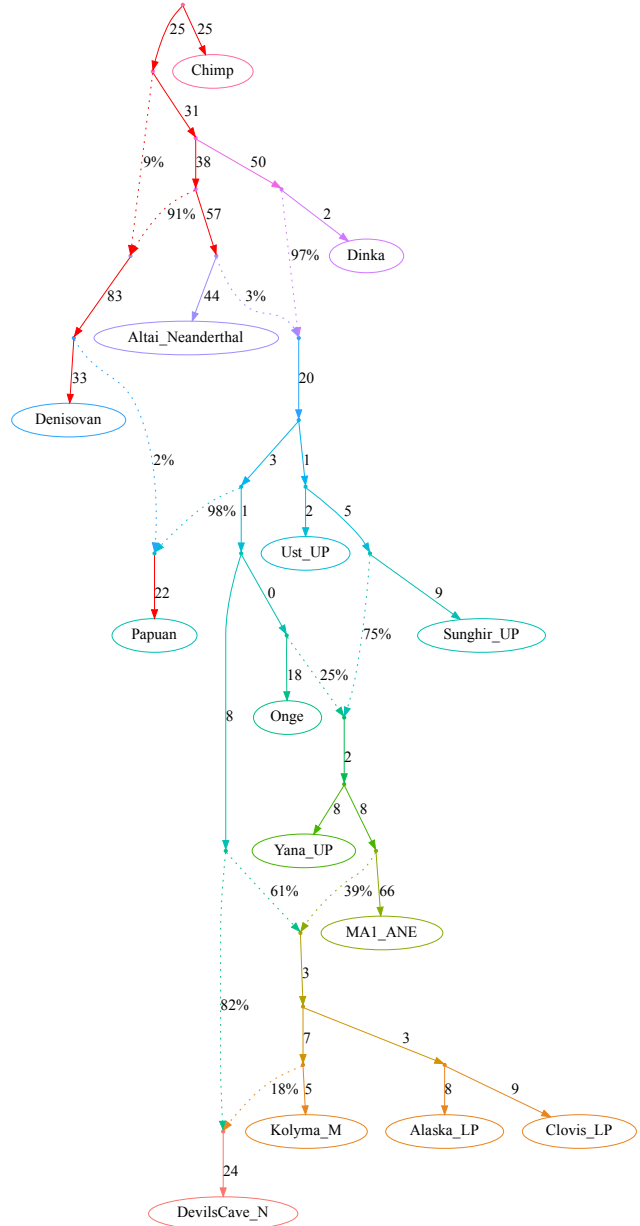


**f**, alternative models fitting not significantly worse than the published model  
 claims 1&3 not supported, claim 2 supported

**LL=116.6, WR=4.69, admix=6**

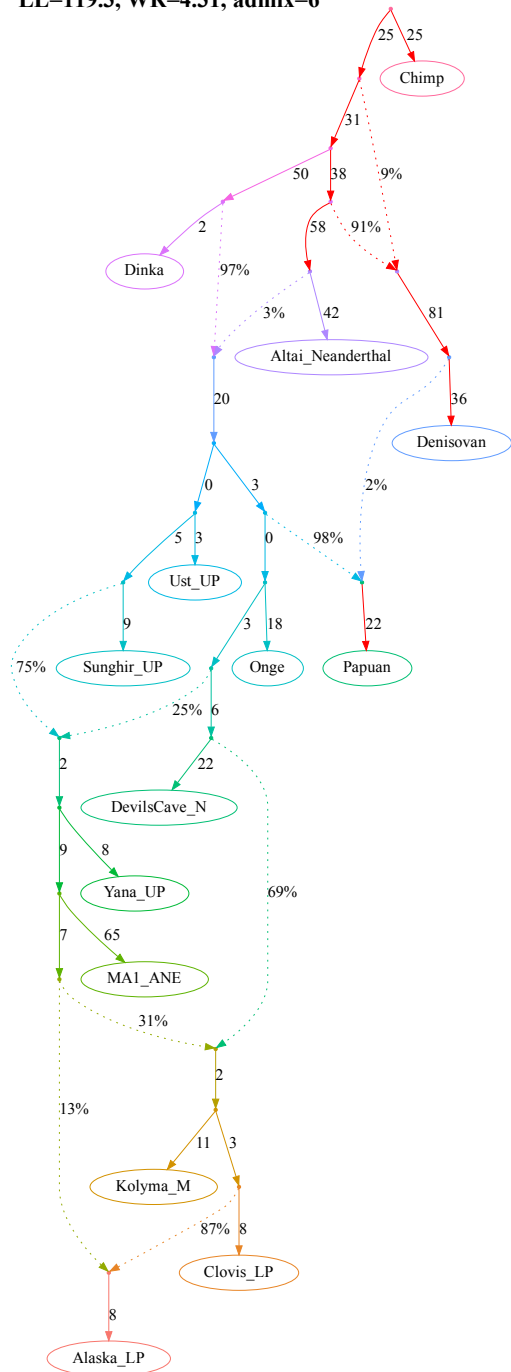


**LL=119.1, WR=4.42, admix=6**



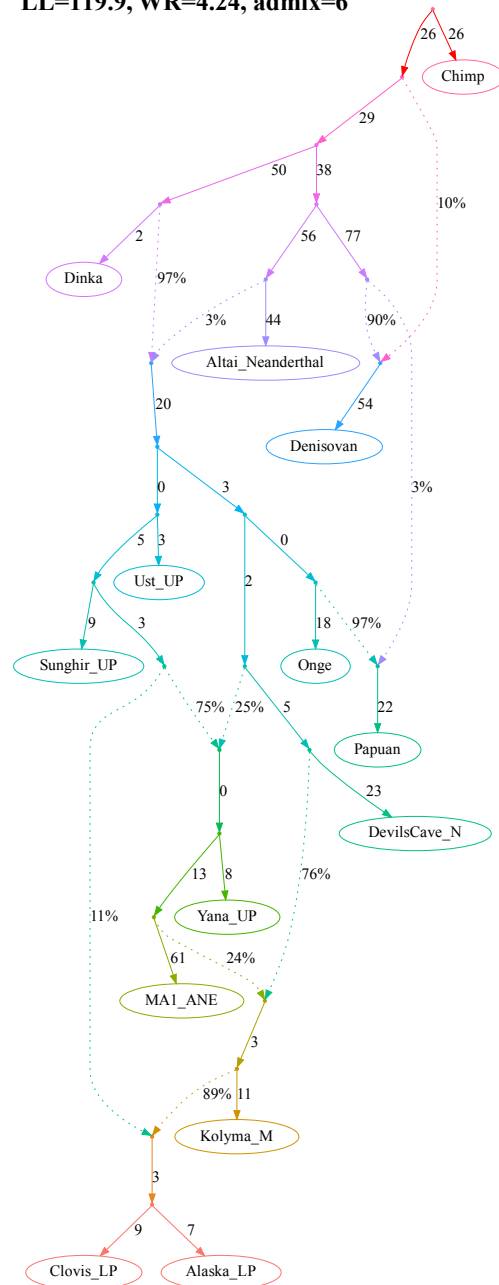
claims 1&2 supported, claim 3 not supported

LL=119.3, WR=4.31, admix=6



claims 1&2 supported, claim 3 not supported

LL=119.9, WR=4.24, admix=6





**g**, alternative models fitting not significantly worse than the published model  
 claims 1&3 not supported, claim 2 supported

LL=120, WR=4.94, admix=6

