

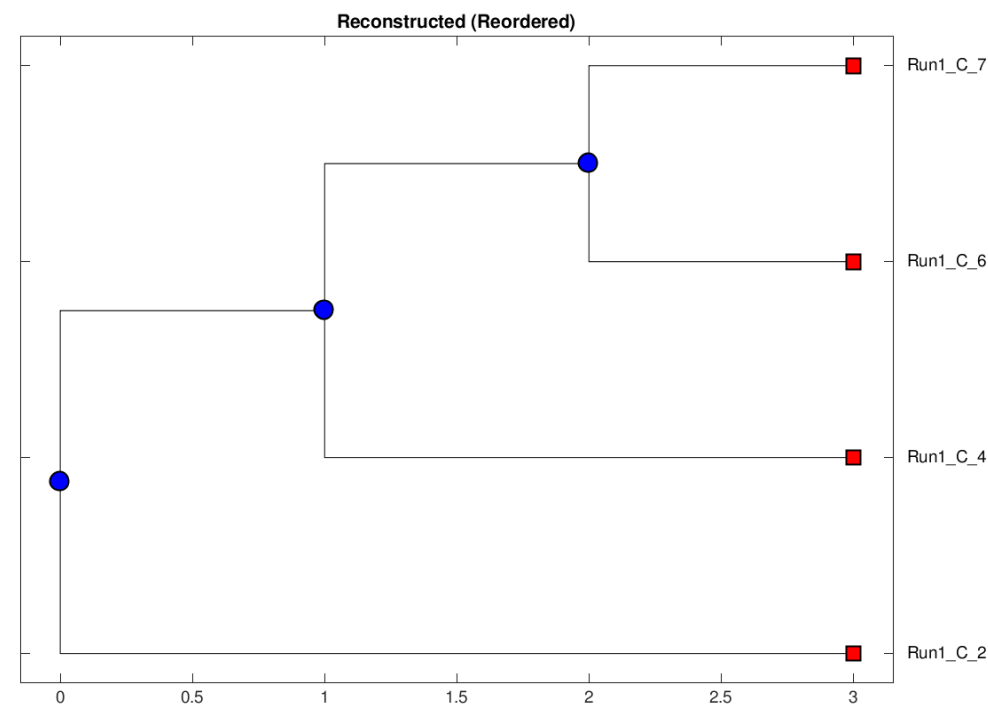
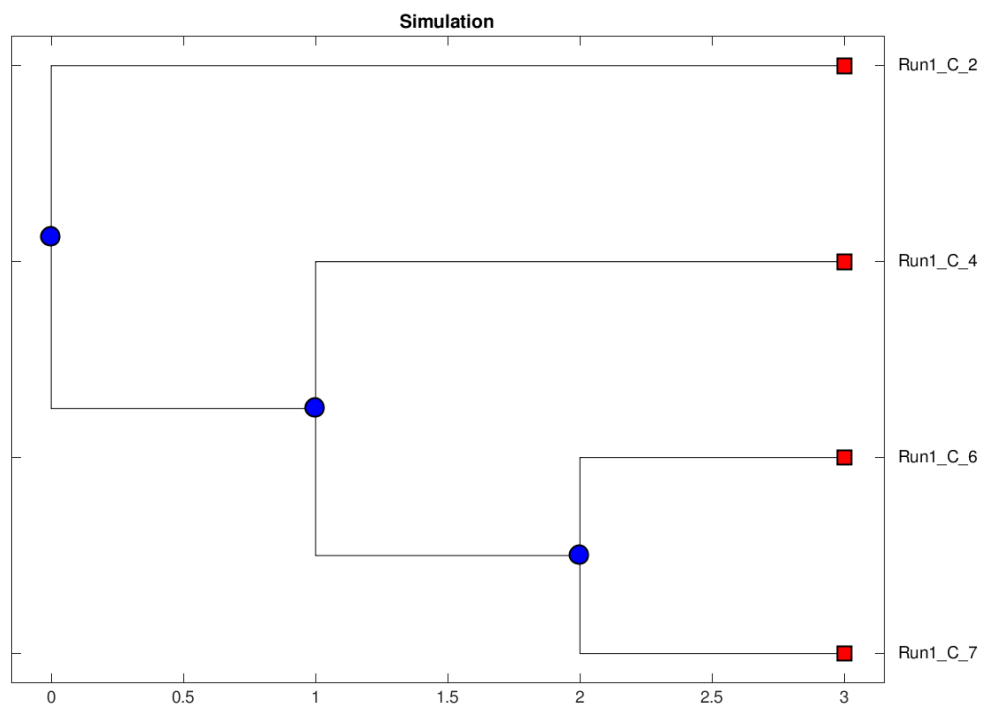
4 leaves (config-01.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 3 |

Mutation Table

| names | C_2 | C_4 | C_6 | C_7 | root |
|--------|-----|-----|-----|-----|------|
| LOC_1 | 19 | 19 | 21 | 21 | 19 |
| LOC_2 | 21 | 20 | 21 | 21 | 20 |
| LOC_3 | 7 | 7 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 16 | 16 | 17 | 16 |
| LOC_7 | 13 | 13 | 15 | 14 | 13 |
| LOC_8 | 20 | 22 | 23 | 24 | 22 |
| LOC_9 | 15 | 14 | 15 | 15 | 15 |
| LOC_10 | 17 | 15 | 15 | 15 | 17 |



| | | | |
|---------------------------|-----|------------------------------|-----|
| RefTree_taxa | 4.0 | Triples | 0.0 |
| Tree_taxa | 4.0 | Triples_toYuleAvg | 0.0 |
| Common_taxa | 4.0 | Triples_toUnifAvg | 0.0 |
| MatchingCluster | 0.0 | MatchingPair | 0.0 |
| MatchingCluster_toYuleAvg | 0.0 | MatchingPair_toYuleAvg | 0.0 |
| MatchingCluster_toUnifAvg | 0.0 | MatchingPair_toUnifAvg | 0.0 |
| R-F_Cluster | 0.0 | MAST | 0.0 |
| R-F_Cluster_toYuleAvg | 0.0 | MAST_toYuleAvg | 0.0 |
| R-F_Cluster_toUnifAvg | 0.0 | MAST_toUnifAvg | 0.0 |
| NodalSplitted | 0.0 | CopheneticL2Metric | 0.0 |
| NodalSplitted_toYuleAvg | 0.0 | CopheneticL2Metric_toYuleAvg | 0.0 |
| NodalSplitted_toUnifAvg | 0.0 | CopheneticL2Metric_toUnifAvg | 0.0 |

100.0%

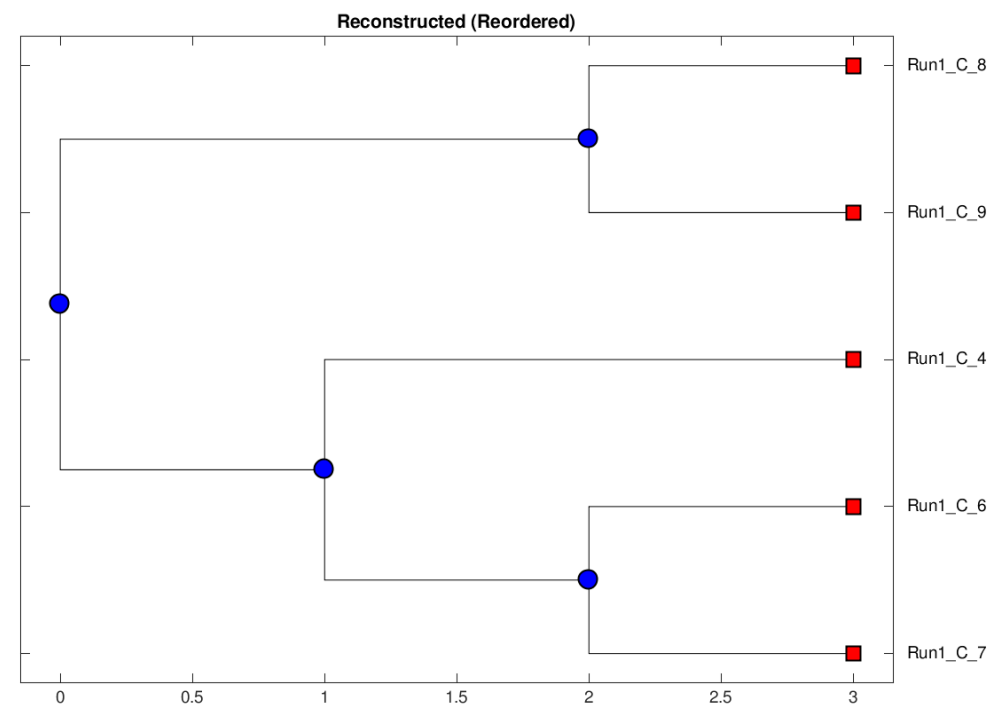
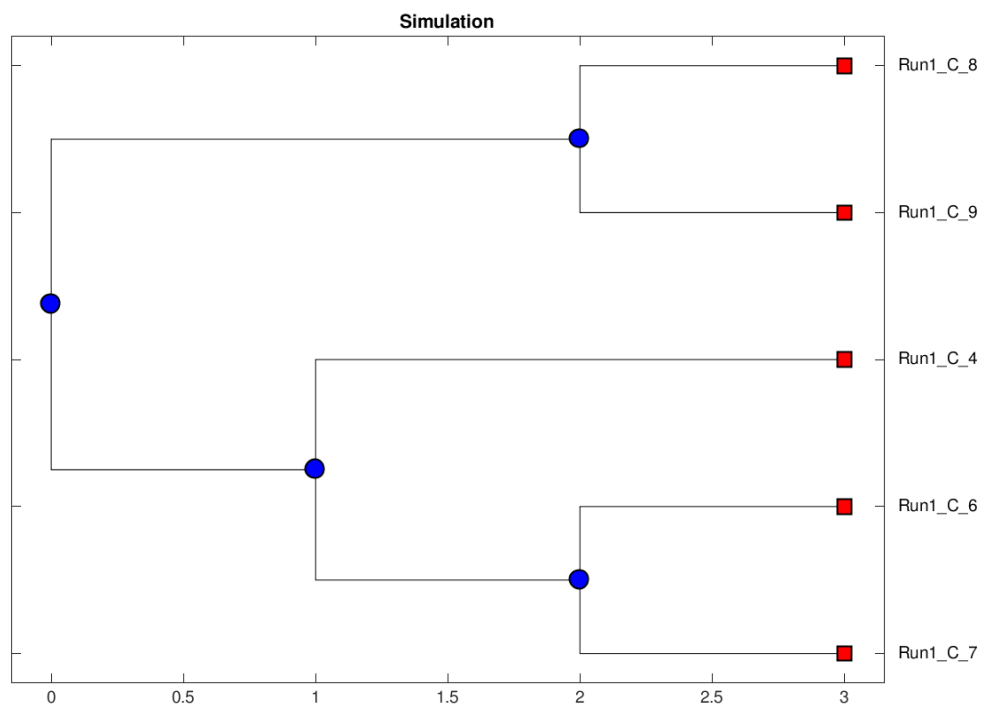
5 leaves (config-02.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 4 |

Mutation Table

| names | C_4 | C_6 | C_7 | C_8 | C_9 | root |
|--------|-----|-----|-----|-----|-----|------|
| LOC_1 | 19 | 21 | 21 | 19 | 20 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 20 |
| LOC_3 | 7 | 7 | 7 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 16 | 16 | 17 | 20 | 18 | 16 |
| LOC_7 | 13 | 15 | 14 | 13 | 13 | 13 |
| LOC_8 | 22 | 23 | 24 | 19 | 20 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 15 | 15 | 15 | 17 | 17 | 17 |



| | | | |
|---------------------------|-----|------------------------------|-----|
| RefTree_taxa | 5.0 | Triples | 0.0 |
| Tree_taxa | 5.0 | Triples_toYuleAvg | 0.0 |
| Common_taxa | 5.0 | Triples_toUnifAvg | 0.0 |
| MatchingCluster | 0.0 | MatchingPair | 0.0 |
| MatchingCluster_toYuleAvg | 0.0 | MatchingPair_toYuleAvg | 0.0 |
| MatchingCluster_toUnifAvg | 0.0 | MatchingPair_toUnifAvg | 0.0 |
| R-F_Cluster | 0.0 | MAST | 0.0 |
| R-F_Cluster_toYuleAvg | 0.0 | MAST_toYuleAvg | 0.0 |
| R-F_Cluster_toUnifAvg | 0.0 | MAST_toUnifAvg | 0.0 |
| NodalSplitted | 0.0 | CopheneticL2Metric | 0.0 |
| NodalSplitted_toYuleAvg | 0.0 | CopheneticL2Metric_toYuleAvg | 0.0 |
| NodalSplitted_toUnifAvg | 0.0 | CopheneticL2Metric_toUnifAvg | 0.0 |

100.0%

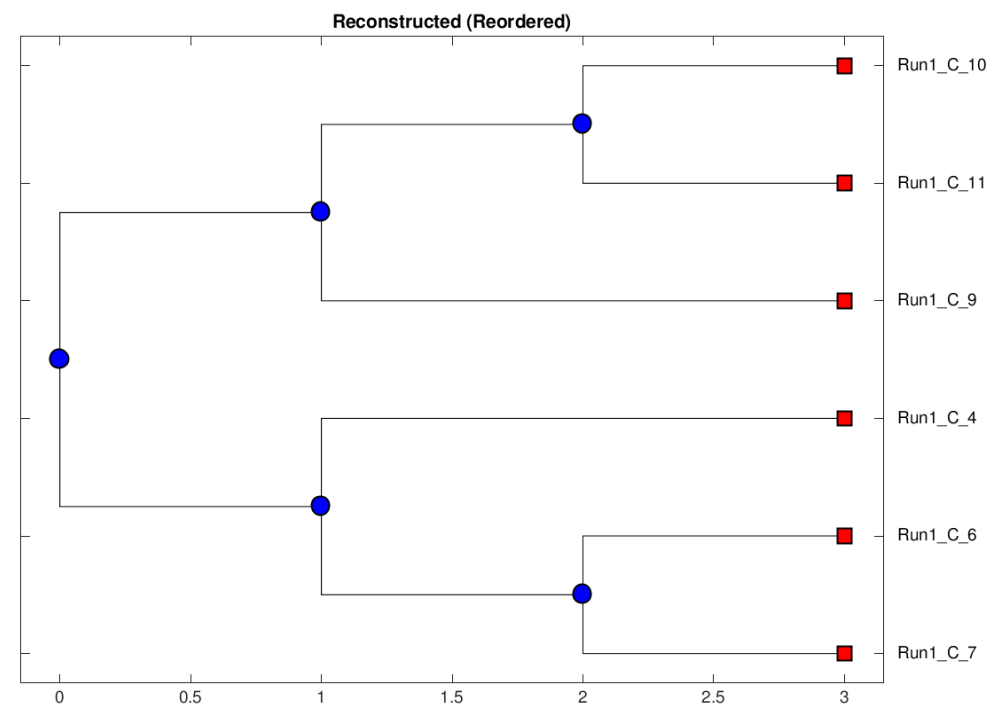
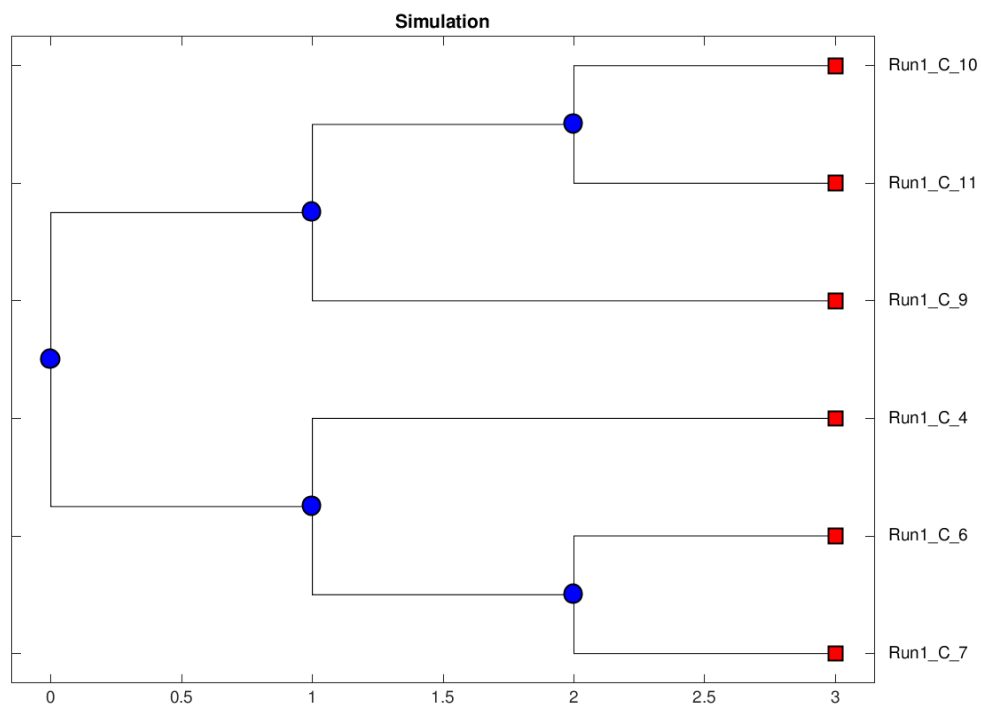
6 leaves (config-03.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 5 |

Mutation Table

| names | C_4 | C_6 | C_7 | C_9 | C_10 | C_11 | root |
|--------|-----|-----|-----|-----|------|------|------|
| LOC_1 | 19 | 21 | 21 | 20 | 19 | 19 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 21 | 20 |
| LOC_3 | 7 | 7 | 7 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 16 | 16 | 17 | 18 | 20 | 20 | 16 |
| LOC_7 | 13 | 15 | 14 | 13 | 14 | 13 | 13 |
| LOC_8 | 22 | 23 | 24 | 20 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 15 | 15 | 15 | 17 | 17 | 18 | 17 |



| | | | |
|---------------------------|-----|------------------------------|-----|
| RefTree_taxa | 6.0 | Triples | 0.0 |
| Tree_taxa | 6.0 | Triples_toYuleAvg | 0.0 |
| Common_taxa | 6.0 | Triples_toUnifAvg | 0.0 |
| MatchingCluster | 0.0 | MatchingPair | 0.0 |
| MatchingCluster_toYuleAvg | 0.0 | MatchingPair_toYuleAvg | 0.0 |
| MatchingCluster_toUnifAvg | 0.0 | MatchingPair_toUnifAvg | 0.0 |
| R-F_Cluster | 0.0 | MAST | 0.0 |
| R-F_Cluster_toYuleAvg | 0.0 | MAST_toYuleAvg | 0.0 |
| R-F_Cluster_toUnifAvg | 0.0 | MAST_toUnifAvg | 0.0 |
| NodalSplitted | 0.0 | CopheneticL2Metric | 0.0 |
| NodalSplitted_toYuleAvg | 0.0 | CopheneticL2Metric_toYuleAvg | 0.0 |
| NodalSplitted_toUnifAvg | 0.0 | CopheneticL2Metric_toUnifAvg | 0.0 |

100.0%

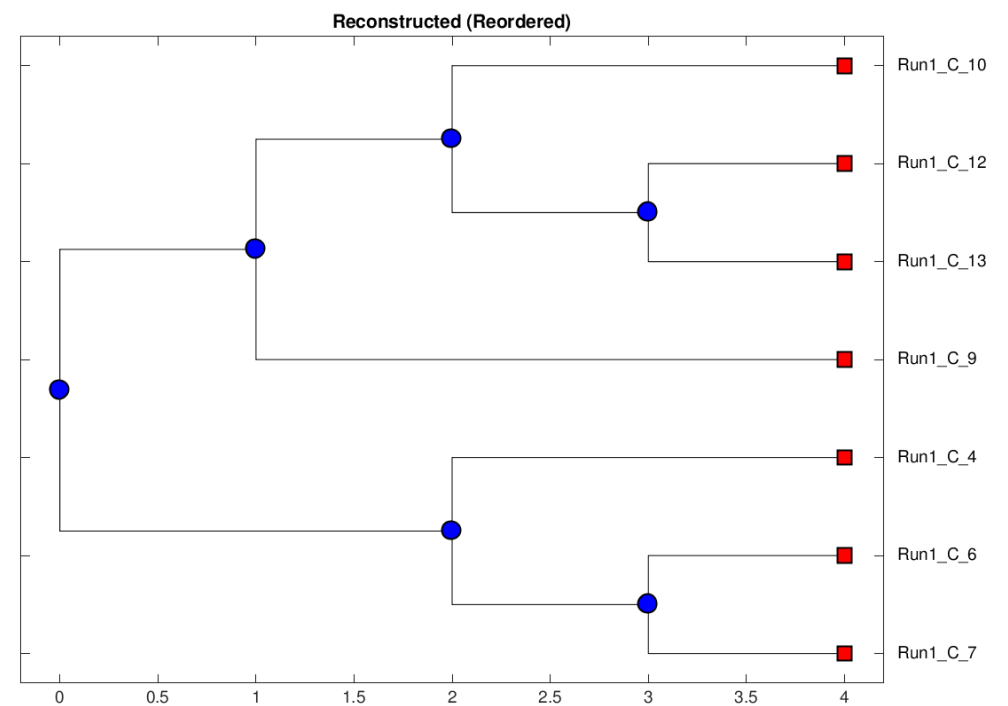
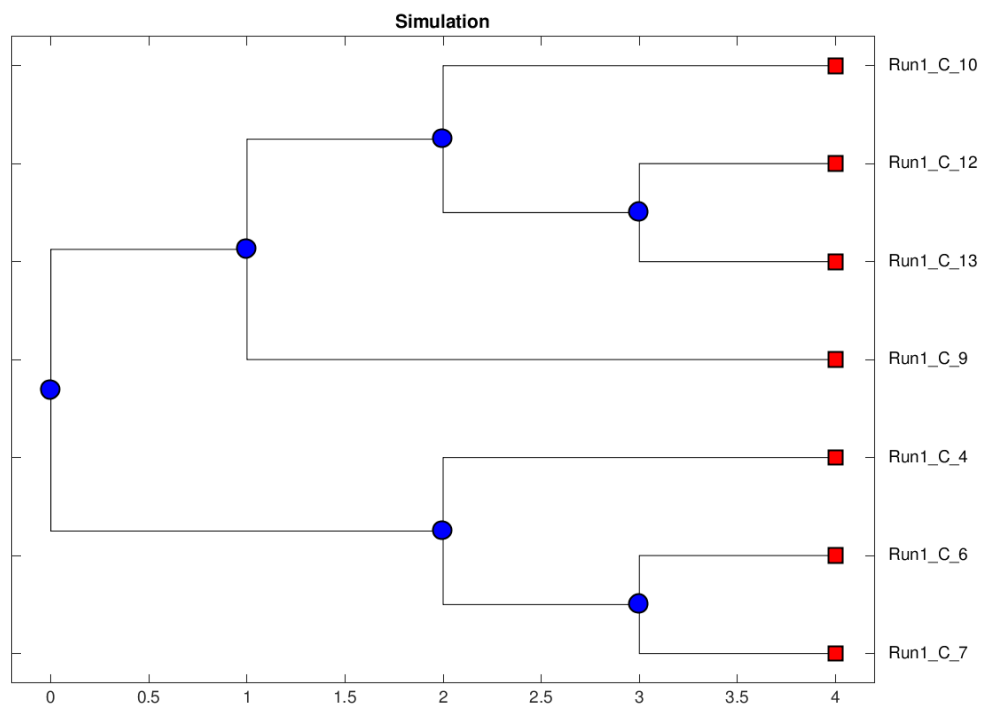
7 leaves (config-04.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 6 |

Mutation Table

| names | C_4 | C_6 | C_7 | C_9 | C_10 | C_12 | C_13 | root |
|--------|-----|-----|-----|-----|------|------|------|------|
| LOC_1 | 19 | 21 | 21 | 20 | 19 | 19 | 19 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 21 | 21 | 20 |
| LOC_3 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 16 | 16 | 17 | 18 | 20 | 20 | 21 | 16 |
| LOC_7 | 13 | 15 | 14 | 13 | 14 | 13 | 13 | 13 |
| LOC_8 | 22 | 23 | 24 | 20 | 19 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 15 | 15 | 15 | 17 | 17 | 18 | 18 | 17 |



| | | | |
|---------------------------|--------|------------------------------|--------|
| RefTree_taxa | 7.0 | Triples | 1.0 |
| Tree_taxa | 7.0 | Triples_toYuleAvg | 0.0426 |
| Common_taxa | 7.0 | Triples_toUnifAvg | 0.0433 |
| MatchingCluster | 2.0 | MatchingPair | 1.0 |
| MatchingCluster_toYuleAvg | 0.1585 | MatchingPair_toYuleAvg | 0.0881 |
| MatchingCluster_toUnifAvg | 0.1579 | MatchingPair_toUnifAvg | 0.0894 |
| R-F_Cluster | 0.5 | MAST | 1.0 |
| R-F_Cluster_toYuleAvg | 0.1064 | MAST_toYuleAvg | 0.3142 |
| R-F_Cluster_toUnifAvg | 0.1068 | MAST_toUnifAvg | 0.3108 |
| NodalSplitted | 3.1623 | CopheneticL2Metric | 1.7321 |
| NodalSplitted_toYuleAvg | 0.2883 | CopheneticL2Metric_toYuleAvg | 0.1895 |
| NodalSplitted_toUnifAvg | 0.2871 | CopheneticL2Metric_toUnifAvg | 0.1857 |

100.0%

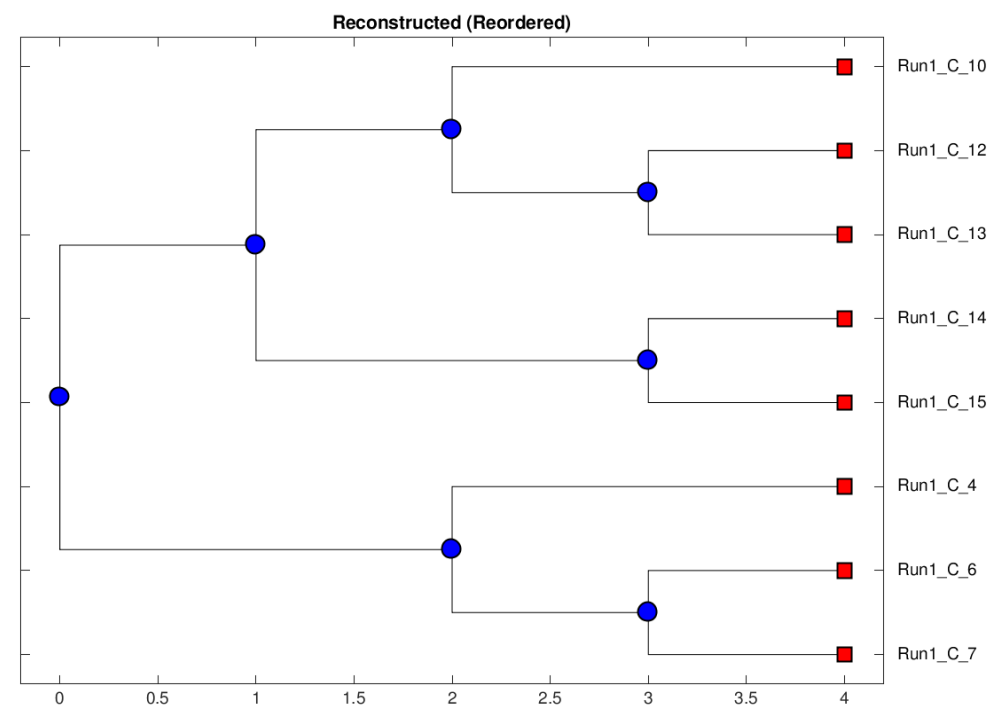
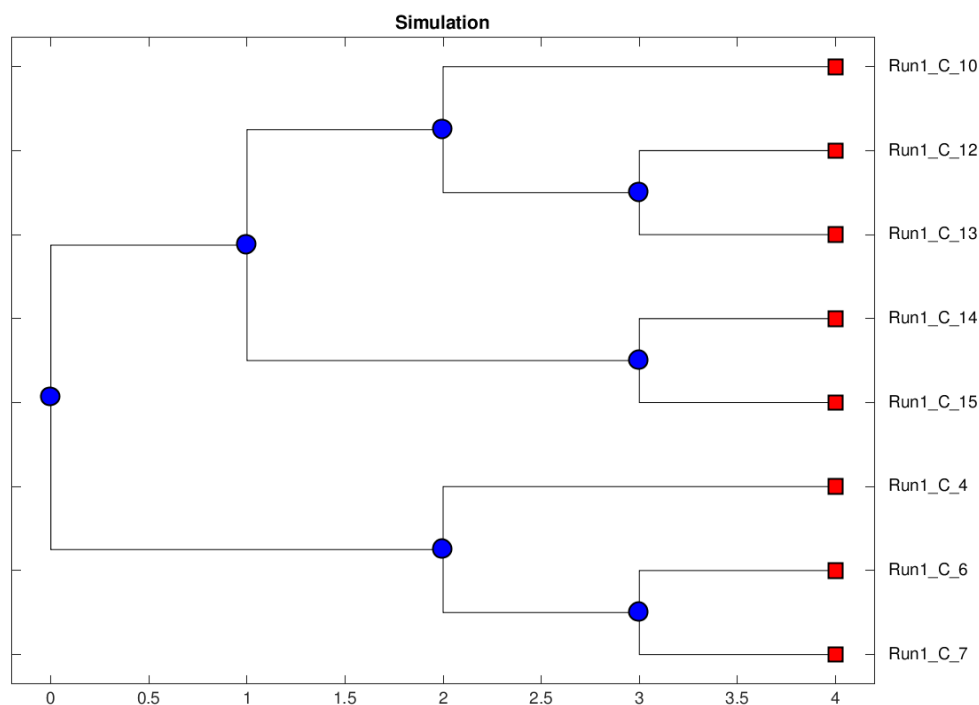
8 leaves (config-05.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 7

Mutation Table

| names | C_4 | C_6 | C_7 | C_10 | C_12 | C_13 | C_14 | C_15 | root |
|--------|-----|-----|-----|------|------|------|------|------|------|
| LOC_1 | 19 | 21 | 21 | 19 | 19 | 19 | 20 | 20 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 20 |
| LOC_3 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 16 | 16 | 17 | 20 | 20 | 21 | 18 | 18 | 16 |
| LOC_7 | 13 | 15 | 14 | 14 | 13 | 13 | 13 | 13 | 13 |
| LOC_8 | 22 | 23 | 24 | 19 | 19 | 19 | 20 | 20 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 15 | 15 |
| LOC_10 | 15 | 15 | 15 | 17 | 18 | 18 | 17 | 17 | 17 |



| | | | |
|---------------------------|--------|------------------------------|--------|
| RefTree_taxa | 8.0 | Triples | 1.0 |
| Tree_taxa | 8.0 | Triples_toYuleAvg | 0.027 |
| Common_taxa | 8.0 | Triples_toUnifAvg | 0.0265 |
| MatchingCluster | 2.0 | MatchingPair | 1.0 |
| MatchingCluster_toYuleAvg | 0.1221 | MatchingPair_toYuleAvg | 0.063 |
| MatchingCluster_toUnifAvg | 0.1175 | MatchingPair_toUnifAvg | 0.0628 |
| R-F_Cluster | 0.5 | MAST | 1.0 |
| R-F_Cluster_toYuleAvg | 0.0875 | MAST_toYuleAvg | 0.2567 |
| R-F_Cluster_toUnifAvg | 0.0868 | MAST_toUnifAvg | 0.2549 |
| NodalSplitted | 3.4641 | CopheneticL2Metric | 1.7321 |
| NodalSplitted_toYuleAvg | 0.2524 | CopheneticL2Metric_toYuleAvg | 0.152 |
| NodalSplitted_toUnifAvg | 0.2396 | CopheneticL2Metric_toUnifAvg | 0.1467 |

100.0%

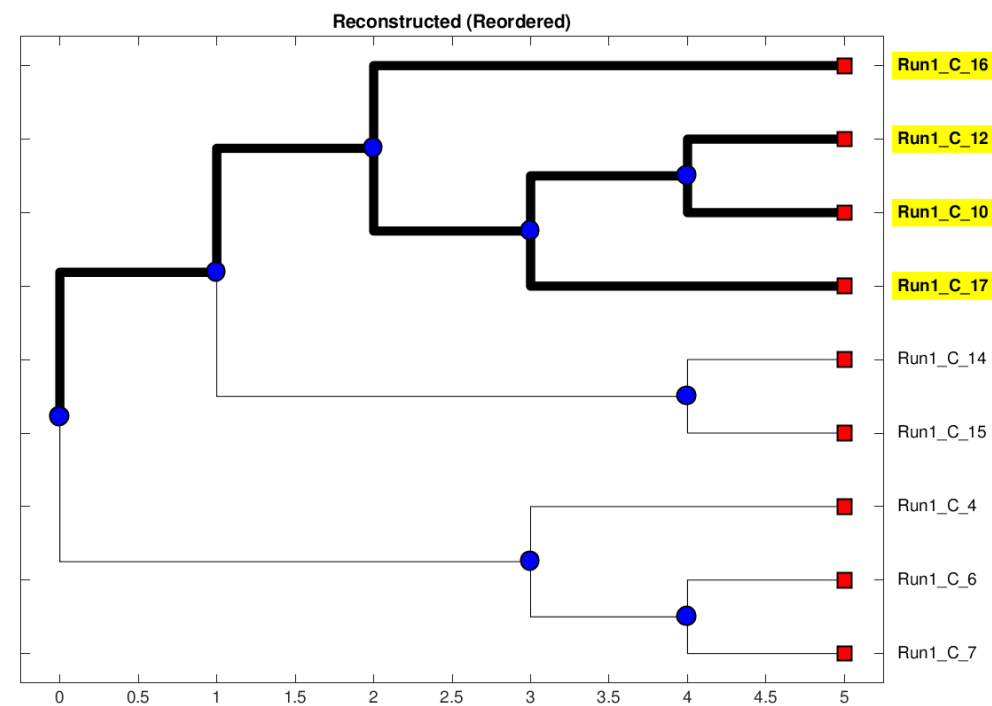
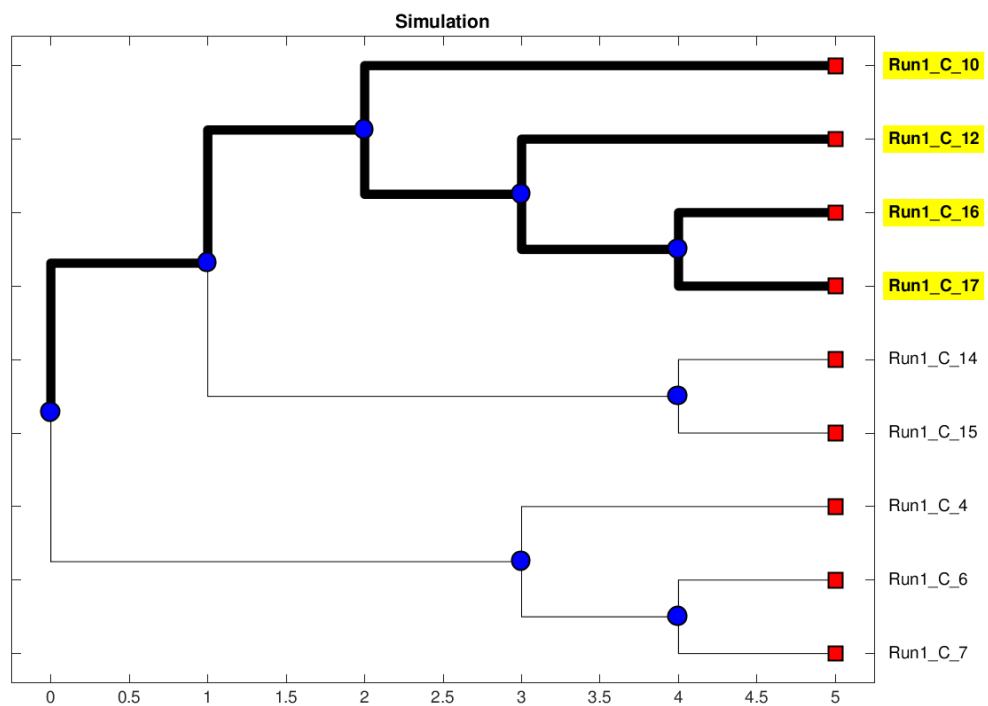
9 leaves (config-06.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 8

Mutation Table

| names | C_4 | C_6 | C_7 | C_10 | C_12 | C_14 | C_15 | C_16 | C_17 | root |
|--------|-----|-----|-----|------|------|------|------|------|------|------|
| LOC_1 | 19 | 21 | 21 | 19 | 19 | 20 | 20 | 19 | 19 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 21 | 21 | 25 | 21 | 20 |
| LOC_3 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 7 |
| LOC_6 | 16 | 16 | 17 | 20 | 20 | 18 | 18 | 21 | 21 | 16 |
| LOC_7 | 13 | 15 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 |
| LOC_8 | 22 | 23 | 24 | 19 | 19 | 20 | 20 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 14 | 15 | 15 | 15 | 15 |
| LOC_10 | 15 | 15 | 15 | 17 | 18 | 17 | 17 | 17 | 18 | 17 |



| | | | |
|---------------------------|--------|------------------------------|--------|
| RefTree_taxa | 9.0 | Triples | 4.0 |
| Tree_taxa | 9.0 | Triples_toYuleAvg | 0.0715 |
| Common_taxa | 9.0 | Triples_toUnifAvg | 0.0719 |
| MatchingCluster | 6.0 | MatchingPair | 3.0 |
| MatchingCluster_toYuleAvg | 0.292 | MatchingPair_toYuleAvg | 0.1415 |
| MatchingCluster_toUnifAvg | 0.2812 | MatchingPair_toUnifAvg | 0.1434 |
| R-F_Cluster | 2.0 | MAST | 2.0 |
| R-F_Cluster_toYuleAvg | 0.3001 | MAST_toYuleAvg | 0.4361 |
| R-F_Cluster_toUnifAvg | 0.2965 | MAST_toUnifAvg | 0.4292 |
| NodalSplitted | 8.4853 | CopheneticL2Metric | 4.4721 |
| NodalSplitted_toYuleAvg | 0.5015 | CopheneticL2Metric_toYuleAvg | 0.3202 |
| NodalSplitted_toUnifAvg | 0.4761 | CopheneticL2Metric_toUnifAvg | 0.3088 |

55.6%

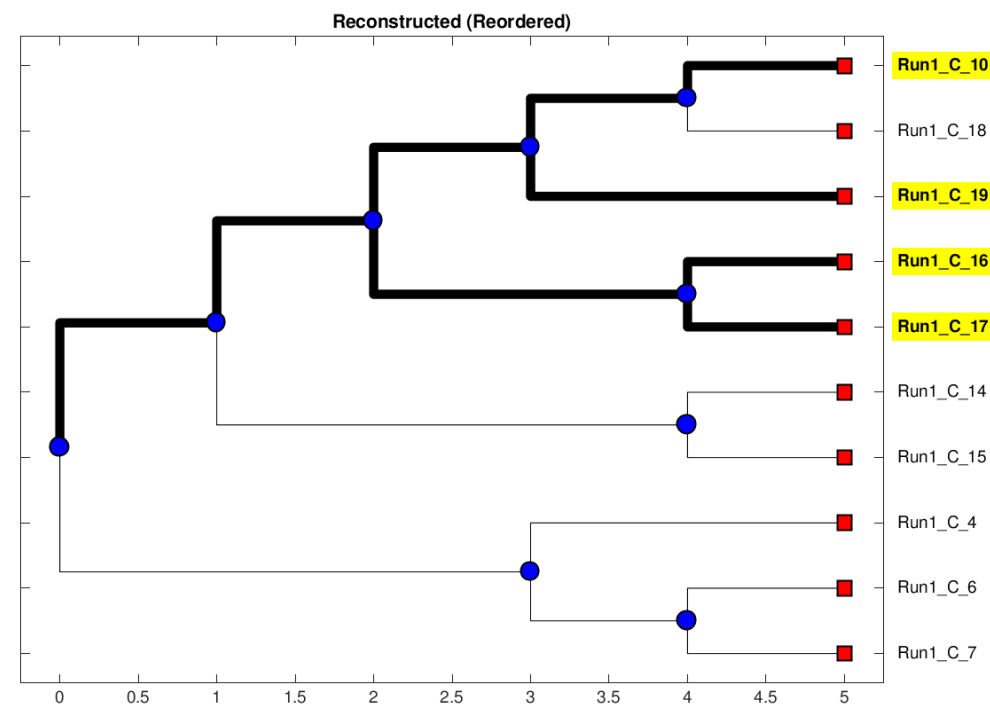
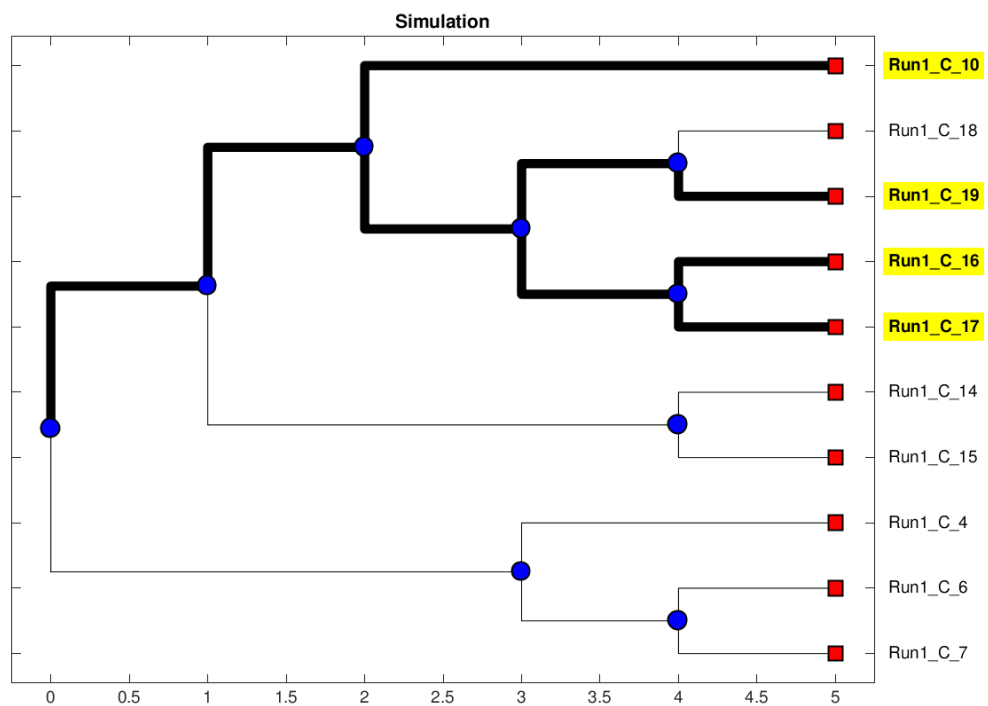
10 leaves (config-07.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 9

Mutation Table

| names | C_4 | C_6 | C_7 | C_10 | C_14 | C_15 | C_16 | C_17 | C_18 | C_19 | root |
|--------|-----|-----|-----|------|------|------|------|------|------|------|------|
| LOC_1 | 19 | 21 | 21 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 20 |
| LOC_3 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 |
| LOC_6 | 16 | 16 | 17 | 20 | 18 | 18 | 21 | 21 | 19 | 20 | 16 |
| LOC_7 | 13 | 15 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| LOC_8 | 22 | 23 | 24 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 15 | 15 | 15 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 17 |



| | | | |
|---------------------------|--------|------------------------------|--------|
| RefTree_taxa | 10.0 | Triples | 5.0 |
| Tree_taxa | 10.0 | Triples_toYuleAvg | 0.0624 |
| Common_taxa | 10.0 | Triples_toUnifAvg | 0.0629 |
| MatchingCluster | 5.0 | MatchingPair | 3.0 |
| MatchingCluster_toYuleAvg | 0.1967 | MatchingPair_toYuleAvg | 0.1085 |
| MatchingCluster_toUnifAvg | 0.1891 | MatchingPair_toUnifAvg | 0.1109 |
| R-F_Cluster | 1.5 | MAST | 1.0 |
| R-F_Cluster_toYuleAvg | 0.1938 | MAST_toYuleAvg | 0.1858 |
| R-F_Cluster_toUnifAvg | 0.1929 | MAST_toUnifAvg | 0.1869 |
| NodalSplitted | 6.0828 | CopheneticL2Metric | 3.6056 |
| NodalSplitted_toYuleAvg | 0.3004 | CopheneticL2Metric_toYuleAvg | 0.2202 |
| NodalSplitted_toUnifAvg | 0.2826 | CopheneticL2Metric_toUnifAvg | 0.21 |

60.0%

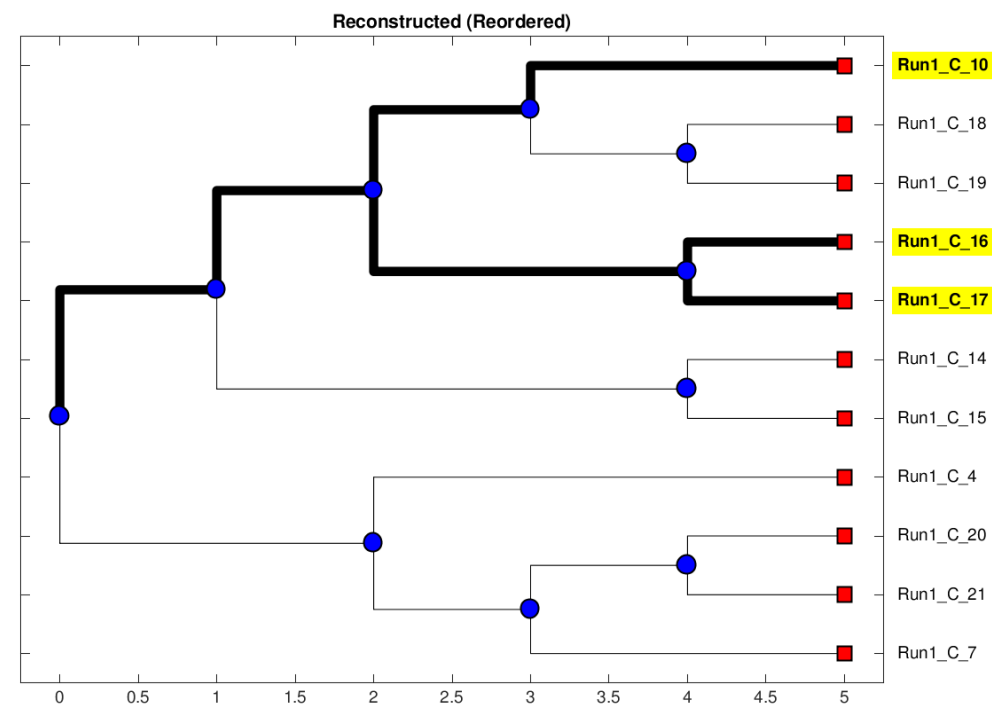
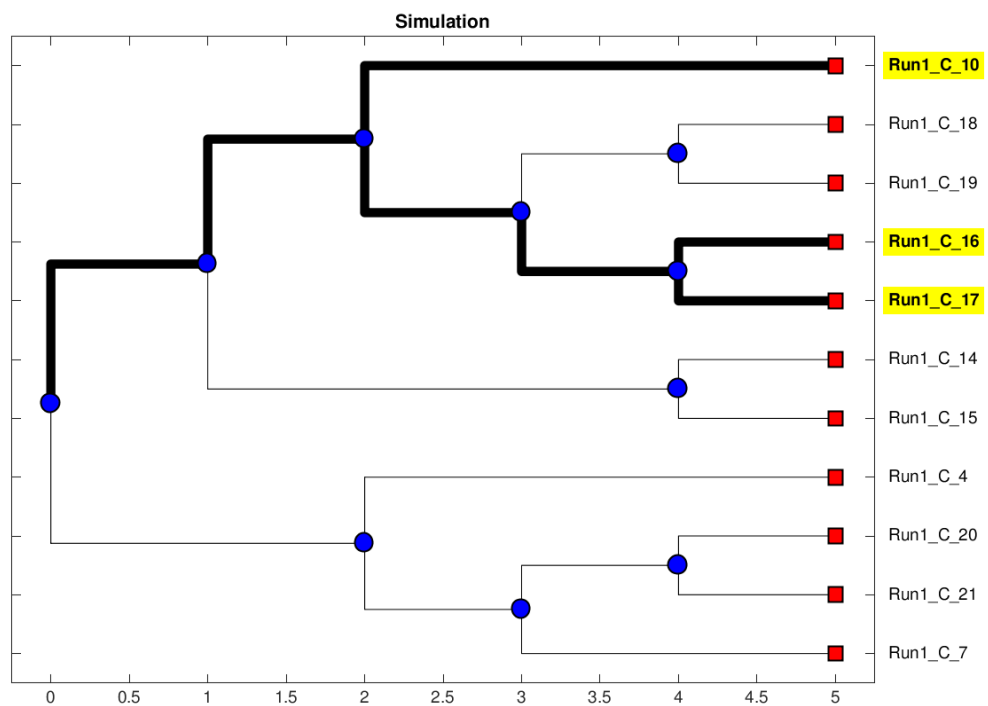
11 leaves (config-08.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 10 |

Mutation Table

| names | C_4 | C_7 | C_10 | C_14 | C_15 | C_16 | C_17 | C_18 | C_19 | C_20 | C_21 | root |
|--------|-----|-----|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 19 | 21 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 21 | 22 | 19 |
| LOC_2 | 20 | 21 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 22 | 21 | 20 |
| LOC_3 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 16 | 17 | 20 | 18 | 18 | 21 | 21 | 19 | 20 | 16 | 15 | 16 |
| LOC_7 | 13 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 15 | 15 | 13 |
| LOC_8 | 22 | 24 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 22 | 21 | 22 |
| LOC_9 | 14 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 15 | 15 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 15 | 15 | 17 |



| | | | |
|---------------------------|--------|------------------------------|--------|
| RefTree_taxa | 11.0 | Triples | 6.0 |
| Tree_taxa | 11.0 | Triples_toYuleAvg | 0.0546 |
| Common_taxa | 11.0 | Triples_toUnifAvg | 0.0544 |
| MatchingCluster | 7.0 | MatchingPair | 4.0 |
| MatchingCluster_toYuleAvg | 0.2306 | MatchingPair_toYuleAvg | 0.1165 |
| MatchingCluster_toUnifAvg | 0.2191 | MatchingPair_toUnifAvg | 0.1174 |
| R-F_Cluster | 2.0 | MAST | 2.0 |
| R-F_Cluster_toYuleAvg | 0.229 | MAST_toYuleAvg | 0.3237 |
| R-F_Cluster_toUnifAvg | 0.2272 | MAST_toUnifAvg | 0.3232 |
| NodalSplitted | 7.746 | CopheneticL2Metric | 4.0 |
| NodalSplitted_toYuleAvg | 0.3264 | CopheneticL2Metric_toYuleAvg | 0.2098 |
| NodalSplitted_toUnifAvg | 0.3021 | CopheneticL2Metric_toUnifAvg | 0.1945 |

72.7%

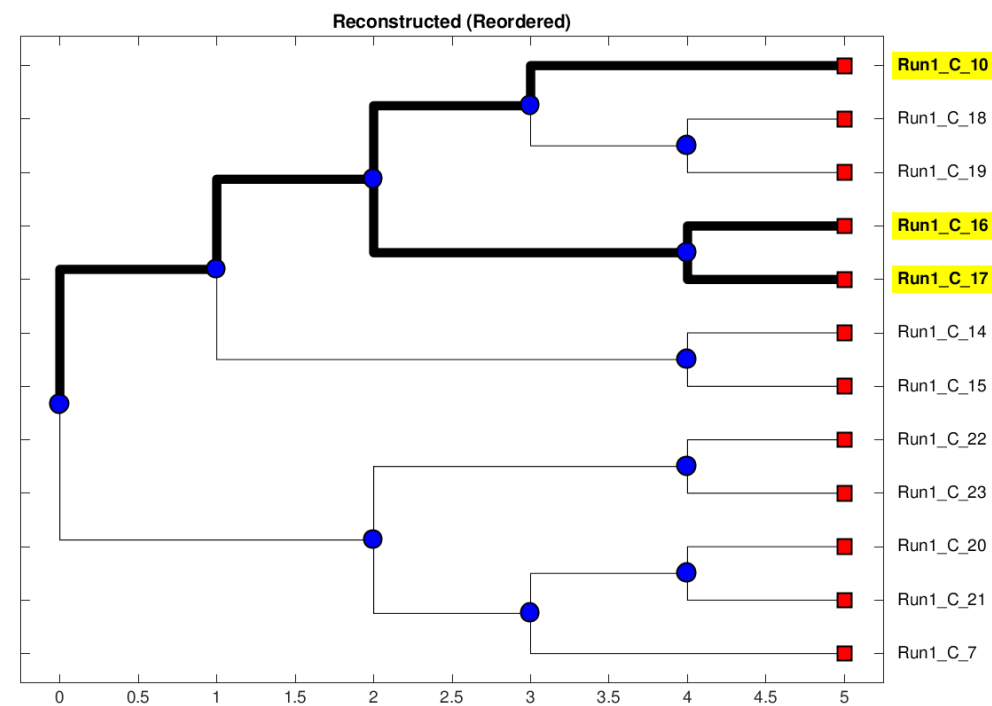
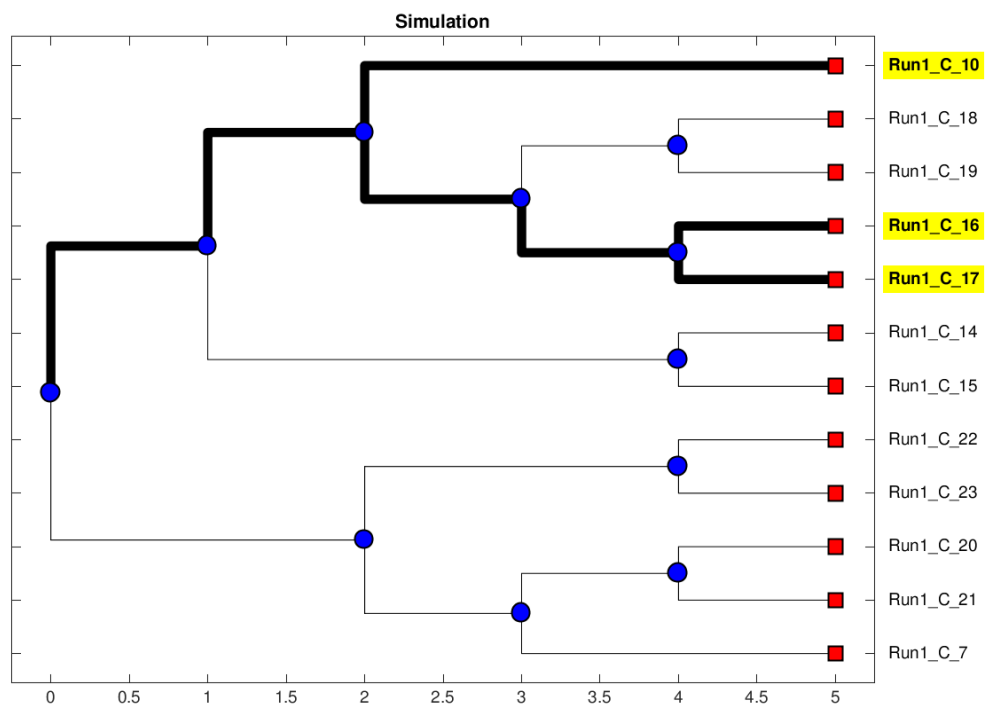
12 leaves (config-09.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 11 |

Mutation Table

| names | C_7 | C_10 | C_14 | C_15 | C_16 | C_17 | C_18 | C_19 | C_20 | C_21 | C_22 | C_23 | root |
|--------|-----|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 21 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 21 | 22 | 19 | 19 | 19 |
| LOC_2 | 21 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 22 | 21 | 20 | 20 | 20 |
| LOC_3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 17 | 20 | 18 | 18 | 21 | 21 | 19 | 20 | 16 | 15 | 16 | 16 | 16 |
| LOC_7 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 15 | 15 | 13 | 13 | 13 |
| LOC_8 | 24 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 22 | 21 | 22 | 22 | 22 |
| LOC_9 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 15 |
| LOC_10 | 15 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 15 | 15 | 15 | 15 | 17 |



| | | | |
|---------------------------|--------|------------------------------|--------|
| RefTree_taxa | 12.0 | Triples | 6.0 |
| Tree_taxa | 12.0 | Triples_toYuleAvg | 0.0408 |
| Common_taxa | 12.0 | Triples_toUnifAvg | 0.0409 |
| MatchingCluster | 7.0 | MatchingPair | 4.0 |
| MatchingCluster_toYuleAvg | 0.1972 | MatchingPair_toYuleAvg | 0.0946 |
| MatchingCluster_toUnifAvg | 0.1851 | MatchingPair_toUnifAvg | 0.0958 |
| R-F_Cluster | 2.0 | MAST | 2.0 |
| R-F_Cluster_toYuleAvg | 0.2051 | MAST_toYuleAvg | 0.2902 |
| R-F_Cluster_toUnifAvg | 0.2043 | MAST_toUnifAvg | 0.2874 |
| NodalSplitted | 8.1854 | CopheneticL2Metric | 4.0 |
| NodalSplitted_toYuleAvg | 0.3005 | CopheneticL2Metric_toYuleAvg | 0.1845 |
| NodalSplitted_toUnifAvg | 0.2736 | CopheneticL2Metric_toUnifAvg | 0.1698 |

75.0%

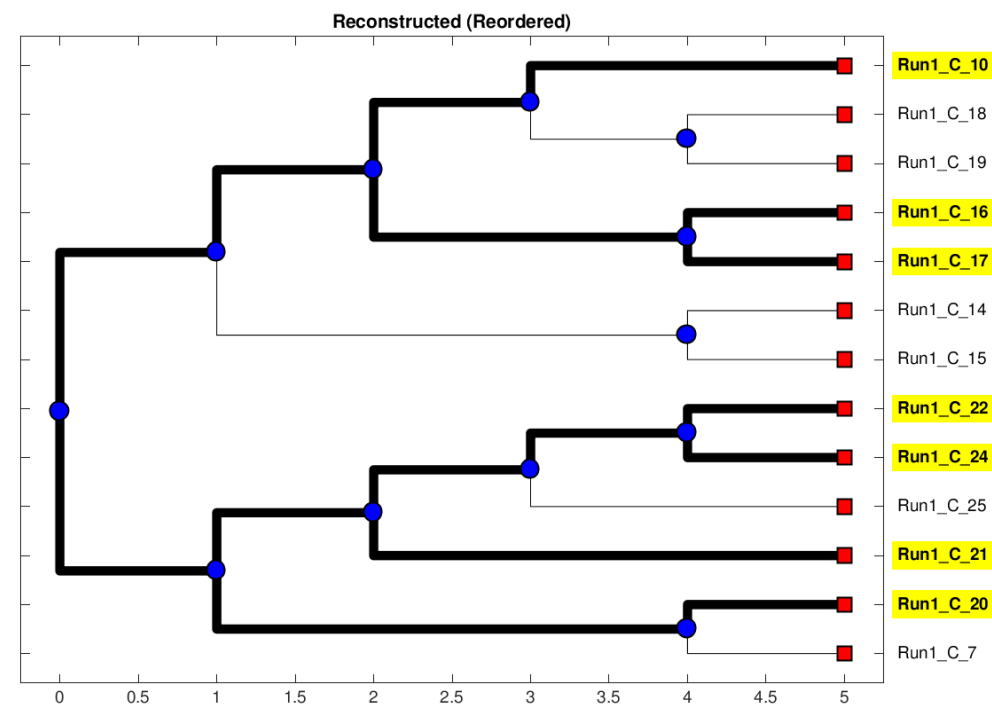
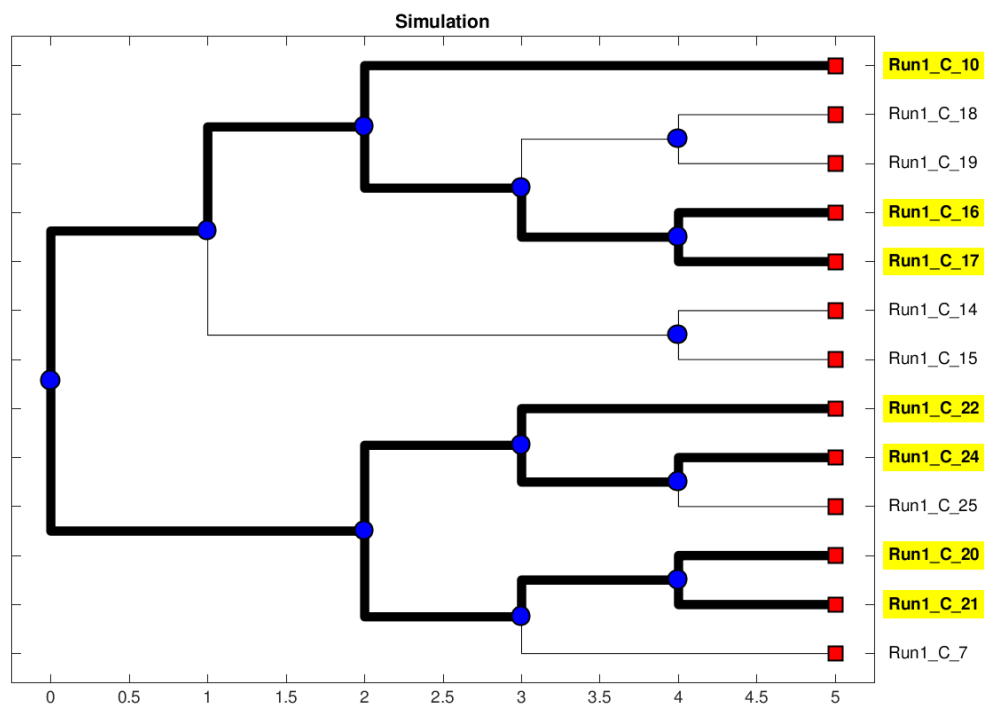
13 leaves (config-10.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 12

Mutation Table

| names | C_7 | C_10 | C_14 | C_15 | C_16 | C_17 | C_18 | C_19 | C_20 | C_21 | C_22 | C_24 | C_25 | root |
|--------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 21 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 21 | 22 | 19 | 19 | 19 | 19 |
| LOC_2 | 21 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 22 | 21 | 20 | 20 | 21 | 20 |
| LOC_3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 17 | 20 | 18 | 18 | 21 | 21 | 19 | 20 | 16 | 15 | 16 | 16 | 15 | 16 |
| LOC_7 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 15 | 15 | 13 | 13 | 13 | 13 |
| LOC_8 | 24 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 22 | 21 | 22 | 22 | 22 | 22 |
| LOC_9 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 |
| LOC_10 | 15 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 13.0 | Triples | 13.0 |
| Tree_taxa | 13.0 | Triples_toYuleAvg | 0.068 |
| Common_taxa | 13.0 | Triples_toUnifAvg | 0.0681 |
| MatchingCluster | 12.0 | MatchingPair | 9.0 |
| MatchingCluster_toYuleAvg | 0.2939 | MatchingPair_toYuleAvg | 0.1767 |
| MatchingCluster_toUnifAvg | 0.2721 | MatchingPair_toUnifAvg | 0.1797 |
| R-F_Cluster | 4.5 | MAST | 3.0 |
| R-F_Cluster_toYuleAvg | 0.4174 | MAST_toYuleAvg | 0.3898 |
| R-F_Cluster_toUnifAvg | 0.4158 | MAST_toUnifAvg | 0.3863 |
| NodalSplitted | 11.6619 | CopheneticL2Metric | 5.7446 |
| NodalSplitted_toYuleAvg | 0.3808 | CopheneticL2Metric_toYuleAvg | 0.2368 |
| NodalSplitted_toUnifAvg | 0.3364 | CopheneticL2Metric_toUnifAvg | 0.2151 |

46.2%

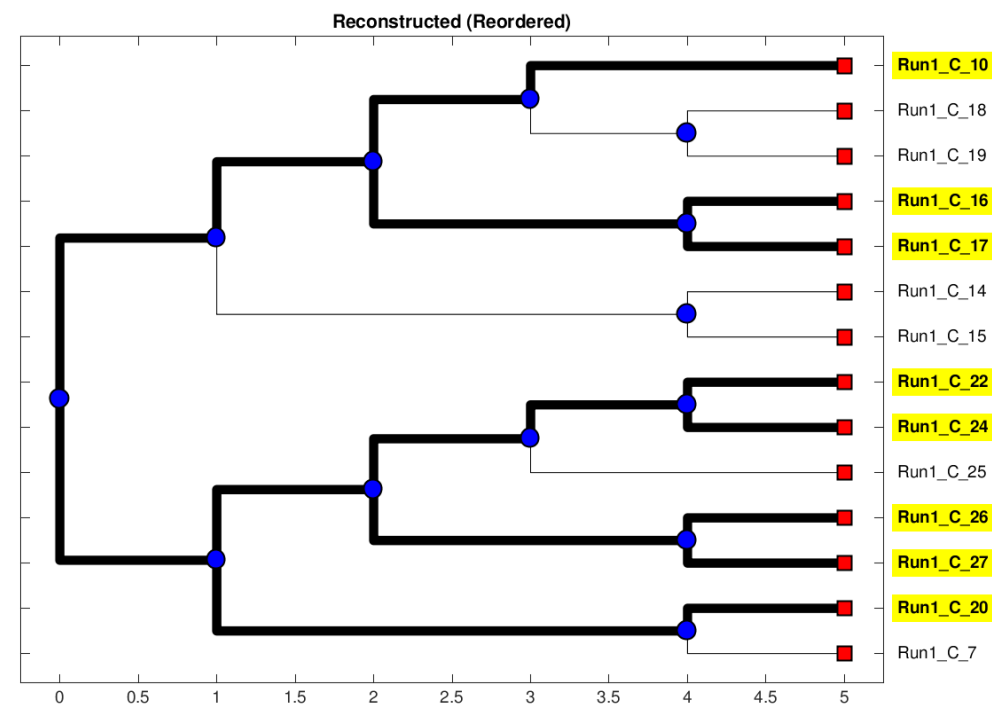
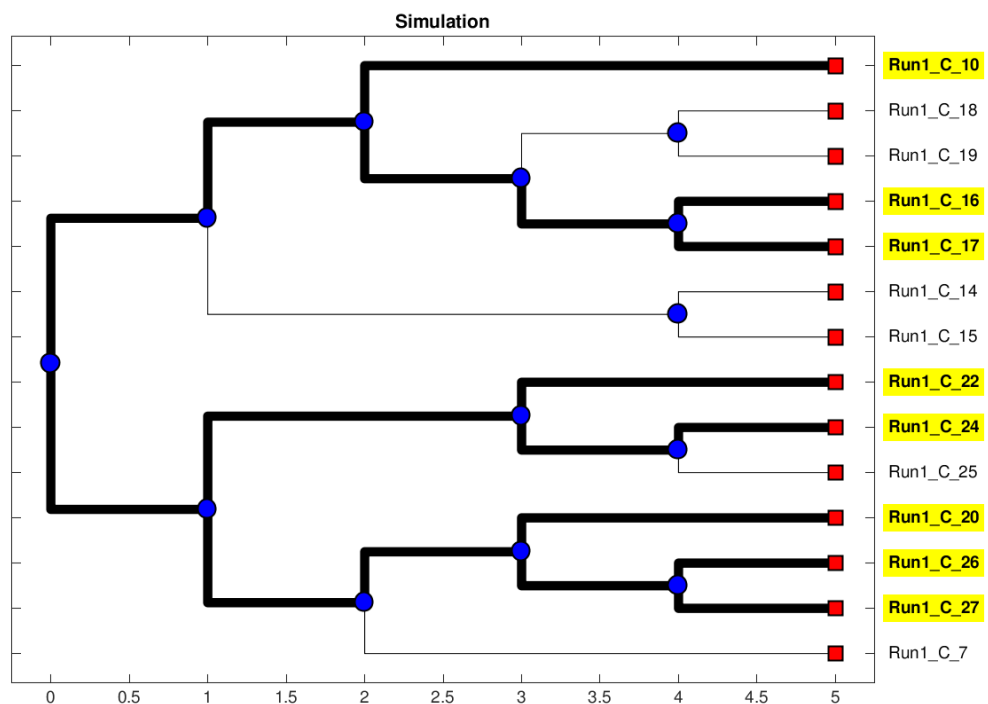
14 leaves (config-11.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 13

Mutation Table

| names | C_7 | C_10 | C_14 | C_15 | C_16 | C_17 | C_18 | C_19 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | root |
|--------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 21 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 |
| LOC_2 | 21 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 22 | 20 | 20 | 21 | 21 | 21 | 20 |
| LOC_3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 17 | 20 | 18 | 18 | 21 | 21 | 19 | 20 | 16 | 16 | 16 | 15 | 15 | 15 | 16 |
| LOC_7 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 |
| LOC_8 | 24 | 19 | 20 | 20 | 19 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 22 |
| LOC_9 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 |
| LOC_10 | 15 | 17 | 17 | 17 | 17 | 18 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 14.0 | Triples | 20.0 |
| Tree_taxa | 14.0 | Triples_toYuleAvg | 0.0823 |
| Common_taxa | 14.0 | Triples_toUnifAvg | 0.0825 |
| MatchingCluster | 13.0 | MatchingPair | 12.0 |
| MatchingCluster_toYuleAvg | 0.2783 | MatchingPair_toYuleAvg | 0.1996 |
| MatchingCluster_toUnifAvg | 0.2577 | MatchingPair_toUnifAvg | 0.2032 |
| R-F_Cluster | 4.5 | MAST | 4.0 |
| R-F_Cluster_toYuleAvg | 0.3821 | MAST_toYuleAvg | 0.4715 |
| R-F_Cluster_toUnifAvg | 0.3809 | MAST_toUnifAvg | 0.4669 |
| NodalSplitted | 12.8452 | CopheneticL2Metric | 6.5574 |
| NodalSplitted_toYuleAvg | 0.3697 | CopheneticL2Metric_toYuleAvg | 0.2396 |
| NodalSplitted_toUnifAvg | 0.329 | CopheneticL2Metric_toUnifAvg | 0.2149 |

42.9%

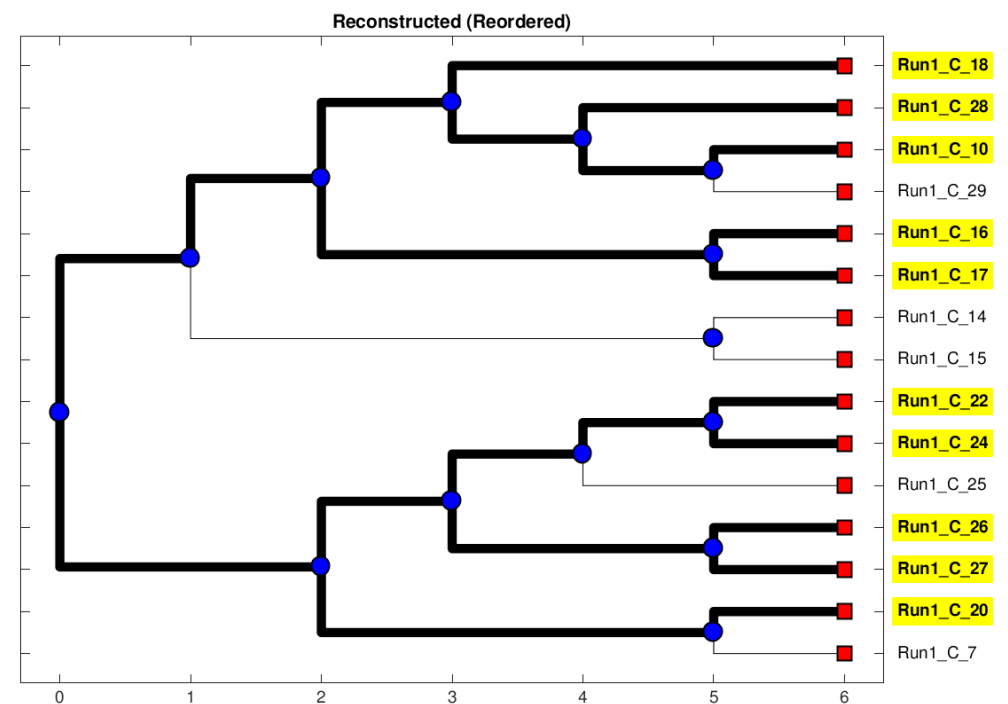
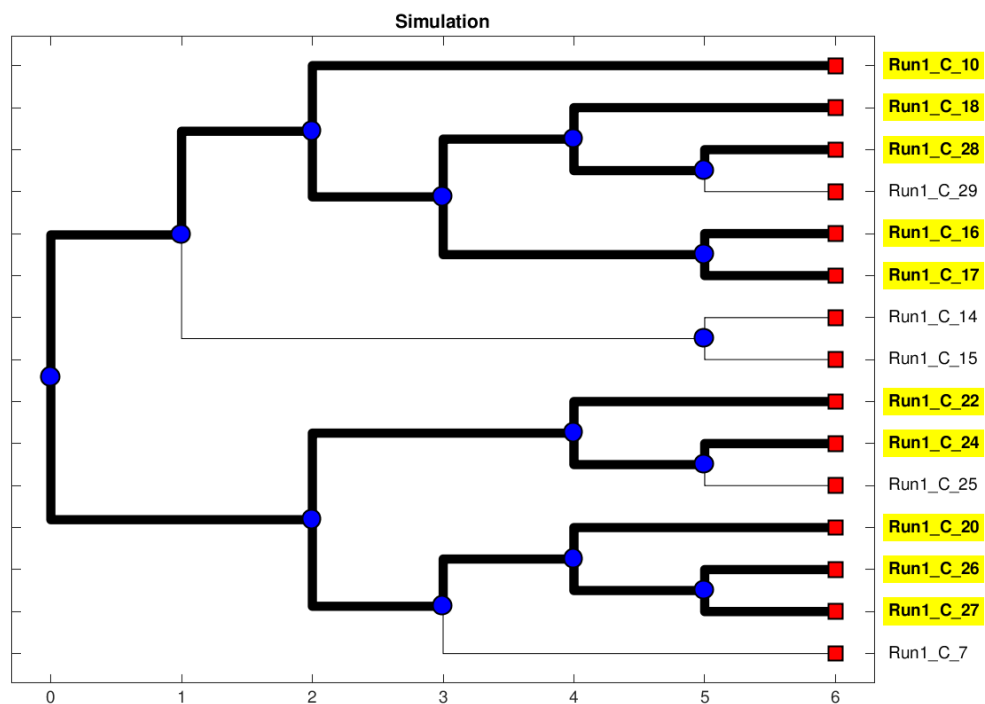
15 leaves (config-12.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 14 |

Mutation Table

| names | C_7 | C_10 | C_14 | C_15 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | root |
|--------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 21 | 19 | 20 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 |
| LOC_2 | 21 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 |
| LOC_3 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 17 | 20 | 18 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 16 |
| LOC_7 | 14 | 14 | 13 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 |
| LOC_8 | 24 | 19 | 20 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 22 |
| LOC_9 | 15 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 |
| LOC_10 | 15 | 17 | 17 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 15.0 | Triples | 24.0 |
| Tree_taxa | 15.0 | Triples_toYuleAvg | 0.0795 |
| Common_taxa | 15.0 | Triples_toUnifAvg | 0.0793 |
| MatchingCluster | 15.0 | MatchingPair | 13.0 |
| MatchingCluster_toYuleAvg | 0.2898 | MatchingPair_toYuleAvg | 0.1848 |
| MatchingCluster_toUnifAvg | 0.2611 | MatchingPair_toUnifAvg | 0.1874 |
| R-F_Cluster | 5.5 | MAST | 4.0 |
| R-F_Cluster_toYuleAvg | 0.4315 | MAST_toYuleAvg | 0.4333 |
| R-F_Cluster_toUnifAvg | 0.4291 | MAST_toUnifAvg | 0.4267 |
| NodalSplitted | 15.1658 | CopheneticL2Metric | 7.6158 |
| NodalSplitted_toYuleAvg | 0.4006 | CopheneticL2Metric_toYuleAvg | 0.2541 |
| NodalSplitted_toUnifAvg | 0.3449 | CopheneticL2Metric_toUnifAvg | 0.2249 |

33.3%

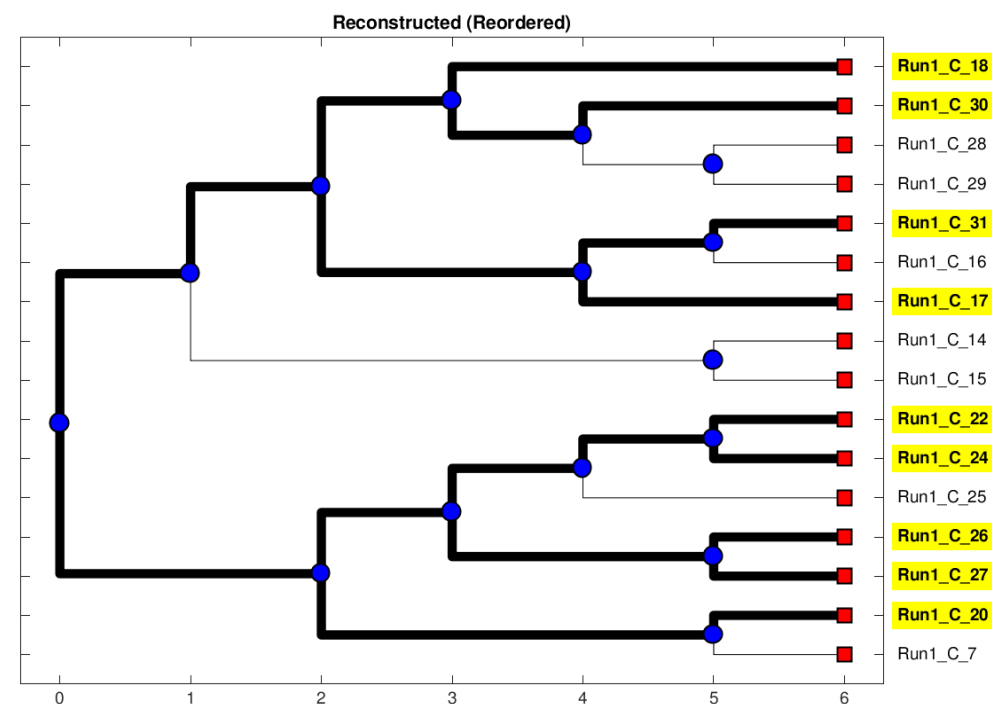
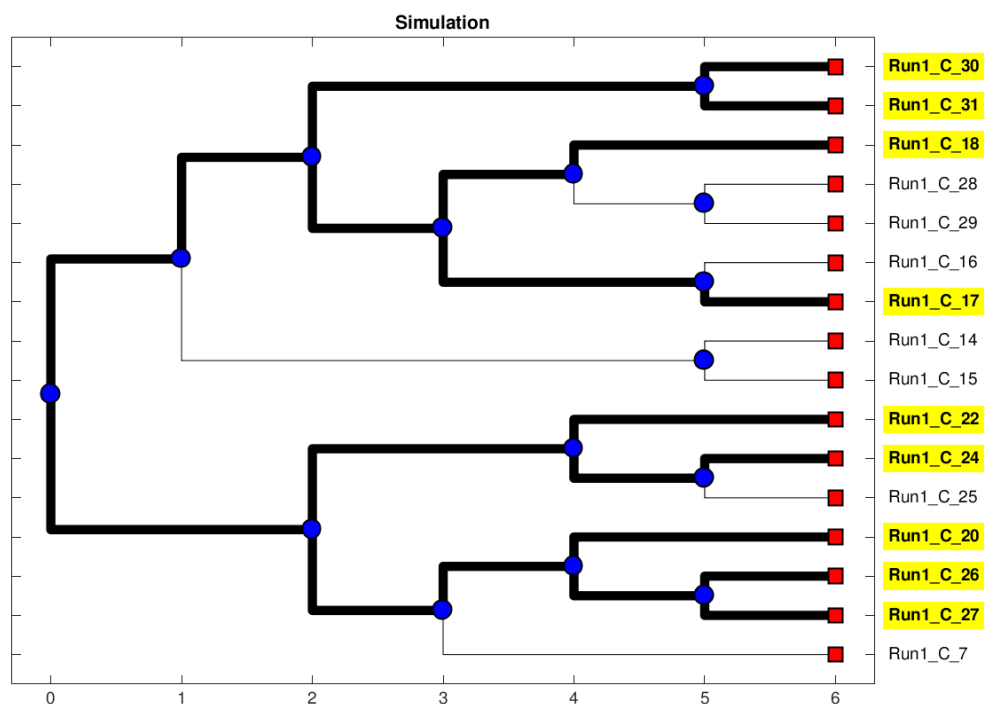
16 leaves (config-13.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 15 |

Mutation Table

| names | C_7 | C_14 | C_15 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_30 | C_31 | root |
|--------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 21 | 20 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 19 | 19 |
| LOC_2 | 21 | 21 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 21 | 20 | 20 |
| LOC_3 | 7 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 17 | 18 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 20 | 21 | 16 |
| LOC_7 | 14 | 13 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 13 |
| LOC_8 | 24 | 20 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 19 | 22 |
| LOC_9 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 |
| LOC_10 | 15 | 17 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 15 | 17 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 16.0 | Triples | 35.0 |
| Tree_taxa | 16.0 | Triples_toYuleAvg | 0.0938 |
| Common_taxa | 16.0 | Triples_toUnifAvg | 0.094 |
| MatchingCluster | 16.0 | MatchingPair | 18.0 |
| MatchingCluster_toYuleAvg | 0.2738 | MatchingPair_toYuleAvg | 0.2204 |
| MatchingCluster_toUnifAvg | 0.2478 | MatchingPair_toUnifAvg | 0.2249 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.5083 | MAST_toYuleAvg | 0.4968 |
| R-F_Cluster_toUnifAvg | 0.5063 | MAST_toUnifAvg | 0.4938 |
| NodalSplitted | 14.4222 | CopheneticL2Metric | 7.6158 |
| NodalSplitted_toYuleAvg | 0.3426 | CopheneticL2Metric_toYuleAvg | 0.2317 |
| NodalSplitted_toUnifAvg | 0.293 | CopheneticL2Metric_toUnifAvg | 0.2048 |

43.8%

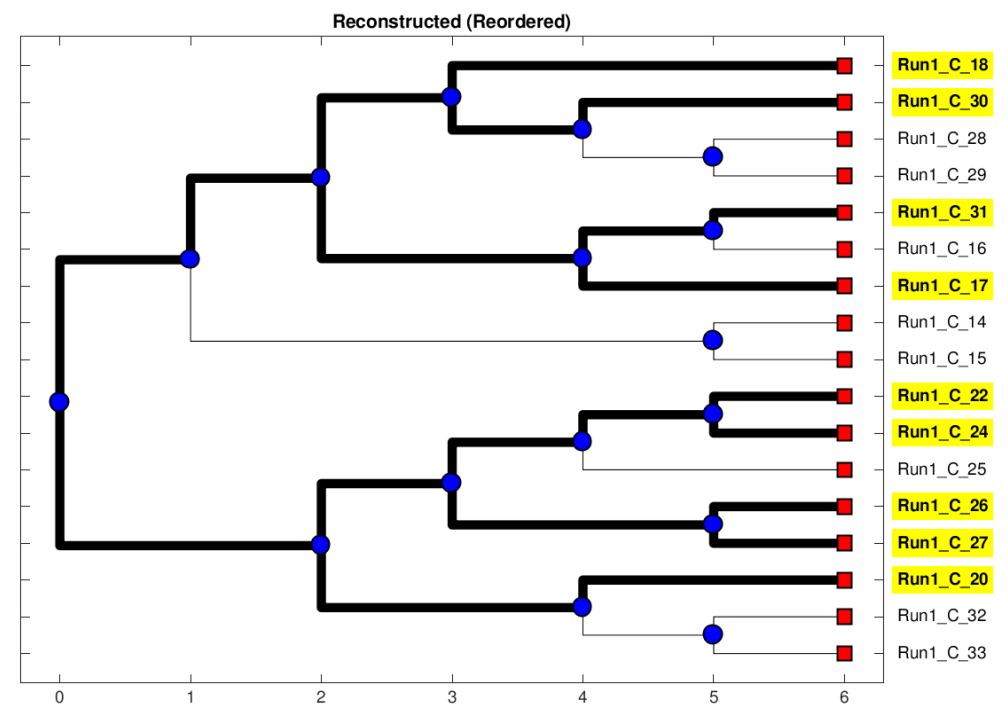
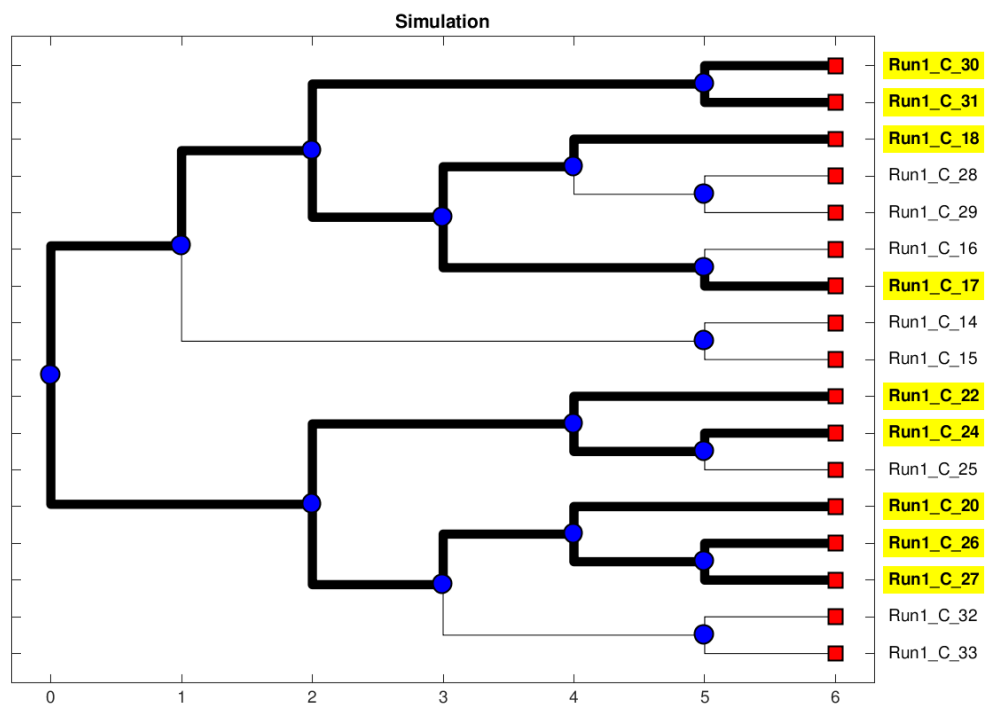
17 leaves (config-14.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 16

Mutation Table

| names | C_14 | C_15 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_30 | C_31 | C_32 | C_33 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 19 | 24 | 20 | 19 |
| LOC_2 | 21 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 21 | 20 | 22 | 21 | 20 |
| LOC_3 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 20 | 21 | 17 | 17 | 16 |
| LOC_7 | 13 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 14 | 13 |
| LOC_8 | 20 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 19 | 22 | 23 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 17 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 15 | 17 | 15 | 15 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 17.0 | Triples | 43.0 |
| Tree_taxa | 17.0 | Triples_toYuleAvg | 0.0947 |
| Common_taxa | 17.0 | Triples_toUnifAvg | 0.0946 |
| MatchingCluster | 16.0 | MatchingPair | 22.0 |
| MatchingCluster_toYuleAvg | 0.2475 | MatchingPair_toYuleAvg | 0.2355 |
| MatchingCluster_toUnifAvg | 0.2201 | MatchingPair_toUnifAvg | 0.2391 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.4739 | MAST_toYuleAvg | 0.4598 |
| R-F_Cluster_toUnifAvg | 0.4715 | MAST_toUnifAvg | 0.4567 |
| NodalSplitted | 14.8324 | CopheneticL2Metric | 7.746 |
| NodalSplitted_toYuleAvg | 0.3236 | CopheneticL2Metric_toYuleAvg | 0.2157 |
| NodalSplitted_toUnifAvg | 0.2709 | CopheneticL2Metric_toUnifAvg | 0.1874 |

47.1%

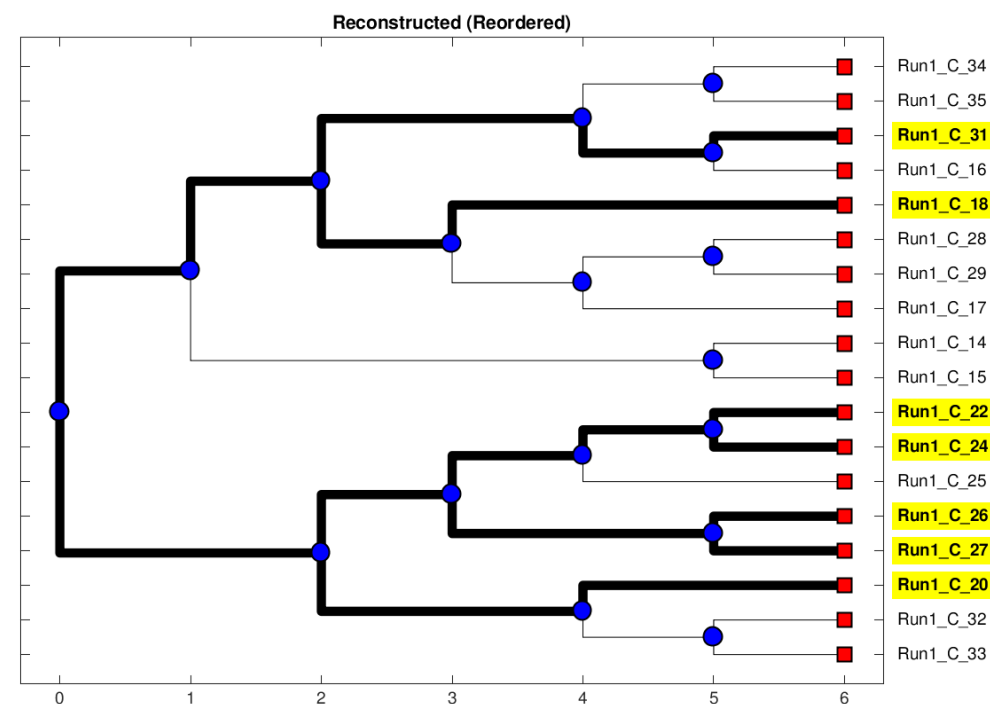
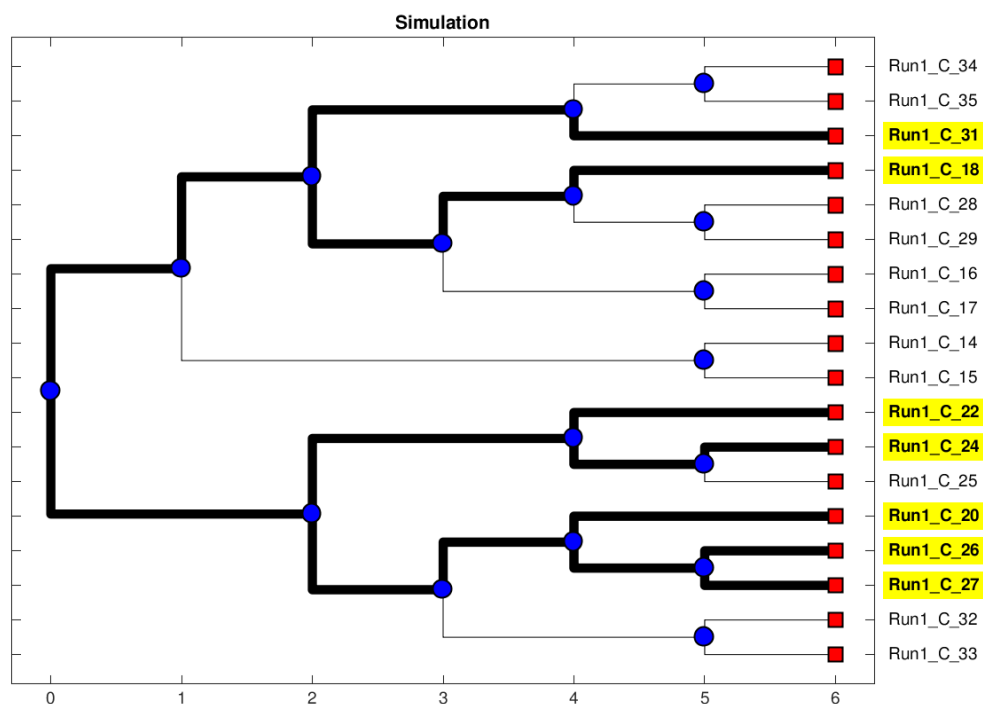
18 leaves (config-15.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 17

Mutation Table

| names | C_14 | C_15 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_31 | C_32 | C_33 | C_34 | C_35 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 24 | 20 | 19 | 19 | 19 |
| LOC_2 | 21 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 | 22 | 21 | 24 | 24 | 20 |
| LOC_3 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 7 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 21 | 17 | 17 | 20 | 20 | 16 |
| LOC_7 | 13 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 14 | 14 | 13 |
| LOC_8 | 20 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 22 | 23 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 |
| LOC_10 | 17 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 | 15 | 15 | 15 | 15 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 18.0 | Triples | 42.0 |
| Tree_taxa | 18.0 | Triples_toYuleAvg | 0.0768 |
| Common_taxa | 18.0 | Triples_toUnifAvg | 0.0774 |
| MatchingCluster | 14.0 | MatchingPair | 21.0 |
| MatchingCluster_toYuleAvg | 0.1971 | MatchingPair_toYuleAvg | 0.1974 |
| MatchingCluster_toUnifAvg | 0.1741 | MatchingPair_toUnifAvg | 0.2019 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.4434 | MAST_toYuleAvg | 0.426 |
| R-F_Cluster_toUnifAvg | 0.4423 | MAST_toUnifAvg | 0.4248 |
| NodalSplitted | 14.0712 | CopheneticL2Metric | 7.1414 |
| NodalSplitted_toYuleAvg | 0.283 | CopheneticL2Metric_toYuleAvg | 0.182 |
| NodalSplitted_toUnifAvg | 0.2321 | CopheneticL2Metric_toUnifAvg | 0.158 |

61.1%

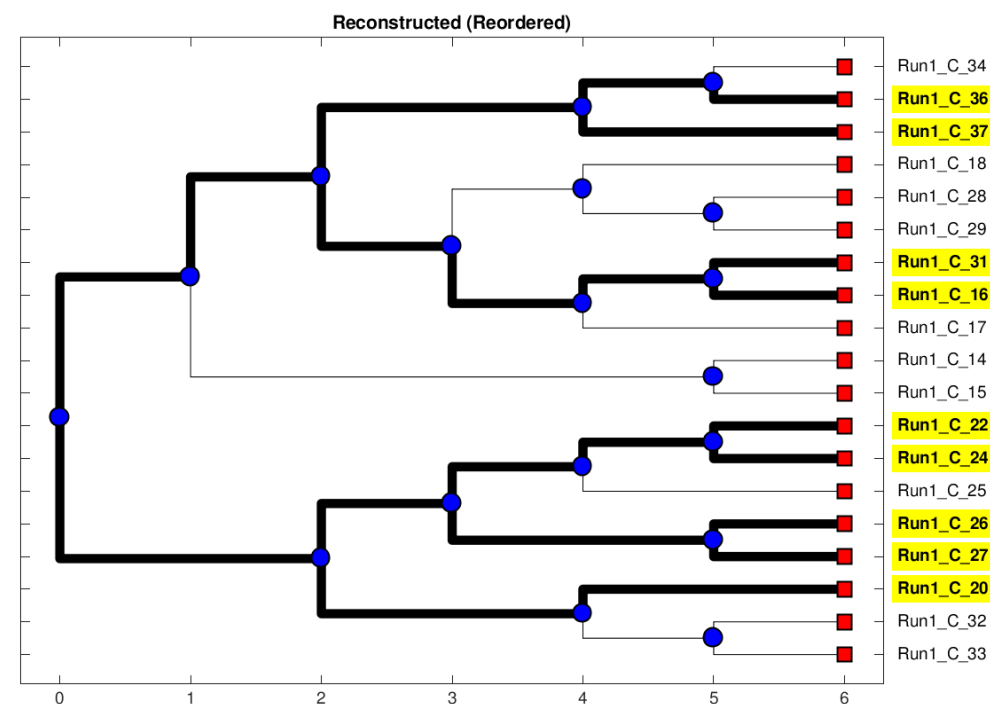
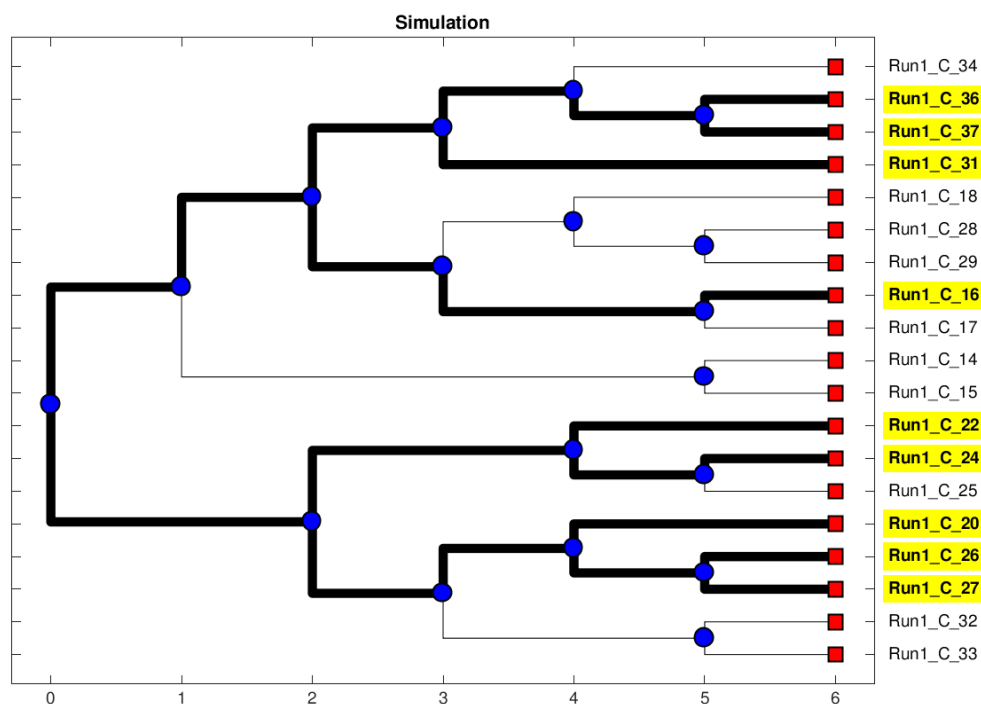
19 leaves (config-16.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 18 |

Mutation Table

| names | C_14 | C_15 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_31 | C_32 | C_33 | C_34 | C_36 | C_37 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 24 | 20 | 19 | 19 | 20 | 19 |
| LOC_2 | 21 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 | 22 | 21 | 24 | 24 | 24 | 20 |
| LOC_3 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 7 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 21 | 17 | 17 | 20 | 20 | 20 | 16 |
| LOC_7 | 13 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 14 | 15 | 15 | 13 |
| LOC_8 | 20 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 22 | 23 | 19 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 15 |
| LOC_10 | 17 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 | 15 | 15 | 15 | 15 | 16 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 19.0 | Triples | 46.0 |
| Tree_taxa | 19.0 | Triples_toYuleAvg | 0.0715 |
| Common_taxa | 19.0 | Triples_toUnifAvg | 0.0711 |
| MatchingCluster | 16.0 | MatchingPair | 22.0 |
| MatchingCluster_toYuleAvg | 0.2063 | MatchingPair_toYuleAvg | 0.1838 |
| MatchingCluster_toUnifAvg | 0.18 | MatchingPair_toUnifAvg | 0.1868 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.418 | MAST_toYuleAvg | 0.3995 |
| R-F_Cluster_toUnifAvg | 0.4158 | MAST_toUnifAvg | 0.3964 |
| NodalSplitted | 18.1108 | CopheneticL2Metric | 8.124 |
| NodalSplitted_toYuleAvg | 0.3367 | CopheneticL2Metric_toYuleAvg | 0.1924 |
| NodalSplitted_toUnifAvg | 0.2745 | CopheneticL2Metric_toUnifAvg | 0.165 |

52.6%

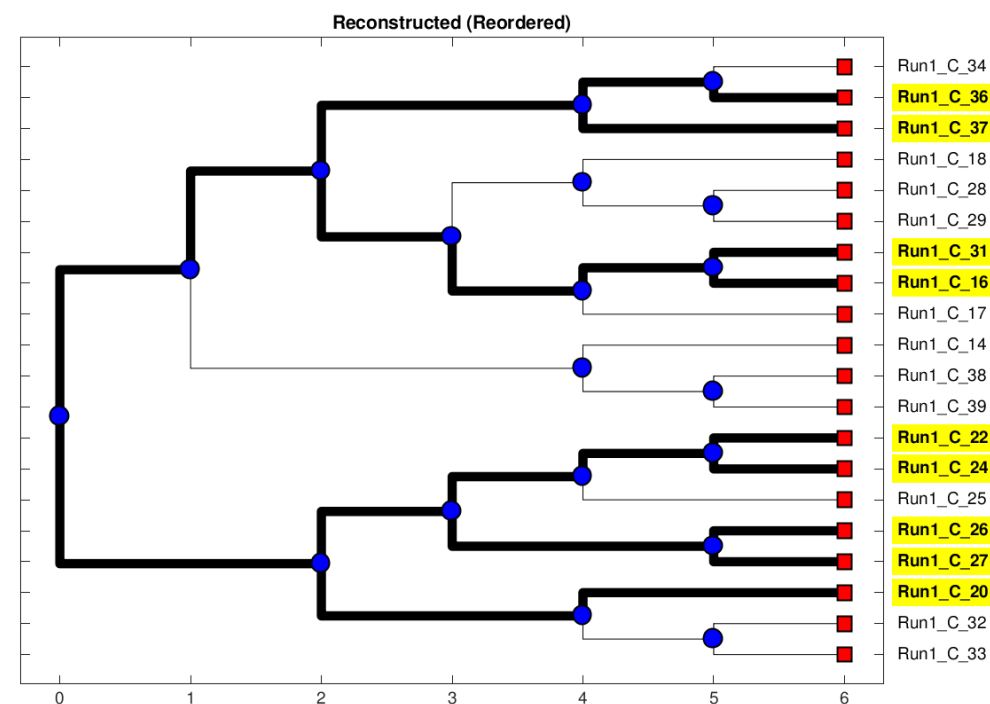
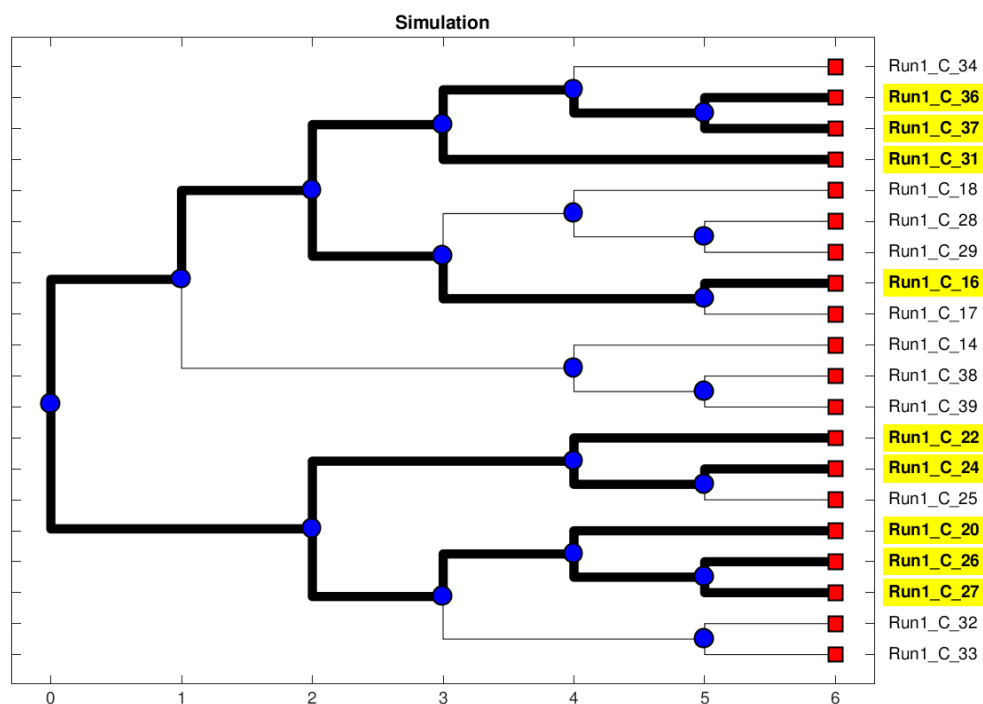
20 leaves (config-17.json)

Parameters

| | |
|------------------------|-------|
| Mutation: | True |
| Allelic Dropouts: | False |
| Noises: | False |
| Early Stop Population: | 19 |

Mutation Table

| names | C_14 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_31 | C_32 | C_33 | C_34 | C_36 | C_37 | C_38 | C_39 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 24 | 20 | 19 | 19 | 20 | 20 | 20 | 19 |
| LOC_2 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 | 22 | 21 | 24 | 24 | 24 | 23 | 21 | 20 |
| LOC_3 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 21 | 17 | 17 | 20 | 20 | 20 | 17 | 17 | 16 |
| LOC_7 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 14 | 15 | 15 | 13 | 13 | 13 |
| LOC_8 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 22 | 23 | 19 | 19 | 19 | 20 | 20 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 14 | 15 | 15 | 15 |
| LOC_10 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 | 15 | 15 | 15 | 15 | 16 | 17 | 17 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 20.0 | Triples | 46.0 |
| Tree_taxa | 20.0 | Triples_toYuleAvg | 0.0602 |
| Common_taxa | 20.0 | Triples_toUnifAvg | 0.0606 |
| MatchingCluster | 16.0 | MatchingPair | 22.0 |
| MatchingCluster_toYuleAvg | 0.1878 | MatchingPair_toYuleAvg | 0.1635 |
| MatchingCluster_toUnifAvg | 0.1645 | MatchingPair_toUnifAvg | 0.1672 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.3941 | MAST_toYuleAvg | 0.3748 |
| R-F_Cluster_toUnifAvg | 0.3922 | MAST_toUnifAvg | 0.3716 |
| NodalSplitted | 18.6011 | CopheneticL2Metric | 8.124 |
| NodalSplitted_toYuleAvg | 0.3197 | CopheneticL2Metric_toYuleAvg | 0.1829 |
| NodalSplitted_toUnifAvg | 0.2588 | CopheneticL2Metric_toUnifAvg | 0.1495 |

55.0%

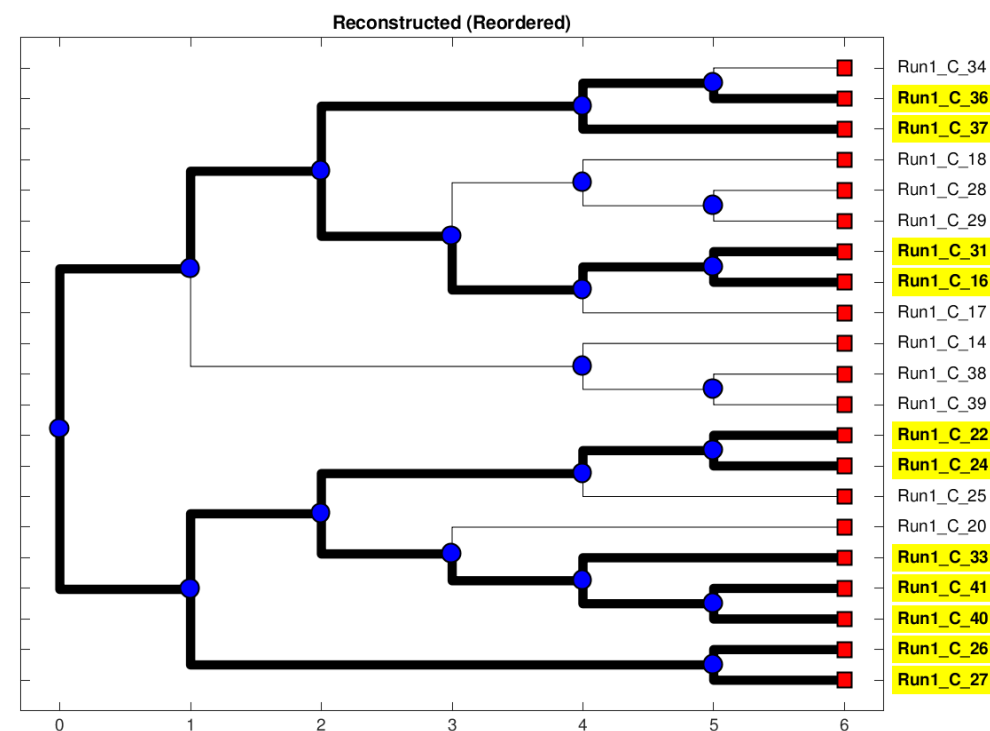
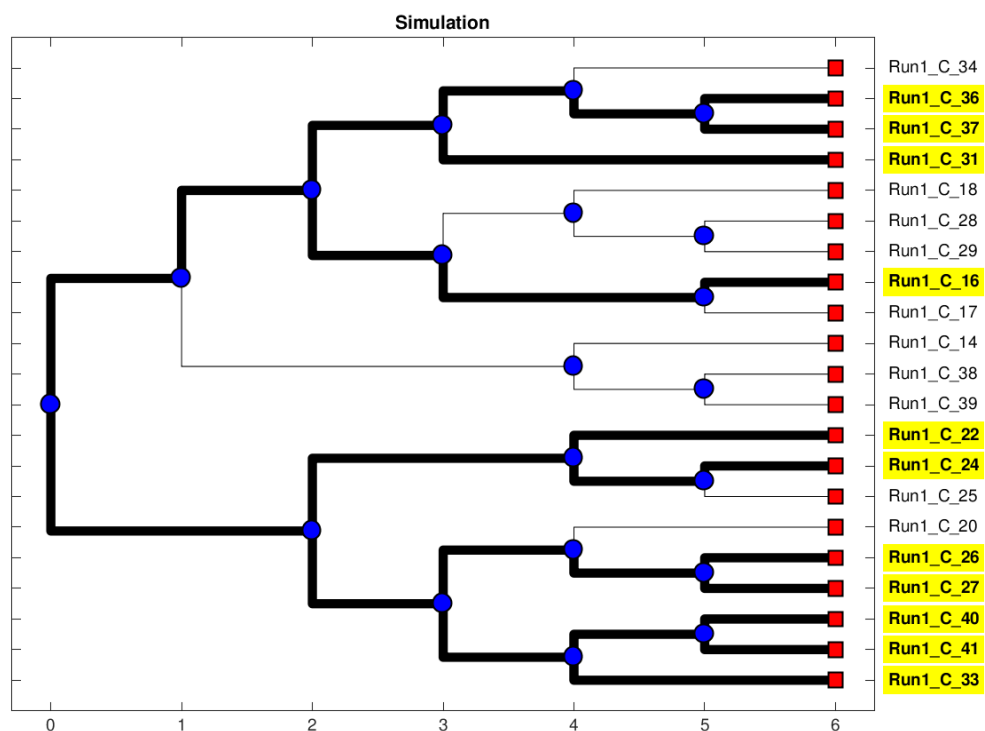
21 leaves (config-18.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 20

Mutation Table

| names | C_14 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_31 | C_33 | C_34 | C_36 | C_37 | C_38 | C_39 | C_40 | C_41 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 20 | 19 | 19 | 20 | 20 | 20 | 23 | 24 | 19 |
| LOC_2 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 | 21 | 24 | 24 | 24 | 23 | 21 | 22 | 22 | 20 |
| LOC_3 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 21 | 17 | 20 | 20 | 20 | 17 | 17 | 17 | 17 | 16 |
| LOC_7 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 15 | 15 | 13 | 13 | 14 | 14 | 13 |
| LOC_8 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 23 | 19 | 19 | 19 | 20 | 20 | 22 | 22 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 14 | 15 | 15 | 14 | 15 | 15 |
| LOC_10 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 | 15 | 15 | 15 | 16 | 17 | 17 | 15 | 15 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 21.0 | Triples | 54.0 |
| Tree_taxa | 21.0 | Triples_toYuleAvg | 0.0608 |
| Common_taxa | 21.0 | Triples_toUnifAvg | 0.0609 |
| MatchingCluster | 20.0 | MatchingPair | 21.0 |
| MatchingCluster_toYuleAvg | 0.2183 | MatchingPair_toYuleAvg | 0.1406 |
| MatchingCluster_toUnifAvg | 0.1891 | MatchingPair_toUnifAvg | 0.1435 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.3729 | MAST_toYuleAvg | 0.3527 |
| R-F_Cluster_toUnifAvg | 0.3714 | MAST_toUnifAvg | 0.3502 |
| NodalSplitted | 21.9545 | CopheneticL2Metric | 9.5394 |
| NodalSplitted_toYuleAvg | 0.3566 | CopheneticL2Metric_toYuleAvg | 0.2005 |
| NodalSplitted_toUnifAvg | 0.2821 | CopheneticL2Metric_toUnifAvg | 0.1651 |

47.6%

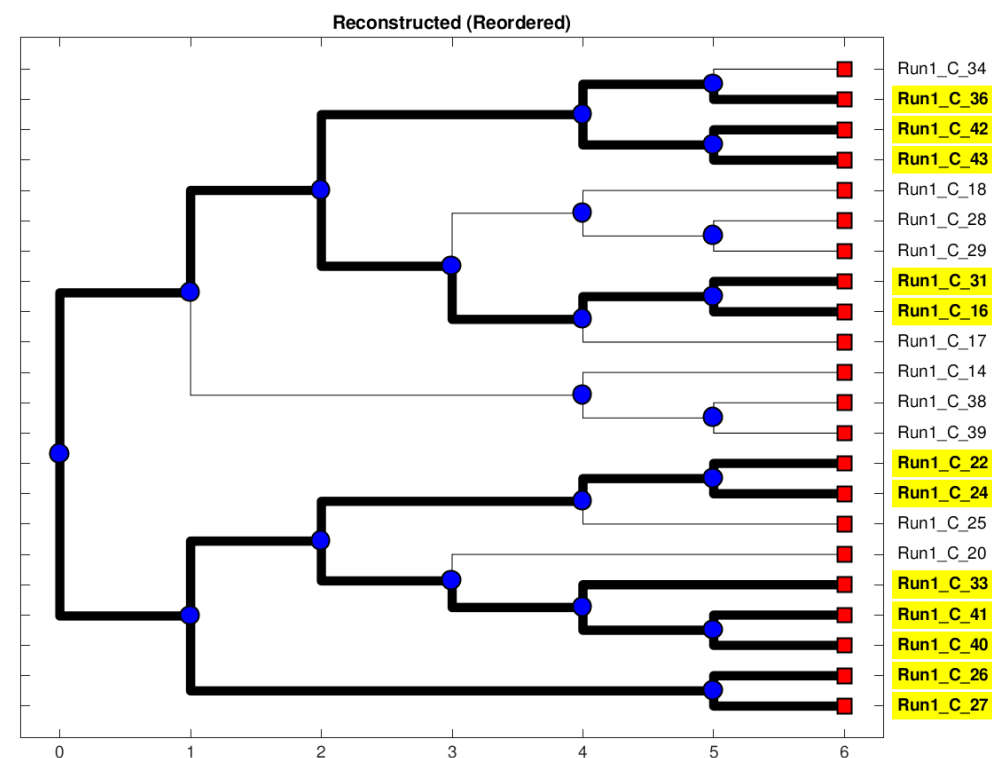
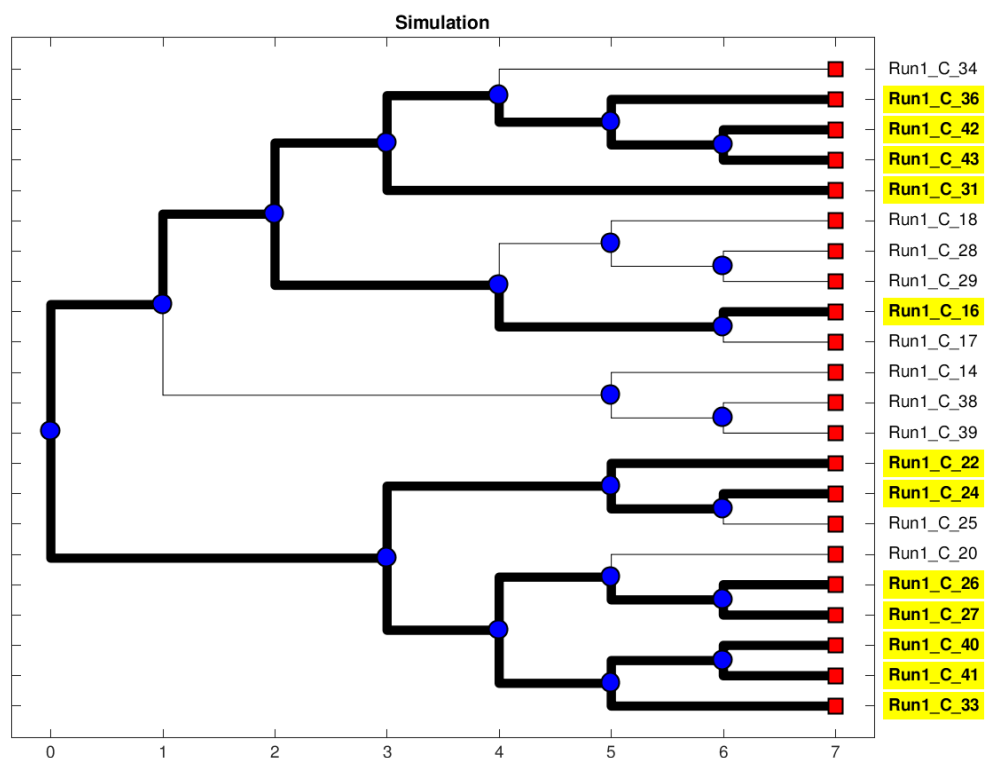
22 leaves (config-19.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 21

Mutation Table

| names | C_14 | C_16 | C_17 | C_18 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_31 | C_33 | C_34 | C_36 | C_38 | C_39 | C_40 | C_41 | C_42 | C_43 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 19 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 20 | 19 | 19 | 20 | 20 | 23 | 24 | 19 | 20 | 19 |
| LOC_2 | 21 | 25 | 21 | 23 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 | 21 | 24 | 24 | 23 | 21 | 22 | 22 | 24 | 24 | 20 |
| LOC_3 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 8 | 8 | 8 | 8 | 7 | 7 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 7 | 7 |
| LOC_6 | 18 | 21 | 21 | 19 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 21 | 17 | 20 | 20 | 17 | 17 | 17 | 17 | 21 | 20 | 16 |
| LOC_7 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 15 | 13 | 13 | 14 | 14 | 15 | 15 | 13 |
| LOC_8 | 20 | 19 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 23 | 19 | 19 | 20 | 20 | 22 | 22 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 15 | 14 | 14 | 15 |
| LOC_10 | 17 | 17 | 18 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 | 15 | 15 | 15 | 17 | 17 | 15 | 15 | 16 | 16 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 22.0 | Triples | 60.0 |
| Tree_taxa | 22.0 | Triples_toYuleAvg | 0.0585 |
| Common_taxa | 22.0 | Triples_toUnifAvg | 0.0583 |
| MatchingCluster | 22.0 | MatchingPair | 23.0 |
| MatchingCluster_toYuleAvg | 0.2226 | MatchingPair_toYuleAvg | 0.1396 |
| MatchingCluster_toUnifAvg | 0.19 | MatchingPair_toUnifAvg | 0.142 |
| R-F_Cluster | 7.0 | MAST | 5.0 |
| R-F_Cluster_toYuleAvg | 0.3541 | MAST_toYuleAvg | 0.3334 |
| R-F_Cluster_toUnifAvg | 0.3525 | MAST_toUnifAvg | 0.331 |
| NodalSplitted | 24.0832 | CopheneticL2Metric | 10.247 |
| NodalSplitted_toYuleAvg | 0.3615 | CopheneticL2Metric_toYuleAvg | 0.2016 |
| NodalSplitted_toUnifAvg | 0.2831 | CopheneticL2Metric_toUnifAvg | 0.1633 |

45.5%

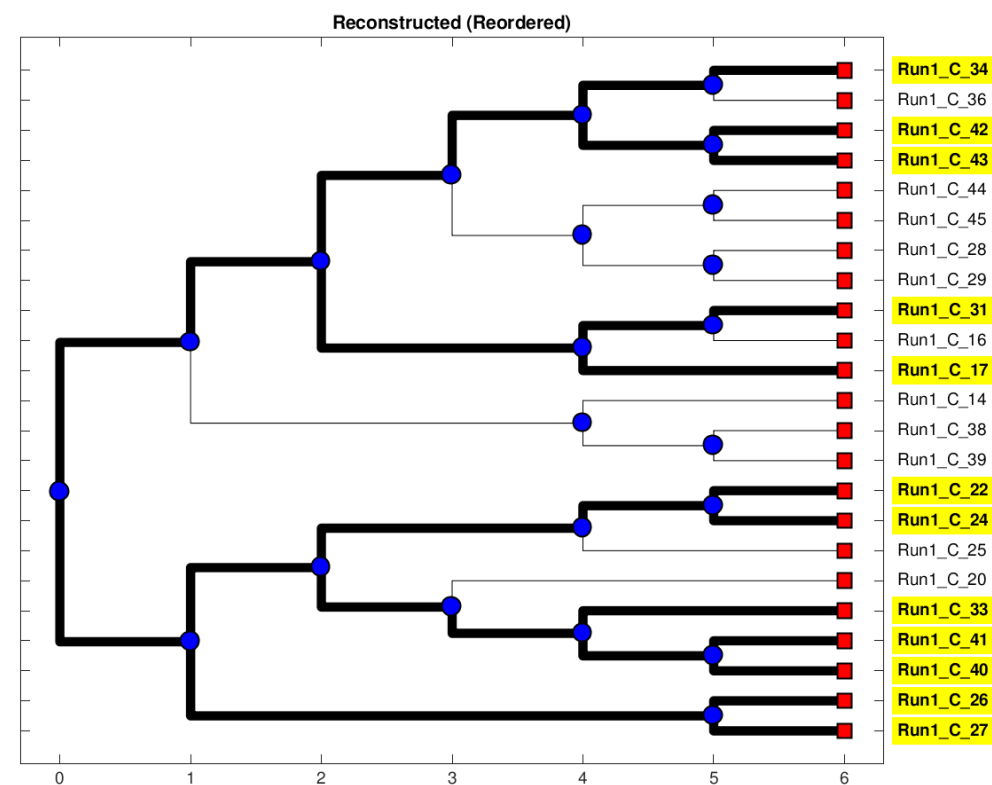
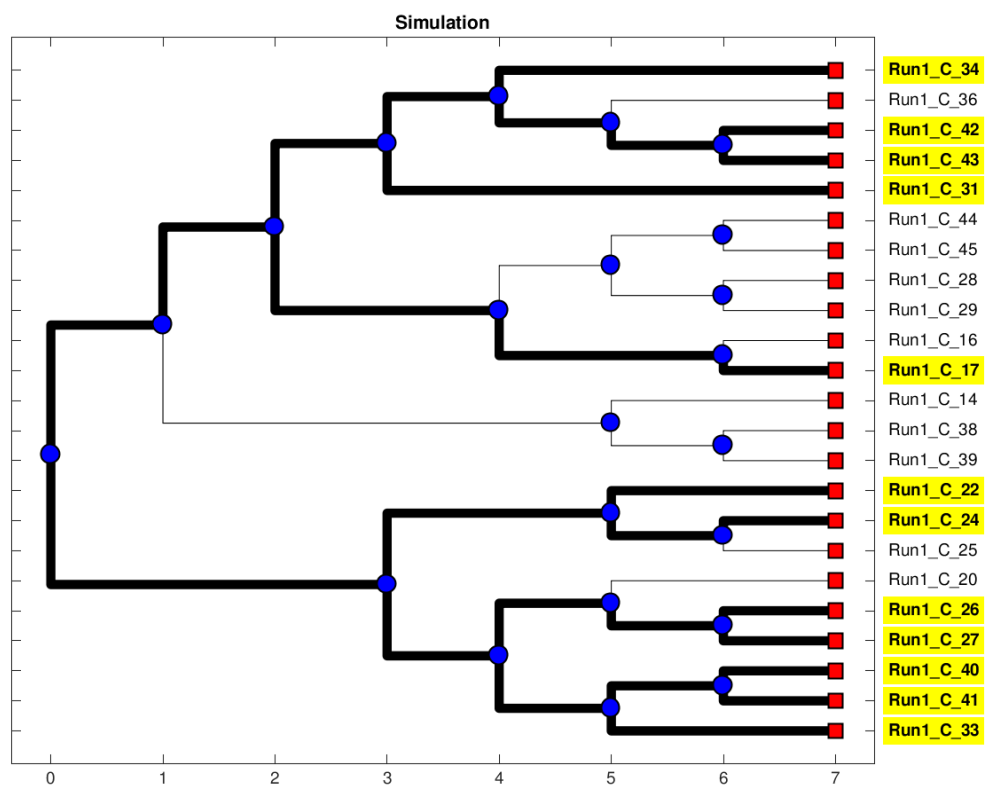
23 leaves (config-20.json)

Parameters

Mutation: True
Allelic Dropouts: False
Noises: False
Early Stop Population: 22

Mutation Table

| names | C_14 | C_16 | C_17 | C_20 | C_22 | C_24 | C_25 | C_26 | C_27 | C_28 | C_29 | C_31 | C_33 | C_34 | C_36 | C_38 | C_39 | C_40 | C_41 | C_42 | C_43 | C_44 | C_45 | root |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| LOC_1 | 20 | 19 | 19 | 21 | 19 | 19 | 19 | 22 | 22 | 19 | 19 | 19 | 20 | 19 | 19 | 20 | 20 | 23 | 24 | 19 | 20 | 19 | 19 | 19 |
| LOC_2 | 21 | 25 | 21 | 22 | 20 | 20 | 21 | 21 | 21 | 22 | 21 | 20 | 21 | 24 | 24 | 23 | 21 | 22 | 22 | 24 | 24 | 24 | 24 | 20 |
| LOC_3 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 8 | 8 | 8 | 8 | 7 | 7 | 8 | 8 | 8 | 8 | 7 |
| LOC_4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| LOC_5 | 7 | 7 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 7 | 7 | 7 | 7 |
| LOC_6 | 18 | 21 | 21 | 16 | 16 | 16 | 15 | 15 | 15 | 20 | 20 | 21 | 17 | 20 | 20 | 17 | 17 | 17 | 17 | 21 | 20 | 19 | 23 | 16 |
| LOC_7 | 13 | 13 | 13 | 15 | 13 | 13 | 13 | 13 | 15 | 13 | 13 | 14 | 14 | 14 | 15 | 13 | 13 | 14 | 14 | 15 | 15 | 13 | 13 | 13 |
| LOC_8 | 20 | 19 | 19 | 22 | 22 | 22 | 22 | 22 | 21 | 19 | 19 | 19 | 23 | 19 | 19 | 20 | 20 | 22 | 22 | 19 | 19 | 19 | 19 | 22 |
| LOC_9 | 14 | 15 | 15 | 15 | 14 | 14 | 14 | 15 | 16 | 15 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 14 | 15 | 14 | 14 | 15 | 15 | 15 |
| LOC_10 | 17 | 17 | 18 | 15 | 15 | 15 | 15 | 15 | 13 | 18 | 18 | 17 | 15 | 15 | 15 | 17 | 17 | 15 | 15 | 16 | 16 | 18 | 18 | 17 |



| | | | |
|---------------------------|---------|------------------------------|--------|
| RefTree_taxa | 23.0 | Triples | 98.0 |
| Tree_taxa | 23.0 | Triples_toYuleAvg | 0.0829 |
| Common_taxa | 23.0 | Triples_toUnifAvg | 0.0833 |
| MatchingCluster | 27.0 | MatchingPair | 32.0 |
| MatchingCluster_toYuleAvg | 0.2546 | MatchingPair_toYuleAvg | 0.1753 |
| MatchingCluster_toUnifAvg | 0.2179 | MatchingPair_toUnifAvg | 0.1791 |
| R-F_Cluster | 7.0 | MAST | 7.0 |
| R-F_Cluster_toYuleAvg | 0.3369 | MAST_toYuleAvg | 0.4412 |
| R-F_Cluster_toUnifAvg | 0.3362 | MAST_toUnifAvg | 0.4371 |
| NodalSplitted | 22.1359 | CopheneticL2Metric | 10.0 |
| NodalSplitted_toYuleAvg | 0.3138 | CopheneticL2Metric_toYuleAvg | 0.1846 |
| NodalSplitted_toUnifAvg | 0.2469 | CopheneticL2Metric_toUnifAvg | 0.1481 |

47.8%

