Nextclade Result Parameter Diagnostic Plots

Full Genome

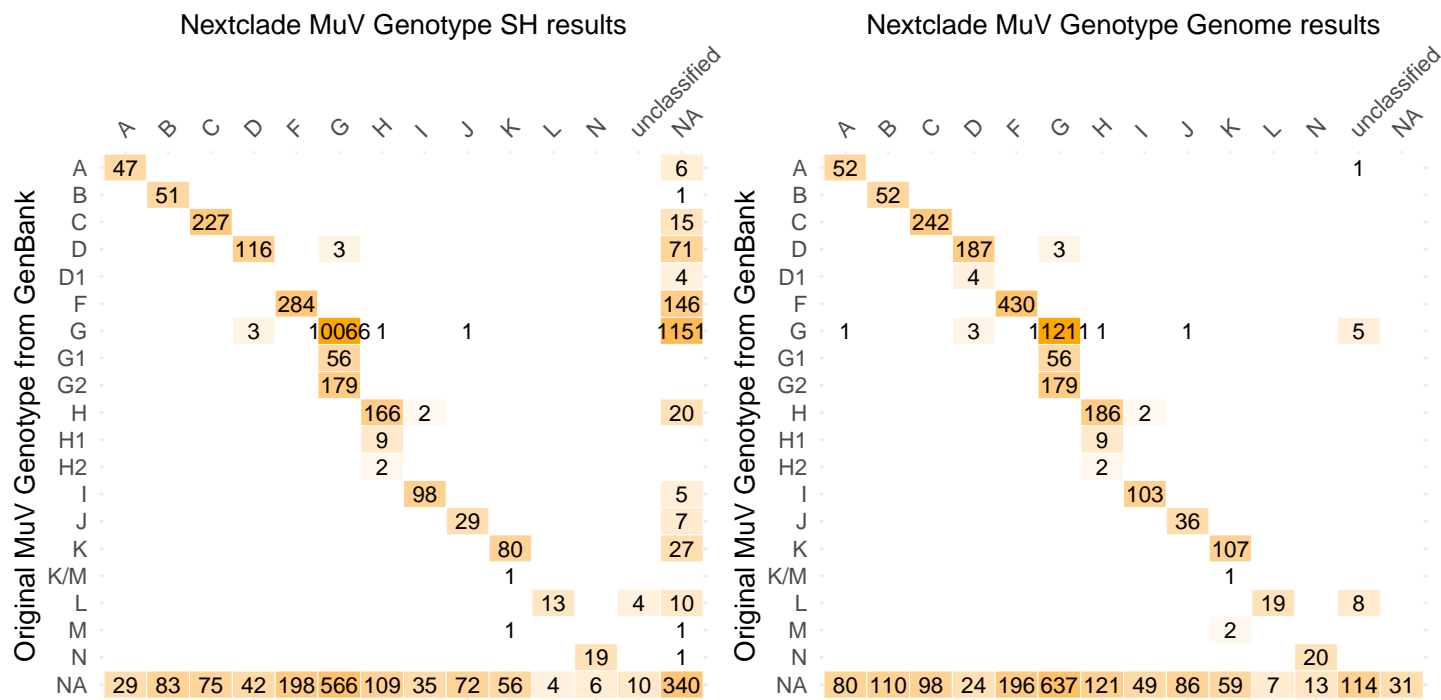### Diagnostic plot to estimate min−length filter for phylogenetic analysis (all data = 14548)

SH Region

Diagnostic plot to estimate min−length filter for phylogenetic analysis (all data = 11657)
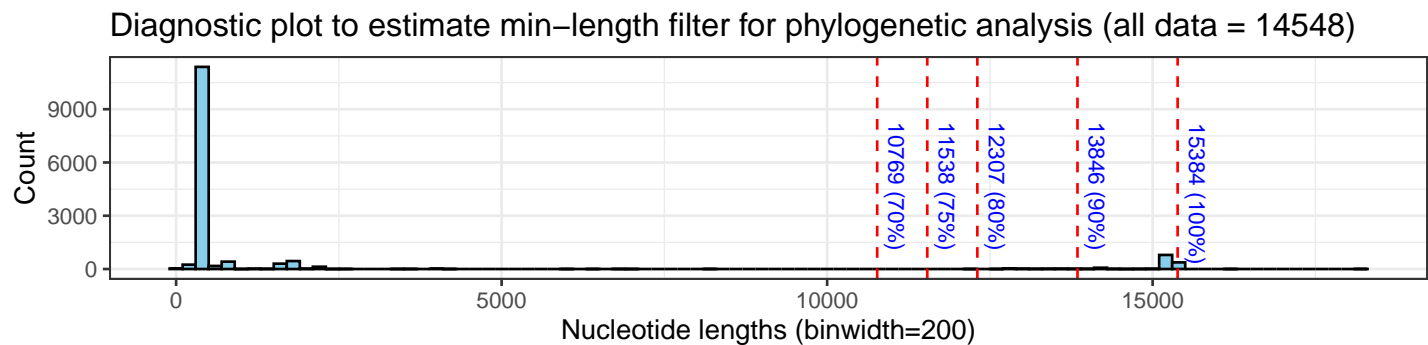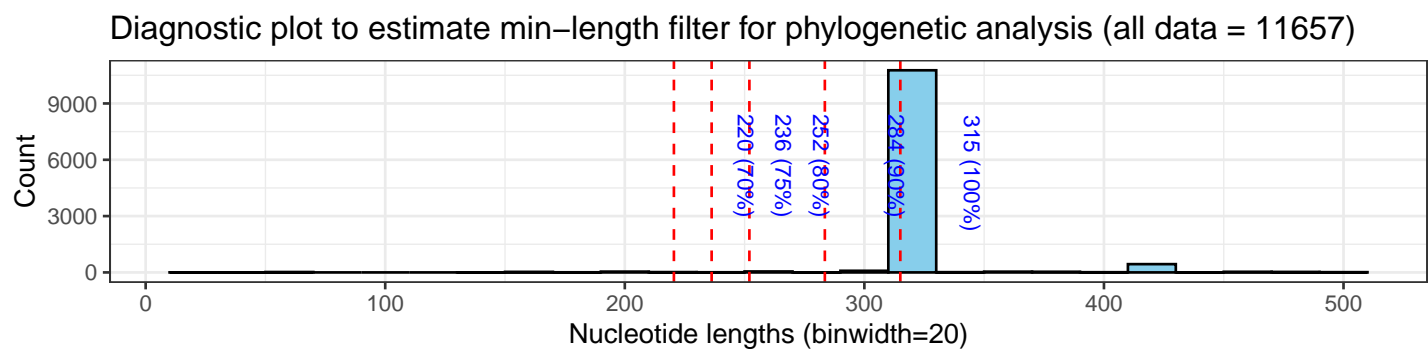
Nextclade compared with GenBank annotations:

Nextclade MuV Genotype SH results

Nextclade MuV Genotype Genome results

SH gene Nextclade Dataset
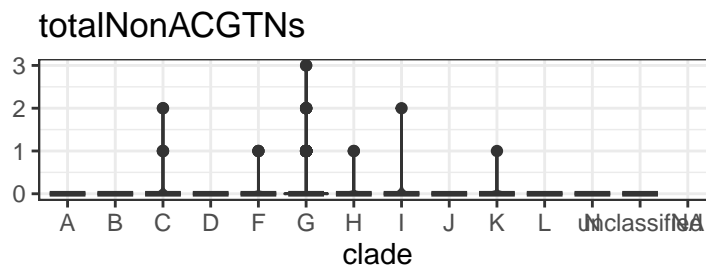
Missing Data

```
--scoreBias 300              # First 300 not penalized
--missingDataThreshold 3000  # Top threshold, scale the next set of missing data from 0 to 100
```
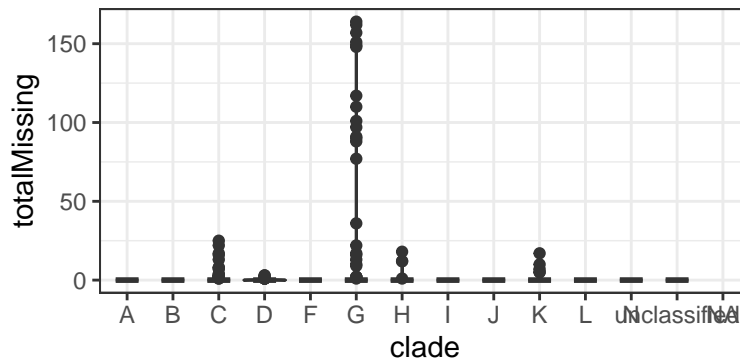

Since this is the SH gene (315nt), we do not reach past the 300 minimum.
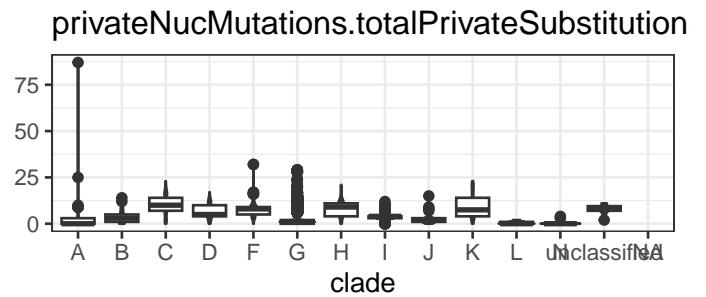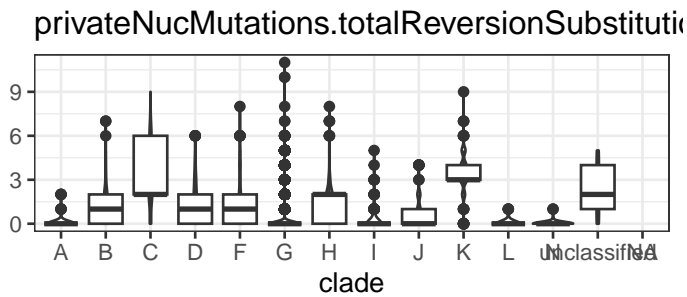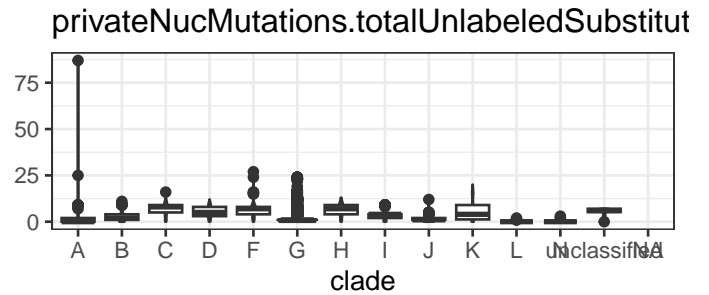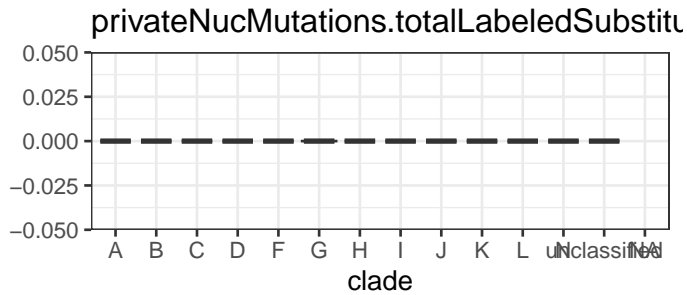
Mixed Sites (M)

```
--mixedSitesThreshold 10 # More than this number of mixed sites results in a "bad" score
```


Well below the 10 threshold (but once again this is for a reference that is 315nt long).
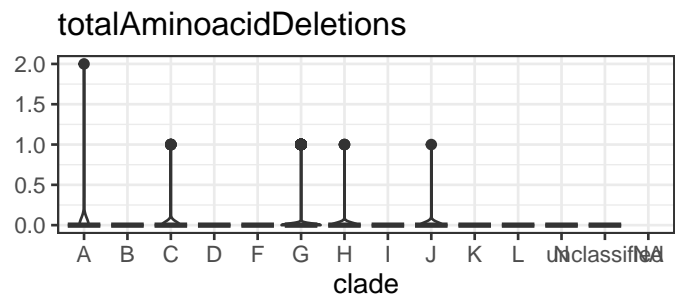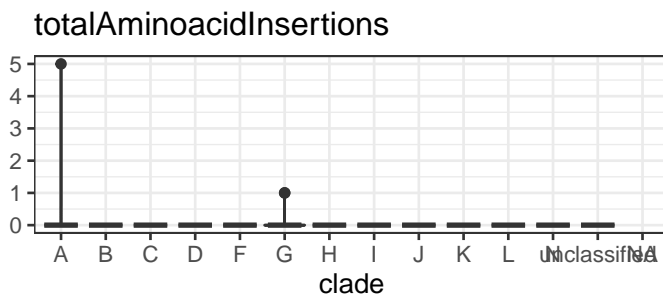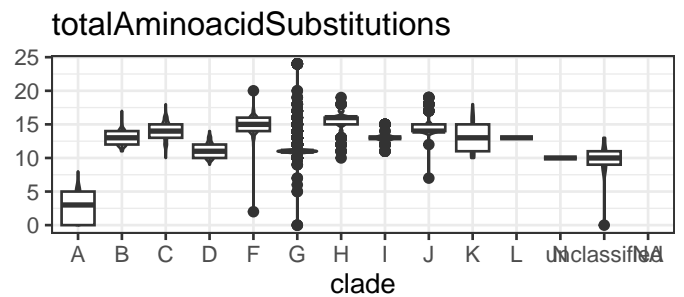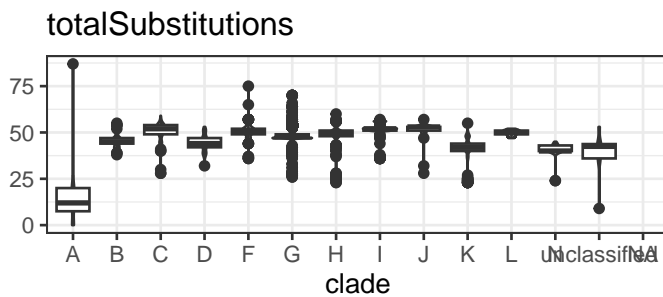
Private Mutations

```json
"privateMutations": {
  "enabled": true,
  "typical": 8,
  "cutoff": 24,
  "weightLabeledSubstitutions": 4,
  "weightReversionSubstitutions": 6,
  "weightUnlabeledSubstitutions": 1
},
```

privateNucMutations.totalLabeledSubstitu

privateNucMutations.totalUnlabeledSubstitut

privateNucMutations.totalReversionSubstituti

privateNucMutations.totalPrivateSubstitution

Mutation clusters

```json
"snpClusters": {
  "enabled": true,
  "windowSize": 100,
  "clusterCutOff": 6,
  "scoreWeight": 50
},
```

totalSubstitutions

totalAminoacidSubstitutions

totalAminoacidInsertions

totalAminoacidDeletions

Stop Codons

```
"stopCodons": {
    "enabled": true,
    "ignoredStopCodons": [
      {
        "geneName": "ORF8",
        "codon": 26
      },
      {
        "geneName": "ORF8",
        "codon": 67
      }
    ]
}
```

qc.stopCodons.totalStopCodons
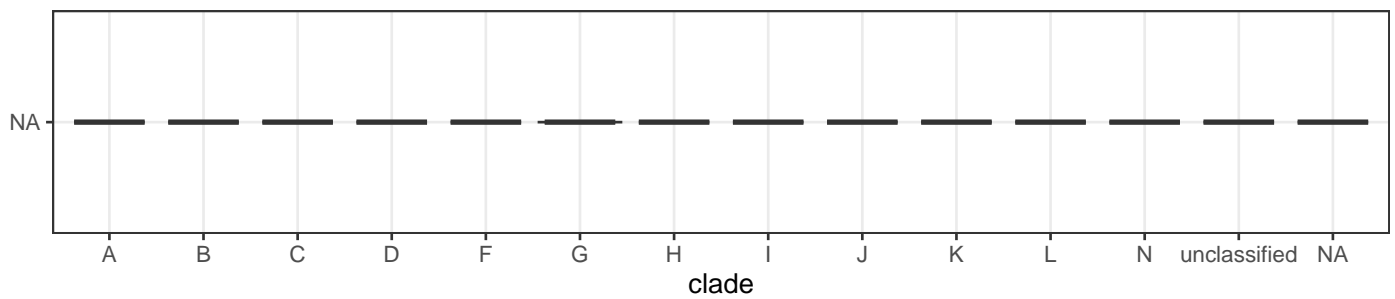
Frameshifts

```
"frameShifts": {
  "enabled": true,
  "ignoredFrameShifts": [
    {
      "geneName": "ORF3a",
      "codonRange": {
        "begin": 256,
        "end": 276
      }
    },
    {
      "geneName": "ORF3a",
      "codonRange": {
        "begin": 258,
        "end": 276
      }
    }
  ]
},
```

totalFrameShifts