Deleted 2 zero-length internal branches: `Node1, Node2`
* Log(L) = **-7745.48, AIC-c = 15577.06** (43 estimated parameters)
* 1 partition. Total tree length by partition (subs/site) **0.672**

Fitting Standard MG94
* Log(L) = -6413.46, AIC-c = 12923.32 (48 estimated parameters)
* non-synonymous/synonymous rate ratio =   **0.0086 (95% profile CI   0.0069- 0.0106)**

Running the likelihood ratio tests for dN/dS=1

>Testing _non-synonymous/synonymous rate ratio_ == 1

Likelihood ratio test for _non-synonymous/synonymous rate ratio == 1_, **p =   0.0000.**

Synonymous tree
(HNY1999:0.00108153371343413,NY99_EQHS:0.00106673955614331,NY99_FLAMINGO:0,(((((((RABENSBURG_ISOLATE:1.02609485578009,
(WNFCG:0.0094772889754157,SPU116_89:0.006173701209230282)Node11:0.4965243777785416)Node9:0.5660609164185494,KUNCG:0.08580089962555203)Node8:0.06825862226912914,(ETHAN4766:0.0234049576162049,
(CHIN_01:0.0118359748673843,EG101:0.0147869746725866)Node17:0.00753984978066069)Node15:0.00338160185247865)Node7:0.01816695912732735,(((ITALY_1998_EQUINE:0.008869163186759085,PAAN001:0.00772624753136657)Node22:0.002644807163484107,
(RO97_50:0.00161264677530341,VLG_4:0.00106304847945036)Node25:0.002742256244585967)Node21:0.0007105581836354553,KN3829:0.000301130330081092)Node20:0.0107740435987302)Node6:0.009119438361664152,AST99:0.01648564314579341)Node5:0.006362164798999309,PAH001:0.00975889806324132)Node4:0.01061022608779064,IS_98:0.002196841638364542)Node3:0.001024862946203058,MEX03:0.003213545672362693)

Non-synonymous tree
(HNY1999:2.02602010061738e-05,NY99_EQHS:1.99986670907985e-05,NY99_FLAMINGO:0,(((((((RABENSBURG_ISOLATE:0.0192366818181515,
(WNFCG:0.0001827452483514863,SPU116_89:0.0001157412739507511)Node11:0.009308575534198456)Node9:0.01061220965829361,KUNCG:0.001608549732522618)Node8:0.001279676426151033,(ETHAN4766:0.00043878372461769,
(CHIN_01:0.0002218945755829819,EG101:0.0002772183538658889)Node17:0.0001413531024869812)Node15:6.33964769488570e-05)Node7:0.00034058450870029e-05,(((ITALY_1998_EQUINE:0.0001662743646514413,PAAN001:0.0001448475884777466)Node22:4.95834411289744e-05,
(RO97_50:3.023304592824938e-05,VLG_4:1.992946874381341e-05)Node25:5.14103647862048e-05)Node21:1.332116774085881e-05,KN3829:5.62635975928158e-05)Node20:0.0002019860517360077)Node6:0.000170963908120937,AST99:0.0003090640889356378)Node5:0.0001192744893160473,PAH001:0.0001829546419425591)Node4:0.0001989148879557604,IS_98:4.11852211947375e-05)Node3:1.921358663116306e-05,MEX03:6.024584886973394e-05)

Writing detailed analysis report to `**/Users/sergei/Dropbox/Talks/VEME-2021/data/WestNileVirus_NS3.fas.FITTER.json**'

```
355      "Standard MG94":{
356        "AIC-c":12923.31524090407,
357        "Confidence Intervals":{
358          "non-synonymous/synonymous rate ratio":{
359            "LB":0.006858130361216103,
360            "UB":0.01057945031810191
361          }
362        },
363        "Log Likelihood":-6413.456800779904,
364        "Rate Distributions":{
365          "Substitution rate from nucleotide A to nucleotide C":0
                .2435700972629257,
366          "Substitution rate from nucleotide A to nucleotide G":1,
367          "Substitution rate from nucleotide A to nucleotide T":0
                .3060821438629754,
368          "Substitution rate from nucleotide C to nucleotide G":0
                .02086612098116157,
369          "Substitution rate from nucleotide C to nucleotide T":1
                .979041445845451,
370          "Substitution rate from nucleotide G to nucleotide T":0
                .230594853422287,
371          "non-synonymous/synonymous rate ratio":0.008593681136758865
372        },
373        "display order":1,
374        "estimated parameters":48
375      }
376    },
377  "input":{
378      "file name":"/Users/sergei/Dropbox/Talks/VEME-2021/data
              /WestNileVirus_NS3.fas",
379      "number of sequences":19,
380      "number of sites":619,
381      "partition count":1,
382      "trees":{
383        "0":"(HNY1999,NY99_EQHS,NY99_FLAMINGO,(((((((RABENSBURG_ISOLATE
                ,(WNFCG,SPU116_89)Node11)Node9,KUNCG)Node8,(ETHAN4766,(CHIN_01
                ,EG101)Node17)Node15)Node7,(((ITALY_1998_EQUINE,PAAN001)Node22
                ,(RO97_50,VLG_4)Node25)Node21,KN3829)Node20)Node6,AST99)Node5
                ,PAH001)Node4,IS_98)Node3,MEX03)"
384      }
385    },
386  "test results":{
387    "non-synonymous/synonymous rate ratio":{
388      "LRT":2512.583763184408,
389      "p-value":0
390    }
391  },
```