

```
1 #NEXUS
2 BEGIN DATA;
3 DIMENSIONS NTAX=31 NCHAR=35;
4 FORMAT datatype=standard MISSING=?;
5 MATRIX
6 Rhagio_mystaceus 1010110210010001000000?0111031?0021
7 Atherimorpha_lamasi 1010110210010001000000?0111031?0001
8 Atherix_ibis 10101102101100020100010101003001110
9 Dasyomma_coeruleum 1010110210110002010000010100?001110
10 Suragina_pacaraima 10101102101100020000000010100?001110
11 Esenbeckia_prasiniventris 11000110111110131211001101000001111
12 Stonemyia_tranquilla 101001001111110131211001101000001111
13 Fidena_flavicrinis 11010100121110131211001101001001111
14 Fidena_leonina 11010100121110131211001101001001111
15 Osca_lata 11100100111110101211001101001001111
16 Pityocera_cervus 11010100121110131211001101001001111
17 Chrysops_variegatus 10100111011110131211001100001011111
18 Chrysops_delicatulus 10100111011110131211001100001011111
19 Betrequia_ocelata 1010011101111101211001100001011111
20 Chlorotabanus_inanis 00100011111011131211001100012011111
21 Catachlorops_rufescens 10100011111011131211001100012011111
22 Leucotabanus_pauculus 10100011111011131211001100012011111
23 Dichelacera_marginata 00100011111011101211001100012011111
24 Tabanus_glaucus 00100011111011131211101100012011111
25 Tabanus_pellucidus 00100011111011131211101100012011111
26 Tabanus_trivittatus 00100011111011131211101100012011111
27 Poeciloderas_quadripunctatus 00100011111011131211101100012011111
28 Agkistrocerus_megerlei 10100011111011131211101100012011111
29 Hybomitra_montana 00100011111011131211101100012011111
30 Haematopota_sp 00100011111011101211101100012011111
31 Cratotabanus_asiaticus 10???10?11011?10121100??1?1?????????
32 Cratotabanus_newjerseyensis ??10??001???1?10121?????????????????
33 Cratotabanus_stonemyomorphus ??????0??1??1?101211?????????????????
34 Cratotabanus_cearensis 1????10????1??10121??????1?1?????????
35 Araripus_crassitibialis ???0?0?1?????101201????1?1?????????
36 Tabanipriscus_transitivus 1010?1001??11?10000?????1??????????
37 ;
38 ENDBLOCK;
39 BEGIN mrbayes;
40 lset rates = Lnrm Nlnormcat = 4;
41 link shape=(all);
42 mcmc ngen=10000000 relburnin=yes burninfrac=0.25 samplefreq=1000 printfreq=1000
43 nchains=4 savebrlens=yes;
44 sump burnin=2500;
45 sumt burnin=2500;
46 ENDBLOCK;
47
48
```