

Morone (1994) Geodis Input File Using Nesting Procedure 1

#NEXUS

Begin trees; [Treefile saved Monday, October 3, 2005 5:30 AM]

[!

>Data file = Morrone94endemism_corrected

>Heuristic search settings:

> Optimality criterion = parsimony

> Character-status summary:

> Of 47 total characters:

> All characters are of type 'unord'

> All characters have equal weight

> 15 characters are parsimony-uninformative

> Number of parsimony-informative characters = 32

> Starting tree(s) obtained via stepwise addition

> Addition sequence: simple (reference taxon = AreaA/)

> Number of trees held at each step during stepwise addition = 1

> Branch-swapping algorithm: tree-bisection-reconnection (TBR)

> Steepest descent option not in effect

> Initial 'MaxTrees' setting = 100

> Branches collapsed (creating polytomies) if maximum branch length is zero

> 'MulTrees' option in effect

> Topological constraints not enforced

> Trees are unrooted

>

>Heuristic search completed

> Total number of rearrangements tried = 378421

> Score of best tree(s) found = 73

> Number of trees retained = 70

> Time used = 1.58 sec

]

Translate

1 AreaA/,

2 AreaB,

3 AreaC,

4 AreaD,

5 AreaE,

6 AreaF,

```

7 AreaG,
8 AreaH,
9 Areal,
10 AreaJ,
11 AreaK,
12 AreaL,
13 AreaM,
14 AreaN,
15 AreaO,
16 AreaP,
17 AreaQ,
18 AreaR,
19 AreaS,
20 AreaT,
21 AreaU,
22 AreaV,
23 AreaW,
24 AreaX,
25 AreaY

;

tree PAUP_1 = [&U]
(1,(((2,5),6),3,(4,7,8),((((9,12),13),10),11)),((((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_2 = [&U]
(1,(((2,5),6),3,((4,7,8),((((9,12),13),10),11)),((((14,(15,20)),19),21),16,17,25)),(18,23,24),22));
tree PAUP_3 = [&U]
(1,(((2,5),6),3,((4,7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))),,(18,23,24),22));
tree PAUP_4 = [&U]
(1,(((2,5),6),3,(4,7,8),((((9,12),13),10),11),(((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_5 = [&U]
(1,(((2,5),6),3,((4,7,8),((((9,12),13),10),11),((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_6 = [&U]
(1,(((2,5),6),3,((4,7,8),(((9,12),13),10),11),(((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_7 = [&U]
(1,(((2,5),6),3,(4,7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))),,(18,23,24),22));
tree PAUP_8 = [&U]
(1,(((2,5),6),3,(4,7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))),,(18,23,24),22));
tree PAUP_9 = [&U]

```

(1,(((2,6),5),3,(4,7,8,((((9,12),13),10),11)),((((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_10 = [&U]
(1,(((2,5),6),3,(4,22),(7,8,((((9,12),13),10),11)),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_11 = [&U]
(1,(((2,5),6),3,((4,(7,8,((((9,12),13),10),11))),22),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_12 = [&U]
(1,(((2,5),6),3,((4,(22),7,8,((((9,12),13),10),11)),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_13 = [&U]
(1,(((2,5),6),3,((4,(7,8)),22),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_14 = [&U]
(1,(((2,5),6),3,((4,(7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))),22),(18,23,24));
tree PAUP_15 = [&U]
(1,(((2,5),6),3,(4,22),((7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_16 = [&U]
(1,(((2,5),6),3,(((4,22),7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_17 = [&U]
(1,(((2,6),5),3,((4,7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24),22));
tree PAUP_18 = [&U]
(1,(((2,6),5),3,((4,7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24),22));
tree PAUP_19 = [&U]
(1,(((2,6),5),3,(4,7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))), (18,23,24),22));
tree PAUP_20 = [&U]
(1,(((2,5),6),3,(4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_21 = [&U]
(1,(((2,5),6),3,((4,22),7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24));
tree PAUP_22 = [&U]
(1,(((2,5),6),3,((4,22),(7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_23 = [&U]
(1,(((2,5),6),3,(4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_24 = [&U]
(1,(((2,6),5),3,((4,7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_25 = [&U]
(1,(((2,5),6),3,((4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_26 = [&U]
(1,(((2,5),6),3,(((4,22),7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_27 = [&U]
(1,(((2,5),6),3,((4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)))),(18,23,24)));

tree PAUP_28 = [&U]
(1,(((2,6),5),3,(4,7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))),,(18,23,24),22));
tree PAUP_29 = [&U]
(1,(((2,6),5),3,(4,7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))),,(18,23,24),22));
tree PAUP_30 = [&U]
(1,(((2,6),5),3,(((4,7,8),((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24),22));
tree PAUP_31 = [&U]
(1,(((2,6),5),3,((4,(7,8,((((9,12),13),10),11))),22),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_32 = [&U]
(1,(((2,6),5),3,((4,22),7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_33 = [&U]
(1,(((2,6),5),3,(4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_34 = [&U]
(1,(((2,5),6),3,((4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_35 = [&U]
(1,(((2,5),6),3,(4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_36 = [&U]
(1,(((2,5),6),3,(4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_37 = [&U]
(1,(((2,5),6),3,(4,22),((7,8),((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_38 = [&U]
(1,(((2,5),6),3,(((4,22),7,8),((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_39 = [&U]
(1,(((2,5),6),3,((4,(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)))),22),(18,23,24));
tree PAUP_40 = [&U]
(1,(((2,5),6),3,((4,22),7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_41 = [&U]
(1,(((2,5),6),3,((4,22),7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_42 = [&U]
(1,(((2,5),6),3,((4,22),7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_43 = [&U]
(1,(((2,6),5),3,((4,(7,8)),22),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_44 = [&U]
(1,(((2,5),6),3,((4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)))),,(18,23,24));
tree PAUP_45 = [&U]
(1,(((2,6),5),3,((4,(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)))),22),(18,23,24));
tree PAUP_46 = [&U]

(1,(((2,5),6),3,((4,22),(7,8,((((9,12),13),10),11,((((14,(15,20)),19),21),16,17,25)))),(18,23,24)));
tree PAUP_47 = [&U]
(1,(((2,6),5),3,(4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_48 = [&U]
(1,(((2,5),6),3,((4,22),(7,8)),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_49 = [&U]
(1,(((2,5),6),3,((4,22),(7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_50 = [&U]
(1,(((2,6),5),3,(((4,22),7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_51 = [&U]
(1,(((2,6),5),3,(((4,22),(7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_52 = [&U]
(1,(((2,6),5),3,(4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_53 = [&U]
(1,(((2,6),5),3,((4,22),7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_54 = [&U]
(1,(((2,6),5),3,(4,22),(7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_55 = [&U]
(1,(((2,6),5),3,(((4,22),7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_56 = [&U]
(1,(((2,6),5),3,((4,22),(7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_57 = [&U]
(1,(((2,6),5),3,(4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_58 = [&U]
(1,(((2,6),5),3,((4,22),((7,8),((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25))), (18,23,24)));
tree PAUP_59 = [&U]
(1,(((2,6),5),3,((4,22),7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_60 = [&U]
(1,(((2,6),5),3,(4,22),(7,8,((((9,12),13),10),11),((((14,(15,20)),19),21),16,17,25)),(18,23,24)));
tree PAUP_61 = [&U]
(1,(((2,6),5),3,(4,22),(7,8,((((9,12),13),10),11,((((14,(15,20)),19),21),16,17,25))), (18,23,24)));
tree PAUP_62 = [&U]
(1,(((2,6),5),3,((4,7,8,((((9,12),13),10),11,((((14,(15,20)),19),21),16,17,25))),22),(18,23,24)));
tree PAUP_63 = [&U]
(1,(((2,6),5),3,((4,22),(7,8,((((9,12),13),10),11,((((14,(15,20)),19),21),16,17,25)))),(18,23,24)));
tree PAUP_64 = [&U]
(1,(((2,6),5),3,(4,22),((7,8),((((9,12),13),10),11,((((14,(15,20)),19),21),16,17,25)),(18,23,24)));

```
tree PAUP_65 = [&U]
(1,(((2,6),5),3,((((4,22),7,8),(((9,12),13),10),11),(((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_66 = [&U]
(1,(((2,6),5),3,((4,22),(7,8,((((9,12),13),10),11)),(((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_67 = [&U]
(1,(((2,6),5),3,((((4,22),7,8),(((9,12),13),10),11),(((14,(15,20)),19),21),16,17,25),(18,23,24)));
tree PAUP_68 = [&U]
(1,(((2,6),5),3,((4,22),7,8,((((9,12),13),10),11,((((14,(15,20)),19),21),16,17,25))),,(18,23,24)));
tree PAUP_69 = [&U]
(1,(((2,6),5),3,((4,22),(7,8,((((9,12),13),10),11),(((14,(15,20)),19),21),16,17,25))),,(18,23,24)));
tree PAUP_70 = [&U]
(1,(((2,6),5),3,((4,22),(7,8,((((9,12),13),10),11),(((14,(15,20)),19),21),16,17,25))),,(18,23,24)));
End;
```