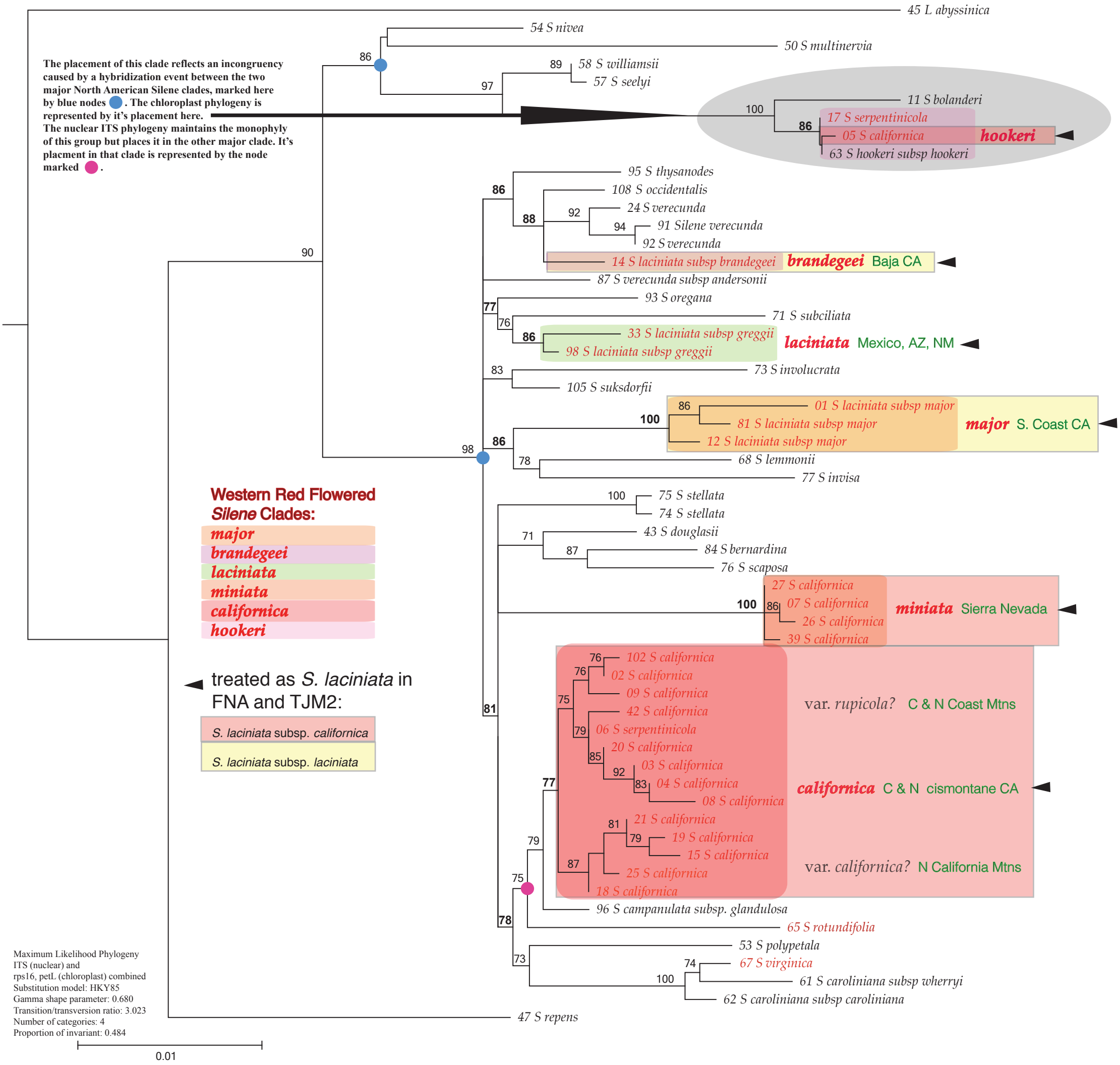
45 L abyssinica
54 S nivea
50 S multinervia
58 S williamsii
57 S seelyi
11 S bolanderi
17 S serpentinicola
05 S californica
63 S hookeri subsp hookeri
hookeri
95 S thysanodes
108 S occidentalis
24 S verecunda
91 Silene verecunda
92 S verecunda
14 S laciniata subsp brandegeei
brandegeei Baja CA
87 S verecunda subsp andersonii
93 S oregana
71 S subciliata
33 S laciniata subsp greggii
98 S laciniata subsp greggii
laciniata Mexico, AZ, NM
73 S involucrata
105 S suksdorfii
01 S laciniata subsp major
81 S laciniata subsp major
12 S laciniata subsp major
major S. Coast CA
68 S lemmonii
77 S invisa
75 S stellata
74 S stellata
43 S douglasii
84 S bernardina
76 S scaposa
27 S californica
07 S californica
26 S californica
39 S californica
miniata Sierra Nevada
102 S californica
02 S californica
09 S californica
42 S californica
06 S serpentinicola
20 S californica
03 S californica
04 S californica
08 S californica
21 S californica
19 S californica
15 S californica
25 S californica
18 S californica
var. rupicola? C & N Coast Mtns
californica C & N cismontane CA
var. californica? N California Mtns
96 S campanulata subsp. glandulosa
65 S rotundifolia
53 S polypetala
67 S virginica
61 S caroliniana subsp wherryi
62 S caroliniana subsp caroliniana
47 S repens
The placement of this clade reflects an incongruency caused by a hybridization event between the two major North American Silene clades, marked here by blue nodes . The chloroplast phylogeny is represented by it's placement here.
The nuclear ITS phylogeny maintains the monophyly of this group but places it in the other major clade. It's placment in that clade is represented by the node marked .
Western Red Flowered Silene Clades:
major
brandegeei
laciniata
miniata
californica
hookeri
treated as S. laciniata in FNA and TJM2:
S. laciniata subsp. californica
S. laciniata subsp. laciniata
Maximum Likelihood Phylogeny
ITS (nuclear) and
rps16, petL (chloroplast) combined
Substitution model: HKY85
Gamma shape parameter: 0.680
Transition/transversion ratio: 3.023
Number of categories: 4
Proportion of invariant: 0.484
0.01