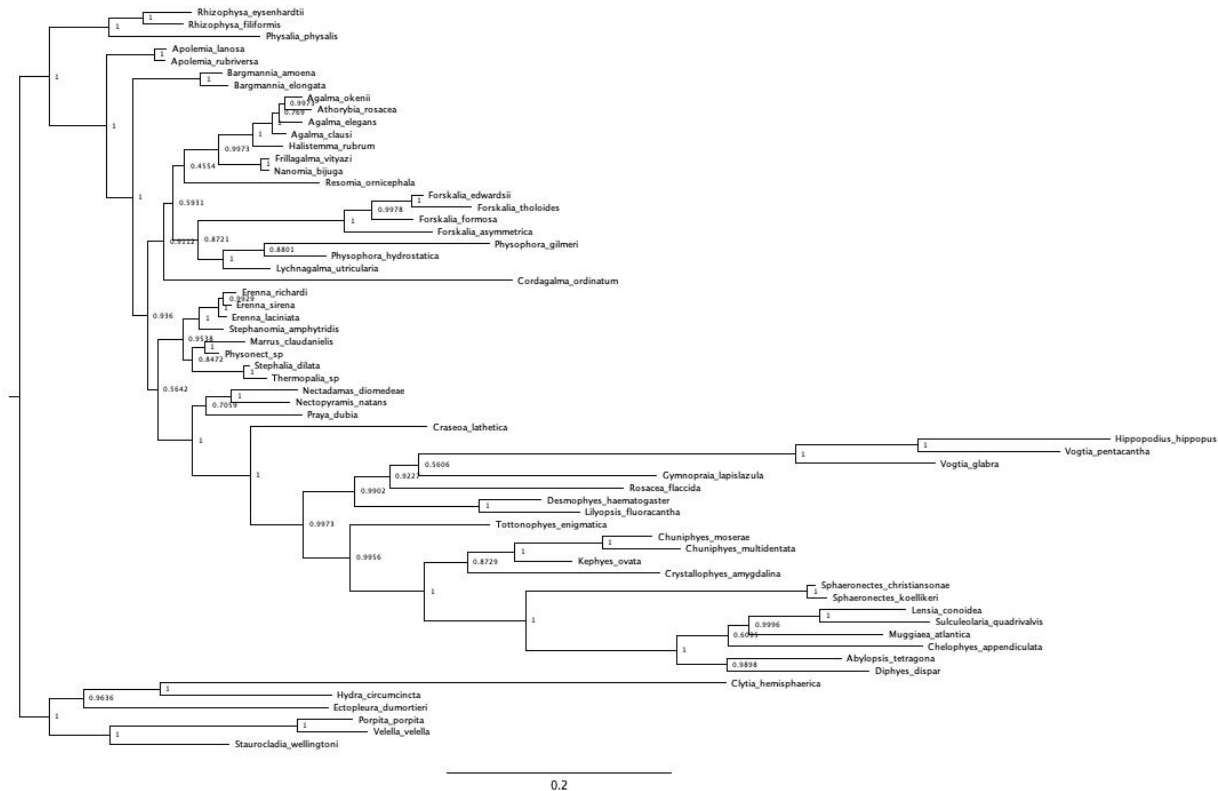


7.1) Unconstrained Bayesian topology inference in RevBayes (node labels are bayesian posteriors). Newick tree file underneath.



```
((((((((((((((Agalma_okenii[&index=35,age_95%_HPD={0.468833,0.740933}]:
0.015063,Athorybia_rosacea[&index=36,age_95%_HPD={0.464679,0.740253}]:0.023760)
[&index=62,posterior=0.997335,age_95%_HPD={0.483763,0.756565}]:
0.005364,Agalma_elegans[&index=37,age_95%_HPD={0.468372,0.737584}]:0.020719)
[&index=63,posterior=0.768992,age_95%_HPD={0.487539,0.756579}]:
0.005882,Agalma_clausi[&index=34,age_95%_HPD={0.483078,0.754856}]:0.012228)
[&index=64,posterior=1.000000,age_95%_HPD={0.491989,0.763297}]:
0.017673,Halistemma_rubrum[&index=38,age_95%_HPD={0.486458,0.758012}]:0.027181)
[&index=65,posterior=1.000000,age_95%_HPD={0.511509,0.784184}]:0.030207,
(Frillagalma_vityazi[&index=40,age_95%_HPD={0.498178,0.766567}]:
0.007754,Nanomia_bijuga[&index=39,age_95%_HPD={0.494465,0.76448}]:0.007060)
[&index=66,posterior=1.000000,age_95%_HPD={0.503568,0.773097}]:0.037371)
[&index=67,posterior=0.997335,age_95%_HPD={0.540588,0.810325}]:
0.030200,Resomia_ornicephala[&index=33,age_95%_HPD={0.450379,0.720517}]:0.120437)
[&index=68,posterior=0.455353,age_95%_HPD={0.578464,0.83824}]:0.010512,
(((Forskalia_edwardsii[&index=26,age_95%_HPD={0.35351,0.633772}]:
0.010387,Forskalia_tholoides[&index=27,age_95%_HPD={0.316389,0.597951}]:0.053883)
[&index=69,posterior=1.000000,age_95%_HPD={0.371695,0.65146}]:
0.035114,Forskalia_formosa[&index=28,age_95%_HPD={0.369414,0.65142}]:0.036868)
[&index=70,posterior=0.997779,age_95%_HPD={0.401133,0.679769}]:
0.024273,Forskalia_asymmetrica[&index=29,age_95%_HPD={0.348609,0.631025}]:0.077834)
[&index=71,posterior=1.000000,age_95%_HPD={0.421408,0.700959}]:0.130862,
((Physophora_gilmeri[&index=31,age_95%_HPD={0.298243,0.592938}]:
0.200896,Physophora_hydrostatica[&index=32,age_95%_HPD={0.452347,0.736304}]:0.055082)
[&index=72,posterior=0.880053,age_95%_HPD={0.500391,0.789265}]:
0.035987,Lychnagalma_utricularia[&index=30,age_95%_HPD={0.496289,0.777155}]:0.041591)
```

[&index=73,posterior=1.000000,age\_95%\_HPD={0.544448,0.823009}]:0.022767)  
 [&index=74,posterior=0.872057,age\_95%\_HPD={0.560476,0.838006}]:0.022469)  
 [&index=75,posterior=0.593070,age\_95%\_HPD={0.586692,0.852049}]:  
 0.008213,Cordagalma\_ordinatum[&index=25,age\_95%\_HPD={0.274418,0.58082}]:0.310718)  
 [&index=76,posterior=0.911151,age\_95%\_HPD={0.59764,0.867972}]:0.014353,  
 (((((Clytia\_hemisphaerica[&index=45,age\_95%\_HPD={0,0}]:  
 0.505082,Hydra\_circumcincta[&index=44,age\_95%\_HPD={0.231467,0.49268}]:0.152793)  
 [&index=77,posterior=1.000000,age\_95%\_HPD={0.397409,0.636664}]:  
 0.068519,Ectopleura\_dumortieri[&index=46,age\_95%\_HPD={0.23006,0.489631}]:0.218280)  
 [&index=78,posterior=0.963572,age\_95%\_HPD={0.455482,0.699436}]:0.030199,  
 ((Porpita\_porpita[&index=42,age\_95%\_HPD={0.189843,0.470581}]:  
 0.049112,Velella\_velella[&index=41,age\_95%\_HPD={0.188119,0.467639}]:0.062693)  
 [&index=79,posterior=1.000000,age\_95%\_HPD={0.250334,0.52387}]:  
 0.167242,Staurocladia\_wellingtoni[&index=43,age\_95%\_HPD={0.314408,0.576146}]:0.106224)  
 [&index=80,posterior=1.000000,age\_95%\_HPD={0.427294,0.690591}]:0.054107)  
 [&index=81,posterior=1.000000,age\_95%\_HPD={0.484448,0.741238}]:0.052845,  
 ((Rhizophysa\_eysenhardtii[&index=48,age\_95%\_HPD={0.407882,0.676769}]:  
 0.043253,Rhizophysa\_filiformis[&index=49,age\_95%\_HPD={0.415632,0.681535}]:0.035539)  
 [&index=82,posterior=1.000000,age\_95%\_HPD={0.452762,0.718793}]:  
 0.029870,Physalia\_physalis[&index=47,age\_95%\_HPD={0.340946,0.611859}]:0.134343)  
 [&index=83,posterior=1.000000,age\_95%\_HPD={0.482436,0.749708}]:0.053579)  
 [&index=84,posterior=1.000000,age\_95%\_HPD={0.524693,0.78635}]:0.050933,  
 (Apolemia\_lanosa[&index=24,age\_95%\_HPD={0.521435,0.787183}]:  
 0.010697,Apolemia\_rubrivarsa[&index=23,age\_95%\_HPD={0.52627,0.795441}]:0.009824)  
 [&index=85,posterior=1.000000,age\_95%\_HPD={0.531939,0.795549}]:0.042557)  
 [&index=86,posterior=1.000000,age\_95%\_HPD={0.578489,0.843521}]:0.023485,  
 (Bargmannia\_amoena[&index=21,age\_95%\_HPD={0.516738,0.787652}]:  
 0.018979,Bargmannia\_elongata[&index=22,age\_95%\_HPD={0.511135,0.783723}]:0.024524)  
 [&index=87,posterior=1.000000,age\_95%\_HPD={0.53106,0.802516}]:0.060482)  
 [&index=88,posterior=0.936028,age\_95%\_HPD={0.602695,0.872172}]:0.013313)  
 [&index=89,posterior=0.564194,age\_95%\_HPD={0.60323,0.87487}]:0.008821,  
 (((Erenna\_richardii[&index=18,age\_95%\_HPD={0.540367,0.814481}]:  
 0.011241,Erenna\_sirena[&index=17,age\_95%\_HPD={0.546024,0.821411}]:0.006492)  
 [&index=90,posterior=0.992892,age\_95%\_HPD={0.554771,0.829275}]:  
 0.004463,Erenna\_laciniata[&index=19,age\_95%\_HPD={0.551135,0.825779}]:0.007018)  
 [&index=91,posterior=1.000000,age\_95%\_HPD={0.555222,0.830749}]:  
 0.016711,Stephanomia\_amphytridis[&index=20,age\_95%\_HPD={0.550251,0.82449}]:0.021181)  
 [&index=92,posterior=1.000000,age\_95%\_HPD={0.571915,0.846768}]:0.015174,  
 ((Marrus\_claudanielis[&index=16,age\_95%\_HPD={0.535721,0.813183}]:  
 0.035506,Physonect\_sp[&index=15,age\_95%\_HPD={0.563582,0.839498}]:0.012554)  
 [&index=93,posterior=1.000000,age\_95%\_HPD={0.580401,0.855772}]:0.010868,  
 (Stephalia\_dilata[&index=13,age\_95%\_HPD={0.530514,0.806209}]:  
 0.004257,Thermopalia\_sp[&index=14,age\_95%\_HPD={0.515959,0.793978}]:0.019690)  
 [&index=94,posterior=1.000000,age\_95%\_HPD={0.54087,0.815943}]:0.046133)  
 [&index=95,posterior=0.847179,age\_95%\_HPD={0.590945,0.869625}]:0.008856)  
 [&index=96,posterior=0.953798,age\_95%\_HPD={0.584419,0.862725}]:0.022389)  
 [&index=97,posterior=1.000000,age\_95%\_HPD={0.618921,0.887079}]:0.031411,  
 ((Nectadamas\_diomedae[&index=52,age\_95%\_HPD={0.551992,0.826101}]:  
 0.058455,Nectopyramis\_natans[&index=51,age\_95%\_HPD={0.557939,0.830552}]:0.051951)  
 [&index=98,posterior=1.000000,age\_95%\_HPD={0.611728,0.884934}]:  
 0.022472,Praya\_dubia[&index=50,age\_95%\_HPD={0.548485,0.824291}]:0.085224)  
 [&index=99,posterior=0.705908,age\_95%\_HPD={0.637176,0.906662}]:0.012062)  
 [&index=100,posterior=1.000000,age\_95%\_HPD={0.645882,0.918136}]:  
 0.051318,Craseoa\_lathetica[&index=12,age\_95%\_HPD={0.535619,0.82475}]:0.157819)  
 [&index=101,posterior=0.997335,age\_95%\_HPD={0.693713,0.974829}]:0.047606,  
 (((Hippopodius\_hippopus[&index=9,age\_95%\_HPD={0,0.316924}]:  
 0.171280,Vogtia\_pentacantha[&index=10,age\_95%\_HPD={0.042166,0.397079}]:0.126605)  
 [&index=102,posterior=1.000000,age\_95%\_HPD={0.171108,0.506919}]:

0.109297,Vogtia\_glabra[&index=11,age\_95%\_HPD={0.161316,0.491405}]:0.124630)  
[&index=103,posterior=1.000000,age\_95%\_HPD={0.284596,0.605301}]:  
0.336071,Gymnopraia\_lapislazula[&index=5,age\_95%\_HPD={0.410475,0.714783}]:0.212260)  
[&index=104,posterior=0.560640,age\_95%\_HPD={0.63112,0.932428}]:  
0.025935,Rosacea\_flaccida[&index=8,age\_95%\_HPD={0.44032,0.749791}]:0.208517)  
[&index=105,posterior=0.922701,age\_95%\_HPD={0.667997,0.959107}]:0.031136,  
(Desmophyes\_haematogaster[&index=7,age\_95%\_HPD={0.516104,0.818946}]:  
0.055205,Lilyopsis\_fluoracantha[&index=6,age\_95%\_HPD={0.486648,0.791097}]:0.089324)  
[&index=106,posterior=1.000000,age\_95%\_HPD={0.574173,0.874067}]:0.111128)  
[&index=107,posterior=0.990227,age\_95%\_HPD={0.699256,0.992887}]:0.045702)  
[&index=108,posterior=0.995558,age\_95%\_HPD={0.749245,1.04062}]:  
0.041900,Tottonophyes\_enigmatica[&index=53,age\_95%\_HPD={0.649581,0.944736}]:0.124395)  
[&index=109,posterior=1.000000,age\_95%\_HPD={0.785625,1.07957}]:0.066239,  
(((Chuniphyes\_moserae[&index=56,age\_95%\_HPD={0.62434,0.946846}]:  
0.044766,Chuniphyes\_multidentata[&index=55,age\_95%\_HPD={0.602079,0.925804}]:0.069271)  
[&index=110,posterior=1.000000,age\_95%\_HPD={0.665166,0.988669}]:  
0.078063,Kephyes\_ovata[&index=57,age\_95%\_HPD={0.698399,1.02285}]:0.051340)  
[&index=111,posterior=1.000000,age\_95%\_HPD={0.744986,1.06657}]:  
0.041903,Crystallophyes\_amygdalina[&index=54,age\_95%\_HPD={0.612727,0.948964}]:0.171123)  
[&index=112,posterior=0.872945,age\_95%\_HPD={0.805091,1.11989}]:0.038299)  
[&index=113,posterior=1.000000,age\_95%\_HPD={0.840611,1.14492}]:0.090252,  
(Sphaeronectes\_christiansonae[&index=59,age\_95%\_HPD={0.656238,0.995607}]:  
0.006840,Sphaeronectes\_koellikeri[&index=58,age\_95%\_HPD={0.65478,0.99182}]:0.017124)  
[&index=114,posterior=1.000000,age\_95%\_HPD={0.67317,1.01212}]:0.251331)  
[&index=115,posterior=1.000000,age\_95%\_HPD={0.930539,1.25255}]:0.134415,  
(((Lensia\_conoidea[&index=3,age\_95%\_HPD={0.844884,1.20418}]:  
0.076785,Sulculeolaria\_quadriavlis[&index=2,age\_95%\_HPD={0.820127,1.18342}]:0.098097)  
[&index=116,posterior=1.000000,age\_95%\_HPD={0.919128,1.27935}]:  
0.063209,Muggiaea\_atlantica[&index=1,age\_95%\_HPD={0.850546,1.21861}]:0.119478)  
[&index=117,posterior=0.999556,age\_95%\_HPD={0.975116,1.33624}]:  
0.018805,Chelophyes\_appendiculata[&index=4,age\_95%\_HPD={0.8181,1.18676}]:0.173625)  
[&index=118,posterior=0.609507,age\_95%\_HPD={1.01838,1.36204}]:0.045828)  
[&index=119,posterior=0.989782,age\_95%\_HPD={1.04336,1.39629}]:  
0.044896,Abylopsis\_tetragona[&index=60,age\_95%\_HPD={0.982018,1.35291}]:  
0.102270,Diphyes\_dispar[&index=61,age\_95%\_HPD={0.960679,1.32121}]:0.126911)  
[&index=120,posterior=1.000000,age\_95%\_HPD={1.0841,1.44568}]:0.000000;

7.2) Clade constrained Bayesian inference in RevBayes (node labels are Bayesian posteriors). Newick tree file underneath.



(((((((((((((((((Agalma\_okeni[i]&index=26,age\_95%\_HPD={0.436921,0.717661}}:  
0.015158,Athorybia\_rosacea[i]&index=27,age\_95%\_HPD={0.43043,0.712875}}:0.022663)  
[&index=62,posterior=0.990671,age\_95%\_HPD={0.454338,0.734364}}]:  
0.006561,Agalma\_elegans[i]&index=25,age\_95%\_HPD={0.436356,0.714924}}:0.021276)  
[&index=63,posterior=0.770769,age\_95%\_HPD={0.459734,0.74267}}]:  
0.004611,Agalma\_clausi[i]&index=24,age\_95%\_HPD={0.44855,0.728666}}:0.012336)  
[&index=64,posterior=1.000000,age\_95%\_HPD={0.465781,0.745138}}]:  
0.015838,Halostemma\_rubrum[i]&index=28,age\_95%\_HPD={0.451809,0.735372}}:0.029173)  
[&index=65,posterior=1.000000,age\_95%\_HPD={0.479228,0.760548}}]:  
0.044210,Nanomia\_bijuga[i]&index=29,age\_95%\_HPD={0.49749,0.782381}}:0.024707)  
[&index=66,posterior=1.000000,age\_95%\_HPD={0.524072,0.806445}}:0.007725,  
(Physophora\_gilmeri[i]&index=31,age\_95%\_HPD={0.238425,0.538528}}:  
0.167607,Physophora\_hydrostatica[i]&index=32,age\_95%\_HPD={0.344779,0.639023}}:0.057722)  
[&index=67,posterior=0.800533,age\_95%\_HPD={0.409826,0.705695}}]:  
0.033901,Lychnagalma\_utricularia[i]&index=30,age\_95%\_HPD={0.386465,0.676818}}:0.041800)  
[&index=68,posterior=1.000000,age\_95%\_HPD={0.437987,0.725224}}:0.082177)  
[&index=69,posterior=1.000000,age\_95%\_HPD={0.530534,0.813894}}:0.002673,  
(((Forskalia\_edwardsii[i]&index=21,age\_95%\_HPD={0.311891,0.601154}}]:  
0.010574,Forskalia\_tholoides[i]&index=22,age\_95%\_HPD={0.251498,0.54728}}:0.053020)  
[&index=70,posterior=0.999556,age\_95%\_HPD={0.316727,0.606941}}]:  
0.031683,Forskalia\_formosa[i]&index=20,age\_95%\_HPD={0.300364,0.592494}}:0.039563)  
[&index=71,posterior=0.994669,age\_95%\_HPD={0.356087,0.645221}}]:

0.028072, *Forskalia\_asymmetrica* [&index=19, age\_95%\_HPD={0.301279, 0.588998}]: 0.077096)  
 [&index=72, posterior=1.000000, age\_95%\_HPD={0.371446, 0.661577}]:  
 0.131007, *Cordagalma\_ordinatum* [&index=23, age\_95%\_HPD={0.202171, 0.515658}]: 0.289124)  
 [&index=73, posterior=1.000000, age\_95%\_HPD={0.498805, 0.788743}]: 0.024589)  
 [&index=74, posterior=1.000000, age\_95%\_HPD={0.533264, 0.815613}]: 0.001870,  
 (*Frillagalma\_vityazi* [&index=34, age\_95%\_HPD={0.510881, 0.793339}]:  
 0.029670, *Resomia\_ornicephala* [&index=33, age\_95%\_HPD={0.391366, 0.679915}]: 0.134899)  
 [&index=75, posterior=1.000000, age\_95%\_HPD={0.538082, 0.822123}]: 0.001518)  
 [&index=76, posterior=1.000000, age\_95%\_HPD={0.535746, 0.818934}]: 0.069786,  
 (((*Erenna\_richardi* [&index=42, age\_95%\_HPD={0.53041, 0.815729}]:  
 0.010931, *Erenna\_sirena* [&index=41, age\_95%\_HPD={0.538566, 0.824157}]: 0.006424)  
 [&index=77, posterior=0.990227, age\_95%\_HPD={0.553562, 0.839077}]:  
 0.004443, *Erenna\_laciniata* [&index=40, age\_95%\_HPD={0.551077, 0.835333}]: 0.006865)  
 [&index=78, posterior=1.000000, age\_95%\_HPD={0.55684, 0.841055}]:  
 0.016311, *Stephanomia\_amphytridis* [&index=39, age\_95%\_HPD={0.555833, 0.836764}]: 0.021331)  
 [&index=79, posterior=0.999112, age\_95%\_HPD={0.574617, 0.858209}]: 0.015458,  
 ((*Marrus\_claudanielis* [&index=37, age\_95%\_HPD={0.535538, 0.819015}]:  
 0.035316, *Physonect\_sp* [&index=38, age\_95%\_HPD={0.552187, 0.837546}]: 0.011769)  
 [&index=80, posterior=1.000000, age\_95%\_HPD={0.566083, 0.851016}]: 0.009419,  
 (*Stephalia\_dilata* [&index=36, age\_95%\_HPD={0.536852, 0.82204}]:  
 0.004185, *Thermopalia\_sp* [&index=35, age\_95%\_HPD={0.517134, 0.803096}]: 0.018725)  
 [&index=81, posterior=1.000000, age\_95%\_HPD={0.52989, 0.815453}]: 0.043071)  
 [&index=82, posterior=0.851177, age\_95%\_HPD={0.576495, 0.861628}]: 0.008558)  
 [&index=83, posterior=1.000000, age\_95%\_HPD={0.584816, 0.868764}]: 0.015589)  
 [&index=84, posterior=1.000000, age\_95%\_HPD={0.604648, 0.886294}]: 0.003894,  
 ((((((*Clytia\_hemisphaerica* [&index=11, age\_95%\_HPD={0, 0.000765}]:  
 0.502740, *Hydra\_circumcincta* [&index=10, age\_95%\_HPD={0.221406, 0.49094}]: 0.151870)  
 [&index=85, posterior=1.000000, age\_95%\_HPD={0.39044, 0.634105}]:  
 0.068369, *Ectopleura\_dumortieri* [&index=9, age\_95%\_HPD={0.218685, 0.490098}]: 0.215467)  
 [&index=86, posterior=0.956020, age\_95%\_HPD={0.442235, 0.698851}]: 0.029694,  
 ((*Porpita\_porpita* [&index=8, age\_95%\_HPD={0.189294, 0.474792}]:  
 0.048496, *Velella\_velella* [&index=7, age\_95%\_HPD={0.178193, 0.465383}]: 0.061382)  
 [&index=87, posterior=1.000000, age\_95%\_HPD={0.246889, 0.526035}]:  
 0.166183, *Staurocladia\_wellingtoni* [&index=6, age\_95%\_HPD={0.32123, 0.592294}]: 0.105457)  
 [&index=88, posterior=1.000000, age\_95%\_HPD={0.421939, 0.690679}]: 0.053964)  
 [&index=89, posterior=1.000000, age\_95%\_HPD={0.478159, 0.741595}]: 0.052614,  
 ((*Rhizophysa\_eysenhardtii* [&index=13, age\_95%\_HPD={0.3936, 0.668312}]:  
 0.041485, *Rhizophysa\_filiformis* [&index=12, age\_95%\_HPD={0.402405, 0.675267}]: 0.036072)  
 [&index=90, posterior=1.000000, age\_95%\_HPD={0.441593, 0.714884}]:  
 0.029227, *Physalia\_physalis* [&index=14, age\_95%\_HPD={0.330864, 0.613248}]: 0.132809)  
 [&index=91, posterior=1.000000, age\_95%\_HPD={0.468727, 0.746868}]: 0.052497)  
 [&index=92, posterior=1.000000, age\_95%\_HPD={0.524709, 0.798128}]: 0.051383,  
 (*Apolemia\_lanosa* [&index=16, age\_95%\_HPD={0.520345, 0.80067}]:  
 0.011245, *Apolemia\_rubriversa* [&index=15, age\_95%\_HPD={0.522089, 0.806601}]: 0.008971)  
 [&index=93, posterior=1.000000, age\_95%\_HPD={0.533089, 0.814402}]: 0.040975)  
 [&index=94, posterior=1.000000, age\_95%\_HPD={0.573778, 0.854202}]: 0.022410,  
 (*Bargmannia\_amoena* [&index=17, age\_95%\_HPD={0.515574, 0.79918}]:  
 0.018935, *Bargmannia\_elongata* [&index=18, age\_95%\_HPD={0.51061, 0.79301}]: 0.024219)  
 [&index=95, posterior=1.000000, age\_95%\_HPD={0.534665, 0.818213}]: 0.059094)  
 [&index=96, posterior=0.972457, age\_95%\_HPD={0.597396, 0.877833}]: 0.014499)  
 [&index=97, posterior=1.000000, age\_95%\_HPD={0.608967, 0.889803}]: 0.034047,  
 ((*Nectadamas\_diomedae* [&index=44, age\_95%\_HPD={0.548459, 0.83838}]:  
 0.056444, *Nectopyramis\_natans* [&index=43, age\_95%\_HPD={0.553211, 0.844509}]: 0.053194)  
 [&index=98, posterior=1.000000, age\_95%\_HPD={0.602362, 0.891248}]:  
 0.019750, *Praya\_dubia* [&index=45, age\_95%\_HPD={0.532354, 0.82919}]: 0.082217)  
 [&index=99, posterior=0.612172, age\_95%\_HPD={0.629128, 0.918236}]: 0.012545)  
 [&index=100, posterior=0.977788, age\_95%\_HPD={0.64051, 0.926052}]:  
 0.053311, *Craseoa\_lathetica* [&index=46, age\_95%\_HPD={0.524382, 0.823478}]: 0.154615)

[&index=101,posterior=0.957352,age\_95%\_HPD={0.684075,0.97993}]:0.049760,  
 (((Hippopodius\_hippopus[&index=50,age\_95%\_HPD={0,0.310499}]:  
 0.172035,Vogtia\_pentacantha[&index=49,age\_95%\_HPD={0.029868,0.377937}]:0.125357)  
 [&index=102,posterior=1.000000,age\_95%\_HPD={0.155939,0.488732}]:  
 0.111043,Vogtia\_glabra[&index=51,age\_95%\_HPD={0.145457,0.484351}]:0.124612)  
 [&index=103,posterior=1.000000,age\_95%\_HPD={0.285939,0.612524}]:  
 0.338982,Gymnoprora\_lapislazula[&index=52,age\_95%\_HPD={0.428449,0.738439}]:0.208242)  
 [&index=104,posterior=0.553976,age\_95%\_HPD={0.624428,0.924703}]:  
 0.026978,Rosacea\_flaccida[&index=53,age\_95%\_HPD={0.439563,0.76783}]:0.209154)  
 [&index=105,posterior=0.891604,age\_95%\_HPD={0.643768,0.956734}]:0.031298,  
 (Desmophyes\_haematogaster[&index=48,age\_95%\_HPD={0.515935,0.82928}]:  
 0.054553,Liliopsis\_fluoracantha[&index=47,age\_95%\_HPD={0.495125,0.81103}]:0.088694)  
 [&index=106,posterior=1.000000,age\_95%\_HPD={0.575812,0.884962}]:0.108156)  
 [&index=107,posterior=0.940915,age\_95%\_HPD={0.688577,1.00334}]:0.045563)  
 [&index=108,posterior=0.996890,age\_95%\_HPD={0.729375,1.0299}]:  
 0.039612,Tottonophyes\_enigmatica[&index=54,age\_95%\_HPD={0.636762,0.95137}]:0.124582)  
 [&index=109,posterior=1.000000,age\_95%\_HPD={0.762944,1.07213}]:0.066652,  
 (((Chuniphyes\_moserae[&index=58,age\_95%\_HPD={0.622104,0.966794}]:  
 0.043474,Chuniphyes\_multidentata[&index=57,age\_95%\_HPD={0.597278,0.938589}]:0.068761)  
 [&index=110,posterior=1.000000,age\_95%\_HPD={0.66762,1.00699}]:  
 0.077203,Kephyes\_ovata[&index=56,age\_95%\_HPD={0.685785,1.02161}]:0.049957)  
 [&index=111,posterior=1.000000,age\_95%\_HPD={0.735841,1.07483}]:  
 0.040215,Crystallophyes\_amygdalina[&index=55,age\_95%\_HPD={0.618986,0.972229}]:0.166421)  
 [&index=112,posterior=0.815637,age\_95%\_HPD={0.790501,1.1163}]:0.036750)  
 [&index=113,posterior=1.000000,age\_95%\_HPD={0.821845,1.14803}]:0.089093,  
 (Sphaeronectes\_christiansonae[&index=60,age\_95%\_HPD={0.645699,0.999582}]:  
 0.006575,Sphaeronectes\_koellikeri[&index=59,age\_95%\_HPD={0.634224,0.986179}]:0.017254)  
 [&index=114,posterior=1.000000,age\_95%\_HPD={0.65087,1.0041}]:0.250875)  
 [&index=115,posterior=1.000000,age\_95%\_HPD={0.909288,1.25349}]:0.133029,  
 (((Lensia\_conoidea[&index=4,age\_95%\_HPD={0.817226,1.19543}]:  
 0.075667,Sulculeolaria\_quadriavlis[&index=3,age\_95%\_HPD={0.794534,1.17202}]:0.095955)  
 [&index=116,posterior=1.000000,age\_95%\_HPD={0.898956,1.27299}]:  
 0.061886,Muggiaea\_atlantica[&index=2,age\_95%\_HPD={0.843982,1.22406}]:0.118205)  
 [&index=117,posterior=1.000000,age\_95%\_HPD={0.956531,1.33539}]:  
 0.015733,Chelophyes\_appendiculata[&index=5,age\_95%\_HPD={0.812725,1.18052}]:0.168559)  
 [&index=118,posterior=0.624611,age\_95%\_HPD={0.985552,1.32533}]:0.048370)  
 [&index=119,posterior=0.980897,age\_95%\_HPD={1.02315,1.38728}]:  
 0.043335,Abylopsis\_tetragona[&index=1,age\_95%\_HPD={0.962102,1.33935}]:  
 0.101748,Diphyes\_dispar[&index=61,age\_95%\_HPD={0.940806,1.31304}]:0.126938)  
 [&index=120,posterior=1.000000,age\_95%\_HPD={1.06318,1.44233}]:0.000000;