

IQ-Tree

ModelFinder

Best-fit model according to BIC:

SYM+I+G4:Subset1,TIM3e+I+G4:Subset2,TN+F+ASC+G4:Subset3,SYM+G4:Subset4,GTR+F+I+G4:Subset5,TIM2e+G4:Subset6

List of best-fit models per partition:

ID	Model	LogL	AIC	w-AIC	AICc	w-AICc	BIC	w-BIC
1	SYM+I+G4	-5006.0023	10656.0046	+ 0.0000	10936.7226	+ 0.0000	12256.2772	+ 0.0000
2	TIM3e+I+G4	-9186.6672	18793.3344	+ 0.0000	18930.3050	+ 0.0000	19791.8012	+ 0.0000
3	TN+F+ASC+G4	-17350.1743	35366.3485	+ 0.0000	257810.3485	+ 0.0000	36496.4265	+ 0.0000
4	SYM+G4	-4380.6593	9427.3186	+ 0.0000	231871.3186	+ 0.0000	10555.8795	+ 0.0000
5	GTR+F+I+G4	-1365.9893	3405.9785	+ 0.0000	231217.9785	+ 0.0000	4548.0957	+ 0.0000
6	TIM2e+G4	-3546.9426	7515.8852	+ 0.0000	11243.5519	+ 0.0000	8246.7537	+ 0.0000

AIC, w-AIC : Akaike information criterion scores and weights.

AICc, w-AICc : Corrected AIC scores and weights.

BIC, w-BIC : Bayesian information criterion scores and weights.

Plus signs denote the 95% confidence sets.

Minus signs denote significant exclusion.

Mr. Bayes

est partitioning scheme

Scheme Name : start_scheme

Scheme lnL : -42052.0438232

Scheme AIC : 84916.0876465

Number of params : 406

Number of sites : 2816

Number of subsets : 6

Subset | Best Model | # sites | subset id | Partition names

1 | GTR+I+G | 1064 | 39118112265b0c61b829b10dd5047641 | 18S

2	GTR+I+G	858	6ba33bbbffdc6372865bb52a66cd7e8d	28S
3	GTR+G	220	4cc0f6916ba20cdf379497005df04736	COI_pos2
4	SYM+G	219	bad9c18cd022b0fc1f45d16b297a8ddb	COI_pos3
5	GTR+I+G	219	f4497e460f1fd037b7f9ce22fa2ce870	COI_pos1
6	SYM+I+G	236	eb3f64ae13af22511b2c10b9c0738278	ITS2

Scheme Description in PartitionFinder format

Scheme_start_scheme = (18S) (28S) (COI_pos2) (COI_pos3) (COI_pos1) (ITS2);

ML tree

(Mac_pal_IT337_1:0.0000000000,(Mac_pal_IT337_2:0.0000023878,((Mac_pse_ME007_1:0.0000023878,Mac_pse_ME007_2:0.0000023878)100:0.1520290083,(((Mac_rip_FI066:0.0037972500,Mac_rip_PL015:0.0024868904)100:0.2139816396,Mac_smo_US057:0.3387550562)100:0.0042982861,((((((Mac_aff_pse_PL:0.0587228384,(Mac_nag_S226_1:0.0007024636,Mac_nag_S226_2:0.0021920862)100:0.0432465379)100:0.1569756888,((Mac_aff_pse_ZA:0.0041941937,((Xer_gre_1:0.0009723222,Xer_gre_2:0.0000024972)100:0.0003461694,Xer_gre_4:0.0004960684)100:0.0009243836,Xer_gre_3:0.0000024972)100:0.0077252958)100:0.0745350188,(Mac_pse_1:0.0070183707,Mac_pse_2:0.0070903989)100:0.3148953997)99:0.0354575883)100:0.1046017518,(((((((Mac_ari_GL_018_04:0.0000000000,Mac_ari_GL_018_06:0.0000000000):0.0000023878,Mac_ari_GL_018_05:0.0000023878)100:0.0077397222,((Mac_ari_NO_393_01:0.0000000000,Mac_ari_NO_393_04:0.0000000000):0.0000023878,Mac_ari_NO_393_03:0.0000023878)100:0.0036649927)100:0.1429159296,((Mac_kir_KG_062_01:0.0000000000,Mac_kir_KG_062_03:0.0000000000):0.0000023878,Mac_kir_KG_062_02:0.0000023878)100:0.1491662058)100:0.1461345572,((((((Mac_azz_1:0.0000024972,Mac_azz_2:0.0000024972)100:0.0467238900,Mac_san_S859_1:0.0021076139)89:0.0000018687,Mac_san_1:0.0028230011)92:0.0013671872,Mac_san_2:0.0005762863)100:0.2238430890,((((((Mac_bas:0.0626120654,Mac_cf_nel_1:0.0039469933)100:0.0643072653,Mac_gle:0.1717832170)59:0.0608111270,Mac_cru:0.2732140381)40:0.0005999440,(((Mac_cf_rec_H1:0.0022157400,Mac_cf_rec_H2:0.0021138962)100:0.0258758815,(Mac_kos_M8_1:0.0003772465,Mac_kos_M8_2:0.0003512470)100:0.0647484379)100:0.1292679480,Mac_mac_PL:0.1834168784)98:0.0607161732)63:0.0132018710,(Mac_can_H1:0.0028125478,Mac_can_H2:0.0012194076)100:0.2579143490)96:0.0214511267,((((((Mac_ryb_1:0.0000023878,Mac_ryb_2:0.0000023878)100:0.2142569168,Mac_ter_C2868_N02:0.3639641909)78:0.0089820486,Mac_wan:0.1714271668)77:0.0378650885,(Mac_vla_C2688_A02:0.0000025603,Mac_vla_FI:0.0031069041)100:0.2055026410)80:0.0734038678)64:0.0079024093)81:0.0077294350)71:0.0040052705,((((((Mac_cf_huf_C2959_A01:0.0000025603,Mac_cf_huf_C2959_A02:0.0000025603)100:0.0461062381,Mac_huf_C2953_A02:0.0000026327)74:0.0033851344,Mac_huf_S605_1:0.0000020210)74:0.000018670,Mac_huf_S605_2:0.0004436540)100:0.1613285510,Mac_cf_nel_2:0.0071749556)99:0.1536589485)95:0.0084640734,(((Mac_bir:0.1646016186,(Mac_han:0.0696925780,(Mac_reb_1:0.0000025603,Mac_reb_2:0.0000025603)100:0.2016451570)100:0.2026888070)73:0.0056503711,Mac_hup:0.3393975799)68:0.0335992619,(Mac_sym_GL_001_01:0.0000023878,Mac_sym_GL_001_02:0.00000

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o_V3:0.0000024972)83:0.0000025871,Mac_kyo_US5:0.0017547066)100:0.3438256619)81:0.010406
0031,(Mac_poy_H1:0.0063706566,Mac_poy_H2:0.0006974352)100:0.2560416186)99:0.0077452529
,(Mac_sho_H1:0.0006640701,Mac_sho_H2:0.0023665648)100:0.2305800371)97:0.0108916382)98:0.
.0180639691,(Mac_noo_H1:0.0000023878,Mac_noo_H2:0.0000023878)100:0.2772150484)99:0.051
5715915,(Mac_por_H1:0.0258804942,(Mac_por_H2:0.0042496575,Mac_por_H3:0.0005291937)99:0.
.0180228662)100:0.3000150957)81:0.0137754384,(Mac_kri:0.3486139817,(Mac_sco:0.0044329222,
(Mac_sco_DK_056_01:0.0008294005,Mac_sco_DK_056_02:0.0003462349)100:0.0115886742)100:0.
1354302903)77:0.1248431502)100:0.0578552294,((((((((Meb_ana:0.2061392906,(Meb_mak_1:0.0
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3878,Meb_die_2:0.0000023878)100:0.1836411186)87:0.0809983365,(((Meb_dat:0.0767294541,Me
b_ins:0.1014497517)100:0.2420623136,(Meb_eth:0.0982883279,(Meb_rad_H1:0.0000024090,Meb_
rad_H2:0.0016024966)100:0.1703837460)100:0.1704039142)100:0.0144113477,((Meb_imp_1:0.000
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71:0.0008732940,(Meb_fie:0.3162966351,Meb_rom:0.3344715308)91:0.0031628669)92:0.0074816
985)45:0.0058213550,((Meb_har:0.2462333632,Meb_occ:0.1982149198)86:0.0834972785,(Meb_pe
t_1:0.0024994351,Meb_pet_2:0.0014200557)100:0.2954777529)51:0.0036163612)43:0.011130515
9,Meb_cf_bar:0.2674291825)90:0.0405426897,Meb_sko:0.5725997170)100:0.0410032853,(Meb_dil
:0.2477358763,((Meb_mar_1:0.0000000000,Meb_mar_3:0.0000000000):0.0000023878,Meb_mar_2
:0.0000023878)100:0.1885089946)100:0.2821930403)100:0.0470305155,((((((Meb_fur_ABDC_MF_
3:0.0000025603,(Meb_fur_CC_MF_4:0.0015019981,Meb_fur_KPRI_MF_1:0.0000025603)34:0.00000
25603)62:0.0000025607,Meb_fur_HMI_MF_1:0.0035977679)69:0.0019605918,((Meb_fur_EBNI_MF_
2:0.0000025603,Meb_fur_EBNI_MF_4:0.0000025603)99:0.0015020011,Meb_fur_PSAI_MF_2:0.001
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cro06_310:0.0000025603)100:0.0014268869,Meb_fur_Macro06_313:0.0000025490)100:0.4435776
192)100:0.1614222861,((Meb_fur_FN01_MF_6:0.0019378348,Meb_fur_JN07_MF_8:0.0024545660)
83:0.0007205316,(Meb_fur_JN07_MF_1:0.0000025603,Meb_fur_JN07_MF_4:0.0000025603)98:0.01
25354243)100:0.3257949748)91:0.0863460992,(Meb_fur_Macro06_162:0.0005424550,Meb_fur_M
acro06_171:0.0000025603)100:0.3681546539)100:0.0102907847,(Meb_fur_Macro_07_042:0.23741
65461,Meb_hil:0.3786111100)100:0.1131019137)100:0.0707358982)100:0.1456674593,((Sis_hak_1:
0.0000022417,Sis_hak_2:0.0007157417)100:0.3310110495,((Sis_spe_FI_H1:0.0003531289,Sis_spe_F
I_H2:0.0000023878)100:0.0003553550,Sis_spe_NO:0.0009623689)100:0.2475446879)100:0.092356
1454)100:0.0303556954,(Min_ioc:0.2373746125,(Pam_are:0.2163481939,Ten_zan:0.2623819342)10
0:0.0130101062)100:0.0437346531)100:0.0567962185)100:0.0190757045)100:0.0368507694)98:0.0
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H2:0.0011679426)100:0.2404793915)59:0.0088660626,((((Mac_mil_IL_001_01:0.0000011256,Mac_
mil_IL_001_04:0.0000021163)47:0.0000011256,Mac_mil_IL_001_03:0.0000021163)100:0.00262498
37,Mac_mil_IL_001_02:0.0005637205)100:0.1962710286)60:0.0070354674,(Mac_cae:0.2334778836
,((((((Mac_cf_mur_C3251_2:0.0000025603,(Mac_fon_C2861_5:0.0000025603,Mac_fon_C2861_US1:
0.0006029102)77:0.0128809035)55:0.0005989148,(Mac_cf_mur_C3251_FA:0.0012566290,Mac_cf_
mur_C3251_4:0.0038363281)60:0.0000016845)22:0.0000026723,(Mac_cf_mur_C3251_3:0.0000016
845,Mac_cf_mur_C3251_5:0.0016024400)98:0.0043489612)53:0.1245403249,Mac_mur_C2861_6:0.
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48)38:0.0000028348,(((Mac_dol_C3209_2:0.0005114126,Mac_dol_C3209_4:0.0026736485)59:0.001
0020450,Mac_pol_AT_H2:0.0009706991)31:0.0002966911,Mac_dol_C3581_V6:0.0046488311)40:0.

0000081397)37:0.0000081397,(Mac_pol_AT_H1:0.0003136325,Mac_pol_AT_H3:0.0009643366)61:0.000023878)6:0.0004207740,(((Mac_pol_SK_H1:0.0012091553,(Mac_pol_SK_H2:0.0000023878,Mac_pol_SK_H3:0.0005292017)98:0.0000023878)59:0.0002904628,Mac_dol_C3209_US2:0.0075753713)51:0.0000015086)99:0.1045957077)60:0.0617213863,(((Mac_mur_C2861_FG:0.0000014174,(Mac_sid_C3282_UFK:0.0089136665,Mac_sid_C3282_UFM:0.0044677036)60:0.0022347707)45:0.0008548126,(Mac_sid_C3282_UFN:0.0000016845,(Mac_sid_C3282_UFL:0.0000021163,Mac_sid_C3282_UFP:0.0000021163)95:0.0000021163)82:0.0026865387)74:0.0014040160,(Mac_sid_C2796_2:0.0000016881,Mac_sid_C3282_UFO:0.0000021163)96:0.0000017445)83:0.2502083885)100:0.0485073264)81:0.0397045135)81:0.0120556654,(Mac_cf_pol_1:0.0000023878,Mac_cf_pol_2:0.0004823024)100:0.2791325562)99:0.0126335658,(Mac_ane_1:0.0049318932,Mac_ane_2:0.0029408725)100:0.2758683019)100:0.0392512204)100:0.2325293949)100:0.0349797279):0.0000023878,Mac_pal_IT337_3:0.0000000000);

Bayesian tree

(Ten_zan:0.1607801,Pam_are:0.2107115,((((((((((((Mac_pal_IT337_1:2.769568E-4,Mac_pal_IT337_2:2.867511E-4,Mac_pal_IT337_3:2.78705E-4):0.02217975,(Mac_pse_ME007_1:2.464209E-4,Mac_pse_ME007_2:2.363708E-4):0.04314995):0.05852741,((Mac_rip_FI066:0.002712967,Mac_rip_PL015:0.00420462):0.08276294,Mac_smo_US057:0.1096132):0.01528879):0.05050663,(Mac_ane_1:0.005467118,Mac_ane_2:0.00111131):0.1102389):0.01617795,(Mac_cf_pol_1:3.049618E-4,Mac_cf_pol_2:7.3281E-4):0.09271187):0.05205738,(((Mac_cae:0.05473071,(((Mac_cf_mur_C3251_2:5.417029E-4,(Mac_cf_mur_C3251_3:3.5074E-4,Mac_cf_mur_C3251_5:6.588946E-4):0.003016255,Mac_cf_mur_C3251_4:0.001425461,Mac_cf_mur_C3251_FA:0.001123241):0.002880889,(Mac_fon_C2861_5:2.90927E-4,Mac_fon_C2861_US1:2.964188E-4):0.007584631):0.04533906,Mac_mur_C2861_6:0.008892547,Mac_mur_C2861_FG:0.008950498,((Mac_sid_C2796_2:3.094069E-4,Mac_sid_C3282_UFO:3.260623E-4):0.001186196,(Mac_sid_C3282_UFK:0.002567574,Mac_sid_C3282_UFM:0.001447454):0.001544412,(Mac_sid_C3282_UFL:3.069913E-4,Mac_sid_C3282_UFN:2.939293E-4,Mac_sid_C3282_UFP:3.023967E-4):0.002208763):0.05500337):0.02376478,(Mac_dol_C3209_1:0.00888157,(Mac_dol_C3209_2:7.201706E-4,Mac_dol_C3209_4:9.566057E-4):7.922473E-4,Mac_dol_C3209_US2:0.002063177,Mac_dol_C3581_V5:0.009075722,Mac_dol_C3581_V6:0.003443797,Mac_pol_AT_H1:5.82865E-4,Mac_pol_AT_H2:0.001347382,Mac_pol_AT_H3:0.001194372,Mac_pol_SK_H1:0.001201445,Mac_pol_SK_H2:2.36743E-4,Mac_pol_SK_H3:5.572922E-4):0.03790681):0.03855489):0.0507323,((Mac_mil_IL_001_01:2.252857E-4,Mac_mil_IL_001_03:2.461018E-4,Mac_mil_IL_001_04:2.535837E-4):0.00176683,Mac_mil_IL_001_02:0.002239179):0.07989529):0.01444285,((Mac_eng_H1:0.001474763,Mac_eng_H3:0.002222523):0.001826476,Mac_eng_H2:0.002054252):0.09198876):0.009256328):0.01130611,(((Mac_aff_pse_PL:0.0200001,(Mac_nag_S226_1:0.001184932,Mac_nag_S226_2:0.002733916):0.03397477):0.0561702,(Mac_pse_1:0.006319926,Mac_pse_2:0.004354115):0.07979896):0.01386702,(Mac_aff_pse_ZA:0.001170931,((Xer_gre_1:7.784542E-4,Xer_gre_2:2.823089E-4):6.112503E-4,Xer_gre_4:6.528413E-4):6.344819E-4,Xer_gre_3:2.618981E-4):0.00717028):0.04290522):0.09290181):0.05792349,((((Mac_ari_GL_018_04:2.54272E-4,Mac_ari_GL_018_05:2.581212E-4,Mac_ari_GL_018_06:2.474734E-4):0.008456919,(Mac_ari_NO_393_01:2.588755E-4,Mac_ari_NO_393_03:2.576867E-

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