

Supplementary

ABGD analyses results (Note S1), unconstrained all-terminal COI *Tetragnatha* phylogeny (Figure S1) and detailed results of bModelTest model selection (Figure S2).

Note S1

ABGD delimitation results

Partition with prior maximal distance $P=3.86e-02$

Distance K80 Kimura MinSlope=1.500000

Group[1] n: 1 ;id: Linyphia triangularis GB KY270305

Group[2] n: 1 ;id: Arkys sp GB KM486422

Group[3] n: 3 ;id: Chrysometa linguiformis A 00784372 CUBA Chrysometa linguiformis C 00000024A CUBA Chrysometa linguiformis D 00783426 CUBA

Group[4] n: 1 ;id: Cyrtoagnatha espanola 00782495 HSP

Group[5] n: 1 ;id: Cyrtoagnatha SP11 00392732 PR

Group[6] n: 1 ;id: Cyrtoagnatha SP8 00784494 HSP

Group[7] n: 1 ;id: Leucauge argyra 00782551 HSP

Group[8] n: 1 ;id: Leucauge SP1A 00000541A LA

Group[9] n: 1 ;id: Leucauge venusta 00000850A SEUS

Group[10] n: 1 ;id: Meta menardi GB KY268566

Group[11] n: 1 ;id: Metellina mengei GB KY269213

Group[12] n: 1 ;id: Metellina merianae GB KY268793

Group[13] n: 1 ;id: Metellina segmentata GB KX536928

Group[14] n: 1 ;id: Pachygnatha clercki GB GU684272

Group[15] n: 1 ;id: Pachygnatha degeeri GB KY268868

Group[16] n: 1 ;id: Pachygnatha dorothea GB GU682721

Group[17] n: 1 ;id: Pachygnatha listeri GB KY270256

Group[18] n: 1 ;id: Tetragnatha anuenue GB AY530516 HW

Group[19] n: 1 ;id: Tetragnatha brevignatha GB AY530475 HW

Group[20] n: 1 ;id: Tetragnatha caudata GB JF885230 NA CA CRB

Group[21] n: 4 ;id: Tetragnatha cf moua GB KX054974 TAH Tetragnatha nitens 00001295A SEUS Tetragnatha nitens 00783343 PR Tetragnatha nitens GB KY467168 ASIA GLOBAL

Group[22] n: 1 ;id: Tetragnatha dearmata GB JF885283 NA EU RUS

Group[23] n: 12 ;id: Tetragnatha elongata 00001240A SEUS Tetragnatha elongata 00001397A SEUS Tetragnatha elongata 00392883 PR Tetragnatha elongata 00392908 PR Tetragnatha elongata 00782059 PR Tetragnatha elongata 00782147 PR Tetragnatha elongata 00782189 PR Tetragnatha elongata 00782226 PR Tetragnatha elongata 00784974 CUBA Tetragnatha elongata 00787715 CUBA Tetragnatha elongata 00787723 CUBA Tetragnatha elongata GB GU682831 NA CA CRB

Group[24] n: 1 ;id: Tetragnatha extensa GB GU684025 NA EU CHI JAP KOR

Group[25] n: 1 ;id: Tetragnatha geniculata GB KT383673 SRL VIE CHI

Group[26] n: 7 ;id: Tetragnatha guatemalensis 00001185A SEUS Tetragnatha guatemalensis 00001200A SEUS Tetragnatha guatemalensis 00001247A SEUS Tetragnatha guatemalensis 00001361A SEUS Tetragnatha guatemalensis 00785044 HSP Tetragnatha guatemalensis 00785172 CUBA Tetragnatha guatemalensis GB GU682726 NA CA CRB

Group[27] n: 1 ;id: Tetragnatha hasselti GB KU836891 IND CHI INDON

Group[28] n: 1 ;id: Tetragnatha javana GB JX294517 AFR ASIA

Group[29] n: 1 ;id: Tetragnatha kamakou GB DQ182762 HW

Group[30] n: 1 ;id: Tetragnatha kauaiensis GB AY490333 HW

Group[31] n: 1 ;id: Tetragnatha kukuhaa GB AY490365 HW

Group[32] n: 7 ;id: Tetragnatha laboriosa 00784742 HSP Tetragnatha laboriosa 00786956 HSP Tetragnatha laboriosa 00786958 HSP Tetragnatha laboriosa 00786967 HSP Tetragnatha laboriosa 00786987 HSP Tetragnatha laboriosa 00787043 HSP Tetragnatha laboriosa GB MG044104 NA CA

Group[33] n: 1 ;id: Tetragnatha lauta GB KU836892 CHI TW KOR LAOS JAP

Group[34] n: 1 ;id: Tetragnatha macilenta GB KX054935 AUS FP

Group[35] n: 1 ;id: Tetragnatha macracantha GB DQ182768 HW

Group[36] n: 1 ;id: Tetragnatha mandibulata GB EU796932 WAFR IND PHI AUS

Group[37] n: 1 ;id: Tetragnatha marquesiana GB EU796926 FP

Group[38] n: 5 ;id: Tetragnatha maxillosa 00001986A LA Tetragnatha maxillosa 00002157A LA Tetragnatha maxillosa 00784455 HSP Tetragnatha maxillosa GB KX054953 Tetragnatha maxillosa GB JN817125 SAFR IND PHI FP KOR

Group[39] n: 1 ;id: Tetragnatha montana GB KY268569 EU KAZ RUS TUR

Group[40] n: 1 ;id: Tetragnatha moua GB EU796906 TAH

Group[41] n: 2 ;id: Tetragnatha nigrita GB KY269886 EU CHI JAP Tetragnatha praedonia GB JN817124 RUS CHI LAOS KOR TW JAP

Group[42] n: 2 ;id: Tetragnatha nitens GB EU796913 ASIA GLOBAL Tetragnatha nitens GB EU796911 FP GLOBAL

Group[43] n: 1 ;id: Tetragnatha obtusa GB KY270283 EU RUS TUR KAZ

Group[44] n: 7 ;id: Tetragnatha pallescens 00782460 HSP Tetragnatha pallescens 00785120 HSP Tetragnatha pallescens 00785344 HSP Tetragnatha pallescens 00785399 HSP Tetragnatha pallescens 00785531 HSP Tetragnatha pallescens 00785789 HSP Tetragnatha pallescens GB KM832325 NA CA CRB

Group[45] n: 1 ;id: Tetragnatha pinicola GB KX537342 EU RUS TUR CHI KAZ JAP KOR

Group[46] n: 1 ;id: Tetragnatha quasimodo GB AY530430 HW

Group[47] n: 1 ;id: Tetragnatha rava GB EU796902 TAH

Group[48] n: 5 ;id: Tetragnatha shoshone 00392686 PR Tetragnatha shoshone 00782156 PR Tetragnatha shoshone 00782279 PR Tetragnatha shoshone GB JN308478 NA EU RUS KAZ CHI MON Tetragnatha shoshone GB KP654202 NA EU RUS KAZ CHI MON

Group[49] n: 5 ;id: Tetragnatha SP1 00001221A LA Tetragnatha SP1 00782486 HSP Tetragnatha SP1 00784857 HSP Tetragnatha SP1 00785065 HSP Tetragnatha SP1 00785215 HSP

Group[50] n: 23 ;id: Tetragnatha SP10 00000426A LA Tetragnatha SP10 00000767A SEUS Tetragnatha SP10 00000788A SEUS Tetragnatha SP10 00000792A SEUS Tetragnatha SP10 00000902A SEUS Tetragnatha SP10 00001431A LA Tetragnatha SP10 00001533A LA Tetragnatha SP10 00001667A LA Tetragnatha SP10 00001689A LA Tetragnatha SP10 00001690A LA Tetragnatha SP10 00001725A LA Tetragnatha SP10 00001828A LA Tetragnatha SP10 00001899A LA Tetragnatha SP10 00002078A LA Tetragnatha SP10 00002202A LA Tetragnatha SP10 00002208A LA Tetragnatha SP10 00002259A LA Tetragnatha SP10 00002297A LA Tetragnatha SP10 00002382A LA Tetragnatha SP10 00784480 CUBA Tetragnatha SP10 00784520 CUBA Tetragnatha SP10 00785392 HSP Tetragnatha SP10 00786953 HSP

Group[51] n: 22 ;id: Tetragnatha SP11 00001621A LA Tetragnatha SP11 00001682A LA Tetragnatha SP11 00001734A LA Tetragnatha SP11 00001757A LA Tetragnatha SP11 00001775A LA Tetragnatha SP11 00004054A JAM Tetragnatha SP11 00787140 HSP Tetragnatha SP11 00787149 HSP Tetragnatha SP11 00787161 HSP Tetragnatha SP11 00787167 HSP Tetragnatha SP11 00787191 HSP Tetragnatha SP11 00787202 HSP Tetragnatha SP11 00787232 HSP Tetragnatha SP11 00787241 HSP Tetragnatha SP11 00787719 CUBA Tetragnatha SP11 00001785A LA Tetragnatha SP11 00001662A LA Tetragnatha SP11 00001683A LA Tetragnatha SP11 00782462 HSP Tetragnatha SP11 00785552 HSP Tetragnatha SP11 00787716 CUBA Tetragnatha SP11 00787720 CUBA

Group[52] n: 10 ;id: Tetragnatha SP12 00782041 PR Tetragnatha SP12 00784695 HSP Tetragnatha SP12 00785141 HSP Tetragnatha SP12 00785407 HSP Tetragnatha SP12 00785792 HSP Tetragnatha SP12 00786999 HSP Tetragnatha SP12 00787002 HSP Tetragnatha SP12 00787016 HSP Tetragnatha SP12 00787017 HSP Tetragnatha SP12 00787110 HSP

Group[53] n: 2 ;id: Tetragnatha SP13 00787337 CUBA Tetragnatha SP13 00787346 CUBA

Group[54] n: 7 ;id: Tetragnatha SP15 00786891 HSP Tetragnatha SP15 00786893 HSP Tetragnatha SP15 00786914 HSP Tetragnatha SP15 00786915 HSP Tetragnatha SP15 00787039 HSP Tetragnatha SP15 00787044 HSP Tetragnatha SP15 GB GU129631

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Group[56] n: 77 ;id: Tetragnatha SP2 00000208I CR Tetragnatha SP2 00000350A CUBA Tetragnatha SP2 00000358A CUBA Tetragnatha SP2 00000367A CUBA Tetragnatha SP2 00000375A CUBA Tetragnatha SP2 00000626A LA Tetragnatha SP2 00000702A SEUS Tetragnatha SP2 00000754A SEUS Tetragnatha SP2 00000817A SEUS Tetragnatha SP2 00000876A SEUS Tetragnatha SP2 00001266A SEUS Tetragnatha SP2 00001610A LA Tetragnatha SP2 00001664A LA Tetragnatha SP2 00001729A LA Tetragnatha SP2 00003558A JAM Tetragnatha SP2 00003626A PR Tetragnatha SP2 00003892A JAM Tetragnatha SP2 00004383A JAM Tetragnatha SP2 00392759 PR Tetragnatha SP2 00392773 PR Tetragnatha SP2 00392874 PR Tetragnatha SP2 00392920 PR Tetragnatha SP2 00782098 PR Tetragnatha SP2 00782164 PR Tetragnatha SP2 00782169 PR Tetragnatha SP2 00782172 PR Tetragnatha SP2 00782199 PR Tetragnatha SP2 00782233 PR Tetragnatha SP2 00782249 PR Tetragnatha SP2 00782284 PR Tetragnatha SP2 00782286 PR Tetragnatha SP2 00782474 HSP Tetragnatha SP2 00782876 CUBA Tetragnatha SP2 00782937 CUBA Tetragnatha SP2 00782940 CUBA Tetragnatha SP2 00783414 CUBA Tetragnatha SP2 00783500 PR

Tetragnatha SP2 00783567 PR Tetragnatha SP2 00783572 PR Tetragnatha SP2 00784309 CUBA Tetragnatha SP2 00784678 HSP Tetragnatha SP2 00785015 CUBA Tetragnatha SP2 00785313 HSP Tetragnatha SP2 00785320 HSP Tetragnatha SP2 00785549 HSP Tetragnatha SP2 00785589 HSP Tetragnatha SP2 00787213 HSP Tetragnatha SP2 00787340 CUBA Tetragnatha SP2 00787361 CUBA Tetragnatha SP2 00787401 CUBA Tetragnatha SP2 00787411 CUBA Tetragnatha SP2 00787437 CUBA Tetragnatha SP2 00787601 CUBA Tetragnatha SP2 00787801 Cuba Tetragnatha SP2 00787815 Cuba Tetragnatha SP2B 00000353A CUBA Tetragnatha SP2B 00003544A PR Tetragnatha SP2B 00003564A JAM Tetragnatha SP2B 00003792A PR Tetragnatha SP2B 00003839A PR Tetragnatha SP2B 00782185 PR Tetragnatha SP2B 00782230 PR Tetragnatha SP2B 00782247 PR Tetragnatha SP2B 00782254 PR Tetragnatha SP2B 00782435 HSP Tetragnatha SP2B 00787218 HSP Tetragnatha SP2B 00787221 HSP Tetragnatha SP2C 00782122 PR Tetragnatha SP2C 00782231 PR Tetragnatha SP2C 00782232 PR Tetragnatha SP2C 00782260 PR Tetragnatha SP2C 00782800 CUBA Tetragnatha SP2C 00784955 CUBA Tetragnatha SP2C 00784990 CUBA Tetragnatha SP2C 00785753 HSP Tetragnatha SP2C 00787270 CUBA Tetragnatha SP2C 00787499 CUBA

Group[57] n: 1 ;id: Tetragnatha SP20 00006328A MX

Group[58] n: 1 ;id: Tetragnatha SP21 00003204A CR

Group[59] n: 1 ;id: Tetragnatha SP22 00787027 HSP

Group[60] n: 20 ;id: Tetragnatha SP3 00782342 MONA Tetragnatha SP3 00782681 MONA Tetragnatha SP3 00782682 MONA Tetragnatha SP3 00782684 MONA Tetragnatha SP3 00782687 MONA Tetragnatha SP3 00782693 MONA Tetragnatha SP3 00782719 MONA Tetragnatha SP3 00784466 HSP Tetragnatha SP3 00784595 Mon Tetragnatha SP3 00784935 MONA Tetragnatha SP3 00784937 MONA Tetragnatha SP3 00785006 MONA Tetragnatha SP3 00785259 MONA Tetragnatha SP3 00785447 MONA Tetragnatha SP3 00785463 MONA Tetragnatha SP3 00785645 MONA Tetragnatha SP3 00785685 HSP Tetragnatha SP3 00785694 MONA Tetragnatha SP3 00786842 MONA Tetragnatha SP3 00786854 MONA

Group[61] n: 5 ;id: Tetragnatha SP4 00004066A JAM Tetragnatha SP4 00004171A JAM Tetragnatha SP4 00004298A JAM Tetragnatha SP4 00004496A JAM Tetragnatha SP4 00004499A JAM

Group[62] n: 2 ;id: Tetragnatha SP5 00001243A LA Tetragnatha SP5 00001400A LA

Group[63] n: 26 ;id: Tetragnatha SP7 00000314A CUBA Tetragnatha SP7 00000370A CUBA Tetragnatha SP7 00000385A CUBA Tetragnatha SP7 00000845A SEUS Tetragnatha SP7 00001378A LA Tetragnatha SP7 00003471A JAM Tetragnatha SP7 00003515A JAM

Tetragnatha SP7 00003936A JAM Tetragnatha SP7 00782431 HSP Tetragnatha SP7 00782585 HSP Tetragnatha SP7 00782873 CUBA Tetragnatha SP7 00785032 CUBA Tetragnatha SP7 00785108 HSP Tetragnatha SP7 00785317 HSP Tetragnatha SP7 00785619 HSP Tetragnatha SP7 00787500 CUBA Tetragnatha SP7 00787502 CUBA Tetragnatha SP7 00787503 CUBA Tetragnatha SP7 00787509 CUBA Tetragnatha SP7 00787512 CUBA Tetragnatha SP7 00787604 CUBA Tetragnatha SP7B 00785481 HSP Tetragnatha SP7B 00785501 HSP Tetragnatha SP7B 00785755 HSP Tetragnatha SP7B 00785796 HSP

Group[64] n: 2 ;id: Tetragnatha SP8 00001189A SEUS

Group[65] n: 7 ;id: Tetragnatha SP9 00000132A LA Tetragnatha SP9 00000152A LA Tetragnatha SP9 00000225A LA Tetragnatha SP9 00000415A LA Tetragnatha SP9 00000465A LA Tetragnatha SP9 00000475A LA Tetragnatha SP9 00001425A LA Tetragnatha SP9 00000236A LA Tetragnatha SP9 00000508A LA

Group[66] n: 1 ;id: Tetragnatha squamata GB JN817128 RUS CHI TW KOR JAP

Group[67] n: 1 ;id: Tetragnatha straminea GB HQ924529 NA CUBA

Group[68] n: 1 ;id: Tetragnatha vermiformis GB KP645997 ASIA NA CA

Group[69] n: 1 ;id: Tetragnatha versicolor GB JF884787 NA CA CUBA

Group[70] n: 5 ;id: Tetragnatha viridis 00001056A SEUS Tetragnatha viridis 00001192A SEUS Tetragnatha viridis 00782112 PR Tetragnatha viridis GB KP651813 NA Tetragnatha viridis GB HQ924570 NA

Group[71]

] n: 1 ;id: Tetragnatha waikamoi GB AY490374 HW

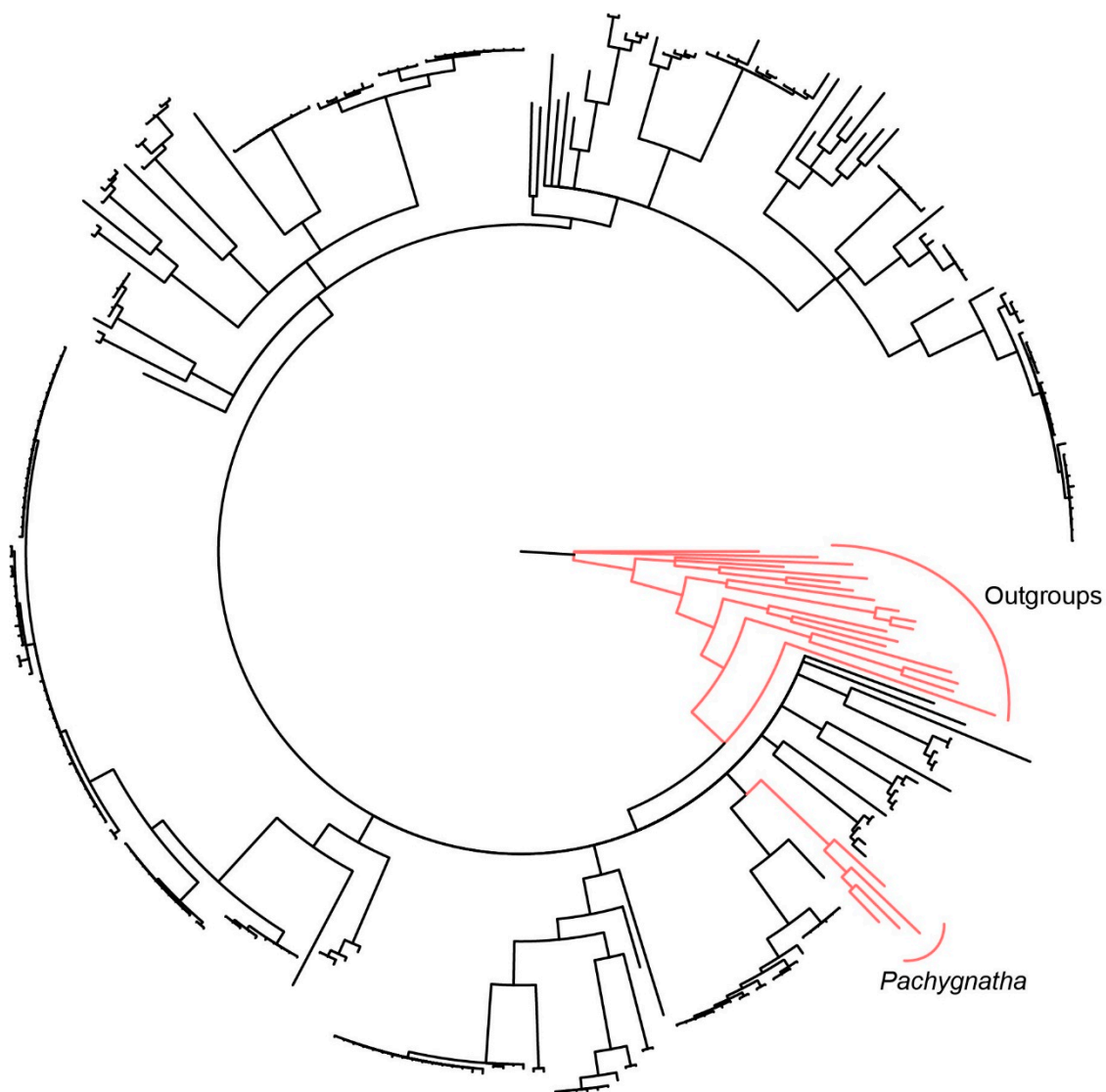


Figure S1. All-terminal COI Tetragnatha phylogeny. For this phylogenetic reconstruction we did not enforce Tetragnatha monophyly (less appropriate considering model comparison results). Among outgroups, Pachygnatha is nested within Tetragnatha, thus breaking its monophyly. Here, we also transformed branching into polytomies at nodes with less than 50 % support. .

Models with blue circles are inside 95 % HPD, red outside and models without circles have at most 0.26 % support.

posterior support	cumulative support	model
40,05%	40,05%	123451
33,14%	73,20%	121345
17,09%	90,29%	121341
6,43%	96,71%	123456
2,09%	98,81%	123453
0,40%	99,21%	121324
0,26%	99,46%	121343
0,21%	99,67%	123141

See Bouckaert & Drummond (2017) for model codes interpretation

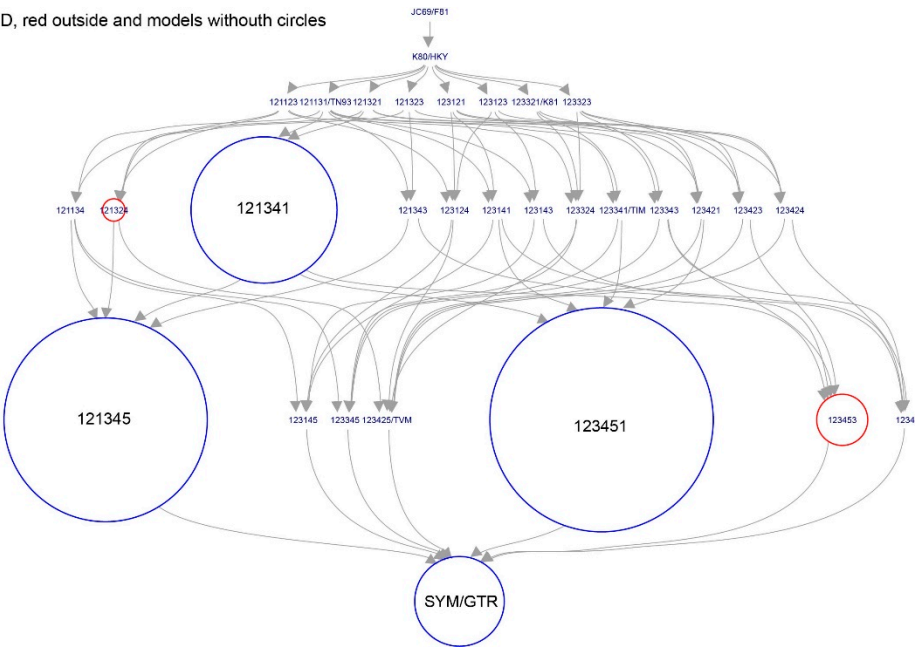


Figure S2. Detailed results from bModelTest (as nucleotidae substitution model) in BEAST2.