Table S1. Collection of wing venation of Dictyoptera (1/4)

SUBORDER or Family: Subfamily	Species (duplication in grey; amber fossil in Khaki)	Reference for forewing (: fig) [note]	Reference for hindwing (: fig) [note]	Comment
BLATTARIA (true cockroaches)				
Anaplectidae	*Anaplecta lateralis* Burmeister, 1838	Rehn (1951: 73)	Rehn (1951: 132)	
Anaplectidae	*Anaplecta omei* Bey-Bienko, 1958	Li et al. (2018: S1)	Li et al. (2018: S1)	
Blaberidae *incertae sedis*	*Eustegasta poecila* (Schaum, 1853)	Rehn (1951: 63)	Rehn (1951: 127)	
Blaberidae: Blaberinae	*Archimandrita tesellata* Rehn, 1903	Rehn (1951: 52)	Rehn (1951: 117)	
Blaberidae: Blaberinae	*Blaberus giganteus* (Linnaeus, 1758)	Rehn (1951: 53)	Rehn (1951: 118)	
Blaberidae: Blaberinae	*Blaptica dubia* (Audinet-Serville, 1839)	Rehn (1951: 32)	Rehn (1951: 99)	
Blaberidae: Blaberinae	*Blaptica dubia* (Audinet-Serville, 1839)	Li et al. (2018: 5, S17) [polymorphic]	Li et al. (2018: 5)	
Blaberidae: Blaberinae	*Eublaberus posticus* (Erichson, 1848)	Li et al. (2018: S18)	Li et al. (2018: S18)	
Blaberidae: Blaberinae	*Hormetica apolinari* Hebard, 1919	Rehn (1951: 51) [brachypterous]	Rehn (1951: 116)	
Blaberidae: Blaberinae	*Hormetica sexnotata* (Thunberg, 1826)	Rehn (1951: 46) [brachypterous]	Rehn (1951: 119)	"*Brachycola tuberculata* (Dalman)" in Rehn
Blaberidae: Blaberinae	*Lucihormetica yasuniana* Vidlička, 2019		Vidlička (2019: 6C)	photo
Blaberidae: Blaberinae	*Phoetalia pallida* (Brunner von Wattenwyl, 1865)	Rehn (1951: 41)	Rehn (1951: 111)	"*Leurolestes pallidus* (Burmeister)" in Rehn
Blaberidae: Calolamprodinae	*Calolampra irrorata* (Fabricius, 1775)	Rehn (1951: 30)	Rehn (1951: 97)	
Blaberidae: Diplopterinae	*Diploptera naevus* Li & Wang, 2015	[highly tegminized]	Li & Wang (2015: 42)	
Blaberidae: Diplopterinae	*Diploptera nigrescens guani* Li & Wang, 2015	[highly tegminized]	Li & Wang (2015: 48)	
Blaberidae: Diplopterinae	*Diploptera punctata* (Eschscholtz, 1822)	[highly tegminized]	Rehn (1951: 92)	"*Diploptera dytiscoides* (Serville)" in Rehn
Blaberidae: Diplopterinae	*Diploptera punctata* (Eschscholtz, 1822)	[highly tegminized]	Li et al. (2018: 6)	
Blaberidae: Epilamprinae	*Apsidopis cyclops* de Saussure, 1895	Anisyutkin (2015: 60)	Anisyutkin (2015: 61)	
Blaberidae: Epilamprinae	*Aptera cingulata* (Burmeister, 1838)	Anisyutkin (2015: 62)	Anisyutkin (2015: 63)	
Blaberidae: Epilamprinae	*Epilampra abdomennigrum* (DeGeer, 1773)	Rehn (1951: 39)	Rehn (1951: 105)	
Blaberidae: Epilamprinae	*Homalopteryx laminata* Brunner von Wattenwyl, 1892	Rehn (1951: 38)	Rehn (1951: 106)	
Blaberidae: Epilamprinae	*Litopeltis biolleyi* (de Saussure, 1895)	Anisyutkin (2015: 64)	Anisyutkin (2015: 65)	
Blaberidae: Epilamprinae	*Litopeltis bispinosa* (de Saussure, 1893)	Rehn (1951: 34)	Rehn (1951: 103)	
Blaberidae: Epilamprinae	*Molytria* sp.	Cui et al. (2018: 2A)	Cui et al. (2018: 2B)	
Blaberidae: Epilamprinae	*Morphna plana* (Brunner von Wattenwyl, 1865)	Rehn (1951: 40)	Rehn (1951: 109)	"(Burmeister)" in Rehn
Blaberidae: Epilamprinae	*Phoraspis picta* (Drury, 1782)	Rehn (1951: 50) [brachypterous]	Rehn (1951: 113)	
Blaberidae: Epilamprinae	*Pseudophoraspis incurvata* Wang *et al.*, 2013	Li et al. (2018: S21)	Li et al. (2018: S21)	
Blaberidae: Epilamprinae	*Rhabdoblatta xiai* Liu & Zhu, 2001	Li et al. (2018: S20)	Li et al. (2018: S20)	
Blaberidae: Epilamprinae	*Thorax porcellana* de Saussure, 1862	Rehn (1951: 49)	Rehn (1951: 114)	
Blaberidae: Oxyhaloinae	*Henschoutedenia* sp.	Li et al. (2018: S22)	Li et al. (2018: S22)	
Blaberidae: Oxyhaloinae	*Nauphoeta cinerea* (Olivier, 1789)	Rehn (1951: 47)	Rehn (1951: 110)	
Blaberidae: Oxyhaloinae	*Nauphoeta cinerea* (Olivier, 1789)	Li et al. (2018: S23)	Li et al. (2018: S23)	
Blaberidae: Oxyhaloinae	*Oxyhaloa buprestoides* (de Saussure, 1862)	Rehn (1951: 43)	Rehn (1951: 115)	
Blaberidae: Oxyhaloinae	*Rhyparobia maderae* (Fabricius, 1781)	Rehn (1951: 37)	Rehn (1951: 102)	"*Leucophaea*" in Rehn
Blaberidae: Panchlorinae	*Panchlora nivea* (Linnaeus, 1758)	Rehn (1951: 48)	Rehn (1951: 108)	"*Panchlora cubensis* Saussure" in Rehn
Blaberidae: Panchlorinae	*Panchlora* sp.	Li et al. (2018: S24)	Li et al. (2018: S24)	
Blaberidae: Panesthiinae	*Panesthia angustipennis* (Illiger, 1801)	Rehn (1951: 25)	Rehn (1951: 88)	
Blaberidae: Panesthiinae	*Salganea morio* (Burmeister, 1838)	Rehn (1951: 19)	Rehn (1951: 89)	
Blaberidae: Panesthiinae	*Salganea* sp.	Li et al. (2018: S25)	Li et al. (2018: S25)	
Blaberidae: Paranauphoetinae	*Paranauphoeta anulata* Li & Wang, 2017	Li & Wang (2017: 9A)	Li & Wang (2017: 9B)	
Blaberidae: Paranauphoetinae	*Paranauphoeta lyrata* (Burmeister, 1838)	Rehn (1951: 45)	Rehn (1951: 112)	
Blaberidae: Paranauphoetinae	*Paranauphoeta sinica* Bey-Bienko, 1958	Li et al. (2018: S28)	Li et al. (2018: S28)	
Blaberidae: Perisphaerinae	*Achatiblatta achates* Li *et al.*, 2018	Li et al. (2018pe: 40D)	Li et al. (2018pe: 40E)	
Blaberidae: Perisphaerinae	*Derocalymma versicolor* (Burmeister, 1838)	Rehn (1951: 35) [highly tegminized]	Rehn (1951: 104)	
Blaberidae: Perisphaerinae	*Frumentiforma frumentiformis* Li *et al.*, 2018	Li et al. (2018pe: 42D)	Li et al. (2018pe: 42E)	

Table S1. Collection of wing venation of Dictyoptera (2/4)

SUBORDER or Family: Subfamily	Species (duplication in grey; amber fossil in Khaki)	Reference for forewing (: fig) [note]	Reference for hindwing (: fig) [note]	Comment
Blaberidae: Perisphaerinae	*Laxta granicollis* (de Saussure, 1862)	Rehn (1951: 31)	Rehn (1951: 98)	"*Oniscosoma*" in Rehn
Blaberidae: Perisphaerinae	*Perisphaerus contiguus* (de Saussure, 1873)	Rehn (1951: 33)	Rehn (1951: 100)	
Blaberidae: Perisphaerinae	*Perisphaerus* sp.	Li et al. (2018pe: 15B)	Li et al. (2018pe: 15C)	
Blaberidae: Perisphaerinae	*Pseudoglomeris aerea* (Bey-Bienko, 1958)	Li et al. (2018: S26)	Li et al. (2018: S26)	
Blaberidae: Pycnoscelinae	*Pycnoscelus indicus* (Fabricius, 1775)	Li et al. (2018: S27)	Li et al. (2018: S27)	
Blaberidae: Pycnoscelinae	*Pycnoscelus surinamensis* (Linnaeus, 1758)	Rehn (1951: 42)	Rehn (1951: 107)	possibly *P. indicus*
Blaberidae: Zetoborinae	*Phortioeca phoraspoides* (Walker, 1871)	Rehn (1951: 36)	Rehn (1951: 101)	
Blattellidae s. s.	*Blattella germanica* (Linnaeus, 1767)	Rehn (1951: 66)	Rehn (1951: 136)	
Blattellidae s. s.	*Blattella radicifera* (Hanitsch, 1928)	Li et al. (2018: S3)	Li et al. (2018: S3)	
Blattellidae s. s.	*Chromatonotus lamprus* Hebard, 1920	Rehn (1951: 56)	Rehn (1951: 122)	
Blattellidae s. s.	*Episymploce kunmingi* (Bey-Bienko, 1969)	Li et al. (2018: S4)	Li et al. (2018: S4)	
Blattellidae s. s.	*Euandroblatta curta* (Walker, 1868)	Rehn (1951: 61) [brachypterous]	Rehn (1951: 124)	
Blattellidae s. s.	*Haplosymploce andamanica* (Princis, 1951)	Zheng et al. (2016: 12)	Zheng et al. (2016: 13)	
Blattellidae s. s.	*Haplosymploce aurantiaca* Zheng *et al.*, 2016	Li et al. (2018: S5)	Li et al. (2018: S5)	
Blattellidae s. s.	*Hemithyrsocera marginalis* (Hanitsch, 1933)	Li et al. (2018: S6)	Li et al. (2018: S6)	
Blattellidae s. s.	*Ischnoptera rufa rufa* (DeGeer, 1773)	Rehn (1951: 62)	Rehn (1951: 126)	
Blattellidae s. s.	*Jacobsonina erebis* Wu *et al.*, 2014	Li et al. (2018: S7)	Li et al. (2018: S7)	
Blattellidae s. s.	*Parcoblatta pensylvanica* (DeGeer, 1773)	Rehn (1951: 54, 55) [polymorphic]	Rehn (1951: 121)	
Blattellidae s. s.	*Pseudomops interceptus* (Burmeister, 1838)	Rehn (1951: 64)	Rehn (1951: 137)	"*intercepta*" in Rehn
Blattellidae s. s.	*Sigmella* sp.	Li et al. (2018: S9)	Li et al. (2018: S9)	
Blattellidae s. s.	*Symploce hebardi* Princis, 1969	Rehn (1951: 65)	Rehn (1951: 130)	"*capitata* (Saussure)" in Rehn
Blattidae	*Blatta orientalis* Linnaeus, 1758	Rehn (1951: 24, 29) [polymorphically brachypterous]	Rehn (1951: 93)	
Blattidae	*Blatta orientalis* Linnaeus, 1758	Li et al. (2018: S32) [brachypterous]	Li et al. (2018: S32) [brachypterous]	
Blattidae	*Catara rugosicollis* (Brunner von Wattenwyl, 1865)	Li et al. (2018: S29)	Li et al. (2018: S29)	
Blattidae	*Deropeltis erythrocephala* (Fabricius, 1781)	Rehn (1951: 26)	Rehn (1951: 96)	
Blattidae	*Eurycotis floridana* (Walker, 1868)	Rehn (1951: 28) [brachypterous]		
Blattidae	*Hebardina concinna* (de Haan, 1842)	Li et al. (2018: S33); Yue et al. (2014:3) [polymorphic]	Li et al. (2018: S33); Yue et al. (2014:3) [polymorphic]	
Blattidae	*Homalosilpha kryzhanovskii* Bey-Bienko, 1969	Li et al. (2018: S34)	Li et al. (2018: S34)	
Blattidae	*Periplaneta americana* (Linnaeus, 1758)	Rehn (1951: 21)	Rehn (1951: 94)	
Blattidae	*Periplaneta australasiae* (Fabricius, 1775)	Li et al. (2018: 4)	Li et al. (2018: 4)	
Blattidae	*Protagonista lugubris* Shelford, 1908	Li et al. (2018: S30)	Li et al. (2018: S30)	
Blattidae	*Pseudoderopeltis brevicollis* (Audinet-Serville, 1838)	Rehn (1951: 27)	Rehn (1951: 95)	
Blattidae	*Shelfordella lateralis* (Walker, 1868)	Li et al. (2018: S35)	Li et al. (2018: S35)	
Corydiidae: Corydiinae	*Arenivaga bolliana* (de Saussure, 1893)	Rehn (1951: 6)	Rehn (1951: 76)	
Corydiidae: Corydiinae	*Ctenoblatta impubis* Qiu *et al.*, 2018	Qiu et al. (2018: 10c)	Qiu et al. (2018: 10c)	
Corydiidae: Corydiinae	*Ergaula nepalensis* (de Saussure, 1893)	Li et al. (2018: S39)	Li et al. (2018: S39)	"Ergaula sp." in Li et al.; species determined by Qiu et al. (2018)
Corydiidae: Corydiinae	*Ergaula pilosa* (Walker, 1868)	Rehn (1951: 15, 16) [polymorphic]	Rehn (1951: 83, 87)	"*Dyscologamia*" in Rehn
Corydiidae: Corydiinae	*Eucorydia dasytoides* (Walker, 1868)	Li et al. (2018: S36)	Li et al. (2018: S36)	"*Eucorydia purpuralis* (Kirby, 1903)" in Li et al., synonymized by Qiu et al. (2017eu)
Corydiidae: Corydiinae	*Eupolyphaga sinensis* (Walker, 1868)	Rehn (1951: 13)	Rehn (1951: 77)	
Corydiidae: Corydiinae	*Eupolyphaga sinensis* (Walker, 1868)	Li et al. (2018: 3)	Li et al. (2018: 3)	
Corydiidae: Corydiinae	*Hemelytroblatta roseni* (Brancsik, 1898)	Rehn (1951: 7)	Rehn (1951: 82)	"*Heterogamodes*" in Rehn
Corydiidae: Corydiinae	*Homoeogamia mexicana* Burmeister, 1838	Rehn (1951: 9)	Rehn (1951: 78)	"(Burmeister)" in Rehn
Corydiidae: Corydiinae	*Minicorydia maoxiana* Qiu *et al.*, 2018	[highly tegminized]	Qiu et al. (2018: 9f)	
Corydiidae: Corydiinae	*Minpolyphaga inexpectata* Qiu et al., 2019	Qiu et al. (2019mi: 10)	Qiu et al. (2019mi: 11)	
Corydiidae: Corydiinae	*Nodosigalea burmanica* Li & Huang, 2018	Li & Huang (2018: 1A)	Li & Huang (2018: 1C)	Fossil in Burmese amber; hindwing incomplete
Corydiidae: Corydiinae	*Polyphaga aegyptiaca* (Linnaeus, 1758)	Rehn (1951: 14)	Rehn (1951: 81)	

Table S1. Collection of wing venation of Dictyoptera (3/4)

SUBORDER or Family: Subfamily	Species (duplication in grey; amber fossil in Khaki)	Reference for forewing (: fig) [note]	Reference for hindwing (: fig) [note]	Comment
Corydiidae: Corydiinae	*Polyphaga plancyi* Bolívar, 1882	Li et al. (2018: S38)	Li et al. (2018: S38)	
Corydiidae: Corydiinae	*Therea petiveriana* (Linnaeus, 1758)	Rehn (1951: 8) [brachypterous]		"*Corydia*" in Rehn
Corydiidae: Ctenoneurinae	*Ctenoneura bawangensis* Qiu *et al.*, 2017	Qiu et al. (2017ct: 18B)	Qiu et al. (2017ct: 18C)	
Corydiidae: Ctenoneurinae	*Ctenoneura delicata* Qiu *et al.*, 2017	Li et al. (2018: S41)	Li et al. (2018: S41)	
Corydiidae: Ctenoneurinae	*Ctenoneura elongata* Qiu *et al.*, 2017	Qiu et al. (2017ct: 22B)	Qiu et al. (2017ct: 22C)	
Corydiidae: Ctenoneurinae	*Ctenoneura heixuanfeng* Qiu *et al.*, 2017	Qiu et al. (2017ct: 17B)	Qiu et al. (2017ct: 17C)	
Corydiidae: Ctenoneurinae	*Ctenoneura helicata* Qiu *et al.*, 2017	Qiu et al. (2017ct: 23B)	Qiu et al. (2017ct: 23C)	
Corydiidae: Ctenoneurinae	*Ctenoneura papillaris* Qiu *et al.*, 2017	Qiu et al. (2017ct: 20B)	Qiu et al. (2017ct: 20C)	
Corydiidae: Ctenoneurinae	*Ctenoneura qiuae* Qiu *et al.*, 2017	Qiu et al. (2017ct: 24B)	Qiu et al. (2017ct: 24C)	
Corydiidae: Ctenoneurinae	*Ctenoneura simulans* Bey-Bienko, 1969	Qiu et al. (2017ct: 21B)	Qiu et al. (2017ct: 21C)	
Corydiidae: Euthyrrhaphinae	*Euthyrrhapha pacifica* (Coquebert, 1804)	[highly tegminized]	Rehn (1951: 86)	"(Burmeister)" in Rehn
Corydiidae: Euthyrrhaphinae	*Euthyrrhapha pacifica* (Coquebert, 1804)	[highly tegminized]	Anisyutkin (2008: 2G)	
Corydiidae: Euthyrrhaphinae	*Holocompsa azteca* de Saussure, 1862		Gorokhov (2007: 4d)	
Corydiidae: Euthyrrhaphinae	*Holocompsa debilis* Walker, 1868		Gorokhov (2007: 4c)	
Corydiidae: Euthyrrhaphinae	*Holocompsa nigra* Gorokhov, 2007	Gorokhov (2007: 3c)	Gorokhov (2007: 4e)	Fossil in Dominican amber
Corydiidae: Euthyrrhaphinae	*Holocompsa nitidula* (Fabricius, 1781)	Rehn (1951: 11)	Rehn (1951: 79)	
Corydiidae: Euthyrrhaphinae	*Hypercompsa fieberi* (Brunner von Wattenwyl, 1865)	Gorokhov (2007: 3b)	Gorokhov (2007: 4b)	
Corydiidae: Euthyrrhaphinae	*Paraeuthyrrhapha groehni* Anisyutkin, 2008	Anisyutkin (2008: 2A)	Anisyutkin (2008: 2B)	Fossil in Baltic amber
Corydiidae: Euthyrrhaphinae	*Proholocompsa fossilis* (Shelford, 1910)	Shelford (1910: pl48, 22)	Shelford (1910: pl48, 22)	"*Holocompsa*" in Shelford. Fossil in Baltic amber; hindwing incomplete
Corydiidae: Euthyrrhaphinae	*Tivia termes* (Karny, 1908)	Rehn (1951: 10)	Rehn (1951: 85)	
Corydiidae: Euthyrrhaphinae?	*Polyphagoides cantrelli* Mackerras, 1968	Mackerras (1968: pII-6)	Mackerras (1968: pII-7)	photo
Ectobiidae *s. l.*	*Ceuthobia fulvella* (Rehn, 1913)	Rehn (1951: 74)	Rehn (1951: 139)	
Ectobiidae *s. s.*	*Ectobius lapponicus* (Linnaeus, 1758)	Rehn (1951: 70)	Rehn (1951: 134)	
Nocticolidae: Latindiinae	*Austropolyphaga perkinsi* Mackerras, 1968	Mackerras (1968: 1)	Mackerras (1968: 1)	
Nocticolidae: Latindiinae	*Beybienkonus acuticercus* (Bey-Bienko, 1957)	Qiu et al. (2019la: 9A)	Qiu et al. (2019la: 9B)	
Nocticolidae: Latindiinae	*Compsodes delicatulus* (de Saussure & Zehntner, 1894)	Rehn (1951: 18)	Rehn (1951: 84)	Diagonal channel not shown in Rehn
Nocticolidae: Latindiinae	*Latindia dohrniana* (de Saussure & Zehntner, 1894)	Rehn (1951: 17)	Rehn (1951: 80)	
Nocticolidae: Latindiinae	*Sinolatindia petila* Qiu *et al.*, 2016	Li et al. (2018: S40)	Li et al. (2018: S40)	
Nocticolidae: Nocticolinae	*Alluaudellina cavernicola* (Shelford, 1910)	Chopard (1932: 23,24) [polymorphic]	Chopard (1932: 23,24) [polymorphic]	
Nocticolidae: Nocticolinae	*Alluaudellina himalayensis* (Gravely, 1910)	Gravely (1910: 5)	Gravely (1910: 5)	"*Alluaudella*" in Gravely
Nocticolidae: Nocticolinae	*Cardacus willeyi* (Shelford, 1908)	Gravely (1910: 1–4)	Gravely (1910: 1–4)	"*Cardax*" in Gravely
Nocticolidae: Nocticolinae	*Crenocticola burmanica* Li & Huang, 2019	Li & Huang (2019: 3B)	Li & Huang (2019: 3C–E)	Fossil in Burmese amber; hindwing incomplete
Nocticolidae: Nocticolinae	*Nocticola clavata* Andersen & Kjærandsen, 1995	Andersen and Kjærandsen (1995: 2A)	Andersen and Kjærandsen (1995: 2A)	
Nocticolidae: Nocticolinae	*Nocticola scytala* Andersen & Kjærandsen, 1995	Andersen and Kjærandsen (1995: 3A)	Andersen and Kjærandsen (1995: 3A)	
Nocticolidae: Nocticolinae	*Nocticola wliensis* Andersen & Kjærandsen, 1995	Andersen and Kjærandsen (1995: 1C)	Andersen and Kjærandsen (1995: 1C)	
Nyctiboridae	*Megaloblatta blaberoides* (Walker, 1871)	Rehn (1951: 23)	Rehn (1951: 91)	
Nyctiboridae	*Nyctibora noctivaga* Rehn, 1903	Rehn (1951: 22)	Rehn (1951: 90)	
Nyctiboridae	*Paratropes phalerata* (Erichson, 1848)	Rehn (1951: 44)	Rehn (1951: 120)	"(Serville)" in Rehn
Oulopterygidae	*Oulopteryx meliponarum* Hebard, 1921	Rehn (1951: 75)	Rehn (1951: 141)	Systematic position unsettled. It is placed in Corydiidae or Anaplectidae by others.
Pseudophyllodromiidae	*Aglaopteryx gemma* Hebard, 1917	Rehn (1951: 59A) [brachypterous]		
Pseudophyllodromiidae	*Allacta bruna* He *et al.*, 2019	He et al. (2019: 7)	He et al. (2019: 8)	
Pseudophyllodromiidae	*Allacta transversa* Bey-Bienko, 1969	Li et al. (2018: S10)	Li et al. (2018: S10)	
Pseudophyllodromiidae	*Anaplectoidea varia* Bey-Bienko, 1958	Li et al. (2018: S2)	Li et al. (2018: S2)	
Pseudophyllodromiidae	*Balta curvirostris* Che & Chen, 2010	Li et al. (2018: S11)	Li et al. (2018: S11)	
Pseudophyllodromiidae	*Balta hwangorum* Bey-Bienko, 1958	Qiu ZW et al. (2017: 67)	Qiu ZW et al. (2017: 68)	
Pseudophyllodromiidae	*Balta nodigera* (Bey-Bienko, 1958)	Qiu ZW et al. (2017: 79)	Qiu ZW et al. (2017: 80)	

Table S1. Collection of wing venation of Dictyoptera (4/4)

SUBORDER or Family: Subfamily	Species (duplication in grey; amber fossil in Khaki)	Reference for forewing (: fig) [note]	Reference for hindwing (: fig) [note]	Comment
Pseudophyllodromiidae	*Balta similis* (de Saussure, 1869)	Rehn (1951: 68)	Rehn (1951: 138)	
Pseudophyllodromiidae	*Balta valida* (Bey-Bienko, 1958)	Qiu ZW et al. (2017: 91)	Qiu ZW et al. (2017: 92)	
Pseudophyllodromiidae	*Cariblatta delicatula* (Guérin-Méneville, 1857)	Rehn (1951: 58)	Rehn (1951: 125)	
Pseudophyllodromiidae	*Ceratinoptera picta* Brunner von Wattenwyl, 1865	Rehn (1951: 69) [brachypterous]	Rehn (1951: 140) [brachypterous]	
Pseudophyllodromiidae	*Chorisoneura flavipennis* de Saussure & Zehntner, 1893	Rehn (1951: 71)	Rehn (1951: 135)	
Pseudophyllodromiidae	*Chorisoserrata biceps* Wang & Feng, 2006	Li et al. (2018: S12)	Li et al. (2018: S12)	
Pseudophyllodromiidae	*Euphyllodromia angustata* (Latreille, 1811)	Rehn (1951: 57)	Rehn (1951: 123)	
Pseudophyllodromiidae	*Euphyllodromia erytromelas* Rehn, 1932	Anisyutkin (2011: 13A)	Anisyutkin (2011: 13B)	
Pseudophyllodromiidae	*Imblattella fratercula* (Hebard, 1916)	Rehn (1951: 59)	Rehn (1951: 128)	"*Neoblattella fratercula* Hebard" in Rehn
Pseudophyllodromiidae	*Latiblattella rehni* Hebard, 1917	Rehn (1951: 60)	Rehn (1951: 129)	
Pseudophyllodromiidae	*Malaccina sinica* (Bey-Bienko, 1954)	Li et al. (2018: S8)	Li et al. (2018: S8)	
Pseudophyllodromiidae	*Margattea nimbata* (Shelford, 1907)	Li et al. (2018: S13)	Li et al. (2018: S13)	
Pseudophyllodromiidae	*Plectoptera porcellana* de Saussure, 1864	Rehn (1951: 72) [brachypterous]	Rehn (1951: 133)	"(Saussure)" in Rehn
Pseudophyllodromiidae	*Prosoplecta (Areolaria)* sp.	Li et al. (2018: S14)	Li et al. (2018: S14)	
Pseudophyllodromiidae	*Prosoplecta (Areolaria) vietnamensis* Anisyutkin, 2012	Anisyutkin (2012: 21,22)	Anisyutkin (2012: 24)	Sc and RA of hindwing in Anisyutkin should be (Sc+)RA and RP
Pseudophyllodromiidae	*Shelfordina volubilis* Wang, 2009	Li et al. (2018: S15)	Li et al. (2018: S15)	
Pseudophyllodromiidae	*Sorineuchora shanensis* (Princis, 1950)		Li et al. (2018: S16)	
Pseudophyllodromiidae	*Supella longipalpa* (Fabricius, 1798)	Rehn (1951: 67)	Rehn (1951: 131)	"*supellectilium* Serville" in Rehn
Dictyoptera *incertae sedis* (non-blattarian cockroaches)				
Blattulidae?	*Huablattula hui* Qiu *et al.*, 2019	Qiu et al. (2019ba: 3E,F)	Qiu et al. (2019ba: 1F,G)	Fossil in Burmese amber; hindwing incomplete
Blattulidae?	*Ocelloblattula ponomarenkoi* Anisyutkin & Gorochov, 2008	Anisyutkin & Gorochov (2008: 1c)	Anisyutkin & Gorochov (2008: 1d)	Fossil in Lebanese amber; hindwing incomplete
ISOPTERA (termites)				
Hodotermitidae	*Anacanthotermes viarum* (König, 1779)	Krishna et al. (2013: 24E)	Krishna et al. (2013: 24F)	
Hodotermitidae	*Hodotermes mossambicus* (Hagen, 1853)	Krishna et al. (2013: 34C)	Krishna et al. (2013: 34E)	
Mastotermitidae	*Mastotermes darwiniensis* Froggatt, 1897	Krishna et al. (2013: 24A)	Krishna et al. (2013: 24B)	
MANTODEA (mantises)				
Chaeteessidae	*Chaeteessa* sp.	Brannoch et al. (2017: 4D)	Brannoch et al. (2017: 4E)	
Mantidae	*Mantis religiosa* (L., 1758)	Brannoch et al. (2017: 5D)	Brannoch et al. (2017: 5E)	
Mantoididae	*Mantoida maya* de Saussure & Zehntner, 1894	Brannoch et al. (2017: 5A)	Brannoch et al. (2017: 5B)	
Metallyticidae	*Metallyticus splendidus* Westwood, 1835	Brannoch et al. (2017: 4A)	Brannoch et al. (2017: 4B)	

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Table S2. Additional fossils for parsimony analyses

Order	Family	Species (type of family in pink)	Reference for forewing (: fig)
Dictyoptera	Blattellidae *s. s.*	*Piniblattella yixianensis* Gao *et al.* , 2018	Gao et al. (2018: 2G)
Dictyoptera	*i.s.*	*Elisama extenuata* (Ren, 1995)	Wang et al. (2007: 1)
Dictyoptera	*i.s.*	*Artitocoblatta asiatica* Vishnyakova, 1968	Vishnyakova (1968: 10)
Dictyoptera	Raphidiomimidae	*Divocina noci* Liang *et al.* , 2012	Liang et al. (2012: 1a)
Dictyoptera	Raphidiomimidae	*Raphidiomima chimaera* Vishnyakova, 1973	Vishnyakova (1973: 1)
Eoblattodea*	*i.s.*	*Karatovoblatta longicaudata* Vishnyakova, 1968	Vishnyakova (1968: 1a)
Holopandictyoptera *i.s.*	Archimylacridae	*Archimylacris belgica* Handlirsch, 1904	Handlirsch (1904: 18)
Holopandictyoptera *i.s.*	Blattulidae	*Blattula langfeldti* (Geinitz, 1880)**	Vrsansky & Ansorge (2007: 12G** etc.)
Holopandictyoptera *i.s.*	Compsoblattidae	*Compsoblatta mangoldti* Schlechtendal, 1906	Handlirsch (1906: pl. 36, fig. 14); Schlechtendal (1912: pl. 4, fig. 23); Schneider (1978: pl. 76, fig. 1)
Holopandictyoptera *i.s.*	Fuziidae	*Fuzia dadao* Vršanský *et al.* , 2009	Vršanský et al. (2009: 2b1)
Holopandictyoptera *i.s.*	Fuziidae	*Parvifuzia peregrina* Wei *et al.* , 2012	Wei et al. (2012: 1)
Holopandictyoptera *i.s.*	Liberiblattinidae	*Liberiblattina ihringovae* Vršanský, 2002	Vršanský (2002: 8)
Holopandictyoptera *i.s.*	Mesoblattinidae	*Mesoblattina protypa* (Geinitz, 1880)	Vrsansky & Ansorge (2007: 1F)
Holopandictyoptera *i.s.*	Mylacridae	*Mylacris anthracophila* Scudder, 1868	Scudder (1879: pl. 5, fig. 6)
Holopandictyoptera *i.s.*	Necymylacridae	*Necymylacris heros* Scudder, 1879	Scudder (1879: pl. 5, fig. 9)
Holopandictyoptera *i.s.*	Phyloblattidae	*Phyloblatta disiuncta* Schneider, 1984	Schneider (1984: pl.2, fig. 10)
Holopandictyoptera *i.s.*	Phyloblattidae?	*Qilianiblatta namurensis* Zhang *et al.* , 2012	Zhang et al. (2012: 3B)
Holopandictyoptera *i.s.*	Spiloblattinidae	*Spiloblattina sperbersbachensis* Schneider & Werneburg, 1993	Schneider & Werneburg (1993: 8)
Holopandictyoptera *i.s.*	Subioblattidae	*Subioblatta tongchuanensis* Lin, 1978	Lin (1978: 2); original observation
Protoptera	Blattinopsidae	*Blattinopsis ornata* Bolton, 1925	Prokop et al. (2013: 1B, 5D)
Protoptera	Ideliidae	*Archidelia ovata* Sharov, 1961	Prokop et al. (2013: 4C, 5E)

* Eoblattodea has not been formally recognized as an order, but usually used in parallel with Dictyoptera.

** Fig. 12G is the holotype of *Blattula dobbertinensis* (Geinitz, 1884), which is the type species of *Blattula* . Vrsansky & Ansorge (2007) synonymized *dobbertinensis* with *langfeldti* .

i.s. = *incertae sedis*

Table S2 References

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Table S3. Forewing characters for parsimony analyses

Only applicable to fully-developed, not heavily sclerotized (i.e. venation visible) wings, with relatively complete vein coverage. *: ordered.

No.	Weight	Character with score in parenthesis
1*	2	Length-width ratio: ca. 2 [0], ca. 2.5 [1], ca. 3 [2], ca. 3.5 [3]…
2*	4	Ratio of the width at the distal end of clavus to the full width: greater than 0.9 [0]; 0.9–0.7 [1]; 0.7–0.5 [2]; less than 0.5 [3].
3*	1	Number of main veins that reach or almost reach the wing margin in the preclavus of the forewing: 15–19 [0]; 20–24 [1]; 25–29 [2]; 30–34 [3]; 35–39 [4]; 40–44 [5]; 45–49 [6]; 50–54 [7]; 55–59 [8]. Note that species with vein number less than 15 or more than 59 are excluded from analyses.
4	4	Sclerotization of veins, especially proximal portion: almost uniformly sclerotized [0]; ScP and R stronger than M and CuA [1]; ScP, R, and M stronger than CuA [2].
5*	2	Humeral area, ends on costal margin: within first quarter [0]; second quarter [1]; third quarter [2]; or distal quarter [3] with respect to the wing length.
6*	4	ScP branching pattern: comparatively dichotomous [0]; essentially pectinate (regardless of the branches posterior to the pseudostem) [1]; simple or with few branches or twigs [2].
7*	2	ScP branches, posterior to the pseudostem: none [0]; few branches apically [1]; some branches medially and sometimes also apically [2].
8*	4	R veins, branching pattern: mostly dichotomous [0]; at least partially pectinate or pinnate (if there are too few branches to allow determination, the presence of proximal branches is an indication) [1]; simple proximally, branched apically [2]; simple or with small terminal fork [3]. This character denotes the sequence of the narrowing of R area.
9	4	R stem: gradually away from ScP [0]; the stem and the first anterior branch form a straight vein parallel to the ScP pseudostem, more or less strong, the following branch may be weakly connected to it [1].
10	4	R veins, if pseudostem well-developed, branching pattern of distal terminal branches: dichotomous or irregular [0]; forward pectinate branches from pseudostem, and sometimes one or two from posterior to the pseudostem (they are of the characteristic posterior branch) [1]; some branches from anterior to the pseudostem, and some forward or longitudinal branches from posterior to the pseudostem (hence the branches may be strongly curved) [2]; some backward branches, essentially pectinate [3]; essentially pennate [4].
11	4	R characteristic posterior branch, which runs parallel to the pseudostem, simple or almost simple: absent [0] or present [1].
12	4	R veins, orientation of pectinate or parallel branches that reach the costal margin (if any): oblique [0] or longitudinal [1].
13*	2	R area plus humeral area, width ratio to wing across middle portion: nearly half or more [0]; nearly one-third [1]; nearly one-fourth [2]; nearly one-fifth or less [3].
14*	2	Boundary between R area and mediocubital area, at wing apex, orientation: forwards [0]; longitudinal [1]; backwards [2].
15*	4	Mediocubital area, branching in the apical half of vein course: rich [0], some [1], or few or none [2]. i.e. Mediocubital veins, orientation: radial [0]; parallel [2]; intermediate [1].
16	4	Mediocubital veins, stems of M and CuA: visible and independent, readily distinguishable [0]; indiscernible (blurred, stalked with each other or with R) [1]; i.e., enough space proximally between R and clavus for the stems of M and CuA: yes [0] or no [1].
17	4	M stem, visible portion adjoins: R [0], CuA [2], or neither [1].

18*	4	Mediocubital veins, dominant component: M [0]; CuA [2]; no great disparity between M and CuA [1].
19*	4	M veins, if simple or essentially parallel, orientation: oblique forwards [0]; logitudinal [1]; oblique backwards [2].
20	4	M veins, if essentially parallel, branching pattern of the proximal portion: dichotomous or irregular [0]; pectinate backwards and then distad (pseudostem anterior to the branches) [1]; pectinate distad (pseudostem proximal to the branches) [2].
21	4	Arculus: absent [0], present [1].
22*	4	CuA veins, if essentially parallel, orientation: backwards [0]; longitudinal [1]; forwards [2].
23	4	CuA veins, if essentially parallel, branching pattern of the proximal portion: dichotomous or irregular [0]; pectinate backwards (finally may be distad; pseudostem anterior to the branches) [1]; pectinate distad (pseudostem proximal to the branches) [2].
24	2	CuA, if multi-branched and the branches are strongly backwards, shape of the anterior outline (which may be a pseudostem): almost straight or arcuate backwards [0]; sigmoid [1]; slightly undulate [2]; strongly undulate (may result in a fusiform space between M and CuA) [3].
25	4	Clavus, width ratio to the wing, at the distal end of clavus: less than two-thirds [0]; greater than two-thirds [1].
26*	4	Clavus, roughly accounts for the wing length: significantly less than one-fifth [0], one-fourth to one-fifth [1], one-third to half [2], greater than half [3].
27*	2	Claval furrow or CuP, position of the most curved point: proximal half [0]; middle or inconspicuous (due to arcuate curvature) [1]; distal half [2].
28*	1	Claval furrow or CuP, change of terminal curvature: in reverse, asymptotic to the hind margin of wing [0]; almost unchanged (arcuate or straight) [1]; sharper, forming a terminal turn [2].
29*	2	Clavus, if accounts for more than one-fourth and less than half of the wing length, length-width ratio (directions are in relation to its own instead of to the wing): ca. 1 [0], ca. 1.5 [1], ca. 2 [2], ca. 2.5 [3]…
30*	2	Clavus, distal angle (regardless of terminal curvature of claval furrow): smaller than 30 degrees [0]; 30–60 degrees [1]; or greater than 60 degrees [2].
31*	4	Claval veins, general orientation: parallel to claval furrow, toward wing margin [0]; diagonal, toward wing margin and claval furrow [1]; longitudinal, toward claval furrow [2].
32	2	Claval veins, distinction between Pcu and V veins: readily (Pcu is clearly separated from the V cluster) [0], or indistinguishable [1].
33*	4	Jugal lobe: absent or tiny and inconspicuous [0]; conspicuous but comparatively small, shorter than half the clavus length [1]; large, as long as half length of the clavus or even longer [2].
34	8	Basal suture: absent [0], present [1].
35	4	Diagonal channel: absent [0] or present [1].
36	4	Stigma, oblique forwards on the proximal or middle portion of mediocubital area: absent [0], present [1]. Stigma is regarded as a venational character in addition to color pattern, because it can affect the veins.

Table S4. Dataset for parsimony analyses

Species \ Character no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Paranauphoeta sinica	3	0	3	1	1	2	0	1	0	3	0	0	3	2	2	1	1	2	2	1	0	0	1	-	0	2	0	1	5	1	2	1	0	0	0	0
Blaberus giganteus	2	0	8	1	1	1	2	1	0	0	0	0	1	2	2	1	1	0	2	0	0	-	-	-	0	2	1	1	3	2	1	1	0	0	0	0
Blaptica dubia	2	0	6	1	1	2	2	1	0	0	0	0	2	1	2	1	1	2	-	-	0	0	0	-	0	2	1	1	3	1	1	1	0	0	0	0
Eublaberus posticus	1	0	5	1	1	2	2	1	0	0	0	0	2	2	2	1	1	0	2	0	0	-	-	-	0	2	1	1	2	2	1	1	0	0	0	0
Phoetalia pallida	2	0	2	1	1	2	2	1	0	0	0	0	2	1	2	1	1	2	2	0	0	0	0	-	0	2	1	1	4	1	1	1	0	0	0	0
Apsidopis cyclops	2	0	4	1	1	1	0	1	0	0	0	0	1	1	2	1	0	2	2	1	0	0	0	-	0	2	1	1	3	1	1	1	0	0	0	0
Epilampra abdomennigrum	2	0	3	1	1	2	2	1	0	0	0	0	1	1	2	1	0	2	1	-	0	1	2	-	0	2	1	1	4	2	1	1	0	0	0	0
Litopeltis biolleyi	2	1	3	1	1	2	0	1	0	0	0	0	1	2	2	1	?	1	2	1	0	0	2	-	0	2	1	1	3	2	1	1	0	0	0	0
Molytria sp.	3	0	4	1	1	2	2	1	0	0	0	0	1	2	2	1	0	2	2	1	0	0	2	-	0	2	1	1	4	1	1	1	0	0	0	0
Morphna plana	2	0	4	1	1	2	2	1	0	1	0	0	1	1	2	1	0	1	-	-	0	0	2	-	0	2	1	2	3	2	1	1	0	0	0	0
Pseudophoraspis incurvata	2	0	3	1	1	1	1	1	0	0	0	0	1	2	2	1	0	2	2	0	0	0	2	-	0	2	1	1	3	2	1	1	0	0	0	0
Rhabdoblatta xiai	3	0	4	1	1	1	2	1	0	0	0	0	1	2	2	1	0	2	2	0	0	0	2	-	0	2	1	1	4	1	1	1	0	0	0	0
Henschoutedenia sp.	2	0	6	1	1	1	0	1	0	0	0	0	1	1	2	1	0	2	1	0	0	0	0	-	0	2	1	1	3	2	1	1	0	0	0	0
Nauphoeta cinerea	2	0	4	1	1	2	0	1	0	0	0	0	2	1	2	1	1	2	-	-	0	0	0	-	0	2	1	1	2	2	1	1	0	0	0	0
Oxyhaloa buprestoides	3	0	5	1	1	2	0	1	0	0	0	0	3	2	2	1	1	2	2	0	0	0	0	-	0	2	1	2	3	2	1	1	0	0	0	0
Rhyparobia maderae	2	0	6	1	1	2	2	1	0	0	0	0	1	2	2	1	0	2	2	0	0	0	0	-	0	2	1	1	4	2	1	1	0	0	0	0
Panchlora sp.	2	0	2	1	1	2	0	1	0	2	0	0	2	1	2	1	0	2	1	-	0	1	2	-	0	2	1	1	3	2	1	1	0	0	0	0
Salganea sp.	2	0	3	1	0	2	0	1	0	2	0	0	2	2	2	1	0	2	2	0	0	0	0	-	0	2	1	1	7	1	0	1	0	0	0	0
Achatiblatta achates	2	0	2	1	1	2	0	1	0	0	0	0	2	1	2	1	?	2	2	-	0	0	2	-	0	2	2	1	2	2	?	1	0	0	0	0
Frumentiforma frumentiformis	3	0	3	1	1	2	0	1	0	1	0	0	3	1	2	1	1	2	2	-	0	0	0	-	0	2	2	1	2	2	1	1	0	0	0	0
Perisphaerus sp.	2	0	3	1	1	2	0	1	0	1	0	0	2	1	2	1	0	2	1	-	0	0	0	-	0	2	2	1	2	2	1	1	0	0	0	0
Pseudoglomeris aerea	3	0	3	1	1	2	0	1	0	0	0	0	3	2	2	1	0	2	2	-	0	0	1	-	0	2	2	1	2	2	1	1	0	0	0	0
Pycnoscelus indicus	2	0	3	1	1	2	2	1	0	0	0	0	2	1	2	1	1	2	1	-	0	0	2	-	0	2	1	1	3	1	1	1	0	0	0	0
Phortioeca phoraspoides	2	0	8	1	1	2	0	1	0	2	0	0	1	2	2	1	1	2	2	0	0	0	0	-	0	2	1	1	3	2	1	1	0	0	0	0
Catara rugosicollis	3	0	7	1	1	2	0	1	0	2	0	0	2	1	0	1	0	1	-	-	0	-	-	-	0	2	2	1	4	2	1	1	0	0	0	0
Protagonista lugubris	3	0	5	1	1	2	0	1	0	2	0	0	1	1	1	1	0	2	1	0	0	2	?	-	0	2	2	1	2	2	?	?	0	0	0	0
Deropeltis erythrocephala	3	0	4	1	1	2	0	1	0	0	0	0	2	2	1	1	1	2	-	-	0	0	0	-	0	2	1	1	3	1	1	1	0	0	0	0
Hebardina concinna	3	0	2	1	1	2	0	1	0	1	0	0	2	1	2	1	0	2	-	-	0	0	1	-	0	2	0	1	3	1	2	1	0	0	0	0
Homalosilpha kryzhanovskii	3	0	6	1	1	2	0	1	0	1	0	0	1	0	0	1	1	2	-	-	0	-	-	-	0	2	2	1	4	2	1	1	0	0	0	0
Periplaneta australasiae	2	0	7	1	1	2	0	1	0	0	0	0	1	1	1	1	2	2	-	-	0	-	-	-	0	2	1	1	3	1	1	1	0	0	0	0
Pseudoderopeltis brevicollis	3	1	5	1	1	2	0	1	0	1	0	0	2	1	1	1	1	2	-	-	0	0	0	-	0	2	1	1	4	1	2	1	0	0	0	0
Shelfordella lateralis	3	0	5	1	1	2	0	1	0	0	0	0	1	2	1	1	2	2	2	0	0	0	0	-	0	2	1	1	4	1	1	1	0	0	0	0
Ctenoneura heixuanfeng	2	0	2	1	1	2	1	1	0	0	0	0	1	1	2	1	0	0	2	1	0	-	-	-	0	2	1	1	3	1	0	1	0	0	0	0
Arenivaga bolliana	1	1	5	1	2	1	0	1	0	3	0	0	3	2	2	1	2	2	2	0	0	0	0	-	0	2	1	0	3	1	1	1	0	0	0	0
Ctenoblatta impubis	1	1	7	1	1	2	1	1	0	0	0	0	1	2	1	1	0	2	2	0	0	0	0	-	0	2	1	1	2	1	1	?	0	0	0	0
Ergaula nepalensis	1	0	8	1	1	2	1	0	0	0	0	0	1	2	0	1	1	1	2	0	0	0	0	-	0	2	1	1	2	1	1	1	0	0	0	0
Eucorydia dasytoides	1	0	6	1	1	2	1	1	0	3	0	0	0	2	1	1	1	2	2	0	0	1	0	-	0	2	1	1	1	1	1	1	0	0	0	0
Eupolyphaga sinensis	1	1	8	1	1	2	1	0	0	0	0	0	1	2	1	1	1	2	2	0	0	0	0	-	0	2	1	1	2	1	1	0	0	0	0	0
Hemelytroblatta roseni	1	1	5	1	1	2	0	1	0	3	0	0	3	2	2	1	1	2	2	0	0	0	0	-	0	1	1	0	2	2	1	?	0	0	0	0
Homoeogamia mexicana	2	1	6	1	1	1	1	0	0	0	0	0	2	2	1	1	2	2	2	0	0	0	0	-	0	2	1	1	3	1	1	1	0	0	0	0
Polyphaga plancyi	1	1	5	1	1	2	2	0	0	3	0	-	2	2	1	1	1	2	2	0	0	0	0	-	0	2	1	0	2	1	1	1	0	0	0	0
Tivia termes	1	1	3	1	1	2	0	1	0	0	0	0	1	2	2	1	1	2	2	-	0	0	2	-	0	2	1	1	3	1	?	?	0	0	0	0
Polyphagoides cantrelli	1	1	5	1	1	2	1	1	0	1	0	0	0	0	2	1	0	2	0	0	0	1	1	-	0	2	1	1	2	1	1	1	0	0	0	0
Austropolyphaga perkinsi	2	0	0	1	1	2	0	1	1	1	0	0	2	1	2	1	1	1	-	-	0	-	-	-	0	2	1	1	3	1	0	1	0	0	1	0
Compsodes delicatulus	2	0	0	1	1	2	0	1	1	1	0	0	2	1	2	1	2	1	2	-	0	0	-	-	0	2	1	0	3	1	0	1	0	0	1	0
Latindia dohrniana	2	1	2	1	1	2	0	1	1	1	0	0	2	1	2	1	2	2	1	-	0	0	1	0	0	1	1	1	2	1	?	?	0	0	0	0
Blattella radicifera	3	0	4	1	1	2	0	1	0	0	0	0	0	1	2	1	0	0	1	0	0	1	0	-	0	2	0	2	4	2	2	1	0	0	0	0
Chromatonotus lamprus	3	0	2	1	1	2	0	1	0	1	0	0	1	1	2	1	0	1	1	1	0	1	0	-	0	2	1	1	3	2	1	1	0	0	0	0

Table S4. (continued)

Species \ Character no.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Haplosymploce aurantiaca	3	0	4	1	1	2	1	1	0	1	0	0	1	1	2	1	0	2	1	-	0	0	0	-	0	2	2	2	3	2	1	1	0	0	0	0
Hemithyrsocera marginalis	4	0	4	1	1	2	0	1	0	1	1	0	0	1	2	1	0	2	1	1	0	1	1	-	0	2	1	2	4	2	2	1	0	0	0	0
Ischnoptera rufa rufa	3	0	4	1	1	2	0	1	0	1	0	0	1	1	2	1	0	1	1	0	0	0	1	-	0	2	1	1	3	2	1	1	0	0	0	0
Jacobsonina erebis	2	0	2	1	1	2	0	1	0	1	1	0	0	1	2	1	0	1	1	1	0	0	1	-	0	2	1	2	2	1	1	1	0	0	0	0
Parcoblatta pensylvanica	3	0	5	1	1	2	0	1	0	0	0	0	1	1	2	1	0	2	2	1	0	0	0	-	0	2	2	2	4	2	2	1	0	0	0	0
Piniblattella yixianensis	2	0	4	?	1	2	2	1	0	0	0	0	1	1	2	1	?	0	-	-	0	0	0	-	0	2	1	2	3	2	1	1	0	0	0	0
Pseudomops interceptus	3	0	2	1	1	2	0	1	0	1	0	0	0	1	2	1	0	2	1	-	0	1	2	-	0	2	1	2	2	2	2	1	0	0	0	0
Sigmella sp.	3	0	3	1	1	2	0	1	0	1	0	0	0	1	2	1	0	2	1	1	0	1	2	-	0	2	1	2	4	2	1	1	0	0	0	0
Symploce hebardi	2	0	3	1	1	2	0	1	0	1	1	0	0	1	2	1	0	1	1	1	0	1	2	-	0	2	1	2	3	2	2	1	0	0	0	0
Allacta transversa	2	0	2	1	1	2	0	1	0	0	0	0	0	1	2	1	2	0	2	1	0	0	2	-	0	2	1	1	4	1	1	1	0	0	0	0
Balta curvirostris	3	0	3	1	1	2	0	1	0	0	0	0	0	2	2	1	2	0	2	1	0	-	-	-	0	2	1	1	3	1	0	1	0	0	0	0
Chorisoneura flavipennis	2	0	3	1	1	2	0	1	0	0	0	0	0	2	0	1	0	1	-	-	0	-	-	-	0	2	0	1	3	1	1	1	0	0	0	0
Chorisoserrata biceps	4	0	2	1	1	2	0	1	0	1	0	0	0	1	2	1	0	1	1	0	0	1	2	-	0	2	0	1	3	1	1	1	0	0	0	0
Euphyllodromia erytromelas	3	0	1	1	1	2	0	1	0	0	0	0	0	1	2	1	0	0	1	2	0	-	-	-	0	2	1	2	3	2	1	1	0	0	0	0
Latiblattella rehni	2	0	3	1	1	2	0	1	0	0	0	0	0	1	1	1	0	0	-	-	0	-	-	-	0	2	1	1	2	2	1	1	0	0	0	0
Margattea nimbata	2	0	1	1	1	2	0	1	0	0	0	0	0	1	2	1	0	0	1	1	0	-	-	-	0	2	1	1	3	1	1	1	0	0	0	0
Prosoplecta (Areolaria) sp.	2	0	0	1	2	2	0	1	0	0	0	1	0	1	2	1	2	2	1	0	0	1	2	-	0	2	0	0	2	1	?	1	0	0	0	0
Shelfordina volubilis	3	0	3	1	1	2	0	1	0	1	0	0	0	1	1	1	?	0	-	-	0	-	-	-	0	2	0	1	4	1	0	1	0	0	0	0
Anacanthotermes viarum	5	3	3	1	0	2	0	1	-	4	0	0	3	2	1	0	1	1	-	-	0	0	1	-	0	0	-	-	-	-	-	0	1	0	0
Hodotermes mossambicus	5	3	2	1	1	2	0	1	-	4	0	0	3	2	1	0	0	1	-	-	0	0	1	-	0	0	-	-	-	-	-	0	1	0	0
Mastotermes darwiniensis	3	3	4	2	0	2	0	1	-	-	0	1	3	1	1	0	2	1	-	-	0	-	-	-	0	0	1	-	-	-	-	0	1	0	0
Chaeteessa sp.	3	0	0	1	3	2	0	2	0	-	0	-	2	1	2	0	1	2	-	-	0	0	1	-	0	2	1	1	6	1	0	0	1	0	0	1
Metallyticus splendidus	2	0	2	1	3	2	0	2	0	-	0	-	3	1	2	0	1	2	-	-	0	0	0	-	1	2	1	1	5	0	0	0	1	0	0	1
Blattinopsis ornata	1	0	7	0	2	1	0	0	0	-	0	-	0	2	0	0	1	1	2	0	1	0	0	-	0	2	1	1	3	1	0	0	0	0	0	0
Archidelia ovata	1	0	7	0	3	1	0	0	0	-	0	-	1	2	0	0	1	1	2	0	1	0	0	-	0	2	1	1	6	1	0	0	0	0	0	0
Karatovoblatta longicaudata	1	0	8	0	1	1,2	0	1	0	0	0	0	0	0	0	0	1	1	-	-	0	-	-	-	0	2	1	1	3	1	0	0	0	0	0	0
Artitocoblatta asiatica	2	0	4	0	1	1,2	0	1	0	0	0	0	0	1	1	0	1	1	-	-	0	-	-	-	0	2	1	1	4	1	0	1	0	0	0	0
Archimylacris belgica	1	0	7	0	2	1	0	0	0	-	0	0	0	1	1	0	0	1	1	-	0	0	1	0	0	2	1	1	3	1	0	0	0	0	0	0
Blattula langfeldti	2	0	0	1	2	2	0	1	0	0	0	0	0	1	1	1	?	1	-	-	0	-	-	-	0	2	1	1	2	1	?	?	0	0	0	0
Elisama extenuata	3	0	1	?	2	2	0	1	0	0	0	0	0	1	1	1	0	1	1	0	0	-	-	-	1	2	1	1	2	1	1	1	0	0	0	0
Huablattula hui	3	0	0	0	1	2	0	1	0	0	0	0	0	1	-	1	0	1	1	-	0	1	-	-	0	2	1	1	3	1	1	1	0	0	0	0
Ocelloblattula ponomarenkoi	3	0	1	0	1	2	0	1	?	1	0	0	0	1	-	1	0	1	1	-	0	-	-	-	1	2	1	1	3	2	0	1	0	0	0	0
Compsoblatta mangoldti	3	0	6	?	2	1	0	1	0	0	0	0	0	1	2	0	2	1	1	0	0	0	1	2	0	2	1	1	3	1	0	?	0	0	0	0
Fuzia dadao	2	0	3	?	2	2	0	1	0	0	0	0	0	1	0	1	0	1	-	-	0	-	-	-	0	2	1	1	3	2	0	1	0	0	0	0
Parvifuzia peregrina	2	0	2	?	1	2	0	1	0	0	0	0	0	0	0	1	0	1	-	-	0	-	-	-	0	2	1	1	2	1	0	1	0	0	0	0
Liberiblattina ihringovae	2	0	3	?	1	1	0	1	0	0	0	0	1	0	0	?	?	?	-	-	0	-	-	-	1	2	1	1	2	2	0	1	0	0	0	0
Mesoblattina protypa	2	0	4	1	0	2	0	1	0	0	0	0	1	1	1	1	0	1	-	-	0	0	2	-	0	2	1	1	3	1	1	1	0	0	0	0
Mylacris anthracophila	0	0	4	0	2	0	0	0	0	-	0	0	0	1	0	0	?	1	-	-	0	-	-	0	0	3	1	1	-	1	0	?	0	0	0	0
Necymylacris heros	2	0	7	0	2	0	0	0	0	-	0	0	0	1	1	0	?	1	-	-	0	0	1	0	0	2	1	1	3	1	1	?	0	0	0	0
Phyloblatta disiuncta	1	0	5	0	1	1	0	0	0	-	0	0	0	0	0	0	0	1	-	-	0	-	-	2	0	2	1	1	3	1	0	0	0	0	0	0
Qilianiblatta namurensis	1	0	6	0	2	1	0	0	0	-	0	0	0	1	0	0	0	1	-	-	1	0	1	0	0	2	1	1	3	2	0	0	0	0	0	0
Divocina noci	4	0	4	?	1	1	0	1	0	0	0	0	0	0	0	1	0	1	-	-	0	-	-	-	0	2	1	1	6	1	0	0	0	0	0	0
Raphidiomima chimaera	4	0	5	?	1	2	0	1	0	0	0	0	0	1	0	0	0	1	-	-	0	-	-	-	0	2	1	1	4	1	0	0	0	0	0	0
Spiloblattina sperbersbachensis	2	0	5	0	2	1	0	1	0	1	0	0	1	0	1	0	0	1	-	-	0	-	-	3	0	2	1	1	3	1	0	1	0	0	0	0
Subioblatta tongchuanensis	?	0	?	1	1,2	2	0	1	0	1	0	0	0	0	?	1	0	1	-	-	0	0	1	-	0	2	1	1	3	1	0	0	0	0	0	0

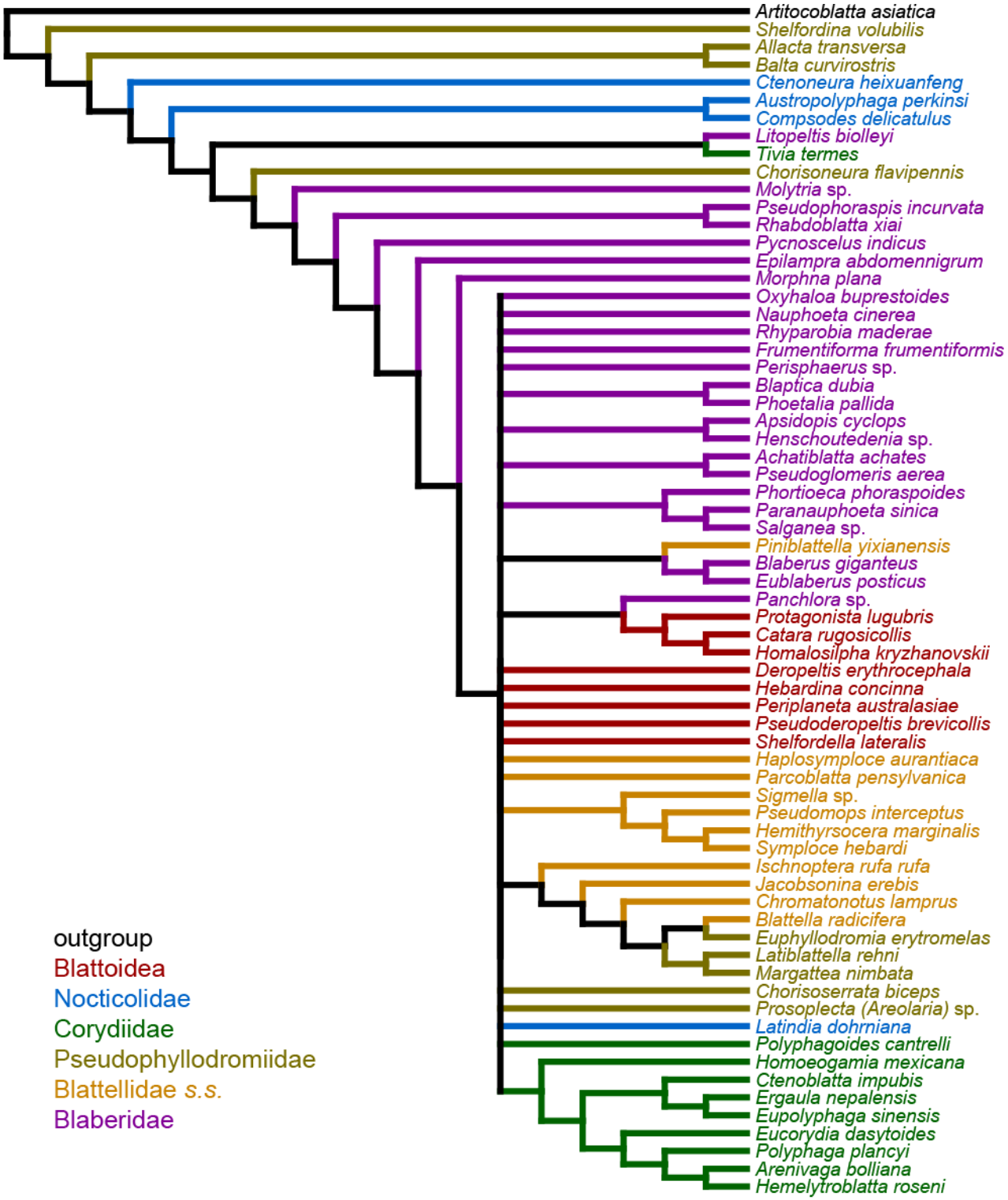


Fig. S1. Phylogeny of Blattaria based on forewing characters. Strict consensus of two most parsimonious trees, 777 steps.

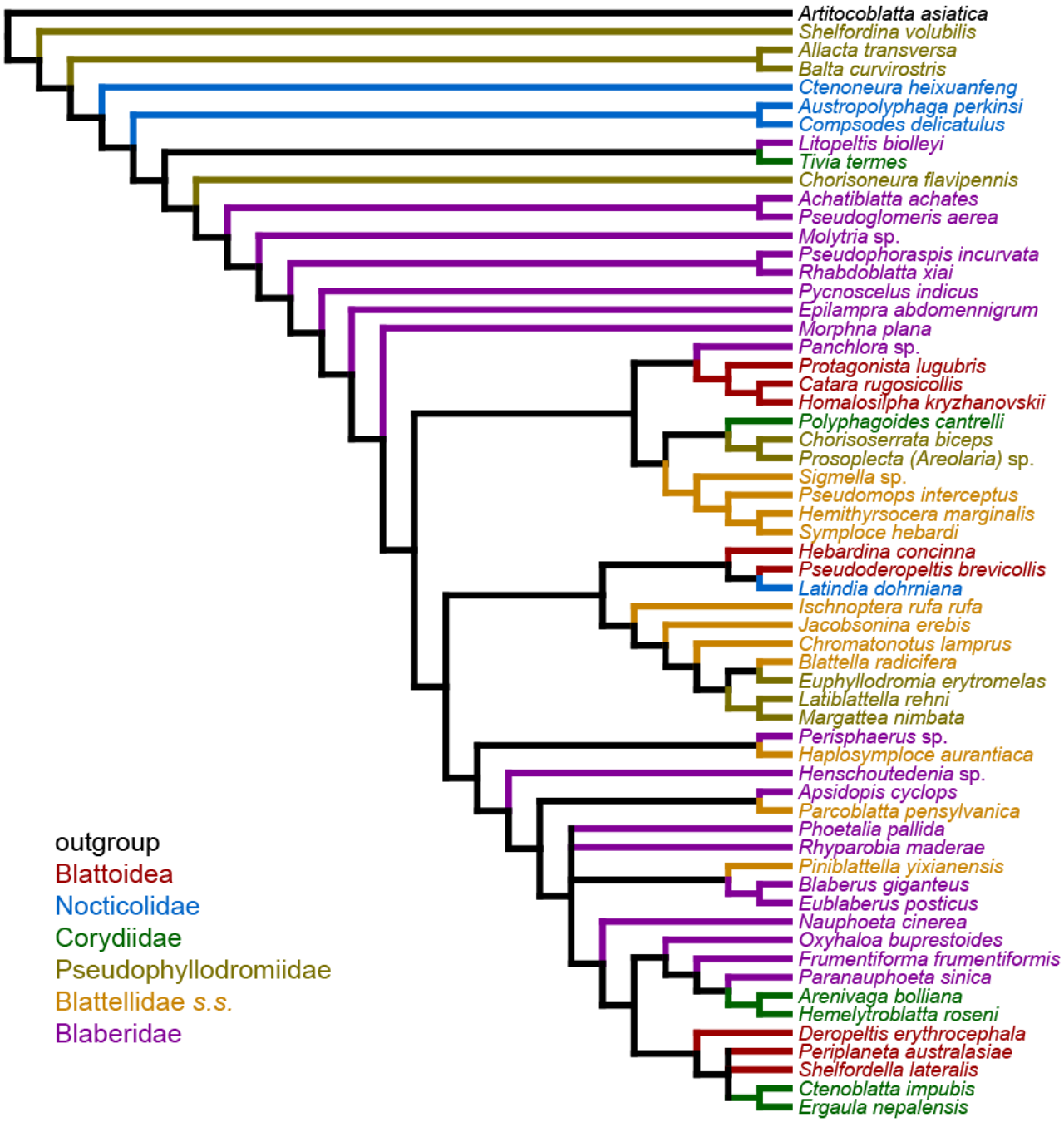


Fig. S2. Phylogeny of selected Blattaria based on forewing characters. Seven species with somewhat irregular forewings (*Blaptica dubia*, *Salganea* sp., *Phortioeca phoraspoides*, *Eucorydia dasytoides*, *Eupolyphaga sinensis*, *Homoeogamia mexicana*, *Polyphaga plancyi*) were removed prior to analysis. Strict consensus of four most parsimonious trees, 701 steps.

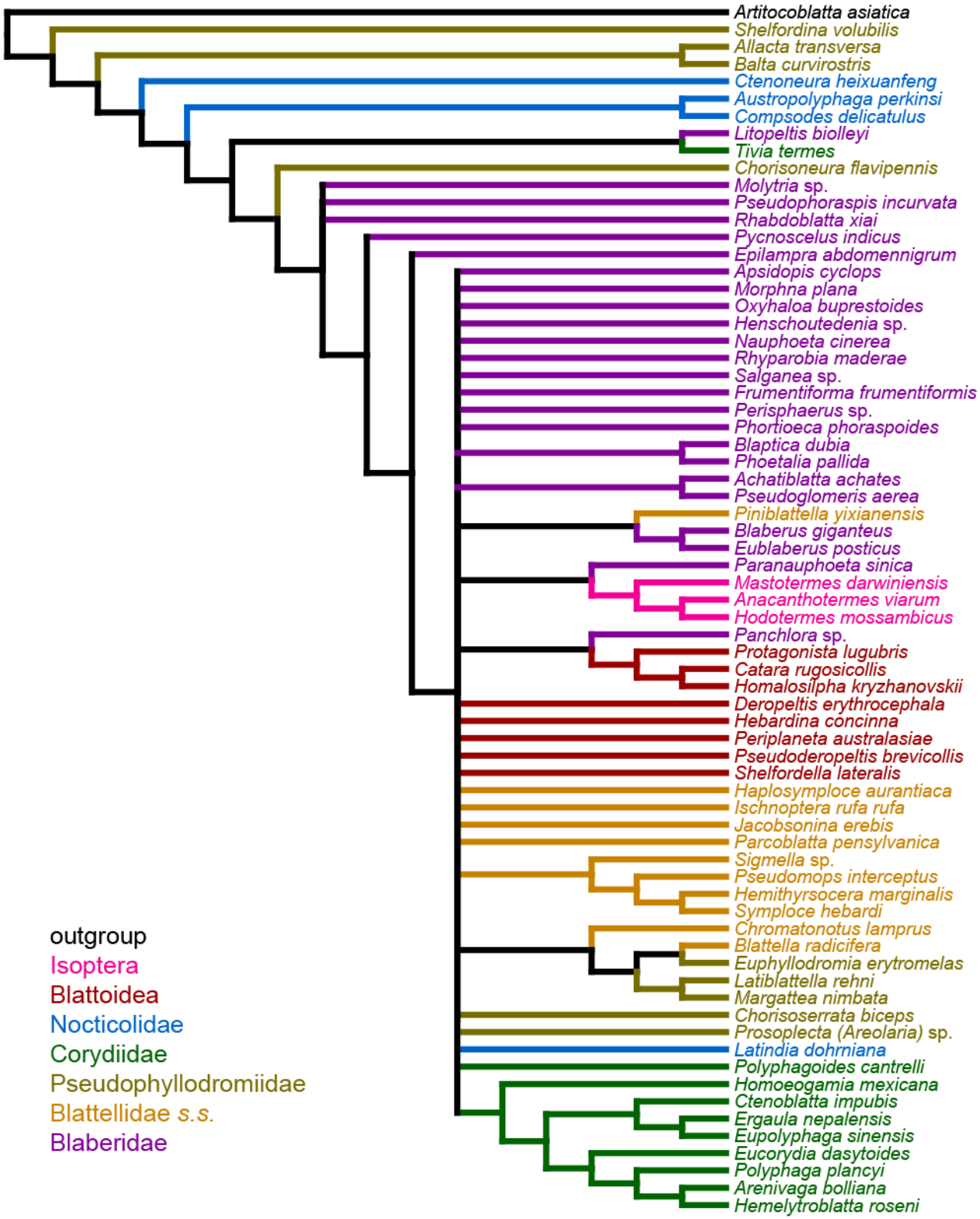


Fig. S3. Phylogeny of Blattodea based on forewing characters. Strict consensus of 12 most parsimonious trees, 849 steps. Excluding character 34 (basal suture) does not affect topology; 841 steps.

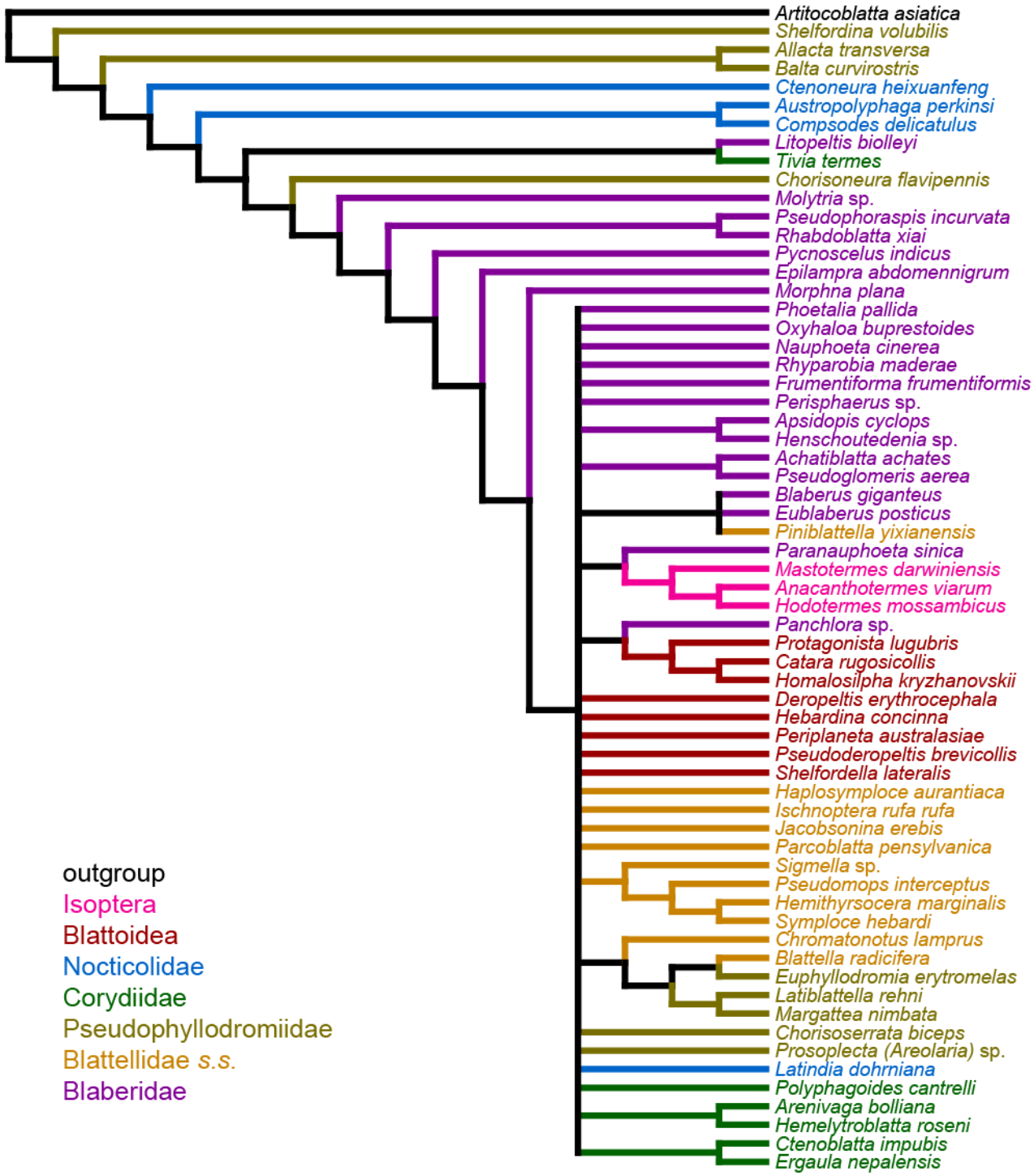


Fig. S4. Phylogeny of selected Blattodea based on forewing characters. Seven species with somewhat irregular forewings (*Blaptica dubia*, *Salganea* sp., *Phortioeca phoraspoides*, *Eucorydia dasytoides*, *Eupolyphaga sinensis*, *Homoeogamia mexicana*, *Polyphaga plancyi*) were removed prior to analysis. Strict consensus of 14 most parsimonious trees, 772 steps. Excluding character 34 (basal suture) does not affect topology; 764 steps.

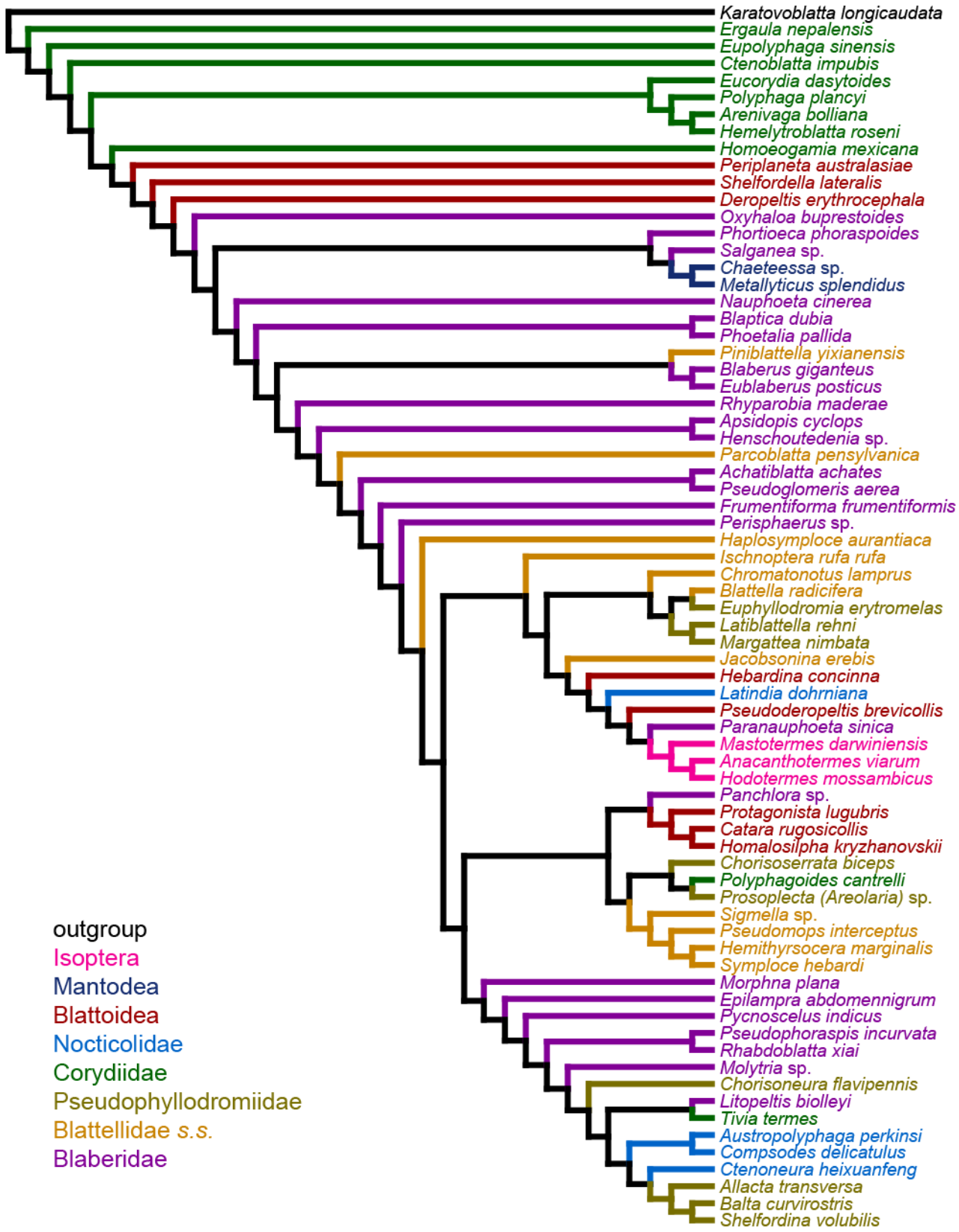


Fig. S5. Phylogeny of Dictyoptera based on forewing characters. Only Blattodea and Mantodea included; basal lineages not. The single most parsimonious tree, 903 steps.