

Table S7

Ka/Ks ratio of protein-coding genes in 45 mitochondrial genomes of Fulgoroidea.

Species	PCGs			Major-strand PCG			Minor-strand PCGs		
	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks
Fulgoroidea									
Flatidae									
Flatinae									
<i>Metcalfa pruinosa</i> (H1)	0.4780	5.1564	0.0927	0.4405	5.7321	0.0769	0.5888	5.5307	0.1065
<i>Metcalfa pruinosa</i> (H3)	0.4787	5.1545	0.0929	0.4415	5.7285	0.0771	0.5879	5.5317	0.1063
<i>Salurnis marginella</i>	0.4811	5.1757	0.0929	0.4456	5.6546	0.0788	0.5793	5.6699	0.1022
<i>Geisha distinctissima</i>	0.4882	4.7852	0.1020	0.4413	5.4352	0.0812	0.6251	4.9619	0.1260
Fulgoridae									
Fulgorinae									
<i>Pyrops candelaria</i>	0.5001	4.4889	0.1114	0.4691	4.9236	0.0953	0.5806	4.9932	0.1163
Aphaeninae									
<i>Lycorma delicatula</i> (Henan, China)	0.4865	5.0366	0.0966	0.4455	5.6297	0.0791	0.5998	5.5967	0.1072
<i>Lycorma delicatula</i> (China)	0.4772	5.1504	0.0927	0.4416	5.6915	0.0776	0.5755	5.8545	0.0983
<i>Lycorma delicatula</i> (Korea)	0.4782	5.1384	0.0931	0.4423	5.7005	0.0776	0.5690	6.5022	0.0875
<i>Aphaena</i> (<i>Callidepsa</i>) <i>amabilis</i>	0.4860	5.3906	0.0902	0.4543	6.0451	0.0751	0.5870	6.0873	0.0964
<i>Aphaena</i> (<i>Aphaena</i>) <i>discolor nigrotibiata</i>	0.4849	5.1275	0.0946	0.4573	5.8834	0.0777	0.5805	5.6180	0.1033
Achilidae									
Achilinae									
<i>Betatropis formosana</i>	0.4800	5.2248	0.0919	0.4490	5.9000	0.0761	0.5654	4.7197	0.1198
<i>Magadhaideus luodiana</i> sp. nov	0.4885	4.4312	0.1103	0.4433	4.7532	0.0933	0.5748	4.8082	0.1195
<i>Peltatavertexalis horizontalis</i> sp. nov	0.4856	4.9169	0.0988	0.4437	5.3385	0.0831	0.5942	5.0915	0.1167
<i>Plectoderini</i> sp.	0.4858	4.8000	0.1012	0.4462	5.1524	0.0866	0.5865	5.2409	0.1119
<i>Paracatonidia</i> sp.	0.4685	5.1277	0.0914	0.4319	5.7053	0.0757	0.5542	5.2030	0.1065
Cixiidae									
Cixiinae									
<i>Pentastiridius</i> sp.	0.4789	5.1556	0.0929	0.4518	5.5447	0.0815	0.5599	5.1704	0.1083
Derbidae									
Otiocerinae									
<i>Lydda</i> sp.	0.4865	5.3193	0.0915	0.4515	5.9683	0.0756	0.5870	5.3815	0.1091
Issidae									
Issinae									
<i>Sivaloka damnosus</i>	0.5252	4.6808	0.1122	0.4719	5.3747	0.0878	0.6544	4.1794	0.1566
<i>Sivaloka</i> sp.	0.4556	5.3276	0.0855	0.4259	5.5910	0.0762	0.5626	6.0192	0.0935
Ricaniidae									
Ricaniinae									
<i>Ricania marginalis</i>	0.4987	4.8020	0.1038	0.4564	5.5054	0.0829	0.6028	4.4061	0.1368
<i>Ricania speculum</i>	0.4674	5.0202	0.0931	0.4278	5.4042	0.0792	0.5660	5.2673	0.1075
Delphacidae									
Asiracinae									
<i>Ugyops</i> sp.	0.4732	5.3467	0.0885	0.4481	6.1408	0.0730	0.5728	6.1580	0.0930
Delphacinae									
Saccharosydmini									
<i>Saccharosydne procerus</i>	0.4882	5.9126	0.0826	0.4502	6.3138	0.0713	0.5863	5.7587	0.1018
Delphacini									
<i>Changeondelphax velitchkovskiy</i>	0.5032	4.6081	0.1092	0.4560	4.8531	0.0939	0.5654	4.7197	0.1198
<i>Nilaparvata bakeri</i> (unknown)	0.4855	5.2052	0.0933	0.4466	5.2539	0.0850	0.5730	5.2730	0.1087
<i>Nilaparvata lugens</i> (biotype Y, Zhejiang, China)	0.4939	4.9521	0.0997	0.4526	5.0665	0.0893	0.5790	4.9300	0.1174
<i>Nilaparvata lugens</i> (biotype L, Zhejiang, China)	0.4944	4.9684	0.0995	0.4528	5.0990	0.0888	0.5808	4.9239	0.1180
<i>Nilaparvata lugens</i> (Hainan, China)	0.4903	5.0290	0.0975	0.4467	5.1829	0.0862	0.5796	4.9481	0.1171
<i>Nilaparvata lugens</i> (Hadong-gun, Korea)	0.4901	5.0926	0.0962	0.4458	5.2458	0.0850	0.5805	5.0023	0.1161
<i>Nilaparvata lugens</i> (Guangdong, China)	0.4901	5.0697	0.0967	0.4464	5.2249	0.0854	0.5795	4.9611	0.1168
<i>Nilaparvata lugens</i> (biotype 1, Zhejiang, China)	0.4937	4.9612	0.0995	0.4524	5.0719	0.0892	0.5789	4.9408	0.1172
<i>Nilaparvata lugens</i> (biotype 2, Zhejiang, China)	0.4942	4.9490	0.0999	0.4527	5.0712	0.0893	0.5795	4.9213	0.1178
<i>Nilaparvata lugens</i> (biotype 3, Zhejiang, China)	0.4939	4.9437	0.0999	0.4525	5.0661	0.0893	0.5793	4.9196	0.1178
<i>Nilaparvata mui</i>	0.4892	4.8592	0.1007	0.4519	4.8506	0.0932	0.5664	5.0748	0.1116
<i>Nilaparvata</i> sp.	0.4953	5.0703	0.0977	0.4535	5.2758	0.0860	0.5887	5.1242	0.1149
<i>Peregrinus maidis</i>	0.4951	4.8830	0.1014	0.4531	5.1592	0.0878	0.5943	4.8054	0.1237
<i>Sogatella furcifera</i> (Hainan, China)	0.4981	4.9242	0.1012	0.4539	4.9761	0.0912	0.5820	5.1253	0.1136
<i>Sogatella furcifera</i> (Yunnan, China)	0.4982	4.9208	0.1012	0.4543	4.9664	0.0915	0.5806	5.1508	0.1127
<i>Sogatella vibix</i>	0.4936	5.1024	0.0967	0.4512	5.2516	0.0859	0.5904	5.2355	0.1128
<i>Laodelphax striatellus</i> (Jiangsu, China)	0.5023	5.0074	0.1003	0.4559	5.1709	0.0882	0.6017	5.1664	0.1165
<i>Laodelphax striatella</i> (Suwon, Korea)	0.5025	5.0221	0.1001	0.4568	5.1844	0.0881	0.5992	5.1809	0.1156
<i>Laodelphax striatella</i> (Milyang, Korea)	0.5025	5.0221	0.1001	0.4568	5.1844	0.0881	0.5992	5.1809	0.1156
<i>Laodelphax striatellus</i> A1 (China)	0.5040	5.0036	0.1007	0.4584	5.1657	0.0887	0.5998	5.1864	0.1157
<i>Laodelphax striatellus</i> B1 (China)	0.5040	4.9958	0.1009	0.4582	5.1596	0.0888	0.6005	5.1681	0.1162
<i>Laodelphax striatellus</i> (Beijing, China)	0.5082	4.9734	0.1022	0.4611	5.1952	0.0888	0.6165	4.9848	0.1237

Species	ATP8			ATP6			COI		
	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks
Fulgoroidea									
Flatidae									
Flatinae									
<i>Metcalfa pruinosa</i> (H1)	0.8789	1.7498	0.5023	0.5453	4.2239	0.1291	0.2301	5.1599	0.0446
<i>Metcalfa pruinosa</i> (H3)	0.8789	1.7498	0.5023	0.5544	4.1406	0.1339	0.2301	5.1519	0.0447
<i>Salurnis marginella</i>	0.7011	2.9817	0.2352	0.5487	3.8436	0.1427	0.2248	4.8735	0.0461
<i>Geisha distinctissima</i>	0.9353	1.3676	0.6839	0.5114	4.2204	0.1212	0.2150	4.7884	0.0449
Fulgoridae									
Fulgorinae									
<i>Pyrops candelaria</i>	0.8672	2.0296	0.4273	0.5217	3.7945	0.1375	0.2266	4.5304	0.0500
Aphaeninae									
<i>Lycorma delicatula</i> (Henan, China)	0.8015	2.7124	0.2955	0.5125	4.5942	0.1115	0.2175	5.1387	0.0423
<i>Lycorma delicatula</i> (China)	0.8068	2.6297	0.3068	0.5078	4.6108	0.1101	0.2144	5.1156	0.0419
<i>Lycorma delicatula</i> (Korea)	0.8015	2.7124	0.2955	0.5132	4.5807	0.1120	0.2144	5.1205	0.0419
<i>Aphaena</i> (<i>Callidepsa</i>) <i>amabilis</i>	0.8276	2.5799	0.3208	0.5227	4.0185	0.1301	0.2200	5.2626	0.0418
<i>Aphaena</i> (<i>Aphaena</i>) <i>discolor nigrotibiata</i>	0.8130	2.8495	0.2853	0.5441	3.9249	0.1386	0.2215	5.1727	0.0428
Achilidae									
Achilinae									
<i>Betatropis formosana</i>	0.8889	1.9448	0.4571	0.5294	4.1372	0.1280	0.2194	5.1782	0.0424
<i>Magadhaideus luodiana</i> sp. nov	0.9384	1.4368	0.6531	0.5532	3.5620	0.1553	0.2154	4.7026	0.0458
<i>Peltatavertexalis horizontalis</i> sp. nov	0.9228	1.4273	0.6465	0.5896	3.4019	0.1733	0.2100	4.9360	0.0425
<i>Plectoderini</i> sp.	0.8304	2.3338	0.3558	0.5728	3.5138	0.1630	0.2240	4.7597	0.0471
<i>Paracatonidia</i> sp.	0.8600	2.0116	0.4275	0.5107	4.1834	0.1221	0.2087	5.1917	0.0402
Cixiidae									
Cixiinae									
<i>Pentastiridius</i> sp.	0.8155	2.1343	0.3821	0.5317	4.1018	0.1296	0.2044	5.3338	0.0383
Derbidae									
Otiocerinae									
<i>Lydda</i> sp.	0.7579	3.0301	0.2501	0.5674	3.9737	0.1428	0.2236	5.2817	0.0423
Issidae									
Issinae									
<i>Sivaloka damnosus</i>	0.7246	2.6240	0.2761	0.5848	3.6503	0.1602	0.2674	5.0122	0.0534
<i>Sivaloka</i> sp.	0.7267	2.4713	0.2941	0.5192	4.5070	0.1152	0.2180	5.1082	0.0427
Ricaniidae									
Ricaniinae									
<i>Ricania marginalis</i>	0.8037	2.5821	0.3113	0.5569	4.0062	0.1390	0.2258	4.8422	0.0466
<i>Ricania speculum</i>	0.8207	2.5655	0.3199	0.5495	4.0232	0.1366	0.2155	4.9293	0.0437
Delphacidae									
Asiracinae									
<i>Ugyops</i> sp.	0.7768	2.7516	0.2823	0.4680	4.6823	0.1000	0.2183	5.1886	0.0421
Delphacinae									
Saccharosydmini									
<i>Saccharosydne procerus</i>	0.7795	2.2144	0.3520	0.5376	4.5807	0.1174	0.2014	5.3935	0.0373
Delphacini									
<i>Changeondelphax velitchkovskyi</i>	0.8500	2.1680	0.3921	0.5797	3.4795	0.1666	0.2003	4.8812	0.0410
<i>Nilaparvata bakeri</i> (unknown)	0.7999	2.7394	0.2920	0.5941	3.8231	0.1554	0.1937	5.1913	0.0373
<i>Nilaparvata lugens</i> (biotype Y, Zhejiang, China)	0.7351	2.9447	0.2496	0.5974	3.7525	0.1592	0.2004	5.0720	0.0395
<i>Nilaparvata lugens</i> (biotype L, Zhejiang, China)	0.7351	2.9447	0.2496	0.5997	3.7079	0.1617	0.2016	5.0870	0.0396
<i>Nilaparvata lugens</i> (Hainan, China)	0.7351	2.9447	0.2496	0.5989	3.7086	0.1615	0.1990	5.0934	0.0391
<i>Nilaparvata lugens</i> (Hadong-gun, Korea)	0.7351	2.9447	0.2496	0.5957	3.7284	0.1598	0.2010	5.0726	0.0396
<i>Nilaparvata lugens</i> (Guangdong, China)	0.7351	2.9447	0.2496	0.5989	3.7086	0.1615	0.2010	5.0726	0.0396
<i>Nilaparvata lugens</i> (biotype 1, Zhejiang, China)	0.7351	2.9447	0.2496	0.5997	3.7079	0.1617	0.2004	5.0720	0.0395
<i>Nilaparvata lugens</i> (biotype 2, Zhejiang, China)	0.7351	2.9447	0.2496	0.5980	3.7281	0.1604	0.2017	5.0794	0.0397
<i>Nilaparvata lugens</i> (biotype 3, Zhejiang, China)	0.7351	2.9447	0.2496	0.5993	3.7069	0.1617	0.2004	5.0720	0.0395
<i>Nilaparvata mui</i>	0.7793	2.8162	0.2767	0.6161	3.3142	0.1859	0.1957	4.9230	0.0398
<i>Nilaparvata</i> sp.	0.7441	2.8348	0.2625	0.5856	3.5859	0.1633	0.2152	4.9445	0.0435
<i>Peregrinus maidis</i>	0.8022	2.7892	0.2876	0.5808	3.5448	0.1639	0.2030	5.0741	0.0400
<i>Sogatella furcifera</i> (Hainan, China)	0.7494	2.6893	0.2787	0.5592	3.7511	0.1491	0.2010	4.6867	0.0429
<i>Sogatella furcifera</i> (Yunnan, China)	0.7494	2.6893	0.2787	0.5592	3.7511	0.1491	0.2010	4.6886	0.0429
<i>Sogatella vibix</i>	0.7393	2.4768	0.2985	0.5620	4.1048	0.1369	0.2018	4.7887	0.0421
<i>Laodelphax striatellus</i> (Jiangsu, China)	0.8238	2.7494	0.2996	0.5993	3.5119	0.1707	0.1879	5.0591	0.0371
<i>Laodelphax striatella</i> (Suwon, Korea)	0.8238	2.7494	0.2996	0.6014	3.5046	0.1716	0.1895	5.0512	0.0375
<i>Laodelphax striatella</i> (Milyang, Korea)	0.8238	2.7494	0.2996	0.6014	3.5046	0.1716	0.1895	5.0512	0.0375
<i>Laodelphax striatellus</i> A1 (China)	0.8345	2.7817	0.3000	0.6003	3.5082	0.1711	0.1911	4.9829	0.0384
<i>Laodelphax striatellus</i> B1 (China)	0.8238	2.7494	0.2996	0.6033	3.4904	0.1728	0.1910	5.0091	0.0381
<i>Laodelphax striatellus</i> (Beijing, China)	0.7710	2.8706	0.2686	0.6033	3.4806	0.1733	0.1911	4.9829	0.0384

Species	COII			COIII			CytB		
	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks
Fulgoroidea									
Flatidae									
Flatinae									
<i>Metcalfa pruinosa</i> (H1)	0.5281	4.3420	0.1216	0.2950	5.2737	0.0559	0.3262	3.5787	0.0911
<i>Metcalfa pruinosa</i> (H3)	0.5281	4.3420	0.1216	0.2950	5.2737	0.0559	0.3264	3.5844	0.0911
<i>Salurnis marginella</i>	0.4753	4.5306	0.1049	0.3221	5.0634	0.0636	0.3124	3.5300	0.0885
<i>Geisha distinctissima</i>	0.4958	4.1545	0.1193	0.3327	5.3099	0.0627	0.3513	3.3519	0.1048
Fulgoridae									
Fulgorinae									
<i>Pyrops candelaria</i>	0.5185	4.1031	0.1264	0.3429	4.9884	0.0687	0.3647	3.2293	0.1129
Aphaeninae									
<i>Lycorma delicatula</i> (Henan, China)	0.4892	4.2325	0.1156	0.3578	5.3375	0.0670	0.3471	3.4206	0.1015
<i>Lycorma delicatula</i> (China)	0.4898	4.1960	0.1167	0.3545	5.2899	0.0670	0.3453	3.4466	0.1002
<i>Lycorma delicatula</i> (Korea)	0.4892	4.2325	0.1156	0.3545	5.2899	0.0670	0.3364	3.4824	0.0966
<i>Aphaena</i> (<i>Callidepsa</i>) <i>amabilis</i>	0.5020	4.4094	0.1138	0.3650	5.1453	0.0709	0.3336	3.6326	0.0918
<i>Aphaena</i> (<i>Aphaena</i>) <i>discolor nigrotibiata</i>	0.5160	4.0752	0.1266	0.3752	5.2040	0.0721	0.3238	3.6367	0.0890
Achilidae									
Achilinae									
<i>Betatropis formosana</i>	0.4961	4.2799	0.1159	0.3501	5.6812	0.0616	0.3137	3.7225	0.0843
<i>Magadhaideus luodiana</i> sp. nov	0.4882	4.1130	0.1187	0.3696	4.6259	0.0799	0.3203	3.3723	0.0950
<i>Peltatavertexalis horizontalis</i> sp. nov	0.4614	4.6407	0.0994	0.3539	5.3724	0.0659	0.3328	3.4847	0.0955
<i>Plectoderini</i> sp.	0.5097	3.7807	0.1348	0.3544	4.5905	0.0772	0.3329	3.4665	0.0960
<i>Paracatonidia</i> sp.	0.4626	4.6754	0.0989	0.3408	5.2768	0.0646	0.3349	3.5229	0.0951
Cixiidae									
Cixiinae									
<i>Pentastiridius</i> sp.	0.4759	4.9587	0.0960	0.3684	5.0953	0.0723	0.3029	3.6567	0.0828
Derbidae									
Otiocerinae									
<i>Lydda</i> sp.	0.5422	4.1631	0.1302	0.3841	4.9201	0.0781	0.3219	3.7927	0.0849
Issidae									
Issinae									
<i>Sivaloka damnosus</i>	0.4597	4.2923	0.1071	0.3464	5.3822	0.0644	0.3186	3.6038	0.0884
<i>Sivaloka</i> sp.	0.4606	4.2368	0.1087	0.3390	4.9745	0.0681	0.2973	3.6556	0.0813
Ricaniidae									
Ricaniinae									
<i>Ricania marginalis</i>	0.4710	4.9596	0.0950	0.3277	5.1898	0.0631	0.3484	3.5951	0.0969
<i>Ricania speculum</i>	0.4618	5.0527	0.0914	0.3301	5.1930	0.0636	0.3174	3.5137	0.0903
Delphacidae									
Asiracinae									
<i>Ugyops</i> sp.	0.5223	4.4860	0.1164	0.3597	5.1603	0.0697	0.3213	3.7920	0.0847
Delphacinae									
Saccharosydmini									
<i>Saccharosydne procerus</i>	0.4763	4.8727	0.0977	0.3824	5.1200	0.0747	0.3143	3.9716	0.0791
Delphacini									
<i>Changeodelphax velitchkovskyi</i>	0.5254	3.8401	0.1368	0.3862	4.9547	0.0780	0.3167	3.4521	0.0917
<i>Nilaparvata bakeri</i> (unknown)	0.4747	4.5709	0.1039	0.3727	5.0557	0.0737	0.2832	3.7544	0.0754
<i>Nilaparvata lugens</i> (biotype Y, Zhejiang, China)	0.4842	4.3702	0.1108	0.3835	4.5503	0.0843	0.2740	3.7208	0.0737
<i>Nilaparvata lugens</i> (biotype L, Zhejiang, China)	0.4843	4.3972	0.1101	0.3839	4.6101	0.0833	0.2748	3.7236	0.0738
<i>Nilaparvata lugens</i> (Hainan, China)	0.4843	4.3972	0.1101	0.3853	4.5231	0.0852	0.2747	3.7310	0.0736
<i>Nilaparvata lugens</i> (Hadong-gun, Korea)	0.4842	4.4271	0.1094	0.3846	4.5634	0.0843	0.2743	3.7475	0.0732
<i>Nilaparvata lugens</i> (Guangdong, China)	0.4843	4.3972	0.1101	0.3853	4.5231	0.0852	0.2763	3.7496	0.0737
<i>Nilaparvata lugens</i> (biotype 1, Zhejiang, China)	0.4842	4.3702	0.1108	0.3835	4.5503	0.0843	0.2747	3.7310	0.0736
<i>Nilaparvata lugens</i> (biotype 2, Zhejiang, China)	0.4843	4.3972	0.1101	0.3835	4.5503	0.0843	0.2747	3.7310	0.0736
<i>Nilaparvata lugens</i> (biotype 3, Zhejiang, China)	0.4843	4.3972	0.1101	0.3877	4.5124	0.0859	0.2747	3.7310	0.0736
<i>Nilaparvata mui</i>	0.4704	4.3696	0.1076	0.3798	4.7788	0.0795	0.2763	3.6498	0.0757
<i>Nilaparvata</i> sp.	0.4926	4.5392	0.1085	0.3968	4.5164	0.0879	0.2882	3.7603	0.0767
<i>Peregrinus maidis</i>	0.4946	4.4142	0.1120	0.4176	4.6882	0.0891	0.3135	3.7649	0.0833
<i>Sogatella furcifera</i> (Hainan, China)	0.5038	4.3015	0.1171	0.3824	4.7262	0.0809	0.2978	3.7939	0.0785
<i>Sogatella furcifera</i> (Yunnan, China)	0.5038	4.3015	0.1171	0.3863	4.7097	0.0820	0.2980	3.7851	0.0787
<i>Sogatella vibix</i>	0.4966	4.7401	0.1048	0.3909	4.8843	0.0800	0.2900	4.0531	0.0715
<i>Laodelphax striatellus</i> (Jiangsu, China)	0.4804	4.3784	0.1097	0.3884	5.1321	0.0757	0.2713	3.9399	0.0688
<i>Laodelphax striatella</i> (Suwon, Korea)	0.4792	4.4180	0.1085	0.3883	5.1559	0.0753	0.2698	3.9587	0.0681
<i>Laodelphax striatella</i> (Milyang, Korea)	0.4792	4.4180	0.1085	0.3883	5.1559	0.0753	0.2698	3.9587	0.0681
<i>Laodelphax striatellus</i> A1 (China)	0.4891	4.3286	0.1130	0.3883	5.1225	0.0758	0.2690	3.9498	0.0681
<i>Laodelphax striatellus</i> B1 (China)	0.4879	4.3311	0.1127	0.3886	5.1646	0.0752	0.2711	3.9401	0.0688
<i>Laodelphax striatellus</i> (Beijing, China)	0.4806	4.4657	0.1076	0.3883	5.1225	0.0758	0.2676	3.9605	0.0676

Species	ND1			ND2			ND3		
	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks
Fulgoroidea									
Flatidae									
Flatinae									
<i>Metcalfa pruinosa</i> (H1)	0.7433	2.9953	0.2482	0.7381	2.7699	0.2665	0.5795	4.0748	0.1422
<i>Metcalfa pruinosa</i> (H3)	0.7433	2.9953	0.2482	0.7364	2.7867	0.2643	0.5795	4.0748	0.1422
<i>Salurnis marginella</i>	0.7625	2.9579	0.2578	0.7856	2.6485	0.2966	0.7215	3.0602	0.2358
<i>Geisha distinctissima</i>	0.7680	2.5742	0.2984	0.7523	2.5583	0.2941	0.5847	4.4094	0.1326
Fulgoridae									
Fulgorinae									
<i>Pyrops candelaria</i>	0.7569	2.7323	0.2770	0.7531	2.5694	0.2931	0.7535	2.9102	0.2589
Aphaeninae									
<i>Lycorma delicatula</i> (Henan, China)	0.7342	3.2810	0.2238	0.7852	2.5417	0.3089	0.7182	2.7934	0.2571
<i>Lycorma delicatula</i> (China)	0.7275	3.2746	0.2222	0.7836	2.5761	0.3042	0.6621	3.4249	0.1933
<i>Lycorma delicatula</i> (Korea)	0.7275	3.2746	0.2222	0.7836	2.5761	0.3042	0.6621	3.4249	0.1933
<i>Aphaena</i> (<i>Callidepsa</i>) <i>amabilis</i>	0.7287	3.6783	0.1981	0.7626	2.9359	0.2598	0.7012	3.3337	0.2103
<i>Aphaena</i> (<i>Aphaena</i>) <i>discolor nigrotibiata</i>	0.7192	3.3786	0.2129	0.7953	2.6605	0.2989	0.6022	4.2790	0.1407
Achilidae									
Achilinae									
<i>Betatropis formosana</i>	0.7389	3.1962	0.2312	0.7505	2.8243	0.2657	0.6409	3.8930	0.1646
<i>Magadhaideus luodiana</i> sp. nov	0.7511	2.6784	0.2804	0.7204	2.7537	0.2616	0.5454	3.9422	0.1384
<i>Peltatavertexalis horizontalis</i> sp. nov	0.7471	2.6753	0.2793	0.7879	2.3755	0.3317	0.6361	3.8830	0.1638
<i>Plectoderini</i> sp.	0.7663	2.8645	0.2675	0.7201	3.0515	0.2360	0.6348	3.5247	0.1801
<i>Paracatonidia</i> sp.	0.7289	3.2385	0.2251	0.7325	3.0017	0.2440	0.5836	3.7848	0.1542
Cixiidae									
Cixiinae									
<i>Pentastiridius</i> sp.	-	-	-	0.8215	2.3527	0.3492	0.7140	3.1575	0.2261
Derbidae									
Otiocerinae									
<i>Lydda</i> sp.	0.7295	3.1217	0.2337	0.6995	3.1414	0.2227	0.5963	4.2188	0.1413
Issidae									
Issinae									
<i>Sivaloka damnosus</i>	0.7698	2.5477	0.3022	0.7788	2.4506	0.3178	0.5957	3.6781	0.1619
<i>Sivaloka</i> sp.	0.7464	2.8770	0.2594	0.7283	2.9694	0.2453	0.6102	3.9104	0.1560
Ricaniidae									
Ricaniinae									
<i>Ricania marginalis</i>	0.7965	2.3493	0.3391	0.7897	2.5311	0.3120	0.6009	3.5970	0.1671
<i>Ricania speculum</i>	0.7497	3.0184	0.2484	0.7174	2.7608	0.2598	0.5905	3.6965	0.1598
Delphacidae									
Asiracinae									
<i>Ugyops</i> sp.	0.7173	3.7132	0.1932	0.7716	3.1038	0.2486	0.7029	3.4375	0.2045
Delphacinae									
Saccharosydmini									
<i>Saccharosydne procerus</i>	0.7869	3.1631	0.2488	0.7697	3.1352	0.2455	0.6566	3.9879	0.1647
Delphacini									
<i>Changeondelphax velitchkovskyi</i>	0.8250	2.2407	0.3682	0.7390	2.7437	0.2693	0.6240	3.7289	0.1673
<i>Nilaparvata bakeri</i> (unknown)	0.7865	2.7383	0.2872	0.6849	3.0876	0.2218	0.8576	1.6783	0.5110
<i>Nilaparvata lugens</i> (biotype Y, Zhejiang, China)	0.7792	2.6582	0.2931	0.6978	2.9752	0.2345	0.8345	1.7986	0.4640
<i>Nilaparvata lugens</i> (biotype L, Zhejiang, China)	0.7792	2.6582	0.2931	0.6972	2.9932	0.2329	0.8351	1.8192	0.4590
<i>Nilaparvata lugens</i> (Hainan, China)	0.7696	2.7356	0.2813	0.7060	2.8638	0.2465	0.6171	4.2903	0.1438
<i>Nilaparvata lugens</i> (Hadong-gun, Korea)	0.7890	2.6178	0.3014	0.6903	3.0320	0.2277	0.6171	4.2903	0.1438
<i>Nilaparvata lugens</i> (Guangdong, China)	0.7781	2.6793	0.2904	0.6903	3.0320	0.2277	0.6171	4.2903	0.1438
<i>Nilaparvata lugens</i> (biotype 1, Zhejiang, China)	0.7792	2.6582	0.2931	0.6978	2.9752	0.2345	0.8345	1.7986	0.4640
<i>Nilaparvata lugens</i> (biotype 2, Zhejiang, China)	0.7792	2.6582	0.2931	0.7002	2.9676	0.2359	0.8345	1.7986	0.4640
<i>Nilaparvata lugens</i> (biotype 3, Zhejiang, China)	0.7789	2.6420	0.2948	0.6986	2.9795	0.2345	0.8345	1.7986	0.4640
<i>Nilaparvata mui</i>	0.7698	2.9717	0.2590	0.7095	2.8354	0.2502	0.8427	1.7448	0.4830
<i>Nilaparvata</i> sp.	0.7646	2.8362	0.2696	0.7501	2.9173	0.2571	0.6951	3.1758	0.2189
<i>Peregrinus maidis</i>	0.7690	2.7189	0.2829	0.6995	3.1414	0.2227	0.6830	3.1383	0.2176
<i>Sogatella furcifera</i> (Hainan, China)	0.7503	2.8622	0.2621	0.7309	2.5883	0.2824	0.6465	3.6730	0.1760
<i>Sogatella furcifera</i> (Yunnan, China)	0.7503	2.8622	0.2621	0.7323	2.5749	0.2844	0.6465	3.6730	0.1760
<i>Sogatella vibix</i>	0.7758	2.8903	0.2684	0.7323	2.7089	0.2703	0.6455	3.4690	0.1861
<i>Laodelphax striatellus</i> (Jiangsu, China)	0.7841	2.4796	0.3162	0.7917	2.4243	0.3266	0.7743	2.8012	0.2764
<i>Laodelphax striatella</i> (Suwon, Korea)	0.7797	2.5489	0.3059	0.7934	2.4198	0.3279	0.7743	2.8012	0.2764
<i>Laodelphax striatella</i> (Milyang, Korea)	0.7797	2.5489	0.3059	0.7934	2.4198	0.3279	0.7743	2.8012	0.2764
<i>Laodelphax striatellus</i> A1 (China)	0.7843	2.4818	0.3160	0.7919	2.4439	0.3240	0.7812	2.7258	0.2866
<i>Laodelphax striatellus</i> B1 (China)	0.7852	2.4948	0.3147	0.7934	2.4198	0.3279	0.7743	2.8012	0.2764
<i>Laodelphax striatellus</i> (Beijing, China)	0.7843	2.4818	0.3160	0.7889	2.4557	0.3213	0.7812	2.7258	0.2866

Species	ND4			ND4L			ND5		
	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks	Ka	Ks	Ka/Ks
Fulgoroidea									
Flatidae									
Flatinae									
<i>Metcalfa pruinosa</i> (H1)	0.5568	5.7317	0.0971	0.7511	2.4527	0.3063	0.5655	5.8165	0.0972
<i>Metcalfa pruinosa</i> (H3)	0.5568	5.7317	0.0971	0.7511	2.4527	0.3063	0.5665	5.8752	0.0964
<i>Salurnis marginella</i>	0.5761	5.0915	0.1132	0.6801	3.3647	0.2021	0.5583	5.9332	0.0941
<i>Geisha distinctissima</i>	0.5936	4.6408	0.1279	0.8935	2.8299	0.3157	0.6086	5.4935	0.1108
Fulgoridae									
Fulgorinae									
<i>Pyrops candelaria</i>	0.6262	4.2032	0.1490	0.9379	1.3262	0.7072	0.5491	5.3324	0.1030
Aphaeninae									
<i>Lycorma delicatula</i> (Henan, China)	0.6187	5.3665	0.1153	0.7338	3.2573	0.2253	0.5789	5.8056	0.0997
<i>Lycorma delicatula</i> (China)	0.6141	5.3557	0.1147	0.7338	3.2573	0.2253	0.5045	6.5611	0.0769
<i>Lycorma delicatula</i> (Korea)	0.6121	5.4154	0.1130	0.7338	3.2573	0.2253	0.5030	6.6071	0.0761
<i>Aphaena</i> (<i>Callidepsa</i>) <i>amabilis</i>	0.6021	5.8064	0.1037	0.7996	2.3507	0.3402	0.5249	6.3016	0.0833
<i>Aphaena</i> (<i>Aphaena</i>) <i>discolor nigrotibiata</i>	0.5995	5.2975	0.1132	0.8243	2.0809	0.3961	0.5382	6.3431	0.0848
Achilidae									
Achilinae									
<i>Betatropis formosana</i>	0.5549	5.5192	0.1005	0.8626	1.8636	0.4629	0.5603	5.6525	0.0991
<i>Magadhaideus luodiana</i> sp. nov	0.5833	4.3929	0.1328	0.7824	2.1692	0.3607	0.5487	5.1342	0.1069
<i>Peltatavertexalis horizontalis</i> sp. nov	0.6161	4.3607	0.1413	0.8200	2.2149	0.3702	0.5321	5.9514	0.0894
<i>Plectoderini</i> sp.	0.5995	4.8404	0.1239	0.7772	2.4131	0.3221	0.5460	5.5023	0.0992
<i>Paracatonidia</i> sp.	0.6098	4.9776	0.1225	0.7725	2.1490	0.3595	0.5560	6.1192	0.0909
Cixiidae									
Cixiinae									
<i>Pentastiridius</i> sp.	0.5935	4.8595	0.1221	0.7113	4.9334	0.1442	0.5215	5.2072	0.1002
Derbidae									
Otiocerinae									
<i>Lydda</i> sp.	0.5896	4.9327	0.1195	0.7422	2.5342	0.2929	0.5240	6.1825	0.0848
Issidae									
Issinae									
<i>Sivaloka damnosus</i>	0.5862	4.5736	0.1282	0.8198	2.2727	0.3607	0.5829	5.4469	0.1070
<i>Sivaloka</i> sp.	0.5545	4.9512	0.1120	0.8198	2.2727	0.3607	0.5331	6.2588	0.0852
Ricaniidae									
Ricaniinae									
<i>Ricania marginalis</i>	0.6460	3.7507	0.1722	0.7221	3.4670	0.2083	0.5512	5.5338	0.0996
<i>Ricania speculum</i>	0.5875	4.6132	0.1274	0.7221	3.4670	0.2083	0.5239	5.9654	0.0878
Delphacidae									
Asiracinae									
<i>Ugyops</i> sp.	0.5868	6.0838	0.0964	0.7730	3.2046	0.2412	0.5429	6.4828	0.0837
Delphacinae									
Saccharosydmini									
<i>Saccharosydne procerus</i>	0.5760	5.1814	0.1112	0.7903	3.7234	0.2122	0.6082	4.8469	0.1255
Delphacini									
<i>Changeodelphax velitchkovskyi</i>	0.6087	4.7942	0.1270	0.8070	2.6923	0.2997	0.6034	4.6229	0.1305
<i>Nilaparvata bakeri</i> (unknown)	0.5925	4.9115	0.1206	0.8492	2.1816	0.3893	0.5833	5.6170	0.1038
<i>Nilaparvata lugens</i> (biotype Y, Zhejiang, China)	0.5915	4.4901	0.1317	0.8295	2.3812	0.3483	0.5862	5.5455	0.1057
<i>Nilaparvata lugens</i> (biotype L, Zhejiang, China)	0.5927	4.4838	0.1322	0.8295	2.3812	0.3483	0.5870	5.5414	0.1059
<i>Nilaparvata lugens</i> (Hainan, China)	0.5877	4.5146	0.1302	0.8312	2.3877	0.3481	0.5875	5.5253	0.1063
<i>Nilaparvata lugens</i> (Hadong-gun, Korea)	0.5874	4.5575	0.1289	0.8295	2.3812	0.3483	0.5867	5.5770	0.1052
<i>Nilaparvata lugens</i> (Guangdong, China)	0.5877	4.5146	0.1302	0.8183	2.4768	0.3304	0.5881	5.5481	0.1060
<i>Nilaparvata lugens</i> (biotype 1, Zhejiang, China)	0.5912	4.5102	0.1311	0.8295	2.3812	0.3483	0.5862	5.5455	0.1057
<i>Nilaparvata lugens</i> (biotype 2, Zhejiang, China)	0.5915	4.4901	0.1317	0.8295	2.3812	0.3483	0.5879	5.5266	0.1064
<i>Nilaparvata lugens</i> (biotype 3, Zhejiang, China)	0.5891	4.5385	0.1298	0.8295	2.3812	0.3483	0.5875	5.5253	0.1063
<i>Nilaparvata mui</i>	0.5864	4.4297	0.1324	0.9134	1.6130	0.5663	0.5734	5.5872	0.1026
<i>Nilaparvata</i> sp.	0.5939	5.0614	0.1173	0.8029	2.0852	0.3850	0.6215	4.6709	0.1331
<i>Peregrinus maidis</i>	0.6093	4.5926	0.1327	0.7978	2.9282	0.2725	0.6018	4.8365	0.1244
<i>Sogatella furcifera</i> (Hainan, China)	0.5736	5.1879	0.1106	0.8167	2.2186	0.3681	0.6144	4.2756	0.1437
<i>Sogatella furcifera</i> (Yunnan, China)	0.5699	5.2747	0.1080	0.8167	2.2186	0.3681	0.6145	4.2924	0.1432
<i>Sogatella vibix</i>	0.6047	4.8459	0.1248	0.7745	2.2048	0.3513	0.5838	5.0983	0.1145
<i>Laodelphax striatellus</i> (Jiangsu, China)	0.5958	5.1282	0.1162	0.9814	1.1750	0.8352	0.6286	5.0679	0.1240
<i>Laodelphax striatella</i> (Suwon, Korea)	0.6007	5.0348	0.1193	0.9814	1.1750	0.8352	0.6247	5.0972	0.1225
<i>Laodelphax striatella</i> (Milyang, Korea)	0.6007	5.0348	0.1193	0.9814	1.1750	0.8352	0.6247	5.0972	0.1225
<i>Laodelphax striatellus</i> A1 (China)	0.5959	5.1194	0.1164	0.9483	1.5185	0.6245	0.6269	5.0740	0.1235
<i>Laodelphax striatellus</i> B1 (China)	0.6007	5.0348	0.1193	0.9814	1.1750	0.8352	0.6247	5.0972	0.1225
<i>Laodelphax striatellus</i> (Beijing, China)	0.6255	4.7742	0.1310	0.9602	1.3670	0.7025	0.6353	4.9438	0.1285

Species	ND6		
	Ka	Ks	Ka/Ks
Fulgoroidea			
Flatidae			
Flatinae			
<i>Metcalfa pruinosa</i> (H1)	0.8362	2.1858	0.3826
<i>Metcalfa pruinosa</i> (H3)	0.8362	2.1858	0.3826
<i>Salurnis marginella</i>	0.8073	2.4032	0.3359
<i>Geisha distinctissima</i>	0.7782	2.6300	0.2959
Fulgoridae			
Fulgorinae			
<i>Pyrops candelaria</i>	0.7912	2.7288	0.2900
Aphaeninae			
<i>Lycorma delicatula</i> (Henan, China)	0.8054	2.4521	0.3285
<i>Lycorma delicatula</i> (China)	0.8054	2.4521	0.3285
<i>Lycorma delicatula</i> (Korea)	0.8054	2.4521	0.3285
<i>Aphaena</i> (<i>Callidepsa</i>) <i>amabilis</i>	0.7919	2.8620	0.2767
<i>Aphaena</i> (<i>Aphaena</i>) <i>discolor nigrotibiata</i>	0.8777	1.9291	0.4550
Achilidae			
Achilinae			
<i>Betatropis formosana</i>	0.8356	2.1523	0.3882
<i>Magadhaideus luodiana</i> sp. nov	0.7282	2.6059	0.2795
<i>Peltatavertexalis horizontalis</i> sp. nov	0.7640	2.5709	0.2972
<i>Plectoderini</i> sp.	0.7867	2.4784	0.3174
<i>Paracatonidia</i> sp.	0.8194	2.2793	0.3595
Cixiidae			
Cixiinae			
<i>Pentastiridius</i> sp.	0.8918	1.7634	0.5057
Derbidae			
Otiocerinae			
<i>Lydda</i> sp.	0.7701	3.1016	0.2483
Issidae			
Issinae			
<i>Sivaloka damnosus</i>	0.7884	2.5912	0.3042
<i>Sivaloka</i> sp.	0.7679	2.7103	0.2833
Ricaniidae			
Ricaniinae			
<i>Ricania marginalis</i>	0.7380	2.8633	0.2577
<i>Ricania speculum</i>	0.7554	2.7924	0.2705
Delphacidae			
Asiracinae			
<i>Ugyops</i> sp.	0.8045	2.5844	0.3113
Delphacinae			
Saccharosydmini			
<i>Saccharosydne procerus</i>	0.8754	2.1813	0.4013
Delphacini			
<i>Changeondelphax velitchkovskyi</i>	0.7774	2.3893	0.3254
<i>Nilaparvata bakeri</i> (unknown)	0.8356	2.1929	0.3810
<i>Nilaparvata lugens</i> (biotype Y, Zhejiang, China)	0.8412	2.0618	0.4080
<i>Nilaparvata lugens</i> (biotype L, Zhejiang, China)	0.8336	2.1123	0.3947
<i>Nilaparvata lugens</i> (Hainan, China)	0.8313	2.1426	0.3880
<i>Nilaparvata lugens</i> (Hadong-gun, Korea)	0.8313	2.1426	0.3880
<i>Nilaparvata lugens</i> (Guangdong, China)	0.8313	2.1426	0.3880
<i>Nilaparvata lugens</i> (biotype 1, Zhejiang, China)	0.8313	2.1426	0.3880
<i>Nilaparvata lugens</i> (biotype 2, Zhejiang, China)	0.8313	2.1426	0.3880
<i>Nilaparvata lugens</i> (biotype 3, Zhejiang, China)	0.8313	2.1426	0.3880
<i>Nilaparvata mui</i>	0.8261	2.1859	0.3779
<i>Nilaparvata</i> sp.	0.8335	2.2157	0.3762
<i>Peregrinus maidis</i>	0.8188	2.4191	0.3385
<i>Sogatella furcifera</i> (Hainan, China)	0.7844	2.5354	0.3094
<i>Sogatella furcifera</i> (Yunnan, China)	0.7844	2.5354	0.3094
<i>Sogatella vibix</i>	0.7513	2.6016	0.2888
<i>Laodelphax striatellus</i> (Jiangsu, China)	0.8232	2.3496	0.3504
<i>Laodelphax striatella</i> (Suwon, Korea)	0.8199	2.4058	0.3408
<i>Laodelphax striatella</i> (Milyang, Korea)	0.8199	2.4058	0.3408
<i>Laodelphax striatellus</i> A1 (China)	0.8199	2.4058	0.3408
<i>Laodelphax striatellus</i> B1 (China)	0.8199	2.4058	0.3408
<i>Laodelphax striatellus</i> (Beijing, China)	0.8521	2.1230	0.4013

*Stop codon was excluded in the count.