

Additional Information

Check-list of Mesozoic wasps and bees (Hymenoptera: Aculeata)

APOIDEA

Halictidae

Genise et al. (2002): nests (Argentina, Central Patagonia, Upper Cretaceous – Santonian, Campanian, compressed fossil)

Genise et al. (2020): nests (Argentina, Patagonia, Lower Cretaceous – Albian, compressed fossil)

†Angarosphecidae

Angarosphex beiboziensis (Hong, 1984) (China, Lower Cretaceous, compressed fossil)

Angarosphex bleachii Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, lower Weald Clay, compressed fossil)

Angarosphex consensus Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, lower Weald Clay, compressed fossil)

Angarosphex goldringi Jarzembowski, 1991 (UK, Lower Cretaceous, lower Weald Clay, compressed fossil)

Angarosphex lithodes (Zhang, 1985) (China, Lower Cretaceous, Laiyang Fm. Tuanwang, compressed fossil)

Angarosphex lithographicus Rasnitsyn et Ansorge, 2000 (Spain, Lower Cretaceous, La Cabrúa, compressed fossil)

Angarosphex magnus (Darling, 1990) (Brazil, Lower Cretaceous, Santana Formation, compressed fossil)

Angarosphex myrmicopterus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Angarosphex niger Rasnitsyn, 1990 (Russia, Turga, Lower Cretaceous, compressed fossil)

Angarosphex pallidus Rasnitsyn, 1986 (Mongolia, Gurvan-Ereniy-Nuru, Lower Cretaceous, compressed fossil)

Angarosphex parvus (Darling, 1990) (Brazil, Lower Cretaceous, Santana Formation, compressed fossil)

Angarosphex penyalveri Rasnitsyn et Martínez-Delclos, 2000 (Spain, Lower Cretaceous, Pedrera de Rúbies, compressed fossil)

Angarosphex saxosus Zhang, Rasnitsyn et Zhang, 2018 (China, Lower Cretaceous, Laiyang Fm., compressed fossil)

Angarosphex strigosus (Zhang, 1992) (China, Lower Cretaceous, Laiyang Fm., compressed fossil)

Angarosphex venulosus (Zhang, 1985) (China, Lower Cretaceous, Laiyang Fm., compressed fossil)

Archisphex boothi Jarzembowski, 1991 (UK, Lower Cretaceous, lower Weald Clay, compressed fossil)

Archisphex catalunicus (Ansorge, 1993) (Spain, Lower Cretaceous, La Cabrúa, compressed fossil)

Archisphex crowsoni Evans, 1969 (UK, Lower Cretaceous, lower Weald Clay, compressed fossil)

Archisphex curvus Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

Archisphex proximus Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

?*Baissodes longus* Rasnitsyn, 1990 (Mongolia, Gurvan-Ereniy-Nuru, Lower Cretaceous, compressed fossil)

Baissodes magnus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Baissodes robustus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

?*Baissodes* sp. (Rasnitsyn et al. 1998) (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

Burmasphex pilosus Melo et Rosa, 2018 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Burmasphex sulcatus Melo et Rosa, 2018 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Cretobestiola communis (Pulawski et Rasnitsyn, in Rasnitsyn et al., 1999) (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Cretobestiola hispanica (Martínez-Delclos et Rasnitsyn, in Rasnitsyn et al., 1999) (Spain, Lower Cretaceous, compressed fossil)

Cretobestiola subpetiolata (Pulawski et Rasnitsyn, in Rasnitsyn et al., 1999) (Mongolia, Bon Tsagan, Lower Cretaceous, compressed fossil)

Cretobestiola tenuipes (Pulawski et Rasnitsyn, in Rasnitsyn et al., 1999) (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Cretosphecius lobatum Pulawski et Rasnitsyn, in Pulawski et al., 2000 (Mongolia, Bon Tsagan, Lower Cretaceous, compressed fossil)

Cretosphecius triste Pulawski et Rasnitsyn, in Pulawski et al., 2000 (Mongolia, Bon Tsagan, Lower Cretaceous, compressed fossil)

Cretosphex incertus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

?*Cretosphex catalunicus* Ansorge, 1993 (Spain, Montsec, Lower Cretaceous–Barremian, compressed fossil)

Decasphech cretacicus Zheng, Zhang et Rasnitsyn, 2021 Myanmar, Upper Cretaceous–Cenomanian, amber)

Eubaissodes completus Zhang, 1992 (China, Lower Cretaceous, Laiyang Fm., compressed fossil)

Ilerdosphex wenzae Rasnitsyn, 2000 (Spain, Lower Cretaceous, La Pedrera de Méia, compressed fossil)

Montsecosphex jarzembowskii Rasnitsyn et Martínez-Delclos, 2000 (Spain, Lower Cretaceous, La Pedrera de Rúbies, compressed fossil)

Oryctobaissodes armatus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Pompilopterus ciliatus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Pompilopterus corpus Rasnitsyn et Jarzembowski, 1998 (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

?*Pompilopterus difficilis* Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, Lulworth Fm., compressed fossil)

Pompilopterus keymerensis Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

?*Pompilopterus leei* Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

Pompilopterus montsecensis Rasnitsyn, 2000 (Spain, Lower Cretaceous, La Pedrera de Méia, compressed fossil)

?*Pompilopterus noguerensis* Rasnitsyn et Martínez-Delclos, 2000 (Spain, Lower Cretaceous, La Cabrúa, compressed fossil)

Pompilopterus wimbledoni Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, Lulworth Fm., compressed fossil)

?*Pompilopterus worssami* Rasnitsyn et Jarzembowski, in Rasnitsyn et al., 1998 (UK, Lower Cretaceous, upper Weald Clay, compressed fossil)

Trichobaissodes antennatus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Vitimosphex incompletus Rasnitsyn, 1975 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Vitimosphex vividus Zhang, Rasnitsyn et Zhang, 2018 (China, Liutaogou, Lower Cretaceous, compressed fossil)

†**Melittosphecidae**

Mellitosphex burmensis Poinar et Danforth, 2006 (Myanmar, Upper Cretaceous–Cenomanian, amber)

†**Discoscapiidae**

Discoscapa apicula Poinar, 2020 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Sphecidae

Ampulicinae

Apodolichurus sphaerocephalus Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Apodolichurus diaphanus Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Cretampulex gracilis Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Medampulex monilicularis Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Trigampulex pervetus Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Ampulicinae gen. et sp. indet. noted by Grimaldi et al. 2002 (Myanmar, Upper Cretaceous–Cenomanian, amber)

†**Burmastatinae**

Burmastatus triangularis Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Pemphredoninae

Prolemistus apiformis Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Colmepsiterona cumcarena Cockx and McKellar, 2018 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Cretospilomena familiaris Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Pemphredoninae gen. et sp. indet. noted by Grimaldi et al. 2002 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Sphecidae subfamily indet.

Frenguelli (1946): nests (Uruguay, Upper Cretaceous–Senonian, compressed fossil)

†**Cirrosphecidae**

Cirrosphecx admirabilis Antropov, 2000a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Crabronidae

Psolimena electra Antropov, 2000b (USA, New Jersey amber, Upper Cretaceous–Turonian)

SCOLIOIDEA

Scoliidae

†**Archaeoscoliinae**

Archaeoscolia hispanica Rasnitsyn et Martínez-Delclòs, 1999 (Spain, Cuenca, Las Hoyas, Lower Cretaceous–Barremian, compressed fossil)

Proscoliinae

- Protoscolia sinensis* Zhang, Rasnitsyn et Junfeng, 2002 (China, Beipiao, Liaoning province, Upper Jurassic, Tithonian/lowest Cretaceous, Berriasian, compressed fossil).
- Protoscolia imperialis* Zhang, Rasnitsyn et Junfeng, 2002 (China, Beipiao, Liaoning province, Upper Jurassic, Tithonian/lowest Cretaceous, Berriasian, compressed fossil)
- Protoscolia normalis* Zhang, Rasnitsyn et Junfeng, 2002 (China, Beipiao, Liaoning province, Upper Jurassic, Tithonian/lowest Cretaceous, Berriasian, compressed fossil).
- Cretaproscolia josai* Rasnitsyn et Martínez-Delclòs, 1999 (Brazil, Crato Formation, Lower Cretaceous–Aptian/Albian, compressed fossil)
- Cretaproscolia asiatica* Zhang, 2006 (China, Laiyang Formation, Shandong, Lower Cretaceous–Barremian, compressed fossil)
- Cretoscolia formosa* Zhang, 2004 (China, Laiyang Formation, Shandong, Lower Cretaceous–Barremian, compressed fossil)
- Cretoscolia laiyangica* Zhang, 2004 (China, Laiyang Formation, Shandong, Lower Cretaceous–Barremian, compressed fossil)
- Cretoscolia montsecana* Rasnitsyn et Martínez-Delclòs, 1999 (Spain, Montsec, Lower Cretaceous–Barremian, compressed fossil)
- Cretoscolia promissiva* Rasnitsyn, 1993 (Russia, Siberia, Madagan, Upper Cretaceous–Cenomanian, compressed fossil)
- Cretoscolia rasnitsyni* Zhang, 2004 (China, Laiyang Formation, Shandong, Lower Cretaceous–Barremian, compressed fossil)
- Sinoproscolia yangshuwanzhiensis* Zhang, Zhang, Rasnitsyn et Jarzembowski, 2015 (China, Inner Mongolia, Lower Cretaceous, Yixian Formation)

subfamily indet.

- Araripescolia magnifica* Nel, Escuillie et Garrouste, 2013 (Brazil, Crato Formation, Lower Cretaceous–Aptian/Albian, compressed fossil)

POMPILOIDEA

Pompilidae

- Pompilidae gen. et sp. indet. noted by Grimaldi et al. 2002 (Myanmar, Upper Cretaceous–Cenomanian, amber)

TIPHIOIDEA

Tiphiidae

†Thanatotiphiinae

- Thanatotiphia nyx* Engel, Ortega-Blanco et Bennett, 2009 (Myanmar, Upper Cretaceous–Cenomanian, amber)

?Anthoboscinae

- Architiphia rasnitsyni* Darling et Sharkay, 1990 (Brazil, Crato Formation, Lower Cretaceous–Aptian/Albian, compressed fossil)

VESPOIDEA

Vespidae

Euparagiinae

- Curiosivespa antiqua* Carpenter et Rasnitsyn, 1990 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)
- Curiosivespa curiosa* Rasnitsyn, 1975 (Kazakhstan, Kzyl-Zhar, Upper Cretaceous–Turonian)
- Curiosivespa derivata* Carpenter et Rasnitsyn, 1990 (Mongolia, Bon-Tsagan, Early Cretaceous–?Aptian, compressed fossil)
- Curiosivespa striata* Perrard et Carpenter, 2017 (Myanmar, Upper Cretaceous–Cenomanian, amber)
- Curiosivespa zigrasi* Perrard et Carpenter, 2017 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Priorparagia anancites Brothers et Rasnitsyn, 2008 (Botswana, Orapa, Upper Cretaceous–Turonian, compressed fossil)

Celliforma favosites Brown, 1941 ichnosp. (wasp nests) – (USA, Utah, Upper Cretaceous, compressed fossil) (see Brown 1941, Wenzel 1990, Genise 2000)

†**Priorvespinae**

Alivespa colossa Wu, Shih et Gao, 2020b (Myanmar, Upper Cretaceous–Cenomanian, amber)

Alivespa hirta Wu, Shih et Gao, 2020 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Priorvespa recidiva Carpenter & Rasnitsyn, 1990 (Mongolia, Bon-Tsagan, Early Cretaceous–?Aptian, compressed fossil)

Priorvespa quadrata Carpenter et Rasnitsyn, 1990 (Mongolia, Bon-Tsagan, Early Cretaceous–?Aptian, compressed fossil)

Priorvespa minuta Carpenter et Rasnitsyn, 1990 (Mongolia, Bon-Tsagan, Early Cretaceous–?Aptian, compressed fossil)

Priorvespa directa Carpenter et Rasnitsyn, 1990 (Mongolia, Bon-Tsagan, Early Cretaceous–?Aptian, compressed fossil)

Priorvespa bullata Carpenter et Rasnitsyn, 1990 (Russia, Siberia, Baissa, Early Cretaceous, compressed fossil)

Priorvespa longiceps Carpenter et Rasnitsyn, 1990 (Russia, Central Siberia, Turga, Early Cretaceous, compressed fossil)

†**Protovespinae**

Protovespa haxairei Perrard et Carpenter, 2017 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Masarinae aff.

Archaeovespa engeli Wu, Shih, Ren et Gao, 2020a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Archaeovespa cretacea Wu, Shih, Ren et Gao, 2020a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Archaeovespa malleata Wu, Shih, Ren et Gao, 2020a (Myanmar, Upper Cretaceous–Cenomanian, amber)

Eumeninae

Symmorphus sennex Carpenter, 2000 (USA, New Jersey, Upper Cretaceous–Turonian, amber)

Rhopalosomatidae

Cretolixon alatum Lohrmann, 2020 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Eorhopalosoma gorgyra Engel, 2008 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Eorhopalosoma lohmanni Boudinot et Dungey, 2020 (Myanmar, Upper Cretaceous–Cenomanian, amber)

genus and species indet. (fossil fourth instar larva) Lohrmann & Engel, 2017 (Myanmar, Upper Cretaceous–Cenomanian, amber)

Aculeata

Family incertae sedis

Prosphex anthophilos Grimaldi et Engel, 2019 in Grimaldi et al. 2019 (Myanmar, Upper Cretaceous–Cenomanian, amber)

References

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