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Catalogue of Neotropical Diptera. Pantophthalmidae¹

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This exclusively Neotropical family is represented by two genera: *Opetiops* Enderlein, 1921 (only 1 species) and *Pantophthalmus* Thunberg, 1819 (19 species).

List of abbreviations and acronyms

BMNH – National Museum of Natural History, London
BZM – Berliner Zoologische Museum, Humboldt-Universität, Berlin, Germany
DEI – Deutsches Entomologisches Institut, Berlin, Germany
IMZUT – Istituto e Museo di Zoologia, Università di Torino, Turin, Italy
IZPAN – Instytut Zoologiczny Polskiej Akademii Nauk, Warsaw, Poland
LT – Lectotype
NMW – Naturhistorisches Museum Wien, Vienna, Austria
NNMND – Nationaal Natuurhistorisch Museum Naturalis, Leiden, Netherland
SENCK – Senckenbergische Naturforschende Gesellschaft. Natur-Museum und Forschungsinstitut, Frankfurt a. M., Germany
SMTD – Staatliches Museum für Naturkunde, Dresden, Germany
USNM – National Museum of Natural History, Smithsonian Institution, Washington, D. C.
ZSBS – Zoologische Sammlung des Bayerischen Staates, Munich, Germany

Family **Pantophthalmidae** Bigot, 1882

Acanthomeridae Macquart, 1838: 165 (1839: 169). Type-genus, *Acanthomera* Wiedemann, 1821 = *Pantophthalmus* Thunberg, 1819.
Pantophthalmidae Bigot, 1882: 453. Type-genus, *Pantophthalmus* Thunberg, 1819. Res. – Williston, 1906: 157; Carrera & d'Andretta, 1957: 253.
Panophthalmidae Bigot, 1886: clxvii.

Ref. – Val, 1976 (rev.).

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Genus **Opetiops** Enderlein, 1921

Opetiops Enderlein, 1921: 231. Type-species, *Pantophthalmus alienus* Hermann, 1916 (orig. des.).

alienus (Hermann), 1916: 43, figs. 1-2 (*Pantophthalmus*). Type-locality: Brazil, Santa Catarina, Corupá (as Kolonie Hansa-[Humboldt]). Distr. – Panama, Colombia (Boyacá, Santander), Peru (Huánuco, Loreto), Brazil (Santa Catarina), ?Paraguay. Refs. – Enderlein, 1921: 231 (n. comb.; as *aliena*), 1931: 372 (as *aliena*), 1934: 182 (as *aliena*); Rapp & Snow, 1945: 253 (cat.; as *aliena*); Papavero, 1967: 3 (cat.); Carrera & d'Andretta, 1957: 385, figs. 5, 23, 36, 47; Val, 1976: 69, figs. 1, 65, 98, 131, 151, 178; Santos & Cambra, 2002: 89 (Panama record); Amat, 2005: 96 (list). Type, ZSBS.

Genus **Pantophthalmus** Thunberg, 1819

Pantophthalmus Thunberg, 1819: viii. Type-species, *Pantophthalmus tabaninus* Thunberg, 1819 (mon.). Ref. – Papavero, 1967: 1 (first revisor, corrected spelling).

Pantophthalmus Thunberg, 1819: vii (in title), error.

Rhaphiorhynchus Wiedemann, 1821: 59. Type-species, *Rhaphiorhynchus planiventris* Wiedemann, 1821 (mon.).

Acanthomera Wiedemann, 1821: 60. Type-species, *Acanthomera picta* Wiedemann, 1821 (mon.).

Rhaphiorhynchus Lepeletier & Serville, 1825: 544, error.

Rhaphiorhynchus Loew, 1862: 19, error.

Megalomyia Bigot, 1880: v. Type-species, *Acanthomera seticornis* Wiedemann, 1828 (orig. des.) = *Pantophthalmus tabaninus* Thunberg, 1819.

Megalemyia Bigot, 1881: 455, error or emend.

Rhaphiorhynchus Bigot, 1881: 458, error.

Accanthomera Bigot in Scudder, 1882: 3, error. Ref. – Verrall, 1889: 266.

Rhaphiorhynchus Enderlein, 1914: 582, error.

Atopomyia Austen, 1923: 596. Type-species, *Rhaphiorhynchus rothschildi* Austen, 1923 (orig. des.).

Lycops Enderlein, 1931: 361 (in key), 367. Type-species, *Lycops zoos* Enderlein, 1931 (orig. des.).

Meraca Enderlein, 1934: 181. Type-species, *Opetiops sigma* Enderlein, 1931 (orig. des.) = *Pantophthalmus comptus* Enderlein, 1912.

argyropastus (Bigot), 1880: v (*Megalomyia*). Type-locality: “Panama”. Distr. – Costa Rica, Panama. Refs. – Bigot, 1881: 455, 458 (in key) (*Megalemyia*); Hunter, 1901: 147 (cat.; *Acanthomera*); Aldrich, 1905: 210 (cat.; *Acanthomera*); Kertész, 1909: 294 (cat.; n. comb.); Enderlein, 1912: 108, 1914: 583 (in key); Austen, 1923: 571; Enderlein, 1931: 365 (*Acanthomera*); Rapp & Snow, 1945: 253; Carrera & d'Andretta, 1957: 303, fig. 15 (*Rhaphiorhynchus*); Papavero, 1967: 3 (cat.; *Rhaphiorhynchus*); Val, 1976: 70, figs. 8, 26, 41, 57, 72, 91, 105, 125, 147, 147a, 162, 185, 205, 222, 239, 254, 271, 1992: 606, figs. 40.2f, 40.2o, 40.3i, 40.3k, 40.4e, 40.5i, 40.6f, 40.7f, 40.8f, 40.8l. Type, BMNH.

batesi Austen, 1923: 566, fig. 2. Type-locality: Brazil, Amazonas, Fonte Boa [as Villa Nova]. Distr. – Guyana, French Guiana, Peru (Huánuco), Brazil (Acre, Amazonas), Argentina (Misiones). Refs. – Enderlein, 1931: 371 (*Opetiops*), 1934: 182 (*Meraca*); Rapp & Snow, 1945: 253 (cat.; *Opetiops*); Carrera & d'Andretta, 1957: 287 (cat.; *Opetiops*); Papavero, 1967: 3 (cat.; *Opetiops*); Val, 1976: 71, figs. 9a, 27, 40, 58, 73, 92, 106, 126, 146a, 163a-d, 146, 186, 207, 240, 255, 272, pl. 2, figs. e-g (puparium); Papavero, 2002: 1 (cat.). Type, BMNH.

bellardii (Bigot) in Bellardi, 1862: 213, pl. 3, fig. 11 (*Acanthomera*; *nom. nov.* for *picta* Wiedemann of Bellardi, 1859). Type-locality: “Mexico”. Distr. – Mexico, Guatemala, El Salvador, Nicaragua, Costa Rica, Panama, Colombia, Venezuela, Ecuador, Peru, Bolivia, Brazil. Refs. – Bigot, 1881: 459 (in key) (*Acanthomera*); Osten Sacken, 1886: 68 (*Acanthomera*); Aldrich, 1905: 210 (cat.; *Acanthomera*); Kertész, 1908: 294 (cat.; n. comb.); Enderlein, 1912: 107, 114, 1914: 582 (in key); Austen, 1923: 587; Enderlein, 1931: 375; Rapp & Snow, 1945: 253 (cat.); Campos, 1952: 105 (cat.; “Esta gigantesca especie [*Pantophthalmus bellardii*] es considerada como peligrosa por los campesinos, atribuyéndole hábitos ofensivos al hombre y al ganado [...]”); Carrera & d'Andretta, 1957: 281, figs. 3, 19-20, 45-46; Papavero, 1967: 2 (cat.); Val, 1976: 72, figs. 14, 30, 46, 63, 79, 96, 112, 129, 148, 169, 192, 209, 226, 243, 260, 278, 1992: 606, figs. 40.2h, 40.2q, 40.3o, 40.3p, 40.4h, 40.5j, 40.6h, 40.7i; Nagatomi & Liu, 1995: 603, figs. 1-7 (female terminalia and spermatheca); Papavero & Ibáñez Bernal, 2001: 110 (hist. Mexican dipterol.); Papavero, 2002: 1 (cat.); Santos & Cambra, 2002: 89; Amat, 2005: 96 (list). Type, BMNH.

picta Wiedemann of Bellardi, 1859: 76 (*Acanthomera*), misident.

championi Osten Sacken, 1886: 67, pl. 3, fig. 16 (*Acanthomera*). Type-locality: Mexico; Nicaragua, Chontales; Panama, Bugaba. Refs. – Townsend, 1905: 595 (*Acanthomera*); Aldrich, 1905: 210 (cat.; *Acanthomera*); Kertész, 1908: 294 (cat.; n. comb.); Enderlein, 1912: 108, 1914: 583 (in key), 585, 1921: 231; Austen, 1923: 587 (syn.); Papavero &

- Ibáñez Bernal, 2003: 159 (hist. Mexican dipterol.). Type, BMNH.
- sp.* Osten Sacken, 1886: 68 (*Acanthomera*; Guatemala, Baja Verapaz, Panima); Williston, 1908: fig. 61 (*Acanthomera*).
- helleri* Enderlein, 1912: 108, 110, figs. 8-9. Type-locality: Bolivia, La Paz, Yungas de Coroico; Peru, Junín, Chanchamayo. Refs. – Enderlein, 1914: 585 (syn.); 1931: 374; Rapp & Snow, 1945: 253 (cat.). Type, SMTD.
- championi* Osten Sacken of Enderlein, 1921: 231, misident. [cf. Enderlein, 1931: 374].
- versicolor* Austen, 1923: 572, fig. 4. Type-locality: Guatemala, “Pancina” [Baja Verapaz, Panima?]. Refs. – Enderlein, 1931: 374; Rapp & Snow, 1945: 254 (cat.). Type, BMNH.
- latifrons* Enderlein, 1931: 374. Type-locality: Peru, Junín, Chanchamayo. Ref. – Rapp & Snow, 1945: 254 (cat.). Type, BZM.
- chuni** (Enderlein), 1912: 102, 103, fig. 4 (*Acanthomera*). Lectotype-locality: Peru, Junín, Chanchamayo. Distr. – French Guiana, Ecuador (Morona, Pichincha, Tungurahua), Peru (Cusco, Huánuco, Junín, Loreto, Ucayali), Brazil (Amazonas), Bolivia (Cochabamba), Argentina (Misiones). Refs. – Enderlein, 1914: 578 (*Acanthomera*); Hermann, 1916: 49 (*Acanthomera*); Enderlein, 1921: 229, 230 (*Acanthomera*); Austen, 1923: 576; Enderlein, 1931: 367 (*Acanthomera*); Carrera & d’Andretta, 1957: 300, figs. 7, 33 (*Rhaphiorhynchus*); Val, 1976: 75, figs. 7, 24a, 37, 55, 71, 104, 121a, 135, 160a-b, 135a-b, 174, 184, 202a, 219a, 236, 248a, 265a, pl. 1, figs. a-b, pl. 2, fig. i (puparium); Papavero, 2002: 2 (cat.). LT IZPAN [des. by Val, 1976: 75].
- leuckarti* Enderlein, 1912: 107, 113, fig. 10. Type-locality: Brazil, Amazonas, Tefé. Refs. – Enderlein, 1914: 582 (in key), 1931: 373; Hermann, 1916: 49; Rapp & Snow, 1945: 254 (cat.); Carrera & d’Andretta, 1957: 280; Papavero, 1967: 2 (cat.); Val, 1976: 74 (syn.). Type, IZPAN.
- helleriana* Enderlein, 1914: 578 (in key), 581 (*Acanthomera*). Type-locality: Ecuador, Tungurahua: Hacienda Santa Inés, 1244 m (1°25’S, 78°12’W) [cf. Brown, 1941: 846]. Refs. – Enderlein, 1921: 228 (*Acanthomera*); Austen, 1923: 569, fig. 3; Enderlein, 1931: 362 (*Acanthomera*); Rapp & Snow, 1945: 253 (cat.); Carrera & d’Andretta, 1957: 306 (*Rhaphiorhynchus*); Papavero, 1967: 3 (cat., *Rhaphiorhynchus*); Val, 1976: 74 (syn.). Type, IZPAN.
- comptus** Enderlein, 1912: 107, 117. Type-locality: “South America”. Distr. – Belize, Guyana, Surinam, French Guiana, Peru, Brazil (Amazonas). Refs. – Enderlein, 1914: 582 (in key); Hermann, 1916: 49; Enderlein, 1931: 373; Rapp & Snow, 1945: 253 (cat.); Val, 1976: 75, figs. 2, 16, 33, 48, 66, 81a, 101, 114, 132, 152, 175, 182, 194, 211, 229, 245, 262, 1992: 606, figs. 40.2a, 40.2j, 40.3a, 40.3b, 40.4a, 40.6a, 40.7c, 40.8a; Papavero, 2002: 2 (cat.). Type, SMTD.
- conspicuus* Austen, 1923: 581, figs. 6 (female), 7 (presumptive male). Type-locality: Belize, Corozal. Refs. – Enderlein, 1931: 375; Curran, 1934: 323, 324; Rapp & Snow, 1945: 253 (cat.); Carrera & d’Andretta, 1957: 278, figs. 1, 24, 50; Papavero, 1967: 2 (cat.); Val, 1976: 76 (syn.). Type, BMNH.
- sigma* Enderlein, 1931: 372 (*Opetiops*). Type-locality: Peru, Mariscal Cáceres, Juanjui. Refs. – Enderlein, 1934: 181 (*Meraca*); Rapp & Snow, 1945: 253 (cat.; *Opetiops*). Type, ZSBS.
- engeli** (Enderlein), 1931: 362 (*Acanthomera*). Type-locality: Panama, Chiriquí. Distr. – Panama. Refs. – Rapp & Snow, 1945: 253 (cat.; n. comb.); Carrera & d’Andretta, 1957: 305, figs. 16, 26, 55 (*Rhaphiorhynchus*); Papavero, 1967: 3 (cat.; *Rhaphiorhynchus*); Val, 1976: 76, figs. 25, 56, 89, 122, 161, 201a, 218, 235, 249, 266, 1992: 606, figs. 40.2n, 40.3r, 40.5h, 40.7e. Type, ZSBS.
- facetus** (Enderlein), 1931: 362 (*Acanthomera*). Type-locality: Panama, Chiriquí. Distr. – Panama. Refs. – Rapp & Snow, 1945: 253 (cat.; n. comb., as *faceta*); Carrera & d’Andretta, 1957: 297, figs. 11, 30 (*Rhaphiorhynchus*); Papavero, 1967: 3 cat.; *Rhaphiorhynchus*); Val, 1976: 77, figs. 39, 77, 108, 119, 143, 1992: 606, figs. 40.3h, 40.4f, 40.6e. Type, ZSBS.
- frauenfeldi** (Schiner), 1868: 78 (*Acanthomera*). Type-locality: “Colombia”. Distr. – Colombia (Antioquia, Boyacá, Cundinamarca), Venezuela (Aragua), Ecuador (Bolívar, Morona, Pichincha), Peru (Junín, Lima), Bolivia. Refs. – Bigot, 1881: 454, 459 (in key) (*Acanthomera*); Brauer, 1883: pl. 2, figs. 25a-e (larva) (*Acanthomera*); Roeder, 1896: 261 (*Acanthomera*); Osten Sacken, 1886: 65 (*Acanthomera*); Roeder, 1892: 261 (*Acanthomera*); Hunter, 1901: 147 (cat.; *Acanthomera*); Kertész, 1908: 294 (cat.; n. comb.); Enderlein, 1912: 101 (*Acanthomerai*), 1914: 578 (in key), 580 (*Acanthomera*), 1921: 228, 230 (*Acanthomera*); Austen, 1923: 565; Enderlein, 1931: 366 (*Acanthomera*); Rapp & Snow, 1945: 253 (cat.); Campos, 1952: 105 (cat.); Carrera & d’Andretta, 1957: 301, figs. 6, 25, 31, 52 (*Rhaphiorhynchus*); Papavero, 1967: 3 (cat.; *Rhaphiorhynchus*); Val, 1976: 77, figs. 11, 23, 43, 60, 75a-b, 90, 109, 144, 166a-b, 190, 203, 220, 238, 257, 275; Amat, 2005: 96 (list). Type, ?NMW [not found by Val (1976: 78)].
- kerteszi** (Enderlein), 1914: 578 (in key and text) (*Acanthomera*; as *kerteszi*). Type-locality: Peru, Mariscal Cáceres, Juanjui [Type, in Budapest and Stettin]. Letotype-locality: Peru, Junín, Chanchamayo. Distr. – Panama, Colombia, Peru, Bolivia (Cochabamba, Santa Cruz), Brazil (Amazonas, Pará, Mato Grosso do Sul). Refs. – Enderlein, 1921: 229, 230 (*Acanthomera*), 1931: 366 (*Acanthomera*); Rapp & Snow, 1945: 253; Carrera & d’Andretta, 1957: 295, figs. 8, 27, 54 (*Rhaphiorhynchus*); Papavero, 1967: 3 (cat.; *Rhaphiorhynchus*); Val, 1976: 78, figs. 4a, 17, 34, 49, 68, 83, 102, 115, 133, 181, 195, 212, 229, 246, 263, 1992: 607, figs. 40.2b, 40.2k, 40.3c, 40.3d, 40.4b, 40.5c, 40.6d, 40.7d, 40.8b; Papavero, 2002: 2 (cat.); Abreu & Rocha, 2003: 361 (occurrence in *Croton lanjowvvensis* [sic] (Euphorbiaceae) in Manaus, Amazonas, Brazil); Amat, 2005: 96 (list). LT BZM [des. by Val, 1976: 79].
- conspicabilis* Austen, 1923: 577, fig. 5. Type-locality: “Colombia”. Ref. – Enderlein, 1931: 362 (*Acanthomera*). Type,

BMNH.

- pictus** (Wiedemann), 1821: 61 (*Acanthomera*). Type-locality: “Brazil”. Distr. – Brazil (Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul), Argentina (Misiones), Paraguay (Guaira). Refs. – Lepeletier & Serville, 1825: 541 (*Acanthomera*); Wiedemann, 1828: 108 (*Acanthomera*); Macquart, 1834: 218, pl. 5, fig. 8 (*Acanthomera*), 1838: 167 (*Acanthomera*); Walker, 1848: 209 (*Acanthomera*), 1854: 301 (*Acanthomera*); Bigot, 1881: 458 (in key) (*Acanthomera*); Osten Sacken, 1886: 65 (*Acanthomera*); Hunter, 1901: 148 (cat.; *Acanthomera*); Aldrich, 1905: 210 (cat.; *Acanthomera*); Kertész, 1908: 295 (cat.; n. comb.); Hempel, 1911: 613 (*Acanthomera*), 1912: 93, figs. 1-6 (*Acanthomera*; biol.); Enderlein, 1912: 102, 104 (*Acanthomera*); Hempel, 1912: 93 (*Acanthomera*; biol. notes); Enderlein, 1914: 578 (in key), 579 (*Acanthomera*); Bondar, 1915: 27, figs. (*Acanthomera*); Enderlein, 1921: 229 (*Acanthomera*); Austen, 1923: 575; Ribeiro, 1924: 65, 66, 74 figs. (*Acanthomera*); Andrade, 1927: 69; Lima, 1928: 200 (list of trees attacked by larvae); Andrade, 1929: 595, 2 figs., 1930a: 253, pls. 29-36, 1930b: 436; Enderlein, 1931: 362, 366 (*Acanthomera*); Ronna, 1934; Anon., 1935: 777, fig.; Lima, 1936: 370; Araújo, 1937: 310; Bondar, 1938a, 1938b: 762; Rapp & Snow, 1945: 254 (cat.); Carvalho, 1950: 217 (list of plants attacked by larvae); Fonseca, 1950: 191, figs. 1-3; Bondar, 1954: 33, figs. 1-4, 1955: 21; Carrera, 1957: 817, figs. 1, 4-7 (*Rhaphiorhynchus*); Carrera & d’Andretta, 1957: 293, figs. 12, 28-29, 43-44, 56-59, 75-78 (*Rhaphiorhynchus*); Maranhão, 1962; Mariconi, 1963: 518; Papavero, 1967: 3 (cat.; *Rhaphiorhynchus*); Araújo e Silva, Gonçalves, Galvão, Gonálves, Gomes, Silva & Simoni, 1968: 587 (*Rhaphiorhynchus*; list of trees attacked by larvae); Val, 1976: 79, figs. 3, 18, 35, 50, 67, 82, 103, 116, 134, 153, 170, 183a, 196, 213, 230, 247, 264, pl. 1, figs. c-d, pl. 2, fig. h (puparium); Artigas & Papavero, 1996: 7, figs. 1-2 (female spermathecae); Mecke, Galileo & Engels, 2000: 163, 169 (larvae in *Araucaria angustifolia* (Araucariaceae)); Pereira, 2007: 18 (*Rhaphiorhynchus*; biol., gen. notes). Type, not found [Val, 1976: 81].
- flavipes* Macquart, 1847: 26, pl. 1, fig. 2 (*Acanthomera*). Type-locality: “Brazil”. Refs. – Walker, 1854: 301 (*Acanthomera*); Bigot, 1881: 459 (in key) (*Acanthomera*); Hunter, 1901: 147 (*Acanthomera*); Kertész, 1909: 294 (cat.; n. comb.); Enderlein, 1921: 101 (*Acanthomera*), 1914: 578 (*Acanthomera*), 1921: 228 (*Acanthomera*); Austen, 1923: 575 (syn.). Type, BMNH.
- magnifica* Walker, 1850: 74, pl. 1, fig. 1 (*Acanthomera*). Type-locality: “South America”. Refs. – Walker, 1854: 300 (*Acanthomera*); Schiner, 1868: 78 (*Acanthomera*); Bigot, 1881: 454 (in key) (*Acanthomera*); Osten Sacken, 1886: 65 (*Acanthomera*); Hunter, 1901: 148 (*Acanthomera*); Kertész, 1908: 295 (cat.; n. comb.); Enderlein, 1912: 101 (*Acanthomera*), 1914: 578 (*Acanthomera*), 1921: 228 (*Acanthomera*); Austen, 1923: 575 (syn.). Type, BMNH.
- teretruncum* Fiebrig, 1906: 316, 344, figs. 1-19 (immature stages, morphology and anatomy) (*Acanthomera*). Type-locality: “Paraguay”. Ref. – Brèthes, 1908: 285 (cat.; *Acanthomera*); Bezzi, 1912: 2 (*Acanthomera*); Bondar, 1915: 31 (*Acanthomera*). Type, never des.
- planiventris** (Wiedemann), 1821: 60, pl. 2, fig. 1 (*Rhaphiorhynchus*). Type-locality: “Brazil”. Distr. – Mexico (Puebla), Guatemala, Nicaragua, Costa Rica, Panama, Colombia (Cundinamarca, Santander), Venezuela, Trinidad, Guyana, Surinam, French Guiana, Ecuador (Manabi), Peru (Huánuco, Junín, Loreto, Ucayali), Brazil (Acre, Rondônia, Amazonas, Pará, Maranhão), Bolivia (Cochabamba, Santa Cruz). Refs. – Lepeletier & Serville, 1825: 545 (*Raphiorhynchus*); Wiedemann, 1828: 106, pl. 1, fig. 4 (*Rhaphiorhynchus*), 1830: 622 (*Rhaphiorhynchus*); Macquart, 1834: 217, pl. 5, fig. 9 (*Rhaphiorhynchus*); Guérin-Méneville, 1835: 544, pl. 98, fig. 3 (*Rhaphiorhynchus*); Macquart, 1838: 170, pl. 20, figs. 3a-b (*Rhaphiorhynchus*); Cuvier, 1849: pl. 172bis, fig. 2 (*Rhaphiorhynchus*); Walker, 1854: 299 (*Rhaphiorhynchus*); Schiner, 1868: 77 (*Rhaphiorhynchus*); Bigot, 1881: 458 (in key) (*Raphiorhynchus*); Osten Sacken, 1886: 66 (*Rhaphiorhynchus*); Hunter, 1901: 148 (cat.; *Rhaphiorhynchus*); Aldrich, 1905: 210 (cat.; *Rhaphiorhynchus*); Kertész, 1908: 296 (cat.; *Rhaphiorhynchus*); Enderlein, 1912: 105, fig. 4 (*Rhaphiorhynchus*), 1914: 582 (*Rhaphiorhynchus*); Hermann, 1916: 47 (*Rhaphiorhynchus*); Enderlein, 1921: 230 (*Rhaphiorhynchus*); Austen, 1923: 596, figs. 10a-b (*Rhaphiorhynchus*); Enderlein, 1931: 371 (*Rhaphiorhynchus*); Curran, 1934: 323 (*Rhaphiorhynchus*); Lima, 1936: 370 (list of trees attacked by larvae); Rapp & Snow, 1945: 254 (cat.; *Rhaphiorhynchus*); Carrera & d’Andretta, 1957: 291, figs. 32, 37-38, 41-42, 66-74, 84-85 (*Rhaphiorhynchus*); Papavero, 1967: 3 (cat.; *Rhaphiorhynchus*); Val, 1976: 81, figs. 12, 22, 44, 61, 76, 110, 124, 142, 165a, 176, 188, 204, 221, 237, 258, 274, 1992: 607, figs. 40.2g, 40.2p, 40.3m, 40.3n, 40.4g, 40.6g, 40.7h, 40.8i; Ovtshinnikova, 1994: 213 (musculature of male genitalia); Costa, Rebello, d’Ávila, Santos & Lopes, 1998: 15 (*Rhaphiorhynchus*; in *Schizolobium amazonicum* Huber (Fabaceae)); Papavero, 2002: 1 (cat.); Amat, 2005: 95, 96 (list); Sousa, Carvalho & Ramos, 2005: 2 (*Rhaphiorhynchus*; in *Schizolobium amazonicum* Huber (Fabaceae)); Rapp, 2007: 27, figs. (egg, 1st instar larva, final instar larva, pupa, biol.; in *Ceiba pentandra* (Bombacaceae), Panama). Type, not found [Val, 1976: 82].
- crassipalpis* Macquart, 1847: 27, pl. 1, fig. 3 (*Acanthomera*). Refs. – Walker, 1854: 302 (*Acanthomera*); Schiner, 1868: 78 (*Acanthomera*). Bigot, 1881: 458 (*Acanthomera*), 458 (in key) (*Raphiorhynchus*); Aldrich, 1905: 210 (cat.; *Acanthomera*). Type, BMNH.
- bigoti* Belardi, 1862: 15, pl. 3, fig. 10 (*Acanthomera*). Type-locality: Mexico, Puebla, Chinantla near Oaxaca. Refs. –

Papavero

- Schiner, 1868: 78 (*Acanthomera*); Bigot, 1881: 459 (in key) (*Acanthomera*); Aldrich, 1905: 210 (cat.; *Acanthomera*). Type, IMZUT.
- punctiger** (Enderlein), 1921: 228, 229 (*Acanthomera*). Type-locality: Brazil, Espírito Santo. Distr. – Brazil (Espírito Santo, Rio de Janeiro, Paraná). Refs. – Enderlein, 1931: 365 (*Acanthomera*); Rapp & Snow, 1945: 254 (cat.; n. comb.); Carrera & d'Andretta, 1957: 298, figs. 9, 34, 39, 51, 53 (*Rhaphiorhynchus*); Papavero, 1967: 4 (*Rhaphiorhynchus*); Val, 1976: 83, figs. 10, 28, 42, 59, 74, 107, 127, 145a, 164, 184, 206, 224, 241, 256, 273. Type, BZM.
- variegatus* Austen, 1923: 592, fig. 9. Type-locality: "Brazil". Type, BMNH.
- roseni** (Enderlein), 1931: 370, fig. 3 (*Atopomyia*). Type-locality: Panama, Chiriqui. Distr. – Mexico (Tamaulipas, Veracruz), Guatemala (Alta Verapaz), Panama. Refs. – Carrera & d'Andretta, 1957: 308, figs. 124, 35 (*Rhaphiorhynchus*); Papavero, 1967: 4 (*Rhaphiorhynchus*); Val, 1976: 84, figs. 5, 21, 36, 51, 70, 117, 139a, 156, 179, 197, 214, 231, 251, 268 (n. comb.); Flores & Sánchez Ramos, 1989: 9; Val, 1992: 607, figs. 40.2d, 40.2l, 40.3e-g, 40.4d, 40.5f, 40.6b, 40.7b, 40.8e; Niño, Reyes Castillo, Sánchez Ramos & Herrera, 2005: 438; Sánchez Ramos & Reyes Castillo, 2006: 45 (interaction with the red oak, *Quercus germana* Sachltdl. et Cham. (Fagaceae) in Tamaulipas, Mexico). Type, ZSBS.
- rothschildi** (Austen), 1909: 129 (1910: pl. 16, fig. 1) (*Rhaphiorhynchus*). Type-locality: Bolivia, Santa Cruz, Buena Vista. Distr. – Colombia (Meta), Ecuador, Brazil (Amazonas), Bolivia (La Paz, Santa Cruz). Refs. – Rothschild, 1910: 461 (*Rhaphiorhynchus*; mimic of *Pepsis elevata* Fabricius, 1804 (Hymenoptera, Pompilidae)); Hermann, 1916: 47 (*Rhaphiorhynchus*); Bezzi, 1917: 210 (*Rhaphiorhynchus*); Austen, 1923: 597, fig. 11 (*Atopomyia*); Enderlein, 1931: 369, fig. 4 (*Atopomyia*); Carrera & d'Andretta, 1957: 307, fig. 40 (*Rhaphiorhynchus*); Papavero, 1967: 4 (*Rhaphiorhynchus*); Val, 1976: 85, figs. 20, 52, 85, 118, 140a-b, 157, 170, 198, 215, 232, 257, 269; Papavero, 2002: 1 (cat.); Amat, 2005: 96 (list). Type, BMNH.
- ocellata* Enderlein, 1931: 370 (*Atopomyia*; as *rotschildi* var.). Type-locality: Bolivia, Santa Cruz, Sara. Type, BZM.
- splendidus** Austen, 1923: 589, fig. 8. Type-locality: Panama, Chiriqui Volcano, 5000-9000 ft. Distr. – Panama. Refs. – Enderlein, 1931: 366 (*Acanthomera*); Rapp & Snow, 1945: 254 (cat.); Carrera & d'Andretta, 1957: 310 (*Rhaphiorhynchus*); Papavero, 1967: 4 (cat.; *Rhaphiorhynchus*); Val, 1976: 85, figs. 6, 38, 69, 99, 137, 159, 180, 1992: 607, figs. 40.2e, 40.4c, 40.3f, i, 40.6a, 40.8g. Type, BMNH.
- subsignatus** (Enderlein), 1931: 364, fig. 1 (*Acanthomera*). Type-locality: Panama, Chiriqui. Distr. – Panama. Refs. – Rapp & Snow, 1945: 254 (cat.; n. comb.); Carrera & d'Andretta, 1957: 309 (*Rhaphiorhynchus*); Papavero, 1967: 4 cat.; *Rhaphiorhynchus*); Val, 1976: 86, figs. 19, 54, 120, 138, 155, 200, 217, 234, 267, 1992: 608, figs. 40.2m, 40.3q, 40.7g, 40.8d. Type, BZM.
- splendida* Austen of Enderlein, 1931: 366 (*Acanthomera*), misident.
- tabaninus** Thunberg, 1819: vii, pl., figs. 1-4 [*Pantophtalmus*]. Type-locality: Lesser Antilles, Saint Barthélemy (Forsström) [cf. Papavero, 1971: 103]. Distr. – Lesser Antilles (St. Barthélemy), Trinidad, Guatemala, Panama, Colombia (Amazonas, Chocó, Meta, Putumayo), Venezuela (Amazonas, Aragua, Delta Amacuro, Monagas), Guyana, Surinam, French Guiana, Peru (Cusco, Huánuco, Junín, Loreto), Brazil (Amazonas, Pará, Amapá, Bahia, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Santa Catarina), Bolivia (Cochabamba, Santa Cruz). Refs. – Wiedemann, 1828: 110 (*Acanthomera*); Walker, 1854: 300 (*Acanthomera*); Bigot, 1881: 459 (in key) (*Acanthomera*); Osten Sacken, 1886: 66; Aldrich, 1905: 210 (cat.; *Acanthomera*); Kertész, 1908: 296 (cat.); Williston, 1908: 175; Enderlein, 1912: 108, 109, fig. 6, 1914: 583 (in key); Austen, 1923: 552, 555, 556, 562, fig. 1 (larva); Enderlein, 1931: 375; Greene & Urich, 1931: 277, pls. 7-9 (larvae, pupae, biol.); Curran, 1934a: 323, 324; Thorpe, 1934: 5-21, figs. 1-12 (larva), 13-20 (adult) (anatomy, biol.); Rapp & Snow, 1945: 254 (cat.); Greene, 1956: 24, fig. 19 (larva); Carrera, 1957: 817, fig. 2; Carrera & d'Andretta, 1957: 259, 275, figs. 2, 21, 22, 48, 79-83; Papavero, 1967: 2 (cat.); Val, 1976: 87, figs. 15, 31, 47, 64, 80, 113, 130, 149, 177, 210, 227, 244, 261, 277, 1992: 608, figs. 40.1b, 40.2i, 40.2r, 40.3s-t, 40.4i, 40.5k, 40.6i, 40.7j; Sinclair, 1992: 241 (fig. 6), 242 (larval mandible); D. W. Zeh & J. A. Zeh, 1992: 43 and J. A. Zeh & D. W. Zeh, 1992: 61 (*Semeiochernes armiger* (Balzan, 1892) (Pseudoscorpiones: Chernetidae) as phoretic); Berrigan & Lighton, 1993: 256; Aguiar & Bürnheim, 1998: 456 (*Semeiochernes armiger* (Balzan, 1892) (Pseudoscorpiones: Chernetidae) as phoretic); Poinar Jr., Eurèiæ & Cokendolpher, 1998: 88 (*Semeiochernes armiger* (Balzan, 1892) (Pseudoscorpiones: Chernetidae) as phoretic); Papavero, 2002: 2 (cat.); Bartholomew & Lighton, 2004: 461 (endothermy and energy metabolism); Amat, 2005: 95, 96 (list); Santos, Tizo-Pedroso & Fernandes, 2005: 11 (*Semeiochernes armiger* (Balzan, 1892) (Pseudoscorpiones: Chernetidae) as phoretic). Type, lost (cf. Val, 1976: 88].
- seticornis* Wiedemann, 1828: 108, pl. 2, fig. 1 (*Acanthomera*). Type-locality: "Brazil". Refs. – Macquart, 1838: 168, pl. 20, fig. 1 (*Acanthomera*), 1847: 27 (*Acanthomera*); Walker, 1848: 210 (*Acanthomera*), 1854: 301 (*Acanthomera*); Bigot, 1880: v (*Megalomyia*), 1881: 458 (in key) (*Megalemyia*), 1886: clxviii (*Megalemyia*); Hunter, 1901: 148 (car.; *Acanthomera*); Aldrich, 1905: 210 cat.; *Acanthomera*); Kertész, 1908: 295 (n. comb.); Enderlein, 1912: 108, 114, figs. 12-15, 1914: 583 (in key), 585; Austen, 1923: 552 (syn.). LTNNMNL [des. by Val, 1976: 88-89].
- heydenii* Wiedemann, 1828: 555 (*Acanthomera*). Type-locality: "Brazil". Refs. – Walker, 1848: 209 (*Acanthomera*), 1854: 301 (*Acanthomera*); Bigot, 1881: 458 (in key) (*Acanthomera*); Hunter, 1901: 147 cat.; *Acanthomera*); Kertész,

- 1908: 294 (n. comb.); Enderlein, 1912: 102 (*Acanthomera*), 1914: 583 (in key and text), 1921: 23; Austen, 1923: 552 (syn.); Bondar, 1938a, 1938c; Silva, 1939; Barbiellini, 1954: 617; Bondar, 1954: 33, 1955: 21; Carrera & d'Andretta, 1957: 277, figs. 18, 49, 60-65; Papavero, 1967: 2 (cat.); Araújo e Silva, Gonçalves, Galvão, Gonçalves, Gomes, Silva & Simoni, 1968: 587 (list of trees attacked by larvae). Type, SENCK.
- immanis* Wiedemann, 1830: 623 (*Acanthomera*). Type-locality: "Surinam". Refs. – Westwood in Duncan, 1840: 331, pl. 35, fig. 2 (*Acanthomera*); Guérin-Méneville, 1845: 544 (*Acanthomera*; note); Walker, 1848: 209 (*Acanthomera*), 1854: 301 (*Acanthomera*); d'Orbigny in Cuvier, 1849: pl. 2, fig. 3 (*Acanthomera*); Bigot, 1881: 456, 459 (in key) (*Acanthomera*); Hunter, 1901: 147 (cat.; *Acanthomera*); Kertész, 1908: 295 (n. comb.); Enderlein, 1912: 107, 116, 1914: 583, 1921: 231; Austen, 1923: 552 (syn.); Enderlein, 1931: 375 (as *tabanius* var.). Type, BZM.
- picta* Wiedemann of d'Orbigny in Cuvier, 1849: pl. 172bis, fig. 1 (*Acanthomera*), misident.
- rubriventris* Bigot, 1880: v (*Acanthomera*). Type-locality: "Guatemala". Refs. – Bigot, 1881: 456 ("perhaps a var. of *immanis*"), 460 (in key) (*Acanthomera*); Osten Sacken, 1886: 64 (*Acanthomera*); Hunter, 1901: 148 (cat.; *Acanthomera*); Aldrich, 1905: 210 (cat.; *Acanthomera*); Kertész, 1908: 295 (n. com.); Enderlein, 1912: 108, 1914: 583 (in key); Austen, 1923: 552 (syn.). Type, BMNH.
- setiformis* Bigot, 1881: 454, 455 (*Megalemyia*), error.
- sp.* Williston, 1908: fig. 2 (*Acanthomera*).
- tabanius* Kertész, 1908: 296, error.
- "*Pantophthalmida*" Bezzi, 1912: 1, figs. p 2 (adult), p. 3 (larva).
- gigas* Enderlein, 1912: 109, 110, fig. 7. Type-locality: "South America". Refs. – Enderlein, 1914: 583 (in key); Hermann, 1916: 49; Enderlein, 1931: 373; Anon., 1935: 777, fig.; Bondar, 1938c: 22, figs. 19 (adult), 19a (larva, lateral view); Silva, 1939: 93; Rapp & Snow, 1945: 253 (cat.); Barbiellini, 1954: 617, 2 figs. Type, IZPAN.
- fastuosus* Knab, 1914: 27. Type-locality: Trinidad; French Guiana, St. Jean; Panama, Canal Zone, Ancon. Ref. – Austen, 1923: 562 (syn.). Type, USNM.
- gigans* Bezzi, 1917: 287, error.
- reticornis* Enderlein, 1921: 231, error.
- sp.* Curran, 1934b: fig. p. 155.
- vittatus** (Wiedemann), 1828: 109, pl. 2, fig. 2 (*Acanthomera*). Type-locality: "Brazil". Distr. – Trinidad, Colombia (Meta), Venezuela (Monagas), Surinam, French Guiana, Peru (Loreto), Brazil (Acre, Amazonas, Pará, Amapá, Mato Grosso, Bahia, Minas Gerais, Espírito Santo, São Paulo), Bolívia (Cochabamba, Santa Cruz). Refs. – Macquart, 1838: 168, pl. 20, fig. 2 (*Acanthomera*); Walker, 1848: 210 (*Acanthomera*), 1854: 302 (*Acanthomera*); Schiner, 1868: 78 (*Acanthomera*); Bigot, 1881: 460 (in key) (*Acanthomera*); Osten Sacken, 1886: 64 (*Acanthomera*); Hunter, 1901: 148 (cat.; *Acanthomera*); Kertész, 1908: 296 (cat.; n. comb.); Enderlein, 1912: 107, 114, fig. 11, 1914: 583 (in key), 585, 1921: 231; Austen, 1923: 586; Enderlein, 1931: 376; Curran, 1934a: 323, 324; Bondar, 1938a, 1938b: 762, figs. A-C (adult, larva, pupa), 1938c: 20, figs. 18 (adult), 18a (larva, lateral view), 18b (pupa, lateral view); Rapp & Snow, 1945: 254 (cat.); Bondar, 1954: 33, 1955: 21; Carrera, 1957: 817, fig. 3; Carrera & d'Andretta, 1957: 283, figs. 4, 17; Papavero, 1967: 2 (cat.); Araújo e Silva, Gonçalves, Galvão, Gonçalves, Gomes, Silva & Simoni, 1968: 587 (list of trees attacked by larvae); Val, 1976: 89, figs. 13, 29, 45, 72, 95, 111, 128, 150, 168, 173, 191, 208, 225, 242, 259, 276; Papavero, 2002: 1 (cat.); Amat, 2005: 96 (list). LT BZM [des. by Val, 1976: 91].
- servillei* Guérin-Méneville, 1835: 543, pl. 98, fig. 2 (*Acanthomera*). Type-locality: "Brazil". Ref. – Bigot, 1881: 454 (syn.). Type, MNHNP.
- fulvida* Bigot, 1880: v (*Acanthomera*). Type-locality: "French Guiana". Refs. – Bigot, 1881: 456, 460 (in key) (*Acanthomera*); Osten Sacken, 1886: 68 (*Acanthomera*); Hunter, 1901: 147 (cat.; *Acanthomera*); Kertész, 1908: 294 (n. comb.); Enderlein, 1912: 107, 1914: 583 (in key); Austen, 1923: 586 (syn.). Type, BMNH.
- zoos** (Enderlein), 1931: 367, fig. 2 (*Lycops*). Type-locality: Mexico, Oaxaca. Distr. – Mexico (Oaxaca). Refs. – Carrera & d'Andretta, 1957: 311 (*Rhaphiorhynchus*); Papavero, 1967: 4 (cat.; *Rhaphiorhynchus*); Val, 1976: 91, figs. 53, 87, 119, 141, 172, 189, 216, 253, 270, 1992: 608, figs. 40.3u, 40.5e, 40.7a, 40.8h. Type, DEI.

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Index (Synonyms in *italics*)

- Acanthomera* Wiedemann, 1821 – 2
 Acanthomeridae Macquart, 1838 – 1
Accanthomera Bigot, 1882, error – 2
alienus (Hermann), 1916 (Pantophthalmus), Opetiops – 2
arygyropastus (Bigot), 1880 (Megalomyia), Pantophthalmus – 2
Atopomyia Austen, 1923 – 2

batesi Austen, 1923, Pantophthalmus – 2
bellardii (Bigot), 1862 (Acanthomera), Pantophthalmus – 2
bigoti (Bellardi), 1862 (Acanthomera), Pantophthalmus – 4

championi (Osten Sacken), 1886 (Acanthomera),
 Pantophthalmus – 2
championi Osten Sacken of Enderlein, 1921, Pantophthalmus,
 misident. – 3
chuni (Enderlein), 1912 (Acanthomera), Pantophthalmus – 3
comptus Enderlein, 1912, Pantophthalmus – 3
conspicabilis Austen, 1923, Pantophthalmus – 3
conspicuus Austen, 1923, Pantophthalmus – 3
crassipalpis (Macquart), 1847 (Acanthomera),
 Pantophthalmus – 4

engeli (Enderlein), 1931 (Acanthomera), Pantophthalmus – 3

facetus (Enderlein), 1931 (Acanthomera), Pantophthalmus – 3
fastuosus Knab, 1914, Pantophthalmus – 6
flavipes (Macquart), 1847 (Acanthomera), Pantophthalmus – 4
frauenfeldi (Schiner), 1868 (Acanthomera), Pantophthalmus – 3
fulvida (Bigot), 1880 (Acanthomera), Pantophthalmus – 6

gigans Bezzi, 1917, Pantophthalmus, error – 6
gigas Enderlein, 1912, Pantophthalmus – 6

helleri Enderlein, 1912, Pantophthalmus – 3
helleriana (Enderlein), 1914 (Acanthomera), Pantophthalmus – 3
heydenii (Wiedemann), 1828 (Acanthomera), Pantophthalmus – 5

immanis (Wiedemann), 1830 (Acanthomera), Pantophthalmus – 6

kerteszi (Enderlein), 1914 (Acanthomera),
 Pantophthalmus – 3

latifrons Enderlein, 1931, Pantophthalmus – 3
leuckarti Enderlein, 1912, Pantophthalmus – 3
Lycops Enderlein, 1931 – 2

magnifica (Walker), 1850 (Acanthomera), Pantophthalmus – 4
Megalemyia Bigot, 1881, error or emend. – 2
Megalomyia Bigot, 1880 – 2
Meraca Enderlein, 1934 – 2

ocellata (Enderlein), 1931 (Atopomyia), Pantophthalmus – 5
Opetiops Enderlein, 1921 – 2

 Panophthamidae Bigot, 1886 – 1
Pantophthalmus Thunberg, 1819, error – 2
Pantophthalmida Bezzi, 1912 – 6
 Pantophthamidae Bigot, 1882 – 1
Pantophthalmus Thunberg, 1819 – 2
picta Wiedemann of Bellardi, 1859 (Acanthomera),
 Pantophthalmus, misident. – 2
picta Wiedemann of d'Orbigny, 1849 (Acanthomera),
 Pantophthalmus, misident. – 6
pictus (Wiedemann), 1821 (Acanthomera), Pantophthalmus – 4
planiventris (Wiedemann), 1821 (*Rhaphiorhynchus*),
 Pantophthalmus – 4
punctiger (Enderlein), 1921 (Acanthomera), Pantophthalmus – 5

Rhaphiorhynchus Lepeletier & Serville, 1825, error – 2
Rhaphiorhynchus Loew, 1862, error – 2
Rhaphiorhynchus Bigot, 1881, error – 2
Rhaphiorhynchus Enderlein, 1914, error – 2
Rhaphiorhynchus Wiedemann, 1821 – 2
roseni (Enderlein), 1931 (Atopomyia), Pantophthalmus – 5
rothschildi (Austen), 1923 (*Rhaphiorhynchus*),
 Pantophthalmus – 5
rubriventris (Bigot), 1880 (Acanthomera), Pantophthalmus – 6

servillei (Guérin-Méneville), 1835 (Acanthomera),
 Pantophthalmus – 6
seticornis (Wiedemann), 1828 (Acanthomera), Pantophthalmus – 5
setiformis (Bigot), 1881 (Mealemyia), Pantophthalmus, error – 6
sigma (Enderlein), 1931 (Opetiops), Pantophthalmus – 3
sp. Curran, 1934, Pantophthalmus – 6
sp. Osten Sacken, 1886 (Acanthomera), Pantophthalmus – 3
sp. Williston, 1908 (Acanthomera), Pantophthalmus – 6
splendidus Austen, 1923, Pantophthalmus – 5
splendidus Austen of Enderlein, 1931 (Acanthomera),
 Pantophthalmus, misident. – 5
subsignatus (Enderlein), 1931 (Acanthomera), Pantophthalmus – 5

tabaninus Thunberg, 1819, Pantophthalmus – 5
tabanius Kertész, 1908, Pantophthalmus, error – 6
teretruncum (Fiebrig), 1906 (Acanthomera), Pantophthalmus – 4

variegatus Austen, 1923, Pantophthalmus – 5
versicolor Austen, 1923, Pantophthalmus – 3
vittatus (Wiedemann), 1828 (Acanthomera), Pantophthalmus – 6

zoos (Enderlein), 1931 (Lycops), Pantophthalmus – 6

