

key to Bethyilidae

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| 1 | Basal vein present and giving rise to a vein or stub; tarsal claws strongly curved (Bethylinae) | 2. |
| – | Basal vein simple or absent, or wingless; tarsal claws weakly curved | 16. |
| 2 | (1). Cell 2R1 (radial cell) of fore wing fully closed or nearly so, vein R bent up apically at a right angle; areolet closed; maxillary palpi with four segments and labial palpi with two (first segment of each usually hidden) | Sierola |
| – | Cell 2R1 broadly open, vein R obtusely bent up and ending remote from wing margin; areolet variable; palpi variable, usually maxillary palpi with five segments and labial palpi with three | 3. |
| 3 | (2). Areolet open (Goniozus s.s.) | 4. |
| – | Arolet closed (Parasierola) | 9. |
| 4 | (3). Clypeus very short, almost truncate; frons strongly shining, polished, microsculpture very faint | Goniozus aethiops |
| – | Clypeus prominent, semicircular or slightly angulate; frons with distinct microreticulation even if smooth | 5. |
| 5 | (4). Clypeus nearly flat with only a trace of a carina; ocelli enlarged (males only) | Goniozus nr. floridanus male |
| – | Clypeus with a sharp carina, relatively elongate; ocelli normal | 6. |
| 6 | (5). Mandible black; clypeus in profile blunt and slightly recurved apicoventrally, apical angle obtuse; maxillary palpi four-segmented, two obvious segments beyond the bend; propodeum without a posterior transverse carina; antennal scrobes distinctly carinate; head narrower and more compressed, WH/LH 0.79-0.84 | 7. |
| – | Mandible yellow; clypeus in profile evenly curved to elongate, apical angle acute to right; maxillary palpi five-segmented, three obvious segments beyond the bend; propodeum with a posterior transverse carina; antennal scrobes not carinate; head broader and deeper, WH/LH 0.86-0.90 | 8. |
| 7 | (6). Rs+M stub vein relatively elongate, about as long as Rs from their junction to the prostigma; larger, LM 0.78-0.83 mm, LFW 1.52-1.64 mm | Goniozus foveolatus |
| – | Rs+M stub vein very short, less than twice its width, about half as long as Rs from their junction to the prostigma; very small, LM 0.57-0.69 mm, LFW 1.10-1.30 mm | Goniozus nr. hortorum |
| 8 | (6). Clypeus in profile elongate, beak-like, apical angle strongly acute; vertex around lateral ocelli carinate but straight, not reflexed upward; fore femur moderately broad, FL/FW 1.9-2.0 | Goniozus cf. floridanus |
| – | Clypeus in profile evenly curved, apical angle right to weakly acute; vertex around lateral ocelli slightly sinuate in face view and slightly reflexed upward; fore femur strongly expanded, FL/FW 1.6-1.7 | Goniozus cf. hubbardi |
| 9 | (3). Head behind the eyes extremely short, less than half eye height; clypeus weakly carinate | Parasierola gracilicornis |
| – | Head behind the eyes at least half eye height; clypeus distinctly carinate | 10. |
| 10 | (9). Head large and quadrate; clypeus short and very broadly rounded, carina low, consisting of a short ridge | Parasierola rivularis |
| – | Head rounded, not particularly large; clypeus elongate, semicircular to rounded triangular, carina high and prominent | 11. |
| 13 | (10). Frons densely punctate all over, mostly about 1 pit width apart; median and submedian wing cells densely setose | Parasierola B |

–	Frons densely punctate just above antennae, becoming sparser towards ocelli; median wing cell with one row of setae, submedian cell with two	14.
14 (13).	Coxae and femora dark brown to black; large species	Parasierola emigratus
–	Legs all yellow; small	Parasierola scitulus
16 (1).	Mesepisternum smooth, without grooves or foveae; mostly small species, females sometimes with an enlarged metasoma; sometimes wingless (Scleroderminae)	17.
–	Mesepisternum with distinct grooves outlining foveae; size variable, mostly larger species; metasoma not enlarged, only slightly wider than mesosoma; always winged (Epyrinae)	28.
17 (16).	Antenna with 13 segments; size variable; fore wing, if present, always with at least one closed cell	18.
–	Antenna with 12 segments; very small; fore wing venation reduced, usually without closed cells, at most with one	22.
18 (17).	Head and body extremely flattened, eye occupying entire height of head in lateral view	19.
–	Head and body not extremely flattened, gena obvious below eye in lateral view	20.
19 (18).	Prosternum large, pentagonal, larger than procoxae	Megaprosternum sp. nov. 19
–	Prosternum normal, relatively small and inconspicuous	cf. Alongatepyris?
20 (18).	Head large and rectangular; mandible thin and elongate, with 2-3 teeth; always(?) winged	Allobethylus ewa
–	Head rounded; mandible stout; females usually wingless, males usually winged	21.
21 (20).		Sclerodermus
–		Nothepyris?
22 (17).	Frons produced into a prominent projection over the clypeus and antennal bases	23.
–	Frons without such a projection	24.
23 (22).	Radial vein absent, fore wing with only the basal vein visible as a fold; female head and mesosoma pale, testaceous to bright yellow, male head dark brown, mesosoma yellowish brown; head about 1.3 times as long as wide	Prorops sp. nov. 25
–	Radial vein present in the fore wing; body entirely black; head about as long as wide (not currently established but widely introduced for biological control of coffee berry borer)	Prorops nasuta
24 (22).	Body yellow except apex of metasoma; females sometimes wingless	25.
–	Body dark brown to black; both sexes fully winged	26.
25 (24).	Head broad, WH/LH 0.82-0.84; posterodorsal corners of propodeum acute, slightly spinose; females always apterous, males winged	Cephalonomia gallicola
–	Head extremely narrow, WH/LH 0.62-0.66; propodeum with corners posterodorsally but not acute or spinose; both sexes fully winged	Cephalonomia narrow head
26 (24).	Mandible with one tooth; head rounded and broad, narrowing behind, WH/LH 0.92; frons shining; propodeum with a median carina; fore wing with one closed cell	Cephalonomia tarsalis
–	Mandible with three teeth; head quadrate, parallel-sided, WH/LH 0.76-0.87; propodeum lacking a median carina; fore wing without a closed cell	27.
27 (26).	Head elongate, relatively narrow, WH/LH 0.77-0.84	Cephalonomia hyalinipennis
–	Head broader, WH/LH 0.87 (not known to be present in Hawaii)	Cephalonomia stephanoderis

- 28 (16). Scutellum basally with a transverse groove, straight or deflected backward at each end, with or without a thin median partition; notauli absent or represented only by very faint anterior lines 29.
- Scutellum with a pair of basal pits, either completely separate or connected by a very thin and shallow line; notauli distinct, represented by elongate, lanceolate or teardrop-shaped grooves 33.
- 29 (28). Radial vein short, at most slightly longer than basal vein; body and wing veins with strong black setae Laelius centratus?
- Radial vein much longer than basal vein; setae mostly pale except on apical segments of metasoma 30.
- 30 (29). Pronotum and mesoscutum each with a transverse line of small foveae; propodeum with 9 discal carinae; large species Formosiepyris malihini
- Pronotum and mesoscutum without foveate lines; propodeum with only 3 discal carinae; smaller species. Holepyris 31.
- 31 (30). Lateral lobes of clypeus mostly concealed under the antennal bases in dorsal view; frons relatively smooth, somewhat shining Chlorepyris sp.
- Clypeus conspicuously protruding, lateral lobes nearly as long as median lobe, conspicuous in dorsal view; frons coriaceous to granular 32.
- 32 (31). Scutellar groove divided by a narrow septum; frons punctation distinct, fine and dense; antennae not dark apically Holepyris hospes
- Scutellar groove undivided; frons punctation obscured by densely granular sculpture; antennae dark apically Holepyris glabratus
- 33 (28). Apical segments of metasoma red; notauli close together and broad posteriorly, teardrop-shaped, separated by less than their width; mesopleural pit obsolete, represented by a broad, shallow depression with rugose sculpture; large species (males very rare) Epyris sp. A
- Body entirely black; notauli separated by much more than their posterior width, linear or narrowly lanceolate; mesopleural pit distinct, or if reduced then not surrounded by a coarsely rugose area; size variable 34.
- 34 (33). Large species: WL>3.0 mm and TL>2.0 mm in females, WL>2.5 mm and TL>1.5 mm in males; mesopleural pit consisting of a rugose depression, mesopleuron above pit convex and strongly shining; head and pronotum smooth and shining, especially in male; female with flattened, twisted mandible, apically rounded with teeth inward and subapical, and with front tarsi slightly flattened and with spathulate posteroapical spines; submedian cell nearly glabrous in female, densely setose in male Trachepyrus extraneus
- Smaller species: WL<2.5 mm and TL<1.5 mm in both sexes; mesopleural pit deep, distinct; both sexes with mandible normal, front legs unarmed, and wing cells densely setose; sculpture variable, head, pronotum, and mesopleuron often at least slightly coriaceous 35.
- 35 (34). Females; head dorsally strongly shining, smooth with only a faint microreticulate pattern 36.
- Males; head dorsally coriaceous, with distinct texture even if slightly shining 39.
- 36 (35). Head narrow, WH/LH ~0.83; metapostnotum coarsely lineate-rugose laterad of median carina; head smooth and shining dorsally 37.
- Head rather broad, WH/LH 0.88-0.93; metapostnotum with a relatively fine, regular mesh-like pattern of reticulation, laterally finely striate; head microsculpture variable 38.

- 37 (35). Submedian carina distinct basally as a lineate ruga separating the metapostnotum from the lateral propodeum; larger species, LFW ~2.2 mm, LH ~0.80 mm Epyris sepulchralis (sp. C)
 – Submedian carina indistinct, metapostnotum and lateral propodeum distinguished only by the difference in sculpture; smaller species, LFW 1.7-1.8 mm, LH ~0.64-0.68 mm Epyris sp. F
- 38 (35). Frons conspicuously setose, arising from punctures irregularly 1-3 pit widths apart; mandible black; vertex without grooves near ocelli; drop between lateral ocelli and occipital carina short and indistinct Epyris californicus (sp. B)
 – Frons sparsely setose, punctures nearly all 3 or more pit widths apart; mandible orange; vertex with distinct grooves extending laterad from the lateral ocelli; a prominent vertical ledge present between lateral ocelli and occipital carina Epyris cariniceps (sp. H)
- 39 (35). Frons microsculpture coriaceous, with distinct texture but slightly shining; eyes strongly protruding in dorsal view; head strongly convex in lateral view, DH/LH ~0.54 Epyris californicus (sp. D)
 – Frons microsculpture coarsely granular; eyes not strongly protruding in dorsal view; head weakly convex in lateral view and compressed, DH/LH 0.48-0.50 40.
- 40 (39). Frons appearing almost impunctate, with short setae arising from indistinct pits that are mostly obscured by microsculpture; occiput evenly rounded, without a distinct posterior vertical face Epyris cariniceps (sp. I)
 – Frons distinctly punctate; occiput somewhat squared in lateral view, with a vertical face above the occipital carina Epyris sepulchralis (sp. G)