

The West Palaearctic species of the genera *Gildoria* Hedqvist and *Platyspathius* Viereck, with keys to the species (Hymenoptera: Braconidae: Doryctinae)

C. van Achterberg

Achterberg, C. van. The West Palaearctic species of the genera *Gildoria* Hedqvist and *Platyspathius* Viereck, with keys to the species (Hymenoptera: Braconidae: Doryctinae).

Zool. Med. Leiden 77 (15), 30.xii.2003: 267-290, figs 1-70.— ISSN 0024-0672.

C. van Achterberg, Afdeling Entomologie (Hymenoptera), Nationaal Natuurhistorisch Museum, Postbus 9517, 2300 RA Leiden, The Netherlands (e-mail: achterberg@naturalis.nnm.nl).

Key words: Hymenoptera; Braconidae; Doryctinae; *Gildoria*; *Dendrosotinus*; *Platyspathius*; *Spathiohormius*; *Lenticulara*; Morocco; France; Canary Islands; Europe; Palaearctic; distribution; key; new species.

The West Palaearctic species of the genera *Gildoria* Hedqvist, 1974, and *Platyspathius* Viereck, 1911 (Braconidae: Doryctinae) are revised. Five new species are described and illustrated: *Gildoria elongata* spec. nov. from Canary Islands, *G. gijswijti* spec. nov. from France, *G. iberica* spec. nov. from Spain, *G. striata* spec. nov. from Morocco and *Platyspathius europaeus* spec. nov. from France and Italy. The genus *Gildoria* is re-instated, *Gildoria anthaxiae* (Belokobylskij, 1983), *G. grandis* (Fahringer, 1930), *G. planus* (Ratzeburg, 1848), *G. similis* (Bouček, 1955) and *G. titubata* (Papp, 1985) are new combinations, and *Dendrosotinus ilanotensis* Čapek, 1992, is synonymized with *Gildoria titubata* (Papp, 1985). *Doryctes lenticularis* Granger, 1949, is designated as type species of the subgenus *Lenticularia* nov. from Madagascar. A key to the species of both genera is added.

Introduction

The genus *Gildoria* Hedqvist, 1974 (Braconidae: Doryctinae) has been treated as a monotypic genus (e.g., Shenefelt & Marsh, 1976) or synonymized with the genus *Dendrosotinus* Telenga, 1941 (Belokobylskij, 1993, 1998). In this paper the genus *Gildoria* is treated as a valid genus because it differs considerably from the type species of *Dendrosotinus*: *Dendrosoter ferrugineus* Marshall, 1890. The latter has the third antennal segment (especially of the female) widened, depressed and anteriorly sculptured, vein m-cu of the fore wing subinterstitial, the second metasomal suture curved, and the first subdiscal cell of the fore wing moderately wide. Members of the genus *Gildoria* have the third antennal segment slender, cylindrical and anteriorly smooth, vein m-cu of the fore wing distinctly postfurcal (fig. 1), the second metasomal suture absent or straight and the first subdiscal cell of the fore wing narrow (figs 1, 4, 16, 27, 38). The Fauna Europaea project is nearly completed and to include the European members of the doryctine genera *Gildoria* and *Platyspathius* Viereck, 1911, two new species from France, two from Spain (but one from Canary Islands) are described. In addition, a species from Morocco, which is very similar to the type species, is included. The genus *Platyspathius* was for the first time reported for Europe by Shaw (1999), but he had only a male and refrained from describing it. Both genera include species with a distinct dark wing pattern, which is rather uncommon among European Doryctinae (except for the genus *Spathius* Nees, 1819).

Members of the subfamily Doryctinae Foerster, 1862, in general are idiobiont ectoparasitoids of coleopterous larvae boring in wood (Shaw & Huddleston, 1991).

The hosts of the genera *Platyspathius* and *Dendrosotinus* belong to the family Bostrychiidae and of *Gildoria* to the families Curculionidae: Scolytinae, Cerambycidae and Buprestidae.

For recognition of the subfamily Doryctinae, see van Achterberg (1990, 1993, 1997), and for terminology used in this paper, see van Achterberg (1988). The abbreviation NMS stands for National Museum of Scotland, Edinburgh; RMNH for the Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie), Leiden; and ZISP for the Zoological Institute, St. Petersburg.

Taxonomy

Genus *Gildoria* Hedqvist, 1974

Gildoria Hedqvist, 1974: 29-30; Shenefelt & Marsh, 1976: 1297; Fischer, 1982: 61; Belokobylskij, 1993: 94, 1998: 66 (as synonym of *Dendrosotinus* Telenga, 1941. Ttype species (by original designation): *Gildoria elegans* Hedqvist, 1974 [examined].

Key to species of the genus *Gildoria* Hedqvist

1. First discal cell of fore wing elongate (fig. 13); length of ovipositor sheath 1.1-1.2 times fore wing; notauli deep, complete and mesoscutal lobes distinctly convex; hind coxa angulate ventro-basally (fig. 15); vein SR1 of fore wing short (fig. 13); vein M+CU1 of fore wing with 2 dark erect bristles submedially (fig. 13); Canary Islands *G. elongata* spec. nov.
- First discal cell of fore wing normal (fig. 1); length of ovipositor sheath 0.3-0.5 times fore wing; notauli shallow, partly absent or obsolescent and mesoscutal lobes comparatively flat posteriorly; hind coxa rounded ventro-basally (fig. 49); vein SR1 of fore wing medium-sized (figs 1, 21, 28); vein M+CU1 of fore wing without dark erect bristles (fig. 26) 2
2. Vein m-cu of fore wing ends far from vein CU1b, reclivous (figs 1, 4) or vein m-cu obsolescent and unsclerotized; vein 3-M of fore wing largely unsclerotized (figs 21, 25); vein cu-a of fore wing absent or short (figs 1, 4, 21); fore wing with nearly complete dark band below pterostigma (figs 1, 21); vein r of fore wing issued close to apex of pterostigma and longer than width of pterostigma (figs 1, 21); hind basitarsus of ♀ 3.0-3.5 times as long as wide (figs 19, 20); antenna with 17-19 segments 3
- Vein m-cu of fore wing ends near vein CU1b, subvertical, distinct (figs 26, 36), sclerotized; vein 3-M of fore wing largely sclerotized (figs 26, 36, 45; only basal half in *G. anthaxiae*); vein cu-a of fore wing present, short (figs 26, 27, 30, 37); at most surroundings of veins below pterostigma darkened (figs 26, 28); vein r of fore wing issued close to middle of pterostigma and at most as long as width of pterostigma (figs 26, 36, 45); hind basitarsus of ♀ 5.5-7.5 times as long as wide (figs 31, 33, 35, 42, 46); antenna with 15-30 segments 4
3. Second metasomal tergite completely distinctly striate medio-dorsally (fig. 22), at most apical quarter indistinctly sculptured; vein cu-a of fore wing present as a short vein (figs 21, 25), rarely absent; dorsally mesosoma (especially propodeum)

- distinctly darker brown than head; antenna of ♀ with 19-20 segments; Morocco *G. striata* spec. nov.
- Second tergite largely smooth, at most its basal half superficially striate (fig. 9); vein cu-a of fore wing absent (fig. 4); dorsally mesosoma and head similarly coloured; antenna of ♀ with 17-19 segments; Canary Islands *G. elegans* Hedqvist, 1974
 - 4. Surroundings of veins of fore wing distinctly infusate (figs 26, 28); at least basal third of pterostigma ivory, contrasting with dark middle of pterostigma; vein 2-M of fore wing distinctly curved (fig. 26), but less so in *G. grandis*: fig. 28); hind leg (except tarsus) largely dark brown (but brownish-yellow in *G. grandis*); length of body 2.3-3.5 mm; antenna of ♀ with 25-30 segments (of ♂ 21-23); length of ovipositor sheath 0.3-0.4 times fore wing; second metasomal tergite often largely granulate, in large specimens becoming rugulose basally 5
 - Surroundings of veins of fore wing largely subhyaline (figs 36, 38); basal third and middle of pterostigma largely similarly coloured, at most weakly contrasting; vein 2-M of fore wing straight or nearly so (figs 36, 38, 45); hind leg largely brownish-yellow; length of body 1.5-2.3 mm; antenna of ♀ with 15-22 segments; length of ovipositor sheath about 0.3 times fore wing; second tergite smooth or basally rugose 6
 - 5. Vein 2-M of fore wing distinctly curved (fig. 26); hind leg (except tarsus) largely dark brown; vein M+CU1 of fore wing distinctly sinuate apically (fig. 26); vertex very finely and transversely strigose and dark brown; Greece, Italy, France, Israel *G. titubata* (Papp, 1985)
 - Vein 2-M of fore wing slightly curved (fig. 28); hind leg brownish-yellow; vein M+CU1 of fore wing nearly straight apically (fig. 28); vertex mainly granulate and brownish-yellow; Spain *G. grandis* (Fahringer, 1930)
 - 6. Notauli nearly complete; propodeum largely smooth or superficially rugulose anteriorly and distinctly areolate posteriorly; head darker than mesoscutum; second metasomal tergite smooth or aciculate anteriorly 7
 - Notauli obsolescent; propodeum coarsely granulate anteriorly and rugose posteriorly, obscuring its areolation; head and mesoscutum similarly yellowish or brownish; second tergite longitudinally rugose or rugulose anteriorly, becoming granulate posteriorly 8
- Note.— If the posterior side of the stemmaticum (= "ocellar triangle") is about 1.5 times as long as its lateral sides, the vertex and the stemmaticum finely transversely rugulose, the antenna of ♀ with about 24 segments, the propodeum with a rather small smooth area antero-laterally, the fore wing completely subhyaline, only basal half of vein 3-M of fore wing sclerotized, vein m-cu of the fore wing comparatively far postfurcal and about twice as long as vein 2-SR+M (in other species about 3 times), the second metasomal tergite largely smooth, the ovipositor sheath about 0.4 times as long as fore wing medio-anteriorly propodeal surface reticulate, and the median carina of the propodeum absent, cf. the Central Asian *Gildoria anthaxiae* (Belokobylskij, 1983) **comb. nov.**
- 7. Second tergite completely finely aciculate; vein m-cu of fore wing somewhat less postfurcal; parasitoid of Scolytinae in shrubs belonging to Fabaceae..... *G. planus* (Ratzeburg, 1848)
 - Second tergite smooth; vein m-cu of fore wing distinctly postfurcal (fig. 36); parasitoid of Scolytinae in coniferous trees; [stemmaticum in specimens from England smooth but granulate in holotype] *G. similis* (Bouček, 1955)
 - 8. Vein m-cu of fore wing comparatively short (fig. 38), first discal cell less robust

(fig. 38); propodeum and metapleuron brownish-yellow; second submarginal cell of fore wing robust, vein 3-SR about 2.5 times as long as vein r-m (fig. 38); France *G. gijswijti* spec. nov.

- Vein m-cu of fore wing comparatively long (fig. 45), first discal cell more robust, nearly square (fig. 45); propodeum and metapleuron dark brown or blackish; second submarginal cell of fore wing robust, vein 3-SR about 3.5 times as long as vein r-m (fig. 45); Spain *G. iberica* spec. nov.

Gildoria elegans Hedqvist, 1974
(figs 1-12, 19)

Gildoria elegans Hedqvist, 1974: 30, figs 1 A-D; Shenefelt & Marsh, 1976: 1297; Fischer, 1982: 61-63, figs 1-5 (redescription).

Material.— Holotype, ♀ (Riksmuseum, Stockholm), “Canary Isl., Tenerife, Bailadero, 30.vi.1966, G. Israelsson”, “Holotypus *Gildoria* gen. n. *elegans* sp. n., K.-J. Hedqvist det., 1973”; 1 ♀ (Hedqvist Collection, Vallentuna), same data; 1 ♀ (Hedqvist Collection, Vallentuna), “Tf., Medano, T.-E. Leiller”; 2 ♀ ♀ + 1 ♂ (NMS), “Canary Is., La Gomera, dam at Vallehermosa, 1 cm diam. beetle infested twigs [of] indet. fruit tree”; 1 ♀ + 2 ♂ ♂ (RMNH), “Can. Isl.: Tenerife, Adeje, Bco. del Infierno, ix.1978, G. Israels[s]on, RMNH’82”; 1 ♀ (RMNH), “Can. Isl.: Tenerife, Amaga, El Bailadero, 23-27.xii.1981, [in] Laurisilva [forest], [L.] Huggert”.

Biology.— Parasitoid of Curculionidae: Scolytinae (Fischer, 1982: *Paraxyletinus israelssoni* Español, 1972 (= *Aphanarthrum* spec. in the original description).

Distribution.— Canary Islands (Tenerife; Gomera; Gran Canaria).

Note.— The propodeum may be largely rugulose. The females from La Gomera have the hind femur pale yellowish, but it is darkened in the male.

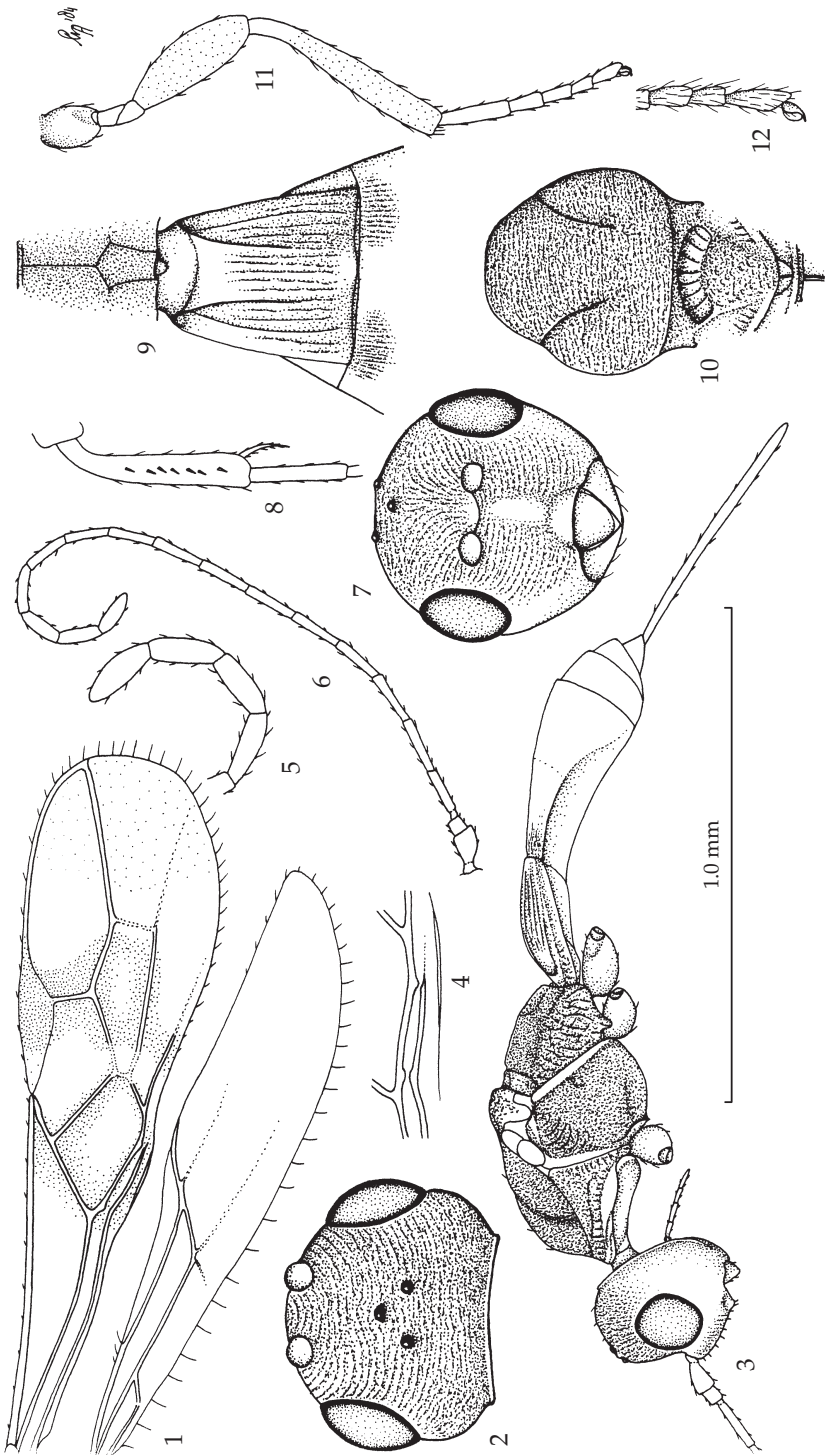
Gildoria elongata spec. nov.
(figs 13-18)

Material.— Holotype, ♀ (RMNH), “Can. Isl.: Gomera, Chorrees de Epine, 1.i.1982, [in] Laurisilva [forest], L. Huggert, RMNH’82”.

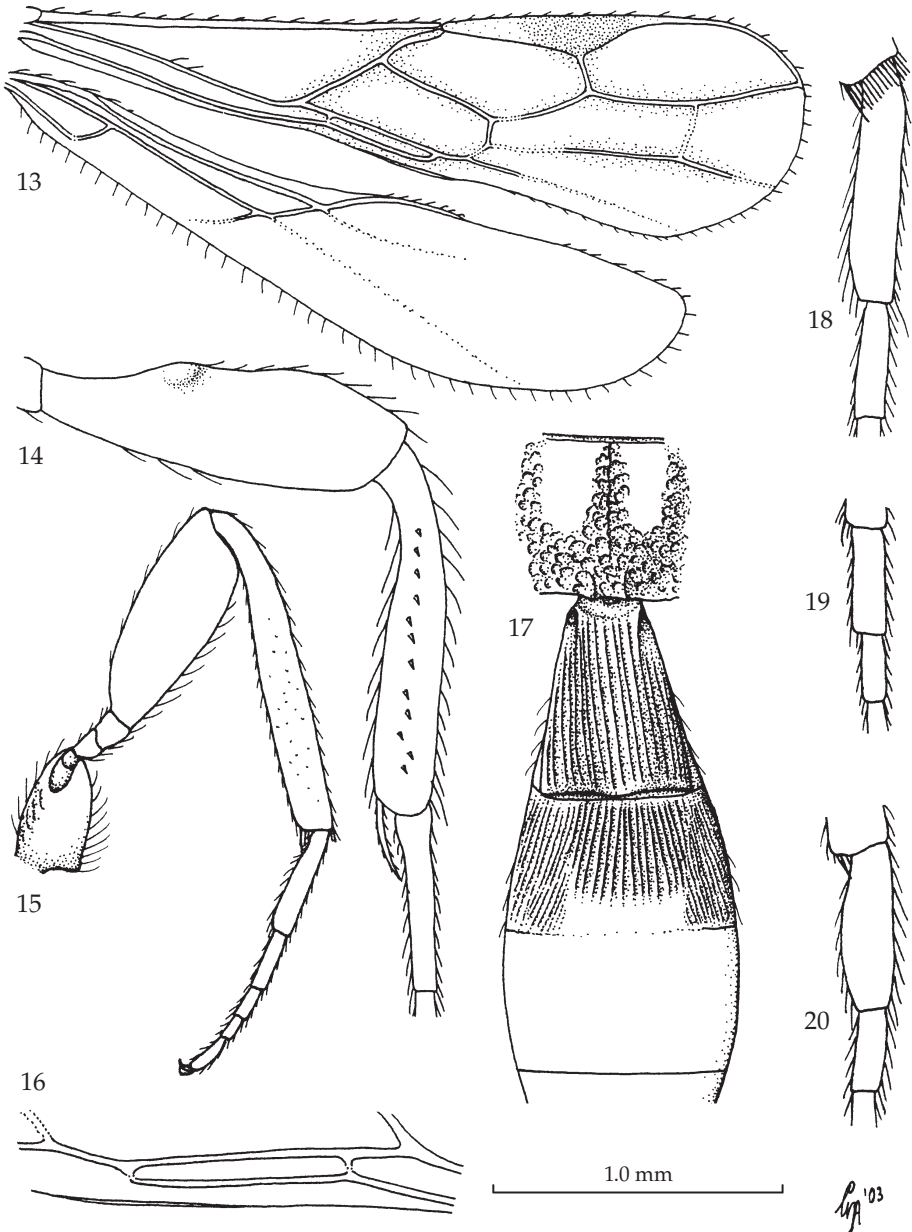
Holotype, ♀, length of body 3.3 mm, of fore wing 2.8 mm.

Head.— Antenna slender, incomplete with 23 segments remaining, outer side of third segment flattened and glabrous, third segment 1.1 times as long as fourth segment, length of third, and fourth segments 5.2 and 4.5 times their width, respectively; occipital carina present ventrally, joining hypostomal carina far above base of mandible; length of maxillary palp 1.1 times height of head; length of eye equal to temple in dorsal view; head in dorsal view behind eyes as wide as at level of eyes; OOL:diameter of ocellus:POL = 8:2:8; frons medially flat and densely and coarsely irregularly rugose; vertex densely and irregularly rugulose; temple smooth (except for some punctures) ventrally up to lower level of eye and densely rugose-rugulose dorsally; face distinctly transversely striate, but smooth medially; clypeus small, rather flat, superficially striate, shiny, ventrally slightly concave and protruding; length of malar space 1.8 times basal width of mandible and 0.7 times height of eye in lateral view.

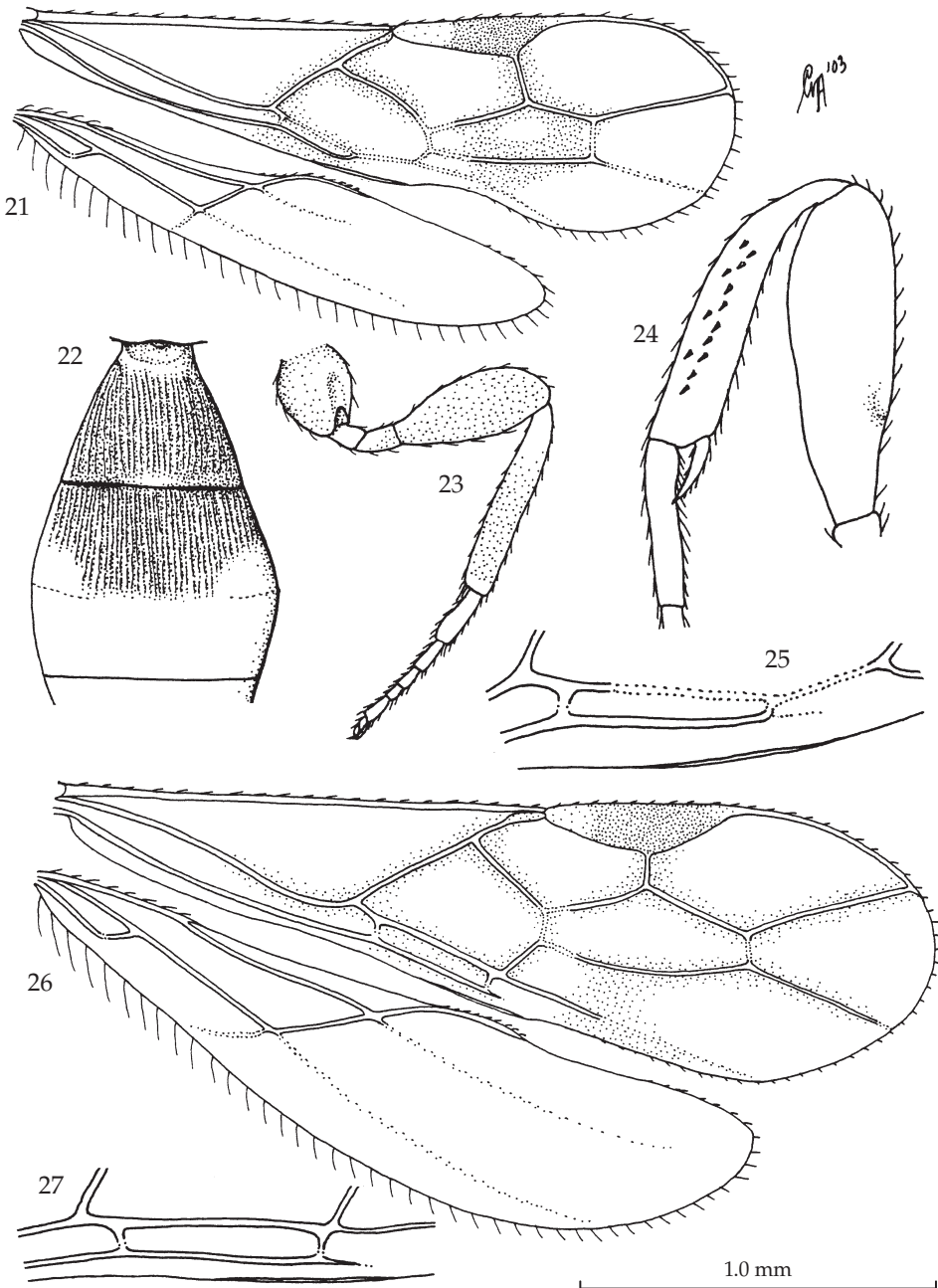
Mesosoma.— Length of mesosoma 1.9 times its height; side of pronotum densely



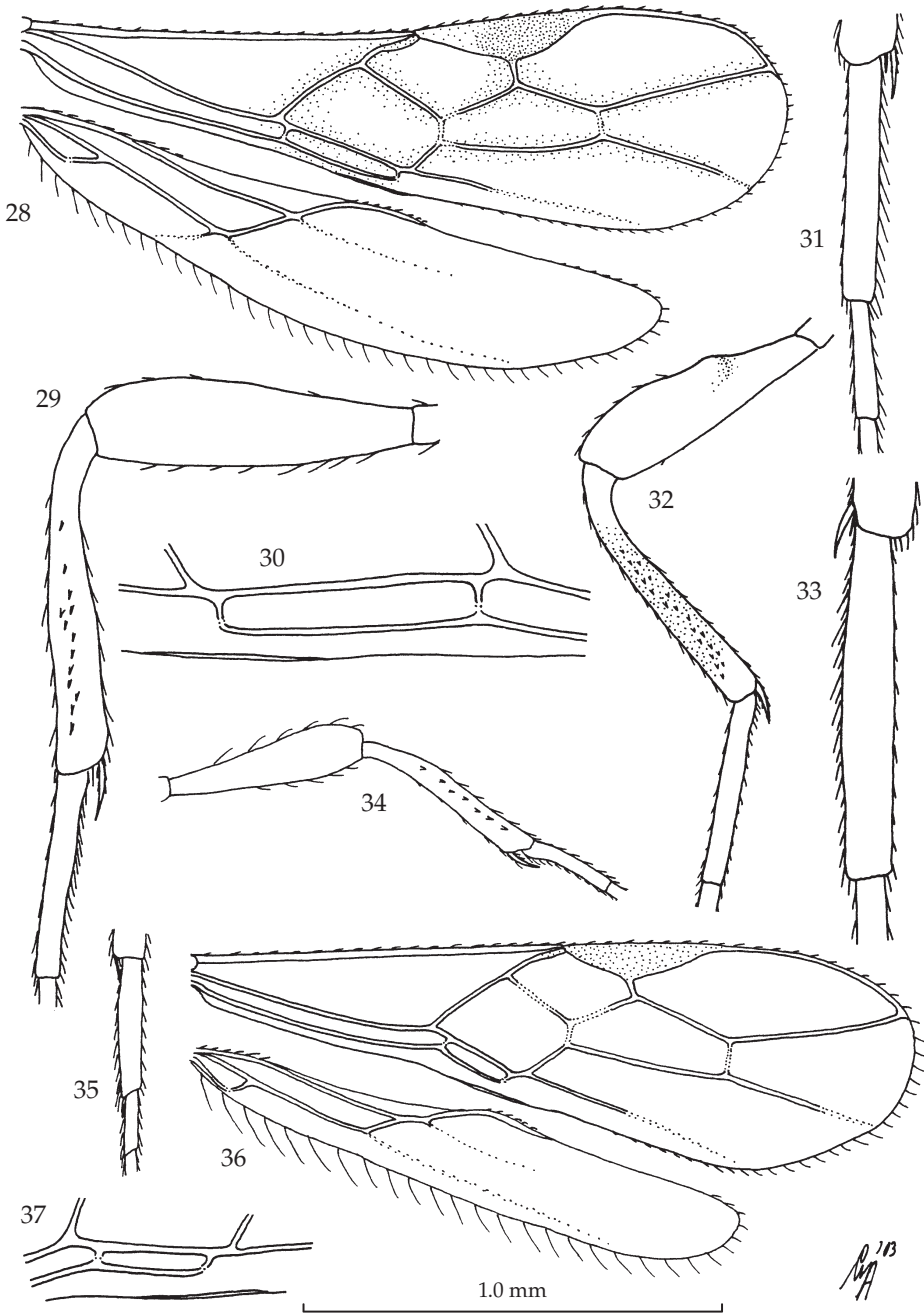
Figs 1-12, *Gildoria elegans* Hedqvist, ♀, holotype, but 4 and 7 of ♀ from Medana, Tenerife. 1, wings; 2, head, dorsal aspect; 3, habitus, lateral aspect; 4, detail of first subdiscal cell of fore wing; 5, apex of antenna; 6, antenna; 7, head, frontal aspect; 8, fore tibia, anterior aspect; 9, propodeum and first metasomal tergite, dorsal aspect; 10, mesosoma, dorsal aspect; 11, hind leg; 12, outer hind claw. 1, 3, 4, 6, 8, 11: 1.0 × (= scale-line); 2, 5, 9, 10, 12: 1.6 ×; 7: 1.1 ×.



Figs 13-18, *Gildoria elongata* spec. nov., ♀, holotype; fig. 19, *G. elegans* Hedqvist, ♀, Amaga, Tenerife; fig. 20, *G. striata* spec. nov., ♀, holotype. 13, 15: 1.0 × (= scale-line); 14, 16-18: 2.0 ×; 19-20: 2.5 ×.



Figs 21-25, *Gildoria striata* spec. nov., ♀, holotype; figs 26-27, *G. titubata* (Papp), ♀, Valtesse, Italy. 21, 26, wings; 22, first-third metasomal tergites, dorsal aspect; 23, hind leg; 24, fore femur and tibia, frontal aspect; 25, 27, detail first subdiscal cell of fore wing. 21-23: 1.0 × (= scale-line); 24-25: 2.5 ×; 26: 0.8 ×; 27: 1.2 ×.



Figs 28-31, *Gildoria grandis* (Fahringer), ♀, Porta Coeli, Spain; figs 32-33, *G. titubata* (Papp), ♀, Valtesse, Italy; figs 34-37, *G. similis* (Bouček), ♀, Silwood Park, England. 28, 36, wings; 29, 32, 34, fore femur and tibia, frontal aspect; 30, 37, detail first subdiscal cell of fore wing; 31, 33, 35, hind basitarsus, lateral aspect. 28, 33: 1.0 × (= scale-line); 29-31, 34, 35, 37: 2.3 ×; 32: 0.7 ×; 36: 1.5 ×.

finely rugose, medially with oblique carina and above it crenulate; lateral carina of mesoscutum obsolescent; prepectal carina wide ventrally; mesopleuron densely granulate medially and coarsely rugose dorsally and below precoxal sulcus smooth; precoxal sulcus medially weakly impressed and smooth; pleural sulcus nearly smooth, micro-sculptured; episternal scrobe deep and round; metapleuron densely rugose; mesoscutal lobes matt, densely golden setose, convex and granulate-rugulose; notauli complete, deep, rather wide and distinctly crenulate; scutellar sulcus distinct, but narrowed medially, with 4 crenulae; scutellum convex and granulate; medially and posteriorly propodeum densely reticulate-rugose, antero-laterally with pair of large smooth areas (fig. 17), with weak and long median carina and without areolation.

Wings.— Fore wing: pterostigma elongate (fig. 13); r issued rather close to apex of pterostigma (fig. 13); r slightly shorter than width of pterostigma; r:3-SR:SR1 = 8:25:24; 2-SR:3-SR:r-m = 20:25:13; cu-a minute; 1-CU1:2-CU2 = 6:25; membrane rather densely setose basally; m-cu far postfurcal, far from 2-CU1, about as long as 2-SR+M and much shorter than 2-SR (fig. 13). Hind wing: M+CU:1-M = 25:41; m-cu long and curved basally and situated basally of 1r-m.

Legs.— Hind coxa dorsally rugose, remainder smooth, shiny; fore femur 3.1 times as long as wide, distinctly widened apicad (fig. 14); row of pegs of fore tibia distinctly developed (fig. 14); fore spur 0.4 times as long as fore basitarsus; length of femur, tibia and basitarsus of hind leg 2.8, 8.2 and 4.5 times their width, respectively (fig. 15); hind femur shiny, and apical half coriaceous; hind tibial spurs 0.15 and 0.25 times as long as hind basitarsus; hind basitarsus distinctly wider than second tarsal segment (figs 15, 18).

Metasoma.— First tergite 1.2 times as long as wide apically, its surface coarsely longitudinally striate, evenly convex, its dorsal carinae complete, similar to sculpture; dorsope medium-sized; second tergite distinctly longitudinally striate medially, but smooth medio-posteriorly, laterally finely and densely striate (fig. 17); third and following tergites smooth; length of ovipositor sheath 1.23 times fore wing, 1.8 times metasoma and 2.8 times length of hind tibia; ovipositor sheath somewhat widened subapically and narrowed apically.

Colour.— Chestnut brown; face, frons, pronotum, mesothorax, metasoma laterally, hind femur and coxa more or less dark brown; palpi, basal half of pterostigma and its apex narrowly, and base of tibiae ivory; antenna (except apically), remainder of legs (but fore and middle femora subbasally and subapically and tibiae (except basally) rather darkened), and veins C+SC+R (except its dark apex), M+CU1, 1+2A, 1A, and 1-R1 of fore wing brownish-yellow; surroundings of veins of fore wing below pterostigma and below apex of vein C+SC+R, remainder of pterostigma and of veins of fore wing dark brown; middle of second submarginal cell of fore wing and remainder of wing membrane subhyaline.

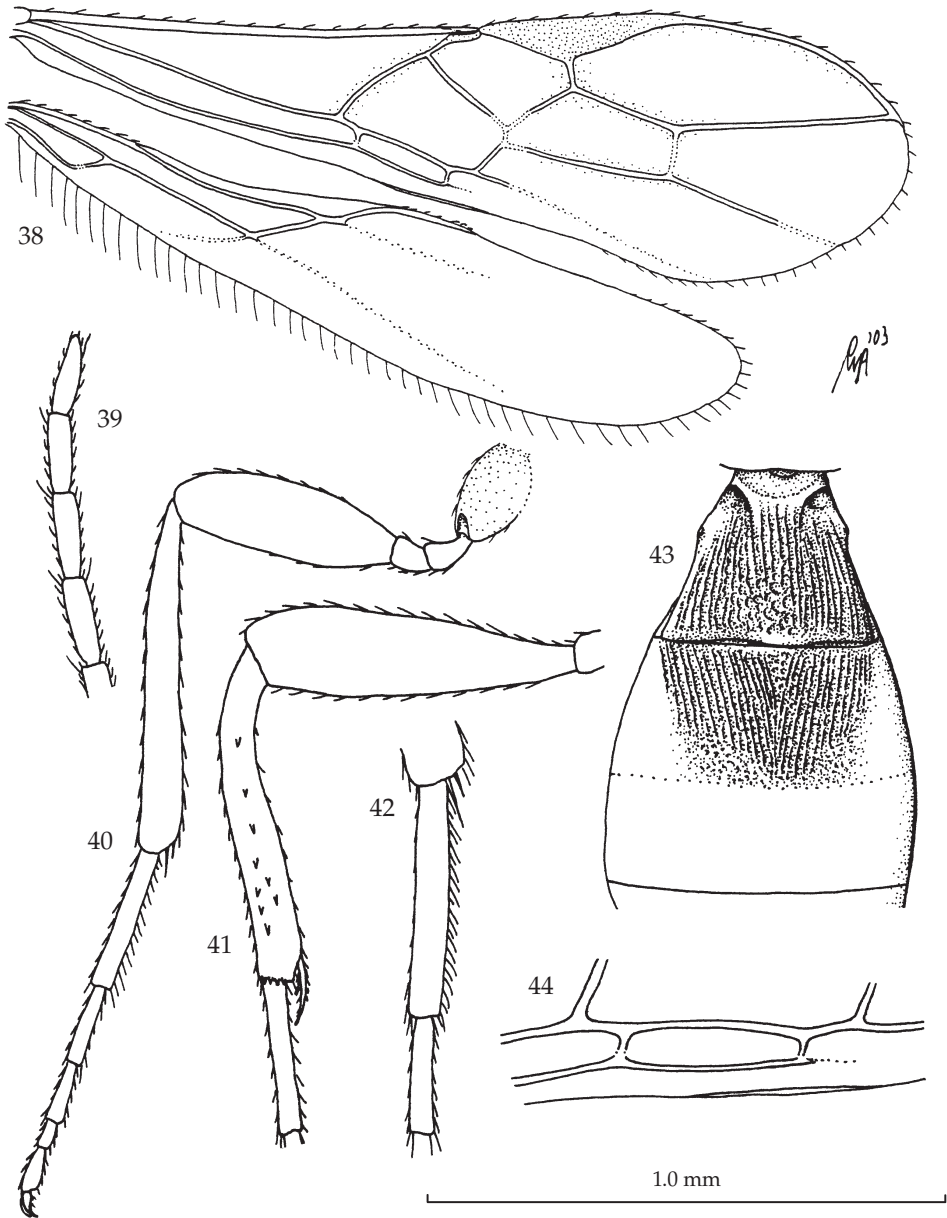
Distribution.— Spain (Canary Islands).

Gildoria gijswijti spec. nov.
(figs 38-44)

Material.— Holotype, ♀ (RMNH), "France, Vaucluse, M.J. Gijswijt", "Mazan, 2.ix.1990".

Holotype, ♀, length of body 1.8 mm, of fore wing 1.6 mm.

Head.— Antenna hardly widened apically, slender, with 19 segments, third seg-



Figs 38-44, *Gildoria gijswijti* spec. nov., ♀, holotype. 38, wings; 39, apex of antenna; 40, hind leg; 41, fore femur and tibia, frontal aspect; 42, hind basitarsus, lateral aspect; 43, first-third metasomal tergites, dorsal aspect; 44, detail first subdiscal cell of fore wing. 38: 1.0 × (= scale-line); 39, 41, 42, 44: 1.9 ×; 40, 43: 1.3 ×.

ment sparsely setose and cylindrical, as long as fourth segment, length of third, fourth and penultimate segments 5.2, 5.2 and 2.9 times their width, respectively; occipital carina present ventrally, joining hypostomal carina far above base of mandible; length of maxillary palp 1.2 times height of head; length of eye 1.4 times temple in dorsal view; eyes distinctly protruding in dorsal view and head distinctly wider at level of eyes than behind eyes; OOL:diameter of ocellus:POL = 12:3:6; frons flat, rather shiny and granulate; vertex granulate and rather shiny; temple subparallel-sided behind eyes and roundly narrowed posteriorly, superficially granulate and partly smooth; face finely transversely granulate-strigose; clypeus small, flat, nearly smooth, shiny, ventrally slightly concave; length of malar space 1.4 times basal width of mandible and 0.6 times height of eye in lateral view; posterior side of stemmaticum slightly longer than lateral sides.

Mesososma.— Length of mesosoma 1.8 times its height; antescutal depression absent; side of pronotum mainly granulate, anteriorly with obsolescent oblique carina and above it sparsely and narrowly crenulate; lateral carina of mesoscutum obsolescent; prepectal carina medium-sized ventrally; mesopleuron densely granulate and shiny, but dorsally finely rugose; precoxal sulcus only medially impressed and with indistinct rugulae; pleural sulcus indistinctly crenulate; episternal scrobe shallow and elliptical; metapleuron moderately rugose; mesoscutal lobes rather shiny and granulate, medio-posteriorly with medium-sized longitudinal carina; notauli largely absent; scutellar sulcus rather shallow, with 3 crenulae; scutellum rather flat and granulate; propodeum distinctly granulate anteriorly, with distinct but weakly developed areolation and medium-sized median carina and mainly reticulate-rugose posteriorly.

Wings.— Fore wing: pterostigma elongate triangular (fig. 38); r issued submedially from pterostigma; r shorter than width of pterostigma; r:3-SR:SR1 = 3:13:25; 2-SR:3-SR:r-m = 9:13:5; cu-a minute; 1-CU1:2-CU2 = 1:12; membrane densely setose basally; m-cu moderately postfurcal, distinctly longer than 2-SR+M and much shorter than 2-SR (fig. 38); first discal cell rather transverse (fig. 44). Hind wing: M+CU:1-M = 10:19; m-cu reclivous and situated close to 1r-m.

Legs.— Hind coxa granulate, shiny; fore femur 3.5 times as long as wide, distinctly widened apicad (fig. 41); single row of pegs of fore tibia distinctly developed and posteriorly with double row (fig. 41); fore spur 0.3 times as long as fore basitarsus; length of femur, tibia and basitarsus of hind leg 3.0, 7.6 and 7.0 times their width, respectively; hind femur rather matt, coriaceous; hind tibial spurs 0.1 and 0.2 times as long as hind basitarsus; hind basitarsus hardly wider than second tarsal segment (fig. 42).

Metasoma.— First tergite 0.8 times as long as wide apically, gradually narrowed basad, its surface distinctly longitudinally rugose, distinctly convex medially, its dorsal carinae largely present but obscured by sculpture; dorsople large; second tergite robust, longitudinally rugulose, but posteriorly becoming more granulate and postero-laterally smooth (fig. 43); third and following tergites smooth; length of ovipositor sheath 0.26 times fore wing, 0.5 times metasoma and 0.8 times length of hind tibia; ovipositor sheath somewhat widened subapically and narrowed apically.

Colour.— Brownish-yellow; palpi, tegulae largely, 6 basal segments of antenna and tarsi pale yellowish; remainder of antenna, mesopleuron ventrally, mesosternum, ovipositor sheath and metasoma ventrally dark brown; basal quarter of pterostigma and its apex narrowly pale brown; remainder of pterostigma and veins of fore wing

more or less dark brown; apical half of metasoma somewhat darkened; wing membrane subhyaline, but surroundings of veins slightly darkened.

Variation.— Antenna of ♀ with 19 (1) or 20 (4) segments; length of body 2.3-2.7 mm, of fore wing 1.7-2.1 mm; length of ovipositor sheath 0.33-0.40 times fore wing, and apical quarter of second tergite may be largely smooth or apically largely superficially striate.

Distribution.— France. The holotype was swept from shrubs and vegetation on a hill above the camping “Lou Recati” (M.J. Gijswijt, in litt. vii.2003).

Note.— It is a pleasure to name this species after its collector, the chalcidologist Theo Gijswijt (Ankeveen).

Gildoria grandis (Fahringer, 1930) comb. nov.
(figs 28-31)

Dendrosoter planus var. *grandis* Fahringer, 1930: 140 [holotype lost].

Heterospilus planus var. *grandis*; Shenefelt & Marsh, 1976: 1309.

Dendrosotinus titubatus; Falcó, 1991: 257-259, fig. 27.

Material.— 1 ♀ (RMNH), “Spain, Porta Coeli, 19-21.vii.1984, at light, J.V. Falcó, RMNH”.

Biology.— Unknown.

Distribution.— Spain.

Notes.— *Dendrosoter planus* var. *grandis* was described by Fahringer (1930) from a female collected by Dr O. Schmiedeknecht in Barcelona (Spain). Dr M. Fischer (Vienna) kindly informed me that the specimen is not present among the remnants of the Fahringer collection (now in the Naturhistorisches Museum Wien) and it is, therefore, presumed to be lost. Luckily, Fahringer indicated the darkened surroundings of the veins of the fore wing, the pale legs (but first indicated that the legs are dark brown, which most likely is a miswriting for the antennae), the comparatively large size of the body (about 3 mm) and length of ovipositor (about 0.6 times as long as metasoma). *Dendrosotinus titubatus* sensu Falcó (1991) is the only species from Spain I know that fits the description and is similar to *G. planus* (Ratzeburg). Indeed the species is close to *G. titubata*; it differs mainly by the less curved vein 2-M of the fore wing and the pale legs. The examined specimen has the head yellowish-brown (not darkened as the head of the holotype).

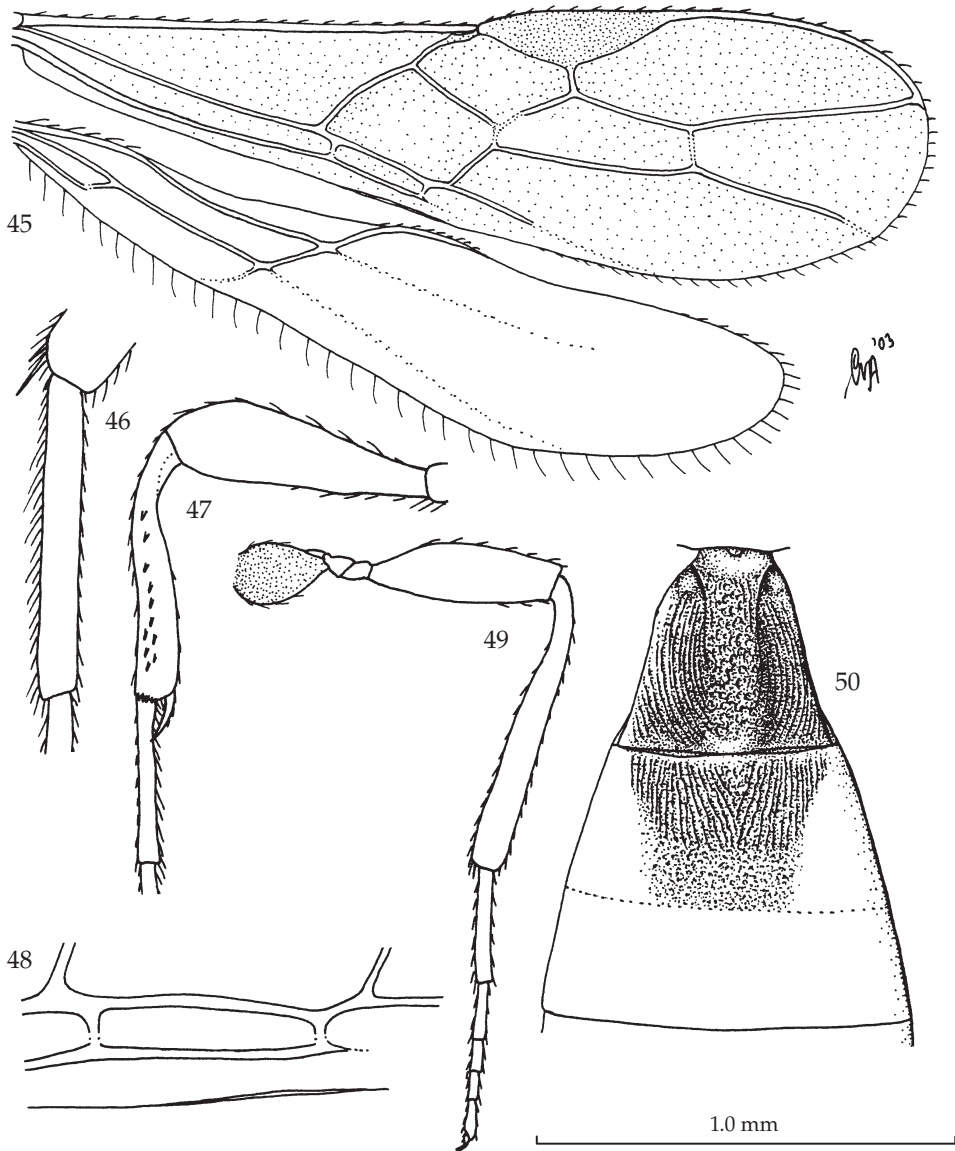
Gildoria iberica spec. nov.
(figs 45-50)

Dendrosotinus anthaxiae; Falcó, 1991: 256-257, fig. 26.

Material.— Holotype, ♀ (RMNH), “España: Málaga, Ronda, S[ier]ra de las Nievas, on *Abies pinsapo*, 13.v.1999, M.J. Gijswijt”.

Holotype, ♀, length of body 2.3 mm, of fore wing 2.2 mm.

Head.— Antenna slender, not widened apically, incomplete, with 21 segments remaining, third segment sparsely setose and cylindrical, as long as fourth segment,



Figs 45-50, *Gildoria iberica* spec. nov., ♀, holotype. 45, wings; 46, hind basitarsus, lateral aspect; 47, fore femur and tibia, frontal aspect; 48, detail first subdiscal cell of fore wing; 49, hind leg; 50, first-third metasomal tergites, dorsal aspect. 45, 49: 1.0 × (= scale-line); 46, 47: 2.3 ×; 48: 2.1 ×; 50: 1.4 ×.

length of third and fourth segments 5.0 and 4.9 times their width, respectively; occipital carina present ventrally, joining hypostomal carina far above base of mandible; length of maxillary palp 1.2 times height of head; length of eye 1.3 times temple in dorsal view; OOL:diameter of ocellus:POL = 7:1:4; posterior side of stemmaticum as long as lateral sides; frons flat and granulate; vertex distinctly granulate; temple shiny,

superficially granulate; face finely and more or less transversely striate; clypeus small, weakly convex, superficially striate, shiny, ventrally slightly concave and upcurved; length of malar space 1.2 times basal width of mandible and 0.6 times height of eye in lateral view; head at level of eyes somewhat wider than behind eyes.

Mesososma.— Length of mesosoma 1.9 times its height; antescutal depression narrow; side of pronotum largely granulate and shiny, oblique carina obsolescent and medially indistinctly crenulate; lateral carina of mesoscutum absent; prepectal carina moderately developed ventrally; mesopleuron densely granulate and shiny, but coarsely rugose dorsally; precoxal sulcus narrow, weakly impressed (but anteriorly absent) and finely crenulate; pleural sulcus smooth, but ventrally with some crenulae; episternal scrobe shallow and linear; metapleuron reticulate-rugose; mesoscutal lobes rather matt and granulate, medio-posteriorly with some longitudinal rugae and a weak carina; notauli obsolescent; scutellar sulcus shallow and narrowly crenulate; scutellum flat and granulate; propodeum distinctly granulate anteriorly, with a weak and medium-sized longitudinal carina, posteriorly reticulate-rugose and with weakly developed areolation.

Wings.— Fore wing: pterostigma elongate triangular (fig. 45); r issued submedially from pterostigma; r shorter than width of pterostigma; r:3-SR:SR1 = 3:14:24; 2-SR:3-SR:r-m = 9:14:4; cu-a minute; 1-CU1:2-CU2 = 1:17; membrane moderately setose basally; m-cu distinctly postfurcal, much longer than 2-SR+M and shorter than 2-SR (fig. 45); first discal cell rather square, hardly narrowed distally (fig. 45). Hind wing: M+CU:1-M = 15:29; m-cu long, curved basad and situated rather close to 1r-m.

Legs.— Hind coxa granulate, rather matt; fore femur 3.0 times as long as wide, distinctly widened apicad (fig. 47); single row of pegs of fore tibia distinctly developed (fig. 47); fore spur 0.3 times as long as fore basitarsus; length of femur, tibia and basitarsus of hind leg 2.9, 9.6 and 6.3 times their width, respectively (fig. 49); hind femur shiny, coriaceous; hind tibial spurs 0.1 and 0.2 times as long as hind basitarsus; hind basitarsus somewhat wider than second tarsal segment (fig. 46).

Metasoma.— First tergite 0.9 times as long as wide apically, its surface finely and densely rugose, laterally rugae curved, subbasally convex and posteriorly flattened, its dorsal carinae present at basal 0.2; dorsope rather large; second tergite mainly longitudinally rugose but sculpture postero-laterally becoming granulate and laterally absent (fig. 50); third and following tergites smooth; length of ovipositor sheath 0.28 times fore wing, 0.5 times metasoma and 0.9 times length of hind tibia; ovipositor sheath somewhat widened subapically and narrowed apically.

Colour.— Chestnut-brown; vertex, frons posteriorly, stemmaticum, mesoscutum anteriorly narrowly, apical half of metasoma and metasoma ventrally darkened; mesopleuron (except antero-dorsally), mesosternum (except medio-posteriorly), scutellum, metanotum, propodeum and ovipositor sheath black; face, clypeus and temple largely yellowish-brown; legs (but telotarsi darkened and base of hind basitarsus ivory), and palpi brownish-yellow; tegulae pale yellowish but somewhat darkened; fore wing membrane rather infusate; basal quarter of pterostigma pale brown; remainder of pterostigma and most veins dark brown.

Distribution.— Spain. The holotype is collected in an open forest between 1300-1500 m altitude (M.J. Gijswijt, in litt. x.2003).

Note.— According to Falcó (1991) antenna of ♀ with 20-22 segments.

Gildoria planus (Ratzeburg, 1848) comb. nov.

Bracon (*Eurybolus*) *planus* Ratzeburg, 1848: 33, fig. 2-8.

Dendrosotinus planus; Telenga, 1941: 82, 389.

Heterospilus planus; Shenefelt & Marsh, 1976: 1309.

Biology.— Parasitoid of Curculionidae: Scolytinae in shrubs belonging to the family Fabaceae.

Distribution.— France; Hungary and Italy (including Sicily).

Note.— The type from Bordeaux (France) is lost; this species should be reared from its original host, *Phloeophthorus rhododactylus* (Marsham, 1802) (in the original description listed as "*Hylesinus spartii*") to be sure about its identity.

Gildoria similis (Bouček, 1955) comb. nov.
(figs 34-37)

Dendrosotinus similis Bouček, 1955: 84-86, fig. 1; Shaw, 1998: 191-192.

Material.— 1 ♀ (RMNH), "**B.R.D.**, Ulm a.d. Donau, Oberer Eselsberg, 608 m UM, 48 25'23"N, 9 57' 121"E, 22.vii-5.viii.1985, U. W. Funke"; 6 ♀♀ + 12 ♂♂ (RMNH, NMS), "[**England**], Silwood Park, Ascot, Berks., ex *Pityophthorus pubescens* [in] dead twigs on living *Pinus*, coll. iv.[19]96, em. 26.vi./7.vii.[19]96, M.R. Shaw".

Biology.— Parasitoid of Curculionidae: Scolytinae in coniferous trees.

Distribution.— England, Germany, Poland, Switzerland.

Note.— In NMS (Edinburgh) is a series reared from twigs of *Pinus nigra laricio* collected in Corsica; which deviates because of the presence of striation at the base of the second metasomal tergite and by the dark brown apex of the antenna.

Gildoria striata spec. nov.
(figs 20-25)

Material.— Holotype, ♀ (RMNH), "**Morocco**, Agadir, 13.i.1978, G. Israels[s]on, RMNH'82". Paratypes (17 ♀♀; RMNH, ZISP), same data.

Holotype, ♀, length of body 2.7 mm, of fore wing 2.0 mm.

Head.— Antenna hardly widened apically, with 20 segments, third segment sparsely setose and cylindrical, as long as fourth segment, length of third, fourth and penultimate segments 4.0, 3.8 and 2.7 times their width, respectively; occipital carina present ventrally, joining hypostomal carina far above base of mandible; length of maxillary palp 1.3 times height of head; length of eye 1.3 times temple in dorsal view; OOL:diameter of ocellus:POL = 15:4:11; frons medially flat and more or less transversely rugulose; vertex densely and irregularly rugulose; temple smooth ventrally up to lower level of eye and more or less rugulose dorsally; face finely more or less transversely striate; clypeus small, rather flat, superficially striate, shiny, ventrally slightly concave; length of malar space twice basal width of mandible and 0.8 times height of eye in lateral view.

Mesosoma.— Length of mesosoma 1.6 times its height; side of pronotum densely

rugose, medially with oblique carina and crenulate; lateral carina of mesoscutum obsolete; prepectal carina wide ventrally; mesopleuron densely granulate medially and coarsely rugose dorsally; precoxal sulcus medially weakly impressed and rugulose, and below precoxal sulcus smooth; pleural sulcus crenulate, ventrally stronger than dorsally; episternal scrobe deep and round; metapleuron densely rugose; mesoscutal lobes matt and granulate-rugulose; notauli complete, shallow, narrow and micro-sculptured; scutellar sulcus distinct, with 6 crenulae; scutellum convex and granulate; propodeum finely and densely reticulate-rugose and without areolation.

Wings.— Fore wing: pterostigma elongate (fig. 21); r issued close to apex of pterostigma; r much longer than width of pterostigma (fig. 21); r:3-SR:SR1 = 10:15:25; 2-SR:3-SR:r-m = 18:15:8; cu-a minute; 1-CU1:2-CU2 = 1:10; membrane densely setose basally; m-cu far postfurcal, far removed from 2-CU1, about as long as 2-SR+M and much shorter than 2-SR (fig. 21). Hind wing: M+CU:1-M = 1:2; m-cu present and situated close to 1r-m.

Legs.— Hind coxa granulate, shiny; fore femur 3.0 times as long as wide, distinctly widened apicad (fig. 24); double row of pegs of fore tibia distinctly developed (fig. 24); fore spur 0.4 times as long as fore basitarsus; length of femur, tibia and basitarsus of hind leg 2.7, 6.8 and 3.0 times their width, respectively (fig. 22); hind femur shiny, coriaceous; hind tibial spurs 0.2 and 0.3 times as long as hind basitarsus; hind basitarsus much wider than second tarsal segment (fig. 20).

Metasoma.— First tergite 0.9 times as long as wide apically, its surface coarsely longitudinally striate, evenly convex, its dorsal carinae invisible because of sculpture; dorsope obsolete; second tergite longitudinally striate but postero-laterally its sculpture weakly developed (fig. 22); third and following tergites smooth; length of ovipositor sheath 0.38 times fore wing, 0.6 times metasoma and 1.2 times length of hind tibia; ovipositor sheath somewhat widened subapically and narrowed apically.

Colour.— Brown; palpi, tegulae, veins C+SC+R (except its dark apex), M+CU1, 1+2A, 1A, and 1-R1, fore leg, middle tibia apically and tarsi yellowish-brown; basal third of pterostigma and its apex narrowly, middle and hind trochanters and trochantelli and base of tibiae ivory; remainder of pterostigma and veins of fore wing, mesosoma largely and ovipositor sheath dark brown; metasoma somewhat darkened; fore wing below pterostigma and patch below apex of vein C+SC+R dark brown, but middle of second submarginal cell of fore wing and remainder of wing membrane subhyaline.

Variation.— Antenna of ♀ with 19 (1) or 20 (4) segments; length of body 2.3-2.7 mm, of fore wing 1.7-2.1 mm; length of ovipositor sheath 0.33-0.40 times fore wing, and apical quarter of second tergite may be largely smooth or apically largely superficially striate.

Distribution.— Morocco.

Gildoria titubata (Papp, 1985) comb. nov.
(figs 26, 27, 32, 33)

Dendrosotinus titubatus Papp, 1985: 217, 220-221, figs 1-3; 1989: 46.

Dendrosotinus ilanotensis Čapek, 1992: 136-138, figs 1-2. **Syn. nov.**

Material.— Holotype, ♀ (TMA), "Hellas mer., Lakonia, 5 km S Monemvasia", "23.ix.1979, G. Chris-

tensen", "Holotypus *Dendrosotinus titubatus* sp. n., Papp, J., 1985", "Mus. Typ. No. 7026, Museum Budapest"; 1 ♀ paratype (TMA), "Italy, Piemonte, Torina Involto, 4.xi.1975, Brussino", "Paratypus *Dendrosotinus titubatus* sp. nov., Papp, J % ant. 26 segm.", "Hym. Typ. No. 7027, Museum Budapest"; 1 ♀ (RMNH), "(I), Tuscany, Gorgona Island, ex Mal. [trap], 24.x-19.xii.[20]00, [A. Loni]"; 1 ♀ (RMNH), "Italy, Bergamo, Valtesse, 20.iii.1967", "da larva de *Agrilus*", "*Dendrosotinus titubatus* Papp, det. Papp, J., 1988"; 1 ♀ (RMNH), "France-Corse, Bonifacio, on cliffs, 3.vi.2000, M.J. Gijswijt".

Biology.— According to Papp (1989) and Halperin (1998) a parasitoid of Cerambycidae: *Leptideella brevipennis* Mulsant (in *Pistacia lentisca* Linnaeus and *Ulmus pumila* Linnaeus) and *Stenopterus syriacus* (Picard) in *Ceratonia siliqua* Linnaeus in Israel. Later *Dendrosotinus ilanotensis* was described from Israel by Čapek (1992) as parasitoid of Cerambycidae (*Leptideella brevipennis* Mulsant in *Cedrus atalantica* Man. and *Ulmus* spec. and of Buprestidae (in *Ulmus* spec.)). The differences given by Čapek (1992) for *D. ilanotensis* (the posterior half of the second tergite smooth and the tergite medio-basally largely rugulose; the hind basitarsus somewhat longer than the combined length of the second and third hind tarsal segments and vein r of the fore wing longer than vein r-m) are variable among the examined material from Italy and France. Therefore, *G. ilanotensis* is synonymized with *G. titubata* (**syn. nov.**).

Distribution.— France (Corsica); Greece; Israel, Italy. The specimen from France was swept from low vegetation on limestone cliffs in southern Corsica (M.J. Gijswijt, in litt. vii.2003); it is a new record for France.

Genus *Platyspathius* Viereck, 1911

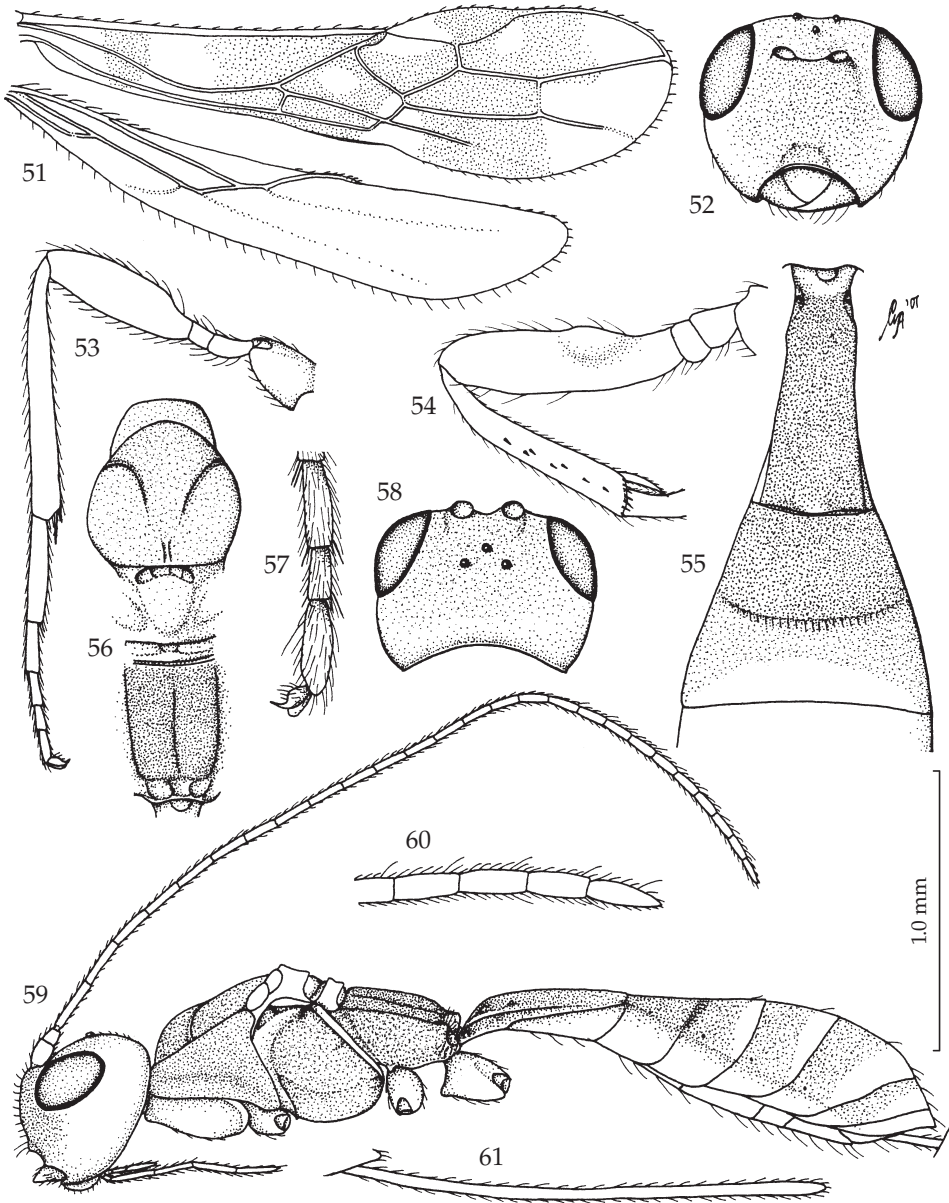
Platyspathius Viereck, 1911: 185; Shenefelt & Marsh, 1976: 1384-1386; Chao, 1978: 182; Shaw, 1999: 50; Belokobylskij & Ku, 2001: 37. Type species (by original designation): *Platyspathius pictipennis* Viereck, 1911.

Spathiohormius Enderlein, 1912: 21; Shenefelt & Marsh, 1976: 1384 (as synonym of *Platyspathius* Viereck, 1911). Type species (by original designation): *Spathiohormius ornatulus* Enderlein, 1912 [examined].

Notes.— *Spathiohormius filicornis* Enderlein, 1912, and *S. sauteri* Watanabe, 1934, are listed by Shenefelt & Marsh (1976) as belonging to this genus, but belong to the genus *Rhaconotus* Ruthe, 1854 (Belokobylskij, 1996 and Belokobylskij & Ku, 2001, respectively).

Key to species of the genus *Platyspathius* Viereck

1. Middle lobe of mesoscutum strongly tuberculate protruding dorsally; vein 3-SR of fore wing about twice as long as vein SR1; setae of legs comparatively long and erect; tibiae with subbasal and apical dark bands; Madagascar; subgenus *Lenticularia* nov. *P. lenticularis* (Granger, 1949)
Note.— *Doryctes lenticularis* Granger, 1949, is here designated as type species of the subgenus *Lenticularia* nov.
- Middle lobe of mesoscutum similar to lateral lobes, not protruding dorsally; vein 3-SR of fore wing about as long as vein SR1 or shorter; setae of legs comparatively shorter and usually less erect; tibiae without two dark bands 2
2. Notauli distinctly crenulate and complete; second tergite in front of second suture more or less rugulose-striate and length of body 3.5-5.0 mm; first tergite basolaterally roundly widened and medially more or less rugulose; third tergite distinctly



Figs 51-61, *Platyspathius ornatulus* (Enderlein), ♀, holotype. 51, wings; 52, head, frontal aspect; 53, hind leg; 54, fore femur and tibia, anterior aspect; 55, first-third metasomal tergites, dorsal aspect; 56, mesosoma, dorsal aspect; 57, outer hind claw; 58, head, dorsal aspect; 59, habitus, lateral aspect; 60, apex of antenna; 61, ovipositor sheath. 51, 53, 59, 61: 1.0 × (= scale-line); 52, 55, 58: 1.3 ×; 54: 1.7 ×; 56: 1.1 ×; 57, 60: 2.5 ×.

- convex latero-posteriorly 3
- Notauli largely smooth and more or less reduced posteriorly; second tergite in front of second suture without striae or length of body 2.0-2.5 mm; first tergite baso-laterally hardly or not widened and usually without rugae; third tergite variable, usually hardly or not convex latero-posteriorly (fig. 66) 4
3. Second metasomal tergite with curved transverse depression in front of second suture, rugulose-striate; mesoscutum largely coriaceous posteriorly; ovipositor sheath 0.8-0.9 times as long as metasoma (= 0.6 times fore wing); [hind femur gradually narrowed basally, hind tibia long erect setose; antenna of ♀ with about 28 segments; band below base of pterostigma complete, third submarginal cell of fore wing dark brown basally; median carina of propodeum absent]; East Palaearctic *P. hospitus* Belokobylskij & Ku, 2001
- Second tergite without curved transverse depression in front of second suture, without striae (but present on most of third tergite); mesoscutum distinctly rugose posteriorly; ovipositor sheath somewhat longer than metasoma; Afrotropical *P. clymene* Nixon, 1943
4. First metasomal tergite distinctly convex and narrower (more or less subpetiolate) subbasally and without a pair of distinct angular flanges (= subbasal protrusions; figs 55, 66), but sometimes somewhat protruding (e.g., fig. 279 in Nixon, 1943) 5
- Note.—Nixon (1943) did not mention or figure the shape of the first tergite of *P. dice* Nixon, 1943, and *P. pyrene* Nixon, 1943; but because he compared them with *P. dinoderi* I suppose they have a similar first tergite (thus without a pair of subbasal flanges).
- First tergite distinctly flattened and wider (distinctly sessile) subbasally and with a pair of distinct subbasal flanges laterally (fig. 69) 10
5. Third metasomal tergite largely finely striate (except apically) and second tergite finely rugulose; length of body 2.0-2.5 mm; ovipositor sheath somewhat shorter than metasoma; Oriental *P. pyrene* Nixon, 1943
- Third and second tergites only granulate, without striae (except near suture and baso-laterally in *P. ruihensis*); length of body 2.8-5.2 mm; ovipositor sheath about as long as metasoma or longer 6
6. Antenna of ♀ with about 37 segments; scutellum distinctly convex, protruding above level of mesoscutum; ovipositor sheath nearly as long as mesosoma and metasoma combined; vein 3-SR of fore wing about as long as vein SR1; third tergite latero-posteriorly rather protuberant; length of body about 5 mm; Afrotropical *P. dice* Nixon, 1943
- Antenna of ♀ with 22-32 segments; scutellum rather flat, not protruding above level of mesoscutum (but distinctly protruding above level of mesoscutum in ♀ of *P. europaeus* which has ovipositor sheath distinctly shorter than mesosoma and metasoma combined); ovipositor sheath at most 1.3 times as long as metasoma; vein 3-SR of fore wing usually shorter than vein SR1; third tergite latero-posteriorly normal, not protuberant; length of body 2.6-4.5 mm; West Palaearctic and Oriental 7
7. Antenna of ♀ with about 22 segments (♂: about 26 segments); ovipositor sheath about 1.3 times as long as metasoma; 3-4 apical antennal segments dark brown; vein cu-a of fore wing hardly postfurcal and reclivous (fig. 62); whitish band below base of pterostigma continuous (fig. 62); second metasomal suture only granulate (fig. 66); West Palaearctic *P. europaeus* spec. nov.

- Antenna of ♀ with 28-32 segments; ovipositor sheath about as long as metasoma or slightly longer; 5-9 apical antennal segments more or less dark brown; vein cu-a of fore wing distinctly postfurcal and subvertical (fig. 51); whitish band below base of pterostigma widely interrupted (fig. 51); second metasomal suture more or less finely crenulate (fig. 55); Oriental and Pacific 8
- 8. OOL 1.1-1.8 times POL (fig. 58); head yellowish and in melanistic specimens paler than lateral lobes of mesoscutum; medio-posteriorly pair of carinae on mesoscutum short and without additional carinae or striae (fig. 56); second metasomal tergite without crenulae or rugae basally (fig. 55) 9
- OOL about 0.7 times POL; head brownish-black, concolorous with lateral lobes of mesoscutum; medio-posteriorly pair of carinae on mesoscutum long and with striae between these carinae; second tergite with basal crenulation; (China [Yunnan])
..... *P. ruliensis* Chao, 1978
- 9. Basally third submarginal cell of fore wing subhyaline (fig. 51); hind femur brown; OOL 1.1-1.2 times POL (fig. 58) *P. ornatus* (Enderlein, 1912)
Note.— The holotype originates from China (Taiwan) and is illustrated (figs 51-61).
- Basally third submarginal cell of fore wing extensively dark brown; hind femur dark brown; OOL 1.7-1.8 times POL *P. dinoderi* (Gahan, 1925)
Note.— Listed by Chao (1978: 182) for continental China (Fujian) and by Belokobylskij (1996: 178) reported from Taiwan. I have examined a female (RMNH) from Sulawesi (Indonesia).
- 10. Antenna of ♀ with about 21 segments; second metasomal suture indistinct and granulate, without crenulae; [ovipositor sheath about as long as metasoma]; Afrotropical *P. turneri* Nixon, 1943
- Antenna of ♀ with 24-34 segments; second metasomal suture variable, usually distinct and with crenulae 11
- 11. Head rather widened behind eyes; area above eye without pale streak; hind tibia of ♂ swollen medially, distinctly narrowed apically and nearly as wide as femur (fig. 70); POL somewhat less than OOL; Afrotropical *P. pictipennis* Viereck, 1911
- Head rather narrowed behind eyes; area above eye with pale streak; hind tibia of ♂ subparallel-sided, much narrower than femur, not swollen medially; POL about equal to OOL; Oriental 12
- 12. Ovipositor sheath about 0.6 times as long as metasoma; notauli largely absent, without distinct longitudinal part; tibiae blackish *P. thyone* Nixon, 1943
- Ovipositor sheath about as long as metasoma; notauli partly absent, with distinct longitudinal part; tibiae brownish; [vein 3-SR of fore wing about as long as vein SR1 (about 1.1 times according to Nixon, 1943); vein cu-a of fore wing subinterstitial (see fig. 281 in Nixon, 1943); area of pterostigma near insertion of vein r dark brown; vein M+CU1 of fore wing strongly sinuate] *P. bisignatus* (Walker, 1860)

Descriptions

Platyspathius europaeus spec. nov.
(figs 62-68)

Platyspathius sp.; Shaw, 1999: 50.

Material.— Holotype, ♀ (RMNH), "France, Dépt. Gard, M.J. Gijswijt", "Crespian, 7.ix.1983". Paratypes:

1 ♂ (NMS), "France: Lot-et-Garonne, Bernac, 29.vi-31.vii.[19]95, mal. trap [at] wood edge, R.R. Askew"; 1 ♂ (RMNH; without head), "I[Italy], Tuscany, Gorgona Island, ex Mal. [trap], 27.vi-25.vii.[20]00, [A. Loni]".

Holotype, ♀, length of body 2.6 mm, of fore wing 1.8 mm.

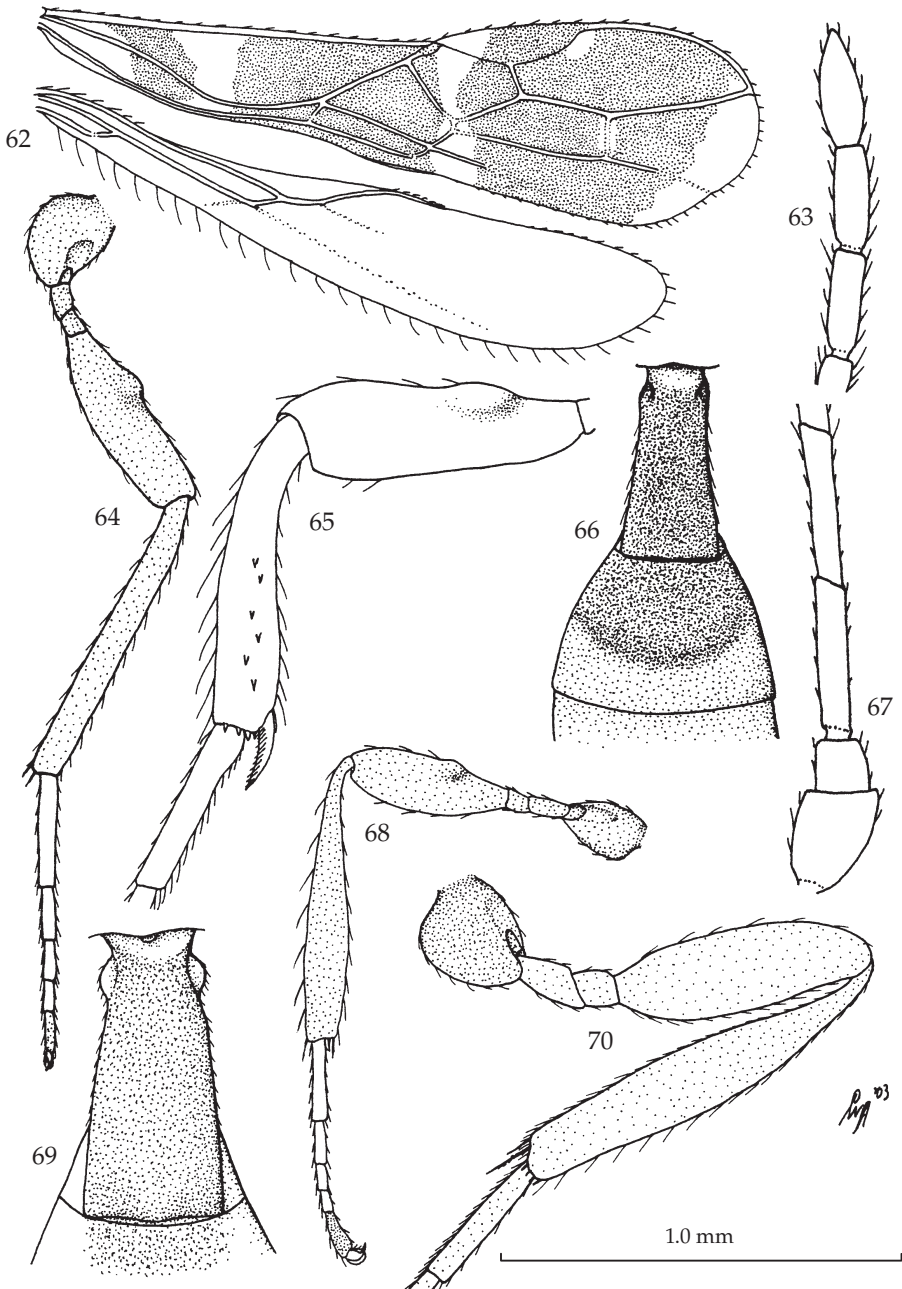
Head.— Antenna hardly widened apically, with 22 segments, third segment sparsely setose and cylindrical dorsally, slightly longer than fourth segment, length of third, fourth and penultimate segments 5.2, 5.0 and 2.9 times their width, respectively (figs 63, 67); occipital carina reduced ventrally; length of maxillary palp as long as height of head; length of eye 1.2 times temple in dorsal view; OOL:diameter of ocellus:POL = 7:2:5; posterior side of stemmaticum hardly longer than lateral sides; frons medially flattened and granulate, shiny; vertex and temple superficially granulate; face granulate; clypeus small, convex, superficially granulate, ventrally slightly concave and with long setae; length of malar space 1.1 times to basal width of mandible and equal to transverse diameter of eye in lateral view; eye 1.4 times higher than wide; head at level of eyes and temple of equal width in dorsal view and temples parallel-sided.

Mesosoma.— Length of mesosoma 1.8 times its height; side of pronotum granulate and shiny; lateral carina of mesoscutum weakly developed; mesoscutum low anteriorly and gradually curved in lateral view; prepectal carina strongly developed ventrally; mesopleuron shiny, and superficially granulate, nearly smooth near precoxal sulcus; precoxal sulcus shallow, narrow and smooth; metapleuron flattened, largely smooth but with a superficially honeycomb-like pattern; mesoscutal lobes moderately convex, shiny, and superficially granulate, medio-posteriorly with a short median carina; notauli complete, moderately wide and distinctly impressed and microsculptured; scutellar sulcus shallow, with a crenula; scutellum distinctly convex (protruding above level of mesoscutum) and indistinctly granulate; propodeum distinctly granulate and without areola, only with a short and weakly developed median carina anteriorly.

Wings.— Fore wing: pterostigma comparatively slender and r issued submedially from pterostigma (fig. 62); r:3-SR:SR1 = 5:16:27; 2-SR:3-SR:r-m = 11:16:7; cu-a short and reclivous (fig. 62); 1-CU1:2-CU2 = 1:40; membrane sparsely setose basally; m-cu just postfurcal, shorter than 2-SR (fig. 62). Hind wing: M+CU:1-M = 13:30; m-cu present and situated close to 1r-m.

Legs.— Hind coxa mainly smooth; blister of femora distinct; fore tarsus 1.5 times longer than fore tibia; fore femur 3.4 times as long as wide, robust (fig. 65); pegs of fore tibia distinct; fore spur 0.4 times as long as fore basitarsus; length of femur, tibia and basitarsus of hind leg 2.8, 8.6 and 5.3 times their width, respectively (fig. 64); hind tibial spurs 0.20 and 0.35 times as long as hind basitarsus, slender.

Metasoma.— First tergite 1.8 times longer than its apical width, without basal flanges, its surface coarsely granulate, evenly convex, its dorsal carinae absent; dorsope medium-sized, shallow; second tergite coarsely granulate and distinctly convex (fig. 66); second metasomal suture distinct, wide, curved and granulate; third and following tergites rather shiny and superficially granulate, not convex laterally; length of ovipositor sheath 1.01 times as long as fore wing, 2.4 times as long as hind tibia and 1.3 times as long as metasoma; ovipositor sheath slightly widened apically.



Figs 62-68, *Platyspathius europaeus* spec. nov., ♀, holotype, but 68 of ♂ paratype from Italy; figs 69-70, *P. pictipennis* Viereck, ♀ (but 70 of ♂), Cotonou, Benin. 62, wings; 63, apex of antenna; 64, 68, 70, hind leg; 65, fore femur and tibia, anterior aspect; 66, first-third metasomal tergites, dorsal aspect; 67, basal segments of antenna; 69, first metasomal tergite, dorsal aspect. 62, 64, 66, 68, 70: 1.0 × (= scale-line); 63, 67: 2.5 ×; 65: 2.0 ×; 69: 0.8 ×.

Colour.— Chestnut brown; head and antenna (except 4 dark brown apical segments) yellowish-brown; tarsi (except dark brown telotarsi) pale yellowish; palpi, remainder of legs (but fore and middle coxa brown), metasoma (except for first tergite), ovipositor sheath (but basally brown), pterostigma (except whitish basal third), wing veins, dark pattern of fore wing and humeral plate dark brown; below base of pterostigma with a complete pale band (fig. 62); first discal cell of fore wing medially dark brown, only slightly paler than surroundings; pale parts of fore wing whitish; hind wing subhyaline (fig. 62).

Variation.— Hind tibia of ♂ enlarged, somewhat narrower than hind femur and distinctly narrowed basally (fig. 68); antenna of ♂ with 26 (1) segments, of ♀ with 22 (1) segments; length of body 2.6-3.3 mm, of fore wing 1.5-2.3 mm; length of first tergite 1.8-2.1 times its apical width; wing pattern of ♂ similar to that of ♀; prothorax and mesoscutum may be largely yellowish-brown.

Distribution.— France, Italy. The holotype was swept from low vegetation near a dry rivulet west of Nîmes (M.J. Gijswijt, in litt. vii.2003).

Note.— Similar to a species from Togo (RMNH) which has the antenna of ♀ with about 27 segments, the length of the ovipositor sheath about 0.65 times fore wing, vein SR1 of the fore wing 1.4-1.5 times vein 3-SR, the notauli reduced posteriorly, the mesoscutum without a median carina posteriorly, the first discal cell of the fore wing with a pale spot, the middle coxa pale yellowish, distinctly contrasting with the dark brown hind coxa, the third antennal segment slender and the second metasomal suture distinctly crenulate.

Acknowledgements

Thanks are due to Dr M. Shaw (Edinburgh) for his critical remarks, Dr A. Taeger for access to literature, Prof. Dr X. Chen (Hangzhou) for the translation in English of a description in Chinese, Dr S.A. Belokobylskij (St. Petersburg) for the loan of types and to Mr M.J. Gijswijt (Ankeveen) for the gift of material and for additional information.

References

- Achterberg, C. van, 1988. Revision of the subfamily Blacinae Foerster (Hymenoptera, Braconidae).— Zool. Verh. Leiden 249: 1-324, figs 1-1250.
- Achterberg, C. van, 1990. Illustrated key to the subfamilies of the Holarctic Braconidae (Hymenoptera: Ichneumonoidea).— Zool. Med. Leiden 64: 1-20, figs 1-26.
- Achterberg, C. van, 1993. Illustrated key to the subfamilies of the Braconidae (Hymenoptera: Ichneumonoidea).— Zool. Verh. Leiden 283: 1-189, figs 1-66, photos 1-140, plates 1-102.
- Achterberg, C. van, 1997. Braconidae. An illustrated key to all subfamilies.— ETI World Biodiversity Database CD-ROM Series.
- Belokobylskij, S.A., 1993. Notes on the taxonomy of the Doryctinae with description of a new genus and three new species from the Oriental region (Hymenoptera: Braconidae).— Zoosyst. Ross. 1: 89-96.
- Belokobylskij, S.A., 1996. A contribution to the knowledge of the Doryctinae of Taiwan (Hymenoptera: Braconidae).— Zoosyst. Ross. 5: 153-191, figs 1-147.
- Belokobylskij, S.A., 1998. Doryctinae: 50-109. In: P.A. Ler (ed.). Opredelitel nasekomych dalnego bostoka Rossii 4 (3): 1-707, figs 1-274.— Vladivostok.
- Belokobylskij, S.A. & D.-S. Ku, 2001. A new species of the genus *Platyspathius* Viereck (Hymenoptera, Braconidae, Doryctinae) from Korea.— Ins. Koreana 18: 37-41, figs 1-11.

- Bouček, Z., 1955. Parasiti Kierowce *Pityophthorus polonicus* Karp. z Pienin.— Roczn. Nauk Léсных, Prace 11 (137): 83-92, figs 1-5.
- Čapek, M., 1992. New and interesting braconid species (Hymenoptera: Braconidae: Doryctinae) from east Mediterranean region.— Biológia (Bratislava) 47 (2): 135-141, figs 1-3.
- Chao, H.-F. [= Zhao X.-F.], 1978. A study on Chinese braconid wasps of the tribe Spathiini (Hymenoptera, Braconidae, Doryctinae) [III].— Acta ent. Sinica 21 (2): 173-184.
- Enderlein, G., 1912. Zur Kenntnis der Spathiinen und einiger verwandter Gruppen.— Arch. Naturgesch. (A) 78:1-37.
- Fahringer, J., 1930. Opuscula braconologica. 3. Palaearktische Region 2: 1-162.
- Falcó G., J.V., 1991. Contribucion al estudio de las subfamilias Braconinae, Doryctinae y Rogadinae (Hymenoptera, Braconidae) de España.— Thesis Universitat de Valencia: [i-xiv] + 1-503, figs 1-75.
- Fischer, M., 1982. Redeskription von *Gildoria* Hedqvist (Hymenoptera, Braconidae, Doryctinae).— Z. Arg.gem. österr. Ent., 34 (1-2): 61-64.
- Halperin, J., 1986. Braconidae (Hymenoptera) associated with forest and ornamental trees and shrubs in Israel.— Phytoparasitica 14 (2): 119-135.
- Hedqvist, K.-J., 1974. Contribution to the knowledge of the family Braconidae from Canary Islands (Hymenoptera, Ichneumonoidea). 1. A new genus and species of the subfamily Doryctinae.— Vieraea 3 (1973): 29-32, fig. 1.
- Nixon, G.E.J., 1943. A revision of the Spathiinae of the Old World (Hymenoptera, Braconidae).— Trans. R. ent. Soc. Lond. 93:173-456.
- Papp, J., 1985. Braconidae (Hymenoptera) from Greece, 2.— Annls hist.-nat. Mus. natn. hung. 77: 217-226, figs 1-22.
- Papp, J., 1989. A contribution of the Braconid fauna of Israel (Hymenoptera), 2.— Israel J. Ent. 22 (1988): 45-59, figs 1-8.
- Ratzeburg, J.T.C., 1848. Die Ichneumonen der Forstinsecten in forstlicher und entomologischer Beziehung; ein Anhang zu Abbildung und Beschreibung der Forstinsecten 2: 1-238, pls 1-3.
- Shaw, M.R., 1998. Some genera and species of Doryctinae (Hymenoptera: Braconidae) new to Britain.— Entomologist's Gaz. 49: 191-194.
- Shaw, M.R., 1999. *Platyspathius* sp. (Hym., Braconidae, Doryctinae) in S.W. France, new to the Palaearctic region.— Entomologist's mon. Mag. 135: 50.
- Shaw, M.R. & T. Huddleston, 1991. Classification and biology of braconid wasps (Hymenoptera: Braconidae).— Handbk Ident. Br. Ins. 7 (11): 1-126, figs 1-126.
- Shenefelt, R.D. & P.M. Marsh, 1976. Braconidae, 9.— Hym. Cat. (nov. ed.) 13: 1263-1424.
- Telenga, N.A., 1941. Hymenoptera 5 (3), Fam. Braconidae: sous-fam. Braconinae (continuation) and Sigalphinae.— Fauna Rossii (n. s.) 24: 1-466.
- Viereck, H.L., 1911. Descriptions of six new genera and thirty-one new species of ichneumon flies.— Proc. U. S. nat. Mus. 40: 170-196.

Received: 31.x.2003

Accepted: 3.xi.2003

Edited: M.J.P. van Oijen