

**A NEW SPECIES OF *ORTHOSTIGMA* RATZEBURG  
FROM TENERIFE (*INSECTA: HYMENOPTERA,*  
*BRACONIDAE*)**

by

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**RESUMEN**

Se describe e ilustra una nueva especie de la tribu *Alysiini* (*Braconidae*, *Alysiinae*), *Orthostigma imperator* sp. nov., de Tenerife, Islas Canarias. Se aporta también una clave de las especies paleárticas del género *Orthostigma*.

**ABSTRACT**

A new species of the *Alysiini* (*Braconidae*, *Alysiinae*), *Orthostigma imperator* sp. nov., from the Canary Islands (Tenerife) is described and illustrated. A key to the Palaearctic species is added.

**INTRODUCTION**

During a survey of the *Braconidae* in the collection of the Museo de Ciencias Naturales de Santa Cruz de Tenerife a remarkably coloured and comparatively large species of *Orthostigma* Ratzeburg from Tenerife was found. The reddish colour of the mesosoma differentiates this species at once from all other known species of *Orthostigma*, including *Orthostigma canariense* Fischer, 1980, the only other species known with certainty from the Canary Islands. For the terminology used in this paper, see VAN ACHTERBERG (1979: 242-249).

Orthostigma imperator spec. nov. (figs. 1-10)

Holotype, ♀, length of body 1.8 mm, of fore wing 2.1 mm.

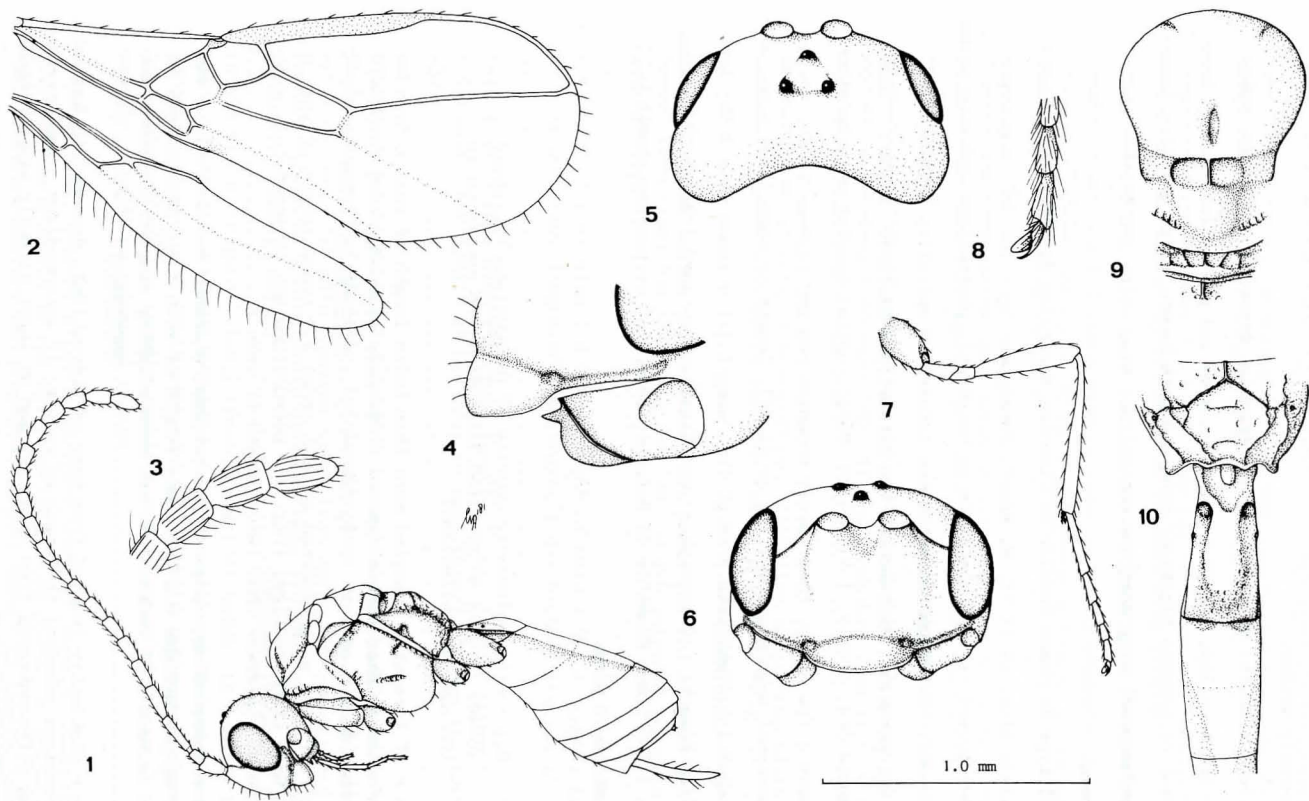
Head.- Length of antenna 1.1 times body, antennal segments 20, length of 3rd segment 1.2 times 4th segment and distinctly narrower than 4th (fig. 1), length of penultimate segment 1.6 times its width (fig. 3), apical segment with no spine; length of maxillary palp 0.8 times height of head; length of eye in dorsal view 0.9 times temple (fig. 5); POL:  $\emptyset$  ocellus:OOL=13:6:28; frons smooth; face strongly convex smooth, with shallow, curved and narrow groove from eye to antennal socket (fig. 6), length of malar space 0.2 times basal width of mandible; malar suture almost absent, with only a short subhorizontal depression above mandible base (fig. 4); mandible typical for the genus, with strong subtransverse carina (fig. 4).

Mesosoma.- Length of mesosoma 1.3 times its height; pronope absent; side of pronotum smooth, except for some crenulae antero-medially (fig. 1); precoxal sulcus only present medially, narrow and crenulate; rest of mesopleuron smooth; pleural sulcus narrowly crenulate, especially ventral half; metapleural flange small and rather acute; metapleuron largely smooth; notauli only anteriorly impressed; medio-posterior pit deep, elliptical and medium-sized (fig. 9); surface of propodeum largely smooth, with some rugae and carinae (fig. 10); medial carina of propodeum short, not strongly protruding, and areola of propodeum wide; propodeal spiracle small.

Wings.- Fore wing: 1-SR short (fig. 2); r leaving pterostigma slightly more distally than length of r from base of pterostigma (fig. 2); pterostigma linear, differentiated from 1-R1 and reaching beyond level of r-m; SR1 straight; 1-CUL : 2-CUL = 1:6; CULb somewhat shorter than 3-CUL; r:3-SR:SRI=6:20:51; 2-SR : 3-SR : r-m = 23:40:11; 3-CUL strongly oblique (fig. 2). Hind wing: M+CU much longer than 1-M.

Legs.- Length of femur, tibia and basitarsus of hind leg 4.2, 9.8, and 6.2 times their width, respectively; length of hind tibial spurs both 0.2 times hind basitarsus.

Metasoma.- Length of 1st tergite 1.9 times its apical width, its surface smooth, except for some microsculpture (fig. 10), distinctly convex; dorsal carinae of 1st tergite obsolete, only slight near dorsope; laterope medium-sized; dorsope deep, medium-sized (fig. 10); 2nd tergite smooth;



Figs. 1–10. *Orthostigma imperator* spec. nov., holotype 1, habitus, lateral aspect; 2, wings; 3, apex of antenna; 4, mandible, full sight on 2nd tooth; 5, head, dorsal aspect; 6, head, frontal aspect; 7, hind leg; 8, outer hind claw; 9, thorax, dorsal aspect; 10, propodeum and 1st–3rd tergites, dorsal aspect. 1, 2, 7: scale line (=1×); 3, 8: 2.5×; 4: 3×; 5, 6, 9, 10: 1.8×

length of ovipositor sheath 0.15 times fore wing, apical quarter glabrous, rest sparsely setose.

Colour.- Black; mesosoma and 1st tergite, brownish-red; legs, palpi, tegulae and annellus, brownish-yellow; scapus and pedicellus, partly brownish; rest of antenna blackish; mandible dark brown; tarsi apically (some-what) infuscated; wing membrane subhyaline; wing veins and pterostigma, dark brown.

Holotype in Museo Insular de Ciencias Naturales de Tenerife: "Tenerife, Realejo Alto, 19-IX-78, M. Báez". Paratypes: 1♀ + 1♂; 1♂, topotypic, allotype (housed in same institute as holotype), pterostigma and wing veins not enlarged, scutellum and metanotum infuscated apically, clypeus dark brown; 1♀, paratype, Rijksmuseum van Natuurlijke Historie, Leiden: "Tenerife, Monte Sta. Ursula, 1-VII-79, M. Báez", apical quarter of ovipositor sheath with a few setae, face partly brownish red and clypeus brown. Variation: antennal segments 20-21 (♀) or 24 (♂), length of body 1.8-2.1 mm, of fore wing 2.1-2.3 mm; vein 3-SR of fore wing 1.5-1.9 times vein 2-SR; length of 1st tergite 1.8-1.9 times its apical width; mutual distance between dorsople 1.5-2 times diameter of dorsople; length of ovipositor sheath 0.15-0.17 times fore wing.

Key to the Palaearctic species of *Orthostigma* Ratzeburg  
(based largely on previous literature and specimens in  
the authors collection)

1. Vein r of fore wing inserted more than twice length of vein r from base of pterostigma; pterostigma of ♂ strongly widened, about twice wider than length of vein r; (♀ unknown).....cratospilum (Thomson, 1895)
  - Vein r of fore wing inserted at most about 1.7 times length of vein r from base of pterostigma (Fig. 2); pterostigma not or moderately widened in ♂, narrower than twice length of vein r.....2
2. Vein r inserted near base of pterostigma, distance between vein r and base of pterostigma 0.5-0.8 times length of vein r and pterostigma as wide as vein 1-R1 (metacarp), not even slightly widened in either sex .....mandibulare (Tobias, 1962)
  - Vein r distinctly removed from base of pterostigma, distance to base of pterostigma subequal to length of vein r; if intermediate, than pterostigma differentiated from vein 1-R1 and at least slightly widened medially, especially in ♂ .....3

3. Vein SRL of fore wing evenly curved to posterior margin of wing and ending far from wing apex; (♀ unknown).....breviradiale Königsmann, 1969
  - Vein SRL of fore wing straight or curved towards anterior margin of wing, ending close to wing apex (fig. 2).....4
4. Length of antenna about 1.5 times body (♀) or longer (♂); antennal segments (of both sexes) 25-27; vein SRL of fore wing straight.....longicorne Königsmann, 1969
  - Length of antenna 1.3 times body or less; antennal segments of ♀ 24 or less, of ♂ 18-24, but up to 26 in sculpturatum and up to 28 in sordipes; vein SRL of fore wing variable.....5
5. Pterostigma terminating near level of vein r-m, and apically differentiated from vein 1-Rl (metacarp); vein 3-SR of fore wing about 1.5 times vein 2-SR.....sibericum (Telenga, 1935)
  - Pterostigma terminating distally from level of vein r-m or apically nor differentiated from vein 1-Rl; if intermediate, then vein 3-SR of fore wing about twice vein 2-SR.....6
6. Mesosoma and 1st tergite brownish-red; flabellum of antenna black; 3rd antennal segment distinctly narrower than 4th segment (fig. 1).....imperator spec. nov.
  - Mesosoma and 1st tergite usually black or dark brown; if yellowish-brown, then flagellum yellowish and 3rd and 4th antennal segments of similar width.....7
7. Vein 3-SR of fore wing 1.9 times length of vein 2-SR of longer; if intermediate, then length of 1st tergite 1.4-1.6 times its apical width.....8
  - Vein 3-SR of fore wing 1.8 times length of vein 2-SR of shorter; if 1.9 times, then length of 1st tergite more than 1.6 times its apical width.....13
8. Length of 1st tergite 1.4-1.7 times its apical width; hind tibia more or less infuscated apically; 1st tergite more or less widened apically; anterior tentorial pits somewhat wider than epistomal suture; 3rd antennal segment of ♀ distinctly narrower than 4th segment; antenna conspicuously, densely setose.....sordipes (Thomson, 1895)
  - Length of 1st tergite 1.8-2.3 times its apical width; if 1.6-1.7 times, then 3rd and 4th antennal segments of ♀ of similar width and antenna normally setose; hind tibia yellowish or slightly infuscated apically; posterior half of 1st tergite parallel-sided; anterior tentorial pits usually as wide as epistomal suture.....9
9. Third antennal segment slightly narrower than 4th segment; costulae of propodeum scarcely or not differentiated from posterior sculpture (but costulae distinct and propodeum largely smooth in lokei); posterior half of propodeum more or less rugose-reticulate.....10

- Third and 4th antennal segments of similar width; costulae of propodeum distinct (but sometimes weak); posterior half of propodeum weakly rugose.....12
- 10. Distance between ocelly of ♀ somewhat less than diameter of posterior ocellus (paratype) or both similar; length of 3rd antennal segment 4-5 times its maximum width; eye in dorsal view 1.2-1.3 times temple; apex of pterostigma of ♀ rather abruptly differentiated from vein 1-RL (metacarp); posterior face of propodeum coarsely reticulate.....  
.....sculpturatum Tobias, 1962
- Distance between ocelly of ♀ more (about 1.3 times) than diameter of posterior ocellus; length of 3rd antennal segment 3.5-3.7 times its maximum width; eye in dorsal view 1.3-1.5 times temple; apex of pterostigma and propodeum variable.....11
- 11. Apex of pterostigma of ♀ gradually merging in vein 1-RL; posterior face of propodeum densely reticulate; antennal segments of ♀ ca. 21..  
.....antennatum Tobias, 1962
- Apex of pterostigma of ♀ rather abruptly differentiated from vein 1-RL; posterior face of propodeum largely smooth, only with some rugae; antennal segments of ♀ ca. 24.....lokei Hedqvist, 1973
- 12. Length of 1st tergite 1.5-1.8 times its apical width; length of 3rd antennal segment 2.8-3 times its maximum width; length of body 1.6-1.9 mm.....longicubitale Königsmann, 1969
- Length of 1st tergite 2.0-2.3 times its apical width; length of 3rd antennal segment about 3.3 times its maximum width; length of body about 2.4 mm; (the yellowish colour referred to by Königsmann, is probably artificial because the holotype is bleached).....  
.....lucidum Königsmann, 1969
- 13. Third antennal segment of ♀ 1.3-1.4 times as long as 4th segment; legs yellowish; head not or indistinctly widened behind eyes.....  
.....pumilum (Nees, 1834)
- Third antennal segment of ♀ 1.1 times as long as 4th segment or less; if 1.2 times then hind coxa infuscated basally; head variable.....14
- 14. Legs at least partly (rather) dark brown or infuscated; head more or less widened behind eyes.....maculipes (Haliday, 1838)
- Legs brownish-yellow or reddish; head variable.....15
- 15. Antennal segments of ♀ about 16; pterostigma rather differentiated from vein 1-RL (metacarp).....canariense Fischer, 1980
- Antennal segments of ♀ 18-21; pterostigma gradually merging into vein 1-RL.....16
- 16. Precoxal sulcus reaches anterior margin of mesopleuron; head parallel-sided behind eyes; body dark reddish-brown; antennal segments of ♀

- about 21.....pseudolaticeps Königsmann, 1969
- Precoxal sulcus absent anteriorly; head widened behind eyes; body black(ish); antennal segments of ♀ about 18; (?=latinervis (Petersen, 1956) because ♂♂ of laticeps and latinervis both have some veins of fore wing widened).....laticeps (Thomson, 1895)

(Recibido el 5 de octubre de 1981)

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