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**A NEW SPECIES OF *ORTHOSTZGMA* RATZEBURG
FROM TENERIFE (*ZNSECTA: HYMENOPTERA,*
BRACONZDAE)**

by

C. VAN ACHTERBERG* and G. ORTEGA**

A NEW SPECIES OF *ORTHOSTICMA* RATZEBURG
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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* Ratzburg 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.

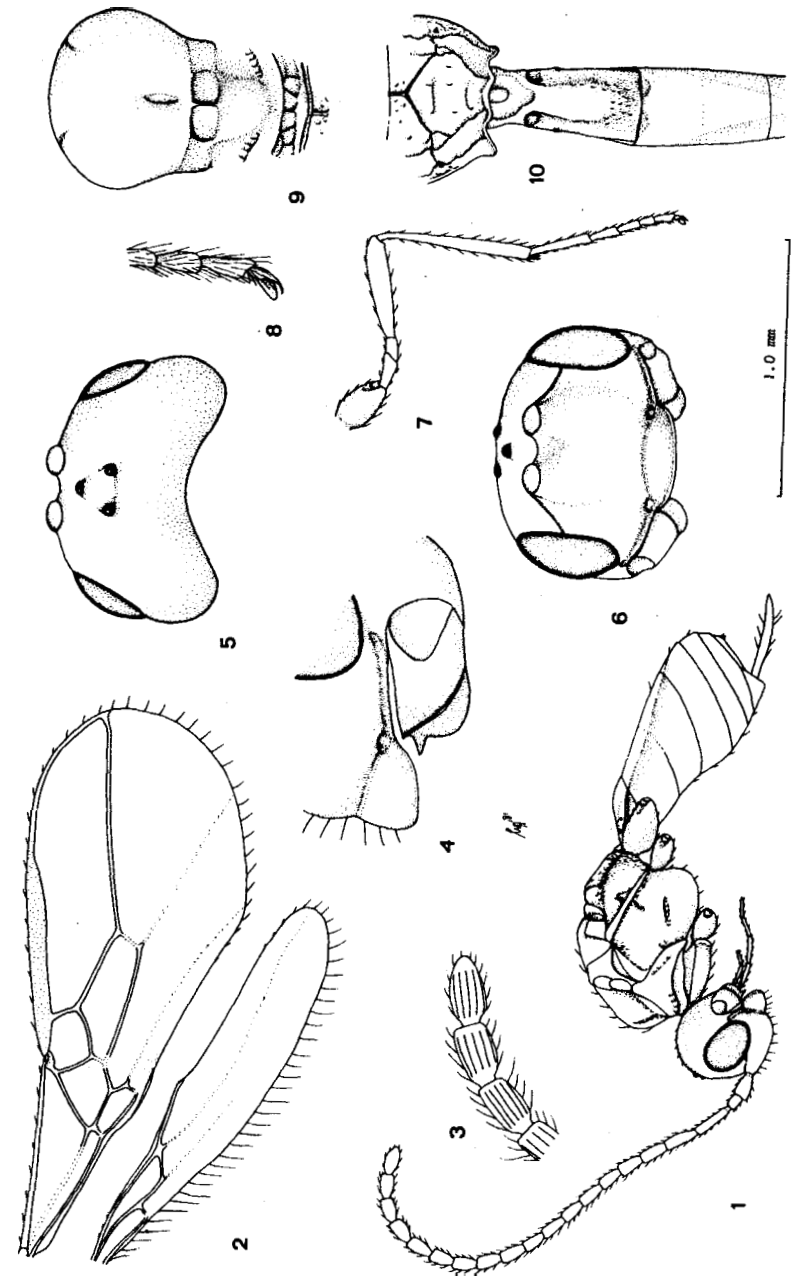
Head.- Length of antenna 1.1 times body, antennal segments 20, length of 3rd segment 1.2 times 4th segment and distinctly narrower than 4th (fig. 1), length of penultimate segment 1.6 times its width (fig. 3), apical segment with no spine; length of maxillary palp 0.8 times height of head; length of eye in dorsal view 0.9 times temple (fig. 5); POL: Ø 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 sane 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 sane rugae and carinae (fig. 10); medial carina of propodem 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:SR1=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 sane 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 ♀, habitus, lateral aspect; 2, wings, lateral aspect; 3, apex of antenna; 4, mandible, full view 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 (=1x); 3, 8: 2.5x; 4: 3x; 5, 6, 9, 10: 1.8x

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 (*sane*-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. Urda, 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. 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 SR1 of fore wing evenly curved to posterior margin of wing and ending far from wing apex; (♀ unknown).....*breviradiale* Königsmann, 1969
- Vein SR1 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 SR1 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 SR1 of fore wing variable..... 5
5. Pterostigma terminating near level of vein r-m, and apically differentiated from vein 1-R1 (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 not differentiated from vein 1-R1; 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 of 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)

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