**HOMONEURA GEMMAE SP. N. AND H. EKPLIXI SP. N., TWO NEW SPECIES FROM THE IBERIAN PENINSULA (SPAIN AND ANDORRA) (DIPTERA: LAUXANIIDAE)**

Miguel Carles-Tolrá

---

**Abstract:** Two lauxaniids, *Homoneura gemmae* sp. n. and *H. ekplixi* sp. n., are described from the Iberian Peninsula. Material of *H. thalhammeri* Papp is also included.

**Key words:** Diptera, Lauxaniidae, *Homoneura*, new species, Spain, Andorra.

**Homoneura gemmae** sp.n. y *H. ekplixi* sp. n., dos especies nuevas de la Península Ibérica (España y Andorra) (Diptera: Lauxaniidae)

**Resumen:** Se describen dos especies nuevas de lauxánidos, *Homoneura gemmae* sp. n. y *H. ekplixi* sp. n. de la Península Ibérica.

**Palabras clave:** Diptera, Lauxaniidae, Homoneura, especies nuevas, España, Andorra.

---

**Introduction**

In 1990 I presented my Ph.D. Thesis (Carles-Tolrá, 1990, not published). In it I included a new lauxaniid species of the genus *Homoneura* van der Wulp, 1891, named *H. gemmae* sp.n. Before I sent it to be published I preferred to know the opinion of a lauxaniid specialist. He told me that *H. gemmae* was not a new species for science, but only a variation of *H. thalhammeri* Papp, 1978. As I was an amateur at that time, I accepted the opinion of the specialist and I published it as belonging to *H. thalhammeri* in Carles-Tolrá, 1993a. And I also did it with all the additional material of “*H. gemmae* sp.n.” that I studied and published in further years (Carles-Tolrá, 1993b, 1997, 2001; Carles-Tolrá & Pujade-Villar, 2003).

Some years ago, a reexamination of all that material identified as *H. thalhammeri* has proved the validity of *H. gemmae* as a new species. Furthermore, unexpectedly, among the material another new species for science has appeared. Both new species are described below and the true specimens of *H. thalhammeri* are also included.

**Results**

**Homoneura gemmae** sp.n.

Fig. 1-3, 10-12, 19-21.

**DESCRIPTION.**

Male. General colour orange. Head completely orange, occiput with a brown spot just over the neck. Proboscis, palpus and antenna orange, arista with short pubescence, 2 upper orbitals.

Thorax completely orange. Chaetotaxy: 1 postpronotal, 0+3 dorsocentrals, 2 notopleurals, 1 presutural, 1 supraalar, 2 postalar, 1 prescutellar, 6 acrostichal rows, scutellum orange, 2 scutellars, 1 anepisternal, 2 katepisternals, anepisternum and katepisternum pilose.

Legs orangish-yellow, mid tibia with 2 unequal ventropical spurs, hind trochanter normal, without protuberance, hind tibia with reduced dorsal preapical seta.

Wing uniformly yellowish, spots and shadows absent. Haltere yellowish.

Abdomen orange, sternites 4-5 entire, rectangular, sternite 6 (Fig. 10) of characteristic shape, trapezoidal, distinctly divergent posteriorly, anterior margin narrower than the epandrium (Fig. 3), posteriorly with a pair of inner triangular structures, anterior protuberances situated at the corners and completely protruding (Fig. 10), rounded, triangular (Fig. 10, 11).

Genitalia orangish (Fig. 1). Surstylus (Fig. 1, 2), base wide, with a step, back- and upwards recurved, tip strongly pointed, hook-like, with a preapical step; postgonite (Fig. 1, 12) long, wider proximally than distally, bent, tip slightly curved; aedeagus (Fig. 1) stout, tapered apically; cerci (Fig. 1, 3) small, short, haired and joined together by a membrane.

Female: as the male. Terguete 8 and sternite 8 (Fig. 21) few sclerotized, segment 8 (Fig. 19) with a small brown spot at the pleural membrane at the eversible sacks (Fig. 21). A smaller additional spot in front of it may be present (Fig. 20), sometimes it is only in one side.

Total body length: male: 2.7-3.4 mm; female: 2.8-3.9 mm.

**TYPE MATERIAL:** Holotype male: SPAIN: Barcelona: Cabrils, 9.8.1987, ahogado piscina (= drowned in a swimming-pool), M. Carles-Tolrá leg.


---
**OTHER MATERIAL:** the following specimens are in such a bad state of conservation (they are covered by sticky rubber), that they have been excluded from type material: SPAIN: Barcelona: Cabrils, 13.7.1989 2 males (one abdomen lost during manipulation), 6.8.1991 2 males, 16.8.1991 1 female; all drowned in a swimming-pool, M. Carles-Tolrá leg.

All the material is preserved in alcohol (70%). Holotype male: ANDORRA: Santa Coloma, viii-1992, collected by a Malaise trap (for more details see Carles-Tolrá y Pujade-Villar, 2000).

**DISTRIBUTION:** hitherto only known from the Iberian Peninsula in Spain and Andorra.

**Homoneura thalhammeri** Papp, 1978

**Fig. 4-6, 13-15.**

**BRIEF DESCRIPTION** of the male sternite 6 and genitalia.

- **Sternite 6** (Fig. 13) large, rectangular, wider than long, wider than the epandrium (Fig. 6), anterior protuberances near the corners (Fig. 13), distinctly rounded, ear-like (Fig. 13, 14).

- **Genitalia** (Fig. 4). Surstylus (Fig. 4, 5) continuos, tapered gradually, without a step, back- and upwards recurved, tip not strongly pointed, without a step; postgonite (Fig. 4, 15) long, thin, straight; aedeagus (Fig. 4) stout, rounded apically; cerci (Fig. 4, 6) small, short, haired and joined together by a membrane.


**Table I. Differences among Homoneura gemmae sp.n., H. thalhammeri Papp and H. ekplixi sp.n.**

<table>
<thead>
<tr>
<th></th>
<th><strong>Homoneura gemmae sp.n.</strong></th>
<th><strong>H. thalhammeri Papp</strong></th>
<th><strong>H. ekplixi sp.n.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Male</strong></td>
<td>(Fig. 1-3, 10-12)</td>
<td>(Fig. 4-6, 13-15)</td>
<td>(Fig. 7-9, 16-18)</td>
</tr>
<tr>
<td><strong>Sternite 6</strong></td>
<td>narrower than epandrium, trapezoidal, divergent posteriorly, with posterior inner triangular structures</td>
<td>wider than epandrium, rectangular, lateral margins parallel</td>
<td>wider than epandrium, rectangular, lateral margins parallel</td>
</tr>
<tr>
<td><strong>Lobules of sternite 6</strong></td>
<td>rounded, triangular, at the corners, completely protruding</td>
<td>rounded, ear-like, near the corners, not completely protruding</td>
<td>sharp, with crests, near the corners, not completely protruding</td>
</tr>
<tr>
<td><strong>Surstylus</strong></td>
<td>base with a step, tip strongly pointed, preapical step present</td>
<td>base without a step, tip pointed, preapical step absent</td>
<td>base without a step, tip pointed, preapical step absent</td>
</tr>
<tr>
<td><strong>Postgonite</strong></td>
<td>long, bent, proximally wide-distally thin</td>
<td>long, straight, thin</td>
<td>short, straight, wide</td>
</tr>
<tr>
<td><strong>Aedeagus</strong></td>
<td>tip tapered</td>
<td>tip rounded</td>
<td>snout fulgorid-like</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>(Fig. 19-21)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Membrane segment 8</strong></td>
<td>1-(2) brown spots</td>
<td>spots absent</td>
<td>female unknown</td>
</tr>
</tbody>
</table>

**Homoneura ekplixi** sp.n.

**Fig. 7-9, 16-18.**

**DESCRIPTION.**

**Male.** General colour orange. Head completely orange, occiput with a brown spot just over the neck. Proboscis, palpus and antenna orange, arista with short pubescence, 2 upper orbitals.

- Thorax completely orange. Chaetotaxy: 1 postpronotal, 0+3 dorsocentrales, 2 notopleurales, 1 presutural, 1 supraalar, 2 postalar, 1 prescutellar, 6 acrostichal rows, scutellum orange, 2 scutellars, 1 anepisternal, 2 katepisternals, anepistemum and katepistemum pilose.

- Legs orangish-yellow, mid tibia with 2 unequal ventroapical spurs, hind trochanter normal, without protuberance, hind tibia with reduced dorsal preapical seta.

- Wing uniformly yellowish, spots and shadows absent. Haltere yellowish.

- Abdomen orange, sternites 4-5 entire, rectangular, sternite 6 (Fig. 16) large, rectangular, wider than long, wider than the epandrium (Fig. 9), anterior protuberances near the corners, sharp, irregular, each protuberance with two unequal diagonal crests (Fig. 16, 17).

- Genitalia orangish (Fig. 7). Surstylus (Fig. 7, 8) distinctly wide, without a step, back- and upwards recurved, tip not strongly pointed, without a step; postgonite (Fig. 7, 18) short and wide; aedeagus (Fig. 7) stout, large, similar to the “snout” of some fulgorid species; cerci (Fig. 7, 9) small, short, haired and joined together by a membrane.

- Female unknown.

**TYPE MATERIAL:** Holotype male: ANDORRA: Santa Coloma, viii-1992, collected by a Malaise trap, J. Pujade-Villar leg. Type material preserved in alcohol (70%) in the collection of the author.

**DISCUSSION:** Homoneura ekplixi sp.n. is closely related to Homoneura gemmae sp.n. and H. thalhammeri Papp. For differences see Table I and Papp, 1978: Fig. 8, 32.

**ETYMOLOGY:** the specific name refers to the unexpected finding of this new species (ekplixi = surprise in modern Greek).

**DISTRIBUTION:** hitherto only known from Andorra.
Fig. 1-9. 1-3) *Homoneura gemmae* sp.n. 4-6) *H. thalhammeri* Papp. 7-9) *H. ekplixi* sp.n. 1, 4, 7) male genitalia, lateral view. 2, 5, 8) surstylus, lateral view. 3, 6, 9) male sternite 6 and genitalia, ventral view. Scales = 200 µm.
Fig 10-21. Fig. 10-12, 19-21) Homoneura gemmae sp.n. Fig. 13-15) H. thalhammeri Papp. Fig. 16-18) H. ekplixi sp.n. Fig. 10, 13, 16) sternite 6, ventral view (covered in the middle by the aedeagus and surstyli in Fig. 16). Fig. 11, 14, 17) lobule of sternite 6, lateral view. Fig. 12, 15, 18) postgonite, lateral view. Fig. 19, 20) female segment 8 and cerci, lateral view. Fig. 21) female segment 8 with eversible sacks and cerci, ventral view. Scales = 200 µm.
Acknowledgements

My most sincere thanks to Juli Pujade-Villar (Facultad de Biologia, Barcelona) for the shipment of the abundant material from Andorra. Many thanks also to Lourdes Gils (Barcelona) for her help in modern Greek, as well as to Jane Pérez for reviewing the English.

References


(*) Available www.sea-entomologia.org