



Pollinator Academy

Genus: *Melitturga*



Female



Male

Genus: *Melitturga* Latreille, 1809

Clade: Anthophila

Family: Andrenidae

SubFamily: Panurginae

Tribe: Melitturgini

Number of species of this genus found in Europe: 6

Morphology & diagnosis

The species of *Melitturga* are medium to large bees (12-13mm). They are short-tongued bees, the two first labial palpi segments being more than two times longer

than the terminal segment and is also broadened. Males always show a light-coloured spot on the clypeus, and short, club-shaped antennae. This genus does not present facial foveae in the female sex. They show three submarginal cells, of which the third is larger than the others. The marginal cell is truncate. Males show a unique trait, making them very easy to identify: their eyes are very large and converge towards the vertex, but never meet.

Summary of distinctive traits

- 3 submarginal cells of sub-equivalent size (cell 3 slightly larger)(a)
- Truncate marginal cell (b)
- Club-shaped antennae in males (distinctly wider apex) (c)
- Eyes converging on the top of the head in males (d)



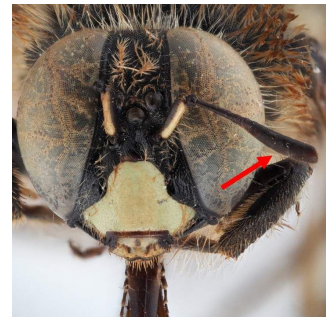
(a) *Melitturga caudata*
Female



(b) *Melitturga caudata* Female



(c) *Melitturga clavicornis* Male



(d) *Melitturga clavicornis* Male

General comments on *Melitturga* species identification

Species identification include criteria about clypeal punctation and mouthparts, plus genitalia for males. Thus, these parts have to be made visible during specimen preparation.

Morphologically similar genera, and how to distinguish them

- ***Melitturga* - *Andrena***

Melitturga males have dorsally converging compound eyes on the head and club-shaped antennae.

Melitturga females have no fovea on the face and a truncate marginal cell.

Andrena males have normal compound eyes that do not converge dorsally and simple antennae. *Andrena* females have foveae on the face and a rounded or pointed marginal cell.

- ***Melitturga* - *Apis***

Melitturga males have enlarged eyes, but the eyes are not touching at the top of the head, and the eyes are not hairy. Plus, *Melitturga* species have a short marginal cell and club-shaped antennae.

Apis males have enlarged eyes that touching at the top of the head, the compound eyes are densely hairy, and the antennae are normal.

- ***Melitturga* - *Anthidium* and other Anthidiini**

Melitturga species have a truncate marginal cell, a second recurrent vein anteriorly connecting at the second submarginal cell, males with enlarged eyes and females without a ventral brush. They lack yellow, orange, or red markings on the metasoma.

Anthidium and other Anthidiini species have a pointed marginal cell, a second recurrent vein anteriorly connecting after the second submarginal cell, males have

normal eyes and females have a ventral abdominal scopa. The metasoma is often richly marked with yellow, orange, or red.

Geographical distribution and global diversity

Only 13 species have been described in this genus globally. The most diverse area is the West Palaearctic region. According to Patiny (1999), there are three subgenera: *Australomelitturga*, *Melitturga s.str.*, and *Petrusiana*. The three subgenera show different distribution areas. The subgenus *Australomelitturga* shows a disjunct distribution in the African continent encompassing the southern part, including Angola, Namibia, Botswana and South Africa, and a second area in the northwestern part of the continent (Algeria, Morocco and Tunisia) (Patiny & Gaspard 2000). The subgenus *Melitturga* encompasses the entire Palaearctic region, from the Iberian Peninsula to the West, China to the East, Russia to the North and Iran to the South. The subgenus *Petrusianna* is distributed along the Mediterranean basin, with a disjunct distribution in the Adriatic.

Presence in Europe

Albania, Austria, Belarus, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, France (mainland), Germany, Greece (except Crete), Hungary, Italy (mainland), Lithuania, Moldova, North Macedonia, Poland, Portugal (mainland), Romania, Russian Federation, Serbia, Slovakia, Spain (mainland), Switzerland, Ukraine.

Biology

Seasonal life cycle

They are normally summer species, and univoltine. They overwinter as larvae.

Reproduction

Most details about *Melitturga* reproduction are unknown. Males establish patrolling routes along several patches of flowers, which they inspect periodically. They are constantly moving along the route, they only stop to forage or when a female enters their territory.

Nesting

They dig a nest on the ground, normally without generating a tumuli. The nests consist of a large horizontal gallery. In most cases they are solitary, but up to two females per nest entrance have been seen in nests of *M. clavicornis*. The entrance to the nest is always open, and is normally situated on the base of vegetation.

Parasites

They are parasitized by species of the genus *Ammobatoides*.

Floral preferences

They show strong preferences for members of the family Fabaceae. They can reach them because even being short-tongued bees, they are relatively large and proportionally the tongue is long enough to reach the nectaries. They can also be observed foraging on *Lavandula*.



Type species: *Eucera clavicornis* Latreille, 1809, monobasic.

Etymology: the name derives from the Greek '*melitta*', meaning '*bee*', and the suffix '*urgus*' meaning '*worker*'

Common names:

FR: les mélitturges

GER: der Schwebebienen

List of species found in Europe:

1. *Melitturga (Petruccianna) caudata* Pérez, 1879
2. *Melitturga (Melitturga) clavicornis* (Latreille, 1806)
3. *Melitturga (Melitturga) praestans* Giraud, 1861
4. *Melitturga (Petruccianna) spinosa* Morawitz, 1892
5. *Melitturga (Melitturga) syriaca* Friese, 1899
6. *Melitturga (Melitturga) taurica* Friese, 1922

Subgenera found in Europe:

Melitturga s.str.;
Petruccianna

References

Patiny, S. & Gaspar, C. (2000). Biogéographie des *Melitturga* Latreille, 1809, *Melitturgula* Friese, 1903 et des genres proches (Hymenoptera: Andrenidae, Panurginae). *Notes fauniques de Gembloux*, 39: 3-44.

Patiny, S. (1999). Systématique générique et subgénérique des *Melitturga* Latreille - *Melitturgula* Friese - *Flavomelitturgula* Warncke (Hymenoptera, Andrenidae, Panurginae). *Bulletin de la Société entomologique de France*, 104(3): 241-256.

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