



Pollinator Academy

Genus: *Melecta*



Female



Male

Genus: *Melecta* Latreille 1802

Clade: Anthophila

Family: Apidae

SubFamily: Apinae

Tribe: Melectini

Number of species of this genus found in Europe: 26

Morphology & diagnosis

Melecta are medium to large-sized broodparasitic bees (10-17mm) with long tongues. They are very conspicuous bees. They have three submarginal cells and their cuticle is black and is spotted with strongly contrasting white or light-colored hairs. The pilosity in the genus *Melecta* is long and soft over the anterior part of the body. Moreover, the scutellum shows two strong teeth which are often hidden by the pilosity, and there are arolia between the tarsal claws

Summary of distinctive traits

- Large black bees with patterns of long white or grey hairs
- 3 submarginal cells (a)
- 2 spines on the scutellum (b)
- No pollen collecting hairs (scopa) in females (c)
- Arolia present between the tarsal claws (d)



(a) *Melecta luctuosa*
Female



(b) *Melecta luctuosa*
Female



(c) *Melecta luctuosa*
Female



(d) *Melecta luctuosa*
Female

General comments on identification to species level

Male identification requires extraction of the genitalia. As identification also relies on the pattern of pubescence, specimens must be preserved in good condition without pubescence becoming wet or matted. Even some moderately abraded specimens can be impossible to identify.

Morphologically similar genera, and how to distinguish them

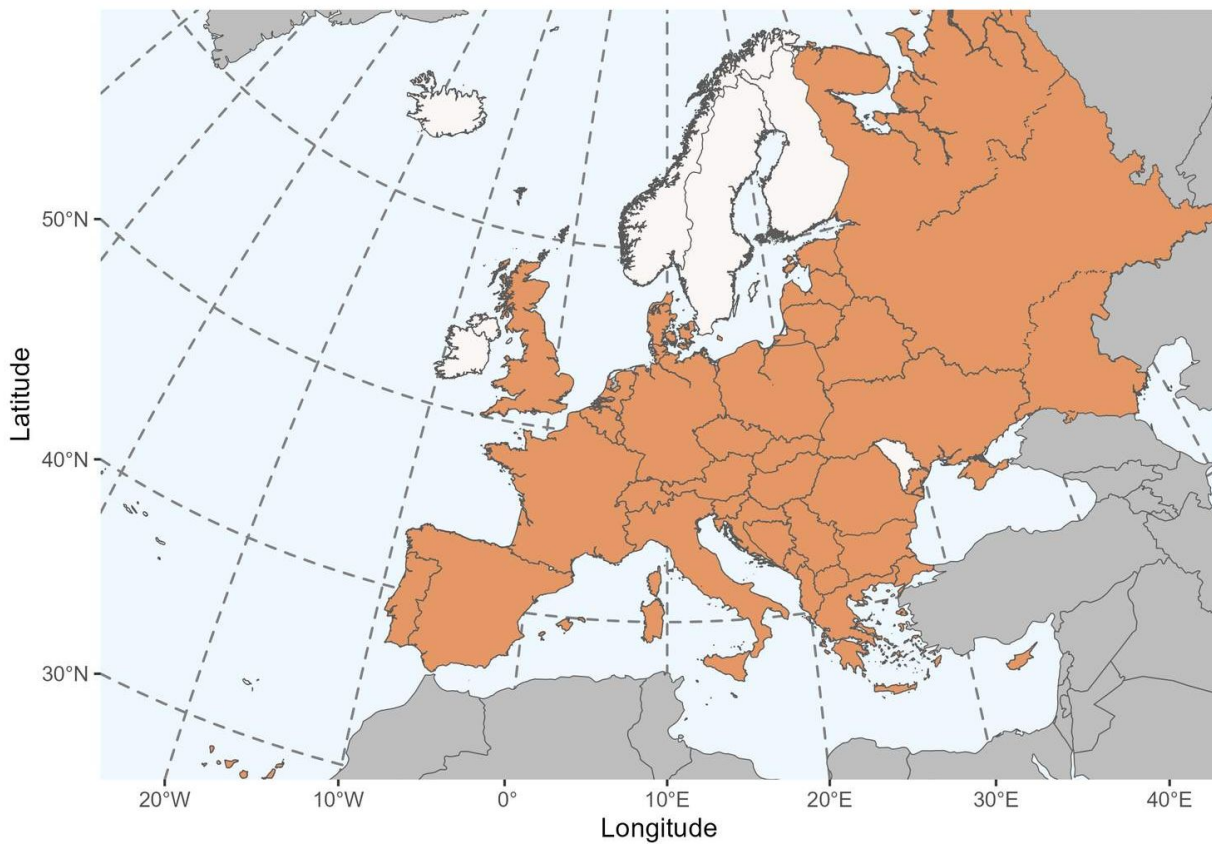
- *Melecta* - *Thyreus*

Melecta species have long hairs on the scutum and scutellum, two spines on the scutellum.

Thyreus species have short and appressed hairs on the scutum and scutellum, a flat scutellum extending posteriorly to overhand the propodeum, and no arolia between the tarsal claws.

Geographical distribution and global diversity

The genus *Melecta* shows a Holarctic distribution (including North America, Europe, North Africa, Arabian Peninsula and Asia) (Michener 2007). It comprises around 50 species, most of them rare. It is most species-rich in the Mediterranean region and in the arid regions of Asia. There are 26 described species occurring in Europe.



Presence in Europe

Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Montenegro, Netherlands, North Macedonia, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom.

Biology

Seasonal life cycle

They fly essentially in the spring (though slightly later into the summer at altitude) and all the species are univoltine.

Nesting

They never build their own nest: they exclusively depend on host species and their nests for reproduction. Then, the females are constantly patrolling the area searching for nests of their host species. The *Melecta* female flies close above the nesting sites and occasionally lands at a nest opening, which she inspects, sometimes and sometimes crawls into it and stays there and stays there for a few seconds. They lay an egg on the reserves of food that the host has prepared for its own descendants. If the host bee is already in the nest, fights between the host and the parasite can be observed.

Host species

The subgenus *Melecta* are associated with bees of the genus *Anthophora*, whereas those of the subgenus *Eupavlovskia* attack bees of the genus *Habropoda*. Species of the genus *Melecta* are not exclusively specialized, but this is imprecisely known. It is likely that some are strict specialists, and others attack a range of related host species.

Floral preferences

As parasitic bees, they do not collect pollen from flowers. They have been mostly observed visiting flowers of the family Boraginaceae (*Echium*, *Anchusa*) and Lamiaceae (*Lamium*, *Lavandula*).



Type species: txt

Synonyms: txt

Etymology: txt

Common names: n/a

List of species found in Europe:

1. *Melecta (Eupavlovskia) funeraria* Smith, 1854
2. *Melecta (Eupavlovskia) obscura* Friese, 1895
3. *Melecta (Melecta) aegyptiaca* Radoszkowski, 1876
4. *Melecta (Melecta) albifrons* (Forster, 1771)
5. *Melecta (Melecta) alcestis* Lieftinck, 1980
6. *Melecta (Melecta) amanda* Lieftinck, 1980
7. *Melecta (Melecta) baerii* (Radoszkowski, 1865)
8. *Melecta (Melecta) canariensis* Lieftinck, 1958
9. *Melecta (Melecta) caroli* Lieftinck, 1958
10. *Melecta (Melecta) curvispina* Lieftinck, 1958
11. *Melecta (Melecta) diacantha* Eversmann, 1852
12. *Melecta (Melecta) duodecimmaculata* (Rossi, 1790)
13. *Melecta (Melecta) eversmanni* Radoszkowski, 1893
14. *Melecta (Melecta) festiva* Lieftinck, 1980
15. *Melecta (Melecta) fulgida* Lieftinck, 1980
16. *Melecta (Melecta) gracilipes* Lieftinck, 1980
17. *Melecta (Melecta) grandis* Lepeletier, 1841
18. *Melecta (Melecta) guichardi* Lieftinck, 1980
19. *Melecta (Melecta) leucorhyncha* Gribodo, 1893
20. *Melecta (Melecta) luctuosa* (Scopoli, 1770)

21. *Melecta (Melecta) mundula* Lieftinck, 1983
22. *Melecta (Melecta) prophanta* Lieftinck, 1980
23. *Melecta (Melecta) rutenica* Radoszkowski, 1893
24. *Melecta (Melecta) tuberculata* Lieftinck, 1980
25. *Melecta (Melecta) italica* Radoszkowski, 1876
26. *Melecta (Paracrocisa) guilochei* Dusmet y Alonso, 1915

Subgenera found in Europe:

1. *Eupavlovskia* Popov, 1955
2. *Melecta* s.str. Latreille, 1802
3. *Paracrocisa* Alfken, 1937

References

Beaumont, J. de. 1939. Les Crocisa de la faune française (Hym. Apidae). Annales de la Société entomologique de France, 108: 161-171.

Lieftinck M.A. 1969. The melectine genus *Eupavlovskia* Popov, 1955, with notes on its distribution and host relations (Hymenoptera, Apoidea, Anthophoridae). Tijdschrift voor Entomologie, 112(4): 101-122.

Lieftinck M.A. 1977. Notes on the melectine genus *Paracrocisa* Alfken, with a new record of *P. sinaitica* Alfken (Hymenoptera, Anthophoridae). Tijdschrift voor Entomologie, 37: 125-127.

Lieftinck M.A. 1980. Prodrôme to a monograph of the Palaearctic species of the genus *Melecta* Latreille 1802 (Hymenoptera, Anthophoridae). Tijdschrift voor Entomologie,

123(6): 129-349, 8 pls.

Michener C.D. 2007. The bees of the world, second edition. The Johns Hopkins University Press, Baltimore.

Rasmont P. 2016. Atlas of the European Bees: genus *Melecta*. Atlas Hymenoptera, Mons, Gembloux. <http://www.atlashymenoptera.net/page.asp?ID=256>

Attributions

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