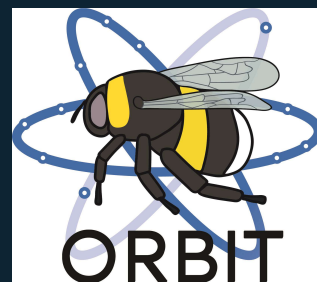




Pollinator Academy

Genus: *Amegilla*



Female



Male

Genus: *Amegilla* Friese, 1897

Clade: Anthophila

Family: Apidae

SubFamily: Apinae

Tribe: Anthophorini

Number of species of this genus found in Europe: 11

Morphology & diagnosis

Amegilla are robust bees with long to very long-tongues. The clypeus is usually protuberant (sometimes strongly so) and the antennae are relatively short in comparison with other groups. The wings always have three submarginal cells, all of them of equivalent size, and the marginal cell is short. The first recurrent vein reaches the middle of the second submarginal cell. Both females and males generally have white or yellow facial markings, though sometimes these are absent such as in the female of *A. canifrons* (Smith, 1854) which is restricted to the Canary Islands. They typically show a dark metasoma with strongly contrasting apical tergal hairbands comprised of clearly delineated pale hairs, though sometimes hairs also extend to the tergal discs as in *A. garrula* (Rossi, 1790). They have a dense scopa on the hind tibiae and basitarsi, these scopal hairs typically pale, at least on the hind tibiae. *Amegilla* can be recognized and separated from the related genus *Anthophora* by the absence of arolia between the tarsal claws (present in *Anthophora*). Regarding their behaviour, they are fast flyers that are active in the summer, and are generally found in warm to hot habitats. Consequently, they are not found in northern Europe. They don't always stop on the flowers to forage, and can hover in place whilst drinking nectar.

Summary of distinctive traits

- Stout species, with and often protuberant clypeus and relatively short antennae
- Typically with mixture of light and dark pubescence, metasoma dark with strongly contrasting light white tergal hairbands (a)
- The 3 submarginal cells of equivalent size (b)
- 1st recurrent vein reaching the middle of submarginal cell 2 (c)
- Lack of arolia between the tarsal claws (d)



(a) *Amegilla fasciata*
Female



(b) *Amegilla fasciata* Male



(c) *Amegilla fasciata* Male



(d) *Amegilla fasciata*
Female

General comments on identification to species level

For males, the form of the hind legs, the pilosity on the middle leg as well as the yellow markings on the face and the genitalia are the most used diagnostic characters. For females, the most important criteria are the facial markings and the colour and position of the pilosity. Identification to species level can be challenging due to the almost complete lack of sculptural characters in this genus. While preparing the specimens, it is important to extract the male genitalia and to ensure that the pilosity of the body is clean and well preserved.

Morphologically similar genera, and how to distinguish them

- ***Amegilla* - *Anthophora***

Amegilla species tend to be smaller with well delimited hairs bands on the metasoma, and lack arolia between the tarsal claws. *Amegilla* are also more typically active in the summer, and *Anthophora* in the spring, but there is considerable overlap with *Anthophora* (*Heliophila*), so precise morphological characters (e.g. the

presence/absence of arolia) should be used.

Anthophora species tend to be larger, fly during the spring, and have arolia between the claws.

- ***Amegilla* - *Habropoda***

Amegilla species have a distinctly short marginal cell, as well as the 1st recurrent vein which reaches the middle of the 2nd submarginal cell and an interfurcal nervulus.

Habropoda species have a more elongated tip of marginal cell (the apex of the anterior margin of submarginal cell 3 reaches only the middle of the marginal cell), and the 1st recurrent vein reaches the apex of the 2nd submarginal cell and the nervulus is post-furcal.

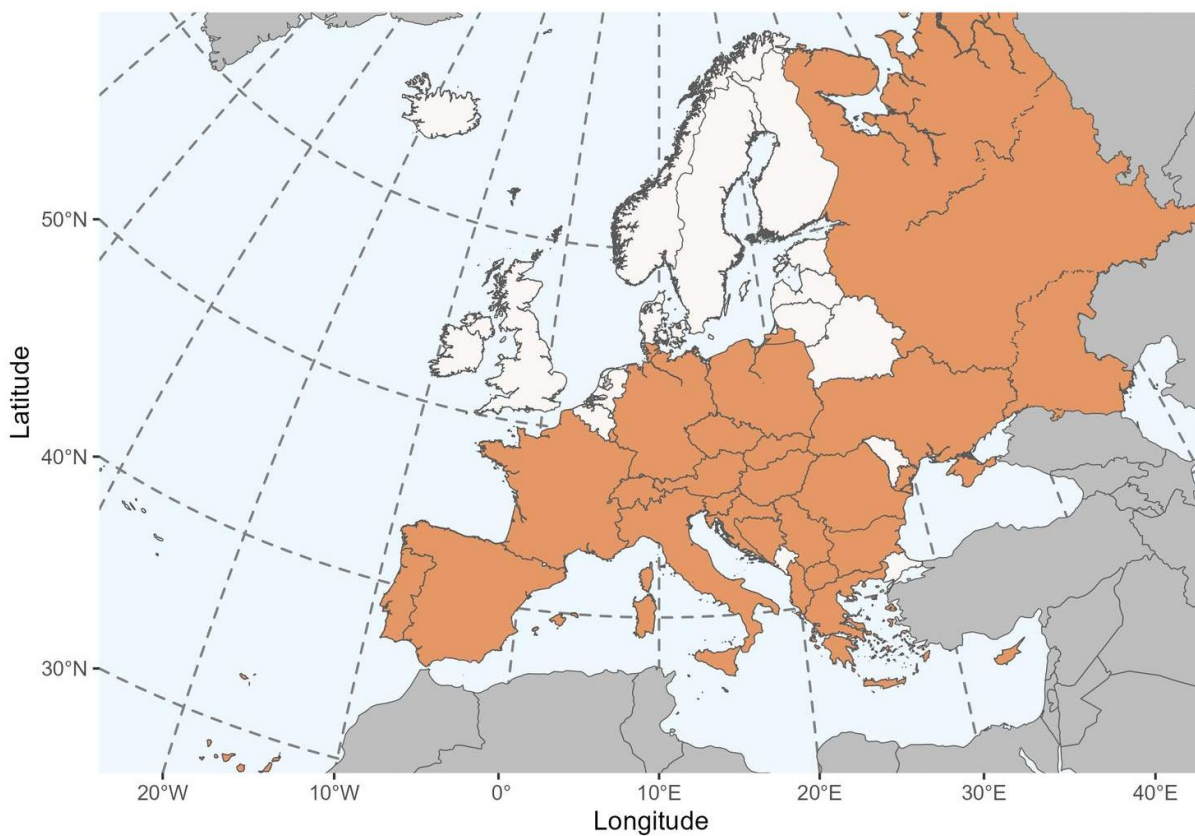
- ***Amegilla* - *Eucera* & *Tetralonia***

Amegilla species have a small marginal cell and a long straight basal vein. Male *Amegilla* have antennae of normal length that do not reach back and beyond the mesosoma.

Eucera & *Tetralonia* have a long marginal cell with a short and slightly curved basal vein. Male *Eucera* and *Tetralonia* have conspicuously long antennae that clearly extend back beyond the mesosoma.

Geographical distribution and global diversity

This genus is particularly diversified in areas with Mediterranean vegetation. The genus *Amegilla* includes about 260 species worldwide (Michener 2007).



Presence in Europe

Albania, Austria, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Italy, Luxembourg, Malta, North Macedonia, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Switzerland, Ukraine.

Biology

Seasonal life cycle

They are typically summer species, though in the extreme south of Europe some species can be active from May, or on the Canary Islands species can be active in the winter or the spring. Males normally emerge first, with a gap of a few days until the emergence of the females.

Reproduction

The copula takes place on the flowers, where males use every opportunity to approach females. The copula itself lasts only some seconds, during which the male immobilizes the female. It is thought that pheromones are involved in the attraction.

Nesting

They are ground-dwelling species. They often dig their nests on slopes. They normally dig a main gallery which has several lateral branches, with one cell at the end of each of them.

Parasites

The known bee brood parasites are members of the genus *Thyreus*.

Floral preferences

They are generally polylectic but show preferences for plants of the families Lamiaceae, Fabaceae, and Boraginaceae.



Type species: *Apis quadrifasciata* Villers, 1789, by designation of Cockerell, 1931.

Synonyms: *Alfkenella* Börner, 1919; *Asaropoda* Cockerell, 192

Etymology: *Amegilla*, from Greek roots a- privative/without and megilla = cheek, bee without cheek, referring to their very short malar space;

Common names:

FR: amégilles

GER: die Pelzbienen (= fur bee)

NL: de sachembijen (= feather bee, like an Indian chief's head piece)

List of species found in Europe:

1. *Amegilla albigena* (Lepeletier, 1841)
2. *Amegilla andresi* (Friese, 1914)
3. *Amegilla canifrons* (Smith, 1854)
4. *Amegilla fasciata* (Fabricius, 1775)
5. *Amegilla garrula* (Rossi, 1790)
6. *Amegilla nigricornis* (Morawitz, 1873)
7. *Amegilla ochroleuca* (Pérez, 1879)
8. *Amegilla quadrifasciata* (de Villers, 1789)
9. *Amegilla salviae* (Morawitz, 1876)
10. *Amegilla savignyi* (Lepeletier, 1841)
11. *Amegilla velocissima* (Fedtschenko, 1875)

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