



Pollinator Academy

Genus: *Tarsalia*



Female



Male

Genus: *Tarsalia* Morawitz, 1895

Clade: Anthophila

Family: Apidae

SubFamily: Apinae

Tribe: Ancylini

Number of species of this genus found in Europe: 2

Morphology & diagnosis

Tarsalia are long tongue bees of small to medium size (7-12mm). The clypeus is convex. The wings have three submarginal cells. The scopa is well developed on the hind tibia and basitarsus, comprised of plumose hairs.

Summary of distinctive traits

- 3 submarginal cells
 - Submarginal cell 2 with anterior margin distinctly shorter than the posterior margin
 - Jugal lobe of hindwing less than half as long as the vannal lobe
 - Males without elongated antennae, and with the genitalia and associated sternites conspicuously asymmetrical
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General comments on identification to species level

No special preparation needs to be done.

With only two species, *Tarsalia* specimens can be identified to the species level on the basis of size (*T. hirtipes* = 11-12mm, *T. ancyliiformis* = 7-8mm), colour of the clypeus in females (dark in *T. hirtipes*, yellow in *T. ancyliiformis*) and the apical margin of S6 of males (deeply notched and bidentate in *T. hirtipes*, transversely truncate in *T. ancyliiformis*). However, the genus identification has to be performed with care, since *Tarsalia* females can be easily confused with those of *Eucera* or *Ancyla*.

Morphologically similar genera, and how to distinguish them

- ***Tarsalia* - *Ancyla***

Tarsalia has elongated mouthparts and specialized sheath-like, elongated basal palpal segments similar to those of other Apidae as well as protuberant clypeus. *Ancyla* has short mouthparts and unspecialized, uniform labial palpal segments, suggesting the Melittidae as well as flat clypeus.

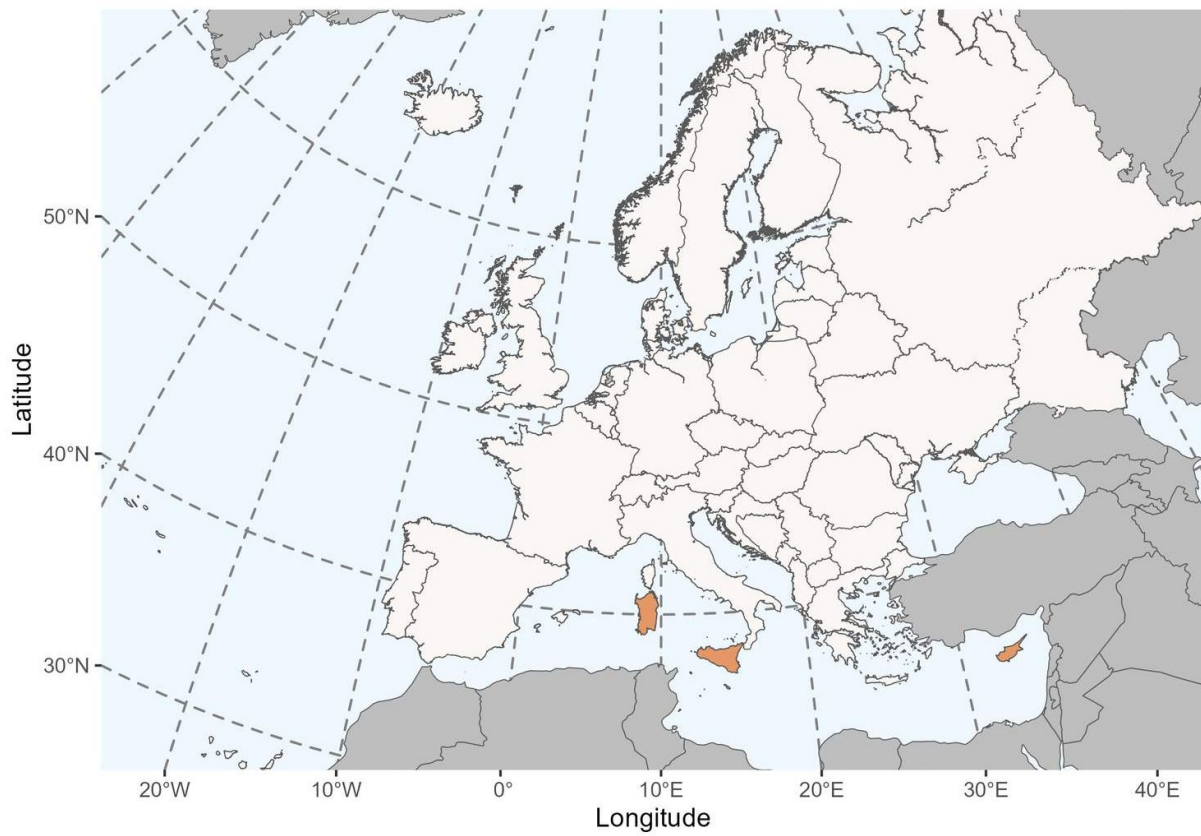
- ***Tarsalia* - *Eucera*, *Tetralonia* & *Habropoda***

Tarsalia has three submarginal cells, with submarginal cell 2 trapezoidal and strongly tapering to the anterior, and the first recurrent vein is received in the middle or distal 2/3 of the second submarginal cell. The clypeus is convex, but not strongly protuberant.

Eucera and *Tetralonia* with three submarginal cells have submarginal cell 2 subquadrate with the anterior and posterior margins subequal in length, while in *Habropoda* the first recurrent vein is interstitial with the second submarginal crossvein. The clypeus is always protuberant in *Habropoda*, and frequently so also in *Eucera*.

Geographical distribution and global diversity

This genus is relatively uncommon in the world and is represented by only 7 described species. Their distribution is Central Asia, the Middle East, to Sudan in the south and with a possibly disjunct area in southern India.



Presence in Europe

Cyprus, Italy (Sardinia and Sicily).

Biology

The biology of this genus is not well-known.

Seasonal life cycle

They are summer species and generally univoltine, but one of the species has been shown to be bivoltine in Cyprus (*Tarsalia ancyliformis*) (Grace 2010).

Reproduction

They are ground-dwelling species.

Nesting

The copula takes place on flowers of the host plants (Straka & Rozen, 2012).

Parasites

Ammobates mavromoustakisi is the only known cleptoparasite of this genus (Popov, 1967).

Floral preferences

Their foraging ecology is not well described, but they appear to be oligolectic on Asteraceae (Popov, 1967).



Type species: *Tarsalia hirtipes* Morawitz, 1895, monobasic.

Synonyms: n/a

Etymology: *Tarsalia*, from Latin *Tarsalis*= tarsus.

Common names: n/a

List of species found in Europe:

1. *Tarsalia (Tarsalia) ancyliformis* Popov, 1935
2. *Tarsalia (Tarsalia) hirtipes* Morawitz, 1895

References

Grace, A. 2010. Introductory Biogeography to Bees of the Eastern Mediterranean and Near East. Bexhill Museum, Sussex, U.K.

Popov, V.B. 1967. The bees (Hymenoptera, Apoidea) of Middle Asia and their associations with angiosperm plants. Trudy Zoologiceskzo Instituta Akademija Nauk SSSR (Leningrad [St. Petersburg]) 38: 11-329.

Praz, C. J. and L. Packer (2014). Phylogenetic position of the bee genera *Ancyla* and *Tarsalia* (Hymenoptera: Apidae): A remarkable base compositional bias and an early Paleogene geodispersal from North America to the Old World. *Molecular Phylogenetics and Evolution* 81: 258-270.

Attributions

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