

Hymenoptera of Europe • 3



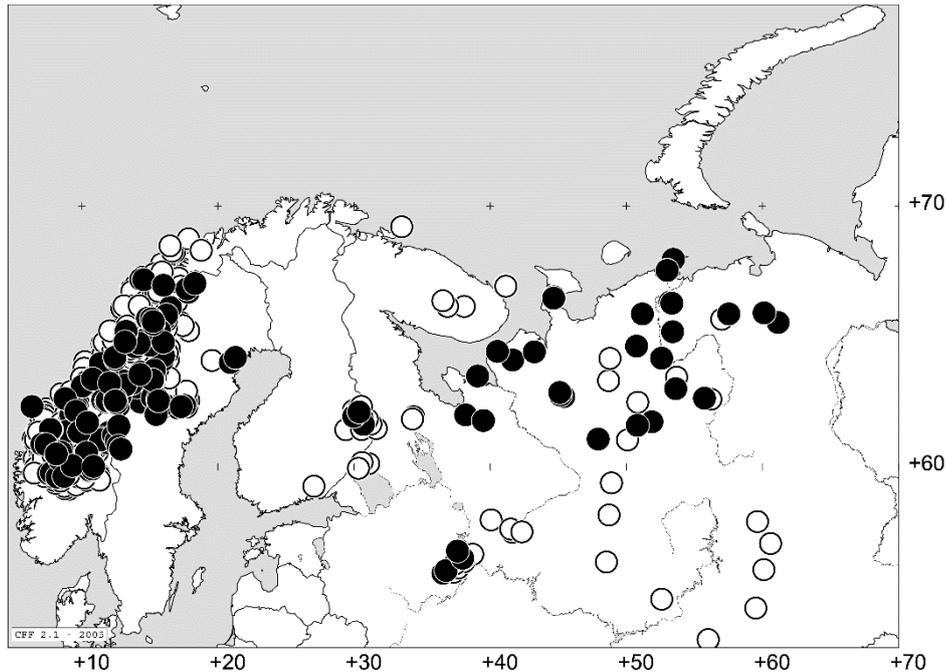
**BUMBLEBEES**  
**OF EUROPE**  
and neighbouring regions

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***Bombus (Megabombus) consobrinus* Dahlbom, 1832***Northern Monkshood Bumblebee* (Eng.); Bourdon cousin (Fr.)

**Distribution.** *Bombus consobrinus* is a species that is typical of the boreal taiga. According to Løken (1973), its distribution across Fennoscandia is tightly bound to that of plants of the genus *Aconitum*, which grows between the 59th and 69th parallel. In Russia the species descends to much lower altitudes until it reaches, in the south, the 51st parallel in the Saratov region (Efremova, 1991) (**Map 16**). Further east, its distribution extends across all of Siberia as far as Kamtchatka, Mongolia, Gansu (China), Manchuria, Korea and Japan.



**Map 16.** Distribution of the Northern Monkshood Bumblebee (*Bombus consobrinus*) in Europe and adjacent regions. ○ : before 1990 (1105 specimens); ● : since 1990 (892 specimens)

**Flower preferences.** Our original data (all from Fennoscandia) indicate the floral genera most visited by *B. consobrinus* queens (n=59) include *Aconitum septentrionale* but also *Caragana arborescens* (Ødegaard F., pers. com.). The workers' (n=148) preferred resource is the genus *Aconitum*, but they also collect pollen from other plants such as *Epilobium angustifolium* and *Cirsium helenioides* in particular. The majority of observations of males (n=29) of this species predominantly concern *Aconitum septentrionale* and *Epilobium angustifolium*. All castes taken together, the vast majority of observations have been made from the genus *Aconitum*, and especially *Aconitum septentrionale*.

It should be noted that all parts of aconites (*Aconitum* spp.) contain varyingly powerful concentrations of highly toxic alkaloids (Gosselin *et al.*, 2013). The resistance mechanisms of bumblebees that are strongly bound to these plants, namely *B. consobrinus*, *B. gerstaeckeri* and *B. (Alpigenobombus) wurflenii*, have not yet been ascertained.

**Conservation.** According to Pekkarinen *et al.* (1981), *B. consobrinus* can be common locally. However, according to these authors, it is experiencing a significant regression in Finland. In the Moscow region, its populations were considered to be stable by Berezin *et al.* (1995).

The species is currently classed as “Least Concern” in the red list of European bees (Nieto *et al.*, 2014), but is categorised as “HR” (high climate risk) in the Atlas created by Rasmont *et al.* (2015). According to these last authors, this species, which highly specialised in its flower and environmental preferences risks experiencing a considerable regression of its area of distribution over the coming century.



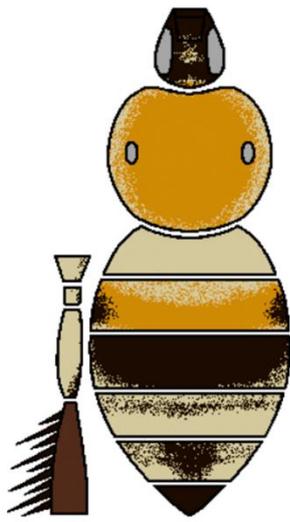
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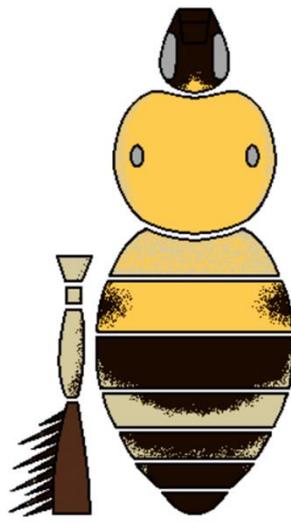
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**Plate 15.** 68. Queen of *Bombus (Megabombus) argillaceus* from Tannourine, Lebanon. 69. Male of *Bombus (Megabombus) consobrinus* from Dalarna, Sweden. Pictures by P. Rasmont.

Subgenus *Megabombus*



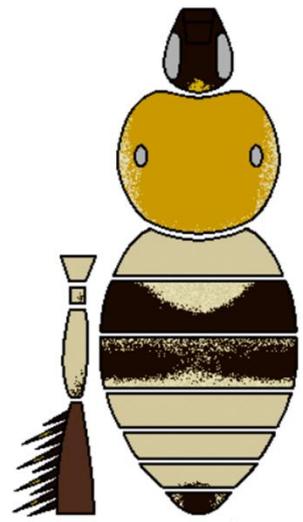
*B. consobrinus* ♀



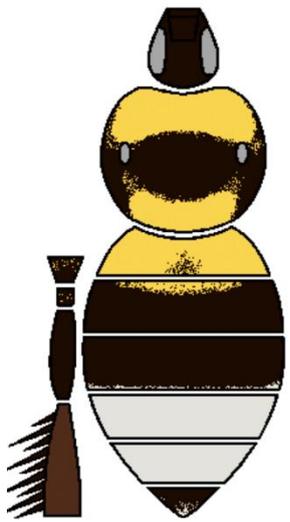
*B. consobrinus* ♂



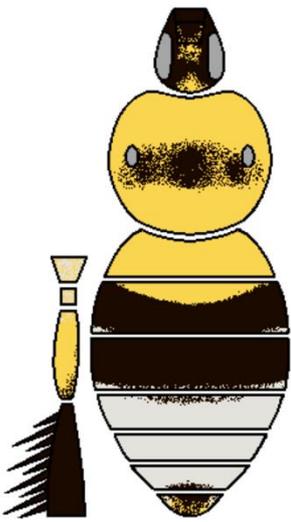
*B. gerstaeckeri* ♀



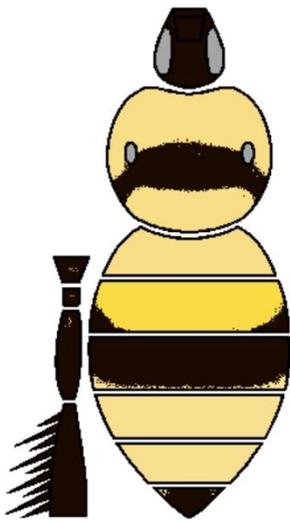
*B. gerstaeckeri* ♂



*B. hortorum kussariensis* ♀



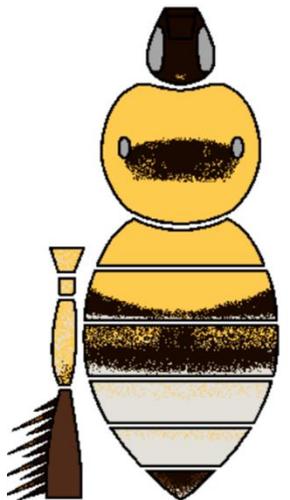
*B. hortorum kussariensis* ♂



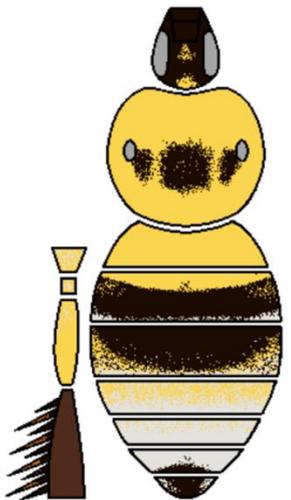
*B. portchinsky* ♀



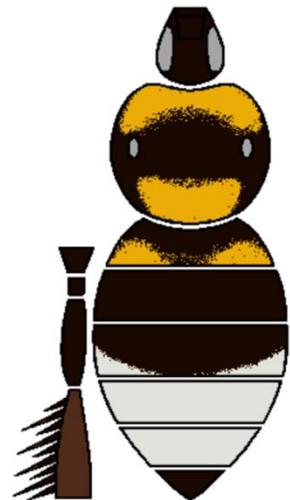
*B. portchinsky* ♂



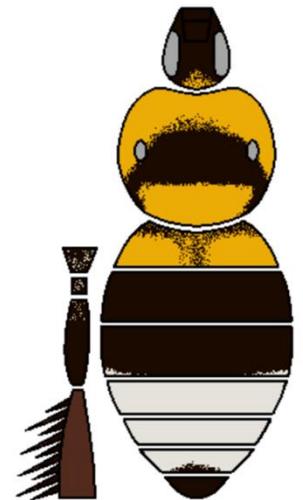
*B. hortorum reinigiellus* ♀



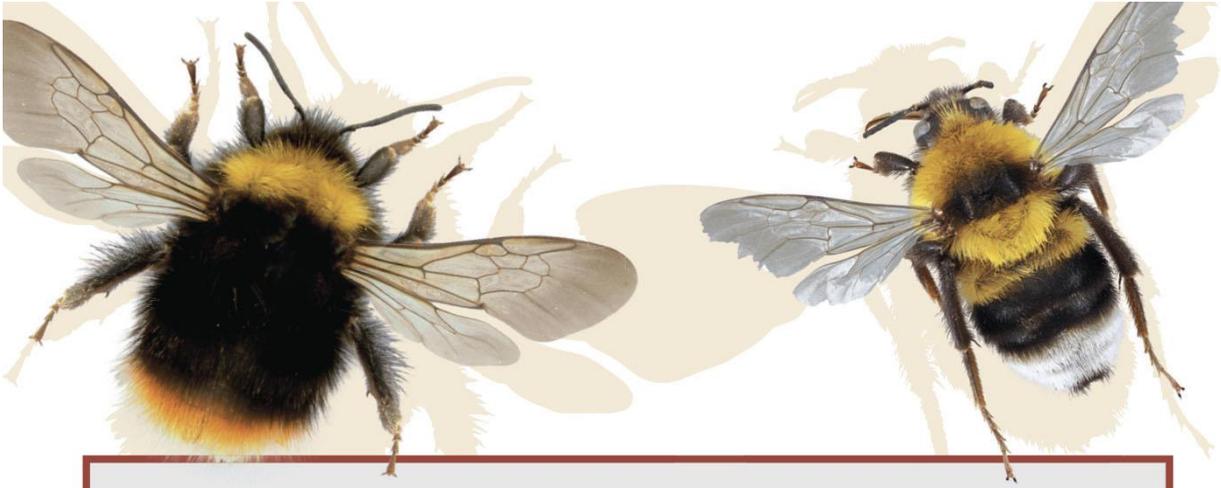
*B. hortorum reinigiellus* ♂



*B. ruderatus autumnalis* ♀



*B. ruderatus autumnalis* ♂



This guide is the third volume in a series on Hymenoptera of Europe. After a short introduction to this order of insects, the book provides a wealth of information on the bumblebees of Europe, northern Africa, the Caucasus and the Middle East, covering the most recent scientific advances. A key allows the identification of the 14 subgenera of bumblebees present in this region. Then, for the first time, there are detailed identification keys for the 79 species of bumblebees found in Europe and neighbouring countries. Each species is presented with all its geographic variations as well as with notes on its ecology, behaviour, flower preferences and conservation status.

Original photos are included for each of the West Palearctic region species. Some extremely rare bumblebees are pictured for the very first time. The book also features many colour plates to help readers recognise over 240 forms and subspecies.

**Accessible to non-specialists, this is an invaluable reference guide to have in the field to discover the diversity of these magnificent pollinators!**



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