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## Nectar Production Rates of 75 Bumblebee-visited Flower Species in a German Flora (Hymenoptera: Apidae: *Bombus terrestris*)

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- [Note]

Nectar production rates and colours of 75 flower species observed to be visited by *Bombus terrestris terrestris* (Linnaeus 1758) workers near Würzburg (Bavaria, Germany) were measured between 1999 and 2002. Production rates were calculated for each flower species from the volume and concentration of nectar produced by 30-60 flowers per species over a 3 hour period during which visitation was prevented. The average amount of sugar produced ( $\mu\text{g}$  in 24 hours) is given below for each flower species. The spectral reflectance of all flower species were quantified, converted into bee colour space loci [CHITTKA & KEVAN 2005] and placed into one of six bee-subjective colour categories: blue, blue-green, green, ultraviolet, uv-blue or uv-green.

**Blue:** *Allium schoenoprasum* (Linnaeus 1753): 505, *Calluna vulgaris* (L. 1753): 202, *Epilobium angustifolium* (L. 1753): 2332, *Epilobium hirsutum* (L. 1753): 40, *Geranium robertianum* (L. 1753): 811, *Glechoma hederacea* (L. 1753): 160, *Hepatica nobilis* (Miller 1768): 0, *Lamium amplexicaule* (L. 1753): 209, *Lamium maculatum* (L. 1753): 267, *Lamium purpureum* (L. 1753): 114, *Lychnis flos-cuculi* (L. 1753): 529, *Medicago sativa* (L. 1753): 408, *Pinguicula vulgaris* (L. 1753): 0, *Prunella vulgaris* (L. 1753): 332, *Prunus avium* (L. 1753): 779, *Salvia nemorosa* (L. 1753): 318, *Silene dioica* ((L.) Clairville 1811): 714, *Stachys palustris* (L. 1753): 1384, *Stachys sylvatica* (L. 1753): 898, *Symphytum officinale* (L. 1753): 1061, *Syringa vulgaris* (L. 1753): 500, *Teucrium chamaedrys* (L. 1753): 221, *Thymus pulegioides* (L. 1753): 87, *Trifolium pratense* (L. 1753): 400, *Vicia cracca* (L. 1753): 723, *Vinca minor* (L. 1753): 546, *Viola canina* (L. 1753): 97.

**Blue-green:** *Aesculus hippocastanum* (L. 1753): 488, *Anemone nemorosa* (L. 1753): 0, *Cardamine pratensis* (L. 1753): 745, *Centaurea jacea* (L. 1753): 187, *Corydalis cava* (L. 1753): 375, *Filipendula ulmaria* ((L.) Maxim. 1879): 0, *Knautia arvensis* ((L.) Coulter 1828): 141, *Lamium album* (L. 1753): 467, *Linaria vulgaris* (Miller 1768): 1736, *Lunaria rediviva* (L. 1753): 75, *Malus domestica* (Borkhausen 1803): 116, *Prunus juliana* (L. 1753): 22, *Rosa canina* (L. 1753): 0, *Sambucus nigra* (L. 1753): 0, *Silene album* (Miller 1768): 933, *Symphytum officinale* (L. 1753): 1765, *Trifolium hybridum* (L. 1753): 187, *Trifolium repens* (L. 1753): 129.

**Green:** *Lathyrus pratensis* (L. 1753): 216, *Lotus corniculatus* (L. 1753): 330, *Primula veris* (L. 1753): 133.

**Uv:** *Papaver dubium* (L. 1753): 0, *Papaver rhoeas* (L. 1753): 0, *Papaver somniferum* (L. 1753): 0.

**Uv-blue:** *Anagallis arvensis* (L. 1753): 0, *Anchusa officinalis* (L. 1753): 860, *Campanula glomerata* (L. 1753): 156, *Campanula patula* (L. 1753): 75, *Corydalis cava* (L. 1753): 296, *Cynoglossum officinale* (L. 1753): 1358, *Dactylorhiza majalis* ((Reichenbach) P.F. Hunt & Summerh. 1965): 0, *Echium vulgare* (L. 1753): 1537, *Impatiens glandulifera* (Royle): 11312, *Lunaria rediviva* (L. 1753): 97, *Lupinus polyphyllus* (Lindley 1827): 0, *Lythrum salicaria* (L. 1753): 794, *Onobrychis viciifolia* (Scopoli 1772): 58, *Salvia pratensis* (L. 1753): 2120, *Salvia verticillata* (L. 1753): 520, *Vinca minor* (L. 1753): 731.

**Uv-green:** *Agrimonia eupatoria* (L. 1753): 0, *Brassica napus* (L. 1753): 362, *Helianthemum nummularium* (Miller 1768): 0, *Lamium galeobdolon* (L. 1759): 1360, *Melilotus officinalis* ((L.) Lam.): 88, *Sinapis arvensis* (L. 1753): 1324, *Tussilago farfara* (L. 1753): 0, *Verbascum densiflorum* (Bertoloni 1810): 0.

## References

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