## What is the impact of different landscape factors on urban wild bee communities?

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The loss of natural and semi-natural habitats in our landscapes over the last decades is considered as a main driver for the decline of wild bee diversity and the associated pollination services. Therefore, it is important to develop measures to promote pollinators in anthropogenic environments.

Urban areas are often considered as bee refuges. However, knowledge about which habitat elements specifically determine wild bee diversity in cities and where supporting measures might be most effective is scarce. Therefore, we examined the urban wild bee community of the city of Braunschweig at 50 sites in 2019. At each site, a set of different coloured pan traps were set up for 24 h in April, June and August. A total of 1876 bees of 102 species were caught. The majority of the individuals was found in spring, while in early summer, the highest number of species was observed. Using this data set, different landscape factors affecting the bee community in the city were analysed.

Urban structure affected bee communities at different scales. On the one hand, bee species richness and abundance were related to impervious surface in a hump-shaped manner at a 100 m scale. On the other hand, species richness and abundance linearly increased with the proportion of allotment gardens at the 300 m scale.

Based on the resulting knowledge, supporting measures can be improved to increase attractiveness of urban areas for wild bees.