On-site floral resources and surrounding landscape characteristics impact pollinator biodiversity on solar parks

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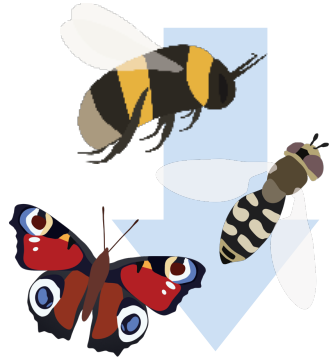
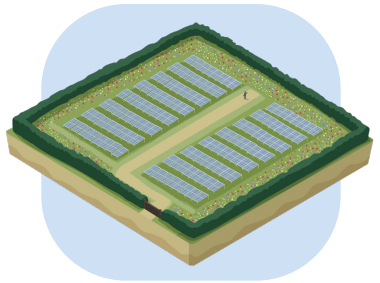
Image: HB

Background



Pollinators benefit human society and wider ecosystems, but are declining



Solar parks could be used to support pollinators

What factors affect pollinator biodiversity on solar parks?

Methods


Image: HB

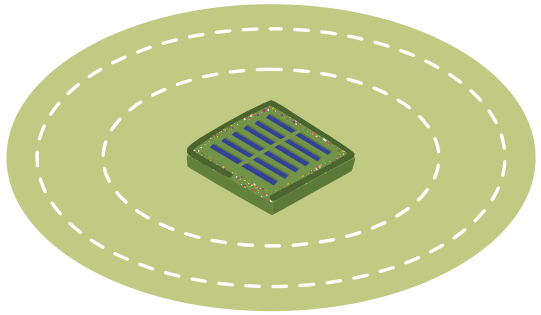
Methods

Flowering plant surveys

Diversity, cover, vegetation height and structure

Pollinator surveys

Bumble bee and butterfly abundance and diversity



Landscape analysis

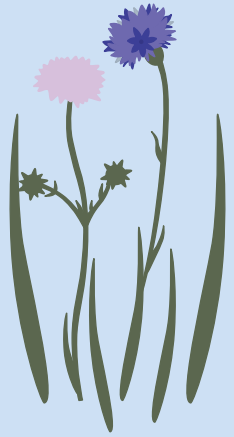
Cover of high quality habitat and the density of woody linear features in the surroundings

Key findings

1004 pollinators recorded over 42 site visits

5.5 x more butterflies recorded than bumblebees

Meadow brown was the most frequently observed



Pollinators were more diverse and abundant on solar parks with higher floral diversity, greater floral cover and taller vegetation

Pollinator diversity was lower when there was a higher density of woody linear features in the surrounding landscape

Both on-site resources and landscape characteristics impacted pollinator biodiversity on solar parks


Image: HB

Conclusions

Pollinators can be both abundant and diverse on solar parks

Solar park managers should aim to provide on-site floral resources

Resources may be more valuable to pollinators when there are fewer elsewhere in the landscape

Thank you!

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Blaydes, H., Potts, S. G., Whyatt, J. D. and Armstrong, A. (2021) **Opportunities to enhance pollinator biodiversity in solar parks**, *Renewable and Sustainable Energy Reviews*.

Blaydes, H., Gardner, E., Whyatt, D., Potts, S. G. and Armstrong, A. (2022) **Solar park management and design to boost bumble bee populations**, *Environmental Research Letters*.

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