TRAIT-BASED EFFECTS OF PLANT INVASION ON FLORAL RESOURCES, HOVERFLIES AND BEES

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Background

Pollinating insects are drastically decreasing, one reason being their reduced floral food resource availability. The spread of invasive species is one of the five most important causes of biodiversity loss. Invasive plant species dominate the landscape, reduce diversity and make habitats more homogeneous. In many cases, they also reduce the range of available flowers, thus helping some compatible pollinator species while displacing the food resources of others. In general, the impacts of invasive plant species on native vegetation and pollinator insects are often varied and dependent on their specific traits.

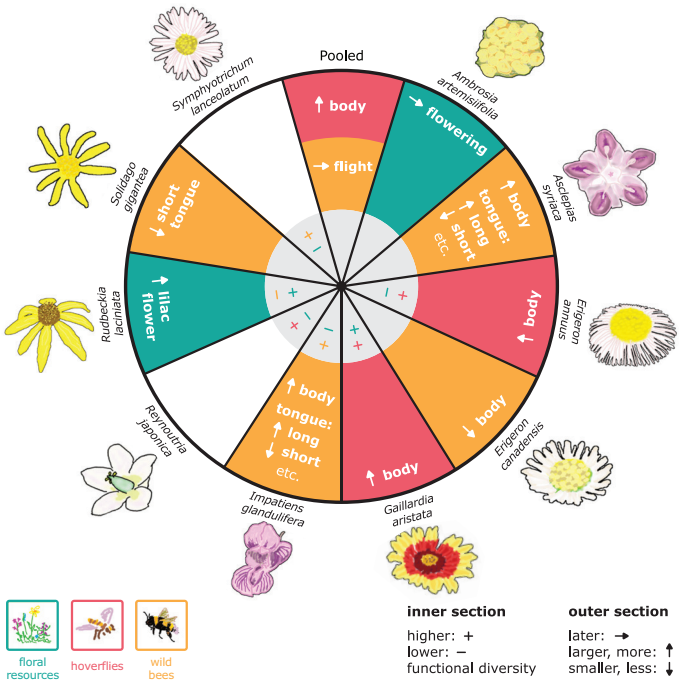
Objective

The study aims to reveal the trait-based patterns of plant invasions on floral resources and pollinators using 10 case study examples of invasive plant species.

Key Messages

- Invaded areas are similar to crop fields such as rapeseed or sunflowers: during their blooming period, they provide significant amounts of food for the pollinating insects, while beyond of their flowering period, these areas are extremely poor in resources of pollinators.
- The invasive plants dominate the area with their green vegetation mass for most of the year, while only blooming for a short period of time. In contrast, natural habitats have more diverse resources throughout the year.
- Two invasive species with deep flowers maintain more long-tongued and also larger-bodied bees, while a species with shallow flowers had more smaller-bodied bees.

Trait-based effects during the flowering of the invasive plant



Source

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