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Pollinator assemblages on dandelions and white clover in urban and suburban lawns

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Abstract

Flowering weeds, though often deemed undesirable in turfgrass lawns, provide food resources for declining pollinator populations in urbanized landscapes. We sampled bees and other pollinators directly from flowering common dandelion (*Taraxacum officinale*) and white clover (*Trifolium repens*) in lawns of similar character in central Kentucky USA to identify species likely to be exposed if such weeds are inadvertently oversprayed during application of lawn insecticides. We also tested the hypothesis that pollinator assemblages visiting spring-blooming white clover in urban and suburban lawns are as species-rich and diverse as in more rural lawn settings. We collected about 50 different species of insect pollinators, including 37 species of bees, from the aforementioned lawn weeds. Two of the six species of bumble bees (*Bombus* spp.) collected are considered uncommon and possibly in decline. Hover flies (Syrphidae), honey bees (*Apis mellifera*), and non-Apid wild bees predominated on dandelions whereas proportionately fewer hover flies and more *A. mellifera* and *Bombus* spp. visited white clover, especially in summer. Species richness of bees visiting white clover was similar in urban, suburban or periurban-rural lawns, although *A. mellifera* were proportionately more abundant, and *Bombus* spp. were less abundant, with increasing percentage of hardscape in surrounding areas. Fostering public awareness of the diversity of bees and other pollinators that visit flowering lawn weeds might help nurture a sociocultural shift toward more pollinator-friendly lawn care practices.

Keywords

Urbanization Pollinators Bees Lawns White clover Dandelion

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Notes

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