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Review

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Ecosystem services of pollinator diversity: a review of the relationship with pollen limitation of plant reproduction¹

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ABSTRACT

In this paper

Recent work on the ecosystem service of biodiversity suggests that higher pollinator diversity could lower pollen limitation, but these two aspects of plant–pollinator communities have only rarely been causally connected. Here we present a review of studies that produced quantitative assessments of both pollinator diversity and evenness as well as pollen limitation of focal plant species. Although pollen limitation is expected to be lower when pollinator diversity is high, our analysis suggests this relationship is weak. The relationship may be obscured when features of the plant species (e.g., average level of specialization) are confounded with features of the plant communities (e.g., habitat). We encourage researchers investigating pollen limitation to consider including measures of diversity of the floral visitors, and their effectiveness. These data would permit a more powerful test of the relationships among these variables and improve our understanding of the critical elements of stable plant–pollinator networks.

Keywords: [ecosystem services](#), [pollination](#), [pollen](#), [insects](#), [flowering plants](#), [pollinator diversity](#)

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