

PLANT PHYLOGENY AS A MAJOR PREDICTOR OF FLOWER VISITATION BY NITIDULID BEETLES, A LINEAGE OF ANCESTRAL ANGIOSPERM POLLINATORS

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Beetles are considered the ancestral, oldest pollinators of animal-pollinated plants, and they pollinate many extant species all over the world. Little is known, however, on which factors explain the broad differences among plant species in prevalence of beetle pollination. We studied differences among plant species in flower visitation by “pollen beetles” of the family Nitidulidae, using quantitative pollinator data for 251 plant species from well-preserved montane habitats in southeastern Spain. Nitidulids were recorded in flowers of 25% of the species considered, their distribution being clustered on certain plant lineages (Ranunculales, Malvales, Rosales, Asterales) and remarkably absent from others (Fabales, Lamiales). None of the environmental or macroscopic floral features considered predicted nitidulid visitation, thus revealing that plant phylogeny was the single best

predictor of nitidulid pollination in the plant communities studied.



Two individuals of Brassicogethes aeneus (Nitidulidae) on flowers of Sisymbrium crassifolium (Brassicaceae)