

Urbanization filters coccinellids composition and functional trait distributions in greenspaces across greater Santiago, Chile

Greze, Audrey A.

Zaviezo, Tania

Gardiner, Mary M.

Alaniz, Alberto J.

Urbanization alters community composition, frequently leading to decline in native species abundance and richness. Nevertheless, responses might also depend on trait-based local habitat and landscape-scale filters. In this work, we studied how local characteristics of greenspaces and landscape context at 100 and 1000 m influence taxonomic and functional traits composition of native and alien coccinellids (Coleoptera: Coccinellidae) across an urbanization gradient extending from the city of Santiago, Chile, into surrounding rural areas. We found that greenspaces supported a rich community of coccinellids, including many native species, but both native and alien species were negatively affected by urbanization. Local habitat variables were not important predictors of coccinellids richness, abundance or functional traits. On the other hand, landscape composition at both scales did affect coccinellid communities in greenspaces. At both landscape scales, there was variation