



Conference Abstract

Life-history traits matter for dispersal into semi-open habitat corridors:

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Abstract

Biodiversity face ever-increasing threats from the consequences of various human activities. Conservation corridors have long been considered a viable solution to help counteract biodiversity loss. However, corridors simultaneously increase fragmentation for non-target habitats. To overcome this challenge, semi-open habitats, which are a mixture of open and woodland habitats, have been proposed as they may enable simultaneous dispersal of both stenotopic open and woodland species. Despite the fact that they could be used by a great range of species, strong interspecific variability exists with regards to the number of individuals effectively recorded in such environment. Consequently, generalisation about their effectiveness remains difficult. Life-history traits such as body size, hibernation stage, trophic guild, and habitat specialisation could be successfully used to enhance prediction with regards to dispersal success. We used generalized linear modelling to study the relationship of ground beetles species traits and dispersal success into semi-open habitat in two regions of Germany. Our preliminary results indicate that larger species, as well as species overwintering as larvae, tend to be more successful when dispersing into semi-open habitat than smaller species or species overwintering as adult. In addition, species locally abundant are also recorded in higher number. In the light of these results, semi-open corridors do not appear to be the best strategy to increase connectivity for species with small body size or overwintering as adult. For such species,

priority should be given to traditional corridors whenever possible. Source habitats need also attention as population size will strongly determine the usefulness of such corridors.

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