Soil arthropods associated to the invasive *Senecio inaequidens* and the native *S. jacobaea*

Vanparys Valérie [1], Meerts Pierre [2], Josens Guy [3] & Jacquemart Anne-Laure [1]

[1]Université catholique de Louvain, Groupe de Recherche en Génétique, Reproduction, Population
[2]Université Libre de Bruxelles, Laboratoire de Génétique et Ecologie végétales
[3]Université Libre de Bruxelles, Laboratoire de Systématique et ecologie animales

Soil arthropods play an important role in soil processes (litter fragmentation) and are often influenced by the composition of plant community. In the context of invasions by exotic plants, they might respond differently to native and exotic species. Our general hypothesis was that the invasive *Senecio inaequidens* (Asteraceae) and the native congener *S. jacobaea* are not associated with the same community of soil animals, in terms of abundance and taxonomic assemblage. This hypothesis was tested in a semi-natural grassland in Antwerp where the two species coexist for at least 3 years, by comparing arthropods extracted from soil samples collected under both plant species. Taxonomic assemblages were similar between the two *Senecio* and no difference in community structure was revealed by the PCA. However, the size of the community was reduced under *S. inaequidens* compared to *S. jacobaea* with a total of 930 and 2243 respectively collected. This reduction is essentially due to Collembolans Arthropleona, which were six fold less abundant under *S. inaequidens*. On the other hand, the Shannon diversity index was higher for communities associated to *S. inaequidens* (H'= 2.00) than *S. jacobaea* (H'= 1.54). These results call for further investigations in other sites, as they suggest that soil arthropods might be affected by the presence of *S. inaequidens*.