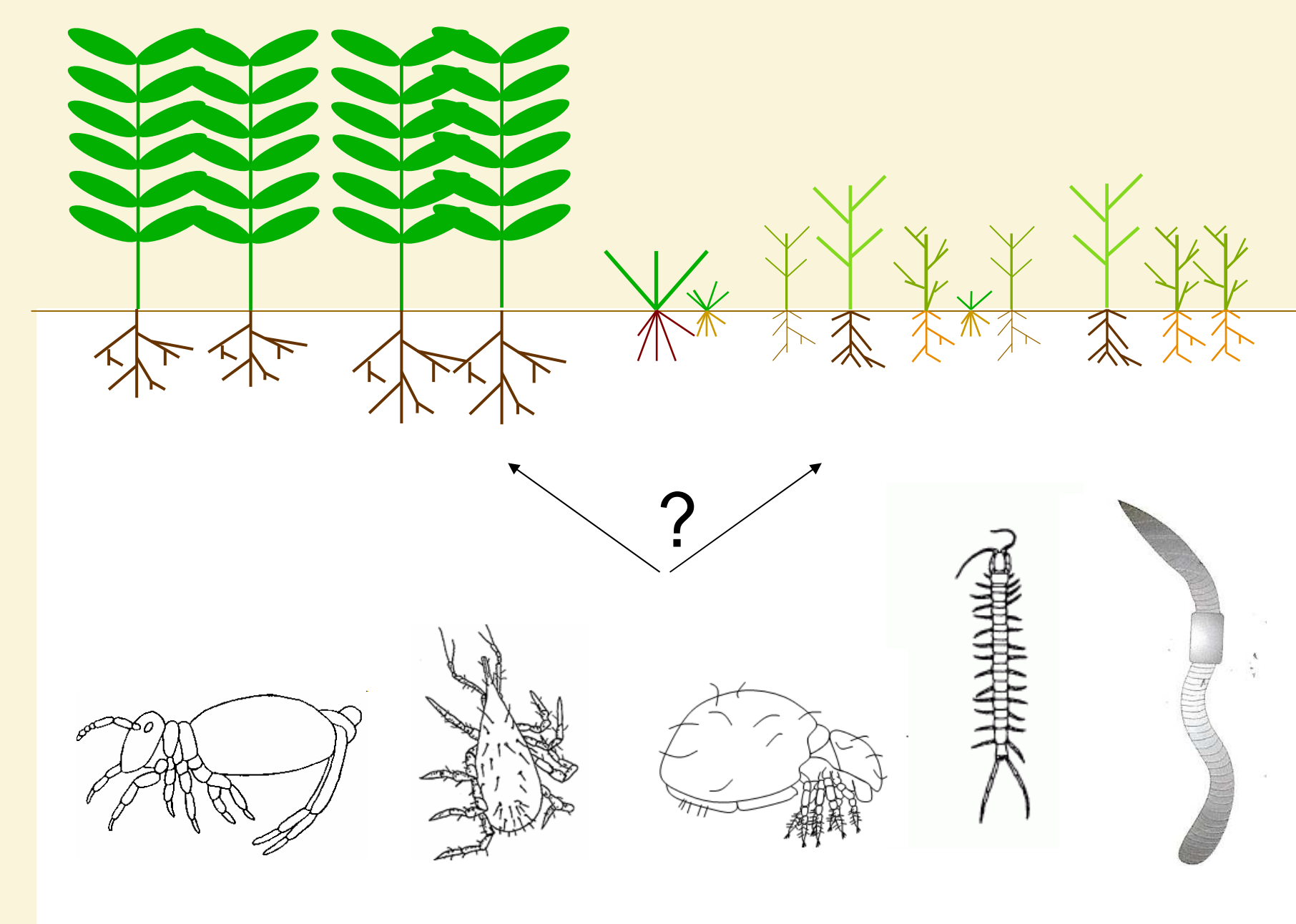


Theoretical context

Plant invasions : impacts on soil fauna ?



Biological model

Comparison of
an **invasive** and a **native** *Senecio*
(Asteraceae)

S. inaequidens

Perennial, pioneer
of dry habitats



S. jacobaea

= *Jacobaea vulgaris*
Biennial (to perennial),
common
in various
types of
grasslands



Questions

Are there differences
between ***S. inaequidens*** and
S. jacobaea in soil arthropod

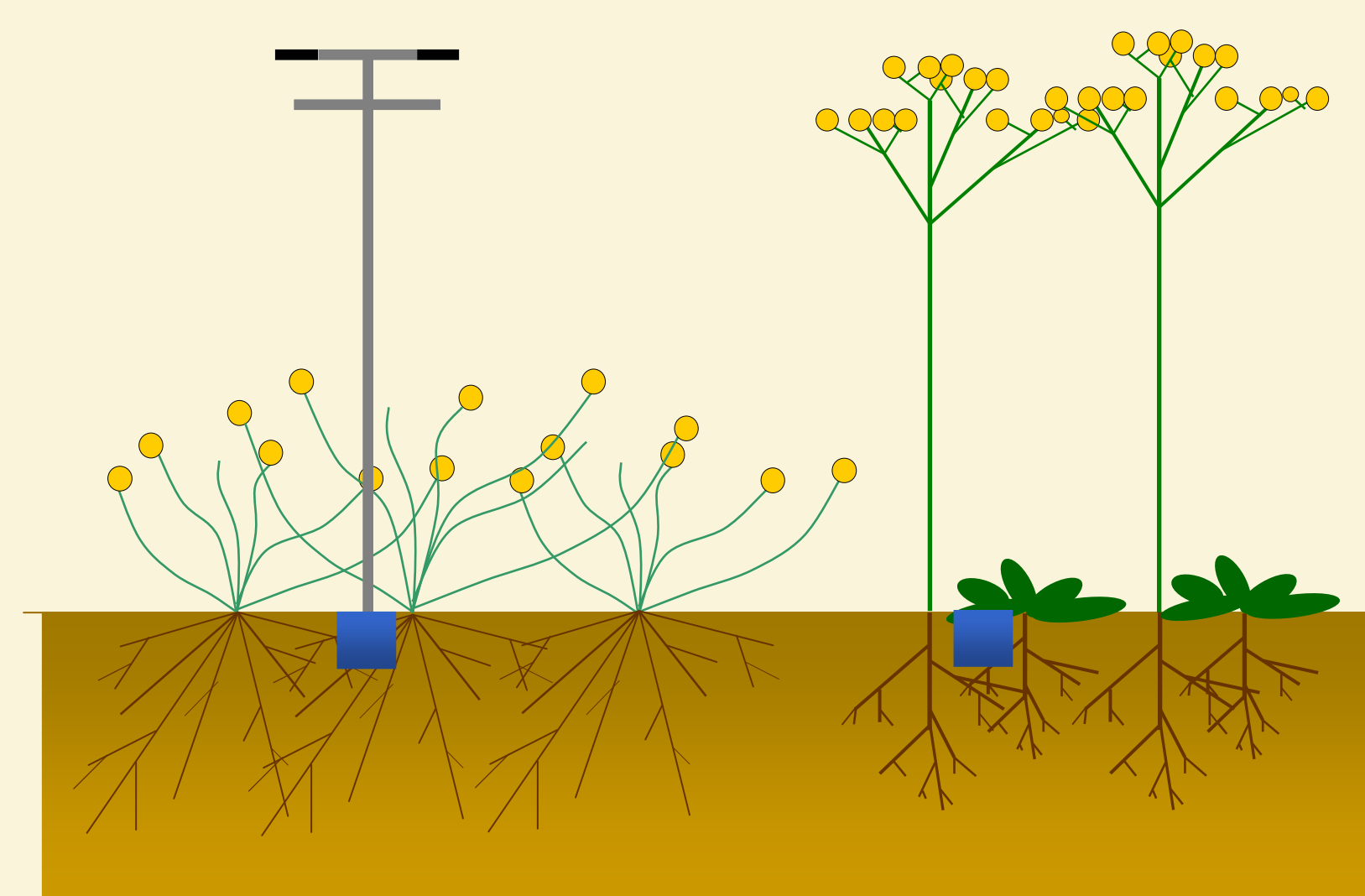
- * abundance ?
- * assemblage ?
- * diversity ?

Study site: Sandy wildland in Antwerp , >3-years-old
community dominated by ***S. inaequidens*** and ***S. jacobaea***

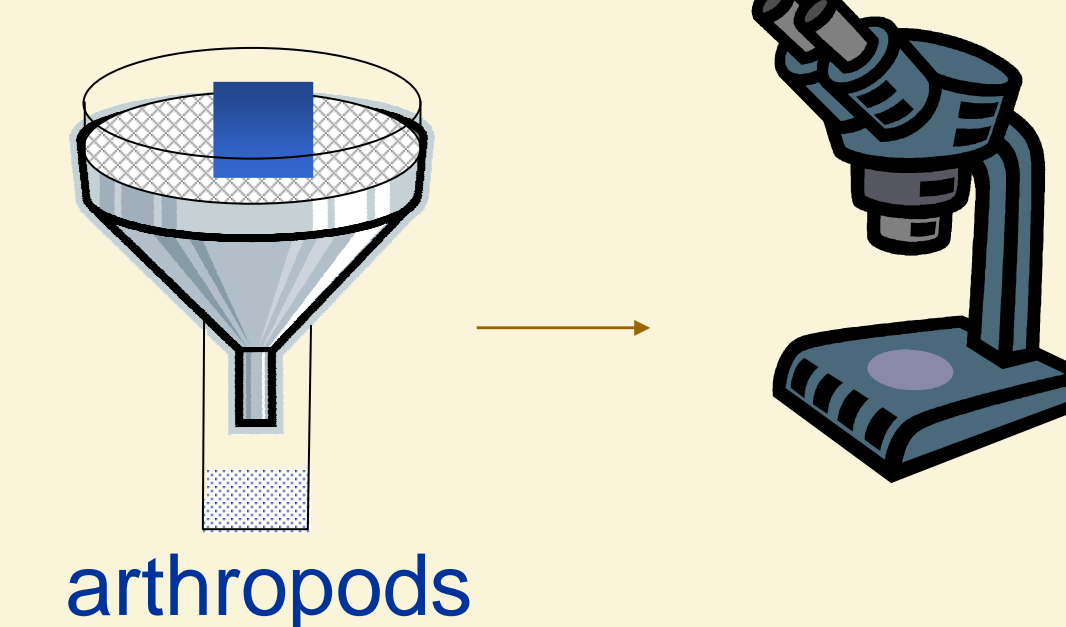


Sampling and extraction:

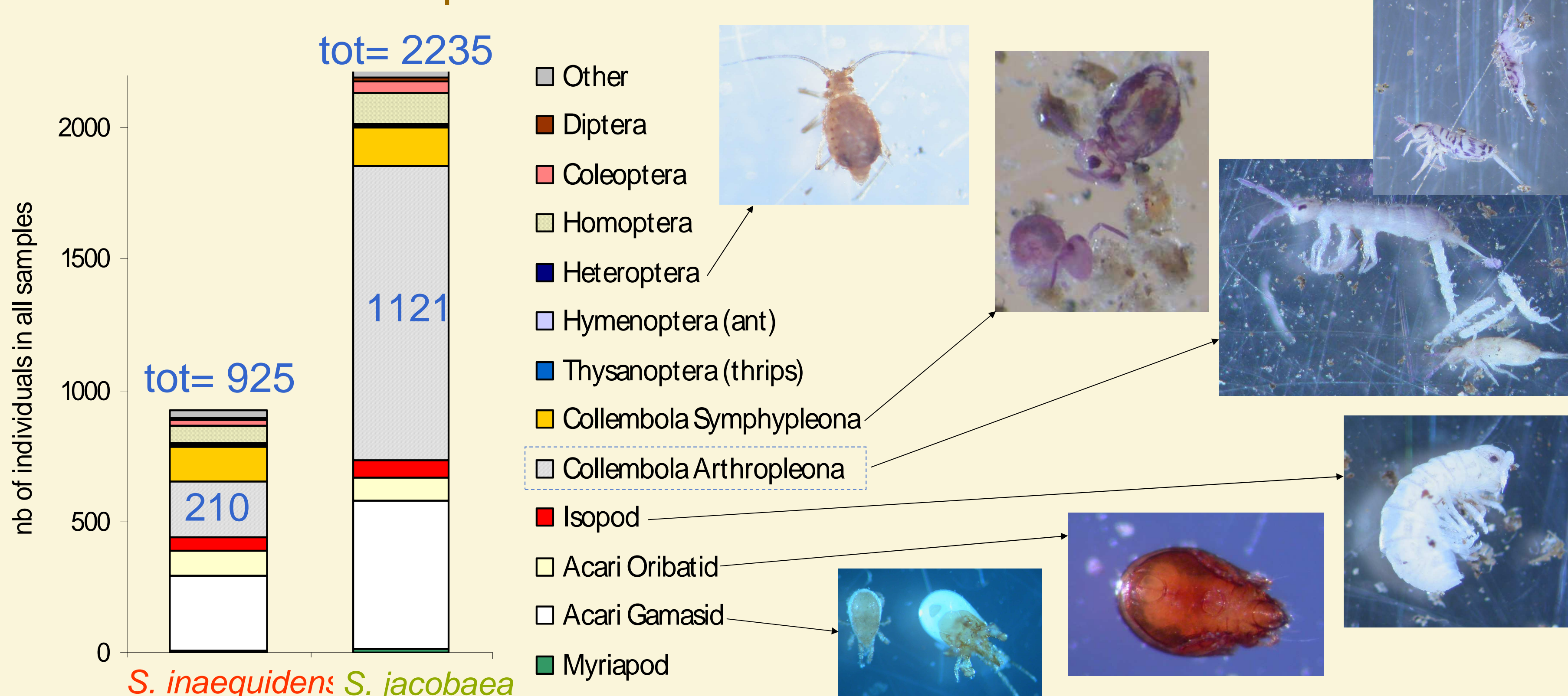
12 soil cores (5 cm deep, 8 cm
Ø) under each plant species
(October 2006)



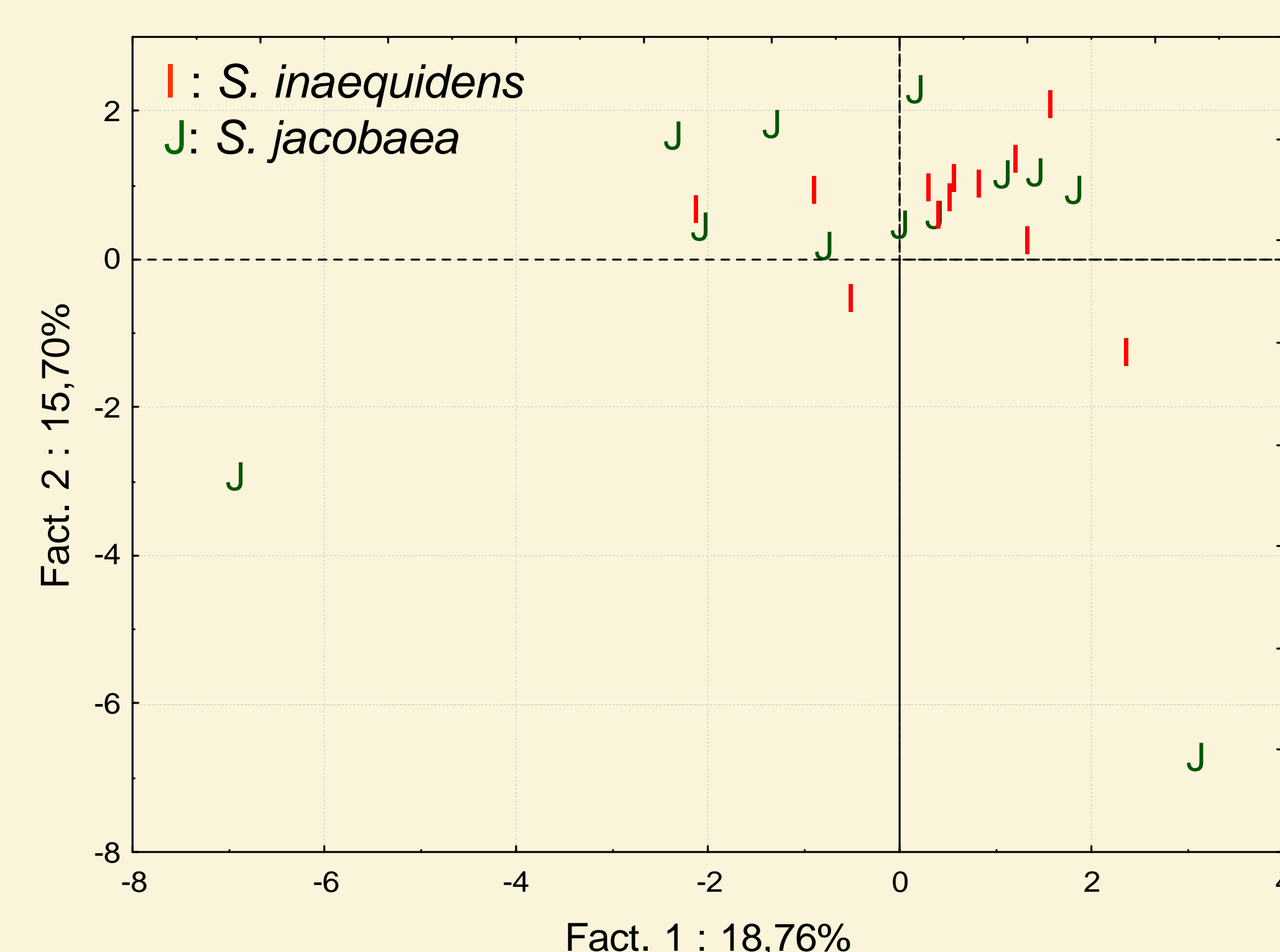
Arthropod extraction
(Berlese-Tullgren)



Arthropod abundance : lower under ***S. inaequidens***, essentially due
to Collembola Arthropleona



Arthropod assemblage : no separation
between the two *Senecio* by the ACP



Arthropod diversity: higher for ***S. inaequidens***,
due to the equitability of Collembola Arthropleona

	<i>S. inaequidens</i>	<i>S. jacobaea</i>	T-test
Shannon's index	1.96	1.54	T= 10.19 p<0.001
Evenness	0.71	0.52	
Number of taxa	16	19	

Conclusions & perspectives

- * Only Collembola Arthropleona (mainly microbifungivores) were affected by ***S. inaequidens*** (due to antifungal substances?)
- * Arthropod assemblages associated to ***S. inaequidens*** and ***S. jacobaea*** were similar but the diversity was higher under ***S. inaequidens***

↳ These results should be verified in other sites in order to assess the impact of ***S. inaequidens*** on soil arthropods.

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