

Vertical habitat and horizontal isolation of tree living spiders

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In forests populations of spiders are either ground-living with no or a low isolation of populations and unrestricted gene flow among its members, or there are stem- or canopy-bound species with an assumed high degree of genetic isolation.

The stratigraphic distribution of several species was identified by trapping at five different heights on pine trees (*Pinus sylvestris* L.). Over a period of three years there is also evidence of seasonal movement for a variety of species. Furthermore an investigation with multilocus DNA fingerprinting revealed that spiders on the same tree are more closely related than spiders from different trees indicating a restricted gene flow between the spider population on these trees.

Only by combining data from classical ecological methods and from molecular techniques is it possible to obtain a comprehensive view of the impact of the spatial structuring in forests on spider populations.