

## **SPIDERS AS INDICATORS FOR HABITAT EVALUATION IN THE FLEMISH COASTAL DUNES**

Bonte Dries and Jean-Pierre Maelfait

University of Ghent, Dept of Biology, K.L. Ledeganckstraat 35, B-9000 Ghent, Belgium  
E-mail: dries.bonte@rug.ac.be

Institute of Nature Conservation, Kliniekstraat 25, B-1070 Brussels, Belgium

During this lecture, we present the results of a detailed study on the occurrence and ecology of spiders in the Flemish coastal dunes, as a tool for evaluating the conservation importance of dune arthropod species in general. Spider diversity is evaluated in function of the different assemblages, which are habitat specific. Especially dune grasslands, dune slacks and Marram dunes represent the highest value for nature conservation because of the presence of dune characteristic and dune specific species. These habitats are now heavily fragmented because of grass- and scrub encroachment. This fragmentation results in decreasing habitat surfaces, which affect the diversity and assemblage stability negatively. Habitat fragmentation not only affects the species diversity, but can also influence the viability of population. Within this framework we present the results of research on the effects of grassland fragmentation on the population dynamics, genetics and viability of our model species *Pardosa monticola*.

Our results indicate that arthropod (spider) conservation will not only depend on the conservation of suitable habitat but also on the general landscape configuration.