National Meeting Abstracts

Session: Biodiversity
Chair: Hefin Jones

Long-term and global studies on diversity and functional ecology of the soil macrofauna in forests, with focus on beetles.
Frank Krell and Paul Eggleton.
Address: Department of Entomology, The Natural History Museum, Cromwell Road, London SW7 5BD.

Amongst the projects of the Soil Biodiversity Programme of the Natural History Museum London, is a ten-year study on seasonal patterns of soil macro-invertebrates in the New Forest in Hampshire, and a global study of primary tropical forest sites on the functional ecology of beetles, termites, ants and earthworms. We will discuss perspectives and problems of these projects.

Which hexapods are significant radiations?
Peter J Mayhew.
Address: University of York, PO Box 373, York, YO1 5YW.

May (1988) famously wrote, "To a good approximation, all organisms are insects", whilst Haldane famously commented on the Creator's "inordinate fondness for beetles". Here I examine the scientific support for these and other statements by searching for significant radiations amongst higher hexapod taxa. I find neither statement justifiable given current evidence.

Bugs on roundabouts – Hemiptera and the species-area relationship in an urban setting.
Simon Leather.
Address: Department of Biological Sciences, Imperial College, Silwood Park, Ascot, Berkshire, SL5 7PY, UK.

The species richness of Hemiptera on eighteen roundabouts and other road-enclosed areas within the town of Bracknell was studied. Arboreal and grassland species showed different species-area relationships.

Hoverfly diversity and abundance in vegetable crops.
Frederic Francis, Pierre Colignon, Eric Haubr suggestive.
Address: Department of Pure and Applied Zoology, Gembloux Agricultural University, B-5030 Gembloux, Belgium.

The presence and persistence of hoverflies in vegetable crops were shown to largely depend on the plant composition of adjacent fields. Broad bean and carrot fields were monitored using yellow traps during two years to determine the influence of the adjacent fields, i.e. set-aside (mainly Lolium perenne L. and Trifolium spp.), other crops (wheat, sugar beet or other vegetables) or woodland (mixture of Acer spp., Populus spp., Salix sp.) on the occurrence of syrphids. Hoverfly numbers in fields close to set-aside were significantly higher than numbers close to woodland. Over 18000 hoverflies belonging to 36 species were caught during the cultivation season of carrots and beans. In 2000, more than 70% of the collected specimens were insect predators in their larval stages. Calculation of the Shannon diversity and equitability indexes allowed to show the evolution of syrphid diversity in a more global approach through the vegetable cultivation season.
The Royal Entomological Society

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