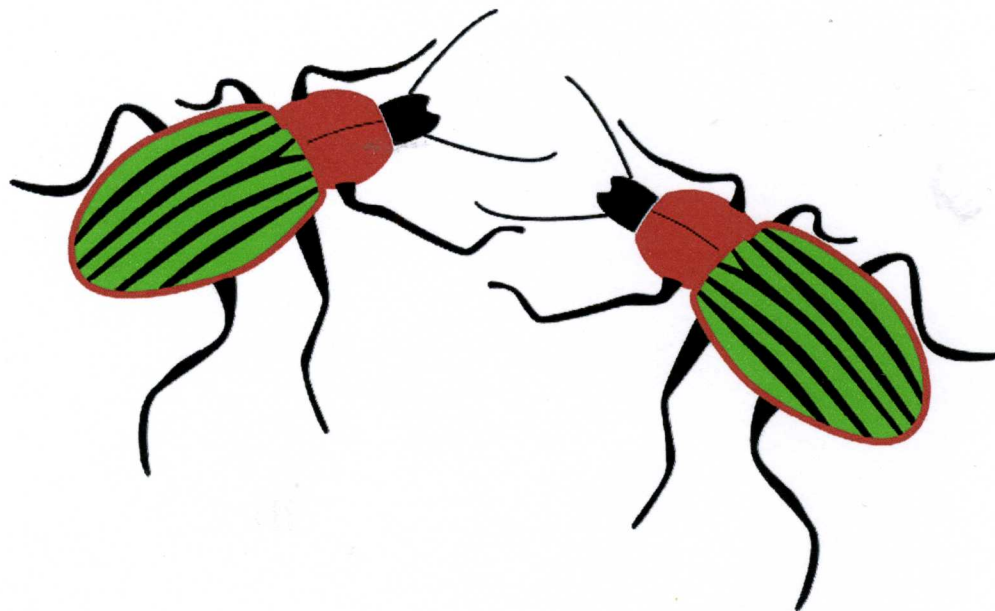


XIV EUROPEAN CARABIDOLOGISTS MEETING

Carabid Beetles as Bioindicators

**The use of ground beetles in ecological and
environmental studies; the usefulness and threats
of methods used for monitoring species and populations**



PROGRAMME – BOOK OF ABSTRACTS

September 14th-18th 2009 | Westerbork, the Netherlands

**Organised by the Foundation 'Willem Beijerinck Biological Station'
Loon, Drenthe**

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PROGRAMME – BOOK OF ABSTRACTS

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 **PENSOF.T**

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invertebrate populations. In the present study ground beetle assemblages (Coleoptera: Carabidae) were used as indicators of invertebrate assemblages on fenland on Wicken Fen, between the cities of Cambridge and Ely in eastern England. Wicken Fen is a nature reserve, of which over 135 ha is original fenland that has never been drained, while 560 ha is in various stages of restoration to wetland. Ground beetles caught using pitfall traps in the summer of 2008 were used to indicate whether habitats for specialist wetland invertebrates have been created in the restored fenland. These were also compared to ground beetles caught on undrained fenland at Wicken Fen and to nearby agricultural land. The influence of management practices and environmental variables on ground beetle populations was also assessed. The habitat preferences and dispersal capabilities of the ground beetles found across the fen were compared to indicate to what extent colonisation opportunities and habitat selection influenced the ground beetle assemblage.

26 - The fauna Carabidae (Coleoptera) of the Mordovian Republic (Russia)

Alexander Ruchin & Sergej Alekseev

The Mordovian Republic settles down on border of a wood and steppe zone in a river basin of Volga. Its carabidofauna is studied more than 30 years. 265 ground-beetles species are in this time revealed. Most often meet more than 20 species (*Cylindera germanica*, *Carabus cancellatus*, *C. granulatus*, *Bembidion properans*, *Poecilus cupreus*, *P. versicolor*, *Pterostichus melanarius*, *Pt. niger*, *Amara aenea*, *Harpalus affinis*, etc.). These species meet and dominate in all possible biotopes. Very seldom meet more than 50 species (*Cicindela soluta*, *Nebria livida*, *Carabus nitens*, *Bembidion doris*, *B. femoratum*, *Agonum gracile*, *A. impressum*, *Platynus krynickii*, *Amara convexior*, *A. infima*, *A. littorea*, etc.). These species are found only once in republic territory. In republic there passes border of areas of some kinds (*Carabus coriaceus*, etc.). The majority of species are wood and universal inhabitants. On fields usually there are 70-80 species of ground-beetles. In woods 130-150 species are marked. In cities it is noted more than 70 species of ground-beetles. The basic influence on number of kinds renders activity of the person. It cuts down woods, ploughs up steppe sites of the earths, pollutes of biotopes.

27 - Ground beetle assemblages of peat bog remnants in Northwest Germany (Coleoptera: Carabidae)

Sascha Buchholz, Karsten Hannig and Jens Schirmel

We studied the ground beetle fauna of different habitat types in peat bog remnants. Aim was a breakdown into different carabid assemblages and to verify whether a typical peat bog assemblage exists. Based on these results, we would then try to evaluate habitat quality. The study was conducted in three peat bog remnants in Northwest Germany (North Rhine-Westphalia). Carabids were sampled with pitfall traps between May and July 2008 in 21 study sites. A total of 4,201 individuals belonging to 75 species were captured. By using nonmetric multidimensional scaling, we were able to define five carabid assemblages. For each assemblage, indicator species were defined with the IndVal procedure. The definition of a peat bog specific community was controversial. However, the occurrence of the tyrphobiontic species *Agonum ericeti* showed that at least some parts of the study area had a high habitat quality. With suitable peat bog management the unique character of these peat bog remnants could be preserved or advanced.
