THE UPS AND DOWNS OF AUSTRALIAN LADDER WEB SPIDERS

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A recently discovered genus of Australian araneid, commonly referred to as the Australian ladder web spiders, build modified orb webs that may be as many as five times taller than wide. The webs of these Australian species of ladder web spiders differ from other previously described ladder webs (e.g. *Scoloderus* spp.) first, in that the hub is located in the centre of the web and not at the extreme top or bottom. Second, the radials are not contorted into a parallel formation, but instead radiate from the hub as in a typical orb. Finally, the webs are built against the trunks of trees, with a gap of approximately one to three centimeters, rather than in open spaces. The Australian species do not appear to specialize on moths as suggested for other ladder webs spiders such as *Scoloderus* spp. Presented here is evidence suggesting that the Australian ladder webs spiders are in fact not specializing on moths or any other taxa, but are taking advantage of the location in which they build their webs, that is, against the trunk of a tree. Trapping carried out in the field suggests that these spiders capture approximately equal proportions of both walking and flying prey. This is unusual as the diet of most araneids consists largely of flying insects. There are also preliminary data to suggest that the elongated form of the web may be an adaptation to building in this microhabitat. As web width becomes limited by the maximum width of a tree, there is a strong tendency for webs to become more vertically elongated.

Oral, Tuesday 7th

MANAGING OR ABANDONING ALPINE GRASSLANDS? – FIRST RESULTS OF A SPIDER SURVEY

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A long-term survey on the effects of land-use change on epigeic arthropod assemblages in alpine habitats has been launched by the Bavarian Association for Bird Protection (LBV) in the German Alps after a change in land ownership in 2000. The extraordinary flower-richness in the grasslands of the region and especially on "Alpe Einödsberg" originated from very specific geological and pedological conditions and from traditional land use †mowing and extensive cattle grazing. However, intensive sheep pasturing until 2000 has greatly reduced the floristic diversity of the study site. Restoration efforts since 2002, involving controlled grazing have already resulted in positive effects on the vegetation structure. Parallel to vegetation monitoring, changes in spider and carabid assemblages have been investigated since 2003. Six pitfall traps were installed in each of 20 permanent plots (5 x 5 m), distributed over four different vegetation types in elevations from 1,750 to 1,990 m a.s.l., and analyzed from 2 week-periods soon after snowmelt in June, in summer (July) and before first snowfall in September. Spider fauna in the study area is rich: 126 species have been recorded so far, 19 species are considered as endangered. There is a very strong activity peak in spring, mainly caused by males of four lycosid species (*Alopecosa pulverulenta*, *Pardosa amentata*, *P. oreophila*, *P. riparia*). These species strongly dominate the epigeic active spider assemblage (80%). Linyphiids comprised 10% of the spider fauna, which is unusual low. Highest abundance (of the lycosid species), but also species richness was observed in the highest areas on the mountain ridge. Management of these areas by cattle grazing seems to have a positive effect on the abundance (activity) of the dominant species, but so far did not result in changes in diversity. Some specific alpine species have only been captured in less disturbed plots without cattle grazing.

Financial support: Bavarian Fund for Nature Conservation, Bavarian Association for Bird Protection (LBV), SMNK

Poster, Tuesday 7th

17th International Congress of Arachnology

ABSTRACTS












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São Pedro, São Paulo, Brazil

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FINANCIAL AND LOGISTIC SUPPORT

Instituto de Biociências, Universidade de São Paulo
Laboratório de Artrópodes, Instituto Butantan
Laboratório de Aracnologia, Museu Nacional do Rio de Janeiro

Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq)
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SUMMARY