

Information about the lecture

Speaker Dr. Stephan Brenneisen

Biodiversity on green roofs – how can the ecological and conservation Title

compensation function be optimized by appropriate design planning?

Group of topics 20.06.2017

Biodiversity - Species protection

German Language

Content With the successful implementation of green roofs, there are more and

more near-natural areas which can be reached by a large number of organisms. Numerous researches have been able to provide references in the last few years on which species of animals and plants can be found not only on roof surfaces, but can also successfully colonize, reproduce and form permanent populations there. The promotion of biodiversity in urban areas can thus be implemented in a targeted manner by roofing and the significance for ecological compensation and replacement in the sense of the intervention regulation in the natural balance can be clarified more detailed. For example a systematic use of birds could be proved of green roofs for the search for food or even as a substitute site for ground breeding species such as the Lapwins. Furthermore, ecofaunistic bioindication studies on beetles, grasshoppers, wild bees, spiders and other animal groups, as well as rare species classified as endangered, could be found. The image composes which functions green roof surfaces can take from a biodiversity viewpoint. Green roofs are not only to be viewed as stepping stones, but also as possible permanent sites which have larger populations in smaller animals and thus can also be considered as a "source" habitat in the sense of the metapopulation principle for the further propagation of species and not as a permanent sink or even "biological trap".

The Research Group on Urban Ecology at the Zurich University of Applied Sciences ZHAW investigates the persistence of the indicator groups of beetles and grasshoppers in a long-term project. In particular, the interrelations of the roof-greening system constructions and extreme weather effects on the settlement constancy of ecologically more demanding, usually rare and often classified as endangered red list species.