

Small structures as habitats for weasels, stoats and other animals within intensively managed landscapes

For many decades, elements of the landscape such as woods, hedges, stick piles or stone piles, border features and ditches have been disappearing in Switzerland due to the intensification of the agriculture. However, these structures are crucial for numerous animal species. Thus, there is a need to rebuild or preserve these elements within our landscapes. The stoat and the weasel are particularly well suited to raising awareness amongst farmers about the importance of these small structures. Within a framework of different projects to conserve small carnivores, as well as a joint pilot study of WIN Wieselnetz and the Swiss Amphibian and Reptile conservation (karch), targeted measures are being used to enhance good quality habitat in open countryside and to connect those patches at fine and large scales.

The main goal of the measures for stoat (Fig. 1) and weasel is to improve habitat quality and to connect isolated patches of good quality habitat. Beside good hunting grounds such as meadows and pastures, small carnivores need a sufficient number of hiding places in their home range, either as a protection against adverse weather conditions or as a safe place to raise their young.

When weasels or stoats move above ground, they are dependent on well-distributed cover. In open countryside and in close proximity to forest edges, the number of hiding places and cover can be increased by constructing stick piles, stone piles, stone hedges, natural stone walls, border features, set-aside strips, old grass strips on meadows, diversified hedges, hedgerows and riparian vegetation, ditches, uncut mowing areas and similar structures (Fig. 2).

Weasels and stoats can also be used as umbrella species for various other species which also require a landscape that is rich in networks of small structures. Thus, if weasels and stoats are specifically targeted by conservation management, other species will benefit simultaneously.



Figure 1: Stoats (and weasels, too) are highly appreciated by farmers because of their specialisation in hunting voles. These small mammals can also be congenial ambassadors and thus very useful in gaining the trust and support of farmers for building valuable small-scale structures. © Marcel Ruppen, www.vogelbilder.ch



Fig. 2: Measures to improve habitat quality for small carnivores include enhancing landscape elements which provide shelter, cover or which offer connectivity for small mammals and other animal species (e.g. stick piles, stone piles, hedges, old grass stripes, border features and ditches).

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The large-scale project „Wiesellandschaft Schweiz“

WIN Wieselnetz is a foundation dedicated to the conservation of small carnivores (see box). Since 2012, conservation measures are implemented in a series of regional projects under the directive of WIN Wieselnetz. The overall goal of “Wiesellandschaft Schweiz” is to avoid local extinctions of stoats and weasels within Switzerland, even under dire circumstances such as low prey availability. Since the start of the large-scale project, WIN Wieselnetz has initiated 11 regional enhancement projects (Fig. 3). Together these regional projects form a central corridor for terrestrial wildlife through the lowlands of Switzerland.

WIN Wieselnetz accompanies and coordinates the regional projects. As a first step, the foundation defines the focal area for a regional project using a habitat analysis. WIN Wieselnetz provides then professional support where required, creates documents and functions as a platform for the exchange of data, results and experiences among the regional projects. WIN Wieselnetz is responsible for quality control within regional projects and has therefore established a standardised system for monitoring success. The work of WIN Wieselnetz is funded by the Federal Office for the Environment of Switzerland FOEN, the Mava Foundation and the Foundation Ernst Goehner.

Every regional project has 1-2 trustees and a project leader. Usually, the trustees are part of a regionally well-established Non-Profit-Organisation working in nature or landscape conservancy. A working group is then established, consisting of people familiar with the region as well as people from the Cantonal environmental authorities and natural conservation societies. Additionally, various partners support each regional project: measures are planned with local organisations and implemented with the help of farmers, school classes, hunting societies, nature conservancies, trustees of other connectivity projects, foresters as well as with interested individuals.

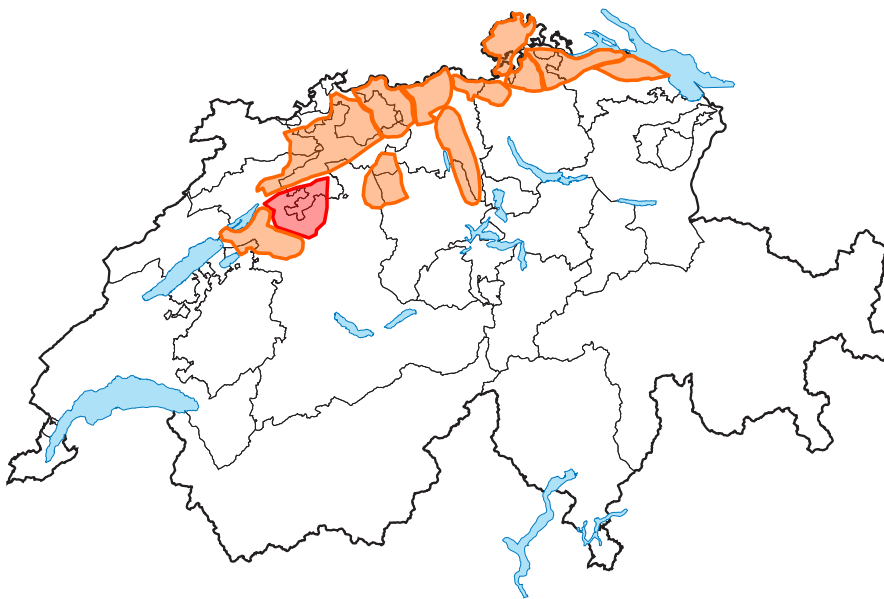


Figure 3. Regional projects within the framework of the large-scale project „Wiesellandschaft Schweiz“ (orange) and joint projects of WIN Wieselnetz with karch (red lines)

The WIN Wieselnetz-karch pilot project

In an emptied anthropogenic landscape, hiding places and safe habitats for reproduction are not only missing for weasels and stoats but also for amphibians and reptiles. Thus, WIN Wieselnetz and karch (Swiss Amphibian and Reptile Conservation) have launched a pilot study to implement measures for the conservation of several species. The focus lies on several highly mobile species, which have similar habitat requirements. This includes small carnivores, reptiles, amphibians and dragonflies. Thus, synergies are being used to achieve habitat enhancement in cultural landscapes for as many species as possible within one conservation project. The pilot project is funded by the FOEN and began 2015 in the regional area Bucheggberg, Canton Solothurn. The project is restricted to the Canton Solothurn for the present (Fig. 3). Besides the habitat characteristics that are common for all species, their diverse ecological needs and spatial requirements are also considered.

WIN Wieselnetz

Until recently, stoats, weasels and other small carnivores belonged to one of the few animal groups with no lobby in Switzerland. Thus, their habitat requirements had been neglected at a strategic level and no systematic conservation action had been conducted. A group of dedicated wildlife biologists therefore initiated the organisation “WIN Wieselnetz” (which translates to “a network for weasels and stoats”).

WIN Wieselnetz was founded in 2006. In 2012, the organisation changed its status to a foundation. With systematic projects, WIN Wieselnetz aims to stabilize and support local populations of small carnivores throughout Switzerland. Stoats and weasels have undergone noticeable declines in different areas of Switzerland and their further decline needs to be prevented. WIN Wieselnetz works closely with professionals and decision makers (in biology, conservation, hunting, agriculture, forestry etc.) who take an active role when measures are implemented. WIN Wieselnetz provides information material, offers courses for professionals and develops practical enhancement programs.