

Ecological networks in the Czech Republic

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Due to growing fragmentation of natural habitats, the future survival of many animal species is becoming endangered. In the Czech Republic, the dealing with a problem of landscape permeability by protection of ecological network has more than twenty years tradition. To protect the landscape connectivity the „Territorial system of ecological stability“ (TSES) was introduced into the Czech nature conservation law in 1992 (Act no. 114/1992). On the basis of the law the TSES plan serves obligatory as documentation for: land-use planning, forest management plans, water management documents and other documents regarding protection and restoration of the landscape. TSES ecological network is based on a connection of similar types of biotopes and it well reflects the demands of organisms that are closely connected with this biotope (flora, invertebrates, small terrestrial vertebrates, etc.). However, the experience showed that the current TSES doesn't work sufficiently as corridors for migration of large mammals. That is why the Ministry of the Environment decided to prepare a new concept of corridors based on the requirements of large carnivores (lynx, wolf, brown bear) and large ungulates (moose, red deer). These target species were selected not only for the protection of themselves per se, but also as an “umbrella species”, as the preservation of their habitat will help to save the habitat of many other species.

Preparation of a new system of migration corridors is realized in the following steps:

- Identification of areas important for permanent living and migration of large mammals
- Identification of main migration directions
- Identification of concrete migration routes.

The whole project is based on actual data about distribution and migration of target species, their habitat preferences, models of the potential habitat usability for target species, analysis of all types of barriers, and on field verification of permeability of all migration routes. So far, about 10.000km of migration routes has been identified, and their field verification is about to be finished by the end of 2010.