Project nominated for the IENE annual award

Resolving conflicts between ecological connectivity and transportation infrastructure in Poland

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What is a problem?

Poland is still inhabited by vital populations of big charismatic mammals: the brown bear, the wolf, the Eurasian lynx, the European bison and the moose, which have vanished from most of the Western European countries. Due to its location Poland serves as an important source for individuals re-colonizing Western Europe.

After accession to the European Union Poland accelerated modernization and development of road and railway network. Existing plans anticipate the modernization of 4000 km of new motorways and roads up to 2013. Such a large-scale development is a serious threat for the most of Poland's natural areas causing habitat fragmentation and declines of populations of many rare species.

What solutions have been employed?

Project of ecological corridors in Poland

Ecological corridors for large terrestrial mammals in Poland (After: Jędrzejewski et al. 2005)

Project of ecological corridors was based on data obtained during long-lasting lynx and wolf census in the entire country (ca. 30 000 records collected since 2000). We described factors affecting the distribution of both species and extend of suitable habitats, we also delineated network of corridors linking patches of suitable habitats.

Our analysis became a basis for the project of ecological corridors linking Natura 2000 sites in Poland. It has been widely used for regional projects implementing ecological corridors into spatial plans of provinces.

Habitats suitable for wolves in Poland (After: Jędrzejewski et al. 2008)

Spreading of knowledge

To improve the knowledge about requirements for permeability of roads and railways for animals as well as about proper location, size and number of wildlife crossing structures we elaborated the following publications:

* Book "Animals and roads: Methods of mitigating the negative impact of roads on wildlife". Two edition of the book were published in Polish (2004, 2006) and one edition in English (2009) Over 3500 copies were distributed.

* Proceeding of the international conference "Implementation of the ecological corridors in Poland" held in Białowieża, November 2008. Book is freely available on-line.

* Several scientific articles were published in peer-reviewed journals e.g.: Animal Conservation, Biological Conservation, Diversity and Distributions, Acta Theriologica.

* Technical report for the Ministry of Transportation about methods of monitoring the usage of wildlife crossing structures by animals.

* We also published numerous popular articles and led various workshops and trainings mainly for road designers.

Negotiations of crossing structures for animals

Photo by: Robert W. Mysłajek

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We analysed most of projects for planned motorways and express roads as well as selected sections of modernized railways, and recommended numerous measures improving habitat connectivity e.g. wildlife crossing structures and compensations.

Due to our activities various measures solving conflicts between transport infrastructure and habitat connectivity were implemented. Over 400 wildlife crossing structures have been already built and next several hundred are planned.

Why should this project be recognized by an IENE award?

We believe that our project is unique both from legal and environmental point of view. During the last decade we have introduced the idea of protection of migration corridors network and we invested many efforts in its implementation. Currently, we can observe that taking into consideration the corridors network and permeability for animals in the planning of linear infrastructure became a rule in Poland, which brings beneficial effects for the natural environment. As a consequence of our endeavour Poland has a big chance not to recure the main mistakes made by Western European countries and build a modern transportation infrastructure with possible lowest negative impact on the habitat connectivity andpopulations of rare animals.

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