

CONCLUSIONS OF THE MEETING “DEFRAGMENTATION OF HABITATS AFFECTED BY TRANSPORT INFRASTRUCTURES”. ALBUFERA NATURAL PARK VALENCIA, 25 AND 26 NOVEMBER 2008

During the meeting, the effects of transport network barriers on wildlife populations and their habitats were presented. The existing transport infrastructure has the following impact:

- A barrier effect, which interferes with animal movements and can contribute to the isolation of population nuclei (the case of the brown bear was presented).
- Mortality when animals are hit by cars, which can affect the conservation of species of high conservation interest (the cases of the Iberian lynx and the European mink were presented).
- Collisions with deer and wild boar, which affects road safety.

In general, the transport infrastructure has a significant impact on ecological connectivity and hinders gene flow.

Many of the oldest transport networks did not include fauna passages or other measures for reducing the impact on wildlife. However, over the last few years, different actions have been taken to reduce the effect of existing infrastructure. Our challenge is to diminish the impact of existing roads, as well as that of new road and railway projects.

The following conclusions were drawn from the presentations, debates and contributions made during the meeting:

1. The design and operation of transport infrastructure prioritises road safety. Road safety is directly related to the permeability of transport infrastructures to wildlife crossing. This topic should be taken into account in the project planning and management phases, and in instruments of territorial planning. Special emphasis should be placed on a reliable Environmental Impact Assessment process and during the construction and maintenance of the transport networks so that measures are appropriately implemented and maintained, and their effectiveness guaranteed.
2. The defragmentation activities carried out to date have mainly consisted of constructing new fauna passages in existing roads and installing fences that lead animals towards stretches where they can cross safely, usually through viaducts, tunnels or other types of structures. At present, there are few restoration works on affected habitats. However, some projects are being undertaken in this area.
3. Before action is taken, it is important to identify the critical points in which existing infrastructure has the greatest impact, and the specific problem affecting each of these points. We need information about the territorial patterns, biology and behaviour of affected species. We must also define the aims of the intervention, in order to work on and with the processes that will determine the effects of any corrective measures. Defragmentation requires significant investment. In order to optimise the cost/benefit relationship, the places where the impact is most critical need to be appropriately identified. Therefore, inventories must be made before actions are undertaken and activities must be prioritised.
4. Defragmentation measures should be adequately integrated into the territory to guarantee the continuity of biological corridors. The construction of new fauna passages is important, as is the adaptation of the

area surrounding these crossings and the restoration of biological corridors, which connect the different population nuclei of the species that use these structures. Therefore, projects should take into account the surrounding landscape, as well as the areas of intersection between road networks and biological corridors.

5. The implementation of defragmentation measures should be carried out in such a way as to reduce the impact of their construction on the affected species. In particular, work should not take place during the periods of highest sensitivity, such as breeding periods.
6. The measures must be adequately maintained to guarantee their long-term functioning.
7. Budgets for defragmentation can come from different sources. For example, the LIFE projects have been one of the key instruments for financing work carried out to date. However, more funding could be obtained from the Structural Funds. The financing of compensatory measures to redress the impact of new projects is also of particular interest. When road widening and improvement projects are carried out, the opportunity should be taken to increase the infrastructure's permeability.
8. Monitoring and evaluating the effects of activities will contribute to progressive improvement in defragmentation methods. It is important to adequately select the monitoring methods, to obtain information about the situation before work begins, and to compare the information obtained from fauna passages with information on nearby habitats and wildlife populations. It is essential to verify the use of fauna passages and to assess their effectiveness in the context of an analysis of their impact on the populations of the species that utilise them.
9. Cooperation between different stakeholders is essential for defragmentation, as is collaboration between environmental, traffic and transport administrations. Some organisations provide important information that helps to identify areas of conflict, whilst others compile information about the conservation interests of species or habitats affected. In order to design corrective measures, cooperation is required between those responsible for designing, constructing and maintaining roads and experts in conservation and habitats.
10. Awareness about habitat fragmentation caused by transport infrastructures is rising in diverse professional fields. There is increasing convergence in the language used and the actions carried out by administrations, research centres, public and private businesses and NGOs, which undoubtedly will optimise the mechanisms used to find solutions. The importance of local stakeholders' participation in identifying the problems and maintaining measures has been underlined. In addition, the importance of connecting people, knowledge and experience for a better understanding of the problem and a better application of solutions is stressed.

The technical work that has been carried out to date can be used as a basis for drawing up a strategic, political and operative framework, which facilitates the integration of the different sectors and in which specific financial and technical commitments can be made.

More information about the meeting:

Ministerio de Medio Ambiente y Medio Rural y Marino

http://www.mma.es/portal/secciones/biodiversidad/desarrollo_rural_paisaje/fragmentacion_rural/jornadas_tecnicas.htm