

Human and Wolf Conflict **'The problems & the solutions'**

Wolves and humans have been in conflict ever since humans moved from being hunter - gatherers to farmers. Wolves have been misunderstood, treated as vermin, seen as competition for food, good sport and hunted for their pelts. Man has been at war with the wolf for hundreds of years and until recently the human race was winning. It's noted that in times of war, wolf numbers often increase as we turn to war on each other, giving the wolf a break from persecution. However what are the modern day threats to wolf populations and have they changed over the decades? This satellite picture taken over Europe at night gives you the first clue. Our urban sprawl can be seen by the street lights at night. So where does all the wildlife live?



Habitat Destruction

Deforestation is a global problem. In the 1980s an estimated 17 – 20 million hectares per year was cut down, that's the size of Great Britain. Western Europe is said to have lost 99% of its primary forest and between 2000 and 2005 the net European loss of forest was 7.3 million hectares per year.

Large carnivores on the top of the ecological pyramid need relatively large habitat areas to survive. The size of the home range of only one pack of wolves in Croatia may be from 80km² to 160km². In Scandinavia, where habitats are poorer, the home range size may even exceed 1,000 km². Wolves should not be isolated from other packs otherwise this results in the interruption of the gene flow, in mating of relatives and consequently inherited abnormalities due to in-breeding. Dispersing wolves can travel as far as 600 miles in search of new territory and a mate. With landscape fragmentation and man-made barriers in the way, this is becoming increasingly difficult for the modern wolf. That's not to say wolves are not adapting, wolves have been seen living beside motorways and using foot bridges built for humans to cross to the other side.

The presence of carnivores in a habitat is the indication of its level of preservation. If we manage to preserve carnivores, it means that we have also managed to preserve its habitat, including the entirety of the plant and animal life that it supports. In some areas of Europe the news is good, with wolves re-populating former ranges and spreading into new countries. With European directives to protect the wolf, numbers are increasing but much work is still to be done. Some countries opt out of these agreements, meaning wolves can step from a protected area in to an area where hunting is allowed, simply by stepping over a border into another country. Trans-border protection is slow, work is needed to unify Europe to enable wolf populations to spread and remain healthy. This in turn will ensure better biodiversity and a healthier landscape in general.

Roads and Large Carnivores

All types of transport infrastructure - railways, canals and roads - affect animal movement. The barrier effects are felt in places where animals are prevented from crossing by the structure, by a fence along or around the structure, or the traffic itself. Major negative impacts of roads and railways are a direct loss of habitat, habitat and population fragmentation, habitat quality degradation, immediate road-kill of animals trying to cross the road and a threat to passengers themselves (collision with a large animal). Evidence has shown that a third of all mortalities in the Rockies, Canada were down to death on the roads. Wolves are known to use isolated roads as easier winter routes and the boundaries between territories are often roads in their landscapes. Even snowmobile tracks are used for ease of travelling through deep snow. This in turn makes them easier for hunters to track down.

In the last decade many miles of new motorways have been constructed in countries like Croatia and Poland, intersecting the length and breadth of large carnivore habitats and all

other animals in that area. Those motorways needed to be constructed, but in order to minimize the negative effects, specific extra facilities have been built and numerous planned facilities adapted. The most recognizable special facilities are the so-called 'green bridges', structures that make it possible for animals to cross motorways. Apart from green bridges, many viaducts and other bridges were constructed and extended to allow easier passage for large animals.

In the period between 1998 and 2004, six green bridges were constructed, intended primarily for the safe passage of large carnivores in Croatia. In order to serve this purpose they had to be given a special form and size and be located in specially selected places. They were located after a study was done of large carnivores' biology and way of life, of their movement patterns, activities and habitat use. Fencing was also used to channel the animals towards the crossings and sensors recorded who passed by. These were a great success.



Predation on livestock by wolves

Predation on livestock increases when animals are left out on mountain sides unattended. Numbers of animals killed also increases when there is a lack of wild ungulates, the preferred food for wolves. This happens when forests are cut down and the natural food source of the wolf is removed by this and over-hunting by people. Domestic and hunting dogs are also killed whenever wolves come across them. This could be more to do with dogs going into a wolf's territory however, it has been suggested that dogs can be an important source of food for wolves in some areas. In Russia it's claimed that the wolf limits the stray dog population.

Herd protection methods are essential to limit wolf and human conflict. It is noted that countries that have never lost their wild wolf population have retained traditional methods of protecting livestock from wolf predation.

Traditional methods of protection include herd protection dogs which cut down predation by wolves and bears on livestock by around 95%. These powerful dogs live out with the herds and are very protective towards them. Of course it is also essential to have a human present around the livestock.



Various types of fencing are also employed. A cheap form of this is fladry, a simple fence with strips of red material hung from it which terrify the wolves, keeping the stock inside safe as the wolves won't go through it. Electric fencing is also effective for small numbers of animals. Corralling or bringing the livestock in at night is also considered useful protection if feasible.

Human Dimensions in Wildlife Management

Latest studies show that the successful management of a species on a national and international level requires agreement from all interested bodies including hunters, shepherds, forestry workers and conservationists. We are entering a new and exciting era of conservation where co-operation between these parties is essential and successful when facilitated correctly, with all voices heard and all needs catered for. The UK Wolf Conservation Trust is a forerunner in recognising this need and funds a number of wolf management workshops worldwide through the work of human dimensions experts, helping to keep wolves in the wild.