Monitoring Wildlife Mortality on British Columbia Highways

L. Sielecki

British Columbia Ministry of Transportation, PO Box 9850 STN PROV GOVT, Victoria, B.C., Canada, V8W 9T5, and Department of Geography, University of Victoria, PO Box 3050, Victoria, B.C., Canada, V8W 3P5
< leonard.sielecki@gems9.gov.bc.ca >, Phone: 250-356-2255

Wildlife-related motor vehicle accidents are a legacy of highway development throughout the world. Wildlife mortality has been a seemingly accepted cost of operating highways. In Canada and the United States alone, it is estimated over 500,000 wild animals are killed on major highways each year.

Historically, the highway/wildlife habitat interface has been poorly understood. In British Columbia, many wild animals utilize winter ranges in the province's valley bottoms for up to six months each year. As most of the province's major highways were built in these valley bottoms severing winter ranges and their migratory corridors, conflicts and collisions are an annual occurrence.

Since 1978, in an effort to better understand the highway/wildlife interface and address highway-related wildlife mortality with a focus on environmental stewardship, the British Columbia Ministry of Transportation (BCMoT) has been systematically collecting wildlife accident data throughout the province by means of its Wildlife Accident Reporting System (WARS).

With its long-established reporting structure and extensive multi-species database, WARS is unique among transportation agencies globally. The WARS system enables BCMoT highway planners to reduce the potential for wildlife accidents on highways and the fragmenting effect of highway corridors on wildlife habitats by ensuring wildlife migration routes that cross highway alignments are identified and protected. Critical populations of endangered species can be safeguarded when wild animals are able to cross highways safely.

The WARS system contributes to a better understanding of province-wide scale wildlife migration patterns, population dynamics, and habitat needs. The records contained in the WARS database represent an invaluable collection of wildlife-related information that cannot be assembled from any other information sources. As a consequence, the WARS system also provides wildlife researchers in neighbouring Canadian provinces and American states with information unavailable in their own jurisdictions.

The WARS system has enabled BCMoT to reduce highway-related wildlife mortality in British Columbia and become a North American leader in wildlife accident mitigation. The WARS model is suitable for any transportation agency with the need to monitor wildlife mortality on roads and highways when trying to reduce wildlife accidents or when partnering with wildlife agencies to foster species preservation and recovery.