Ungulate-vehicle collision risk and traffic volume on roads

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Anotace:

We analyzed data from traffic counters installed on 143 Czech roads (motorways and primary roads) which precisely indicated current traffic volume during occurrences of ungulate-vehicle collisions (UVC). One thousand nine hundred ninety-five UVCs were identified over the period 2009–2015 on these 143 road segments. The overall range of annual average daily traffic (AADT) values, for the respective roads, was between 1547 and 78,320 AADT (vehicles/day). Almost 80% of UVC took place at volume lower than 1000 vehicles/h. We demonstrate that traffic volume has a different distribution during the day when compared with UVC distribution. The highest relative risk of UVC was identified for traffic up to 750 vehicles/h. The risk of UVC varied over the course of the year as it was influenced by ungulate locomotory activity. We concluded that the AADT, representing average annual daily traffic, does not accurately represent the actual traffic volume which is present during the night hours, where the majority of UVC usually occur. Therefore, there is a danger that UVC risk modeling, relying on AADT, will be distorted.

BÍL, Michal, Jan KUBEČEK a Richard ANDRÁŠIK. Ungulate-vehicle collision risk and traffic volume on roads. European Journal of Wildlife Research [online]. 2020, 6.7.2020, 66(59) [cit. 2020-07-07]. DOI: https://doi.org/10.1007/s10344-020-01397-8. Dostupné z: https://link.springer.com/article/10.1007%2Fs10344-020-01397-8.

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