Analisi e valutazione degli strumenti di prevenzione degli incidenti stradali con fauna selvatica lungo la rete stradale della Provincia di Trento

Estratto dalla bibliografia internazionale: caratteristiche vegetazionali nell'intorno dei siti di investimento di fauna selvatica

Maggio 2003

Caratteristiche vegetazionali nell'intorno dei siti di investimento

- Staines et al. (2001): *"[...] the majority of accidents occur within or near wooded areas, particularly where the woodland comes right down to the road edge (e.g. Romin and Bissonette (1996))."*;

- Putman (1997): *"Rost and Bailey (1979) found that these species (mule deer and wapiti n.d.r.) tended to avoid areas within 200 m of a road. Road avoidance was greater along more heavily travelled roads and in more open habitats, when compared with wooded (pine and juniper) habitats. [...] vegetation immediately adjacent to such thoroughfares does increase the risk of accident and vegetation removal in particulary sensitive areas may well be a viable option."*;

- Finder et al. (1999): *"The most important predictor of high deer/vehicle accident sites was distance to forest cover. [...] public recreational land within a 0.8 km radius of the road segment increased the probability of deer/vehicle accidents, probably by contributing to local deer abundance."*;

- Gunther et al. (2000): *"We lumped vegetation types into two categories, forested and non-forested. [...] Overall, the frequency of wildlife road-kill mortality was not independent of vegetation cover-type. Based on the proportion of forest and nonforest cover types present along park road corridors, antelope, bison, coyote and elk were killed by vehicles significantly more than expected in nonforested cover types. Mule deer were killed by vehicles significantly more than expected in forested cover types."*;

- Barnum (2001): *"Distance to woody vegetation that could act as cover was significantly shorter for crossing hotspots (CHS) than random points [...] although CHS locations were not necessarily located in dense cover, vegetation that could provide cover was in close proximity to all CHS, as compared to random points."*;

- Singleton and Lehmkuhl (2000): *"Deer were hit in areas that were significantly lover percent cover, gentler slope, narrower paved roadway with, and at a lower elevation [...] in areas with grassy medians [...]. Elk kills were recorded in areas that were significantly closer to cover, higher percent cover [...]"*;

- Malhotra et al. (2000): *"The comparison between collision points and random points shows that collisions tend to be spatially associated with fewer buildings, water bodies, and clear-cuts but are more commonly associated with open-grass and hardwood areas. [...] Features used: Buildings, Roads, Water bodies, Open bare, Open grass, Clear-cut, Pine hardwood, Hardwood pine, Pine - high density, Pine - medium density, Pine - low density, Young pine/Open, Hardwood, Scrub/Shrubs, Edge"*;

- Leonard Sielecki (2003, personal communication): *"I believe the following issues may be candidates:*

1. *% of wooded area to % of non-wooded area ("wooded density") near roads (heavy forest vs. light forest);*
2. *% of cultivate area to % of non-cultivated area near roads ("cultivated density") (we have problems with apple orchards, vineyards and alfalfa fields near highways);*
3. *linear distance of continuous cleared land along road.*

The alfalfa is grown in large fields for animal feed. The alfalfa fields are very attractive for wild animals, primarily deer and elk. I think that any cultivated field should attract deer, except possibly garlic or onion fields. I believe any field with good quality grass would be a place deer would like to eat. You may be able to distinguish between a cultivated field and an uncultivated "wild" field.

In British Columbia, I am hearing that deer like to eat the leaves of grapevines. Maybe this is the same in Italy?

The woods can vary from deciduous to coniferous trees. If possible, I believe it may be best to distinguish between the different tree types. In British Columbia, fruit trees in orchards, usually apple trees attract deer and bears. Depending on the density of coniferous trees, very dense woods may not be attractive to deer. There may be a relationship between forest density and deer populations.

Open water is definitely a place where deer would go, especially if the ground is frozen or covered with snow, or when the land is very dry in the summer.

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