Use of mule deer highway mortality and migration data to prioritize wildlife passage structures on 2 highways in central Oregon

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Background
- 160 km (100 mi) U.S. Hwy 97 ~ 3,400-20,300 vehicles/day
- 80 km (50 mi) Oregon Hwy 31 ~ 710-1,500 vehicles/day
- Deer-vehicle collisions (DVCs) caused significant mule deer mortalities in central Oregon (~400/yr, Oct 2005-Dec 2010); 67% of mortalities occurred during migration months.
- Wildlife passage structures (overpasses, underpasses, fences) can significantly reduce collisions (DVCs)2.
- DVCs were highly correlated with migration corridors on Hwys 97 & 31.
- Prioritized sites for passage structures by considering
  ➢ Biological and transportation planning factors

Factors considered
- Animal behavior
  ➢ DVC hotspots
  ➢ Migration corridors and seasonal deer ranges
  ➢ Accommodations for other wildlife species
- Adjacent land use
  ➢ Land ownership (public versus private)
  ➢ Development zones (current & projected)
  ➢ Secondary road access
  ➢ Existing infrastructure (utilities, railroads)
- Road engineering
  ➢ Funding for construction & maintenance
  ➢ Natural features and terrain
  ➢ Structure type (underpass, overpass, fencing, signage)

Next Steps
- Site visits to assess feasibility
- Cultural and heritage evaluations
- Integration into highway upgrades

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