Title: Hazel dormice in roadside habitats, *Peckiana, 2012*

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Background to study
Road infrastructure is a major factor threatening biodiversity causing habitat fragmentation and loss, noise pollution and a heightened threat of death of mobile species from road crossings. In Europe, road agencies are obliged to mitigate or compensate for road development and afforestation of verges are commonly undertaken. The suitability of these wooded verges for resident or dispersing dormice whose status is threatened by habitat fragmentation is currently undetermined.

Method
- Two wooded road side verges and 25 wooded traffic islands in northern and central Germany were checked for dormouse nest and gnawed hazel nuts between 2008 and 2011. Sites were generally rich in shrub species and were coppiced every 10-15 years. Both roads were partly adjacent to larger woodland areas.
- Searches were conducted from late autumn to mid winter by walking all sides of roadside habitats. The GPS location of any positive field signs was recorded and the effective habitat sizes of traffic islands were calculated within ArcGIS 9.3.
- Additional records of hazel dormice were obtained for other road side habitats in Germany.

Key results (Preliminary)
- Dormouse nests were present in numerous locations along both road verges and <1km away from where one road departed from adjacent woodland.
- Nests were located around all four motorway exits along a 10 km stretch of road.
- Dormouse nests (4-153) were found in 20 (80%) of traffic islands and were found in all islands which were >0.2 ha in size. Only 4 of 8 traffic islands < 0.2 ha had evidence of dormice.
- Records of dormice were obtained for a further 11 roadside habitats in Germany.

Key messages to landowners and managers derived from these results
- Wooded roadside verges, when composed of diverse shrub species, provide a suitable habitat for dispersing and possibly resident dormice. It is essential that the presence of dormice is established prior to any construction or maintenance works being carried out and necessary mitigation measures must be followed if dormice are present.
- Coppicing road side habitat on long rotation (10-15 yrs) is recommended to increase suitability for dormice.
- New road developments should aim to establish a diverse roadside wooded habitat, particularly if the road is adjacent to suitable dormouse habitat or dormouse records exist within the area.
- Further research on the effect of roadside habitat management on dormice, the permanence of populations within these habitats and the frequency of road crossings by dormice is recommended.

Key words/phrases
Dormice; *Muscardinus avellanarius;* roadside verges; traffic islands; coppicing; nest searches