

## TRANSPORT CORRIDORS HABITAT ACTION PLAN

### HABITAT PROFILE

**Habitat Description:** Transport corridors include cycleways, bridleways, paths, railways and roads (outwith built-up areas). The habitat adjacent to the hard surfaces are predominately grassland habitats, but quite often have single trees or areas of woodland, wetland or boundary features adjacent to them.

**Habitat Name:** Transport Corridors.

**UK Biodiversity Status:** Identified as a Broad Habitat within built-up areas.

**Associated Priority Species:** Otter *Lutra lutra*, pipistrelle bats *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus* and song thrush *Turdus philomelos*.

**Associated species of Conservation Concern:** Badger *Meles meles*, hedgehog *Erinaceus europaeus*, stoat *Mustela erminea*, weasel *Mustela nivalis*, common shrew *Sorex araneus*, brown long eared bat *Plecotus auritus*, buzzard *Buteo buteo*, kestrel *Falco tinnunculus*, goldfinch *Carduelis carduelis*, pied wagtail *Motacilla alba*, barn owl *Tyto alba*, common toad *Bufo bufo*, common frog *Rana temporaria*, palmate newt *Triturus helveticus*, smooth newt *Triturus vulgaris*, bluebell *Hyacinthoides non-scripta* and Caledonian Pannaria (a lichen) *Pannaria ignobilis*.

**Statutory Protection:** None.

### BIODIVERSITY CONTEXT

Due to the linear nature of this habitat it is very difficult to calculate the area adjacent to transport corridors. Their linear nature makes them very important as “green corridors” connecting other areas of habitat, especially in built up areas.

Railway corridors are of greatest nature conservation importance in general, as apart from scrub clearance they are relatively unmanaged habitats that in places retain the vegetation that existed in the surrounding area over 100 years ago.

Transport corridors are made up of, or border many types of habitats, such interfaces are the richest areas for biodiversity. Single trees adjacent to transport corridors can be very important for rare lichen species e.g. Caledonian pannaria.

Transport corridors often cut across habitats and can lead to their fragmentation. The planning and location of new transport corridors in relation to biodiversity during their construction phase is of the greatest importance.

### OBJECTIVES

**Objective 1** Review the extent and status of the current habitat resource adjacent to Stirling’s roads.

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- Target By 2003, survey suspected biodiversity hotspots.  
Target By 2005, complete survey of the rest of this habitat.

**Objective 2 Maintain and where possible, improve the biodiversity of the road verge network.**

- Target By 2003, agree specific management for the habitat found by the trunk roads.  
Target By 2005, agree specific management for the best areas of habitat found by the roads outwith the trunk road network.  
Target By 2010, agree specific management for the habitat found outwith the trunk road network.

**Objective 3 Raise awareness of the importance of Transport Corridors for biodiversity.**

- Target Encourage local communities to participate in survey of the biodiversity of their transport corridors.  
Target Encourage local communities to participate in the management of their path network.

## CURRENT STATUS AND DISTRIBUTION

Road Network.	Distance (kilometers)
Trunk and Motorways	162
A Class	213
B Class	157
C Class	180
Unclassified	406
<b>Total</b>	<b>1118</b>

Railways.	Distance (kilometers)
In use	24
Disused (Alloa spur)	6

Footpaths.	Distance (kilometers)
Recorded paths.	711
Paths identified in a literature survey 1988, 2000.	1784

**The disparity in the two figures can be explained by the literature search identifying many informal upland paths.**

All of these transport corridors have habitat adjacent to them, this may be enclosed in the case of railways and roads. Grassland habitats dominate on verges, with woodland present either through natural regeneration or having been planted.

Aside from railway corridors, all the other transport corridors are managed (to a greater or lesser extent) by mowing an area close to the path or road's edge. This management maintains a grassland habitat.

## ECOLOGY AND MANAGEMENT

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Transport corridors bound a great many habitats, ranging from greenspace to riverbanks to upland oak woodland. Much of the roadside verge habitat in Stirling consists of grassland. This is mainly due to grasses being planted when verges are being created and a favourable maintenance regime (frequent mowing). The growing conditions close to roads can be extreme, especially in the winter when salt is spread on the road. This salt spray “burns” trees growing close to the road. The pollution from the exhausts of cars acts as a fertiliser when it settles on the verge. This enrichment encourages the growth of competitive grasses.

Most of the transport corridor grassland habitat appears to be species poor, but this could be mainly due to the repeated cutting of these areas. Some areas of verge and bank, such as east of the Lecropt Kirk are species rich with a large number of hybrid northern marsh orchids *Dactylorhiza purpurella* (620 counted in June 2002. J Willet pers. comm.). The whole road verge network is undervalued and poorly surveyed, as it has not been seen as a wildlife habitat. Many of the minor roads have much richer assemblages of wildflowers, as they are managed less and were not seeded, like the more recently constructed roads. The seasonal cutting regime on many verges can mimic traditional meadow management.

Bridges, especially older, stone built ones provide roosting sites for bats and substrate for lichens, mosses, liverworts and ferns. Stone built walls also provide substrate for these plants to grow on and also nesting sites for small mammals and birds (walls, ditches and hedges are covered in the Boundaries HAP). Small mammals such as voles and mice Muridae, favour grass verges as foraging habitat as do their predators kestrels, buzzards and barn owls. Birds such as pied wagtails often forage for insects near roads. Insectivorous birds such as Swifts *Apus apus* and swallows and martins *Hirundinidae* will also use the airspace above transport corridors as feeding grounds.

Large mammals such as badgers and otters may cross roads to access foraging areas, as there may be no other suitable crossing and subsequently become casualties. Red deer *Cervus elaphus* and roe deer *Capreolus capreolus* will feed on the grass on verges in the winter, this is a danger for drivers and deer alike.

## **CURRENT FACTORS CAUSING LOSS OR DECLINE AND FUTURE THREATS**

- Lack of knowledge of the composition, extent and status of roadside habitats.
- Current maintenance regimes – weedkilling, intensity and timing of mowing.
- New planting containing alien and inappropriate species.
- Road realignment and other developments, especially when the existing site is completely flattened, leaving no original vegetation prior to development.
- Reseeding of sites using imported seed rather than allowing areas to regenerate naturally.
- Biodiversity unfriendly landscaping and development e.g. tree planting in grassland of nature conservation value.
- Scrub encroachment on grassland of nature conservation value.
- Spread of invasive species.
- Inappropriate siting and management of street trees.

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- Ground disturbance resulting from cable/ pipe laying or ditching, resulting in damage to grasslands of conservation interest.
- Inappropriate storage of road salt.
- Pollution and litter.

## OPPORTUNITIES AND CURRENT ACTION

- Stirling Council's Access strategy, leading to the formalisation of paths leading to improved management. From this strategy, community path action plans will give local people the opportunity to become involved in the maintenance and management of their footpath network.
- Trunk Roads Biodiversity Action Plan (TRBAP). This requires all contractors responsible for the management of these networks to keep in mind biodiversity during all their operations. The holders of the maintenance contracts on these roads must consult with the LBAPs on the landscape management plans.
- Safer Access to Stations, £2 million project, which includes completing the National Cycle Network from Stirling to Doune.
- Raploch regeneration project and the Forthside development leading to new footpath creation. This can be designed with biodiversity in mind and positive management regimes can be introduced from the outset.
- The current work of the Council's Countryside management team in habitat management on council maintained paths.
- The creation of transport corridors in new developments.
- Cost Effective Landscaping (CEL). This Scottish Executive document contains guidelines for and examples of management of existing habitats and advice on creation of new habitats in new build situations.
- The opportunity to improve the biodiversity of road improvement schemes within existing budgets.
- The adoption of SUDS (Sustainable Urban Drainage Schemes) increasing ephemeral wetland habitat adjacent to transport corridors.
- The Mammal society in conjunction with the Hawk and Owl Trust is undertaking a roadkill survey and a survey of mammals found on trunk road verges.

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This plan was written by Jonathan Willet, Stirling Council Area Biodiversity Officer, on behalf of the Urban and Communities working group, December 2001.