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# ROADSIDE VERGE BIODIVERSITY ACTION PLAN



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## LEAD PARTNER: ARGYLL AND BUTE COUNCIL

The Roadside Verge Biodiversity Action Plan supports Action 2.2 of the Argyll and Bute Council's Biodiversity Strategy and Action Plan.

IMAGE

### 1.0 INTRODUCTION

Argyll and Bute's roadside verges offer an opportunity to conserve and manage a large extent of grassland for a variety of species. They provide an important habitat and corridors for the movement of species, and support a wide variety of plant and animal communities, which are important indicators for the quality of our biodiversity.

The Roadside Verge Biodiversity Action Plan (RVBAP) aims to raise awareness of the biodiversity value of our roadside verges in Argyll and Bute and sets out how they can be managed to maintain their high value, whilst recognising the over-riding importance of road safety. It will be relevant to Argyll and Bute Council Roads Service maintenance staff, term contractors, community councils and, where appropriate, conservation groups. This Biodiversity Action Plan will also ensure that Argyll and Bute Council meets its biodiversity duty under the Nature Conservation (Scotland) Act 2004, the Wildlife and Countryside Act 1981 and the draft Wildlife and Natural Environment Bill.

***“Roadside verges provide an important functional, aesthetic, recreational and biological resource.”***

## **1.1 Functional**

Roadside verges provide screening and a buffer area between the road and surrounding landscape. Roadside verges can be critical to lessening the impact of the road and associated structures, and can also assist with drainage to prevent flooding.

## **1.2 Aesthetic**

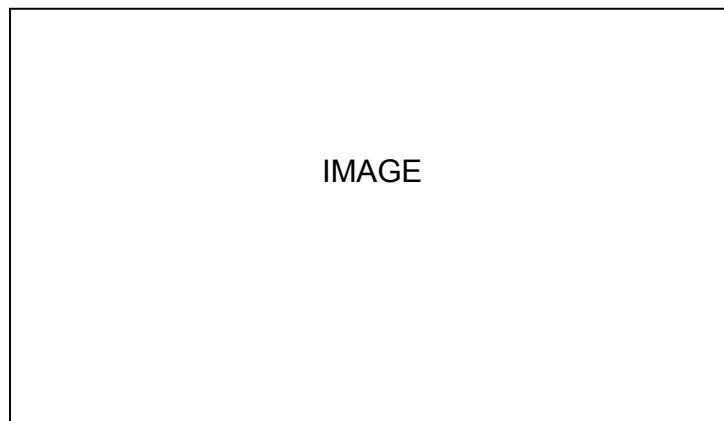
Roadside verges are essential to the character and appearance of the road. Management of roadside verges will often reflect changes from urban to rural areas, for instance in relation to mowing regimes. Major road approaches to towns and cities are seen as 'Gateways' and the character and maintenance of the road will often reflect this status. In rural areas roadside verges can reflect local landscape and vegetation character, and contain important features such as veteran trees. Roadside verges may be used to frame outward views or provide screening of features such as bridges.

## **1.3 Recreational**

Roadside verges provide safe access for pedestrians and may include routes for cyclists and horse riders however drainage offlets may make this hazardous especially if not noticeable due to the length of the grass.

## **1.4 Biodiversity**

Roadside verges support a range of plants and animals, and can link wildlife areas by acting as a wildlife corridor. This can help to ensure the conservation and mobility of species.



## 2.0 SUMMARY

Roadside verges are an important wildlife resource and support a wealth of plants and animals. Argyll and Bute's Roadside verges have significant potential to be improved for biodiversity, but their full value has not been properly assessed. The responsibility for the road side verges in Argyll and Bute is divided between Argyll and Bute Council, who are maintain the local roads, with the trunk roads A82, A83, A828 and the A85 being maintained by Transport Scotland - Transerve the trunk road authority.

The Roadside Verge Biodiversity Action Plan sets out recommendations for:

- Identifying the extent, distribution and biodiversity value of roadside verges managed in Argyll and Bute
- Principles to be adopted for the survey, management and maintenance of roadside verges
- Procedures to ensure Argyll and Bute Council, as the Local Road Authority, meets its legal obligations in respect of species and habitats protected under the Wildlife and Countryside Act (1981) and the biodiversity duty under the Nature Conservation (Scotland) Act 2004
- Procedures to ensure effective communication between those involved in survey and monitoring and those responsible for the day to day management and maintenance of verges
- Opportunities for the involvement of partner organisations and local communities

Objectives, targets and actions set out in this document recognise the overriding importance of road safety.

Note:

Agree on implementing good Practice for grass cutting, scrub cutting and weed killing.

Agree action plan for INNS- can be funded

### 3.0 CURRENT STATUS

What we know of the current status and condition of roadside verges in Argyll and Bute has been gained through different maintenance practices, development for access and road improvements. The changes from the traditional practice of hand cutting of grass verges and removal of cuttings, coppicing and grazing (some unfenced areas) has now been replaced by flail cutting or no cutting at all resulting in a change in the biodiversity of our roadside verges. However, it should be noted that there are other factors that have influenced the quality of our roadside verges, including climate change, changes in farming and crofting practices and Non-Native Invasive Species, with some verges increasing in value as wildlife sites and others losing biodiversity through lack of focussed management.

The variety of plants and animals that are associated with our roadside verges are too many to list. Here are some of the most relevant to Argyll and Bute.

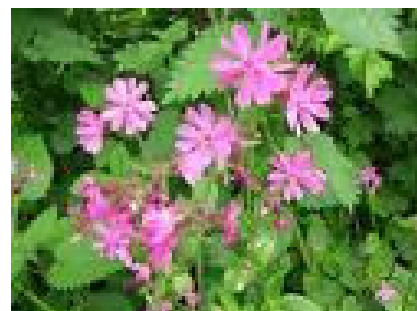
Plants characteristic of unimproved grassland
Bird's foot Trefoil ( <i>Lotus corniculatus</i> ) Common Knapweed ( <i>Centaurea nigra</i> ) Meadow Crane's-bill ( <i>Geranium pratense</i> ) Clover ( <i>Trifolium sp.</i> ) Red Campion ( <i>Silene dioica</i> ) White Campion ( <i>Silene vulgaris</i> ) Hemlock ( <i>Conium maculatum</i> ) Ragged Robin ( <i>Lychnis flos-cuculi</i> ) Common Spotted Orchid ( <i>Dactylorhiza fushsii</i> ) Pyramidal Orchid ( <i>Anacamptis pyramidalis</i> ) Common Ragwort ( <i>Senecio jacobaea</i> ) are some of the species that can also be found on roadside verges in Argyll and Bute.



© Bob Dawson  
Great Yellow Bumblebee on  
Clover



Bird's foot Trefoil



Red Campion

### Animals associated with roadside verges

<sup>1</sup>Bees (<sup>1</sup>*Bombus sp.*) Common Carder Bumblebee, Red Tailed Bumblebee and Early Nesting Bumblebee

Cinnabar Moth (*Tyria jacobaea*)

Field Voles (*Microtus agrestis*)

Rabbit (*Oryctolagus cuniculus*)

Slow Worm (*Anguis fragilis*)

Sparrow Hawk (*Accipiter nisus*)

<sup>1/2</sup>Red, Roe and Sika Deer (<sup>1/2</sup>*Cervus elaphus*, *Capreolus capreolus*, *Cervus nippon*)

<sup>1</sup>Barn Owl (<sup>1</sup>*Tyto alba*)

<sup>1</sup>Kestrel (<sup>1</sup>*Falco tinnunculus*)

<sup>1</sup>Buzzard (<sup>1</sup>*Buteo buteo*)

Frogs and Toads (*Rana temporaria*, *Bufo bufo*)

<sup>1</sup>National Priority Species

<sup>2</sup> Local Priority Species

### Associated Plans:

Where specific habitats occur on roadside verges, specific actions for those habitats are included in the Argyll and Bute Local Biodiversity Action Plan, particularly for:

1. Unimproved Grassland
2. Improved Grassland
3. Species Rich Grassland
4. Peatlands



Unimproved Grassland



Improved Grassland



Peatlands

## 4.0 CURRENT BENEFITS TO THE COMMUNITY

### 4.1 Importance to people

In Argyll and Bute roadside verges reflect the character and vegetation of the surrounding landscape. Throughout Argyll and Bute, the 'Long Acre' (managed by grazing animals) is still relevant in a number of mainland locations with the islands dominating this type of roadside verge management. In urban areas, verges form 'green' corridors contribute significantly to the amenity value and environmental quality of residential areas, as well as acting as vital links for wildlife movement. Verges provide the setting for our roads, and often form the location for footpaths, cycle and equestrian routes. New visitors to Argyll and Bute will see the area for the first time from the road. Verges can be an important part of this first impression, reflecting the character of the local area, framing views and provide screening.

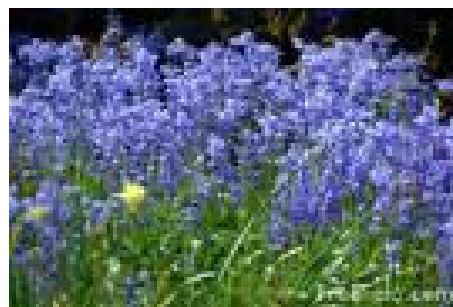
The roadside verges on the approaches to towns and through villages provide important gateways. The local community can influence the Local Authority to cut the grass or give permission for community groups to carry out enhancements such as bulb planting, putting in containers and tree planting using volunteers. Some residents see the verge fronting to their property as an extension of their garden and will mow the grass and plant bulbs and non-native shrubs. These can be a problem if left unmanaged.

#### Case Studies:

##### Kintyre Project

##### Bluebells at Ganavan

Text



## 5.0 FACTORS AFFECTING THE HABITAT

The biodiversity value of road verges will be influenced by a range of activities associated with the use, operation and maintenance of the road. Factors that can contribute to loss and decline in the biodiversity value of road verges nationally include:

### 5.1 Road Improvements

- Inadvertent damage to habitats or impacts on protected species due to lack of survey data / local knowledge
- Road improvements and associated development such as road widening resulting in a reduction in the extent of the highway verge
- Conversion of soft verge to hard surface to provide footways / cycleways or reduce annual maintenance costs
- Landscape improvement designed to improve appearance or provide screening may result in the loss of semi natural habitat or result in soil enrichment, which encourages less desirable vigorous species
- Disturbance to vegetation and road verge habitats as a result of works such as cabling and poor re-instatement
- Inappropriate restoration and seeding of damaged / disturbed areas, including the use of 'foreign' strains of native species
- Inappropriate tree planting, particularly where carried out in areas of species rich grassland, and use of trees not indigenous to locality



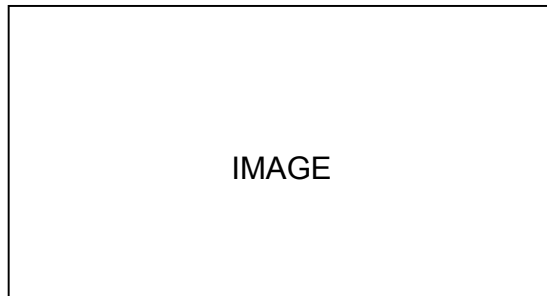
### 5.2 Traffic and Road Management

- Dumping of spoil and storage of road materials such as road grit and salt
- Traffic accidents
- Pollution of roadside habitats from road run-off and traffic fumes
- Modification of roadside ditch systems and/or insensitive ditch maintenance
- Salt pollution/salt spray, which can prove toxic to many plants can result in undesirable vegetation changes, including an increase in salt tolerant species
- Road kill impact on migrating and mobile species
- Poor timing of works inadvertently leading to harm or loss of species, such as scrub removal during the bird nesting season, cutting flowering plants during the flowering season thereby reducing nectar sources for Bee's and other invertebrates and reducing the seed source
- Storage of materials or machinery



### 5.3 Roadside Verge Management

- Use of pesticides/herbicides/growth retardants (including spillages or drift).
- Inappropriate timing, frequency and extent of grass cutting
- Flailing of vegetation to prevent overhang and blocking of sight lines
- Loss of grassland habitat due to invasion by trees and scrub
- Ditches silting up, which impedes efficient drainage
- Spread of injurious and noxious weed species on road verges. A list of these species appears in (Appendix I)
- An increase in undesirable non-native invasive species such as Japanese Knotweed, Himalayan Balsam, Rhododendron ponticum, Giant Hogweed and many garden escapees. (Appendix II)



### 5.4 Other Factors

- Runoff and drift from adjacent agricultural land
- Encroachment onto the roadside verge by adjacent landowners / land uses
- Unauthorised or inappropriate maintenance of road verges by adjacent land occupiers
- Unauthorised parking of vehicles on verges resulting in rutting and compaction
- Failure to identify designated roadside verges before work takes place.
- Failure to consider presence of protected / rare species before work takes place
- Fly tipping
- Conflict of ideas about the management of unenclosed land that is managed a roadside verge, but doesn't belong to the Council.

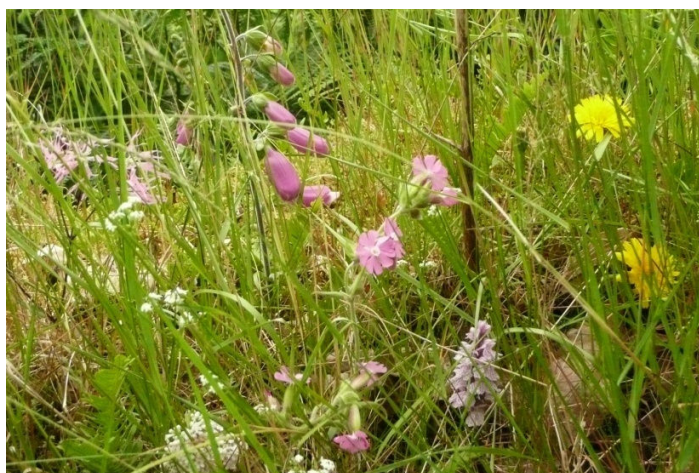


## 6.0 POTENTIAL

Road verges have the potential to contribute significantly to the biodiversity resource of Argyll & Bute by offering opportunities for habitat protection, creation and enhancement. Road verges can be important corridors and can help to improve the connectivity of habitats within the surrounding landscape.

There is potential to get the community involved in monitoring and managing conservation verges as part of a community wildlife initiative. The potential improvement of the biodiversity value of roadside verges will be dominated by the need to maintain road safety. It is essential that the Roadside Verge Biodiversity Action Plan does not conflict with this overriding objective. The characteristics and biodiversity value of the verges will be influenced directly and indirectly by a whole host of factors, including:

- Underlying geology and soils
- Local variations in topography and aspect (cutting slopes, embankments, central reserves, drainage, etc)
- Verge management and maintenance regimes
- Level of traffic use and other highway maintenance operations
- Highway improvement schemes providing opportunities for habitat creation
- Fertiliser and pesticide use in adjacent fields



**Marina, I had a job getting anything from the internet that related to Argyll. This is a picture of roadside verge in Cladich! Don't know if it is any good for you if not you can delete!**

## 7.0 INTERNATIONAL/NATIONAL STATUS

Although not covered by the national biodiversity guidelines, the regional importance of roadside verges both as a total area of grassland habitat and as a refuge for rare species has led to the production of this action plan.



## 8.0 ROAD VERGES OBJECTIVES AND ACTIONS

### Overarching Objective

Achieve a balance between the primary function of safety on the road network and opportunities for professional and community involvement in wildlife conservation and enhancement under a 'BEE Nice' Initiative.

#### Abbreviations:

INNS= Invasive Non Native Species

RVBAP – Roadside Verge Biodiversity Action Plan

	OBJECTIVE	ACTION	Local Authority	Service	TARGETS
<b>8.1</b>	<b>Policy and Legislation</b>				
	<b>Objective One:</b> Ensure that RVBAP species and their habitats are given an appropriate level of protection in local plans	Include habitat and species protection policies in local plans and/or supplementary guidance	Argyll and Bute Council	Development Services to consult Operational Services	Current Local Plan in place (Policy LP ENV 2)
	<b>Objective Two:</b> Support the UK and Argyll and Bute LBAP	Monitor any BAP species and habitats relevant to the UK and Argyll and Bute.	Argyll and Bute Council	Development Services to consult Operational Services	Ongoing, review every 5 years
	Identify mechanisms and measures for surveying, mapping and monitoring so that the local road authority can carry	1. Identify, survey, map and monitor verges of biodiversity interest and where INNS occur <sup>1</sup>	Argyll and Bute Council and Community Councils	Local Biodiversity Officer and Horticultural Officer in consultation with Operational Services-Roads	Annual meeting to investigate opportunities for inclusion in the Roadside Verge Management plan

<sup>1</sup> Cycling Squads Article

	<b>OBJECTIVE</b>	<b>ACTION</b>	<b>Local Authority</b>	<b>Service</b>	<b>TARGETS</b>
	out work that will conserve and enhance biodiversity on the road network and adjoining areas	<p>2. Pilot study to develop Good Practice information and posted on the Argyll and Bute Council website.</p> <p>3. Ensure that members of the public can report issues relating to the Roadside Verge Biodiversity Action Plan through the Argyll and Bute Council website and Argyll and Bute Biodiversity Partnership website  <a href="http://www.argyll-bute.gov.uk">www.argyll-bute.gov.uk</a>  <a href="http://www.argyll-bute.gov.uk/biodiversity/">www.argyll-bute.gov.uk/biodiversity/</a></p>			Propose student summer job
	<b>Objective Three:</b> Ensure development plans contain policies to promote the protection and management of roadside verge habitat	Achieve a balance between the primary function of safety on the road network and opportunities for wildlife conservation and enhancement on new roads, entrances	Argyll and Bute Council	Development Services- Planning	ongoing

	<b>OBJECTIVE</b>	<b>ACTION</b>	<b>Local Authority</b>	<b>Service</b>	<b>TARGETS</b>
		and improved access and sight lines			
<b>8.2</b>	<b>Site Safeguard and Management</b>				
	<b>Objective Four:</b> Encourage Roads Services and owners/occupiers to operate good practice in roadside verge management	Ensure Roadside Verge Management Good Practice Guidance is available on the Argyll and Bute Council website and notice of this information is circulated to all organisations who operate on roadside verges Develop Good Practice Guidance for website.	Argyll and Bute Council	Operational Services and Local Biodiversity Officer	By 2010
<b>8.3</b>	<b>Advisory</b>				
	<b>Objective Five:</b> Review and update advice on management practices for roadside verges	1. Liaise with Transport Scotland for advice 2. Interpret advice for local road application	Argyll and Bute Council	Development Services to consult Transport Scotland and Operational Services	By 2012  Ongoing
	<b>Objective Six:</b> Cost and prioritise conservation management work on selected	Develop and cost management works. West Kintyre Way	Argyll and Bute Council	Operational Services	By 2010

	<b>OBJECTIVE</b>	<b>ACTION</b>	<b>Local Authority</b>	<b>Service</b>	<b>TARGETS</b>
	routes/sites				
<b>G</b> <b>B</b>	<b>Objective Seven:</b> Promote good practice in roadside verge management for interested partners with the use of demonstration verges by site visits	Select demonstration verges and publish findings.	Argyll and Bute Council	Operational Services and community groups. Consult Local Biodiversity Officer.	By 2011
<b>8.4</b>	<b>Monitoring and Research</b>				
	<b>Objective Eight:</b> Investigate roadside verge survey and monitoring project to enable site selection	Monitor the management and quality of roadside verges demonstration sites every 5 years	Argyll and Bute Council	Operational Services Development Services	Throughout Action Plan Period
	<b>Objective Nine:</b> Raise awareness amongst the public about the importance of roadside verges	<ol style="list-style-type: none"> <li>1. Produce information and put on website (see 8.2)</li> <li>2. Articles and use the A&amp;BC website.</li> <li>3. Map designated Protected Wildflower Verges and put on Argyll and Bute Council Website.</li> </ol>	Argyll and Bute Council	Operational and Development Services Communications Operational Services and Community Groups	By 2010  Ongoing
	<b>Objective Ten:</b> Raise awareness of the importance of	Ensure all relevant organisations are supplied with Road			2010

	<b>OBJECTIVE</b>	<b>ACTION</b>	<b>Local Authority</b>	<b>Service</b>	<b>TARGETS</b>
	road verges amongst Operational Services, owner/occupiers, developers and utilities	Verge Management Guidance (See 8.2)			
	<b>Objective Eleven:</b> Publicise the progress made in delivering this Action Plan in an Annual Report	1. Draft report. Format to be developed by the Local Biodiversity Officer 2. Present the report to the Environment PPG	Argyll and Bute Council	Operational Services to provide an update to the Local Biodiversity Officer	Annual



## APPENDIX I – UK Legislation on Noxious Weeds

Legislation is surprisingly limited in the area of Noxious Weeds.

**The Weeds Act 1959** is the earliest, which lists noxious weeds whose spread must be controlled.

Included under this Act are:

- Common Ragwort (*Senecio jacobaea*)
- Broadleaved Dock (*Rumex obtusifolius*)
- Curled leaved Dock (*Rumex crispus*)
- Spear Thistle (*Cirsium vulgare*)
- Creeping Thistle (*Cirsium arvensis*)
- \*Giant Hogweed (*Heracleum mantegazzianum*) is a NNIS

They are all native species except Giant Hogweed, but were deemed problematic in the post war drive for agricultural efficiency and self sufficiency in food.

## APPENDIX II – INVASIVE NON-NATIVE SPECIES

Terrestrial Plants	Aquatic Plants & Algae	Invertebrates	Vertebrates
Rhododendron ( <i>Rhododendron ponticum</i> & hybrids)	Water Primrose ( <i>Ludwigia grandiflora</i> )	Gyrodactylus salaris	American Mink ( <i>Mustela vison</i> )
Japanese Knotweed ( <i>Fallopia japonica</i> )	Fanwort ( <i>Cabomba caroliniana</i> )	North American Signal Crayfish ( <i>Pacifastacus leniusculus</i> )	Asian Topmouth Gudgeon ( <i>Pseudorasbora parva</i> )
Himalayan Balsam ( <i>Impatiens glandulifera</i> )	Large Flowered Waterweed ( <i>Egeria densa</i> )	Zebra Mussel ( <i>Dreissena polymorpha</i> ).	Ruddy Duck ( <i>Oxyura jamaicensis</i> )
Giant Hogweed ( <i>Heracleum mantegazzianum</i> )	Floating Pennywort ( <i>Hydrocotyle ranunculoides</i> )	Chinese Mitten Crab ( <i>Eriocheir sinensis</i> ).	Minnows ( <i>Phoxinus phoxinus</i> )
Common Cord-grass ( <i>Spartina anglica</i> )	Australian Swamp Stonecrop ( <i>Crassula helmsii</i> )	Slipper Limpet ( <i>Crepidula fornicata</i> )	Ruffe ( <i>Gymnocephalus cernuus</i> )
	Parrot's Feather ( <i>Myriophyllum aquaticum</i> )	Didemnum Tunicates / Sea Squirts ( <i>Didemnum vexillum</i> )	Orfe (( <i>Leuciscus idus</i> ))
	Water Fern ( <i>Azolla filiculoides</i> )		Bullhead ( <i>Cotus gobio</i> )
	Nuttall's Pondweed ( <i>Elodea nutallii</i> )		
	Canadian Pondweed ( <i>Elodea canadensis</i> )		
	Curly Waterweed ( <i>Lagarosiphon major</i> )		
	Wireweed ( <i>Sargassum muticum</i> )		