

Built and Developed Environment

UBE1



DUNDEE LAW

DEFINITION

Built up areas and greenspace are intrinsically important for biodiversity, providing a contact between people and the places they are familiar with or explore from home. All urban areas within Tayside will be included within this Habitat Action Plan – from small villages to larger towns and cities.

Managed greenspace includes parks, gardens and amenity greenspace, civic space, children's play areas, sports facilities, natural and semi-natural greenspaces, allotments, graveyards and cemeteries. Transport corridors and residential areas are also included, as are private gardens which provide invaluable urban space for wildlife.

Many of these will be subject to separate Habitat Action Plans, including:

- Businesses with Land;
- Golf Courses;
- Hospitals, Sheltered Housing and Nursing Homes;
- School, College and University Grounds;
- Urban and Community Woodland;
- Burial Grounds (Kirkyards and Cemeteries);
- Urban Waters.

CURRENT STATUS AND EXTENT OF HABITAT

Tayside is home to over 385,000 people and more than three quarters of them live in an urban environment. They come into contact with various types of managed greenspace which include:

- approximately 1,950 hectares of parks and open space;
- 440 ha. of school grounds;
- over 400 playgrounds;
- 223 cemeteries.

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Derelict and vacant land also provides shelter for wildlife and in Tayside it is estimated there is some 700 ha. that come into this category.

All of these areas provide havens for a rich variety of biodiversity and excellent educational opportunities.

NATURE CONSERVATION IMPORTANCE

Urban areas offer a mosaic of habitats suitable for an unexpectedly large variety of wildlife. Many buildings offer important roost sites for swifts, house martins and bats. Some urban industrial buildings offer sites for kestrels, barn owls and peregrine falcons. Buildings, old walls and bridges can all support bats, bees and beetles, as well as lichens and mortar-loving plants such as wall rue.

Railway and roadside verges provide habitats for a range of species associated with grassland and woodland. Railways and roads, as well as rivers and burns can facilitate the spread of both native and non-native species. Some invasive species such as Giant hogweed and Japanese knotweed cause problems to the native flora.

Private gardens are an important resource for biodiversity, creating a web of wildlife corridors which enable many species to colonise other areas.

Greenspaces within towns and villages often support species commonly found in the wider countryside such as uncommon grassland flowers and a number orchid species.

KEY SPECIES

(those marked * are non-native invasive species) **P** = UK Priority species **C** = UK species of conservation concern

Mammals	Pipistrelle bat	<i>Pipistrellus pipistrellus</i>	P
	Brown long-eared bat	<i>Plecotus auritus</i>	C
	Hedgehog	<i>Erinaceus europaeus</i>	C
Birds	Song thrush	<i>Turdus philomelos</i>	P
	House sparrow	<i>Passer domesticus</i>	
	House martin	<i>Delichon urbica</i>	C
	Swift	<i>Apus apus</i>	
	Moorhen	<i>Gallinula chloropus</i>	
	Heron	<i>Ardea cinerea</i>	
	Tawny owl	<i>Strix aluco</i>	C
	Kestrel	<i>Falco tinnunculus</i>	C
Amphibians and Reptiles	Common toad	<i>Bufo bufo</i>	C
	Common frog	<i>Rana temporaria</i>	C
Fish	Brown trout	<i>Salmo trutta</i>	
Invertebrates	Ringlet butterfly	<i>Aphantopus hyperantus</i>	
	Meadow brown butterfly	<i>Maniola jurtina</i>	
	Red admiral butterfly	<i>Vanessa atalanta</i>	
	Peacock butterfly	<i>Inachis io</i>	
	Painted lady butterfly	<i>Vanessa cardui</i>	
	Orange tip butterfly	<i>Anthocharis cardamines</i>	
	grasshoppers, damselflies and dragonflies		
	New Zealand flatworm	<i>Artioposthia triangulata</i>	*

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Plants	Ox-eye daisy	<i>Leucanthemum vulgare</i>	
	Northern marsh orchid	<i>Dactylorhiza purpurella</i>	
	Wall rue	<i>Asplenium ruta-muraria</i>	
	Common knapweed	<i>Centaurea nigra</i>	
	Rosebay willowherb	<i>Chamerion angustifolium</i>	*
	Giant hogweed	<i>Heracleum mantegazzianum</i>	*
	Japanese knotweed	<i>Fallopia japonica</i>	*
	lichens fungi		

NATIONAL BIODIVERSITY CONTEXT

There is a UK Broad Habitat Statement for urban areas, which has the following objective:

Maintain the existing diversity and extent of wildlife in all urban areas, expanding the range and distribution of rare and common species and enabling this resource to be utilised as an educational tool.

Measures to be considered nationally include:

- Survey and evaluate the full range of urban habitats (including buildings) in terms of their importance in maintaining wildlife interest;
- Protect sites important for wildlife from inappropriate development;
- Encourage the integration of green networks (including a full range of wildlife habitats) in planning and developments within the urban environment;
- Implement strategies to enable the use of vacant and derelict land, either temporarily or permanently, as wildlife habitats;
- Incorporate the conservation and enhancement of wildlife into the design and management of urban Greenspace;
- Encourage community and individual action to survey, plan for and manage urban wildlife habitats;
- Promote wild space in urban areas as an educational resource to inform communities about local wildlife in the context of the wider environment;
- Expand the range and distribution of wildlife found in urban areas through sympathetic management;
- Ensure 50% of all urban wildlife areas are under sympathetic management, at the same time as increasing the extent of the wild areas and diversity of species within these areas - by 2005.

ECOLOGY AND MANAGEMENT

Urban and built up areas contain a surprisingly large number of native species. Pipistrelle bats *Pipistrellus pipistrellus* tend to use man-made structures such as modern houses and bridges for roosts, whereas Brown long-eared bats *Plecotus auritus* favour older houses and buildings. House martins *Delichon urbica* and Swifts *Apus apus* rely heavily on man-made structures too – thus adding to the diversity of this, the most familiar and least natural of all our habitats.

Roadside verges and urban railways vary tremendously in the type of habitats they provide for many species. Although these habitats are largely grassland orientated, they are often associated with hedges, trees, bare soil and walls. For the most part these are the widespread and common species, but they can also include rare natives, together with a large

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proportion of naturalised plants. As a linear habitat, urban road and path verges facilitate the distribution of newly-colonising species, as do railways, motorways, and trunk roads. Additional information will be included in a future Roads and Paths Habitat Action Plan.

Derelict or disturbed land tends to favour 'pioneer species'. These include annuals such as Shepherd's Purse *Capsella bursa-pastoris* and the Bittercresses *Cardamine spp.*, through the various grasses and Willowherbs *Epilobium spp.* to the primary woodland species of Birch *Betula pendula* and Rowan *Sorbus aucuparia*. These rapidly establish themselves and equally rapidly spread and set seed. Often the short lifespan of these wildlife areas does not allow species to settle or for a wider mix of animals and plants to get established. The transitional nature of these sites means that management needs to reflect their future development potential, but their relative importance can be judged by their inclusion as community descriptions in the National Vegetation Classification. Although such sites increase the options for urban wildlife and can be beneficial in the short-term, they are no substitutes for properly managed greenspace.

Nationally, there has been a significant decrease in the number of farm and natural-edged garden ponds with the subsequent decline or loss of species such as Common frog *Rana temporaria* and Pillwort *Pilularia globulifera*. The Tayside region does, however, have a number of old mill ponds that have great potential as superb wildlife sites. Dundee's Trottick Ponds Local Nature Reserve is one such example. Further information will be available in the forthcoming Ponds, Pools and Lochans Habitat Action Plan.

Historically, urban rivers and burns have been canalised with their banks invariably encased in concrete. This has impeded the spread of such native species as Water vole *Arvicola terrestris* and is a danger to birdlife who cannot access the water safely, nor utilise the banks as breeding sites. Where it is inappropriate to return the watercourse to its natural banking a variety of soft-engineering options can now be deployed which often have a visual benefit as well as being effective in flood prevention projects. Returning to natural banking or implementing the soft-engineering options can be extremely advantageous to wildlife with a very wide diversity of species directly benefiting. It should be noted, however, that excessive removal of debris can also have a very damaging effect on local urban waters and must be monitored carefully. The subject of urban watercourses will be more fully covered in the Urban Waters Habitat Action Plan.

The numbers of species in urban areas is greatly enhanced by non-native trees, shrubs and plants used in parks and gardens, together with the presence of many inadvertently introduced pests and weeds. Britain's 14.5 million private gardens, however, represent the biggest potential natural areas in the country, but a high usage of chemicals and an over-tidy attitude can have an equally adverse affect. There are many initiatives to encourage the planting of butterfly, bat and bird-friendly shrubs and plants and to generally make room for wildlife by providing a variety of nestboxes or suitable hibernation sites for hedgehogs and toads.

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RSPB

Song Thrush

It has been proposed that the poor survival of many song thrushes beyond their first year may be caused by the ingestion of molluscicides.

In high density housing areas, the smaller garden sizes can be offset by enhancing the surrounding public greenspace. In some cases elsewhere in Scotland tower block communities have taken over the responsibility of managing their surroundings by planting wildflower meadows, community orchards and areas of butterfly-friendly shrubs which they then manage accordingly. It has been proven that other members of the community rarely damage such areas as so many people of all ages are involved in the decision-making and practical work. The same goes for enhancing school grounds. Numerous projects are currently underway in which pupils, staff and parents are involved in creating school gardens, woodlands and orchards with linkages between community and curriculum.

CURRENT FACTORS CAUSING LOSS OR DECLINE

DEVELOPMENT – new building (for housing, industrial or retail), including in-fill development within extensive garden ground, green belt and open space, can result in the fragmentation, disruption and occasional total destruction of wildlife habitats. Mature trees and established hedgerows, species-rich grasslands, rivers, burns and wetlands tend to be the most affected. Planning can take into consideration the wider implications of new developments ensuring that wildlife corridors are retained or introduced in new plans for industrial sites, retail parks and residential areas. Greenspace policies can be reconsidered to include community woodlands, wildflower areas, community orchards that preserve local heritage varieties of fruit, and stands of native trees.

New approach – better planning with positive measures to conserve the biodiversity within the newly developed site, protection of remaining wildlife sites, increase in the quality and quantity of greenspaces, identification of priority habitats, habitat creation, linking Tayside Biodiversity Action Plan projects to key sites – and setting up good practice demonstration sites. Priority should be afforded to development of brownfield sites. This will be delivered through appropriate provision and understanding of biodiversity in Structure Plans, which set the framework for Local Plans. In addition, where there is a development requiring an Environmental Impact Assessment appropriate consideration will be given to the nature, scale and quality of biodiversity to be affected.

PUBLIC AND PRIVATE BUILDINGS – many species from Swifts and bats to masonry bees and wall-loving plants can be put at risk – birds are often prevented from nesting on buildings; bat colonies can be destroyed by inappropriate use of roof treatment chemicals or trapped when routine maintenance work takes place on buildings or on bridges.

New approach – guidance should be given to safeguard swifts, swallows and house martins, together with awareness-raising to protect all bat species. When renovation of buildings (including listed buildings) is undertaken, encouragement should be given for any re-pointing carried out to be done in lime mortar, where appropriate, so as not to exclude masonry bees. Where possible, retention of lime-loving plants such as ferns, liverworts and mosses should also be considered.

Case Study**Dundee's Green Space**

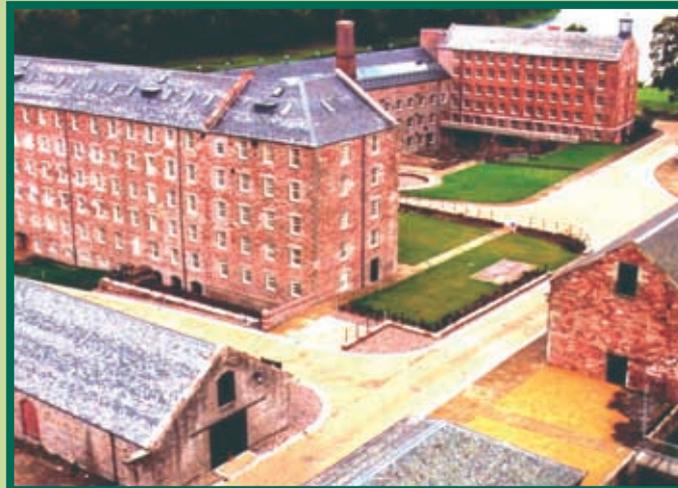
Dundee City Council is unique in that it was the first local authority in the UK to adopt an "Urban Nature Conservation Subject Local Plan" (UNCSLP). This has raised the profile of nature conservation both within the Council and the city itself. The land use aspects of the UNCSLP will be rolled into the Review of the Dundee Local Plan to achieve better integration between development and local biodiversity.

The City Council has also produced an Open Space Strategy, which puts forward a broad vision for parks, play areas, open spaces and wildlife sites based on promoting a high quality of life and a sustainable urban environment. The Strategy proposes a system of accessible open spaces to meet a wide range of social, environmental and economics needs. An Urban Woodland Strategy will also give a long-term focus for enhancing existing woodland and planting new woods.

Case Study

A Swift Response to help Wildlife

Historic Scotland's innovative restoration of Stanley Mills, Perthshire, incorporated nest spaces under the eaves of the roof for its already-resident colony of swifts. The liaison between Historic Scotland, its project architect and the organisation Concern for Swifts (Scotland) led to a 'Swifts in Historic Buildings' Advice Note being written and made available.



HISTORIC SCOTLAND

Case Study

Brechin Nature Trail

The Brechin Nature Trail is a linear trail bordered by housing estates and a primary school and running adjacent to a railway line which is used by the Caledonian Steam Railway Association most Sundays.

The railway line and trail are bordered by a mixture of mature broadleaf trees that are encroaching on to the path and, in certain areas, on to the railway line. A partnership between the Caledonian Steam Railway Association and Angus Council's Ranger Service and Arboricultural Officer will enable the trail to be extended.

An environmental audit of the area will be carried out and a management plan drawn up.

Improvements will range from selective thinning and pruning of existing trees to planting native trees and hedgerows to increase the site's biodiversity. Fencing will also be included to improve health and safety and to discourage informal access along the trail.

To ensure local ownership and pride in the project the adjacent primary school and local community groups will be encouraged to help plant trees and in constructing and siting bird and bat boxes.



ANGUS COUNCIL

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TRANSPORT CORRIDORS - bypasses and road straightening/widening all cause direct physical damage to wildlife habitats with the additional increase of animal roadkills from high-speed traffic.

New approach – sympathetic management of existing road corridors, sensitive planning of routes, better habitat creation and enhancement along road corridors, better fencing, introduction of animal underpasses or overpasses and wildlife scaring devices.

POLLUTION from vehicle exhausts, herbicides, industrial leakage, oil and salt from the road surface to watercourses has a direct impact on wildlife, including native trees, amphibians, invertebrates and birds.

New approach – Highlight good practice through awareness-raising/education projects, assessment of Local Authorities' policies for salt-spreading during the winter and overall use of herbicides; encouragement for improved technology of industrial processes and better pollution warning systems.

SEMI-NATURAL PLACES now support wildlife marginalised from intensively used farmland or development. Wastelands support rare solitary bees and invertebrates which rely on undisturbed soil and sandy outcrops. A variety of wildflower colonies will also occur which can include both invasive species and endangered plants such as orchids. Neglect of these sites will cause scrub invasion that can then mature into woodland. Whilst not always inappropriate, in some cases important populations of species needing more open ground, such as warblers and skylarks, can be lost.

New approach – Local Authorities and local communities need to highlight what semi-natural habitats they have, their proposed future use and their current management. Local Authorities need to assess resources available to ensure that urban wildlife sites are managed for biodiversity.

Case Study

Craigie Burn, Perth

The Craigie Burn is a small tributary of the River Tay. The flood prevention works which started in 1999 provided the opportunity to visually enhance the burn to the benefit of both local residents and wildlife. Community involvement was an essential part of the project; a Volunteers Day attracted 20 people to directly play a part in habitat enhancement.

A partnership approach enabled soft engineering solutions to flood alleviation and at the same time created an attractive wildlife habitat. The original wide rectangular channel was altered into a narrower, more natural channel which will allow water to flow faster and cleaner during normal flows; this will also attract various invertebrates, including Mayflies.

New banking was constructed in an undulating manner to give a more natural shape. The bank was stabilised with mesh netting and a mixture of topsoil and sub-soil incorporating a wildflower and grass mix. Seeds included Common Mallow, Great Willowherb and Lesser Burdock; all of these wild flowers will attract bees and butterflies.

The shelf was stabilised with coconut fibre placed in the water and secured with wooden stakes. Wetland plants such as Yellow flag, Meadowsweet and Sedges were planted. This type of habitat will attract a rich diversity of species and may well encourage the return of the long-absent Water Vole to a Perth burn.



PERTH & KINROSS COUNCIL

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LITTER – direct effects on small mammals (including hedgehogs and moles) becoming trapped in discarded cartons and bottles, or birds being hanged or choked by plastic beer can carriers, or disabled owing to plastic fibres wrapping around their legs.

New approach – link with awareness raising campaigns, locally and nationally, by highlighting the impact of litter on biodiversity.

INVASION OF NON-NATIVE SPECIES – the New Zealand Flatworm *Artioposthia triangulata* can cause the eradication of native earthworms and therefore has a direct impact on soil fertility and mammals such as moles. A significant percentage of the wild flowers growing in semi-natural places include invasive species such as Himalayan Balsam *Impatiens glandulifera*, Monkey flower *Mimulus guttatus*, Giant Hogweed *Heracleum mantegazzianum* and Japanese Knotweed *Fallopia japonica*. All these impact on the native biodiversity and have a serious detrimental effect.

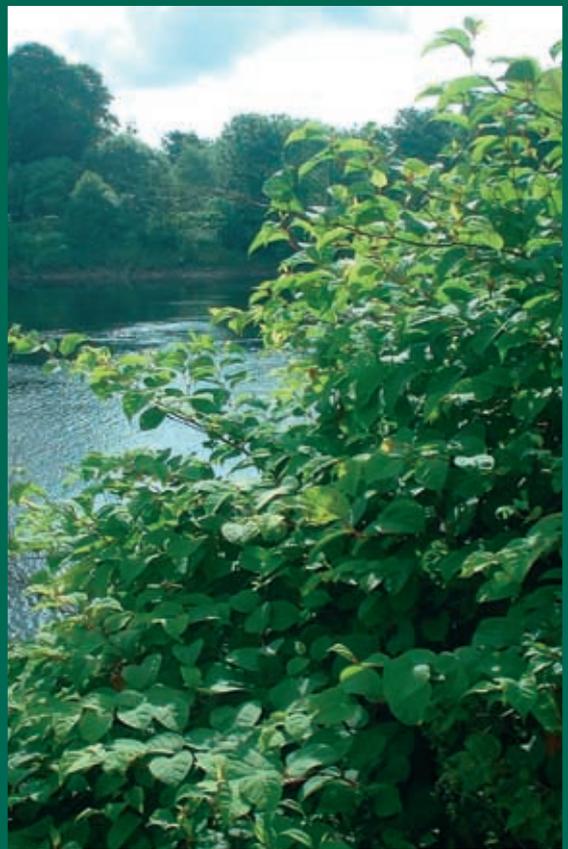
New approach – a consensus is required on how to control the various invasive species and who can take on such work.

Japanese Knotweed

This plant, regarded as the most invasive plant in Britain, was introduced to this country in 1825 as a garden and fodder plant. It was first recorded growing wild in Wales in 1886 and has since become widely established throughout the UK.

It forms dense thickets of growth which suppress other plant species, resulting in loss of wildlife habitat. It is often spread by the movement of soil containing rhizome fragments so is particularly prevalent in urban areas. In Tayside it is also widely found on many rural riverbanks. Because the plant dies back in winter, dense thickets along watercourses can also increase the risk of bank erosion.

It is an offence under the Wildlife & Countryside Act 1981 (as amended) to plant or cause Japanese Knotweed to grow in the wild. Eradication is impractical, but its removal from sensitive sites is recommended. However, non-chemical control is very labour intensive and needs to be managed carefully and any herbicide usage near water must be requested first from SEPA.



SEPA

PESTICIDES – over-use of chemicals to control insects and weeds seriously impacts the diversity of wildlife throughout the urban area. Over-tidying of gardens and public places, coupled with the increased use of all kinds of chemicals is causing huge decreases in invertebrate and bird numbers. Inappropriate woodworm treatment in attics can destroy bat colonies.

New approach – individual householders can reduce the amount of chemicals used. Information can be made available at point source, e.g. garden centres. Landowners, including local authorities, golf courses and retail/business units should also assess their need for pesticides. Awareness can be raised to show that a more natural approach to urban landscape is not a lack of management, but a change in management.

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USE OF PEAT – mechanical peat extraction has caused serious deterioration in bog habitats throughout Britain. The extensive use of the resulting product for horticultural purposes is causing commercial companies to look beyond our shores for cheaper peat.

New approach – the Tayside Raised Bogs Habitat Action Plan proposes that all Tayside Biodiversity Partners adopt and implement a peat-free policy by 2005. As there is now a wide choice of alternatives to peat, individual householders, businesses, hospitals and schools can significantly reduce their use of peat (or choose to become peat-free) in both indoor and outdoor plantings.

WILDLIFE CRIME – although there are instances of birds, badgers and feral cats being purposely killed, many people still collect eggs, uproot wildflowers and kill insects. Species such as house martins and bats are often perceived as 'pests' and illegally excluded from private houses and public buildings.

New approach – efficient policing and the proposed change in legislation are required to deter deliberate killings (raising awareness of Wildlife Liaison Police Officers), but general education is necessary to prevent ignorance.

Case Study

Making Friends with Your Environment

The Dundee Educational Development Service has run the 'Making Friends With Your Environment' exhibition every year since 1990. Between 1990 and 2001 more than 9,000 pupils from 96 schools have taken part.

The exhibition raises awareness of the environment for upper primary pupils and teaching staff in Dundee and some Angus schools. The pupils take part in all kinds of activities from planting seeds and looking at live mini-beasts from a local burn, to finding out what happens to waste flushed down the toilet or trying their hand at a traditional craft such as felt-making.

A wide Partnership is involved and includes the Dundee City Council and Angus Council Ranger Services, Scottish Natural Heritage, the Scottish Environment Protection Agency, RSPB, Scottish Water, Tayside Police Wildlife Liaison, the Scottish SPCA, Scottish Wildlife Trust, the Scottish Crop Research Institute, and the Broughty Ferry Environmental Project.

MAIN THREATS TO KEY SPECIES

Bat Species (Pipistrelle, Brown Long-Eared)	Destruction of existing wildlife corridors (especially hedges and treelines) which impede feeding. Inappropriate maintenance or renovation of buildings and bridges. Inappropriate use of woodworm treatment in roofs.	
	UK Importance of Tayside population:	high
Common Frog	Loss of habitat through infilling or inappropriate management of ponds. Introduction of fish to ponds and pools, sometimes for angling purposes. Increased mortality as a result of increased road traffic.	
	UK Importance of Tayside population:	unknown
Swift	Loss of nest sites owing to modern building practices Loss of nest sites owing to exclusion from traditional sites	
	UK Importance of Tayside population:	unknown

OPPORTUNITIES AND CURRENT ACTION

A lot of activity is already under way particularly by small community groups keen to take a lead in improving their own local area. For instance:

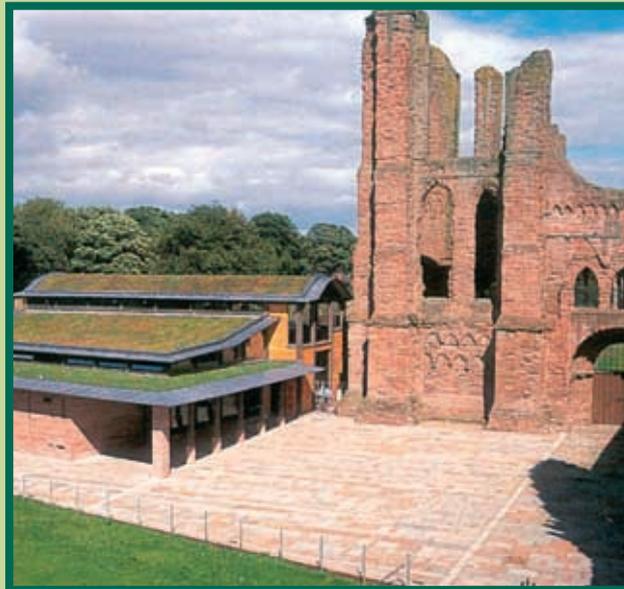
- The Broughty Ferry Environmental Project is running its own Swift, Swallow and House Martin Survey, as well as making and putting up bird boxes and arranging local library displays.
- The Murroes Community Council is considering planting a community orchard which will involve the local school and residents alike. They also want to assist with a variety of wildlife surveys.
- Oakbank Primary School in Perth developed an unwanted area of ground into an Infant Garden through the enthusiasm of teachers, parents and pupils. The garden, which has conservation, sensory, wildlife and recycling areas, is of great benefit as a teaching resource.

Many Council Services make decisions that directly affect biodiversity. There are also increasing opportunities within the local authorities to link biodiversity initiatives with LA21 projects, community planning and community learning plans. To highlight the success stories within each Tayside local authority and to give examples of what can be achieved within each department, a 'Guide to Incorporating Biodiversity into Local Services' has been prepared and circulated.

Case Study**A Green Roof fit for a King**

Arbroath in Angus holds a very special place in Scottish history. Its abbey was founded in 1178 and in 1320 Scotland's nobles affirmed their allegiance to Robert the Bruce as their King by signing the 'Declaration of Arbroath'. Today the abbey is a major tourist attraction run by Historic Scotland.

The need for a new visitor centre to abut such an important site led to the commissioning of a company of Edinburgh-based architects. The design brief was for the building to be as sustainable as possible and its visual impact negligible so as not to detract from the abbey. The unusual sedum roof is not only a green choice, but when flowering it will enhance the biodiversity of the immediate area by attracting hoverflies and a variety of butterflies.



HISTORIC SCOTLAND

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OBJECTIVES AND TARGETS

	Objectives	Targets
1	Encourage the integration of open space networks, including green access corridors, in planning urban renewal or development projects within the urban environment	
2	Incorporate the conservation and enhancement of wildlife into the design, management and maintenance of urban greenspace	Set up or encourage initiatives to enhance the biodiversity of local school and university grounds, allotments, community orchards and woodlands, public parks and graveyards.
3	Instigate an awareness-raising programme and control programme for invasive species	By 2006
4	Promote the Tayside Local Patch Project (Wildlife on your Doorstep) to engage the public in urban biodiversity surveying and recording	Incorporate project findings in the Perth Museum Biodiversity Exhibition in 2004.
5	Promote gardening for wildlife initiatives, including the "Garden for Life" scheme	50% of all urban wildlife areas to be under sympathetic management by 2005

Stakeholders

- Architects, developers and builders;
- Universities, colleges and schools;
- Sheltered housing, nursing homes and hospitals;
- Landscape architects, designers and contractors;
- Enterprise companies;
- Garden Centres;
- Non-Governmental Organisations (NGO's);
- Retail, businesses and industry;
- Tourist Boards, visitors and local users;
- Home owners;
- Regulatory and statutory bodies;
- Local Authorities;
- Contractors;
- Community groups and charitable organisations.

ACTION FOR BIODIVERSITY

		Action - Built and Developed Environment Action Plan	Deliverers		To take place by								Meets Objective No.
			Lead Partners	Partners	02	03	04	05	06	07	11	16	
LBAP Ref.	A	Policy and legislation											
UBE1	1	Encourage planning authorities in Tayside to take full account in the planning process to the local needs of listed species and habitats in the LBAP.	DCC AC PKC		#	#	#	#	#	#	#	#	
UBE1	2	Ensure planning policies support the re-use of previously developed sites, in accordance with Development Plans, to minimise loss of habitats elsewhere.	DCC AC PKC		#	#	#	#	#	#	#	#	
UBE1	3	Protect designated wildlife sites from inappropriate development.	DCC AC PKC		#	#	#	#	#	#	#	#	
UBE1	4	Ensure development plans promote development that minimises adverse effects on the natural heritage and incorporates positive environmental features.	DCC AC PKC		#	#	#	#	#	#	#	#	
UBE1	5	Encourage the integration of open space networks, including green access corridors, in planning urban renewal or development projects within the urban environment.	DCC AC PKC	SNH	#	#	#	#	#	#	#	#	
	B	Site safeguard and management											
UBE1	1	Implement strategies to enable the use of vacant and derelict land, either temporarily or permanently, as wildlife habitats.	DCC AC PKC	Business community; local environment groups	#	#	#	#	#	#	#	#	
UBE1	2	Incorporate the conservation and enhancement of wildlife into the design, management and maintenance of urban greenspace; i. Produce Park Management Plans for all major parks. ii. Encourage the setting up of a Tayside Green Graveyard Initiative. iii. Continue to encourage biodiversity enhancement within school grounds and play grounds. iv. Raise awareness of biodiversity issues in allotment management. v. Encourage species management where appropriate in existing community woodlands and encourage the planting of new community orchards and woodlands.	DCC AC PKC	SNH FC SWT TBP	#	#	#	#	#	#	#	#	
UBE1	3	Publish management guidelines to incorporate biodiversity conservation into the management of greenspace on an incremental basis.	TBP	DCC AC PKC	#	#	#						
UBE1	4	Expand the range and distribution of wildlife found in urban areas through sympathetic management and maintenance (inc. railway and riparian corridors).	DCC AC PKC	Business community Railtrack SEPA	#	#	#	#	#	#	#	#	
UBE1	5	Encourage working towards the UKBAP target of 50% of all urban wildlife areas to be under sympathetic management by 2005.	DCC AC PKC	TBP				#					
UBE1	6	Instigate an awareness-raising programme and control programme for invasive species.	AC PKC	DCC SNH SEPA Scottish Crop Institute	#	#	#						

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	C	Species management and protection				
	D	Advisory				
UBE1	1	Promote and develop demonstration sites on business and retail parks, industrial estates, hospital and college grounds, etc, to show best practice for a wide variety of habitats and species.	TBP	DCC AC PKC Business Community SEPA	# # # # #	
UBE1	2	Set up and maintain an annual local Awards Scheme to recognise commercial and industrial contributions to enhancing urban biodiversity.	TBP	SEPA DCC AC PKC	# # # # # # # #	
UBE1	3	Support biodiversity awareness-raising projects and initiatives in local garden centres, gardens open to the public and their visitors.	TBP SWT	SNH AC DCC PKC Garden Centres NTS Business community	# # # # # # # # #	
	E	Research and monitoring				
UBE1	1	Instigate a Tayside Local Patch Project (Wildlife on your Doorstep) survey to engage the public in urban biodiversity recording.	TBP	DCC AC PKC	# # #	
	F	Promotion and awareness-raising				
UBE1	1	Promote urban greenspace as an educational resource.	DCC AC PKC	SNH SWT TBP	# # # # # # # #	
UBE1	2	Set up and maintain a "Tayside Business of Biodiversity" awareness programme to engage commerce and industry in biodiversity issues.	TBP SET	DCC AC PKC	# # # #	
UBE1	3	Engage the tourism industry to participate in biodiversity projects and awareness raising for all their visitors, service providers, operatives and staff.	TBP Perth Tourist Board	Angus & Dundee Tourist Board; Angus Rural Partnership; Perthshire Rural Partnership; NTS SWT FC FE BTCV	# # # # # # # # #	
UBE1	4	Increase practical involvement of local people through environmental projects and initiatives within communities	TBP	SNH SWT RSPB NTS BFEP BTCV DCC AC PKC	# # # # # # # # #	
UBE1	5	i. Set up and run Urban Swift and Swallow Survey. ii. Encourage local community and environmental groups to initiate local nestbox making and siting projects.	TBP	DCC AC PKC BFEP NTS	# # # #	
UBE1	6	Dissemination of newsletters to schools and communities.	TBP	PKC AC	# # # # # # # # #	
UBE1	7	Monitor and review this plan - ensure this plan is being delivered annually and in detail after 5 years.	TBP		# # # # # # # # #	

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This illustrative map shows some of the country parks, public access areas and Local Nature Reserves in Tayside. Many other sites of interest are privately owned and owners' permission should be sought for any access.

