LOCAL BIODIVERSITY ACTION PLAN

for East Renfrewshire, Renfrewshire & Inverclyde

"Think Global Act Local"

Inverclyde
Renfrewshire
East Renfrewshire
LBAP

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Foreword

This is a wonderful area and it is been my pleasure to live here for almost a decade. I was lured to Renfrewshire by its wealth of outdoor amenities and great transport links to the rest of the country: in short, living here offers the best of both worlds the perfect escape into magnificent countryside and the chance to reconnect with throngs of people for work or for socialising!

Situated on the south of the River Clyde and to the south-west of Glasgow, the LBAP area comprises coastal lowlands, rolling farmland, open moorland and stunning views. My work as a journalist might take me all over the world but it is always a joy to come home here because of the fantastic resources the region has to offer particularly for someone like me with a passion for the outdoors. My whole family are committed users of the local countryside from my partner who rows at Castle Semple Loch to Baxter, my large, lolloping dog who is a familiar figure on the Glasgow-Irvine cycle track and in the community woodlands at Locherwood. Over the last few years, I have also had the honour of working alongside the rangers at Clyde Muirshiel Regional Park on a number of environmental initiatives combining both work and pleasure!

The area offers a wide variety of natural interest within easy reach of a significant concentration of population. For many people, a first experience of the natural environment is provided in the urban parks, local nature reserves, country parks and the regional park which are a user-friendly way to access some of the region's amenities.

Some protection is afforded to the area's flora and fauna through designated sites (for example, there's a SSSI at the end of my own garden), but biodiversity is about much more than this. Biodiversity provides a comprehensive approach to protect against loss of habitats and species and to ensure the continued quality of the natural environment in the area. It allows us to work in partnership for the benefit of the local environment both now and in the future.

Most importantly, this Local Biodiversity Action Plan allows us to convert ideas into real action that is both tangible and meaningful to the local population. Over the past few

years, I have enjoyed working on environmental projects with all manner of people in the region from tiny tots to disabled children right through to the elderly: everyone has something to offer and everyone has something to benefit from working in partnership. That is why it is vital that local people have a genuine feeling of ownership over their Local Biodiversity Action Plan which will raise awareness of the importance of biodiversity to the long-term health and wealth of the area and the role it plays in the quality of our environment. It allows our children to become involved in the process and hopefully will sow the seeds for future generations to get involved in this process.

As a geographer by training and someone who - as a journalist - specialises in science and the environment, I am delighted to be able to support this Local Biodiversity Action Plan. I have a strong personal interest in biodiversity and a passionate belief that there is no such thing as true regional development without biodiversity and sustainability being at its core. Because of this, and because of my Renfrewshire roots, I am proud to be associated with the local action plan and wish everyone involved all imaginable success.

Summary

- Biodiversity is the variety of life and includes all living things and the habitats in which they live.
- The Local Biodiversity Action Plan area covers the Council areas of Inverclyde, Renfrewshire and East Renfrewshire and will provide a framework for the three authorities and their partners to address biodiversity.
- The Local Biodiversity Action Plan (LBAP) is a local partnership that is based on emerging national and international initiatives. A steering group has been established, and a biodiversity officer appointed to co-ordinate the LBAP process in the three council areas.
- The Nature Conservation (Scotland) Bill will make conserving biodiversity a statutory duty on all public organisations. A national framework is being prepared in the Scottish Biodiversity Strategy.
- Local priority species and habitats have been chosen from those highlighted in the UK Biodiversity Action Plan and by the Scottish Biodiversity Group, to also reflect locally important species and habitats. Action Plans included in this document are for these local priorities.
- The biodiversity process gives a stronger focus and co-ordination than ever before to drive conservation activity in a way that is tailored to local needs.
- Biodiversity planning is an ongoing process; this plan is the first stage and will lead to projects being implemented.
- It is intended to produce additional species and habitat action plans in the future.
- The LBAP can be used as a method to raise awareness of the plight of certain species and habitats that are particularly important in the LBAP area.
- Two sites within the LBAP Partnership area are so important for wildlife that they are recognised as being some of the most important in Europe.
- Biodiversity is a measure of sustainable development – growth today that does not deprive the quality of life of future generations.
- Biodiversity is recognised as being key in ensuring a stable environment for businesses to operate in.
- Everyone can play a part in conserving our local biodiversity, therefore improving the situation in the whole of Scotland and the UK.
- The Inverclyde, Renfrewshire and East Renfrewshire LBAP website can be found at www.renbap.paisley.ac.uk.
- The success of the LBAP depends on the involvement of local people and organisations.

Sustainable Development

Sustainable development is:

'Development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs.'

The Brundtland Report 1987

One of the most important ways to ensure biodiversity is protected is to make sure that development is sustainable. Sustainable development is about understanding how the economy, society and the environment are interlinked. We need a successful economy to pay for environmental protection and to support a fair social system. Equally, we need a healthy environment to provide the resources for a good economy, and a healthy society to maintain a healthy economy.

Biodiversity is a measure of sustainable development – growth today that does not deprive the quality of life of future generations. Sustainable development is regarded as a major target for industry and the planning system, and measuring biodiversity is one of the best ways to ensure that this target is being achieved.

Hawthorn Shieldbug © Martin Phillips

Biodiversity - What is it?

"Biodiversity is all living things, from the tiny garden ant to the giant redwood tree. You will find biodiversity everywhere, in window boxes and wild woods, roadsides and rainforests, snow fields and sea shores."

Biodiversity: The UK Steering Group Report 1995

Biodiversity is short for 'biological diversity' and is the total variety of all living things. In Scotland alone there are estimated to be about 90,000 different species or types of living thing and there are at least 30 million species worldwide!

Biodiversity is not just about rare things; it is about the ordinary plants and animals that make one area distinct from another. So in Scotland we are famous for our 'bonnie purple heather', Scots pine, bluebells, red deer, salmon and highland cattle; and the humble thistle our national emblem.

Wild landscapes, plants and animals are also key assets for our tourist industry. People come from far afield to admire the colours and patterns of the Scottish countryside. Wildlife tourism contributes an annual income of at least £57 million to the Scottish economy, plus nearly 3,000 jobs, an increase of 50% in just five years. It is important for our economy as well as for the biodiversity itself that management allows for the maintenance and expansion of biodiversity.

Biodiversity can be seen as the result of a healthy living world and it is also essential for the continuation of life on earth. The mixture of different types of plants and animals is what each species, including mankind, relies on for survival. Biodiversity is the planet's life support system and without the diversity of living things the health of the planet is in jeopardy. To put it simply, biodiversity and the health of the planet are inseparable.

Biodiversity is essential not only for our physical wellbeing, but also, there is clear evidence that the natural world has a beneficial effect on our mental health. When people move into a green, leafy environment, symptoms of stress can be measurably reduced. Pulse rate and perspiration are lowered, the muscles across the forehead relax, and there is generally an increased sense of wellbeing (Medical Group Management Association, Connexion, August 2002).

Everyone has a role and a responsibility to conserve biodiversity. Using cars less, recycling and using environmentally friendly products are all ways that you can help. Planting native and nectar rich plants in your garden will attract butterflies and birds, a window box can become a haven for wildlife.

Golden-ringed Dragonfly © Norman Tait

Local Biodiversity Action Plan (LBAP)

The importance of biodiversity was acknowledged internationally at the Rio Summit on Biodiversity in 1991. When the UK Government became a signatory to the Convention on Biological Diversity it marked a new and radical approach to nature conservation in this country. Arising from our commitment as a signatory to this convention, a UK Biodiversity Action Plan (BAP) was produced. This BAP highlights species and habitats regarded as key to ensuring that biodiversity is maintained. The Scottish Biodiversity Group was set up in 1996 to take forward the UK action plans that are relevant to Scotland. In turn national plans recommend that the way forward is the production of Local Biodiversity Action Plans to promote improvements in the environment on a local scale.

The Scottish Biodiversity Forum has developed a draft Strategy for Scotland's Biodiversity. This is a proposed strategy for the protection and enhancement of Scotland's Biodiversity Resource. It is also a strategy for Scotland's people to encourage their understanding and enjoyment of biodiversity and their contribution towards its conservation. The Strategy is to be launched in May 2004.

The draft Nature Conservation (Scotland) Bill will place a duty on public organisations to further biodiversity, proposes new legislation to tackle wildlife crime and outlines measures to strengthen protection for Scotland's most special natural heritage sites such as Sites of Special Scientific Interest. It will link with and support the draft Scottish Biodiversity Strategy. Public bodies will have to have regard to the Strategy in fulfilling their biodiversity duty.

Chaffinch

Blackthorn © Martin Phillips

The LBAP area covers the old (pre 1975) county of Renfrewshire encompassing the modern Inverclyde, Renfrewshire and East Renfrewshire Council areas. The three local authorities took the decision to combine their areas and produce one integrated LBAP for the whole area. This partnership was set up in 1998 with the main aims of:

- Protecting, caring for and enhancing local habitats and wildlife
- Raising public awareness of and encouraging involvement with local biodiversity issues.

A biodiversity officer was appointed in 2002 with responsibility for producing, coordinating the implementation of and raising awareness of a Local Biodiversity Action Plan. Eventually this plan will be used by a range of land managers and others, such as the councils and the general public to guide development, land management, and nature conservation.

The Local Biodiversity Action Plan should influence the policy of the local authorities and partners and is an integral part of sustainable development. It is a way of ensuring that nature conservation is taken into account in the decision making processes of all partners.

Local Biodiversity Action Plans are also a way of influencing local plans and planning decisions. National planning guidance on natural heritage states that:

"Planning authorities can make an important contribution to the achievement of biodiversity targets by adopting policies which promote and afford protection to species and habitats identified as priorities in Local Biodiversity Action Plans." (NPPG 14 Natural Heritage)

Location Map

Partnership Area

Biodiversity planning is an ongoing process. This plan is the first stage and when it is launched it can be referred to in order to ensure that the impact on biodiversity is taken into account before actions are carried out. It will be linked to other plans developed by the local authorities including local plans. The plan will allow us to measure success in maintaining diversity by identifying simple targets, set out in each of the specific action plans. It can be used as a method to raise awareness of the plight of certain species and habitats that are particularly important in the LBAP area and also of things that can be done to improve the situation.

Action Plan Process

Audit and Selection

An audit of the wildlife resource in the LBAP area has been carried out, as have various other biological surveys. This work and other recording of species or particular habitats indicates what plants, animals and habitats are particularly important in maintaining the biodiversity in the area. The results of the audit have highlighted the species or habitats that occur in Inverclyde, Renfrewshire and East Renfrewshire that are nationally important and where the area has a particular relevance in their distribution in Scotland. This, combined with recommendations from local wildlife experts, identified which species and habitats should be included in the LBAP. Considerations which have guided this selection process were based on the UK Biodiversity Group's recommendations and include species of conservation concern, UK priority species and local priority species.

Implementation and Monitoring.

Each Action plan contains a list of agreed actions for achieving attainable targets and it is envisaged that work on the actions will be carried out by the partner organisations. Actions will require to be monitored to ensure that activity is happening on the ground and to assess the success of actions. Additional actions may be identified as part of this work. A key part of the success of this work is based on building partnerships with local people and groups and working to involve them in the process.

Ongoing Process

Biodiversity planning is an ongoing process and the biodiversity partnership intends to produce further species and habitat action plans where action is required to prevent their loss or decline.

"Think Global Act Local"

Paisley Moss

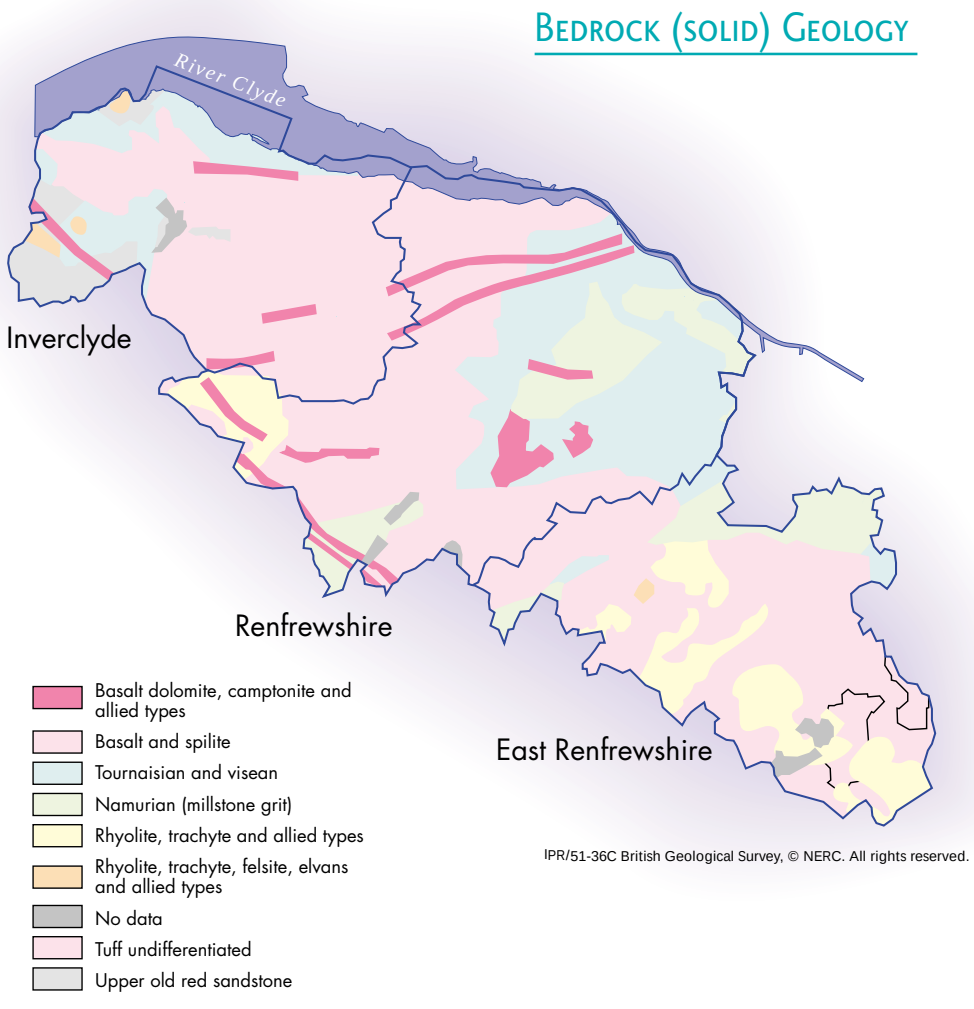
Geology

Bedrock Geology

The geology of the LBAP Partnership area has been fundamental in shaping its biodiversity. Rocks that have been pushed up to form mountains will result in different plants and animals living in those conditions compared to those found on low lying plains.

The bedrock in the LBAP area can be divided into two main types, closely related to topography. Low ground in the eastern part of the Partnership area around the main settlements (Paisley, Johnstone, Renfrew and as far south and east as Clarkston) and north of Gleniffer Braes, Neilston and Patterton is underlain by mainly sedimentary rocks of the Strathclyde and Clackmannan Groups of early to mid Carboniferous age (354-316 Million years). These relatively soft, easily eroded rocks are mainly claystones ("shales"), sandstones, coal seams and thin, but regionally persistent limestones. They will tend to produce relatively fertile soils, likely to become quite alkaline on the limestones. These are locally intruded by sills of dolerite, a basic igneous rock similar to basalt. These sills produce distinctive crags and waterfalls where exposed. Dolerite, limestone, sandstone, coal and associated ironstones have all been economically exploited at various times.

A narrow strip of red sandstones, siltstones and limestones of earliest Carboniferous or latest Devonian age extends along the coastal strip from Langbank through Port Glasgow and Greenock to Gourock. The characteristic limey "cementstones" of this formation tend



Glen Moss © Norman Tait

to give a rather high pH to the soils making them alkaline in content. These rocks re-appear in another coastal strip from Lunderston Bay to Wemyss Bay, along with upper Devonian red sandstones and conglomerates of the Stratheden Group. The latter extend eastwards from Inverkip up into the high ground around Loch Thom.

High ground, including Muirshiel, between Houston and Loch Thom, the Gleniffer and Brownside Braes, and eastwards to Eaglesham, is underlain by more resistant volcanic igneous rocks of the Clyde Plateau Volcanic Formation of earliest Carboniferous age. These mainly basaltic rocks dominate the moorland and steeper slopes of the western and southernmost part of the Partnership area. While rich in bases, basalt is rather impermeable and thus poorly drained, and when combined with the high rainfall this tends to produce rather waterlogged soils with large areas of blanket peat cover. The most acid (silicic) and resistant rocks are trachytes, rhyolites and volcanic agglomerates (volcanic vent deposits) and these form the highest ground in the region, along the watershed ridge from Ballageich Hill to Corse Hill, south of Eaglesham.

A linear belt of shattered rock, known as the "Paisley Ruck" extends from Renfrew to Lochwinnoch. This reflects an area of ancient earthquake activity along a major fault, and the consequent weakening and preferential erosion of the rock has resulted in the formation of the Black Cart valley and Castle Semple Loch.

Superficial Deposits

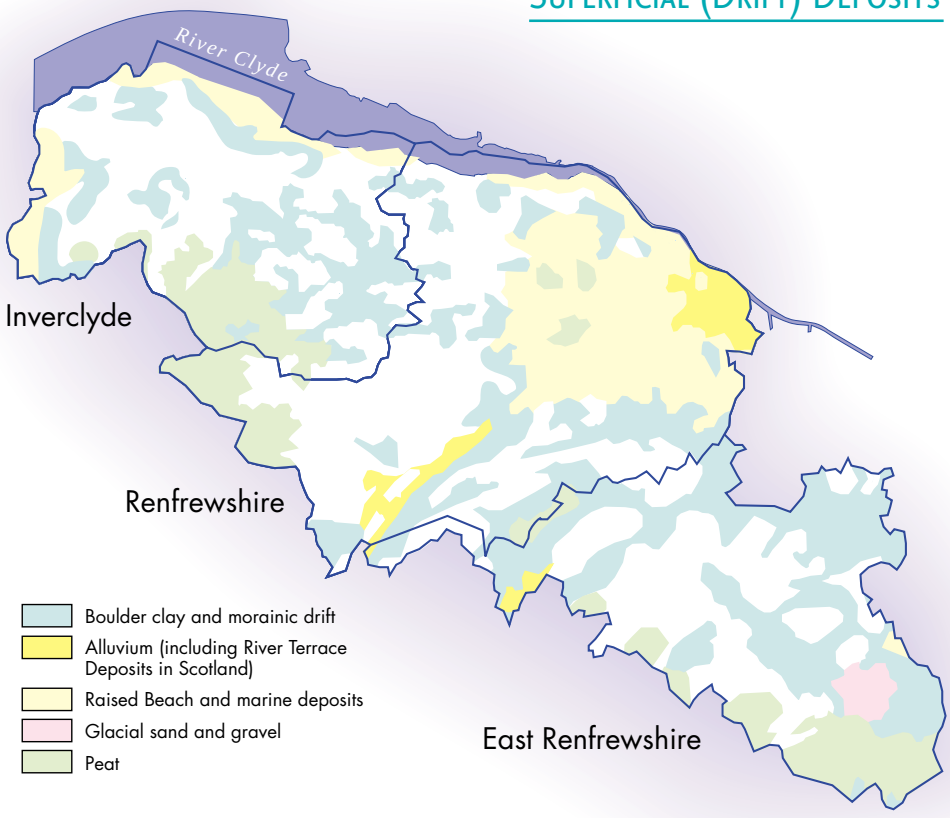
The cover of superficial deposits or "drift" over the bedrock is the result of the action of glaciers, seas and rivers from ancient times. The lower, flatter ground from the northern parts of Paisley and Johnstone, plus Renfrew, Glasgow airport and up to Bishopton are underlain by glacio-marine silts and clays, with local patches of sand and gravel around Erskine and Bishopton. These were deposited in shallow seas as the glaciers retreated.

Further south the ground becomes increasingly hummocky, with low, rounded hills known as "drumlins" characteristic of south Paisley and Johnstone and north of the Gleniffer Braes. These are tills or "boulder clays" - stiff silts and clays with abundant embedded

cobbles and boulders deposited and moulded below glacial ice. Moving south onto the Braes, and westwards onto Muirshiel and the Loch Thom area, these isolated hummocks of till merge into a more continuous cover, but are thin or absent on the highest ground, where bedrock is close to the surface. Tills are locally overlain by blanket peat deposits in broad hollows, such as at Caplaw Dam. Extensive areas of peat are also found on the poorly drained glaciomarine clays at Linwood Moss and Barochan Moss.

In the eastern part of the Partnership area the River Clyde, White Cart Water and Black Cart Water have deposited linear belts of sand and gravel. West of Renfrew, extending to Gourock and around into Lunderston Bay, a narrow strip of the coast is marked by one or more flat terraces of sand and gravel that are former beaches, now raised above sea level by post-glacial uplift ("raised beaches"). These provide level ground suitable for transport links such as the railway and M8 motorway. The superficial deposits will tend to dominate the soil and drainage characteristics, so that the influence of bedrock will only be seen where it is close to the surface, or has been uncovered by mining or quarrying activity.

Superficial (Drift) Deposits



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Landscape

The rich and varied geological history of the Partnership area has shaped its landscape and habitats. The landscape of the Partnership area is varied, ranging from the rugged moorland hills of the West Renfrewshire Hills and plateau moorlands rising from Barrhead in the south west of the area to the low lying alluvial plain around Houston and plateau farmlands of East Renfrewshire.

Along the inner Firth of Clyde is a raised beach backed by steep dramatic slopes which represent the former cliffline.

To the west are the West Renfrewshire Heights, their distinctive upland character deriving from a combination of elevation and exposure. Land cover is dominated by moorland plant communities including heather and rough grasslands. Extensive areas of peatland are found on the Renfrewshire Heights. Around the edge of the hills are fields enclosed with walls and hedges. In the north west the Spango valley, extending from Greenock towards Inverkip forms a narrow valley of lowland enclosed within the rugged hills. The steeper slopes remain as moorland while Greenock has expanded south into the northern part of the valley. Long views across the Glasgow conurbation emphasise the contrast between remote upland and the developed lowlands. To the north and west are dramatic views across the Clyde estuary and Argyll.

To the south plateau moorlands provide a backdrop. They consist of a smooth plateau landform with moorland vegetation consisting of blanket bog, heather and grass moorland. The topography is level with extensive plateau basins rising to soft contoured ridges. There are extensive conifer plantations at Whitelee Forest. The open exposed landscape is in contrast with the settled lowlands. Rivers cut shallow valleys into the plateau moorland at Neilston where a west to north east orientated valley is defined by steep slopes along the Lochliboside and Fereneze hills.

Yew © Martin Phillips

Rugged farmland provides the transition between moorland and alluvial plain around Kilmacolm, Johnstone and Neilston. The landscape is rugged and hummocky with steep craggy bluffs interspersed with more gentle farmland. Troughs and valleys are flooded and provide reservoirs for the urban areas. Tree cover emphasises the landform and visual impacts associated with urban related infrastructure are obvious. To the east around Barrhead the landscape is more undulating with limited tree cover.

Extending from Johnstone, south west to the boundary of the area at Lochwinnoch is a broad lowland valley dominated by the presence of waterbodies, wetlands and rivers. The Barr Loch and Castle Semple Loch are important landscape features. To the east, around Houston, is the alluvial floodplain, bordered by the Black and White Cart Waters. The area which is low and flat and susceptible to flooding, is of high agricultural value, with improved pasture. There are pockets of deciduous woodland at Houston and the former Royal Ordnance factory at Bishopton and areas of seminatural vegetation along water courses. Large areas of conifer plantation are prominent.

The main rivers, the Black and White Carts, Gryfe, Brock Burn, Levern Water, and their tributaries provide important green corridors through urban areas and are significant in terms of local landscape, townscape and nature conservation. Urban greenspace provides an important green wedge at the Hurlet and Rouken Glen Park which contributes to providing linking green corridors into the urban area.

Designed landscapes and policy woodlands comprising a mix of native and exotic trees represent valuable components of public open space.

Habitats and Wildlife

The varied geology, soils, topography and climate together influence the type and range of habitats which help to form the landscape of the Partnership area. After the ice-age (some 10,000 years ago) vegetation would have naturally recolonised the area. By the time early human settlers arrived, the landscape would have been dominated by natural, wild woodland, with open ground associated with wet depressions and flood plains (including developing peatlands), coastal fringes and perhaps some of the more exposed higher ground.

The impact of humans has greatly changed the natural heritage of the Partnership area. Early settlers dramatically reduced the woodland cover creating a more pastoral environment with cultivated farmland; this can be inferred and seen from literature and maps of the 18th and 19th Centuries. Over the last 150 years or so, even more dramatic changes have occurred, notably through increased industrialisation, residential development, agricultural intensification and associated pollution. However, even though undoubted serious losses have occurred, the Partnership area still supports a surprising richness of habitats and species

Woodlands

Today woodlands account for less than 10% (5,532 ha) of the total land cover of the Partnership area; of this total only a small percentage has been defined as Ancient, Seminatural or Long Established. It is in examples of such older woodlands that the more natural features of woodland structure and associated plants and animals are found. Many of the more natural (often called seminatural) woodlands survive on the steeper, less accessible ground of small hills and braes, such as at the Gleniffer Braes and Uplawmoor, and on raised coastal land around Inverkip and Langbank.

Torr Wood at Bridge of Weir supports birds like Redstart and Tree Pipit, summer visitors which can be indicative of quality native woodland. Some of the best examples of seminatural woodland are the 'valley woods' associated with water courses, where the often rich soils

Oak woodland with bluebells

and sheltered environment support rich floras; notable examples include Shielhill Glen, Kip Water, Kelly Glen and Calder Glen. Many smaller water courses throughout the area support scattered woodland blocks, some extending into urban areas; the numerous small, steep-sided valleys draining from the West Renfrewshire Heights are fine examples.

Plantation woodlands, often integrated with old woodland sites, form part of the designed landscape and have important cultural significance, in addition to being valuable habitats. The policy estate woodlands, supporting a number of now familiar exotic species, are of greatest interest; examples include estates at Ardgowan, Barochan, Caldwell, Cowdon Hall, Formakin and Finlaystone. These can be valuable habitats for Badgers and other woodland animals, including a variety of birds; Chiffchaffs and Blackcaps are often associated with estate woods even where the understorey is dominated by Rhododendron.

Meadow Crane's-bill

Bluetit

Other plantations, shelterbelts or farm woodlands provide woodland cover. Large scale commercial conifer plantations occur at Hartfield Moss, Gryfe Reservoirs, Thornleybank and Whitelee Forest. Roe Deer and Short-eared Owls forage within these woods during the younger stages, and the more mature trees provide habitat for the Crossbill, a seed-eating finch which moves around to find the best cone crops. In springtime these otherwise impoverished woods can come alive to the songs of coniferous woodland birds such as Siskin, Coal Tit and the diminutive Goldcrest.

Low growing scrub, including hedgerows, are also part of the woody cover, providing important food and cover for animals, notably invertebrates and birds. Gorse forms colourful scrub on hillside pastures throughout the area (e.g. at Fereneze Braes and the slopes behind Greenock). Hawthorn, with more local Blackthorn, roses and other woody species, form hedgerows and scrub in rural areas, extending into urban areas, although waste ground in the latter is often marked by Birch, Willow and Elder. Rich hawthorn scrub at Dykebar supports the rare Lesser Whitethroat, a summer-visiting member of the warbler family more typically found in southern Britain.

Grasslands

Grasslands are an important natural resource and make a valuable contribution to the rural landscape. All grasslands are very much dependent on human activity, and traditional management, such as grazing and meadow cutting, helped in the evolution of a range of species-rich, unimproved grasslands. However in recent times, intensive, improved agricultural treatments have resulted in the loss of much of this diversity. The demise of the Corncrake is a well known example of the disappearance of a species due to intensification; this elusive and secretive bird now occurs only as a scarce passage migrant in the Partnership area.

Today the more diverse grasslands are confined to the upland fringes of the Regional Park, above Eaglesham, behind Greenock or other local hills (such as Loch Liboside, Gleniffer Braes, Barscube Hill, Marshall Moor etc.); these grasslands tend to be acidic in nature, maintained by sheep or cattle grazing. Their relatively unimproved nature means that they can be a more reliable source of ground and soil invertebrates than intensively managed fields, thus providing rich pickings for insectivorous mammals and birds, including winter-visiting thrush flocks.

Grasslands can also be important urban features, particularly where a large number of species have colonised waste ground, providing a valuable refuge for wildlife. However at such locations active management is usually absent, and over time diversity can decline, as tall grasses, herbs or scrub invades, or ultimately when development takes place. These ephemeral sites can provide habitat which boosts local faunal diversity, with plants like Bird's-foot Trefoil attracting various butterflies, and weedy plants supplying a rich food source for finches such as the Goldfinch.

Moors and Heaths

Vegetation dominated by Heather is a feature of upland fringe areas; this can include dry or wet heaths and blanket bog. Notable examples occur widely in the Regional Park, Moyne Moor, Marshall Moor, Flow Moss and other more local sites; heathland can be a feature of the roughs at a number of golf courses. The colourful, shrubby vegetation supports many other species including small mosses, liverworts and lichens, and is an important resource for invertebrates and moorland birds such as the Stonechat.

These wild upland habitats support a range of interesting and exciting animal species. It is a while since an Adder was reported within the Partnership area, but Common Lizards are

Tiger Beetle © Norman Tait

still present at least in various parts of the Regional Park and probably at other moorland locations in central and southern parts. The best places to see this species are around Muirshiel Country Park and the Cornalees Bridge Centre. The trail at the latter site is one of very few sites where the spectacular Green Tiger Beetle can be found. Another scarce insect, the Small Pearl-bordered Fritillary butterfly, may be found in mid-summer on marshy ground both there and in East Renfrewshire, wherever the Marsh Violet grows.

Mountain Hares, whose coats turn white in winter, are a local speciality of the Regional Park, mainly in an area extending from Misty Law across Queenside Muir to Duchal Moor. Remnant and active grouse moors in the area support not only Red Grouse, but also a dwindling population of Black Grouse, for which an action plan has been prepared in an attempt to restore its former population.

The truly special bird of the Regional Park moorlands is the Hen Harrier, an enigmatic bird of prey which hunts mainly for small birds and mammals; the Field Vole is a staple prey species, especially in years of abundance known as 'vole plagues' which occur every four years or so. The Species Action Plan aims to protect and enhance the breeding population of Hen Harrier, through careful management of its heathland habitat, as well as added vigilance to ensure that illegal persecution does not take place.

Buzzards and Ravens have increased in abundance throughout the Partnership area in recent years. Formerly birds of moorland edge, they can now be seen in virtually any open or lightly wooded countryside. A few pairs of Ravens have even started to nest on electricity pylons, and from being almost extinct in the area twenty years ago, can occasionally be found in flocks of up to thirty or more in certain parts around the Regional Park and in East Renfrewshire.

Lowland peatlands are represented by some small remnants of 'The Great Moss' which used to extend across the flood plain of the Gryfe and Black Cart Waters from Houston to Paisley. The best example are Linwood Moss and more especially Barochan Moss, where raised bog profiles are still aparent with deep peat and clearings with heather amongst the planted Scots Pines at the latter site. Paisley Moss Local Nature Reserve is a tiny fragment of wetland associated with a former large raised bog that has all but disappeared due to the land being cleared and drained for agriculture in the 19th century.

Wetlands

With the varied topography and high rainfall, particularly in the west, wetlands are an important feature. There are a number of standing open water bodies, some natural such as Castle Semple Loch and Loch Libo, and many others modified into dams or reservoirs, scattered throughout the Partnership area, e.g. the hills above Greenock and to the upland fringe of East Renfrewshire. The open water provides habitat for important bird populations, aquatic invertebrates, fish and plants including algae; the marginal, emergent swamps and marsh add to the diversity.

The extensive waterbodies, swamps and fens in and around the Lochwinnoch RSPB Reserve host a diverse range of wildlife, with regular sightings of Otters, and many wetland birds including Great Crested Grebes and occasional rarities like Red-necked Grebe, Purple Heron, Bittern and Reed Warbler. Lochside vegetation and reedbeds support a regionally important population of breeding Sedge Warblers.

Marsh, swamp and fen or mire habitats are also common in depressions and are usually the focus of wildlife interest supporting many locally rare plant species and hosting a rich diversity of associate fauna. A number of mires are of special note with several designated as SSSIs e.g. Glen Moss, Barmufflock, Shovelboard and Little Loch. In addition to their intrinsic botanical value, these wetlands support a range of mammals, from Water Vole to Roe Deer, amphibians including Palmate Newt, and a number of species of dragonflies and damselflies.

The pool on top of Barscube Hill near Langbank supports a thriving colony of breeding Black-headed Gulls; the only other large colony of this declining breeding species in the Partnership area is at Harelaw Dam near Neilston, where unfortunately recent persecution has caused spectacular failures.

Coastal

The coastal fringe of the River Clyde becomes increasingly brackish from east to west. Along the coastline, e.g. at Langbank, the estuarine mudflats support beds of Eel-grass and Tasselweed, important food plants for visiting wildfowl (such as Wigeon), and areas

Foreshore at Erskine

of saltmarsh with many typical species and large reedbeds, as at Newshot Island and along the Black Cart Water. The bird interest of the estuary is extremely high, with large populations of wading birds and waterfowl utilising the rich invertebrate fauna of the exposed intertidal mud.

The Clyde estuary from Erskine to Port Glasgow is a SSSI and part of the Inner Clyde 'Ramsar Site' (Wetland of International Importance), which is also a Special Protection Area (SPA), a designation arising from the EC Birds Directive. The SPA has been designated primarily because the estuary supports an internationally important population of approximately 2,000 wintering Redshank. The Black Cart Water from the Gryfe confluence to Inchinnan has been designated as a Special Protection Area because it supports an internationally important population of up to 290 Icelandic Whooper Swans.

On the Inverclyde coast there are small areas of coastal rock and beach (e.g. Lunderston Bay) where salt tolerant plants, such as Thrift, and lichen encrusted rocks can be seen. Sea mammals offshore, mainly seals and Harbour Porpoises, are a feature throughout the year, and along the shoreline birds of marine coastline are typical, from nesting Rock Pipits to wintering Turnstones. In summer flocks of Manx Shearwaters, sometimes numbering several thousand birds, can be watched from Cloch Point. Some surprising seabirds nest in Inverclyde, including Black Guillemots in buildings and walls along the Greenock waterfront, and several pairs of Shags in the Inverkip power station pier.

Gourock © GCVTB

Agricultural Land

Farmland

The agricultural landscape, despite recent years of intensification, still remains an extensive resource for wildlife. Arable fields or improved pastures are important, often seasonal, habitats for a variety of bird species such as geese, Lapwing and Skylarks and finches. The associated farm buildings, dykes, field margins, hedgerows, boundary trees, shelter-belts, tracks, ponds and ditches all provide niches for a range of wildlife to utilise.

In fields with impeded drainage, rushy pastures can develop, occasionally with stands of sedges. Snipe often frequent marshy hollows, with some sites supporting numbers during the autumn migration period. The smaller and scarcer Jack Snipe is a passage migrant and winter visitor, with locally important sites at Littleton Reservoir in East Renfrewshire, and at the Paisley Moss Local Nature Reserve.

Urban

The built environment of the large conurbations of the Glasgow fringe, Paisley, Johnstone, the Port Glasgow to Gourock coast, and various other towns and villages, also represent a resource of value to biodiversity. The stonework and roof material particularly of older buildings provide a habitat for lower plants such as mosses, ferns and lichens as well as providing breeding or nesting space for many invertebrates and birds such as House Sparrow, Starling, House Martin, Swift and Kestrel. Gardens and associated landscape planting can be even more valuable for wildlife, especially if consideration is given to the needs of wildlife during planting and maintenance regimes.

Open or green spaces in urban areas are particularly important for local residents, often representing the main contact point with natural or wilder places. Many of the open spaces are heavily managed for their amenity value, but the short grasslands and parkland trees, some quite old, are important for a number of commoner, but also scarcer wildlife. Innovative habitat creation and sympathetic management of the area's parks and country parks could contribute hugely to local biodiversity.

Open waste ground sites, many the result of industrial changes in recent years, can be rich in botanical diversity; a number of species, including many exotic aliens, can produce rich and colourful displays brightening up derelict waste ground. Disused and live railways often support diverse fringes of wildlife habitat and can serve as valuable corridor links, allowing species movement between the urban centre and rural fringes. This valuable corridor function is also provided by the rivers, road, cycle and path networks and also small burns and drainage ditches.

"Think Global Act Local"

Ranfurly Castle Golf Course Bridge of Weir

Designated Areas

Paisley Moss Local Nature Reserve © Graham Burns

Where local wildlife sites are particularly 'natural' or large, rare or just very typical, they can be nationally important. The LBAP Partnership area has its share of nationally and internationally important wildlife sites. These sites are important for a range of interests, biological as well as geological. Some of these sites are protected through European and United Kingdom legislation and by a variety of non-statutory designations.

Two sites within the LBAP Partnership area are so important for wildlife that they are recognised as being some of the most important in Europe. The stretch of the Black Cart just north of Paisley and the Clyde from Greenock to Erskine, known as the Inner Clyde Estuary, are important for the wild birds that visit to the sites in winter. They qualify as Special Protection Areas (SPAs) under the EC Birds Directive. They are part of a network of sites, covering the whole of Europe, known as Natura 2000 sites. The Inner Clyde Estuary is also designated as a 'Ramsar Site' a Wetland of International Importance.

Sites of national importance are protected through designation by Scottish Natural Heritage (SNH) as Sites of Special Scientific Interest (SSSIs). These sites are special for their plants, animals, habitats, rocks, or landforms, or a combination of these. There are 21 SSSIs in the area ranging from grassland and woods to lochs and mires and geological sites such as disused quarries.

There are four Local Nature Reserves (LNRs) in the LBAP Partnership area. These are recognised as being important for their existing nature conservation interest, for access and as places to learn about wildlife. The area also has two Scottish Wildlife Trust (SWT) reserves, Glen Moss near Kilmacolm and Loch Libo at Uplawmoor. One of the area's most popular nature reserves is the Royal Society for the Protection of Birds (RSPB) reserve at Lochwinnoch.

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Additionally there are non-statutory designations where locally important sites are protected. Sites of Importance for Nature Conservation (SINCs) are identified in the Local Plans for the area and are subject to a number of protective policies. There are 248 SINCs identified in the LBAP area.

A large part of the Partnership area falls within Clyde Muirshiel Regional Park, which is by far the largest of the three Regional Parks in Scotland. Clyde Muirshiel is important for biodiversity within the LBAP area, and includes five Sites of Special Scientific Interest (SSSI's) within its boundary. There are a wide range of natural habitats within the park including rocky coastal shores, freshwater lochs, deciduous woodlands and high moorland that support a diverse variety of wildlife.

The Country Park at Gleniffer is one of Scotland's biggest country parks. It makes a considerable contribution to the biodiversity of the area. As an upland park on the edge of Paisley, it is very important for local people to use for walking as well as for forestry and farming.

Designated Sites

Access

Walkers

As well as initiatives to improve the quality of open areas for biodiversity, the Land Reform (Scotland) Act 2003 provides for a right of responsible access and creates the opportunity to enjoy the natural heritage so long as we act responsibly. Wider access rights mean that people will be able to visit wildlife sites more easily in both the countryside and in urban areas. In some areas caution will be required in order that land managers can still carry out their work and sensitive sites or wildlife are not disturbed or damaged by visitors. The Scottish Outdoor Access Code provides guidance on the type of behaviour which is considered to be responsible. People who wish to enjoy the biodiversity within the LBAP area are asked to ensure that they use their access rights responsibly in order to safeguard our wildlife.

Locally the Ranger Services at Clyde Muirshiel Regional Park, Gleniffer Braes Country Park, and Finlaystone Estate arrange guided walks and themed events for school parties and the general public to enjoy the local countryside and appreciate our biodiversity.

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Community Involvement

We all rely on biodiversity, whether it is for the enjoyment of a walk in parks like Gleniffer Braes or to make a livelihood as a farmer or worker in the tourism industry. Everyone can have a role to play in looking after it for this generation and those that follow. Right in the centre of towns work goes on to improve biodiversity for the benefit of all.

The Greenspace for Communities initiative was established to make a significant change in the quantity and quality of greenspace management through partnership working, particularly with local authorities, the voluntary sector, community and business interests. It facilitates and encourages communities to take a role in greenspace management. The LBAP Partnership area is covered by two of the five Greenspace Partnerships operating under the umbrella of the Glasgow and Clyde Valley Greenspace Trust: Carts Greenspace and Lower Clyde Greenspace.

Carts Greenspace has been established to create and enhance greenspaces in and around settlements in Renfrewshire, East Renfrewshire and the south-west portion of Glasgow.

Lower Clyde Greenspace is a partnership between Argyll and Bute and Inverclyde Councils and is the local focus for improving and generating greenspace in that area.

In Renfrewshire there is also an award winning Sustainable Communities programme which works with communities on all aspects of Sustainable Development: social and economic as well as environmental. It currently works primarily in Social Inclusion Partnership areas.

SEPA's Habitat Enhancement Initiative promotes the conservation and enhancement of the natural beauty and amenity of inland and coastal waters, and of the land associated with such waters. Amongst other activities demonstration sites have been set up and an award scheme is run annually. Entry to the award scheme is open to all individuals, schools, community groups, local authorities, industries, construction companies, agricultural groups and foresters who demonstrate environmental enhancement measures with regard to biodiversity and sustainable development.

White Water-lily

Business and Biodiversity

All companies can have an impact on biodiversity in the course of their business - because they use natural resources, produce or consume products, own and manage areas of land, or finance other activities which have direct and indirect impacts. Biodiversity is recognised as being key in ensuring a stable environment for businesses to operate in.

Painted Lady © Norman Tait

There are many ways in which companies can engage with biodiversity issues and make a contribution. These range from raising employee awareness of and managing environmental impacts responsibly to enhancing the conservation value of habitats on landholdings and sponsoring threatened species. Doing something for biodiversity will not necessarily require a great deal of resources - in fact, many companies may already be engaging with biodiversity on a number of levels.

A number of initiatives are running to encourage businesses to adopt ways of working that put less pressure on the environment and biodiversity:

The Vision in Business for the Environment of Scotland (VIBES) awards are run to support business efficiency and competitiveness through improving environmental performance. Businesses from any sector and of any type located in Scotland can apply. More information can be found at www.vibes.org.uk.

The Business and Biodiversity website www.businessandbiodiversity.org acts as a resource centre providing information and links to other sites that provide information on regulation, practical ideas on how to develop your own biodiversity initiatives and other organisations that are developing biodiversity action plans.

Steering Group Membership

Current Steering Group members include:
Inverclyde Council, Renfrewshire Council, East Renfrewshire Council, Scottish Natural Heritage, Scottish Executive Environment & Rural Affairs Department, Clyde Muirshiel Regional Park, Forestry Commission, Farming and Wildlife Advisory Group, National Farmers' Union (Scotland), Paisley Natural History Society, University of Paisley, River Clyde Fisheries Management Trust, Royal Society for the Protection of Birds, Scottish Environment Protection Agency, Scottish Ornithologists Club, Biological Recording in Scotland. Finlaystone Country Park, Carts Greenspace, Lower Clyde Greenspace.

Website

The LBAP Partnership website is hosted by the University of Paisley and is available at www.renbap.paisley.ac.uk

Do a Little – Change a Lot

Everyone can play a part in conserving our local biodiversity, therefore improving the situation in the whole of Scotland and the UK. If you are interested in helping please contact:

The Biodiversity Officer
Renfrewshire Council, HQ South Building, Cotton Street, Paisley, PA1 1LL
Tel: 0141 842 5281

Fly agaric

What can you do to help?

- Plant shrubs and flowers to attract butterflies, birds and insects.
- Help your local school, hospital or sheltered housing complex to create a wildlife area in their grounds.
- Join and help a conservation group.
- Use fewer chemicals in your home and garden.
- Create a garden pond.
- Use peat-free compost or make your own.
- Don't drop litter or dump rubbish.
- Never take plants from the wild.
- Use more recycled and environmentally friendly products.
- Recycle newspapers, plastic, aluminium cans and glass bottles.
- Support 'green tourism' initiatives on holiday and participate in any green schemes run by hotels and guesthouses.
- Become involved with the monitoring of local wildlife.

Holly

Mute Swan © Martin Phillips

HOW TO BE INVOLVED

How to be involved

Please let us know if you have any comments about this Local Biodiversity Action Plan, or if you would like more information.

NAME _____

ADDRESS _____

_____

_____

TELEPHONE _____

EMAIL _____

FAX _____

COMMENTS (Please continue on a separate sheet if required)

_____

_____

_____

_____

_____

_____

_____

Please tick appropriate boxes

I would like to be involved in implementing the LBAP ☐

I would like more copies of the LBAP ☐

I would like updates of the LBAP as they are produced ☐

Please return this form, or a photocopy, to: The Biodiversity Officer
Renfrewshire Council, HQ South Building, Cotton Street, Paisley, PA1 1LL

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Authors and Contributors
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Geology Maps

Website

Thanks also go to the University of Paisley for hosting the LBAP website.
www.renbap.paisley.ac.uk

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75% of the furnish is made from 100% de-inked post-consumer waste. The remaining 25% being mill broke and virgin fibre.

Dandelion © Martin Phillips

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ABBREVIATIONS

Abbreviations

BCT	Bat Conservation Trust
BMS	British Mycological Society
BRISC	Biological Recording in Scotland
BSBI	Botanical Society of the British Isles
BTCV	British Trust for Conservation Volunteers
CMP	Catchment Management Plan
CMRP	Clyde Muirshiel Regional Park
CRF	Clyde River Foundation
CRG	Clyde Ringing Group
CRS	Countryside Ranger Service
ERC	East Renfrewshire Council
FC	Forestry Commission
FE	Forestry Enterprise
FWAG	Farming and Wildlife Advisory Group
GBCP	Gleniffer Braes Country Park
HEI	Habitat Enhancement Initiative
IC	Inverclyde Council
IUCN	International Union for Conservation of Nature and Natural Resources
LA's	Local Authorities (Inverclyde, Renfrewshire and East Renfrewshire)
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
MLURI	Macaulay Land Use Research Institute
MMG	Moorland Management Group
MS	Moorland Scheme
MTUK	Mammals Trust UK
NFU	National Farmers Union
NNR	National Nature Reserve
NTS	National Trust for Scotland
PNHS	Paisley Natural History Society
PWLO	Police Wildlife Liaison Officer
RC	Renfrewshire Council
RCFMT	River Clyde Fisheries Management Trust
RSG	Raptor Study Group
RSPB	Royal Society for the Protection of Birds
RSS	Rural Stewardship Scheme
SBG	Scottish Biodiversity Group
SCP	Scottish Conservation Project
SEERAD	Scottish Executive Environment & Rural Affairs Department
SEPA	Scottish Environment Protection Agency
SFGS	Scottish Forestry Grant Scheme
SINC	Site of Importance for Nature Conservation
SNCO	Statutory Nature Conservation Organisations
SNH	Scottish Natural Heritage
SOC	Scottish Ornithologists' Club
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STW	Sewage Treatment Works
SUDS	Sustainable Urban Drainage System
SW	Scottish Water
SWT	Scottish Wildlife Trust
UoP	University of Paisley

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Greenfinch


Bluebell

East Renfrewshire Council

Inverclyde council

Renfrewshire Council

SCOTTISH NATURAL HERITAGE

shanks. first