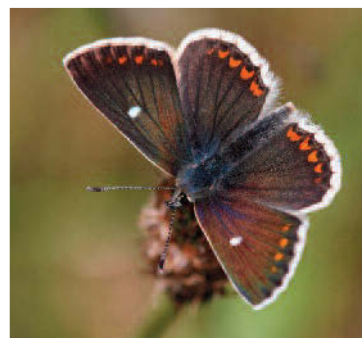
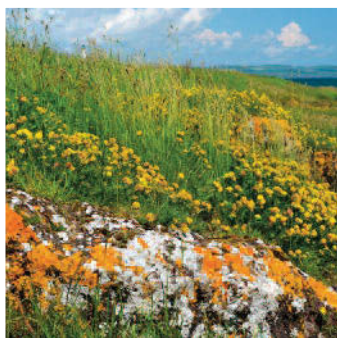
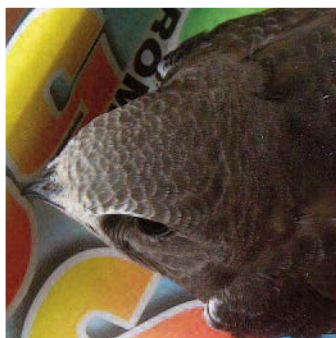
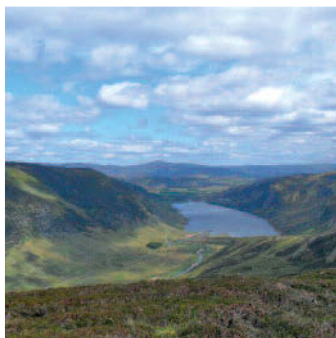


# Tayside Local Biodiversity Action Plan

2nd Edition 2016-2026

Incorporating the local authority areas of Angus and Perth & Kinross



Every Action Counts!

Tayside Biodiversity Partnership



**BIODIVERSITY**  
THE VARIETY OF LIFE





# Chairman's Message

Anyone glancing at this latest Biodiversity Action Plan for Tayside could be forgiven for feeling a little daunted at the scale of the tasks identified in the Actions. Indeed, the scale of what we need to do over the years ahead is large if we are to pass on to our future generations a land that is as rich and varied in all its forms of life as the one that we have inherited. The hope that we can rise to this challenge comes from the sheer goodwill of so many people and organisations willing to give their time and effort to look after our wildlife, whether it be found in the remoter hills or closer to home in our towns and villages. Great examples of what can be achieved when we work together with a little direction and thought applied can be found throughout the following pages.

This Action Plan arrives at a time of great uncertainty, particularly in rural areas which have been so dependent on public funding for so much of our land use. Following the Brexit vote, we have to take the view that this must be an opportunity to improve on our delivery of so many of the tasks identified in this Plan and others which, if achieved, will improve the life of all of us along with all the many forms of life that we share this country with. That is what this Biodiversity Action Plan is about and I am delighted to give it a very warm welcome!

Andrew Barbour  
Chair - Tayside Biodiversity Partnership

## **TAYSIDE VISION**

By 2030 Tayside will have a fully functioning ecosystem network "from summit to sand" - reaching from the Angus Glens and Highland Perthshire to the Tay Estuary, the Angus coast and beyond to the marine environment. Visitors and residents alike will be able to learn about the area's rich biodiversity and will be keen to protect and enhance it. Both the rural and urban environment will be delivering benefits essential for everyone, from helping to reduce flooding, assisting species to adapt to climate change, and ensuring there is no further loss of biodiversity.

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## What Is Biodiversity?

It simply means “the variety of all living things”. It includes the tiniest insects and the largest trees – and us.

We depend on biodiversity for our health, our well-being, and our economy. We benefit from pollination, natural flood prevention, soil creation, and the raw materials for our food and water, clothing, medicines, buildings, and roads.

In Tayside, particularly, we depend on our landscape and iconic species for tourism; plants and animals are key components of our cultural heritage.

Biodiversity enriches all our lives, whether it’s a butterfly visiting our garden or a blackbird heard from a hospital window.



## What Is The Tayside Biodiversity Action Plan?

The Tayside Local Biodiversity Action Plan (TLBAP) was first published in 2002 to focus attention on the conservation and enhancement of the region’s natural heritage and to address its decline. Much has changed in the intervening years and now, although the First Edition and its core objectives are still highly relevant, we need to consider the ecosystem approach being taken forward by the Scottish Government’s 2020 Challenge for Scotland’s Biodiversity, as well as update legislation, policy and actions.

## Who Is It For?

In answering the “**who is it for**” question, we need look no further than Magnus Magnusson’s Foreword to the first edition of the Tayside Biodiversity Action Plan when he pointed out that “biodiversity starts on our own doorstep”.

*“There is no point in publishing Biodiversity Action Plans, however all-encompassing, and then sitting back to admire them. They have to be dynamic. They have to evolve. It depends on us – all of us, not just the statutory bodies, local authorities and agencies charged with safeguarding Tayside’s biodiversity – farmers and foresters, land managers and business entrepreneurs, hoteliers and tourist operators, pupils and students of our schools and colleges. We all have a vital part to play in taking care of Scotland’s natural heritage and to passing on our inheritance to future generations in even better shape than when it was bequeathed to us.*

Magnus Magnusson, KBE - 2002

## How Can I Get Involved?

It is all about scale – everyone can make a space for nature in their garden, school grounds or workplace surroundings. Community groups often aim to achieve one goal but then encompass new people, new projects. Land managers can work together to achieve a landscape-scale project. Local authorities can mainstream key biodiversity tasks in their day-to-day work and collaborate across boundaries to integrate larger-scale projects. The Tayside Biodiversity Partnership’s Working Groups oversee a very wide range of projects and help set up new ones; new members are always welcome. There are many volunteer groups needing help with wildlife surveys or small-scale projects – and importantly, there are many organisations working locally needing help to clean up our beaches, plant new trees or make wildlife-friendly gardens.

# Introduction

The Nature Conservation (Scotland) Act 2004 places a biodiversity duty on all public bodies to further the conservation of biodiversity and to have regard to the Scottish Biodiversity Strategy's 2020 Challenge. This is helping to mainstream the biodiversity process in many organisations, including local authority services. The latter's 2012-2014 reporting on their Biodiversity Duty showed just how much progress has been made to date, but also how much there is still to achieve.

## Working in Partnership

It was not so obvious at the time of the publication of the 1st Edition, but there are two very important elements to the Tayside Biodiversity Action Plan – the fruitful partnership working that brings people and organisations together in safeguarding our habitats and species - and the increasing community involvement. Tayside has many committed volunteers working tirelessly to improve their local area – and at the same time, they are contributing to not just local targets, but national and international targets too.

For instance, what started as a simple Town Swift Survey in 2005 now takes in much of Tayside, including the glens and coastal areas. Surveys in specific towns have enhanced our understanding on where swifts are nesting – and with the ongoing threat of exclusion from renovated and restored buildings why their numbers are declining. Mapping Swift Priority Zones helps to highlight where best to suggest planning conditions on newbuilds and renovated buildings. The pilot Carse of Gowrie Swift Conservation Project involved schools, businesses and local groups to pave the way for a sustainable and ongoing project. This led to a three year project advising property owners within the Kirriemuir Conservation Area Regeneration Scheme how best to safeguard their swift nest sites. Many community swift projects are following suit, with the Stanley Swift Project being highlighted in the Action Plan.

One project often leads to another. The success of the Zoom Bumblebee Survey (which shared sightings of our six most common bumblebees in Tayside with the Bumblebee Conservation Trust)

led to the Tayside BeeWild Initiative. A growing need to encourage pollinating insects in urban areas has shown that care homes, businesses and schools can all play their part. The pilot project in Angus is providing a suite of wildlife kits to eleven sites to encourage the number of urban pollinators.

## Our Biodiversity is Threatened

The Scottish Government publishes official biodiversity indicators, which are used, together with others, to describe the state of the environment in Scotland. In 2013 the long-term trends showed that there is a decrease in both breeding seabirds and wintering water birds, as well as a decrease in flowering plant diversity. There is overall little change where butterflies and moths are concerned and a long-term increase in terrestrial breeding birds and freshwater invertebrates.



*Puffin @ SNH*



*Our native water vole has taken to the hills, but is nearly extinct elsewhere in the region*  
Water vole © Alan Ross

However, the State of Nature report also published in 2013 outlined some alarming conclusions – one being that our marine ecosystems are in trouble where climate change is concerned. Small changes in sea temperature seem to be disrupting populations of phytoplankton which in turn are affecting entire food webs. The end result is fewer sand eels and this means less food for our iconic seabirds of which five out of twelve species are declining strongly.

Our flowering plants are demonstrating similar patterns of change - 54% of species are declining and 28% are strongly declining. Populations of Mountain hare have started to decline more recently, whereas Red squirrel numbers remain at suppressed levels.

Yet there is huge will amongst most of us to turn this round. The loss of our ancient woodlands and raised bogs is galvanising us into landscape-scale action, and our need to prevent flooding is encouraging widespread discussion amongst many partners on the best way forward where natural flood management is concerned. Taking into account the future impacts of climate change at a landscape scale, an ecosystems approach will help many of our species which find themselves at a critical level.

## Local Biodiversity Action Plans In Context: From Rio To Tayside

### International

A generation ago in 1992 at Rio de Janeiro's "United Nations Earth Summit", 168 countries, including Britain, ratified the Convention on Biological Diversity (the CBD). The document required each signatory to develop national strategies, plans or programmes for the conservation and sustainable use of biodiversity.

Two years later the UK Government published its UK Biodiversity Action Plan which prioritised the habitats and species that needed most conservation. Nearly 400 Species Action Plans and 45 Habitat Action Plans were also published, each with time-limited targets to measure their success.

### National

The Scottish Biodiversity Group (later, Forum) was set up in 1996 to oversee the implementation of the relevant UK Action Plans in Scotland. As we go to publication we find ourselves in 2016 celebrating Twenty Years of Local Biodiversity Partnerships.

The first Scottish Biodiversity Strategy: "It's in Your Hands" was revised and a supplementary document 'The 2020 Challenge for Scotland's Biodiversity' was ratified by the Scottish Government cabinet in 2013 to take into account the international Aichi goals and targets agreed by the United Nations General Assembly. The two documents are collectively known as the Scottish Biodiversity Strategy which aims to "protect and restore biodiversity on land and in our seas, and





*Lichens are used as bio-indicators of air quality © CAG Lloyd*

to support healthier ecosystems”. This echoes the mission of the EU Strategic Plan for Biodiversity 2011-20 “to take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services”.

In 2015 the Scottish Government published “Scotland’s Biodiversity: a Route Map to 2020” which acknowledges that much valuable work is underway and planned by public agencies, Local Biodiversity Action Plan Partnerships and local authorities. The Route Map outlines Six Big Steps for Nature:

- 1 Ecosystem restoration – to meet the Aichi target of restoring 15% of degraded ecosystems;
- 2 Investment in natural capital – to ensure the benefits which nature provides are better understood and appreciated;
- 3 Quality greenspace for health and education benefits – to ensure that the majority of people derive increased benefits from contact with nature where they live and work;
- 4 Conserving wildlife in Scotland – to secure the future of priority habitats and species;
- 5 Sustainable management of land and freshwater – to ensure that environmental, social and economic elements are well balanced;
- 6 Sustainable management of marine and coastal ecosystems – to secure a healthy balance between environmental, social and economic elements.

The new targets within the Scottish Biodiversity Strategy are worryingly large and place a great deal of responsibility on the Local Biodiversity Action Plans. The Strategy requests that public bodies, environmental charities, local communities, businesses and landowners/managers maximise the benefits of a diverse natural environment and engage people with the natural world. All this comes at a time when staffing levels are at an all-time low and funding is increasingly difficult to find. It is now urgent to continue to roll out not just small-scale projects, but to also look at ways to set up larger ecosystem-based initiatives with much greater partnership working. Sharing knowledge and experience will be just as important to prevent any reinventing of the wheel and to inspire landscape-scale thinking with in-built sustainability.

### **Local**

To ensure national biodiversity objectives are delivered at a local level there are some 25 Local Biodiversity Action Plan (LBAP) areas across Scotland. Many LBAPs are based within the local authorities, but there are several Partnerships that reach across boundaries. The North East Scotland LBAP, for instance, covers Moray, Aberdeen City and Aberdeenshire. Until 2011, the Tayside Biodiversity Partnership also covered three local authority areas (Angus, Dundee City, Perth & Kinross).

The Partnership first met in 1998 and a Co-ordinator was appointed in 2000. In Tayside, the biodiversity process was funded for the first 3.5 years by the SITA Trust and then shared between Scottish Natural Heritage and the three local





*Foxgloves are commercially grown for pharmaceutical use © CAG Lloyd*

authorities. Dundee City Council left the Partnership in 2011 and SNH remains a non-funding Partner. The lead partners are Angus and Perth & Kinross Council, but we regularly collaborate with our neighbours, in particular the Cairngorms National Park Authority and the North East Scotland Biodiversity Partnership. As the Scottish Biodiversity Officers' Network meets twice a year there is also an opportunity to exchange information at a Scotland-wide level.

The 1st Edition of the Tayside Biodiversity Action Plan focussed on the UK Priority Species and Habitats found in Tayside but as our understanding of biodiversity has changed much in the past decade, the 2nd Edition is taking a much wider approach, looking instead at our ecosystem services.

The purpose of the 2nd Edition being a 10 year Action Plan is that we will be reporting on our short and medium-term actions for the 2020 Challenge, but keeping the long-term picture in mind as new international and national targets are set beyond 2020.

### **A Local Plan for Local People**

Without a concerted effort to conserve our local biodiversity nothing will be achieved. Our Tayside Biodiversity Working Groups draw members from as wide an audience as possible; the Actions Schedules identify objectives and targets for the conservation of the ecosystem, habitat and species and then the actions required to achieve them.

The biodiversity process is a dynamic one, involving a vast range of people who can all make a difference. Many of the key players are listed in the individual ecosystems Actions Schedules. They include statutory bodies, local authorities, businesses and non-governmental organisations. They also include local community groups, some of them directly named. As ever, it is often down to individuals working in partnership with others to kick-start projects and in the years to come we will meet new community groups and people keen to take responsibility for their local patch. The Action Plan has to remain flexible because of this to respond to changes in local policy, the environment and the local communities themselves.

The strength of Local Biodiversity Partnerships is that they bring together organisations who are already undertaking tasks, but working together we can widen them or make them more inclusive. Duplication of effort can be avoided and new ideas mooted to an interested audience who can and do make a difference. Collaboration is now becoming ever more important with the need to plan on a landscape-scale. It would be easy to step back and let the larger organisations take this task on, but in fact there are many more opportunities to bring people together and achieve even more.





*Bringing Biodiversity to the workplace – every action counts! © Kelly Ann Dempsey*

### **Every Action Counts!**

A key part of the biodiversity process is the monitoring and review of agreed actions. This is now achieved via the UK Biodiversity Action Recording System (UKBARS). The Working Groups will continue to draw up project proforma from the actions listed in the Actions Schedule and Lead Partners, joint partners and contributors to each action will be included within the web-based UKBARS. Lead Partners will have the opportunity to report back regularly on progress being made and the Partnership will be in a position to report on its overall achievements at the close of the 2020 Challenge.

### **Links with Other Local Plans**

It is essential to link the LBAPs' objectives and targets to other plans in Tayside. Key processes and policies that can play a role in biodiversity include:

- Community Planning
- Local Authority land use development plans (Local Development Plans)
- Local Authority Forestry and Woodland Plans
- Angus Shoreline Management Plan 2 (Angus Council)
- River Catchment Management Plans
- Natural Heritage Zones (SNH)
- Environmental Management Systems
- Business Site Biodiversity Action Plans
- Agri-environment Schemes
- Local Site Management Plans
- Neighbouring LBAPs

Now there is an ecosystem approach, it is important the Plans link across local authority boundaries so that there are shared actions and a greater audience. The Tayside Biodiversity Partnership area is bounded by six other LBAP areas – North-East Scotland, Stirling, Clackmannanshire, Fife and the two National Park Authorities - the Cairngorms, and Loch Lomond & the Trossachs. The Cairngorms National Park Authority overlaps into the Tayside LBAP area, taking in the Angus Glens and Highland Perthshire. The Northern Region Biodiversity Officers meet regularly to discuss links and projects encompassing Tayside, North East Scotland, the Cairngorms National Park Authority and Highland areas. There is further collaboration with the North East Green Network which is looking into the potential of cross-boundary projects.

### **Natural Capital**

Many businesses are including the conservation and restoration of biodiversity into their decision making, not for altruistic reasons, but to limit the potential climate change and biodiversity loss that is likely to affect their bank balance. The United Nations has undertaken a great deal of research on The Economics of Ecosystems and Biodiversity (TEEB).

The term 'natural capital' is seen by many as commodifying biodiversity but is described in Scotland's Natural Capital Asset Index 2015 as 'the elements of nature that directly or indirectly produce value for people, including ecosystems, species, freshwater and land'. In the 2015 report it was noted that coastal, inland surface waters and woodland natural capital stocks have recovered,





*Woodland harvest - a provisioning ecosystem service © Kelly Ann Dempsey*

but that heathland and bogs natural capital stocks have declined. Inland surface water delivers a wide range of ecosystem services and its recovery is the key reason for Scotland's natural capital to show the recent positive trend. Future threats to our natural capital include invasive non-native species and climate change.

### **Climate Change**

In the Tayside LBAP's 1st Edition the subject of climate change warranted a few lines under the "Wider Issues Outwith the Plan" section. However, we are all now cognisant with the fact that climate change is having a significant effect on our environment and there are likely to be many challenges for our biodiversity in the years to come. Many of these will include negative impacts:

- Sea level rise and increased storms as global climates change may cause foreshore steepening, allowing increased wave attack at the base of the dunes and exacerbating coastal erosion.
- As the intensity of heavy rainfall events increase, flooding severity will have greater impacts on the movement of sediment, invasive species and erosion.
- As sea temperature rises, marine invasive species may also find it easier to colonise new areas.
- Terrestrial species will become more restricted in distribution as their habitats change.
- More robust species are likely to expand and colonise new areas to the detriment of native species. This will include a greater number of pests and diseases affecting our trees and crops.

- There will be local species extinctions as habitats become more fragmented.
- As the seasons change, early or late appearance of prey or forage species may cause population declines in our native wildlife.



*Our coasts are vulnerable to climate change © Kelly Ann Dempsey*

With an ecosystems approach, however, there will be many opportunities to plan habitat networks and ensure our greenspaces and farmed land are linked by way of wildlife corridors. New country-wide guidance will suggest how best to cope with weather patterns, new pests and crops and this will be revisited when the 2nd Edition is reviewed in 2020.