Tayside Local Biodiversity Action Plan 2016-2026




2023 Action Progress Review - Angus

Tayside Biodiversity Partnership

CELEBRATING 25 YEARS

Angus Council
Comhairle Aonghais

1 Foreword

Ten years ago, Tayside Biodiversity Partnership stakeholders began discussions to undertake the development a second edition Tayside Local Biodiversity Action Plan. A wide ranging and ambitions ecosystem focused plan was published in the summer of 2016 and setting out local priorities for the next decade.

How quickly a decade can pass. We are now nearly at the end of the plan's lifespan. A review of progress to date was planned for 2020 and 2021, the COVID19 pandemic stalled this ambition, and we find ourselves only now, in a position to review the progress of action delivery in Angus and for Tayside as a whole in 2026.

We do not know fully the impact those years had on the ability of communities and stakeholders to deliver action, but do know that that the recognition of the nature and climate crises and our ability to contribute positively to addressing them is at an all time high.

The Tayside Biodiversity Partnership, is an inclusive partnership of wide ranging, dedicated members, and staff. It is an exemplar partnership that can demonstrate how sharing aspirations, ambition and a passion for Tayside and its astounding nature can go a long way. Partners tirelessly deliver projects that support nature and its restoration and provide endless opportunity for people from all walks of life to enjoy small wonders like the Small Blue Butterfly found on our coasts, to the most majestic spectacles of nature we welcome with the seasons each year such as the migration of wintering pink footed geese in numbers reaching over 80,000.

We are entering exciting, motivating times where policy will call for greater commitment in restoring nature, against more defined timescale than ever before. The next edition of the Tayside Local Biodiversity Action Plan will embrace these opportunities and I am sure that communities and partners in Angus and Tayside will rise to the challenge. This interim review will help focus activity across ecosystems ensuring that as we begin delivery of our next plan, opportunities for all are equal, and priorities and challenges are understood and embraced.

Cllr Serena Cowdy

Spokesperson for Environment, Tourism and Active Travel

Contents

2 Background

What Is the Tayside Biodiversity Action Plan?

The Tayside Local Biodiversity Action Plan (TLBAP) was first published by the Tayside Biodiversity Partnership in 2002, its aim, to focus attention on the conservation and enhancement of the region's natural heritage and to address its decline.

After a yearlong stakeholder consultation period, the second, 10-year plan was developed and published in 2016. Its purpose was to consider local priorities and the ecosystem approach being taken forward by the Scottish Government's 2020 Challenge for Scotland's Biodiversity published in 2015, as well as evolving legislation, policy, and action. Post 2020 was considered at the time, and the plan is made up of short and medium- and long-term actions taking this into account.

Its key objectives are as follows:
Objective 1. Endeavour to reduce the direct pressures on ecosystems by implementing projects to protect and restore ecosystem health.
Objective 2. Safeguard ecosystem species and genetic diversity by enhancing connectivity and where possible preventing their decline.
Objective 3. Mainstream biodiversity conservation action by raising awareness and the enjoyment of ecosystems.

The Plan consist of key ecosystem themed sections including Coastal and Marine, Water and Wetlands, Urban, Upland, Farmland, Woodland, and both a People and Communications and Tayside Geodiversity Action Plan. It contains 155 overarching actions and 573 sub actions. At the time of development, it was true reflection of stakeholder, local and national priorities.

The plan priorities the special relationship between people and nature. Objective three can be further be broken down and incorporates the following:

1 Increase awareness, understanding and appreciation of biodiversity and ecosystem services throughout Tayside.

2 Provide opportunities for residents and visitors alike to actively engage in biodiversity conservation action.

3 Mainstream opportunities for everyone of all ages and abilities to take part citizen science projects and biological recording

4 Identify, designate, protect and monitor important geological and geomorphological sites and landforms and raise awareness of geodiversity throughout Tayside, including its importance to biodiversity.

The Plan is not a stand-alone document. It is important to consider its links to other plans in Tayside. Key processes and policies that can play a role in successful delivery of the TLBAP include:

- Community Planning
- Local Authority Local Development Plans
- Local Authority Forestry and Woodland Plans
- Angus Shoreline Management Plan 2
- River Catchment Management Plans
- Natural Heritage Zones
- Environmental Management Systems
- Agri environment Schemes
- Neighbouring Local Biodiversity Action Plans

3 2023 Angus Progress Review

A review of progress to date, ahead of the 2026 completion date, has been carried out to prioritise areas where there is greatest need to meet action delivery targets. At this time, Angus actions have been assessed and this report outlines each TLBAP section and includes key stats and case studies based on indicative progress to date. A full review, mapping of projects and full quantitative assessment will be produced after 2016. This will then be incorporated with Perth & Kinross progress, to present a fuller picture of Tayside wide action delivery.

Progress has been measured by Angus Council Environment and Climate Change Biodiversity staff who have liaised with Tayside Biodiversity Partnership themed working groups, all tasked with overseeing the progression of delivery in their own area of expertise. Partnership working is at the core of project delivery and without it, little of the success included in this report would have happened.

WHO WE WORK WITH - KEY PARTNERS

For the purpose of this report, in each section, the number of delivery partners are noted. The list below is a compilation across all ecosystem themes, demonstrating the extent to which partnership working is critical. In total there are 96 included and this number will increase post review in 2026.

ARC Trust, Bary Buddon Management Group,
Bat Conservation Trust,
BEAR Scotland,
Botanical Society Britain and Ireland,
British Divers Marine Life Rescue,
British Dragonfly Society,
British Trust for Ornithology,
Broughty Ferry Environmental Project,
Buglife Scotland,
Bumblebee Conservation Trust,
Butterfly Conservation Scotland,
Butterfly Conservation,
Cairngorms National Park Authority,
Community groups,
Community Woodlands Association,
Deer Management Groups,
Dundee Botanic Gardens,
Dundee City Council,
Dundee Naturalists Society,
East Grampian Coastal Partnership - Turning the Plastic Tide,
East Haven Together,
Eco Congregation Scotland,
Esk District Salmon Fishery Board & Trust,
FIDRA,
Forestry & Land Scotland,
Friends of Angus Herpetofauna,
Froglife,
Game & Wildlife Conservation Trust,
Golf Courses – Carnoustie, Montrose , Arbroath,
Hillcrest Housing Association,
Historic Environment Scotland
Industrial estates and business parks,
Landowners and Land Managers,
Landowners and managers,
Local Angling Clubs,
Lunan Bay Community Partnership,
Mammal Society,
Mammal Trust,
Marine Conservation Society,
Marine Life Angus,
National Farmers Union Scotland,
National Trust for Scotland,
NatureScot,
NHS Tayside,
North East Biodiversity Partnership,
North East of Scotland Biological Recording Centre,
Perth & Kinross Council,
PlantLife Scotland,
PlantLife,
Police Scotland (PAW),
River South Esk Catchment Partnership ,
Royal Lichen Society,
Royal Society for the Protection of Birds,
Scotia Seeds,
Scotland's Rural College,
Scottish Biodiversity Information Forum,
Scottish Environment Protection Agency,
Scottish Forestry,
Scottish Gamekeepers' Association,
Scottish Government Rural Payments and Inspections Directorate,
Scottish Green Infrastructure Group,
Scottish Land & Estates,
Scottish Orchard Collective,
Scottish Water,
Scottish Wild Beaver Group,
Scottish Wildcat Action,
Scottish Wildlife Trust,
Small Blue Interest Group,
Sustainable Kirriemuir,
Sustrans,
Tactran,
Tay Estuary Forum,
Tayside Amphibian and Reptile Group,
Tayside Bat Group,
Tayside Biodiversity Partnership,
Tayside Raptor Study Group,
Tayside Recorders Forum,
Tayside Swifts,
Vice County Recorders,
VisitAngus,
VisitScotland,
Voluntary Action Angus,
Woodland Trust,

ACTION DELIVERY TO 2023

The following section highlights overall progress and is broken down into ecosystem themes. It is important note that small number of 28 sub actions (28) are Perth and Kinross specific -5% of total sub actions. Additionally, difficulty in receiving information on some action progress may have impacted on overall progress calculations in 2023.

Key Stats

116 in progress
= 75%

341 in progress
= 60%

3.1 Water & Wetland Ecosystems

Key Stats

14 in progress
= 67%

47 in progress
= 59%

31 partners

** note * many projects are PKC specific*

Priority Habitats

Rivers and Burns • Lochs and Standing Water • Ponds and Pools • Wetlands • Lowland and Raised Bogs • Transition Fen

Key Species

Salmonid species • Riparian mammals • Wading, wetland and diving birds • Freshwater invertebrates • Riparian, peatland and wetland plants

CASE STUDY 1

Rottal Burn Restoration & UK River Prize

The Rottal Burn is a tributary of the River South Esk Special Area of Conservation (SAC) in Glen Clova, Angus, with headwaters in Cairngorms National Park. The lower burn was straightened around the 1830s for agricultural reasons and was subjected to regular dredging. While salmon, a species for which the river is classed an SAC, continued to spawn in the straightened section of river, survival of juvenile fish was poor. To restore the Rottal Burn, a new channel was created in 2012, replacing 650m of straightened, embankment-lined channel with an open, meandering channel extended to 1200m in length, re-connected to its floodplain.

Linking Action and Strategy

The Rottal Burn Restoration delivers multiple benefits contributing to important issues from a global to local scale. The project has delivered:

- Habitat restoration, enhancing connectivity and ecological coherence;
- Freshwater & species restoration, including significant hydrological change;
- Natural flood management benefits by connecting rivers with flood plains and by reducing flow variability;
- Enhanced local nature networks through multihabitat restoration;
- Increased carbon storage through flood plan restoration and riparian woodland expansion.

The ambitious project forges a strong link between river restoration, multi-habitat nature restoration and wider policy development and delivery. The project contributes to many local and national biodiversity strategy and action plan objectives, delivering against multiple actions in the Tayside Local Biodiversity Action Plan 2016-26. The Esk Rivers and Fisheries Trust, River South Esk Catchment Partnership, Abertay University and landowner, Rottal Estate, have been integral to project development, delivery and ongoing monitoring of the Rottal Burn Restoration.

Community Impact

A decade from inception, the Rottal Burn Restoration continues to inspire action and provides lessons in good practice and capacity building through links to wider strategy. River restoration specialists and a varied stakeholder network visit the site and witness river restoration as it evolves. Not only has the project restored nature and contributes to local and global outcomes, it aids climate change adaptation and resilience, increased carbon storage, and provides natural flood management benefits for downstream communities and landowners.

The ‘Restoring the Rottal Burn’ project was awarded the UK River Prize at a River Restoration Centre event in Birmingham in April 2023 by the River Restoration Centre. The project is an example of what can be achieved when local partners, experts, academics and landowners combine their strengths for the benefit of the local environment, biodiversity and community. It continues to inspire new restoration projects across the River South Esk catchment and Angus.

More information can be found here

CASE STUDY 2
The Scottish Invasive Species Initiative

The Scottish Invasive Species Initiative (SISI) is an exciting and ambitious partnership project developed to tackle invasive non-native species alongside rivers and water courses in northern Scotland. The SISI project area is vast, covering an area of 29,500km2 – over a third of Scotland and encompasses Perthshire, Angus, Aberdeenshire, Moray and Highland. In Angus, the Esk Rivers & Fisheries Trust represent one of ten fishery trust/board partners in SISI working to deliver the project across Angus catchments.

Invasive non-native species (INNS) have a significant negative impact on freshwater and riparian environments. They contribute to the decline of native species, increase bank erosion and can, in the case of Giant Hogweed, be a threat to public health. The aim of the project is to halt and control the spread of invasive species, enabling habitat restoration and ultimately the return of native wildlife.

The SISI project was launched in 2017 and has recently secured new funding for 2023 onwards, receiving Nature Restoration Fund funding to 2026. This allows local delivery teams to build on progress made so far. This continued funding stream will allow work to continue on the rivers North and South Esk. Work to date has been delivered by by SISI staff, volunteers, and land managers/proprietors working together.

Control Agreements

As part of ongoing work, the SISI project is pioneering a new voluntary control agreement system to enable control that continues to be sustainable. These agreements ask land managers/proprietors to voluntarily commit to ongoing invasive plants control on their land, either fully independently if the situation has improved sufficiently, or with the support of SISI where required. This is vital to ensure eradication is achieved in the long term and allows SISI staff to focus on heavily infested, downstream areas. In 2022, 15 land managers/proprietors on the North and South Esks combined signed agreements, with more in place to sign up in 2023.

More information can be found here

3.2 Coastal and Marine Ecosystems

Key Stats

21 in progress
(2 not Angus projects)
=87%

78 in progress
= 91%

28 partners

Priority Habitats

Saltmarsh • Intertidal mudflats & Estuarine Reedbeds • Marine • Maritime cliffs • Sand dunes

Key Species

Wintering waterbirds, including Pink¬footed and Greylag geese • Cetaceans • Maritime plants, including Zostera spp. • Breeding seabirds • Coastal invertebrates

CASE STUDY 3
Angus Small Blue Butterfly

The small blue (*Cupido minimus*) project was established as a five-year project in 2011 by the Tayside Biodiversity Partnership and Angus Council to conserve the UK's smallest butterfly's dwindling population. Working closely with the East Scotland Butterfly Conservation Branch, interest from local communities to increase and the project is now in its 12th year. With more than 40 organisations, community groups and individuals involved the project showcases how collaborative, community-focused conservation can succeed. Woodlands Primary School in Carnoustie Small Blue Species Champion's and are often joined in conservation activities by Cllr David Fairweather, who is the Small Blue Elected Member Champion for Angus.

An Exemplar Project Nationally Recognised

In December 2023 the Tayside Biodiversity Partnership's project "Back from the Brink – Saving our Small Blue" won the much-coveted RSPB Nature of Scotland "Community Initiative Award". In the same week, the project achieved the Association of Local Government Ecologists' 25th anniversary "Local Government Biodiversity Project" UK wide Award.

A whole community effort

More than 85 volunteers have been trained to survey the butterfly and the extent of Kidney Vetch along the coast and more than 60% of Angus coastal landowners are actively engaged in habitat management to safeguard the butterfly. Since 2015 over 1000 specially-grown Kidney Vetch plants have been planted at over 15 sites by community volunteers. This is increasing the extent of the important Kidney Vetch "corridors" much needed as food for the Small Blue caterpillars.

During the project hundreds of people, of all ages, have shared their enthusiasm and knowledge with many other unknown champions. Winning two national awards in the space of just one week shows the project can be used as an exemplar to help conserve many more Scottish species in Angus.

Project evolution

Small Blue Butterfly on the Angus Coast is a key species for 'Species on the Edge' a new ambitious partnership of eight of Scotland's nature conservation organisations striving to conserve Scotland's native wildlife began in 2023. Conservation action to preserve populations and community engagement will be delivered by dedicated project staff alongside the Angus Small Blue Interest Group ensuring the ongoing legacy of 'Back from the Brink'.

More information can be found here

CASE STUDY 4
Angus Coastal Festival

The Tayside Biodiversity Partnership (TBP) held the first "Angus Coastal Festival" in September 2018. The festival's aims were to increase public understanding and awareness of issues impacting on coastal ecosystem health; empower communities to participate in safeguarding the coast; and to provide opportunities for communities to enjoy their coast. Strategically the festival contributed to the Tayside Local Biodiversity Action Plan 2016-26 'Coastal & Marine Action Plan' Objective to "Mainstream biodiversity conservation action by raising awareness and the enjoyment of coastal and marine ecosystems of local communities".

A festival embraced by the community

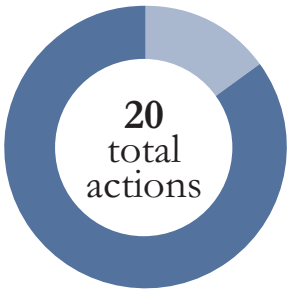
The TBP Coastal & Marine Working Group developed and delivered the festival programme, which included 43 free events through engagement with coastal communities and 21 partner agencies. The 11-day period in September 2018 was chosen to coincide with the Great British Beach Clean weekend (GBBC) 2018. Community engagement and marine litter issues were at its core and the TBP set itself the task of increasing the number of volunteers taking part in beach cleans in Angus during GBBC.

Local schools and businesses participated in a range of activities. During the weekend, nine beach cleans took place on the Angus coast with more than 170 participants removing 5175 items of marine litter.

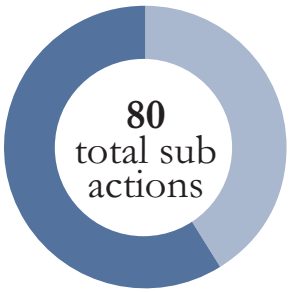
The festival proved to be very popular amongst Angus residents and visitors from within the neighbouring Tayside region and the festival was attended by more than 700 people. The event was repeated in 2019 and again was great success. Due to Covid19 restrictions there was no 2020 event celebrating Scotland's Year of Coasts and Waters. All going well, the event will be back in 2024, the 25th anniversary year of the Tayside Biodiversity Partnership.

3.3 Urban Ecosystems

Key Stats



17 in progress
=85%



47 in progress
= 59%

39 partners

Priority Habitats

Riparian corridors • Open Mosaic habitats, including brownfield sites • Urban woodland and community orchards • Pollinator networks • Green roofs • Species rich verges • Designed landscapes

Key Species

Mammals, including Red Squirrel, Bat and Hedgehog • Birds, including Swift and House Sparrow • Amphibians, including Common Toad • Pollinators, including bees and butterflies • Invasive non-native species, e.g. Japanese Knotweed, Grey Squirrel

CASE STUDY 5
Angus Space for Nature and Strathmore B-lines

The Montrose Space for Nature Pilot was developed by Angus Council staff and local native wildflower seed producers Scotia Seeds 1n 2019. The project involved a change in the grass cutting regime and herbicide application in open spaces at three sites in Montrose to allow wildflower regeneration. A 2km section of cycle path saw cuts reduced to 16 to 2 per year, with the final cut and lift in late autumn. This will reduce nutrient load on the verges allowing wildflowers and pollinators to thrive. The pilot project goes beyond amenity grassland management also focusing on wildflower meadow management in disused kirkyards. Scotia Seeds funded information panels that provide in-situ details about the project. Local people of all ages were asked to send in drawings of local wildlife and wildflowers and a number have been selected for use on the information panels.

Scaling Up Restoration

The project has enhanced biodiversity by allowing regeneration of native grassland meadow and has improved the food source for pollinators and has been extended to a number of Angus towns since its inception.

The project has been complimented by 'Strathmore B-Lines - People & Pollinators in Strathmore" an exciting new two-year Buglife project funded by the National Lottery Heritage Fund & Gannochy Trust which aims to restore 20 hectares of grassland and nectar rich habitats at 20 sites across the B-Line between Montrose and Dunkeld.

The Strathmore B-Line crosses some of the most agriculturally intensive land in Scotland and currently supports a variety of fragmented pollinator habitats in the foothills of Angus and Highland Perthshire. The project we will work with land managers and communities scattered along the B-Line, increasing flower-rich habitat for pollinating insects; creating habitat corridors and stepping-stones which will enable them to freely disperse and re-colonise the area and surrounding landscape.

The project will support the recovery of threatened species and will help to restore abundant populations of insects that are essential for pollinating our crops and wildflowers.

Angus Council manages a range of sites as wildflower meadows and in total manages 40,000 square meters of species rich wildflower meadow. As part of the project, twelve Angus Council sites in Montrose, Brechin, Edzell, Kirriemuir and Glen Lethnot will see habitat restoration and are committed to long term site management plans.

These initiatives help deliver Scottish Pollinators Strategy objectives and provide invaluable environmental learning, education and volunteering opportunities.

More information can be found at

CASE STUDY 6
Angus 'Amphibians in Drains' Project and Community Conservation

Friends of Angus Herpetofauna (FAH) is a local Amphibian & Reptile Group (ARG) founded in 2007, active in Angus and Tayside. Over a number of years Tayside Biodiversity Partnership has worked with FAH on projects in Perth & Kinross and Angus.

Angus Amphibians are under threat from habitat loss, disease, pollution, and the impacts of climate change. They provide an indication of the health of the environment and are being seen less frequently in our neighbourhood and garden ponds. A widespread threat to amphibians is entrapment in roadside gully pots.

Angus Innovation Leading the Way

Angus Council Roads Department gave permission for the first British Amphibian Ladder trial to be undertaken at two sites: one just north of Dundee and the other in Carnoustie. Angus Council Orchardbank campus has more than 30 amphibian ladders installed on site. his was undertaken by the Friends of Angus Herpetofauna and students from University of the Highlands and Islands and the University of Dundee, reporting directly to Angus Council. The resulting academic paper has since been widely circulated and is helping to influence other local authorities across the UK.

In 2023 ladders especially adapted for ponds were installed in two Montrose urban ponds via the Nature Restoration Fund. Urban sites including seven Angus Business Parks are currently being worked into a project with Froglife and FAH.

Data and Mapping Driving Priorities

In Perth & Kinross, Amphibian Priority Zones have been identified. Research has been replicated in Angus and a SuDS audit was undertaken by a student in 2017. The audit identifies existing and proposed SuDS and included a qualitative assessment. The SuDS Audit data has highlighted where best to focus the installation of wildlife kerbs and amphibian ladders. Amphibian Priority Zone mapping project began in 2018 with the launch of a Shaping Angus map-based consultation asking the public to report live sightings, breeding ponds and migration routes.

Toads on Roads projects continue to be delivered in priority areas including Monikie led by FAH and Angus Alive Rangers Service. In 2021 Saving Scotland's Amphibians and Reptiles (SSAAR), an ambitious Scotland-wide initiative held an amphibian ladder workshop with FAH in Newtyle. The community, FAH and SSAAR identified where amphibians were being trapped in local gully pots and amphibian ladders were installed around the village. The community continue to monitor the sites and this inspiring approach is hoped to be replicated across Angus.

More information can be found here

3.4 Upland Ecosystems

Key Stats

16 in progress
=73%

42 in progress
= 55%

30 partners

Priority Habitats

Montane • Upland Heath • Montane scrub • Blanket bog

Key Species

Upland mammals including Mountain hare and Water vole • Upland birds, including Golden eagle, Snow bunting and Scoter • Upland plants, including Oblong woodsia, Mountain Scurvy grass and Snow caloplaca

CASE STUDY 7
River South Esk 2020 Source to Sea Challenge

The River South Esk Catchment Partnership was awarded £130k from NatureScot in the first round of the Biodiversity Challenge Fund in 2019. Project partners included the River South Esk Catchment Partnership, Esk Rivers & Fisheries Trust, Forestry & land Scotland, Abertay University and Angus Council. The project's aim was to enable riverbank restoration and wetland habitat creation at five sites in Glen Clova and native broadleaf expansion in riparian and montane zones in Glen Doll.

Delivery was challenging with delays owing to Covid-19, but there was progress. Large woody structures were incorporated into five riverbank sites in Glen Clova: the structures collect sediment, slow water down and reduce erosion. They provide shelter for adult and juvenile fish, reducing predation pressure. New habitat also benefits mammals, birds, plants and invertebrates.

Riparian planting of native broadleaved species was carried out; every action contributes to improving the health of the River South Esk in-situ and downstream. Ongoing monitoring will allow the Partnership to build up an evidence base showing the multiple benefits these small interventions can make.

A focus on Local Origin Regeneration

All trees where sourced from as local seed zone as possible or as is the case with the Hazel, grown in a seed nursery planted from seed of Scottish origin. Forestry & land Scotland also delivered baseline habitat survey and set up fixed point photography for future monitoring within the montane tree enclosures.

In addition to the habitat creation, the project will provide seed sources for future natural regeneration during forest restructuring and has increased the locally rare Aspen tree within Glen Doll Forest by approximately 490%. The additional small fencing enclosures have also protected well over 100 rowan seedling/saplings and native ground flora that have previously been subject to heavy deer browsing pressure, allowing them to fully establish and improving habitats for pollinators.

Scaling Up Action on the River South Esk

The project was the largest at that time to be delivered by the River South Esk Catchment Partnership. The launch of the Scottish Government's Nature Restoration Fund in Spring 2021 has provided an opportunity for the Partnership to use experience gained in its development to work with partners on a successful £140k NRF development phase bid in 2022 and if successful, on a £1.6 million delivery phase to begin in November 2023. The project aims deliver woodland expansion, wetland creation and river restoration at a scale unseen before in Angus.

More information can be found here

3.5 Farmland Ecosystems

Key Stats

11 in progress
=79%

36 in progress
= 49%

30 partners

Priority Habitats

Lowland Meadows • Upland Hay Meadows • Calcareous and Base¬rich Grassland (including limestone pavement) • Wet Grassland • Farm Buildings • Hedgerows and Treelines • Stone Dykes

Key Species

Bat species • Farmland birds, including Barn owl, Tree sparrow, Grey partridge, Linnet, Lapwing, Corn bunting and Skylark • Reptiles, including Common lizard and Slow worm • Hirundine species (Swallow, House martin, Sand martin) and Swifts • Calcareous Grassland species, inc. Osmia inermis (Mason bee), Northern brown argus, Rock rose

CASE STUDY 8
Angus Local Nature Conservation Sites

Identifying and designating Local Nature Conservation Sites (LNCS) in Angus is a priority action for Angus Council. LNCS are areas that are botanically or species rich warrant recognition. Many contain remnants of complex habitats that have survived in some from since the last ice age.

With the twin biodiversity and climate crises, the protection of sites of nature conservation value has increased importance and this is reflected in National Planning Framework 4 (NPF4). The sites identified through this study will support policies within NPF4.

The first phase of identifying and assessing sites is complete and a second is underway. Work previously undertaken by Scottish Wildlife Trust between 1993 and 2002 has been used as a basis for identifying candidate sites and surveyed.

Angus Sites Safeguarding Native Species

Following completion of Phase 1 a total of 28 sites have passed the assessment process and are considered suitable for designation as Local Nature Conservation Sites ranging from 3 -163 ha in size. Many sites contain locally and nationally rare species and feature multiple habitat types, the most diverse of which contained 184 plant species. Most can be found in the Strathmore North wards area of Angus and a new site has been identified on the Angus coast.

An assessment panel of locally based nature experts have volunteered their time since 2021 providing expert panel knowledge opinion and ensuring the process has been consistent. This effort has enabled the completion of phase 1 and the dedicated panel will repeat the process in the coming months to ensure that a second phase of locally important sites can be recognised.

More information can be found at here

3.6 Woodland Ecosystems

Key Stats

22 in progress
= 69%

62 in progress
= 55%

26 partners

Priority Habitats

Native conifers: Scottish Pinewoods, Yew and Juniper • Upland Birchwoods • WetWoodlands • Upland Oakwoods • Upland Mixed Ashwoods • Lowland Mixed Broadleaf (Deciduous) Woodlands • Aspen • Traditional Orchards • Planted ConiferousWoodlands (especially the woodland edge/glades)

Key Species

Woodland mammals, including Red squirrel and Pine marten • Scottish crossbill and Nightjar • Woodland invertebrates, inc. Scottish wood ant and moths • Woodland plants, inc. Juniper, Blaeberry, Small Cow¬wheat, Coral¬root orchid and Twinflower • Woodland lower plants and fungi

CASE STUDY 9
Saving Scotland's Red Squirrels

Saving Scotland's Red Squirrels (SSRS) is a partnership project led by the Scottish Wildlife Trust established in 2009 to ensure that red squirrels will continue to be a part of Scotland's special native wildlife.

Scotland is home to over 75% of Britain's remaining red squirrel population which has suffered a

dramatic decline due to the spread of the invasive, non-native grey squirrel which out-competes reds for food and living space and can carry squirrel pox—a virus deadly to red squirrels. The project's focus is to combat the spread of greys in areas where this action will have a positive impact on Scotland's core red squirrel populations.

Across much of Angus, SSRS efforts since 2017 have focused within the Highland Line Control Zone, a ten-kilometre-wide stretch south of the Highland Boundary Fault Line, running from the west coast to the east coast near Montrose. The main aim of this work is to stop the spread of greys north of the line into the core red squirrel population, and over time push the line southwards, enabling red squirrels to extend their range within Angus.

The efforts undertaken to date have been successful and have minimised the incursion of grey squirrels northward and reduced grey populations in the region. During this time staff, volunteers, and dedicated landowners have removed over 12,300 grey squirrels from priority areas in Angus and Perth & Kinross and as of 2023 the main southern line has been pushed below the Coupar Angus-Forfar road in west Angus. There remains only one significant grey population north of this which ongoing control has considerably reduced resulting in increasing red squirrel numbers. Additionally in east Angus strategic efforts have identified previously unknown grey hot spots. This is important as it identifies the source of pioneering squirrels and enables prevention control. Finally annual squirrel pox monitoring across Angus since 2013 have returned all negative results to date.

One of the northernmost frontiers for grey squirrels in Scotland lies in Northeast Angus & the Mearns and is a critical point for SSRS efforts. Spring and autumn volunteer surveys in Angus, and the establishment of staff-led, volunteer delivered Rapid Response Monitoring (RRM) in the Mearns in 2021, helped SSRS understand the area's migration of grey squirrels northward and the routes taken by grey populations along more urban areas of eastern Scotland. In 2021, 10 grey squirrels evidencing a breeding population were removed from the Mearns, and in 2022, RRM was extended south of the Mearns to NE Angus. There are currently 115 monitoring feeder boxes in Angus, which are checked every 2 weeks by volunteers and low-density squirrels continue to be removed.

Project staff rely on interaction with and support from the Angus community. Angus is a key region for the safeguarding of Scotland's red squirrels, and long-term persistent grey squirrel monitoring and control work is essential if red squirrels are to continue to thrive in the area.

More information can be found here

Saving Scotland's Red Squirrels is led by the Scottish Wildlife Trust, with other key partners and funders including NatureScot, Scottish Forestry, Forestry and Land Scotland, Scottish Land and Estates, RSPB Scotland, and The National Lottery Heritage Fund

3.7 People and Communications

Key Stats

12 in progress
= 75%

22 in progress
= 48%

17 partners

** note * many projects are PKC specific and report reflects Angus projects*

CASE STUDY 10
East Haven Bio Blitz and Tayside Local Biodiversity Action Plan Launch

In the summer of 2016 the Tayside Local Biodiversity Action Plan 2016-26 was launched in East Haven in Angus at a largescale community event. Woodlands Primary School, partners and elected members joined the East Haven community in celebrating the launch of the ten-year plan aimed at restoring and protecting Angus's valuable habitats and species.

Following consultation and discussion with Tayside Biodiversity Partnership it was agreed that a BioBlitz would provide a fun and exciting way to involve people in exploring the wildlife and generating biological records. The event brought together scientists and species experts to work alongside members of the public to identify as many species of mammals, birds, insects, plants and marine life as possible over two days. A number of key outcomes to be achieved were agreed, these included:

- An up-to-date species list for Tayside Biodiversity Partnership and add to the national database of biological records
- Helping young people by lowering barriers to engaging with nature
- Increasing knowledge and understanding of local wildlife habitats
- Developing skills in identifying wildlife
- Develop biological recording skills
- Informing future conservation practice and local land management

Setting an Example for Community Recording

The event was great success with large numbers of the local community undertaking recording over the weekend. In total 347 different species were identified and 636 species were uploaded to irecord to help build picture of the nature in East Haven.

All children participating in the BioBlitz were presented with Citizen Scientist badges to provide a lasting reminder of their experience and instil the importance role citizens can play in gathering records and protecting wildlife. The community in East haven continue to champion species recording and from 2016 and 2022 more than 578 species have been recorded.

More information can be found here

CASE STUDY 11
Angus Species and Habitat Champions

Following in the footsteps of MSP Species Champions Angus has its own "Species and Habitat Champions" with the programme was launched on 27 February 2018. At present, there are 18 local elected members and five schools representing more than 35 species and habitats.

The champions have pledged their support for local biodiversity, have engaged in projects in the Tayside Local Biodiversity Action Plan 2016-26 and have carried out awareness raising with local communities, businesses and schools. There is a dedicated Angus species and habitat champions page where you can see who champions your favourite species or habitat.

To date the champions have been involved in a wide range of activities focusing on topics such as: marine litter, coastal erosion, farmland management, invasive non-native species, meadow creation, pollinators, natural flood management, woodland creation and climate change adaptation.

Angus Wide Action and Engagement

Many local and national priority species have been a focus of action including: Badger, Hare, Swifts, Otter, Hedgehog, Small Blue Butterfly, Bumblebees, Wildflowers, Bottlenose Dolphin, Pine Marten, Red Squirrel and Wildcat.

The COVID19 pandemic slowed action but during that period South Esk Primary School in Montrose, the River South Esk Species Champion, formally launched the 'Wild South Esk Trail with MSP Mairi Gougeon. Woodlands Primary School continue to Champion Small Blue Butterfly and work regularly with East Haven Together and Carnoustie Golf Links. Ladyloan Primary School certainly live up to their Marine Litter Champion status and regularly carry out beach cleans on the Arbroath shoreline. Plans are afoot to work with Wildcat Champion Isla Primary School and Forestry and land Scotland to build artificial wildcat dens in Glen Isla Forest.

Species and habitat briefing plans are being developed for elected members champions linked to training programmes and communications opportunities and there has been a positive uptake from external stakeholders to support the initiative through sessions on landuse adaptation, river and wetland restoration, climate resilience and even marine mammal identification and conservation.

More information can be found at here

3.8 Tayside Geodiversity Action Plan

Key Stats

3 in progress
= 60%

7 in progress
= 35%

12 partners

** note * many projects are PKC specific and report reflects Angus projects*

CASE STUDY 12
Scotland's Geodiversity Charter

Geodiversity is the baseline to the ecosystem approach and biodiversity conservation; it supports our diverse habitats and species. It is a vital aspect of flood management and coastal/shoreline management. Use of groundwater and the winning of mineral resources heavily contribute to our economy, as does the land itself which provides many raw materials. The landscape provides for much of our recreational and tourism industry.

Over the past decade biodiversity has become more integrated into environmental and planning policy, but this has yet to fully happen to geodiversity. The Scottish Soil Framework (2009) has helped in integrating soil issues into policy and the setting up of the Scottish Geodiversity Forum in 2011 has enabled a national body to raise awareness of the subject and prepare the Scottish Geodiversity Charter. A total of 96 organisations from across Scotland have signed Scotland's Geodiversity Charter 2018-2023 including the Tayside Biodiversity Partnership and Angus Council.

Recognising the Importance of Geodiversity

The shared vision of the signatories is that Scotland's geodiversity is recognised as an integral and vital part of our environment, economy, heritage and future sustainable development. It should be managed appropriately to safeguard it future generations. Signatories commit to maintain, promote and enhance geodiversity as an integral part of our natural heritage, recognising its contribution to:

- Scotland's remarkable geoheritage
- historical and cultural development, intellectual growth and creative expression
- sustainable economic development and essential benefits for society
- informing nature-based solutions for adaptation to changes in climate and sea-level
- supporting biodiversity
- public health, quality of life, national well-being and reconnecting people with nature.

Angus has wealth of geodiversity and future plans to fulfil the commitments set out in the charter include designating Local Geodiversity Sites.

4 Challenges and Opportunities

Climate Change in the Tayside LBAP's 1st Edition the subject of climate change warranted a few lines under the "Wider Issues Out with the Plan" section. In the second edition written as recently as 2016 climate change only still features sparsely in the plan. However, the links between the climate and ecological crises are now fully recognised and climate change adaptation will feature prominently in future action plans.

Well recognised threats to biodiversity are still key issues in Angus, these include:

- including sea level rise and increased storms as global climates change
- High intensity rainfall events and flooding
- invasive non-native species increased sea temperature rises
- marine invasive species
- species under threat as their distribution and habitats change.
- pests and diseases affecting our trees and crops
- local species extinctions as habitats become more fragmented.
- seasonal changes resulting in early or late appearance of prey or forage species

Partnerships such as the Tayside Biodiversity Partnership are well placed to support stakeholders and communities in addressing these issues and supporting projects identified as having the most befit in aiding restoration and resilience.

Opportunities have increased over the years since 2016, particularly sine 2020 and the COVID19 pandemic. Wider awareness of our need to be part of a healthy ecosystem and how much we value nature is instilled in communities and effort to get involved in restoration and protection has increased at a local scale.

Nationally, Legislation and policy development including the Scottish Biodiversity Strategy, 5-year Delivery Plans, the Natural Environment Bill and National Planning Framework 4 set a tone of urgency and scale of effort needed to address the ecological and climate crises. Funding streams now available to communities and local authorities such as the Nature Restoration Fund make local and landscape scale project delivery a reality.

5 Next Steps

In Angus, next steps to add value to the 2026-26 plan and to meet the requirements of local and national policy have been identified. These include:

- The production of a long new term Local Biodiversity Action Plan
- The development of burgh scale action plans
- The mapping of strategic nature networks
- Working in partnership to prepare priority projects and be ready to apply for funding as it becomes available
- Horizon scanning for opportunities
- Working at a regional scale with neighbouring local authorities
- Sharing good practice locally and regionally
- Being inclusive, involving everyone in identifying the threats to biodiversity and in developing solutions.

There will always be challenges to face. In Angus we understand these challenges and importantly, where our opportunities lie. The Tayside Local Biodiversity Action Plan has, to date, proved a key mechanism for delivering action for nature and will continue to do so beyond the life of the current plan.

Click here for the Tayside Biodiversity Action Plan

Vision - Tayside Local Biodiversity Action Plan 2016-26

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.