Where's Wildlife in Ayrshire?

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Community Wildlife Recording Toolkit

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Preface

This wildlife-recording toolkit has been developed as a handy guide to help communities to incorporate wildlife recording into their local events. Whether you are planning a guided walk, your own survey, an informal recording meeting or a full scale bioblitz, you are not alone!

We hope this will help with the practicalities of planning your own event so that you can be sure you haven't forgotten anything important and allow more time on the day to have fun and concentrate on recording Ayrshire's fantastic wildlife!

From 2016 to 2018, the Where's Wildlife in Ayrshire? project worked hard to promote involvement in wildlife recording in Ayrshire. Both myself and our previous project officer Aisling Gribbin were greatly encouraged by the level of interest in our local wildlife and wildlife recording, and have been overwhelmed the support we have received in running the Where's Wildlife in Ayrshire? project.

We would like to thank our host organisation, the Southern Uplands Partnership and our funders for their support; The Scottish Government and the European Union Ayrshire LEADER 2014-2020 programme, the Heritage Lottery Fund, East Ayrshire Council, North Ayrshire Council and South Ayrshire Council. We would also like to thank all of the fantastic local nature conservation organisations and wildlife recorders who have been involved.

We hope that this project will leave a legacy in Ayrshire whereby interest and our wildlife recording community will continue to grow. Through the ongoing work of the

South West Scotland Environmental Information Centre (SWSEIC) we hope to provide continued support for local people and communities interested in their local wildlife and grow the Centre as a focal point where local wildlife information can be gathered and shared. Hopefully we can keep that sense of community and knowledge sharing that has been built up over the last two years.

Please always remember that data you generate is valuable and will be used to inform decision-making and future planning for our local wildlife. Here's to the future of wildlife recording in Ayrshire!

Helen Embleton
Where's Wildlife in Ayrshire? Project Officer

About us

The Where's Wildlife in Ayrshire? (WWA) project, was a 2 year project that running between October 2016 and December 2018.

The aim of the project was to engage local people in recording local wildlife across the region. Through creating a focal point for training in identification skills, volunteer recording of environmental data and use of that data to influence environmental decision-making and better natural heritage management in the region. This guide has been produced as one of the final outputs from the project.

The WWA project came to a close in December 2018, and the work of collating and sharing wildlife records and supporting wildlife recording in Ayrshire will be continued by the South West Scotland Environmental Information Centre (SWSEIC), which the WWA project formed a part of.

SWSEIC is the local environmental records centre (LERC) that covers the Dumfries & Galloway and Ayrshire area. LERCs are not-for-profit organisations that collect, collate, manage and share information on the natural environment for a defined geographic area. LERCs support wildlife recording at the local level and collaborate with a network of experts to ensure information gathered is robust. They make information products and services accessible to a range of audiences including decision-makers, the public, students and researchers.

SWSEIC was established in 2004 and formerly covered just the Dumfries & Galloway area, incorporating Ayrshire in 2016 when the WWA project began. SWSEIC is hosted by the Southern Uplands Partnership (SUP), a registered charity who's core aims are to keep people living and working in rural southern Scotland.

Who is the toolkit for?

This guide is useful for anyone with an interest in wildlife and wildlife recording, for example:

- **If you would like to run a recording event with a few friends**
- **Are a teacher introducing children to wildlife recording**
- **Want to involve your local community group in wildlife recording**
- **Lead holiday/summer events and want to include wildlife recording in your programme**
- **If you wish to include wildlife recording as part of your job or to meet biodiversity commitments.**

This toolkit will guide you through the essentials you should consider when planning a wildlife recording event, whether you are planning a group survey, an informal recording meeting, community event or a full scale bioblitz. The guide will help to ensure a good wildlife records are made, data management is easy and you know where your records should be sent after your event.

Not sure what to record? We have also included a guide to each of the major wildlife groups and the pointers to local and national organisations relevant to each species group.


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Why record wildlife?

The human race is naturally curious. We have a quest for knowledge and we always want to know how things work, where things live and what wildlife is making its home in our local area. The UK is one of the leading countries in the world for wildlife recording involving the general public, highlighting our long-held passion for our native wildlife.

Every day we are surrounded by living things, plants and animals that work together in an intricate way to ensure our ecosystem functions efficiently. Even in our towns and cities, wildlife is all around us – recording what is there is not only fun, but also creates very valuable information.

Case Study: The spread of the Tree Bumblebee

The Tree Bumblebee *Bombus hypnorum* is a relatively new arrival to the UK, first appearing in 2001 in Wiltshire.

It is distinguished by its banding which is unique among UK species. The thorax is reddish brown to tawny, the abdomen is black and the tail is white. The thorax colour can vary, and can be very dark, but the tail is always white.

This species has a natural distribution range in mainland Europe, up through Asia and into the Arctic Circle, but was never a species found in the UK until recently. In a few short years this species has spread rapidly through England and was first recorded in Scotland in June 2013 at a site in Dunbartonshire. The species gets its name from its habit of nesting in trees and off the ground, unlike other bumblebee species which often create nests underground. The rapid spread across the UK could be attributed to the high number of nest boxes across the country which the Tree Bumblebee tends to favour for its nest.

The first arrival of this species, and its subsequent colonisation of the UK, was a result of keen eyed citizen scientists. The species has been recorded in SW Scotland since 2012, and it appears to be spreading. You can help to monitor its spread by reporting sightings of this bumblebee.

The Tree Bumblebee appears to be a success story. This species has colonised naturally and is a very effective pollinator. It's a good news story amongst the many bad ones for our pollinators.


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At a basic level, wildlife recording is simply noting some key facts about the wildlife you see so that the information can be used to create a better picture of our natural environment. It allows us to see changes in the environment and monitor these changes, and to allow us to use the information for planning, decision-making and other conservation purposes.

But above all, it's fun! Wildlife recording is a great way for people from all walks of life to engage with their local environment. There is nothing better than going out on a sunny summer day for a wander in a wildflower meadow to spot beautiful wildflowers, butterflies or dragonflies, or spending a crisp winter afternoon watching over wintering birds on the coast. Recording your sightings enables you to turn your enjoyment into valuable information that can be used to understand and conserve our local wildlife.

Wildlife records are of tremendous value in helping us to understand our wildlife populations. You may think 'why record Blackbirds and House Sparrows, they are common and everywhere?' However, this may not be the case in the future, and recording of the seemingly common species may prove vitally important to understanding the constant changes in our environment. The once common Tree Sparrow has crashed by a dramatic 93% over the last 40 years. We already know that populations of some species are not faring well. As an example, there is mounting concern for the apparent rapid decline in numbers of our Hedgehog population over the last 10 years, and the potential causes are currently being researched. Records held by LERC's can be aggregated with others to investigate population density and distribution changes of Hedgehogs, which can then be considered against other potential factors which may be influencing the population.

Wildlife recording can also help us detect the arrival and spread of new species in Scotland and across the UK. The Harlequin Ladybird, a non-native species originating from Asia, arrived in the UK in 2004 and in only 10 short years has spread across the whole country. In addition, there are also a number of species that are 'on the move', and their changing distributions can be picked up by wildlife recording. A local example of this is the Tree Bumblebee (see case study).

Every wildlife record is important whether it's a Golden Eagle or a Snowdrop. All records, common or rare, are important to build up a picture of wildlife and to inform present and future environmental decision-making. This knowledge about where species are helps to ensure that important species and sites can be recognised and taken into account during the planning and development process, helping to ameliorate potential damaging effects on wildlife making developments more sustainable.

What is wildlife recording?

Wildlife recording is sometimes referred to as biological recording. It can be defined as:

'the scientific study of the distribution of living organisms. Biological records describe the presence, abundance, associations and changes, both in time and space, of wildlife.'

Wildlife recording chronicles the natural world around us, creating a detailed factual record of species living in a particular place at that time. People have been doing this for hundreds of years and today there are many thousands of people actively involved in collecting records across Britain. Wildlife recording has never been more popular, or more important.

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What information makes a good record?

When making a record of any wildlife, it is important to remember the principle of the 4 W's.

WHAT - What species did you see? Recording the common species name is fine as long as you make it clear which species you are referring to. But beware confusion - for example, Common Blue, could be the Common Blue butterfly or the Common Blue damselfly. If you know it, providing the scientific name is also useful. Only record species that you are confident of the identification of. If you are unsure of the identification, get help from someone else to confirm the identification. Photos are a great way to evidence the presence of some species of plants and animals, without requiring a sample or specimen to be taken.

TIP - You can use a GPS device or a smartphone app to provide a grid reference.

WHERE - This is the location of the species which you saw. Always give the name of the site, ideally supported by a grid reference. Providing a grid reference is the best way to give precise location information. A six-figure grid reference is most useful, but four-figure grid references can be used if you are recording mobile species or recording species lists over a larger area.

WHEN - Date that you saw the species. This ideally should be an exact date such (e.g. 31/08/2018), but a month and a year, a date range or even just a year for older records is also acceptable.

WHO – The name of the person who made the record. This forms an important part of the record. It also provides a name if local experts need to gather more information about the record. Any contact details you provide to SWSEIC will be handled in compliance with data protection legislation and SWSEIC's privacy policy.

Additional useful information to record

Any additional information that gives context to a record is always useful when making a wildlife record. Details such as the habitat are useful to provide further context to your sighting. If someone helped you to identify a species it is important to record this. In addition, if you have gone to the effort of undertaking a particular survey methodology, it can be useful to record this (e.g. sweep netting, moth trap run overnight etc.). Other data that can be recorded include:

Life cycle stage – was it an adult or a youngster? A frog, a tadpole or frogspawn? An indication of the age of the species you saw can give great insights to what is happening in an area, for example if breeding is taking place. Even records of dead animals are useful, as it confirms their presence in an area and can highlight places where wildlife are at risk of collisions with traffic.

Abundance - The number, either a count or an estimate, of how many of a particular species observed can be very useful in determining population sizes, identifying key sites and or where more research or recording effort may be needed.

Type of sighting – In some circumstances it is helpful to know how you detected the presence of the species. Perhaps you did not see the actual animal, but noted signs of its presence. For example, deer or fox footprints, molehills or the cast skin of a dragonfly larvae (exuvia). A record is still of value even though you may not have seen the living animal.

Guide to running your event or activity

Would you like to get your community more involved with their local wildlife?

Why not think about organising your own wildlife recording event? This could be a standalone event or be an activity which is part of another event such as a local gala day or county show.

Here are some of the key things you should think about before running a wildlife recording event:

- **What is the overall aim of your event?**
- **Who is your target audience?**
- **Choosing a suitable site, arranging access and other logistics**
- **Health and safety of people taking part**
- **How do you publicise your event and get people involved?**
- **What species groups do you want to record?**
- **How do we record our findings, and where should we send our records after the event?**

What is the overall aim of the event?

Wildlife recording does not have to be a large formal event such as a bioblitz. It can simply be spotting the birds in your park or garden, pond dipping with a local schools or holding a guided butterfly walk with a community group.

Many local towns, villages and parks run gala days and events over the summer months and would often like to have a wildlife event as part of the day. It is worth finding out what is going on in your local area early in the spring and contacting the event organisers to see if you can hold a wildlife recording activity as part of their event.

No matter the size of your event, you should set clear objectives of what you would like to achieve. Are your trying to find out about a particular species group or survey the wildlife in general? Make sure what you want to achieve is realistic – it may be worth asking someone with more experience what can be achieved with the time and resources available. Some examples are:

- **A snapshot survey of a species group** – a one of walk or search to find a particular species group that you would like to know more about (e.g. butterflies, moths, beetles, small mammals, wildflowers)
- **A snapshot bioblitz survey** – a more intensive survey designed to record a snapshot of the species present within a short time period.
- **A longer site survey** – is there a local nature reserve, park or waste ground that your group would like to record the wildlife for over a longer period?
- **Formal monitoring surveys** – you could involve a community group in running a survey on a regular basis to detect changes over time by contributing to a national monitoring (e.g. butterfly transect).

Running a one-off event or activity may be relatively simple, but organising a more thorough survey or taking part in a national monitoring scheme may take much more time to organise and may require ongoing commitment.

Case Study: Running a bioblitz

A bioblitz is a collaborative race to discover as many types of wildlife as possible at a particular location over a defined time period. It's an informal and fun way to create a snapshot of the nature that can be found in an area. It provides the opportunity for participants to learn together and share their expertise and enthusiasm for nature. This is a great way of breaking down barriers to engagement with science and raising awareness of the role of biological recording. It also gives the public an opportunity to contribute to a genuine scientific survey. It usually comprises a group of scientists, students, naturalists and other members of the public working together - this mixture of wildlife experts and the wider public is key to the BioBlitz concept.

Bioblitz events are usually run as a partnership or collaboration between a number of organisations. This might include local wildlife organisations, local natural history societies, the local environmental records centre and community organisations.

A bioblitz can be held at any venue - a garden, a nature reserve or a local park. The venue will need suitable facilities (e.g. toilets, parking etc.) and somewhere to act as a basecamp to collate the information being gathered and to publicise the activities running on the day. A bioblitz is best held in the spring/summer months, usually from May to September.

To generate interest there needs to be specific activities throughout the day to appeal to different ages. These might include guided walks, themed arts/craft activities or a self-guided walk around a nature trail. For more information about organising and running a bioblitz see the OPAL website **www.opalexplorenature.org/bioblitzes** or

The Natural History Consortium **website www.bnhc.org.uk/bioblitz.**

Who is your target audience?

Everyone can get involved in wildlife recording – all ages and abilities. However it is important to consider a number of factors before planning an event or activity.

Ask yourself a few questions: What is the age of your target audience? Are they already interested in wildlife, or are you encouraging them to become more interested? What identification skills do they have (if any)? What are the potential physical and time restrictions that people may have? Considering this information will help to focus you mind on what you want to achieve, and make sure that your event is 'pitched' at the right level.

OPAL: The Open Air Laboratories

The OPAL network is a UK-wide citizen science initiative that provides a variety of activities, surveys and resources to allow people to get hands-on with nature, irrespective of age, background or level of ability.

Surveys have included soil and earthworms, pollinators, tree health and air surveys. The website provides full instructions and downloadable resources so that you can take part. You can submit your results online and see the findings of the surveys on the OPAL website **opalexplorenature.org**

Choosing a suitable site and the Scottish Outdoor Access Code

Wildlife recording does not need to happen within a nature reserve or a 'pristine habitat'. You can make useful records in a garden, a local park, school grounds or a local woodland walk. Wildlife is present in some form or other in all habitats – it's just easier to find in some places than others.

The timing of your event may help to dictate the selection of your site. Flower-rich habitats, including parks and gardens, are good places to look for pollinating insects such as bumblebees, and these are best visited in the spring and summer months. In spring woodland habitats are good places to hear bird song but woodland birds may become harder to see during the summer months when leaf cover is greatest and singing activity is less. In winter, wetland sites can be good for birds.

Scottish outdoor access code

You should always work to the key principles of the Scottish Outdoor Access Code.

Within Scotland we are lucky that, through the Land Reform (Scotland) Act 2003, everyone has statutory access rights to most of Scotland's outdoors. Watching and recording wildlife falls within these access rights. However these rights must be exercised responsibly and with respect for people's privacy, safety and livelihoods and for Scotland's environment.

Land managers similarly have to manage their land and water responsibly in relation to access rights.

The Scottish Outdoor Access Code provides detailed guidance on these responsibilities to help everyone make informed decisions about what best to do in everyday situations, and provides the starting point for short promotional codes and more detailed advice about land and inland water.

There are three key principles that everyone should adhere to:

Respect the interests of other people - When you are out and about you should act with courtesy, consideration and awareness.

You must always respect the privacy, safety and livelihoods of those living or working in the outdoors, and the needs of other people enjoying the outdoors.

Care for the environment - Look after the places you visit and enjoy, and leave the land as you find it.

Take responsibility for your own actions - Remember that the outdoors cannot be made risk-free and act with care at all times for your own safety and that of others.

The Scottish Outdoor Access Code provides further details on land access rights in Scotland and is available online at www.outdooraccess-scotland.scot.

Ensuring your own health and safety, and that of anyone attending a wildlife recording event you are running, is always of the upmost importance.

If you are going out on your own, you need to ensure your own health and safety. It is helpful to carry out a risk assessment to write down any hazards and risks and how you might prevent these from happening. It's also good practice to operate a buddy system ensuring that someone knows where you are, your planned route and what time you are due to return.

If you are organising a formal wildlife recording event, it is best practice to carry out a risk assessment prior to the event and to ensure that attendees are made aware of potential hazards and risks.

A hazard is a potential source of harm or adverse health effect on a person or persons.

The following outlines some of the key issues you should consider when undertaking a risk assessment either for yourself or for an event to plan to run:

- If you are unfamiliar with the site, you should undertake a desk study (e.g. by looking at maps or aerial photos) to get a feel for the terrain and habitats likely to be present. This will help you to identify potential risks and hazards before checking the site.
- Always visit the site before the event to check the planned route to ensure that potential hazards and risks can be identified.
- Before the event, seek permission and agree safe access routes and times with land owners. (See the Choosing a suitable site and the Scottish Outdoor Access Code section for further information.)
- The risk assessment should cover all identified hazards and risks that could affect everyone's health and safety (e.g. slips and trips, soft ground, crossing roads, water hazards etc).
- Is there likely to be activities at the site which could limit accessibility or affect the ability for you to undertake your survey? (e.g. game shooting on moorland, tree felling, presence of livestock or nesting birds, tide times, dawn/ dusk times). It is always useful to contact the land owner to discuss potential activities and agree access at appropriate times.
- Always check the weather forecast and prepare appropriately. Be prepared to abandon field work if needed in the event of bad weather.
- If conditions on site on the day are not as expected, (e.g. steep slopes/ inaccessible, livestock present) please do not survey if you are concerned about safely accessing the site.
- While on site look out for potential hazards and ensure that attendees are aware of them (e.g. field drains, soft ground etc).

- Ensure that your movements across the site does not compromise biosecurity. It may be necessary to have disinfectant available for washing boots or avoiding certain areas to reduce the risk of spreading disease and/or invasive species.
- Ensure that someone is aware of your planned survey movements and when you are likely to be back.
- Carry a first aid kit and wear appropriate clothing and footwear. If you are organising a formal event it is recommended that there is someone who is first aid trained available on site – perhaps more than one for large events.
- Always carry a charged mobile phone, particularly when surveying in remote areas – check your operators mobile phone coverage.
- Ensure that the potential risks and hazards are communicated to everyone in the group.

Risk assessment form templates and further information about undertaking them can be found at the Health and Safety Executive website www.hse.gov.uk/scotland.

If your event is a formal event being organised by a constituted group or organisation involving the public, you should consider whether you need public liability insurance. It is there to protect you if someone is injured (or their property is damaged) and the business/organisations is faced with a compensation claim as a result. If you can think of a possible scenario in which a member of the public could sue your group/organisation, it's definitely cover worth having. If your activity is part of a wider event, it may well be covered as part of the umbrella organisations' insurance cover.

If you will be taking pictures at your event, you should also consider gathering photographic consent of your participants, especially if there are children in the group. As a minimum you should make everyone aware that photos are being taken and ask everyone if they are comfortable with being photographed. You should also inform them where you will be planning on publicising them, i.e. on social media, websites or local newspapers. At a large event you may need to provide clear instructions in writing (e.g. laminated signs) around the event explaining that photos may be taken and the uses these will have, and give people an opportunity to opt out of photos. You could ask people to sign consent forms and provide people with badges or wristbands which will help photographers identify those people who have consented.

Getting people involved

Do you need help organising your event? If you are planning a larger event, try to recruit help. Many hands make light work, and it is always good to bounce ideas off other people. Try to make best use of different people skills in organising events and activities.

Will you need to involve an expert to help with identification? If you do not have, or know someone with, relevant ID skills, you will need to recruit help. There are many nature conservation organisations and knowledgeable amateur naturalists who may help to lead a walk, provide assistance with species identification, or help with collating and sharing the records that you collect. Your local environmental records centre should be able to help put you in contact with local nature groups and may be able to put you in touch with local experts to assist with species identification. Please remember that these organisations and local experts are often very busy people, so to maximise the chance of getting assistance please allow plenty of time for planning your event.

Once you have your activity planned, you need to raise awareness to encourage people to attend and to get people involved. Social media, local notice boards and local press are effective ways to engage with people who might be interested in attending your event. Involving local school children can be effective in engaging members of the community who might not normally be inclined to come to a wildlife event. If it is a large event then local, regional or national press outlets may be useful in helping you publicise your event. Your local environmental records centre may be able to help publicise your event through their newsletter or social media.


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What species groups would you like to target?

Depending on where your interests lie, you can focus on any species group of your choosing, or perhaps take a more general approach and cover a range of different groups. It will in part depend on your own interests and skills and those available to you from other people. Choose a species group that you are interested in and can enthuse others about! And make sure that it is suitable for the time of year – bumblebee surveys are best done in spring and summer, not winter!

You may also wish to consider the bigger picture. Can you tie your event or activity into a broader national one? Many national wildlife organisations run surveys or promote particular species at certain times of the year. Examples include Butterfly Conservations 'Big Butterfly Count, the British Dragonfly Society's 'National Dragonfly Week' or the Seawatch Foundation's annual 'National Whale and Dolphin Watch'. These can be helpful 'hooks' in publicising your event.

Below are some suggestions for how different species groups might be incorporated into an event. For most groups there is a national recording scheme or organisation which may have further information about there are Some which have recording scheme or societies linked to them and can help you get going with species identification and recording.

Amphibians and reptiles

Amphibians are an easy group to get started with, and are best looked for in spring. There are six species found in South West Scotland. Surveying can be done during the daytime, looking for adults, tadpoles or spawn in and around ponds. You can also look for newt eggs in marginal vegetation. The best time to look for newts is at night with the use of a high-powered torch. When surveying at night always remember it's a good idea to take a buddy, and take extreme care around water edges.

Remember if you are surveying in ponds with a known population of Great Crested Newts remember you need a protected species license or to survey with someone who holds one. To survey ponds you will need some equipment.

- **Net for pond dipping**
- **Sample tray**
- **ID guide**
- **High powered torch (for a night time search for newts)**

Reptiles, by their very nature, are quite elusive and hard to spot, but with only three terrestrial species found in Ayrshire they are quite an easy group to identify - if you manage to catch a glimpse! To record reptiles, you do not need any specialist equipment, just a keen eye and plenty of patience, and a little bit of knowledge as to the best places to look for them.

Putting out pieces of roofing felt, or corrugated iron, in suitable habitat can increase your chances of seeing reptiles as they like to bask on and under such material.


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Never attempt to pick up an Adder. Bites are usually harmless to humans, but can be more serious for children and can be very painful. In the event of a bite to yourself or to a pet, seek prompt medical attention.

The Where's Wildlife in Ayrshire? project produced identification cards for amphibians and reptiles which you can also use to record your sightings. Copies of these are available for free from SWSEIC.

Further information:

- **Froglife**
- **Amphibian & Reptile Conservation**


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Birds

Birds are perhaps one the easiest and most accessible groups to find and to record. They are best viewed with binoculars or a telescope, and can be the focus of a recording activity all year round. In comparison to most other wildlife groups, much more is known about birds and their local distribution and there are plenty of birdwatchers; finding someone to help with identification if needed should be relatively easy. There are several active local groups with experience that may be able to offer help.

Useful equipment for recording birds includes:

- **Binoculars**
- **Telescope**
- **ID guide and/or smartphone app**

Spring, from late March to early June, is the best time to look for breeding birds. At this time of year resident birds are supplemented by summer migrants, and males are often very vocal in establishing and defending territories. With experience, learning to recognise bird songs can make detection of species much easier.

Some species migrate to the UK for the winter, which is relatively mild compared to continental Europe. Some wetlands and coastal habitats are of national importance for wintering waterbirds.

Further information:

- **British Trust for Ornithology**
- **Ayrshire Birding**
- **The Scottish Ornithologists' Club - Ayrshire Branch**
- **RSPB - including Central Ayrshire and North Ayrshire local groups**

Butterflies and moths

Butterflies are a species group that is readily accessible and easy to record, when the sun is shining! There are many identification guides available, and around 25-30 species are found in SW Scotland. They are an easy and fun group to get started with when beginning wildlife recording, and are engaging to audiences of all ages.
Very little equipment is needed to record butterflies and they are a great group to get going with for beginners.
A warm sunny day will bring out the greatest range of butterflies. Butterflies can be found at many sites, and the range of species will often depend on plants present in the area. Gardens and parks are good places to find a good range of common species. Peak numbers and species diversity occurs in the summer months.

Butterfly Conservation's Big Butterfly Count takes place each summer and offers an opportunity for a community to take part in wider national survey.

Useful field equipment includes:

- **Binoculars (close-focussing ones are best)**
- **ID guide and/or smart phone app**
- **Butterfly net**
- **Clear plastic pots (or jam jars)**

Moths are a very large species group and can be quite a tricky group to begin with, but identification does get easier with practice.
They are however, a very accessible group, and with a simple moth trap, you can practice identification from moths you collect in your back garden. If you want to engage new people in wildlife recording, moths are an excellent group to start with.

Moth trapping is usually carried out using a special light trap, which attracts moths without harming them. This is left out overnight and the contents of the trap can be examined the following morning. Most moths are quite sleepy in the day time which makes examining the catch relatively simple.

Setting several traps around a village and gathering the following day to look at the finds is a great way of involving the local community in surveying the area and can be a very social event.

SWSEIC have moth traps available to loan out to individuals or local groups


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Further information:

- **Butterfly Conservation, including the Glasgow and the South West Branch**
- **Butterfly Conservation: Big Butterfly Count**
- **Butterfly Conservation: National Moth Recording Scheme**

Dragonflies and damselflies

Dragonflies are a slightly more difficult group to record. They are usually found near water, and are active in warm weather. Often you will see them resting on the gravel tracks, wooden posts or sitting on favoured perches at the waters' edge. Damselflies are smaller, match-stick sized creatures, and are slower in flight than the larger dragonflies. Close examination may be required to separate some species.

Dragonflies are on the wing from May until September, with June and July being the best months to look for them. No technical equipment is needed for recording dragonflies, though warm sunny weather is usually required to see adults. An ID guide, butterfly net, close-focussing binoculars and/or a camera are helpful.

Further information:

The British Dragonfly Society


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Flowering plants


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Plants are perhaps one of the most reliable groups to record as they are not weather dependent. There are many good plant ID guide books, and often there will be plant recording workshops in your local area to help you with your identification skills. Some plants can be a tricky to ID in the field, and sometimes a sample may have to be taken.

See the 'Collecting samples – best practise' section for guidance on sampling in the field. However, for plant recording of most common species , a good camera will be sufficient. Knowing which features to photograph for different plant groups (leaves, flowers, petals) takes time to learn.

Flowering plants can be surveyed at any time of the year, but ID is often simplest when they are in flower or fruiting. Different species will be in flower at different times of the year, and repeat visits to a site may help to find a broader range of species.

Spring to autumn is the best times of year for botanising. Further information:

Botanical Society of Britain and Ireland (BSBI)

There are many different groups of invertebrate, most of which require specialist identification skills. Many will require collection of specimens or samples in order to accurately ID them or at least close examination with a magnifying hand lens; some require examination under a microscope. If you would like to get involved with recording some of the more difficult invertebrate groups, there is often useful information on the relevant national recording scheme or society website.

Bumblebees – There are seven common species of bumblebee, and with practise they can be identified fairly easily. Individual species vary in colour; males, workers and queens may be marked differently, and there is some variation within each caste too. Early spring is the easiest time to identify them, when only the large queens are on the wing. A good photograph will allow the identification of most species. They have a fascinating life-cycle and a guided walk with a bumblebee expert can be very enlightening.

Ladybirds – Most people will recognise ladybirds, a group of distinctively marked small beetles. There are a number of local species, though the 7-spot Ladybird is by far the commonest. Numbers vary greatly from year to year, and they can be difficult to find. It may require techniques such as sweep netting and beating (hitting a bush/tree branch with a stick to collect what falls out) to find them. Identification is usually possible from a photo, though some species are quite variable and require close examination to ID.

Grasshoppers – Grasshoppers are usually found in grassland and other open habitats. There are only five species present in SW Scotland, with a further four species of cricket present only in Dumfries and Galloway. They can be readily told apart with practise, and a photo will often be suitable for identification.

Further information:

- **Bumblebee Conservation Trust**
- **Bees, Wasps & Ants Recording Society**
- **Ladybird Recording Scheme**
- **Orthoptera Recording Scheme**

There are numerous other recording schemes and societies with information about different specific groups. Useful links can be found on the Biological Records Centre website

Fungi are a fascinating and extremely diverse species group. However, they can be a very tricky group to identify in the field, and often a specimen will need to be taken for an accurate identification under a microscope.

When starting out, it is best to go out with a group who will have more experienced members that can help you develop your identification skills. Incorporating recording in any event will likely require some outside expertise.

Fungi can be found at all times of the year, though the months from July to November offer the greatest diversity. A 'fungal foray' in late summer or autumn can be a good way of learning about the many different types of fungi.

Further information:

- **Clyde & Argyll Fungus Group**
- **Scottish Fungi**
- **The British Mycological Society**

Trail cameras

Trail cameras, also known as camera traps, are an increasingly affordable way of finding what is around when we are not there.

They are particularly good for detecting mammals whose secretive nature and nocturnal habits make them difficult to look for.

These cameras, which can be fixed to a tree or a post, are triggered by movement or body heat, and record photos or video that can be checked later when the camera or its memory card is collected. Most models can be used to record activity in the daytime and at night, using the infrared wavelengths. They can give a fascinating insight into the wildlife in your area and a very different perspective of their activities.

This is possibly the group that people are most familiar with, as it contains our large and charismatic animals such as deer and badgers. Many species are elusive and/or nocturnal, and sightings are often fleeting. Seeing the animals themselves is only one way of finding them; you can also look for tracks and signs such as prints, fur and droppings, and there are cheap and simple identification guides available dedicated to the identification of mammal tracks and signs. Taking a picture is helpful to confirm identity of any find.

Surveying for small mammals such as voles and mice can be done using small mammal traps. These live traps can be set out overnight in suitable habitat (e.g. grassland or woodland) and the contents examined the following day. Traps are quite expensive and several are needed, though it may be possible to arrange to borrow some from a local organisation. Training in the safe use of traps is strongly recommended.

Bats are a charismatic group of nocturnal flying mammals. There are ten species of bats occurring in Scotland, and they are best detected and identified from their high-frequency calls by using a bat detector. Bat detectors are able to process the high-pitched calls, most of which are above the frequency of human hearing; they can be converted into audible clicks or recorded to look at the frequency of the calls, which helps to identify different species. A local bat group may be able to help by providing


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detectors and running a bat walk to show people the species which are active in the area.

Incorporating marine mammals into community events will very much depend on your location! Land-based watches can be carried out from suitable vantage points with good visibility of a stretch of coast. Elevated watchpoints, such as headlands or lookout towers, are best. Species identification takes some practise and some help from experienced watchers is likely to be required. However there are only a small number of different species which are seen regularly off the coast of SW Scotland, and it is likely that most sightings will be of the commonest species, the Harbour Porpoise. There are several local and national organisations involved in monitoring marine mammals, and we would recommend that you contact them directly for further information about how to get involved.

Useful contacts & sources of information' Section:

Further information:

- **The Mammal Society**
- **Scottish Badgers**
- **Red Squirrel Monitoring**
- **Ayrshire Bat Group**
- **Clyde Marine Mammal project**
- **Seawatch foundation**

Event Checklist

Event planning

- Set clear objectives for your event.
- Decide on your target audience (e.g. families, adults, older children or younger children) and the maximum size of the group.
- Set a time and a date, create a timetable for the day.
- Establish partnerships/enlist the help of experts for your event.
- Choose a venue/site – ensure it has appropriate facilities for what you need.
- Agree site access with land owner as appropriate.
- Visit the site before the event to plan your route and ensure that you can pass through the areas you plan to cover.
- Ensure you have appropriate contingency plans in place.
- Prepare your risk assessment, biosecurity and accident procedures.
- Promote your event via local press, notice boards and via social media.
- For larger public events, inform the local police of your event.

On the day

- Ensure you have contact details for attendees in case you require to change meeting points, times or cancel the event at the last minute.
- Adhere to any access agreements made with the land owner. However, if the situation 'on the ground' is different to that expected, then you should be prepared to amend the plan for the day or abandon the visit to ensure the safety of everyone involved.
- Ensure you have adequate first aid arrangements and carry a first aid kit and necessary equipment to ensure biosecurity of the site (e.g. materials for cleaning boots).
- Ensure you have copies of your Risk Assessment with you.
- Have Fun!

After the event

- Get assistance from local experts local or the environmental records centre to check and verify your records if needed.
- Submit your records to local environmental records centre and the land owner if they have requested a copy of records generated.
- Communicate your results with your participants.

Recording your findings

If your event or activity involves taking part in a national scheme or survey (e.g. you are doing a 'Big Butterfly Count') then simply follow the methodology prescribed by the organisation. But if you are doing something of your own and want to share your results so that they can be used and shared, what should you do?

When in the field, most people choose to take a notebook to record your findings. Remember the four Ws so that you can submit your records later. You can also enter your records directly on a smartphone.

Sending records to your Local Environmental Records Centre

You can send your wildlife record to your local environmental record centre – SWSEIC in SW Scotland. The Centre's website provides an online recording form. Here you can use the interactive map to pinpoint the exact location, and you can upload a picture to aid in the verification of your record.

If you plan to capture quite a lot of records or to record regularly then creating a spreadsheet of your findings may be the easiest way to store your data. Many people have computers at home onto which they can enter and store information. This can be very useful, in that it not only gives you access to a searchable list of your sightings but also helps to save time when processing records.

If you use Microsoft Excel, SWSEIC have prepared a sample spreadsheet for doing this which can be downloaded from the SWSEIC website. The spreadsheet contains columns for all of the information needed, and is particularly useful if you record regularly and generate a lot of records.

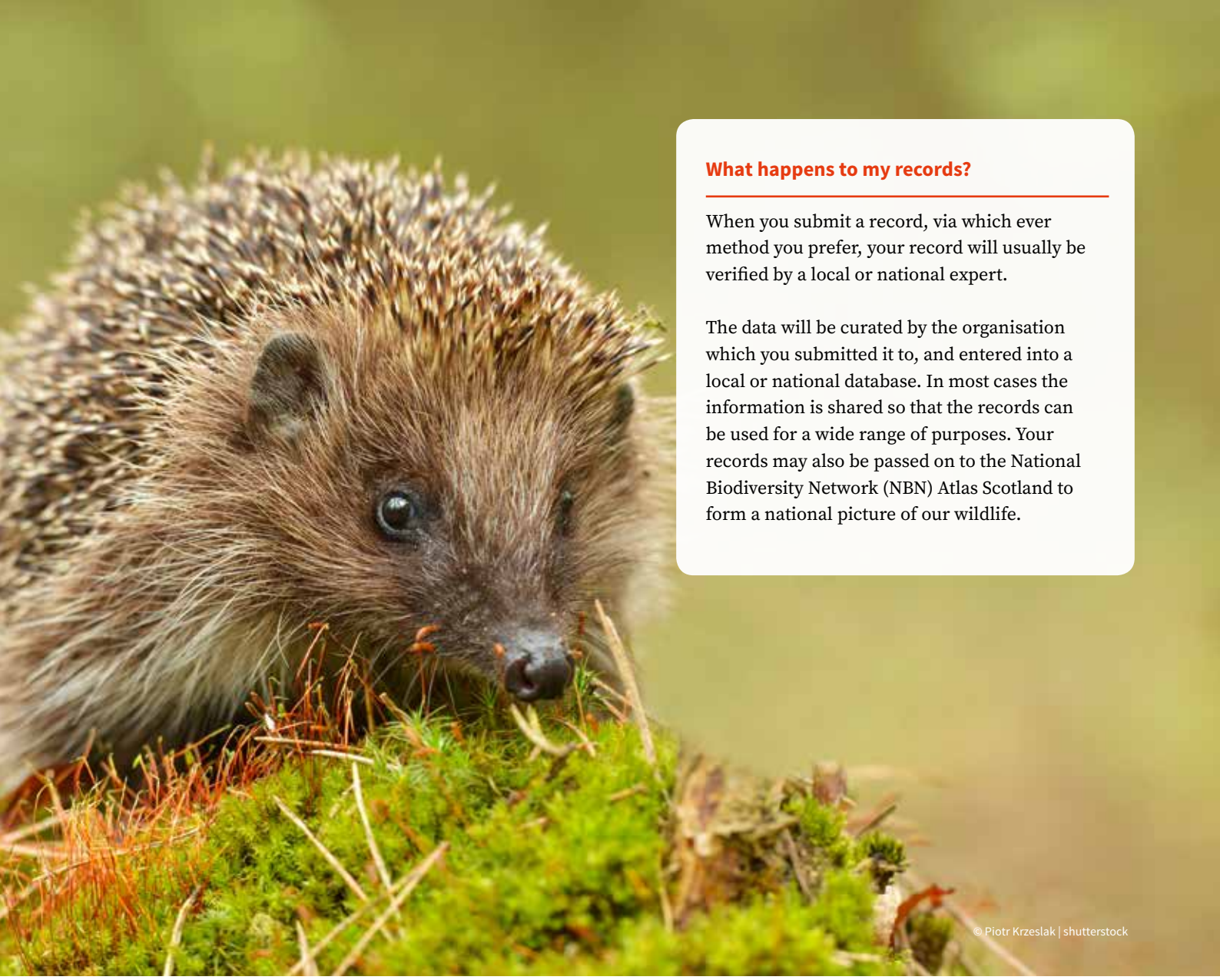
If you prefer using pen and paper, you can download and print a simple wildlife recording form from the SWSEIC website. You can even use the form in the field – this will ensure that you don't forget any key information. Your completed form can be returned to SWSEIC.

Sending records direct to a county recorder

For some species groups (but not all), there is a network of local experts (usually called 'county recorders') who work to support the collation of records from their area and who help to check the accuracy of the information collected. If you collect records for a particular species group where there is a county recorder, you could choose to send your records direct to them. They may have a preferred format for sending in records (e.g. a preferred spreadsheet) which you can request from them. Most county recorders act as devolved representatives of national recording schemes and societies, and will share information with the society and with their local LERC. Details of the current county recorders for each taxonomic group are listed on the SWSEIC website.

Recording online

A more sophisticated alternative which is becoming increasingly popular is entering records directly online. The iRecord website (www.brc.ac.uk/irecord) is the recommended online recording website, though bird recorders may prefer to use the dedicated BirdTrack website (app.bto.org/birdtrack). Online recording allows you to use simple forms to enter your sightings, with map based tools helping to avoid the need to look up grid references. On the iRecord and BirdTrack websites, once registered you can view your own sightings along with those of other iRecord users. The online records are verified by local and national experts and are made available to national recording schemes, county recorders, LERCs such as SWSEIC and are shared via the NBN Atlas, an online portal sharing wildlife records from all around the UK.



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What happens to my records?

When you submit a record, via which ever method you prefer, your record will usually be verified by a local or national expert.

The data will be curated by the organisation which you submitted it to, and entered into a local or national database. In most cases the information is shared so that the records can be used for a wide range of purposes. Your records may also be passed on to the National Biodiversity Network (NBN) Atlas Scotland to form a national picture of our wildlife.

Recording on your smartphone

With the advent of mobile phones, directly entering record in the field has never been easier. There are several species-specific apps for recording birds, butterflies, ladybirds, grasshoppers, and the number is growing every year. Most include helpful ID guides as well as tools to record your sightings. Those apps badged with 'iRecord' are particularly recommended, as they tie in with sharing data to LERCs and national organisations. The general iRecord app can be used for entering records of any species at all. The apps use the phone's GPS signal to record the location and date, leaving you to enter the species and any other information - you can also upload a picture with your record. The iRecord apps also link in to the online iRecord website where you can see your records on the map and those of other iRecord users. BirdTrack has a similar app for submitting bird records

Collecting samples – best practise

As a general rule of thumb, there are many species that can be recorded without the need for taking specimens. For the more common and visible species groups, a photograph and a description is sufficient for identification. A photograph is an ideal way to help record centres and county recorders to confirm and verify your species record.

However some invertebrates, fungi and plant species can only be accurately identified by close examination of specimens, often under a microscope. This may involve temporarily capturing specimens and placing in plastic pots or tubes for closer examination.

In some cases this may also include taking specimens away for further examination. Collecting samples should only be done where it is not possible to make a reliable identification in the field, and where someone is available to do the necessary ID work.

Species samples should not be taken just for the sake of it, but where it is essential to gain more knowledge on the species group.

Guidance on taking samples

We would recommend that you always research and use the best practice approaches for collecting specimens appropriate to the species group you are recording.

The following provides some general pointers and tips on how to approach gathering sample/ voucher specimens for identification:

1. Do not collect specimens if there are very few around, use the '1 to 20 rule' to determine whether there species is in sufficient abundance to take a specimen i.e. if you can see 20 others then it should be ok to take 1 specimen as long as the species is not legally protected.

2. Only collect what you require for an accurate identification and further study. Do not take more than required.

3. Make sure you are collecting within the law. Some species (such as the Great Crested Newt, endangered butterflies or rare orchids) are protected by law and collection of samples is illegal. If in doubt, do not take any specimens and seek guidance from Scottish Natural Heritage or a relevant national organisation.

4. Only collect if what you are taking is not going to endanger the existence of the species.

5. Ensure that specimens are carefully transported so that they do not become damaged. Methods may vary, but paper envelopes or plastic pots/boxes are often useful items for collecting specimens.

6. Make sure that any specimens collected are labelled and correctly documented. This means labelling the species name (once known), where it was collected from, including a 6-figure grid reference, and the name of the person who collected it.

Specific species groups have best practice guidance on when and how voucher/ sample specimens should be taken and stored. The Botanical Society for Britain and Ireland (BSBI) have produced a guide entitled Code of Conduct for picking, collecting, photographing and enjoying wild plants. The Scottish Fungi website includes useful information on how to collect fungi in the field for identification. For invertebrates, the appropriateness and methods for taking varies widely depending on the species group being studied. Useful information can be found on the Amateur Entomologists' Society website.

Photographing wildlife for identification

When recording wildlife, a photograph may be very helpful to aid identification or to provide supporting evidence of a sighting.

Many people possess a digital camera, and modern smart phones are often equipped with very capable cameras.

Photographs can sometimes be used (but not always) to identify an unknown animal or plant. For some species, even a poor photo can be helpful to confirm ID, but for others (e.g. some insect groups and trickier plants) even detailed photos may not be sufficient to identify with any certainty. Always try to take photos of different angles and different features, as not all the necessary features may be visible in one shot. Posting photos on social media wildlife groups can be an excellent way of getting assistance with ID. SWSEIC will also be happy to help with identification wherever possible.

Photos can also be useful in providing supporting evidence confirming the identification of any rare or scarce species that you may find. If you record a species which is locally uncommon, you may be asked for confirmation of your identification by a local expert or by the local environmental records centre. This process, called verification, helps to ensure that records gathered are as accurate as possible, since everyone, including experts, makes mistakes. Having a photo can often provide the evidence required to support such a record.

Wildlife recording and wildlife crime

Wildlife crime encompasses any act or omission that is made illegal in Scotland under legislation with regard to certain birds, animals and plants including their habitats, both on land and at sea.

There are many plants and animals that are legally protected; these protections vary but can include disturbance, injury, death, poaching, persecution or destruction of their resting places.

Staying within the law

If you are surveying in areas where protected species are likely to be present then extreme caution should be used. You may also need an expert to be present to help to guide the survey activities.

Some specific issues to be aware of:

- **Great Crested News** are a European Protected Species and can be disturbed if you are surveying in pond margins during the breeding season.
- All species of **bat** are also European Protected Species. You require to have an appropriate license to be able to photograph bats or enter their roosts.
- All **wild birds** in Great Britain (with a few exceptions) are protected under the Wildlife and Countryside Act 1981 (as amended). For some rarer species, it is an offence to intentionally, or recklessly, disturb them on or near an active nest.
- **Badgers** and their setts are fully protected by the Protection of Badgers Act 1992, and anyone who takes, kills or injures
- a badger, or who interferes with a badger sett, can be sent to prison or fined.
- If you find yourself in close proximity to a protected species, you should withdraw calmly and quietly from the area as soon as possible to minimise disturbance and make notes of your findings.

Spotting wildlife crime

While you are out and about, if you see something suspicious or untoward, please report it as follows when it is safe to do so:

Call 999 if there is immediate danger to life or property
Call 101 if there is no immediate threat.

You should provide as much detail as possible regarding: the time and date of the incident, location, description of people/vehicles/ equipment and animals (dogs) they may have with them. Photos can also be very useful if it is safe to take them.

Please ensure you receive a note of the incident number. This will allow you to follow up if needed.

All calls reporting potential wildlife crime matter, as they help to record the occurrence of potential wildlife crimes and can help officers to piece together a larger picture of potential activities that may require further investigation.

Useful websites

General	
Biological Records Centre (BRC)	www.brc.ac.uk
National Biodiversity Network	nbn.org.uk
NBN Atlas Scotland	scotland.nbnatlas.org
Biological Recording in Scotland (BRISC)	www.brisc.org.uk
National Wildlife Crime Unit	nwcu.police.uk
Scottish Natural Heritage	nature.scot
The Scottish Outdoor Access Code	outdooraccess-scotland.scot
Amphibians and reptiles	
Amphibian and Reptile Conservation Trust	www.arc-trust.org
Froglife	www.froglife.org
Birds	
Ayrshire Birding	www.ayrshire-birding.org.uk
RSPB (including local groups)	rspb.org.uk www.narspb.org.uk
British Trust for Ornithology	bto.org.uk
The Scottish Ornithologists Club (including local branch)	www.the-soc.org.uk www.the-soc.org.uk/local-branches/ayrshire
Plants	
Botanical society of Britain and Ireland (BSBI)	bsbi.org
Fungi	
Scottish Fungi	sites.google.com/site/scottishfungi
The British Mycological Society	www.britmycolsoc.org.uk
Butterflies and moths	
Butterfly Conservation	www.butterfly-conservation.org.uk
Big Butterfly Count	www.bigbutterflycount.org
National Moth recording scheme	www.mothscount.org
Dragonflies	
The British Dragonfly Society	www.british-dragonflies.org.uk
Other invertebrates	
Ladybird recording scheme	www.ladybird-survey.org
Bees, Ants and Wasps recording society	www.bwars.com
Bumblebee Conservation Trust	www.bumblebeeconservation.org
Bumblebee Conservation: BeeWalk	www.beewalk.org.uk
Mammals	
The Mammal Society	www.mammal.org.uk
Saving Scotland's Red Squirrels	scottishsquirrels.org.uk
Bat Conservation Trust & Ayrshire Bat Group	www.bats.org.uk/support-bats/batgroups/scotland
Scottish Badgers	www.scottishbadgers.org.uk
Clyde Marine Mammal Project	www.clydeporpoise.org.uk
Seawatch Foundation	www.seawatchfoundation.org.uk

Useful information

Your local environmental records centre in SW Scotland is South West Scotland Environmental Information Centre (SWSEIC).

SWSEIC will be happy to offer help with any wildlife recording queries and can provide links to local experts and organisations.

Website: swseic.org.uk
Email: info@swseic.org.uk
Facebook/Twitter: @SWSEIC
Telephone: 01387 760274

Biological Recording in Scotland (BRISC) - www.brisc.org.uk
Biological Records Centre (BRC) - www.brc.ac.uk
NBN Atlas Scotland - scotland.nbnatlas.org
Scottish Natural Heritage – nature.scot
National Wildlife Crime Unit - nwcu.police.uk
The Scottish Outdoor Access Code - outdooraccess-scotland.scot

Useful online publications

Health and Safety Executive, Risk assessment form templates and further information.
Available from hse.gov.uk/guidance/index.htm

National Biodiversity Network , 'Darwin Guide to Recording Wildlife'.
Available from nbn.org.uk/tools-and-resources/publications/guidance-documents/

The Natural History Consortium information about bioblitz events and their 'Guide to running a bioblitz 2.0'.
Available from bnhc.org.uk/bioblitz/

Open Air Laboratories (OPAL), have a variety of online surveys and citizen science activities to take part in.
Details available from www.opalexplorenature.org/surveys

Botanical Society for Britain and Ireland's 'Code of Conduct for picking, collecting, photographing and enjoying wild plants'
Available from bsbi.org/resources

Invertebrate Link's 'A code of conduct for collecting insects and other invertebrates'
Available from www.amentsoc.org/publications/online/collecting-code.html

The Where's Wildlife in Ayrshire? project was hosted by the Southern Uplands Partnership.

Southern Uplands Partnership,
Registered Office:

Studio 2, Lindean Mill,
Galashiels, TD1 3PE.

Registered in Scotland Company No. 200827
Charity No. SC029475

Scottish Rural Development Programme

The Scottish Government

The European Agricultural Fund for Rural Development: Europe investing in rural areas

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East Ayrshire Council

North Ayrshire Council

South Ayrshire Council

southern uplands partnership

South West Scotland Environmental Information Centre