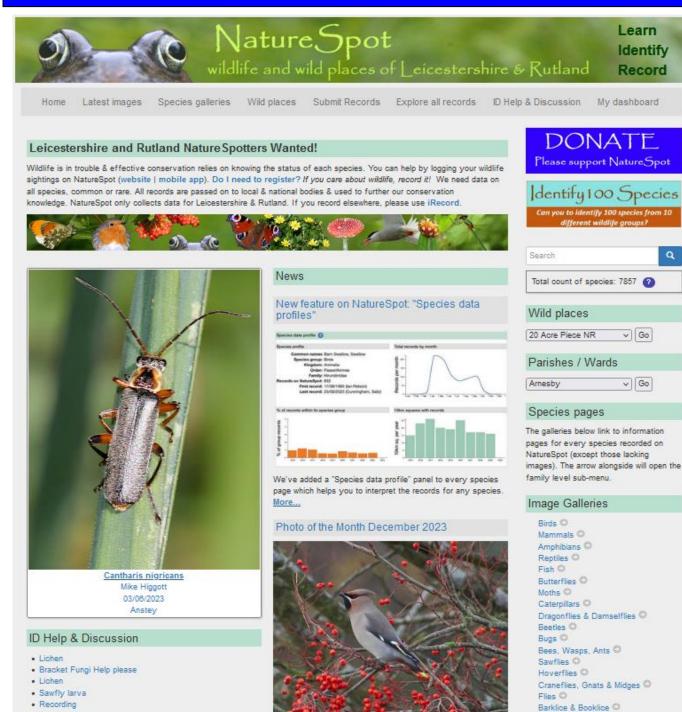
# Nature Spot

## 2023 Annual Report



The NatureSpot Photo of the Month for December is this image of a Waxwing, taken by NatureSpot contributor Chris Hubbard. <u>Read more...</u> Grasshoppers & Crickets

Lacewings & Scorpionflies

Earwigs C

Mayflies O

Caddisflies O

Stoneflies O

Silverfish O

A challenge for the New Year

Microscope Club

View more forum posts

Events

## Introduction

#### About NatureSpot

NatureSpot is a registered charity (1138852), established in 2009 with the aim of promoting the wildlife and wild places of Leicestershire and Rutland and helping to increase public awareness of, and interest in, local biodiversity.

NatureSpot aims to help people:

- discover the wildlife and wild places of Leicestershire and Rutland
- identify local wildlife
- record the wildlife they see

NatureSpot is also a company limited by guarantee and has a Board of Trustees (see below) comprising local naturalists involved in wildlife conservation, biodiversity recording and local natural heritage. We are also supported by experts and professionals such as the County Recorders, and all the main organisations concerned with local biodiversity, including the Leicestershire and Rutland Environmental Records Centre (LRERC), Leicestershire County Council, Leicester City Council and the Leicestershire and Rutland Wildlife Trust.

We are funded by grants and donations and supported by many volunteers. Our main activity is the NatureSpot website which profiles wildlife species found in Leicestershire and Rutland and facilitates wildlife recording by local naturalists and the wider community as a 'citizen science' initiative.

#### Trustees

In 2023, long-standing Trustee and former chair, Graham Calow, stepped down from the board but remains very much involved with NatureSpot.

Trustees 2023		
Melinda Bell (Chair)		
Alan Cann (Chair elect)		
David Nicholls (Company Sec)		
Dr Helen O'Brien		
Sue Timms		
Geoffrey Hall		
Mike Higgott		
David Gould		
Ray Morris		
Ben Devine		
Graham Calow (to Sept)		

#### **Report from the Chair of Trustees**

NatureSpot had another great year for wildlife recording and the Trustees would like to thank everyone who sent in records in 2023. Our thanks also go to the many hardworking verifiers who check our records. We couldn't function without their expertise and generosity.

All wildlife records are really valuable. They help to build up a detailed pattern of what is going on with our local wildlife in terms of distribution and status over time. This has also enabled NatureSpot to introduce a new and interesting feature to our species pages that provides an analysis of phenology, rarity and distribution over the last 10 years.

Climate change is becoming more obvious in our daily lives. Summer 2023 was another year that was warmer and wetter than average, then a seemingly endless run of autumn storms and flooding which caused problems for people and wildlife alike. All of this only emphasises the enormous value that wildlife recording has in nature conservation and planning for the future. All NatureSpot records contribute to knowledge about wildlife locally in Leicestershire and Rutland but also across all of the UK by sharing our data with the National Biodiversity Network.

Change is happening with species spreading towards us from the south. On a positive note, it certainly makes getting out and recording wildlife even more fun. You never know what you will find around the next corner.

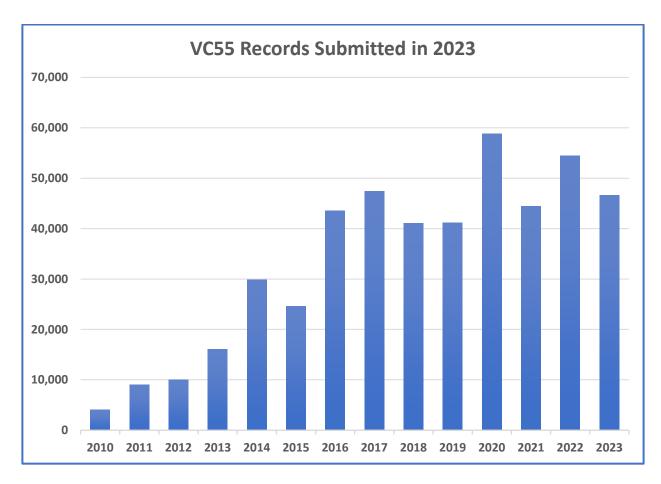
NatureSpot is a registered charity governed by a Board of Trustees and I am handing over the role of Chair to Alan Cann, who I know will lead us through the challenges of 2024.

Min Bell, January 2024

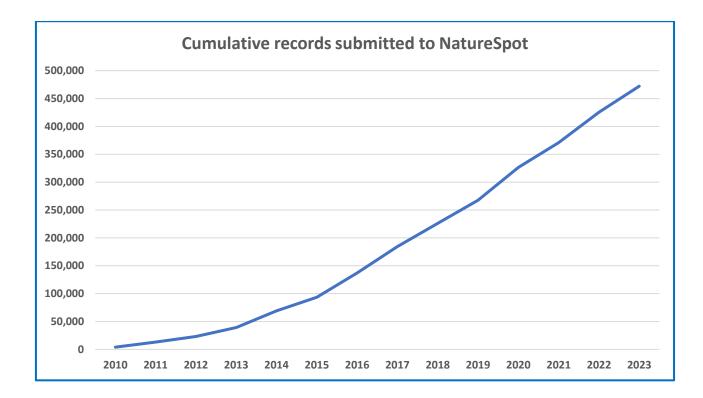
## Wildlife Recording

#### 2023 Summary

A total of 46,663 records were submitted to NatureSpot during 2023. This figure is for vice-county 55, the established recording boundary for Leicestershire and Rutland, as NatureSpot only collects data for this area. This continues the steady pattern for submissions seen in recent years.



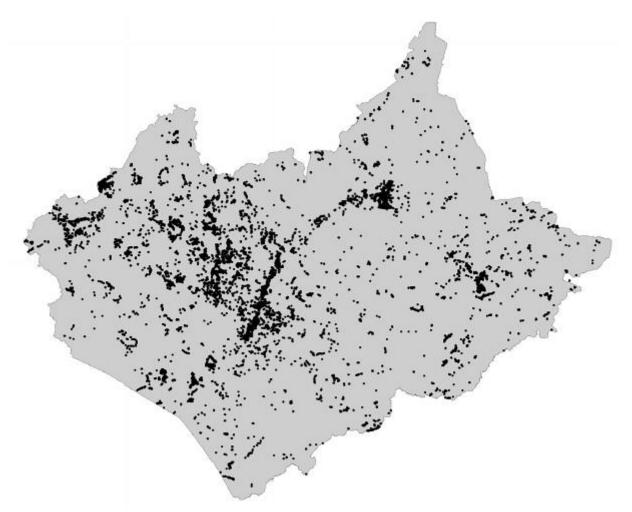
In total, 472,140 records for Leicestershire and Rutland have now been received through NatureSpot's online portal - a major contribution to the scientific knowledge of wildlife in the area.



#### **Record distribution**

As with most citizen science biological recording, there is a strong recorder bias to the NatureSpot data, with a pattern that is similar to that seen for all VC55 record data, indeed the same pattern exists for nearly all taxon groups. The most recorded areas are the city of Leicester, Charnwood Forest, Rutland Water and Melton. The least recorded areas are the eastern areas of Leicestershire. The reasons for this bias are many, but include where people live and where there are interesting wildlife sites to visit.

Work by the Centre for Ecology and Hydrology (CEH) has developed statistic modelling tools that enable 'unstructured' data, such as ours, to be analysed in a way that compensates for the uneven distribution and this is now being actively pursued to help us better interpret our growing database. In addition, NatureSpot is developing plans to encourage more recording from those less visited areas.



Distribution 'dot' map of accepted 2023 records submitted to NatureSpot

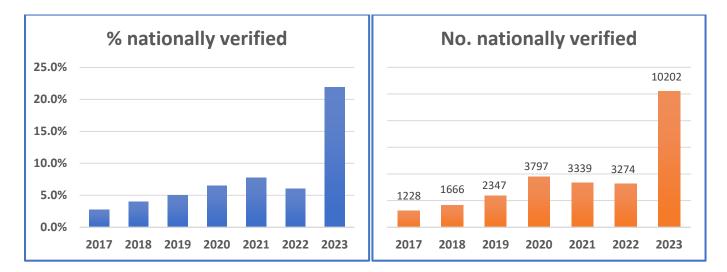
#### Verification

Every record submitted to NatureSpot is individually checked by an expert and only accepted where there is satisfactory evidence to confirm the species identity. This evidence can comprise images, a description of key features or knowledge of the recorder's skills and competence. In 2023, 97.2% of submitted records were accepted and a further 0.8% considered plausible. This is very similar to the pattern in previous years and reflects both the care taken, and indeed the ID skills, of our recorders.

NatureSpot uses the verification system developed by the Biological Recording Centre (BRC) on iRecord, the national online recording system. NatureSpot is part of the iRecord family with some sharing of software. All NatureSpot records are securely held on the BRC warehouse server. This verification system offers verifiers five options: confirmed correct; assumed correct, plausible; unable to verify; incorrect. In addition, records may be queried, seeking more information before a decision is made, or forwarded to an expert for assessment. A major effort is made each year to ensure every record is reviewed and verified by the year end. This ensures that all contributions from recorders are recognised and incorporated into the final dataset ready for distribution.

A further benefit of NatureSpot being linked with iRecord and the BRC is that the NatureSpot records are made available to national experts who help with verification. In 2023, 10,202 (21.9%) records were verified by these national experts, a significant increase compared with previous years. The remainder were verified by local experts appointed by NatureSpot, and assisted by County Recorders and other specialists.

The number of national verifiers recruited by iRecord has been growing and last year 70 of these helped with the verification of NatureSpot data, including well known experts in their fields such as Roger Morris, Gavin Broad, Barry Warrington, Joe Botting, Rob Edmunds, Helen Roy and Tristan Bantock.



#### Evidence

High data quality is a key objective for NatureSpot. Verifiers are asked to adopt a cautious approach and to carefully assess the evidence presented with each record submission.

Though it is not necessary to submit images with all records, particularly for the more common species, it does help verifiers to confirm the identification. Records of unusual species or from an unfamiliar recorder do normally need an image to allow a correct verification decision, though confirmation from a known expert or a satisfactory description of the identification method may be sufficient. Records from known recorders may also be accepted based on their experience and track record.

The verification status can be, and is, amended should a mistake be realised, or further information becomes available. Feedback from County Recorders when the records are distributed at the year-end is always highly valued in this regard.

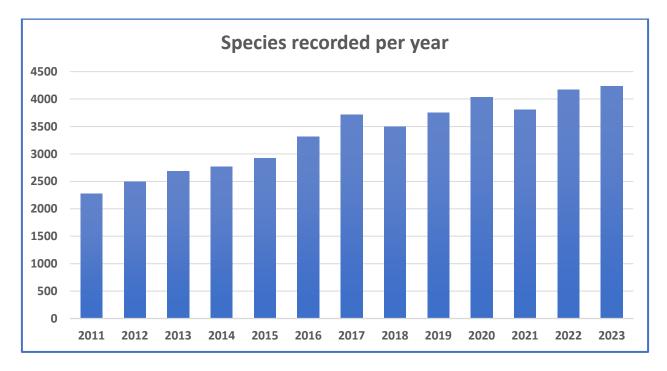
NatureSpot has developed a number of initiatives to help and guide recorders and help improve data quality. The species account aims to include a detailed description of the key features needed to identify that species, including reference to similar species with which it could be confused. Every species has been given a RAG (Red / Amber / Green) rating representing the identification difficulty. Recording advice is also given stating the evidence needed with the submission for the record to be accepted. Both the RAG rating and the recording advice appear on the recording form when that species is selected as a reminder to the recorder. The updating and improvement of this information is an ongoing process.

#### Data distribution

At the year end, NatureSpot data is incorporated into the ORCA database used by the Leicestershire and Rutland Environmental Records Centre for all VC55 data. The data is also shared with all local and some national recording schemes, as well as a number of land managers such as the Leicestershire and Rutland Wildlife Trust and the National Forest. In addition, all NatureSpot accepted records are published on the National Biodiversity Network Atlas with an update made each month.

#### **Species**

The number of different species recorded on NatureSpot continues to grow. In 2023, records of 4,230 different species were submitted, the highest in our history. 301 of these were species not previously recorded on NatureSpot (see New Species below).



The table below lists the taxon groups of the species records received and verified as accepted in 2023. Moths top the list as usual, thanks to the popularity of garden moth trapping.

Taxon Group	Record no.	%
Moths	12849	28.3%
Birds	6760	14.9%
Wildflowers	5595	12.3%
Bugs	2479	5.5%
Beetles	1993	4.4%
Butterflies	1965	4.3%
Fungi	1963	4.3%
Mammals	1806	4.0%
Bees, Wasps, Ants	1186	2.6%
Flies	1114	2.5%
Trees, Shrubs & Climbers	1045	2.3%
Hoverflies	1155	2.5%
Dragonflies and Damselflies	636	1.4%
Slugs & Snails	621	1.4%
Spiders	605	1.3%
Grasses, Rushes & Sedges	527	1.2%
Craneflies, Gnats & Midges	474	1.0%
Lichens	437	1.0%
Mites, Ticks & Pseudoscorpions	324	0.7%
Caddisflies	267	0.6%

Mosses & Liverworts	228	0.5%
Grasshoppers & Crickets	205	0.5%
Sawflies	182	0.4%
Ferns & Horsetails	148	0.3%
Amphibians	127	0.3%
Woodlice, Crustaceans	122	0.3%
Harvestman	105	0.2%
Springtails & Bristletails	96	0.2%
Centipedes & Millipedes	73	0.2%
Slime Moulds	53	0.1%
Barklice & Booklice	49	0.1%
Lacewings & Scorpionflies	36	0.1%
Reptiles	25	0.1%
Algae, Bacteria, Virus	20	0.04%
Earwigs	18	0.04%
Fish	17	0.04%
Worms	10	0.02%
Mayflies	10	0.02%
Silverfish	9	0.02%
Stoneflies	2	0.004%
Thrips	1	0.002%

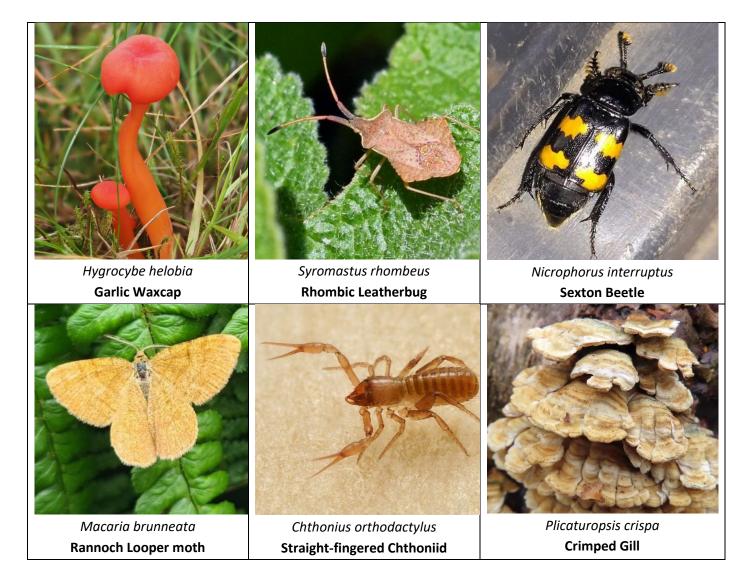
The 30 most recorded species in 2023 are listed below. The list is dominated by moths and birds, as is usually the case. The species highlighted in green are new to the top 30 this year.

2023 Top 30		
Species	Record no.	Group
Red Fox	405	Mammals
Mallard	338	Birds
Large Yellow Underwing	327	Moths
Mute Swan	301	Birds
Light Brown Apple Moth	283	Moths
Gadwall	259	Birds
Woodpigeon	237	Birds
7-spot Ladybird	234	Beetles
Red Admiral	233	Butterflies
Willow Beauty	224	Moths
Tufted Duck	213	Birds
Eastern Grey Squirrel	211	Mammals
Silver Y	208	Moths
Vine's Rustic	206	Moths
Lesser Yellow Underwing	203	Moths
Canada Goose	198	Birds
Heart & Dart	196	Moths

Brimstone Moth	190	Moths
Eurasian Badger	189	Mammals
Dark Arches	186	Moths
Lapwing	183	Birds
Indian Balsam	183	Wildflowers
Shuttle-shaped Dart	182	Moths
Garden Carpet	180	Moths
Green Shieldbug	179	Bugs
Riband Wave	174	Moths
Coot	168	Birds
Setaceous Hebrew Character	164	Moths
Blackbird	162	Birds
Black-headed Gull	161	Birds

#### **New species**

301 'new' species (ie. not previously recorded on NatureSpot) were recorded during 2023 and added to our galleries. The selection below is a small sample of these:



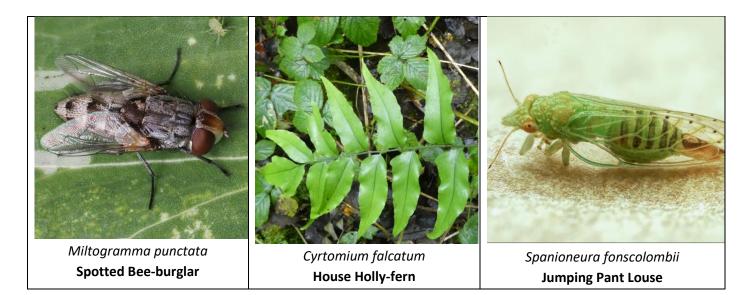
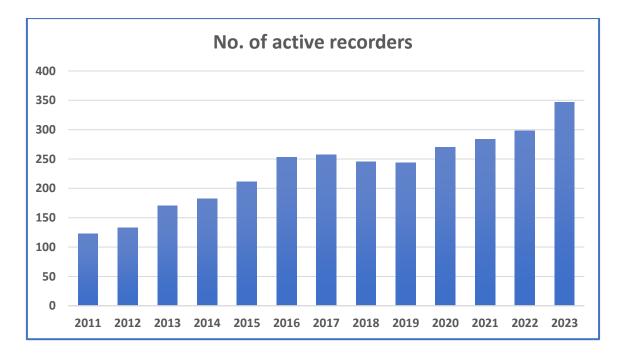


Image credits (left to right from the top): David Nicholls / Andrew Dejardin / Matt Nix / Andy Mackay / Alan Cann / John Alton / David Nicholls/ Min Bell/ Alan Cann.

#### Recorders

The number of active recorders submitting wildlife records to NatureSpot in 2023 was the highest to date (347). Of these, 112 were new recorders submitting records for the first time, again another all time high.



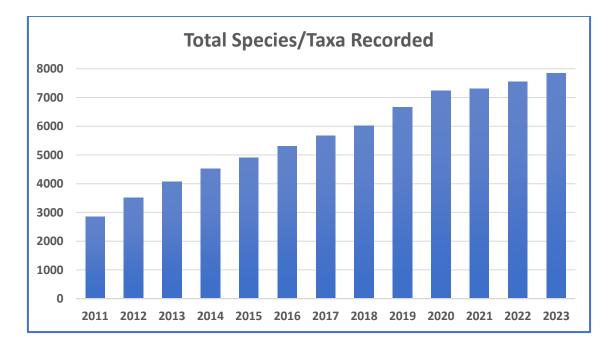
The total overall number of different contributing recorders to date is 1777.

NatureSpot tends to receive regular submissions from core recorders rather than lots of occasional submissions from the general public. This has the benefit that NatureSpot verifiers build up their knowledge of the recording abilities and reliability of individual recorders, whilst the recorders develop their identification skills and interests through regular dialogue. This said, part of NatureSpot's mission is to facilitate more recording so it is very pleasing to see so many new contributors.

Whilst it is necessary to be registered with NatureSpot to submit records, not all registered users actively record. We know that many users use the site as a source of information, including many that would submit records, but they live outside of Leicestershire and Rutland. In this case, we encourage recording via the national iRecord website.

## **Species Galleries**

The total number of Leicestershire and Rutland different taxa recorded on NatureSpot at the end of 2023 was 7,851. This includes a few aggregate species plus a few higher taxon entries, such as genus.



Nearly every species/taxon recorded has an information page in the galleries, illustrated with the best images submitted by recorders (all taken in Leicestershire and Rutland). A few species/taxa are lacking images and may not have a species page set up yet. Species page images are selected to show the key identification features and also, where relevant, to represent different colour forms, sex differences and juvenile stages. Species pages also include a description, ID tips, similar species, habitat, status and other details. Both a VC55 and a UK map are also displayed showing all known records for that species both locally and nationally.

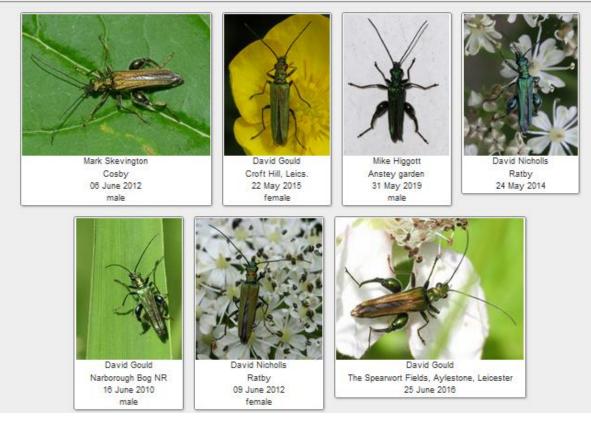
This year we have added a further section offering an analysis of the entire NatureSpot dataset for each species. This includes the total number of records, first and last records, a phenology chart (sightings in each month), plus two charts indicating whether the species has become more or less frequent and more or less widely distributed over the last 10 years. We recognise that a range of factors can influence both the frequency and geographic range of records, but this new section provides a useful insight for many species.

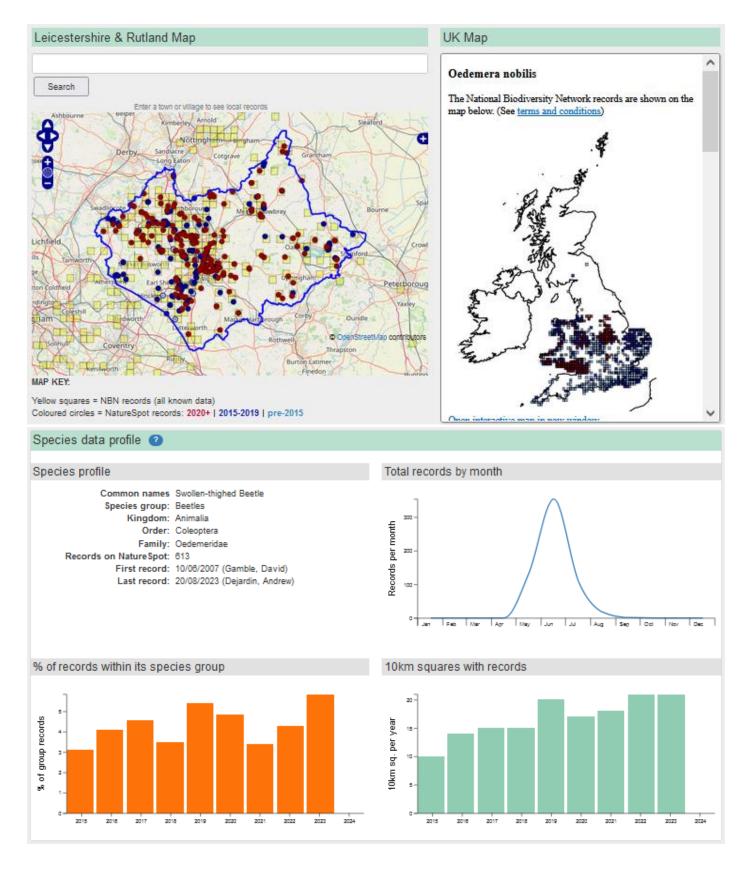
The illustration below provides an example of a species page and the new analysis section (in this case for the Swollen-thighed Beetle *Odemera nobilis*).

#### Swollen-thighed Beetle - Oedemera nobilis

Species account Additional images

Click here to support NatureSpot by making a donation - small or large - your gift is very much appreciated. Thank you.			
Description	Length 8 to 10mm. The green elytra (wing covers) are pointed and gape apart. The male and female of this beetle can easily be to apart, as the male has large green bulges on its femora or thighs, while the female does not.		
Similar Species	The male is unmistakeable but the female could be confused with other Oedemera species, however its size, gaping wing cases an irredescence distinguish it.		
Identification difficulty	male		
	n female		
Habitat	Flower meadows, gardens and waste ground where they visit flowers.		
When to see it	April to September		
Life History	This beetle is a pollen feeder.		
UK Status	Widespread from southern England northwards to the Wash and north Wales, but less common further north than that.		
VC55 Status	Only reached VC55 around 2008 and already quite common. There were a total of 60 VC55 records for this species up to March 2015.		





The species pages are constantly being revised and added to in order to provide accurate and useful information, particularly on how to reliably identify the species. Where appropriate, we are adding *Identification Aids* – which is an expandable field allowing images, illustrations and text to be added to help identify the species and distinguish it from similar species that it could be confused with.

## Wild Places and Parish Pages

Other key elements of the NatureSpot website are the feature pages for a defined local area, which showcase the wildlife of that area. This is done in two ways, firstly for **Parishes** (or wards in the city) and secondly for '**Wild Places**' – sites of known or potential wildlife interest with public access. Records and images for each parish/site are automatically displayed on these pages creating a dynamic and constantly updated account of recent wildlife sightings. Some of these site/parish pages are administered by local volunteers.

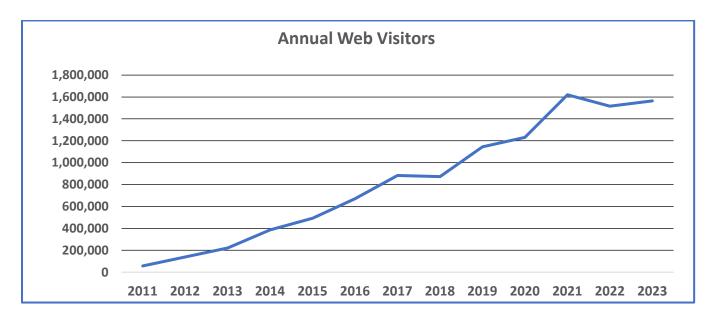
A number of new wild place and parish pages were set up during the year. At the end of 2023, we featured:

Parish / Wild Places	2023
No. parish pages	77
No. Wild Places	516

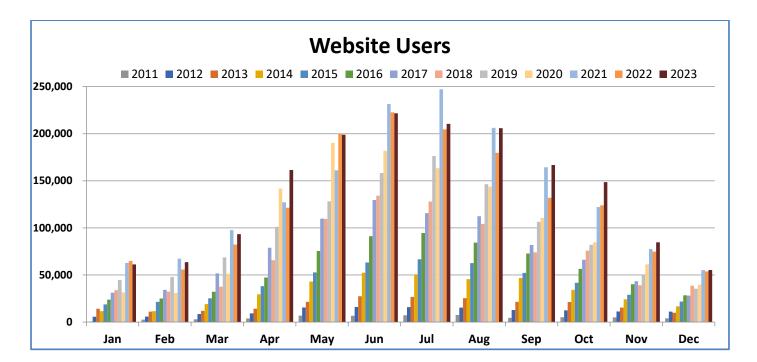
We welcome suggestions for new Wild Places to be set up.

## Website visitors and Social Media

Visits to the NatureSpot website are monitored using Google Analytics. This records many details of each visitor, including: country of origin, their operating system, the search engine used and the search term entered.



Visitor numbers remain high and at similar levels to last year. There is a distinct seasonal pattern to web visits, peaking in June/July. There is a similar seasonal pattern of record submissions due to flowers and invertebrates being more numerous and more easily seen in the warmer months.



#### Twitter (X) / Facebook

Over the year, the NatureSpot Facebook group grew from 500 to over 1,000 members, a 50% increase. The NatureSpot Twitter account now has over 1,000 followers, a 12% increase over the year.

#### YouTube

Although we published few videos in 2023, the NatureSpot YouTube channel grew by 22% to 700 subscribers and was watched for almost 3,000 hours.

#### Feedback

Comments from site users received during 2023 include:

- It's a great website with such useful information for ID, such as dates of photos, great photos and detailed text. It's a great inspiration. Thank you for allowing open access to all.
- Thank you for your brilliant website. I have been using it extensively to help identify the many species (especially invertebrates) on a wonderful piece of heathland we are trying to save from development.
- Great work for a great web site that I've used many times and wish I could offer more financial support.
- Brilliant website and easily solved my caterpillar/host plant id problem. Thank you.
- Many thanks for an amazingly useful website.

## Support for local wildlife groups and projects

We provide a web platform for a number of local wildlife groups and projects, including those listed below, helping to promote their work and publications. We also allow these groups to publicise their activities directly onto the NatureSpot events listings.

- Leicestershire Entomological Society
- Leicester Amphibian and Reptile Network

- Leicestershire Moth Recorders
- Leicestershire and Rutland Mammal Group
- Market Bosworth & District Natural History Society
- Literary & Philosophical Society Natural History Section
- Leicestershire and Rutland Badger Group
- Road verge biodiversity project

If you would like to use the NatureSpot web platform to publicise and promote your group, project or events then do get in touch.

## **Developments in 2023**

#### **Partnerships**

NatureSpot has several core partners: Leicestershire County Council, Leicester City Council and the Leicestershire and Rutland Wildlife Trust. In addition, we work closely with a wide range of district and parish councils as well as most of the natural history societies in the two counties. We also operate in tandem with the Centre for Ecology and Hydrology to share data and the technology of the national iRecord system. NatureSpot is also a partner with the National Biodiversity Network.

#### Projects

In 2023, we continued to work in partnership with Leicestershire County Council in support of the **Urban Verges Biodiversity project**. This initiative is engaging and supporting parish councils in taking over the management of selected verges in their areas with the aim of improving their biodiversity value. NatureSpot's role has been to undertake a site survey of the existing flora and to use this data to advise parish councils on management options. We also delivered a number of training events for volunteers engaged in the project. This work will continue in 2024. More details are available <u>here</u>.

We also produced a further 50 guides to common wildlife found in Leicestershire. These are available as free downloads on the NatureSpot website.

We continued our partnership with the National Forest Company in support of the **Charnwood Forest Landscape Partnership Scheme**. NatureSpot provides wildlife recording support and help with data management.

We are constantly adding to the content of our species pages and trying to improve the website's functionality. During 2023 we updated the layout of the home page, added a fresh design to our home page banner and carried out numerous technical fixes and improvements to enhance performance, address various issues and to improve the visitor experience.

#### **Further Information**

If you would like further information or an explanation of anything included in this report, please contact:

David Nicholls dnicholls@naturespot.org.uk

2023 NatureSpot Annual Report