

Sheffield

State of Nature



2018
Summary Report

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Cover photo:
Sheffield view by Rob Miller



Introduction

This report is a brief summary of the much more detailed Sheffield State of Nature 2018 report. It provides an overview of the main headlines and recommendations for each habitat found across the Sheffield area, drawing on data analyses and evidence collated in the full report which can be downloaded at wildsheffield.com/stateofnature

The Sheffield State of Nature 2018 report was developed through the Nature Counts partnership – a collaboration of Sheffield & Rotherham Wildlife Trust; Sheffield City Council Ecology Unit; Museums Sheffield (Weston Park Museum); the University of Sheffield; Sheffield Hallam University; Sorby Natural History Society; and Sheffield Bird Study Group. The project was funded by the Heritage Lottery Fund (HLF) and we would like to thank HLF and National Lottery players for supporting Nature Counts.

As well as producing this summary and the full Sheffield State of Nature 2018 report, the Nature Counts team also delivered a number of training workshops and undertook a series of citizen science projects, including mapping native bluebells across the city and recording the return of the otter to the River Don in the heart of Sheffield. The data and results from these surveys have been incorporated into the main report.

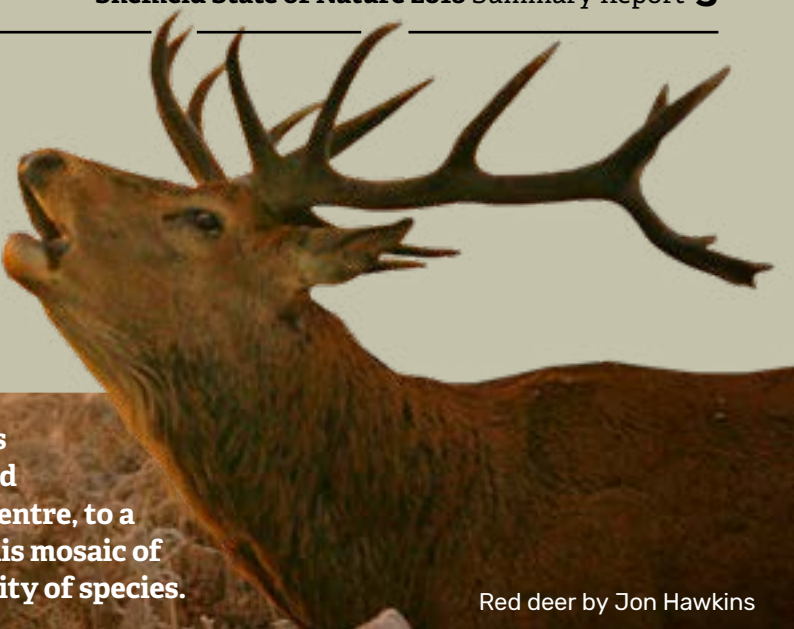
The Nature Counts steering group would like to thank all those who have contributed to the whole project and in particular to the Sheffield State of Nature 2018 report. Many local groups and individual volunteers have contributed time and effort, often over many years, to recording and monitoring our local wildlife. Without them the report would not have been possible.

The Nature Counts steering group would also like to thank the project team and in particular Sara Blackburn for her dedication and commitment to producing the report.

We hope that the Sheffield State of Nature 2018 report will be a catalyst for nature conservation across Sheffield – to better inform and target delivery, working in partnership across the city for the benefit of wildlife and people.

Overall Headlines

Sheffield has a variety of habitats from moorlands and uplands in the west, through to grasslands and farmlands, rivers and reservoirs in the district’s centre, to a wooded and green urban landscape in the east. This mosaic of habitats has the potential to support a rich diversity of species.



Red deer by Jon Hawkins

Over 36% of the Sheffield district is covered by designated sites with 25% protected at European level. Sheffield has **253** Local Wildlife Sites (LWSs) and **17** Local Nature Reserves (LNRs).

Over half of LWSs are in positive conservation management, but over 100 are still not. **Over 99%** of Sheffield’s Sites of Special Scientific Interest (SSSIs) are in ‘favourable’ or ‘unfavourable recovering’ condition, higher than the UK figure.

16% of Sheffield is wooded, far higher than the UK average of **10%**. Sheffield supports **over a third** of South Yorkshire’s woodland, despite covering less than a quarter of the area, and **1,256ha** of ancient woodland can be found across the district, **92%** of which is protected to some extent through site designations.

Over 90% of Sheffield’s residents have access to a large area of woodland within 4km of their home.

Sheffield’s woodland birds are doing well but others are mirroring national declines. **4 out of the 5** most severe declines of local bird species correspond to farmland specialists.

Rivers are central to Sheffield’s ecology and draw wildlife into the heart of the city. **26 out of 31** fish species have recolonised and **otters** have returned to the Don. Many people and organisations have worked hard to reverse the negative impacts of Sheffield’s industrial past on its waterways.

Local threats to wildlife mirror many national trends, such as habitat loss and fragmentation, pressure from development and non-native species introductions. Such threats are all too real with the near-disappearance of priority species including **white-clawed crayfish, turtle dove** and **water vole** from the district.

There are many dedicated individuals, groups and organisations that work tirelessly to record, monitor and protect Sheffield’s habitats and species. Their contributions to wildlife conservation are reflected both in the knowledge we have of Sheffield’s wealth of wildlife and in the recovery of species and habitats.

Despite these efforts, there is still a great deal we do not know about Sheffield’s natural environment and the wildlife it supports. Despite having a wealth of data, there are still many gaps for some species or a lack of consistency in data collection that make it difficult for us to identify and report with confidence, changes over time. Many areas of additional priority habitat are known but unmapped e.g. grassland, and so unprotected, leaving them vulnerable to degradation.



Overall Recommendations

Develop targeted conservation action plans for key indicator and priority species or local species in severe decline, including **otter**, **hedgehog**, **white-clawed crayfish** and **breeding waders**.

Promote the value of LWSs for both wildlife and people and increase the resources available for monitoring and management so that the number of sites in positive conservation management can be increased.

Work with landowners, land managers and farmers to raise awareness of habitat and species management to both improve and increase habitats for wildlife such as wetland and farmland birds.

Increase the knowledge of our natural resources by surveying and mapping known areas of priority habitats, and feed these into Natural England’s Priority Habitat Inventory to inform management plans, site monitoring and Countryside Stewardship Schemes.

Increase the available resources to collect systematic data on key indicator species and the habitats they rely on, as well as promote data sharing, so that trends can be identified and acted upon.

Promote greater engagement in citizen science projects and structured ecological surveys to both increase knowledge of species and encourage people to experience and value wildlife. This includes providing training in wildlife monitoring to current and future generations.

Carefully balance recreational demand with undisturbed areas for wildlife and, where necessary, tailor this to meet the requirements of key species and habitats.

Develop strategic plans to minimise the introduction and spread of key invasive non-native species and their impact on local native wildlife and habitats. This includes effective management as well as raising awareness with the general public.

Improve and increase habitat connectivity across Sheffield using landscape features such as woodland blocks and wildlife corridors. This includes the restoration, protection and management of hedgerows, rural road verges and field boundaries.



White-clawed crayfish by Linda Pitkin/2020VISION

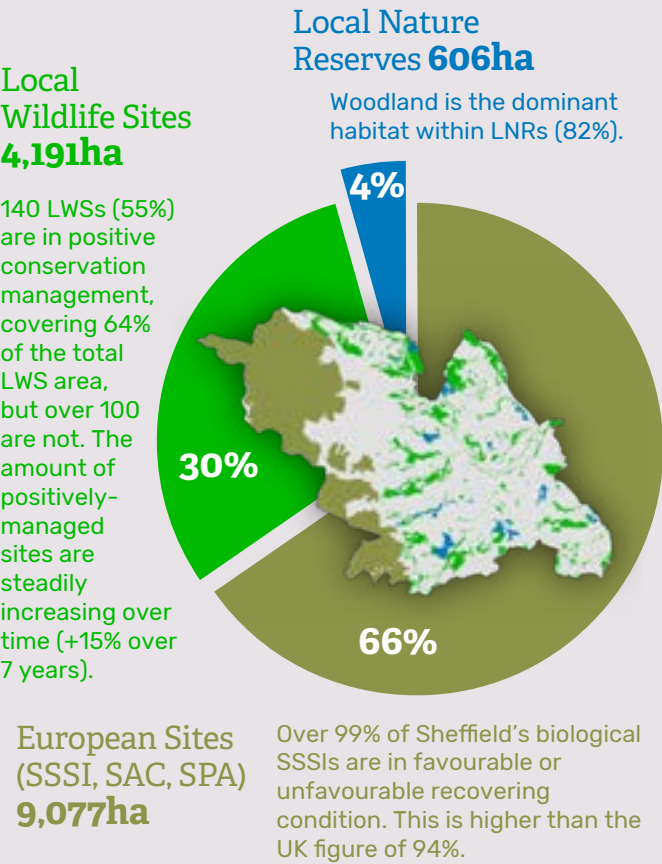
Sheffield Overview

“The setting of Sheffield in its ‘golden frame’, with its hills and valleys and the heritage of trees and parks, continues to be a major asset that is appreciated by residents and visitors alike. The natural environment with its variety of wildlife is valuable in its own right but can also contribute to the economic and social vitality of the city. The green spaces within the built-up areas make an important contribution to the life of the city. The challenge is to protect and enhance the city’s natural assets both to support the regeneration of the city and as features of value in their own right.”

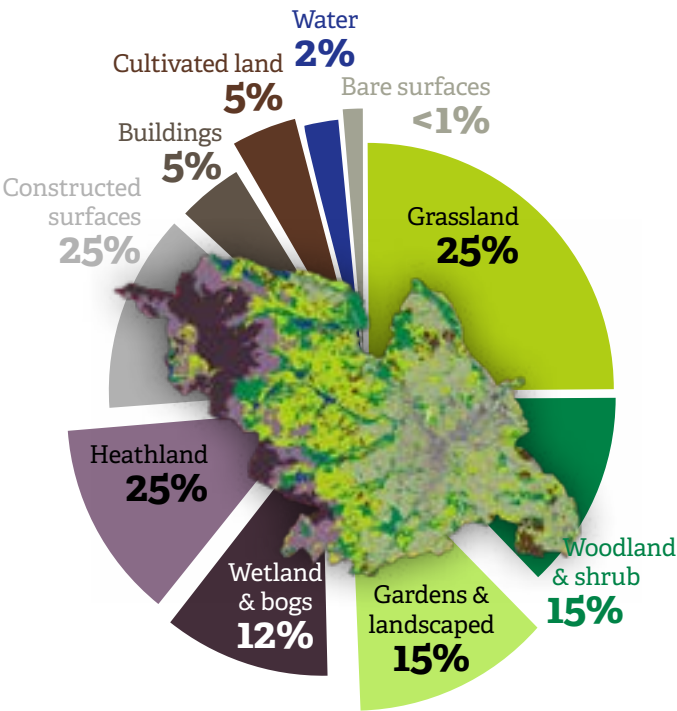
Challenge 13: A city that prizes its green environment. Sheffield Development Framework Core Strategy, Sheffield City Council, 2009.

Reservoir view by Claire Watts

Designated Sites



Habitat Coverage



Threats to designated sites include lack of management resources leading to site degradation. Since 2011 we have lost 5 LWSs due to irreversible habitat loss.



Woodland & Trees

Using our standard methods, **14.8%** or **5,454ha** of Sheffield is classed as woodland. iTree statistics suggest even greater coverage of **5,946ha** or **16.2%**, substantially higher than the national figure of 10%. Total tree cover for the Sheffield district, calculated by iTree, is **18.4%**.

23.5% of Sheffield’s lowland woodland is categorised as ancient semi-natural woodland (ASNW) or plantations on ancient woodland sites (PAWS). This covers **3.5%** of the Sheffield district and is higher than the figure of **2.3%** for the UK.

Sheffield’s woodlands are a valuable recreational resource. **94%** of people have access to a large woodland (20ha) within 4km of their residence and **nearly half** of Sheffield’s population has access to a 2ha woodland within 500m of their home.

Over half of Sheffield’s woodlands are covered by designations such as LWS and **63%** of land with LWS designation is woodland. Most sites are improving; **over 70%** of woodland habitat within LWSs is in positive conservation management. **Over 92%** of ancient woodland is covered by a site designation.

Compared to UK trends, bird species considered in the UK Biodiversity Indicator ‘C5b: woodland birds’ are doing well, particularly woodland generalists, indicating the good health of Sheffield’s woodlands.

Threats to woodlands in Sheffield include habitat fragmentation, damage from recreation and spread of invasive species from gardens. Continued improvements in woodland management, including the input of local groups, can help tackle this.

Recommendations

- Continue to deliver conservation actions that support the return and expansion of **willow tit** and **pied flycatcher**, including more standing deadwood and tree thinning.
- Increase diversity in tree planting to promote greater woodland resilience against destructive pathogens and fungi e.g. Chalara.
- Continue to work in partnership with the local community and police to reduce motorcycling and off-road activity in key woodlands in the north of Sheffield and ensure that wildlife is not detrimentally affected by increased recreation and disturbance at these woodland sites.
- Undertake effective prosecution of fly-tippers and promote successful cases.

- Further improve our knowledge of woodland fungi and promote the use of habitat piles and lying deadwood.
- Further improve our knowledge of woodland butterflies by promoting and enabling local groups in monitoring butterfly populations, to better inform future conservation activities through the use of the woodland butterfly indicator.
- Develop, through open partnership, a long-term citywide strategic plan that considers how Sheffield’s urban street trees can be valued and managed appropriately to better contribute to improving people’s health and wellbeing, reducing noise and air pollution, improving flood risk management, helping to mitigate for climate change, supporting biodiversity and encouraging community engagement and cohesion.



Waterways & Standing Water

Sheffield’s rivers and the quality of their waters have undergone vast improvements in recent decades, resulting in a substantial increase in biodiversity.

The current ecological status of Sheffield’s rivers is variable; assessments conducted by the Environment Agency show that most stretches are of an overall moderate status. Quality improves with increasing distance from central industrialised areas.

Otter and several fish species have now returned to the Don as a result of improving water quality and the installation of fish passes. **26** out of **31** species of fish historically found on the Don have now recolonised the river.

Reservoirs, such as Redmires, provide hugely important habitats for many species of breeding birds including **curlew**, **golden plover** and **snipe**.

Local ponds provide important habitats for species such as **great crested newts** and **dragonflies** and many have benefitted from recent restoration work. Dragonfly diversity has significantly increased, partly due to improvements in water quality and associated emergent waterside vegetation.

Threats to Sheffield’s waterways and wetlands include pollution, physical modification of the river and invasive species. Invasive non-native species which have a stronghold on Sheffield’s river systems include **Japanese knotweed**, **Himalayan balsam**, **signal crayfish** and **American mink**.

Recommendations

- Continue to deliver conservation actions that support the return and expansion of fish species, including **salmon**.
- Continue to monitor and improve our knowledge of **otter** on our waterways and ensure that planners, developers and construction companies are aware of the importance of this protected species and the habitats it relies on along the Don and elsewhere.
- Continue efforts on improving the overall condition of rivers particularly parts of the Porter and urban sections of the River Don. This includes: removing restrictions and barriers for wildlife whilst maintaining biosecurity; managing water extraction sensitively; re-naturalising rivers by removing modifications; and tackling diffuse pollution from agriculture, industry and other sources.

- Continue to strategically tackle invasive non-native plant species such as **Japanese knotweed** and **Himalayan balsam**.
- Promote the importance of Redmires Reservoir (within the Peak District National Park and therefore not designated as a LWS) as a bird breeding and wildlife site and develop co-ordinated habitat management plans amongst relevant landowners and other stakeholders.
- Work with Natural England and other stakeholders to support and promote the improvement of water and wetland SSSIs to favourable condition.
- Promote the importance of ponds for wildlife, encouraging public bodies, developers, land owners and farmers to incorporate ponds into new schemes. Provide advice to enable the public to include ponds in private gardens or improve the wildlife value of existing garden ponds.



Moorland, Upland & Heathland

12% of the Sheffield district is covered by heathland with an additional 12% of blanket bog. Several key priority moorland habitats are present, including lowland and upland heathlands, blanket bogs and upland flushes, fens and swamps with most lying within designated sites.

Most of Sheffield’s moorland habitats lie within the Peak District National Park. However, some important heathland lies outside of the National Park, mostly contained within LWSs.

Over 95% of moorland habitats are covered by designated sites, mostly with the highest level of European protection.

99% of Sheffield’s moorland within SSSIs is in either ‘favourable’ or ‘unfavourable recovering’ condition, compared to a UK figure of 94% for all SSSIs.

Characteristic moorland species include red grouse, sphagnum mosses, ling heather and bilberry bumblebee. Key species such as cuckoo, ring ouzel, nightjar, peregrine falcon and mountain hare may be at risk from disturbance and, in some cases, persecution.

Most heathlands without LWS designation are at risk of insufficient ongoing management.

The UK Biodiversity Indicator ‘C5e: wintering waterbirds’ highlights further species in trouble including dunlin, redshank and lapwing, with declines attributed to land management practices and habitat loss.

Recommendations

Tackle declines in local birds of prey by improving habitat, raising awareness and challenging wildlife crime, and by addressing overly intensive management for grouse shooting that is applied by some landowners and managers.

Actively promote and practically support farmers, land managers and landowners in applying for, and managing, agri-environment schemes, especially as current schemes are replaced following Brexit.

Continue to deliver conservation actions that support the return and expansion of nightjar. This includes habitat improvements and ensuring that they are not detrimentally affected by increased recreation and disturbance at key locations.

Work with Natural England and other stakeholders to support and promote the improvement of moorland SSSIs to favourable condition.

Focus efforts on improving the overall condition of the two-thirds of key lowland heathland LWSs that are currently in poor condition or not in positive conservation management for wildlife.

Grassland & Farmland

Sheffield has over 7,528ha of grassland and arable land, over half of which is improved grassland. Unimproved grasslands – the most beneficial for wildlife – cover less than 10% of all grasslands and farmland.

Less than 10% of grassland is covered by designated sites. 46 LWSs featuring grassland habitats – covering 138ha – are in positive conservation management but these make up only 39% of LWS grassland habitats. Most grassland within LWSs is amenity grassland.

Over 9,350ha of farmland is under agri-environment schemes which are working to improve grassland, field boundaries and arable land for a variety of outcomes such as increasing wildlife habitat and tackling declines of farmland birds.

Priority grassland sites are likely to be under-represented and mapping is incomplete. More action is required to fully understand how much priority grassland lies within the district.

Recommendations

Continue to deliver conservation actions that support the return and expansion of the barn owl. This includes habitat improvement, raising awareness of rodenticide, improved monitoring and installation of barn owl boxes.

Develop the positive conservation management of rural road verges to act as corridors and linkages between fragmented grassland sites.

Identify opportunities to plant new hedgerows where appropriate and restore connecting drystone walls.

Promote the value of local, non-designated but important grassland sites by encouraging Natural England to include them within the Higher Tier of Countryside Stewardship or bringing them into the Peak District National Park Authority’s Conservation Scheme.

The UK Biodiversity Indicator ‘C5a: farmland birds’ shows that most specialist farmland birds are declining due to changes in agricultural practices. 4 of the 5 most severe declines of breeding birds are farmland specialists.

Current threats to farmland and grassland habitats include agricultural intensification, lack of protection, neglect and pressure from development and urbanisation.

Actively promote and practically support farmers and landowners wishing to apply for mid-tier Countryside Stewardship and any appropriate replacement scheme after Brexit.

Encourage the creation of new hay meadows and the planting of ‘arable weeds’ and meadow species where appropriate e.g. cowslip and yellow rattle.

Further improve our knowledge of fungi at grassland sites and promote the mycological importance of key sites.

Raise awareness with land managers, landowners, farmers, grounds maintenance contractors and public bodies of the impact of inappropriate or over-grazing and excessive mowing or cutting, especially at the wrong time of year, on grasslands and the wildlife they support.

Urban

Sheffield has a substantial amount of natural and managed natural habitats within the urban zone. This includes **1,685ha** of woodland – covering **11%** of the area – and **2,724ha** of amenity grasslands.

Sheffield has **4,290ha** of urban gardens. These are important sites for biodiversity – particularly invertebrates.

Built features in the urban landscape support key protected urban species such as **peregrines**, **hedgehogs**, and numerous **bat** species by providing foraging, shelter and breeding opportunities.

Sheffield has a diverse range of urban conservation, management and landscape improvement programmes working to protect nature and improve public access to greenspaces. These include Urban Nature Parks and urban LNRs.

Recommendations

Promote wildlife-friendly gardening to improve biodiversity and habitat connectivity by raising awareness about garden waste and highlighting the impacts of pesticides, such as slug pellets, on wildlife.

Raise awareness with developers, planners and the general public about the importance of gardens, ponds, greenspaces, sustainable drainage systems (SUDS), green corridors, green walls and green roofs as well as small modifications to buildings that can benefit wildlife and people. Examples include hedgehog highways, swift nest box bricks and wildflower meadows.

Nearly half of Sheffield’s LWSs and **over half** of LNRs are found within the urban zone. **Over 70%** of LWSs in the urban zone are in positive conservation management.

Many non-native species of animals and plants are found within Sheffield and some are likely to be negatively impacting local native species. Gardens are often the source of non-native species introductions to the wider environment.

Current threats to urban habitats and wildlife include habitat loss through development and redevelopment, litter, pollution and changes in gardening practice and design e.g. paving and decking.

Develop more urban meadows and promote the planting of native and wildlife-friendly species within the city.

Develop citywide mapping of core sites, opportunity sites, buffer zones, corridors and stepping stones (including greenspace and linear structure) in order to improve connectivity for wildlife.

Continue to engage people with their local greenspaces for the purposes of both active conservation and recreation.

Raise awareness of the importance of priority brownfield sites for biodiversity within urban environments to planners and developers.



Hedgehog by Tom Marshall

Local Action

Sheffield has a rich history of biological recording and active involvement in environmental sciences. Without these groups we would not have the data and insight needed to produce a report such as this. The Sheffield Biological Records Centre – housed at the Sheffield City Council Ecology Unit – was formed in 1964 and plays a crucial role in the storage and administration of environmental data. Many of these data are provided by local recording groups.

Recording groups that play key roles in the understanding of Sheffield’s wildlife include Sorby Natural History Society – celebrating its centenary in 2018 – plus many species-specific groups such as Sheffield Bird Study Group, South Yorkshire Bat Group, South Yorkshire Badger Group and Sorby Breck Ringing Group. Local organisations and conservation bodies also work

hard to protect Sheffield’s wildlife and wild spaces through active conservation and restoration, many with the help of local volunteers. These include Sheffield & Rotherham Wildlife Trust, Don Catchment Rivers Trust, Sheffield Conservation Volunteers and River Stewardship Company. There are also many smaller groups that work on key sites around Sheffield including ‘friends of’ groups. A list of active groups can be found at wildsheffield.com/stateofnature

This report is a summary of the full Sheffield State of Nature 2018 report. The full report can be downloaded from wildsheffield.com/stateofnature



Report contributors

Editor & lead author for the Sheffield State of Nature 2018 report: Sara Blackburn, Sheffield & Rotherham Wildlife Trust. Additional chapter contributors: Julie Riley; Rebekah Newman; Paul Richards; and Nicky Rivers, all Sheffield & Rotherham Wildlife Trust. The steering group reviewed the whole report and developed the recommendations. Additional contributors are listed in the Appendix, downloadable from wildsheffield.com/stateofnature

Acknowledgements

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Key partners and steering group members for the Sheffield State of Nature 2018 report are: Sheffield & Rotherham Wildlife Trust; Sheffield City Council Ecology Unit; Museums Sheffield (Weston Park Museum); the University of Sheffield; Sheffield Hallam University; Sorby Natural History Society; and Sheffield Bird Study Group.

Methods

A full description of the methods used to analyse and assess the data used in this report is included in the Appendix. This can be downloaded from wildsheffield.com/stateofnature

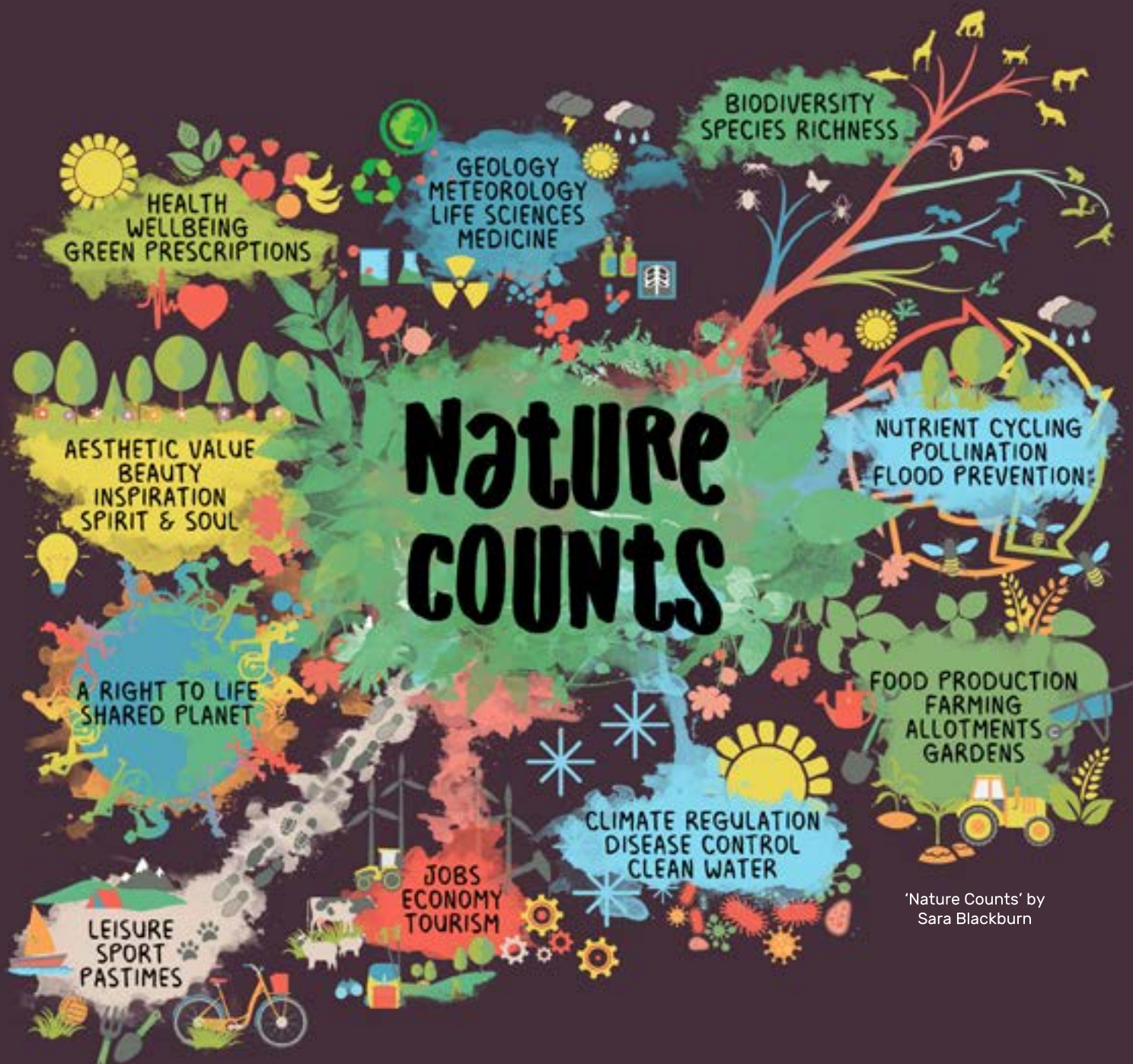
Caveats

The way that species and habitat data are collected affects how they can be used to assess trends in abundance and distribution. Despite having thousands of records, most come with little detail of how they were recorded, meaning that it is impossible to disentangle real changes from variations in survey effort. For example, we don’t know if a species is truly absent in an area or whether it is yet to be searched for. This means that we have been unable to report trends in numbers for most species or provide complete maps for some habitats. Equally, many priority habitats have not been mapped and are likely to be underrepresented. There are also many different ways for habitats to be mapped meaning that there may be variation due to the original methods used. Further details can be found in the Appendix at wildsheffield.com/stateofnature

Citation

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'Nature Counts' by
Sara Blackburn

This report is a summary of the full Sheffield State of Nature 2018 report which has been produced as part of Nature Counts; a two-year Heritage Lottery funded project aimed at providing an overview of how Sheffield's wildlife is faring.

wildsheffield.com/stateofnature



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