

Registered Charity No. 208123

# Naturally Informed

Surrey Wildlife Trust Research Strategy 2018-2023

## **Foreword**

As Vice Chancellor of the University of Surrey, I am especially proud that our University is set within one of Britain's most visited and iconic landscapes: the Surrey Hills Area of Outstanding Natural Beauty.

The Surrey Hills is one of the most celebrated landscapes for Surrey Wildlife Trust's invaluable work. We recognise and support the vital importance of the Trust's efforts in managing so much of Surrey's rich heritage in natural history. The benefits to Surrey's present citizens, and the legacy for our future, are immeasurable.

As a University, our ambition is to lead the world in research that benefits the economy, society and the environment. This is why we are committed to supporting the Surrey Wildlife Trust's Research Strategy.

By working with the Trust to produce a scientifically sound evidence base we will have a key partnership for influencing policies and practices of land management, sustaining both its inherent value to us as humans and the important ecosystem services it provides.

I am especially pleased to see the Trust's commitment to citizen science as an important way of strengthening public engagement with its research work. RiverSearch, for example, has been very successful at providing training, education and supporting pathways to action within the wider community.

In this way, the network of stakeholders broadens and deepens, ensuring that Surrey's natural environment will be valued and safeguarded for generations to come.

The Trust is already a major contributor to the development of a vibrant and sustainable economy. Now, the Trust's Research Strategy will strengthen the long standing relationship between the University and the Trust, and between the social and natural worlds, in ways that will enrich us all.

#### Professor G Q Max Lu

President and Vice Chancellor, University of Surrey



## **Contents**

Introd	uction	1
HILLOU	uction	-

- Strategic focus 5
  - What we do 5
- How this strategy links to mission and vision 5
  - Our special contribution 5
  - Research & monitoring strategy objectives 5
    - Research principles 6
    - Implementation objectives 7
      - References 8

### Acknowledgements

We have developed this research strategy with contributions from a range of Surrey Wildlife Trust staff. We would also like to thank the following for their help and assistance in developing this strategy:

Professor Richard Murphy, University of Surrey

Professor Paul Krause, University of Surrey

Professor Tim Barraclough, Imperial College London

Dr Peter Shaw, University of Roehampton

Dr Birgitta Gaterslaben, University of Surrey

Dr Michael Simmonds, University of Reading

With thanks to The Banister Charitable Trust for their funding support for this document.

#### Document prepared by Dr Dominic Tantram<sup>1</sup>, Sarah Jane Chimbwandira<sup>2</sup> & Jim Jones<sup>3</sup> May 2018

- <sup>1</sup>Partner, Environmental Sustainability, Terrafiniti
- <sup>2</sup> Director of Biodiversity, Evidence and Policy, Surrey Wildlife Trust
- <sup>3</sup> Research & Monitoring Manager, Surrey Wildlife Trust

# INTRODUCTION

Surrey is home to a rich mosaic of habitats, from those of international importance like the Thames Basin Heaths to the humble hedgerow; these support a great diversity of wildlife, including rare and threatened species such as the beetle Lebia cyanocephala, where Surrey has the sole remaining UK population. However the recent publication of Surrey's State of Nature documented that of 4,242 species 12% are believed to be extinct and a further 21% under threat

For Surrey's human residents and visitors these habitats and species constitute Surrey's 'ecological network'. They provide wonder, enjoyment, relaxation and underpin the vital natural services from which we benefit, including cleaning the air and water, carbon storage, flood prevention and mitigation, and physical and mental health and wellbeing.

However, there are many significant challenges threatening the coherence and sustainability of this network, including changing landscapes and farming methods, pollution, climate

change and development. Public understanding and awareness also changes as do demands for the benefits nature provides. Conservation science is also constantly changing as knowledge develops.

Surrey Wildlife Trust has a long-term vision for a thriving, healthy Surrey where people and wildlife live together for the benefit of both. The Trust is committed to delivering its objectives, and to do so it needs to be as effective as possible and make the best available choices that will reduce risk and improve the likelihood of success. The Trust is also faced with economic pressures and the increasing need to make choices on how and where to best act to achieve the greatest impact. Our 5 Year Strategic Plan 2018-23 presents a focussed approach at the landscape level.

Against this background, it has never been more vital to take informed decisions based upon knowledge and evidence, and a rigorous approach to monitoring and evaluation of our interventions to demonstrate their effectiveness and value for money. This Research Strategy is part of the

wider strategic review that will ensure the Trust is fit for purpose now and for the challenges of the coming years. This Research Strategy has been based upon a critical analysis of the organisations current and future needs and the knowledge needed to deliver the mission. It sets out what the Trust needs to know, how it will seek to meet its information needs and how it will monitor its effectiveness across a broad range of objectives. It will lead to the development of a comprehensive Research & Monitoring Plan which will detail how we will assess the impact of our interventions.



Building the knowledge to deliver biodiversity, health and wellbeing to Surrey's wildlife and people



3300

hours research contributed through citizen science



£63 million

value of 18 million visits to Surrey's Woodlands<sup>(iv)</sup>



350,000 tonnes

of carbon will be fixed by trees(v)



/<sub>1</sub>\_8

species that once lived in the area will be lost in the county<sup>(ii)</sup>



12,500

children and young people engaged through wildlife learning<sup>(v)</sup>



8814

Days contributed by volunteers to the Trust<sup>(vi)</sup>

# STRATEGIC FOCUS

## What we do



#### LAND MANAGEMENT

Demonstrating exemplary management on 8,000 ha of key wildlife sites as well as tailored solutions to protect and recover species; enhancing the public access and enjoyment of sites; influencing partners and land-managers across Surrey.



#### **EDUCATION**

Improving people's appreciation of Surrey's wildlife by advancing education in the study of nature, biodiversity conservation and sustainability at our learning centres and within the community.



#### **SCIENCE**

Promoting evidence-based conservation and applying this to conservation management and education; publishing research on science and natural heritage with a range of partners.

#### The Trust delivers its mission through focusing on three core areas:

Delivering these benefits is complex and sometimes requires assessing multi-faceted trade-offs and uncertain outcomes.

Research is one of the key benefits that the Trust delivers for public benefit but is also a vital component of assembling and delivering the knowledge we need to be effective and successful.

#### How this strategy links to our mission and vision

To achieve our objectives, we need to know more about Surrey's wildlife and ecology; the mechanisms of decline and interventions to restore and maintain a coherent ecological network. We need to develop partnerships and share knowledge, to support and educate everyone we engage with and develop our own internal systems to improve organisational intelligence and support evidence-based decisions. Crucially we also need to monitor and evaluate our work, so we can take an adaptive management approach continuing with practices that do work and ending those that are not achieving the desired outcomes

Research and knowledge development underpins all these activities and raises awareness around issues and solutions

#### Our special contribution

SWT is the largest conservation land manager in Surrey, working to achieve our objectives directly and in partnership with others through initiatives such as the Surrey Nature Partnership and hosting River Catchment Partnerships.

Many organisations share common goals with SWT but where we excel is in linking our unique natural heritage with the people of Surrey. The benefits nature brings are local, and we are seeking to focus on those that matter most and make the greatest difference to where we live, work and play. Engaging people through our Citizen Science programmes such as RiverSearch and Hedgerow Heroes brings a unique connection with local communities.

# **Research & Monitoring Strategy objectives**

#### **Research Principles**

Our focus is upon a research strategy to deliver results which help us fulfil our mission. Our approach is informed by the following.

#### **EVIDENCE-BASED**

Our policy and approach is based upon the best available evidence and is grounded in the scientific method.

#### **CLARITY**

We will develop and communicate clear research questions that provide the basis for all research we conduct or participate in.

#### **INCLUDING ALL SURREY'S NATURE**

Our approach is inclusive. We will follow a science based approach that meets our objectives. This might include working on species and issues important for biodiversity but with little public appeal. In some cases, it will also mean focusing on areas where we can make a difference.

#### **INVESTING IN PEOPLE**

We will invest in our staff to improve knowledge development and evidence-based approaches.

#### CREATING AND STRENGTHENING **PARTNERSHIPS**

We will build upon current, and develop further, collaborations with researchers, funders and other organisations pursuing common goals.

#### **TRANSLATION**

We will focus effort on research that can be put to effective and practical use to help deliver our mission.

#### **QUALITY & STANDARDS**

We will adopt relevant best practice standards. Where these are not present, we will work with others to develop and promote them. When conducting, commissioning or using evidence we will ensure information is fit for purpose and ethically obtained.

#### **ADAPTIVE MANAGEMENT**

New evidence provided by our research and monitoring will be used to adapt our delivery, set new objectives and refine our mission.



To understand the pressures upon biodiversity, critical trends and how people appreciate and benefit from the natural environment.



Discover better ways to manage the environment to improve biodiversity and foster public understanding and



To develop networks, relationships and partnerships to enhance the development of knowledge for practical application and scientific advancement.



To better understand and demonstrate how SWT provides a positive impact ecologically and socially through monitoring and evaluation.

#### Information and research needs

The Wildlife Trust carries out a number of work activities to deliver its mission. These have been examined to determine our key information, knowledge and research needs.

THEME	KEY INFORMATION NEEDS	
Biodiversity - habitat & species data	Baseline & contextual data Health of core land areas Habitats condition & species populations trends	
Key processes & targets	Ecological trends & processes Drivers; causes & effects The effects of management interventions Conservation, restoration and re-creation targets	
Methods, standards	Data quality & management Data analysis	
Internal management information & processes	Staff time, resources & effort Organisational efficiency & impact Membership development and support, market research, behaviours and motivations	
Impact	Key Performance Indicators Thresholds & targets: Across key activities/role: land management, advocacy, advice, public engagement, education	

## **IMPLEMENTATION OBJECTIVES**

These are the primary means through which we intend to deliver our Research Strategy.

#### **External Focus**

Develop and enhance our outreach role - for communicating science and knowledge to all our stakeholders; public, partners, volunteers.

Pursue and develop our influence - work indirectly through collaboration and by influencing the decisions of others to recognise the value that the natural environment and its wildlife brings to the people of Surrey.

Develop and expand collaboration with external partners. Establish external-facing processes and activities to share research questions and build/maintain collaborative relationships.

#### **ACTIONS**

Develop and maintain the Citizen Science programme, closely linked to the key research questions/needs we have identified.

Develop and foster relationships, partnerships and communications with external research providers including universities, colleges and schools.

Bid for funds to support the approaches and mechanisms above.

#### **Internal Focus**

Develop internal capacity and capability relating to the value and need for information, support better decision making and develop focused understanding of requirements.

Build research capacity internally – including understanding the importance of knowledge development, retention and Build internal activities and processes to deliver targeted and focused research questions.

#### **ACTIONS**

Conduct an internal information audit.

Review staff skills and capabilities, and identify specific responsibilities across/within departments.

Systems and technology assessment.

Identify gaps.

Establish priorities and publish key research questions/needs.

Develop an action plan.



# **CITIZEN SCIENCE**

Citizen Science covers a range of activities but typically is centred around public participation in scientific research. SWT has always relied on volunteers to help deliver its mission including practical land management, fundraising and with data gathering and analysis. With our partner, the Surrey Biodiversity Information Centre, we have helped foster and coordinate Surrey's extensive community of skilled species recorders and recording groups. The survey and monitoring data provided by these groups make the planning of conservation at the local and regional scale possible.

In recent years, SWT has recognised the importance of supporting Citizen Science more formally by creating two programmes as part of our Living Landscape initiative. RiverSearch emerged through our Catchment Partnership work, with volunteers taking an active role in surveying and monitoring their local rivers by using various methods including Riverfly monitoring to assess water quality. This has been successful in recognising needs, providing training and education and supporting pathways to action. Subsequently SWT has developed Hedgerow Heroes which is training volunteers to survey the condition of hedgerows and involve them in active management of those in poor condition. With their focus on the 'blue' and 'green' corridors in our landscape and their vital role in delivering the goal of a coherent ecological network, these projects also enable a degree of storytelling to bridge the gap between scientific theory and social adoption.

#### References

- (i) Unpublished RiverSearch & Hedgerow Heroes data for 2017
- (ii) Derived from figures in State of Surrey's Nature Report
- (iii), (iv) Valuing Surrey (2015), Surrey Nature Partnership
- (v), (vi) Unpublished SWT Education & Engagement Department Data 2016-17

