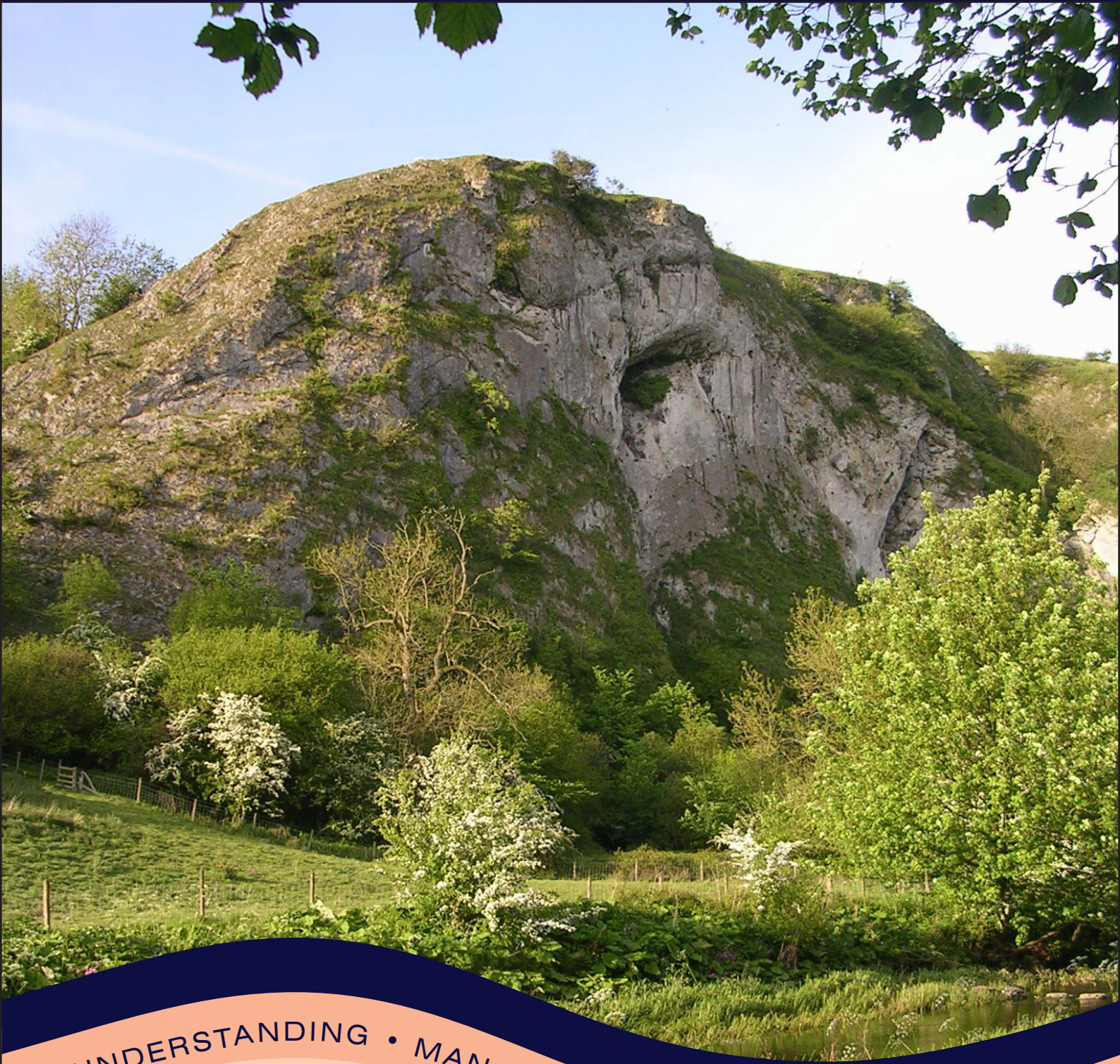


# Staffordshire

## GEODIVERSITY ACTION PLAN



UNDERSTANDING • MANAGING • SUSTAINING • DELIVERING  
PARTNERSHIP • EVALUATION • CONSERVATION • EDUCATION



# The Importance of Geodiversity

Geodiversity refers to the range of geological (rocks, minerals & fossils), geomorphological (landforms & processes) and soil features that comprise the abiotic (non-living) elements of the natural environment.

## Geodiversity and Biodiversity

Natural variations in the rocks, landforms and soils provide one of the main reasons for the diverse flora and fauna that characterise Staffordshire. Coarse-grained gritstones associated with poorly-drained, peat-rich, acidic soils promote the growth of species such as heather, bilberry and cotton grass that characterise the bleak moorlands in the north east of the county. In marked contrast, the more luxuriant grasses and wildflowers found in areas underlain by limestones reflect the more plentiful nutrients these rocks contain.

## Geodiversity and Economic Development

Historically, the presence of a variety of economic minerals has been central to the industrial development of Staffordshire. The establishment of a world-renowned pottery industry within Stoke-on-Trent was enabled by plentiful local supplies of marl and coal. Local concentrations of iron, copper and lead also resulted in the growth of major industries such as the manufacture of copper wire in the Churnet Valley. Currently, the presence of sandstones as well as unconsolidated sands and gravels deposited by ancient ice sheets provide essential aggregates and the raw materials for glass production.

**Cover Photograph:** Milldale Limestones (reef knoll), Beeston Tor.

**Photograph opposite:** Chatsworth Grit, near Foxt.

**Photograph below:** Roaches Grit, Hen Cloud.

## Geodiversity and Recreation

The diverse landscapes found throughout Staffordshire reflect the combined product of the county's geological foundations and the land-shaping processes such as water, ice and gravity that have moulded them into their current form over countless millennia. These have in turn provided the popular venues for various recreational pursuits and natural landscapes in which both locals and visitors can relax and unwind. The proud escarpments and bleak moorlands of the Peak District, the steep-sided Churnet Valley and the extensive plateau of the Cannock Chase provide popular venues for walkers, cyclists and rock climbers.

## Geodiversity, Science and Education

The geological exposures, fossils, minerals and distinctive landforms found throughout Staffordshire provide an outdoor classroom in which students can examine at first-hand the evidence of past climatic changes, the movement of the continents, the evolution of life, and the forces that have shaped the Earth's surface. The county also contains a number of nationally-significant scientific sites that are the subject of continued academic research.





# Staffordshire Geodiversity Action Plan Objectives

Objective 1: Partnership and Involvement

Objective 2: Site Evaluation and Geo-audit

Objective 3: Site Conservation and Management

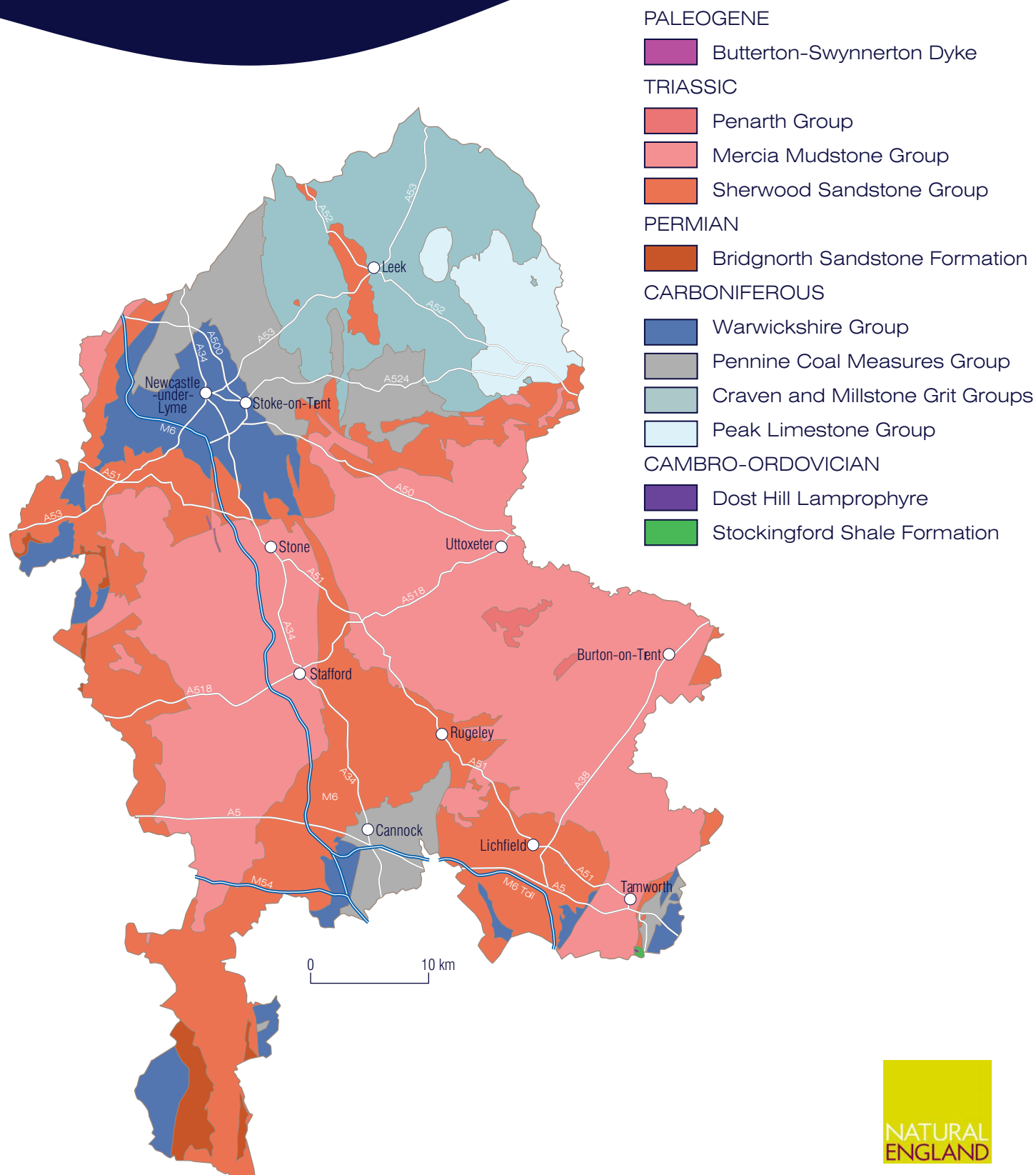
Objective 4: Education and Site Use



**Staffordshire**  
GEODIVERSITY ACTION PLAN



# Geology of Staffordshire



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**GeoConservation Staffordshire**  
[www.esci.keele.ac.uk/srigs/](http://www.esci.keele.ac.uk/srigs/)

**Chair:**  
 Dr Richard Waller  
 Email: [r.i.waller@esci.keele.ac.uk](mailto:r.i.waller@esci.keele.ac.uk)

**Secretary:**  
 Dr Ian Stimpson  
 Email: [i.g.stimpson@esci.keele.ac.uk](mailto:i.g.stimpson@esci.keele.ac.uk)

Earth Sciences and Geography, School of Physical and Geographical Sciences  
 Keele University, Keele, Staffordshire ST5 5BG



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Designed by Rosie Duncan 2010