



Annual Report 2016-2017

Mission

Cumbria Biodiversity Data Centre brings together, analyses and shares information on Cumbria's natural history, wildlife sites and habitats for education, research and to help people make sound decisions when planning to develop and manage land sustainably.

CBDC is an independent initiative hosted by Tullie House Museum (Charity no: 1143235) and is based in Tullie House Museum offices in Herbert Atkinson House, Abbey Street, Carlisle.

Tullie House has held natural history records since 1902 when the Natural History Records Bureau was formed. The current governance structure for the CBDC was established in 2011. This was in response to organisations needing biodiversity data to meet their obligations under the National Park and Access to Countryside Act, Earth Summit 1992 and the Natural Environment and Rural Communities Act of 2006.

Cumbria Biodiversity Data Centre is a member of the national Association of Local Environment Record Centres (ALERC) and the National Biodiversity Network (NBN).

Tullie House Museum
Castle Street
Carlisle City Council
Cumbria
CA3 8TP

Tel: 01228 618732
Email: info@cbdc.org.uk
Web: www.cbdc.org.uk

A BIODIVERSITY RECORDING

The CBDC Recording Officer supports over 200 volunteer recorders and 24 recording groups in the county. They provide the majority of data received by the Cumbria Biodiversity Data Centre. In addition Cumbria Biodiversity Data Centre organises a small number of events to generate new records and raise awareness.

A.1 RECORDING DAYS

CBDC organised 4 recording days across the County that included a variety of habitats. Bolton Fell a lowland raised bog damaged by peat extraction and newly designated as a special area of conservation by Natural England; Flimby Great Wood an under recorded Local Nature Reserve; Low Church Moss SSSI, Silver Tarn and Harnsey Moss, and the CWT north Pennine nature reserves of Argill Woods and Augill Pastures.

Twenty one recorders made 1,797 records across the sites of 616 different species. Of these 60 are rare, scarce or protected, including 10 on the UK Biodiversity Action Plan list.

- Noctule Bat
- Soprano Pipistrelle Bat
- Lapwing
- Common Lizard
- Common Toad
- Large Heath Moth
- Cinnabar Moth
- Oblique Carpet Moth
- Small Heath Moth
- Wall Butterfly



ARGILL WOODS

Arctophila superbiens - a hoverfly that mimics bumblebees. 1st record for 3 years and a new site for this nationally declining species. (Photo: G Hedges)



HARNSEY MOSS

A new species record for Cumbria. Hundreds of *Notonecta viridis* (Small Backswimmer) were found at this site.. (Photo: M Talbot)



AUGILL PASTURE:

Tubulifera arachnoidea (Red Raspberry Slime). Found previously around Kershope this is a new site for this slime mould. (Photo: G Hedges)

LOW CHURCH MOSS

Low Church Moss SSSI near Egremont supports a variety of habitats that are very scarce on the intensively farmed west Cumbria coastal plain including wet heath, acidic marshy grassland, tall fen and swamp, willow scrub a transition between poor fen and open water. The site was chosen as CBDC had few recent records. During a site visit staff discovered that it is adjacent to a proposed new nuclear power station. The records from the day were forwarded to Natural England to update their SSSI details. The records became part of their official response to the public consultation.

Prior to the recording day CBDC held 604 records mostly within the date range of 1977-2013 and an additional 5 Sphagnum species recorded by Derek Ratcliffe in 1955 and a few early butterfly records. 21 recorders attended the day. Expertise included: dragonflies, spiders, water beetles, terrestrial beetles, mosses and liverworts, flowering plants and trees, ferns, bees, hover flies, butterflies, moths., birds, reptiles, amphibians and mammals. 420 records were made (spider records not yet received) of 419 species. A total of 51 new species were recorded for the site.

The following rare and protected species were confirmed as recorded on the day, 3 of which had not been recorded previously.

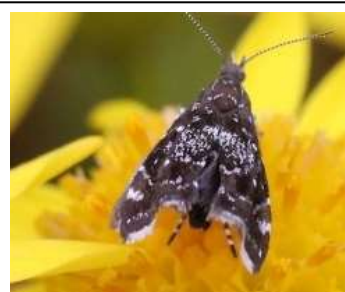
Species	Common name
Scotopteryx chenopodiata	Shaded Broad-bar Moth
Tyria jacobaeae	Cinnabar Moth - new site record
Coenagrion pulchellum	Variable Damselfly
Pelenomus comari	Beetle (Nationally scarce) – new site record
Donacia thalassina	Leaf beetle (Nationally scarce) – new site record
Hebrus (Hebrusella) ruficeps	Sphagnum Bug
Scirtes hemisphaericus	Marsh Beetle
Ilione lineata	True Fly
Tetanocera fuscinervis	Plain-fronted Buff Snail-killer (True Fly)
Stenus opticus	Semi-aquatic rove beetle (b) - new species record for Cumbria.
Timarcha tenebricosa	Bloody-nosed Beetle



Variable damselfly
Coenagrion pulchellum
(Photo: D Clarke)



Water spider
Argyroneta aquatic
(Photo: G Broome)



Miller's Nettle-tap
Prochoreutis myllerana
(Photo: N Gilligan)

A.2 BIOBLITZ

CBDC assisted in the Bioblitz at the Cumbria Wildlife Trust's Eycott Hill Nature Reserve in July. A well visited site with 733 species previously recorded.

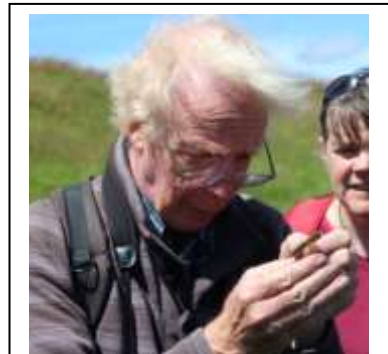
Despite high winds, cold and rain members of the public helped collect 275 records of 125 species on the day. Species were recorded using light traps, a camera trap, mammal traps, sweep netting and on guided walks. Even though the site was well recorded a further 27 species were added to the list.



Stephen Owen, Eycott Hill Reserve Office checking mammal traps. (Photo: CWT)



Moths collected from the moth trap the night of the Bioblitz. (Photo: CWT)



David Clarke, CBDC Chairman explaining how to identify dragonfly larvae. (Photo: CWT)

A.3 RECORDERS' CONFERENCE

Once again 90 recorders attended the annual conference held in Tullie House Museum. Talks as always were wide covering national and local topics including Hydroscape a study of British Freshwaters by Dr Alan Law of the University of Stirling and Dr Peter Woodward explained Ecosystem Canaries – warning signs for the environment. Recorders also heard about the arboreal skills required to monitor bats in trees and how to adapt camera traps to get the best chance of capturing pictures of mammals. Updates were received about Cumbria's fungi, Natterjack toads, dragonflies and Netted Carpet moths.



The Tale of a Whale



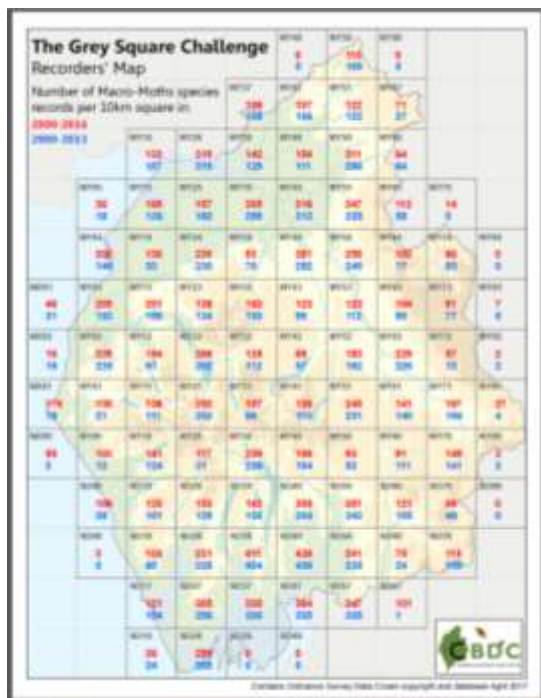
Swifts of Burton in Kendal



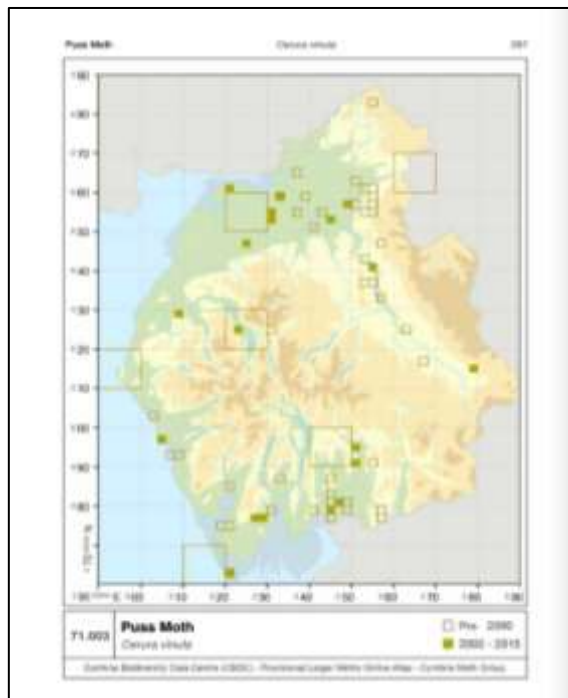
Dusty Dead Stuff or valuable Data?

A.5 SUPPORTING RECORDING GROUPS

The CBDC Recording Officer worked with the Cumbria Moth Group to produce a new Cumbria Macro Moth Atlas. When looking at the data in 2015 it was clear that Cumbria had been surveyed equitably. To ensure that the distribution data was as comprehensive across the whole of Cumbria the group members were challenged to survey under recorded areas, targeting hectads with less than 100 recorded species (Grey Square Challenge). By 2016 a total of 88% of hectads had increased numbers of recorded species with SD67 having the largest increase – from 1 to 101 species. There are still 28 hectads with less than 100 species recorded but these are along the coast and where only part of the hectad is included in the Cumbria boundary.



The number of species recorded per hectad



Puss moth distribution map from the Atlas

A.6 TRAINING

During the year CBDC delivered two training events to Carlisle Natural History Society and Cumbria Wildlife Trust volunteers on iRecord and other online recording schemes.

“I thought beforehand I might come away thinking it was all very hard but you really made it straightforward and I am looking forward to using the system and hopefully being a better record keeper and recorder!” – CWT volunteer

A.7. GEO CONSERVATION ONLINE TOOLS

CBDC’s Data Officer has developed an online tool for Cumbria GeoConservation. The interactive tool hosted on the CBDC website enables all members of the group to view detailed information about the 278 geological sites in the County. In addition members are able to revise site boundaries, add or delete sites and write comments and amendments to the citation documents.



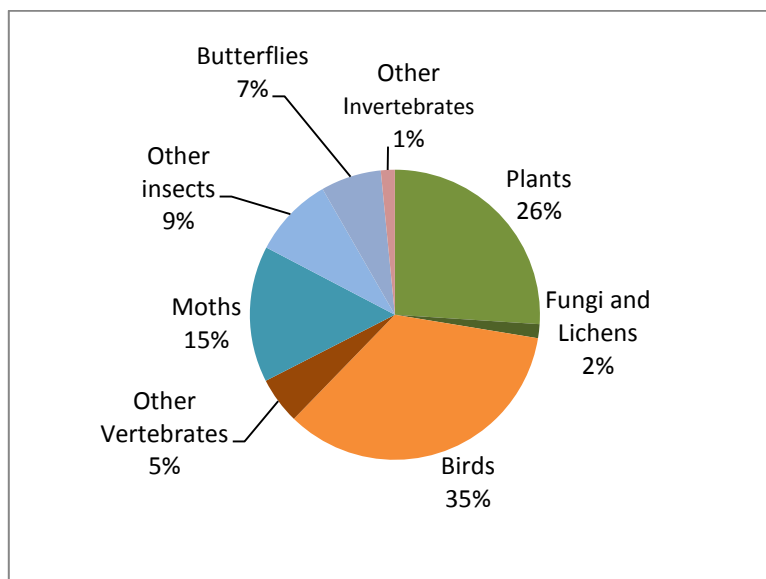
Cumbria GeoConservation's mapping tools on the CBDC website

B PROVIDING BIODIVERSITY INFORMATION

The quality of the data, how it is retrieved and presented is critical to the success of the organisation. Before any data is presented for use it is checked and reviewed by the Recording Officer and a network of expert verifiers. The Data Officer is responsible for dealing with day to day enquiries from consultants, partners and the public.

B.1 INCREASING CBDC RECORDS

No significant datasets were received in 2016-17. However, almost 89,000 records were added during the year. At the end of December 2016 the total stood at 2,119,158.



The percentage of CBDC records per taxonomic group

B.2 DATA - SEARCHES

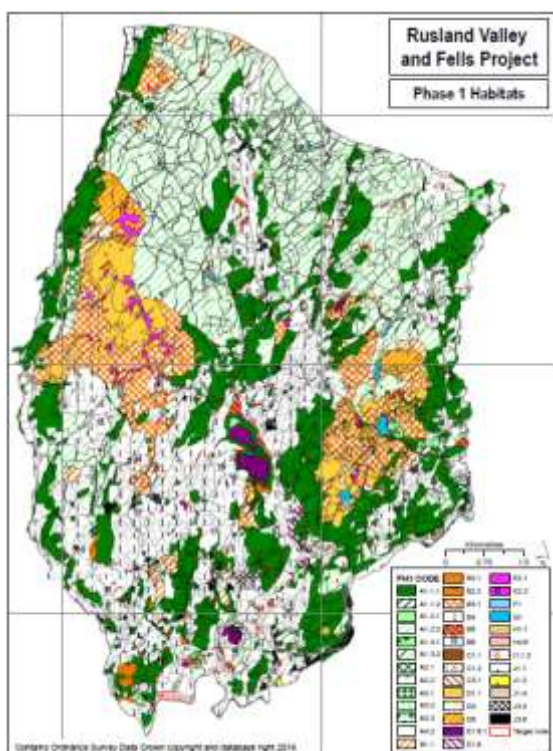
In 2016-17 over 300 requests for data were received from consultants and ecologists. This is similar to previous years. However, these requests are linked to planning and development activity in the county and the income varies from year to year. Fees from this service contribute to CBDC's work to support the volunteer recorders who provide data free of charge.

B.3 REQUESTS FOR INFORMATION

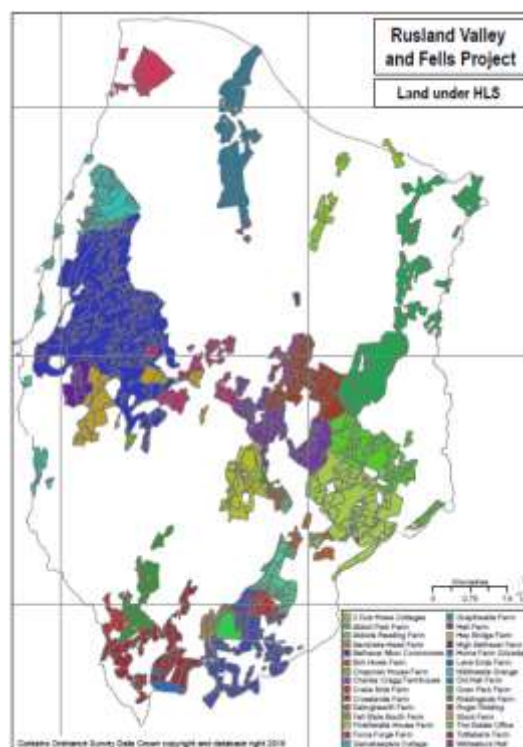
CBDC received over 280 requests for information from local recorders, researchers and other local record centres either directly or via the NBN Gateway. No fees are charged for this service.

B.4 DATA ANALYSIS PROJECTS

In addition to general requests the Data Officer is also involved in mapping and analysing data. In 2016-17 CBDC began mapping the Phase 1 Habitat Survey maps for the Rusland Horizons project area. This required analysing the original hand drawn maps and then converting them to a GIS layer. In total the data for over 6,600 polygons was mapped. A further 5,000 polygons were added to the GIS maps from surveys carried out as part of Higher Level Farm Stewardship.



Rusland Horizons Priority Habitat map



Rusland Horizons Farm Habitat map

C VOLUNTEERS

The number of volunteers hours given to support CBDC this year grew by 78% to 1,463. The recruitment of a volunteer administrator for 2 days a week has helped boost this figure and helped develop the new website. The number of volunteers we can host on any particular day is limited to 3. To allow the volunteers to feel part of the larger CBDC team staff organise occasional events to bring them together for an activity outside of the office.



Donna, Gary, Deb, Marjorie, Paul, Moustafa and Dorothy braved the wind at Grune Point for the Christmas walk

D PROMOTING CBDC AND RECORDING

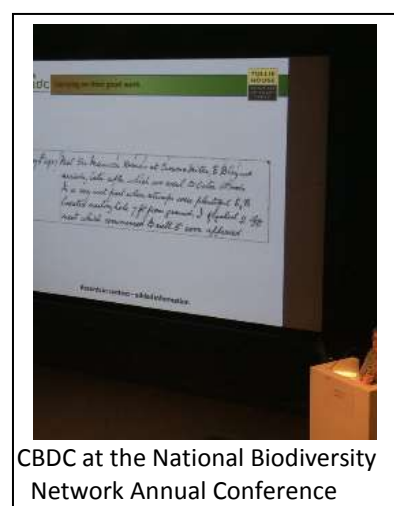
CBDC has continued to use social media as the main method to promote its activities and recording in Cumbria. Facebook likes have increased by 77% to 687. Species of the Week continues to peak interest and efforts to upload videos and pictures from our recorders is also helping to raise the profile of CBDC. In particular a video from Rich Flight of otter cubs in Kendal reached 83,600 people 33,000 of whom watched the footage. The next best performer was the CBDC Recorders Conference reminder which was shared with 1,200 individuals. CBDC's Twitter followers has increased to 921. In March 2017 Tullie House Museum launched its first Nature Explorers' Weekend. CBDC staff and volunteers were integral in making this weekend a success which attracted over 800 parents and children.



CBDC's updated website



Tullie House Nature Explorers' Weekend



CBDC at the National Biodiversity Network Annual Conference

E FINANCES

CBDC has both charitable and trading income and its financial accounts are published as part of the Annual Report for Tullie House Museum.

CBDC like the majority of Local Environmental Record Centres (LERC) faces an uncertain future. Government funding was used to establish LERCs to provide biological data to the Environment Agency and Natural England. Early in 2016 a change in national policy saw 5 year agreements between LERCs and Natural England cease (after 1 year) and the Environment Agency funding agreement ceases 31 March 2019. Government funding was used to develop the NBN Trust's UK Atlas which provides a free service similar to the fee charging data service provided by CBDC.

CBDC continues to provide data at relatively low resolution (10km) to the NBN under a Creative Commons Attribution –Non-Commercial licence, i.e. it should not be used by ecologists and consultants for planning and development or other commercial purposes. However, data usage information provided by NBN Trust is less specific than the old NBN Gateway. The UK Atlas was launched at the beginning of 2017 but a reduction in income is already being felt.

	Trading		Charity		Combined	
	Actual 15/17	Actual 15/16	Actual 15/17	Actual 15/16	Actual 15/17	Actual 15/16
Income	39,005	£46,945	53,375	£47,874	92,380	£94,819
Expenditure	12,704	£13,447	92,772	£81,071	105,475	£94,518
Surplus /Deficit	26,301	33,498	-39,397	-33,197	-13,095	301
Reserves						
Total	-	-	£123,066	£136,161	£123,066	£136,161

2015-17 funding partners: Allerdale BC, Carlisle CC, Copeland BC, Eden DC, Environment Agency, Lake District National Park and Natural England. Further project funding was received from SLR Consulting, Morecambe Bay Partnership, North Pennines AONB, Buglife and Solway Firth Partnership.

F STAFFING

CBDC's Recording Officer Gary Hedges left in March 2017 to take up a position of Regional Entomologist at Liverpool Museum. A Student Intern was recruited to cover the summer whilst CBDC recruited a new Officer

STAFF AS AT 31.3.2017

CBDC Manager	Deb Muscat
CBDC Biological Data Officer	El-Moustafa Eweda
CBDC Biological Recording Officer	Vacant
CBDC Student Summer Intern	Sarah Nicholson

G STEERING GROUP

The work of CBDC is overseen by a steering group made up of local stakeholders. Primarily these are representatives of the local planning authorities with the Cumbria Naturalists Union representing the biological recording community.

STEERING GROUP AS AT 31.3.2017

David Clarke	Cumbria Naturalists Union (Chair)
Judy Clavey	Lake District National Park
Chris Hoban	Development Plans Officers Group (Copeland BC)
Chris Hardman	Development Management Officers Group (Carlisle CC)
Simon Jackson	Tullie House Museum
Graham Jackson-Pitt	Cumbria Wildlife Trust
Andrew Mackay	Tullie House Museum
Deb Muscat	Cumbria Biodiversity Data Centre
Ian Slater	Natural England