

Report on Activities April 2014 - March 2016





CUMBRIA BIODIVERSITY DATA CENTRE

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).

The work of the CBDC has been guided by the CBDC strategic plan 2012-2015. This report contains some of the key achievements from April 2014 to March 2016.

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Photo acknowledgements

Cover: Top: Pond near Rogersceugh - David Clarke: Beefly – David Clarke. Middle: Gold Swift Moth – Steve Garner.

Pg 3. Helbeck SSSI: Phil Brown

Pg 4. Campfield Marsh – Mike Nelson



A BIODIVERSITY RECORDING

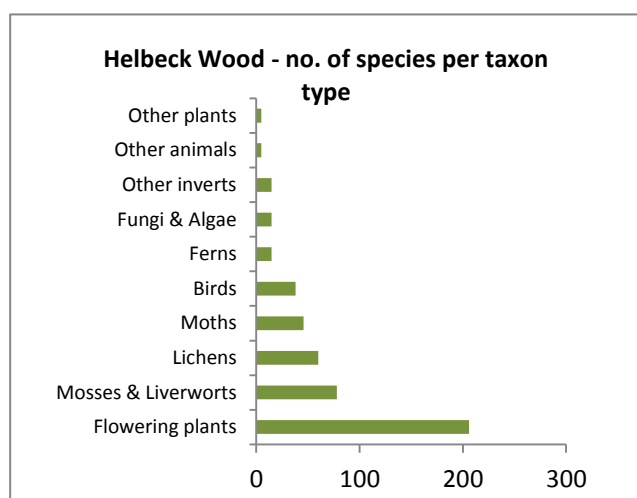
The CBDC Recording Officer supports over 200 volunteer recorders and 24 recording groups in the county. They provide the majority of data received by the Cumbria Biodiversity Data Centre. In addition Cumbria Biodiversity Data Centre organises a small number of events to generate new records and raise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

A.1 RECORDING DAYS

CBDC organised its first recording days in 2015. Their purpose is to invite local recorders to wildlife sites, SSSIs, etc. that have not been visited for several years in order to update the designation documentation. They also provide opportunities for recorders to share their particular expertise with others and visit private sites that they would otherwise not have access to. Over 2,000 records were collected over the 4 days. Sites visited were: High Hall Woods, nr Wigton; Braithwaite Moss; Duddon Valley and Helbeck Wood.

HELBECK WOOD SSSI, NR BROUGH

This event in June 2015 attracted 34 recorders, our largest number to a single recording event. The skills and knowledge of the recorders is reflected by the number of records (926) they made and the number of species identified (486).



A.2 BIOBLITZ

A Bioblitz is an event that attempts to record all living species on a site over 24 hours. In addition to formal recording activities the public are invited to join guided walks and take part in family activities.

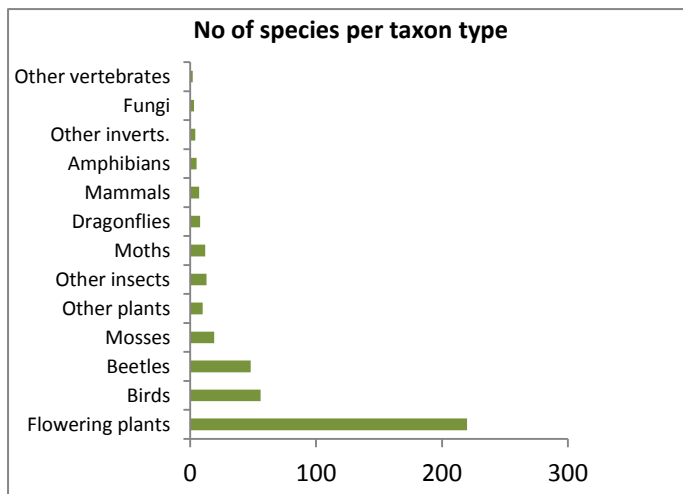
A Bioblitz was held in 2014 in Curwen Park Park, Workington. CBDC staff worked with Allerdale BC Green Spaces staff, members of Maryport Natural History Society, Cumberland Bat Group and Cumbrian recorders. Together they identified 438 species. Despite poor weather there was a good turn out from the public who contributed to the 837 records collected on the day. In



2015 the Bioblitz was held at the RSPB reserve Campfield Marsh. CBDC partnered with Solway Firth Partnership and RSPB to organise another successful day.

CAMPFIELD MARSH, WIGTON

The visit was supported by 11 recorders who collected 798 records between them recording 412 species. The wetland site tested our botany recorders' knowledge of sedges and rushes and the Coleopterists collected several beetles requiring microscopic identification.



A.3 RECORDERS CONFERENCE

CBDC organises an annual conference for recorders in Cumbria. The event, held at Tullie House, gives recorders the opportunity to hear about the work of CBDC, national recording schemes and the work of local organisations. Each of the conferences attracted 80 recorders and feedback from the day was very positive.



In 2014 topics included: Polecats and pine martins; Recording Cumbria's bats; Lichens in Cumbria and Cumbria Biodiversity Data Centre's work on the Bee Line Habitat Connectivity Projects.

The 2015 conference included speakers from the Royal Botanic Gardens Kew and the national Bumblebee Conservation Trust alongside local representatives from Carlisle Natural History Society, Cumbria Geoconservation, and the Cumbria Bird Club. CBDC showcased their work on the Bird Atlas and shared the results of the recording days.



A.4 PUBLICATIONS

Robin Sellers a regular bird recorder with the Cumbria Bird Club has been studying gulls in Cumbria. His publication “Inventory of Urban Gull Colonies in Cumbria” is the first Cumbria Biodiversity Data Centre publication and is available on from our website.



A.5 SUPPORTING RECORDING GROUPS

CBDC has developed a range of support to recording groups. The CBDC website publicises diary dates and links to 24 groups in Cumbria. It has also promoted an Earthworm Society identification day in June 2015 at Tullie House and actively encouraged recorders in the county to join in national and local recording schemes/days through social media.

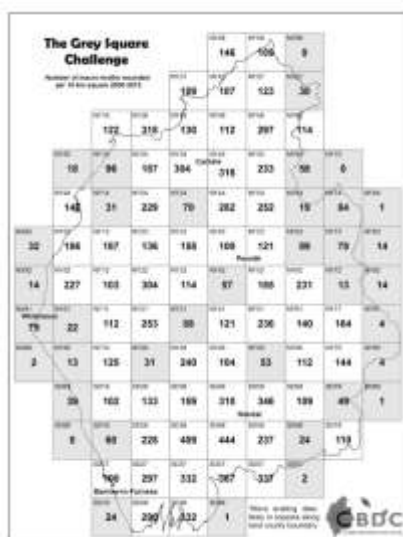
BUTTERFLY CONSERVATION – CUMBRIA BRANCH

Supported by the CBDC Recording Officer the 2015 Cumbrian branch of Butterfly Conservation held its Annual Recorders’ Day at Tullie House Museum.

Members were able inspect butterfly and moth specimens from the Tullie House collections and were particularly interested to see the subspecies of the Silver Studded Blue which is now extinct and only ever recorded in South Cumbria.



CUMBRIA MOTH GROUP - GREY SQUARE CHALLENGE

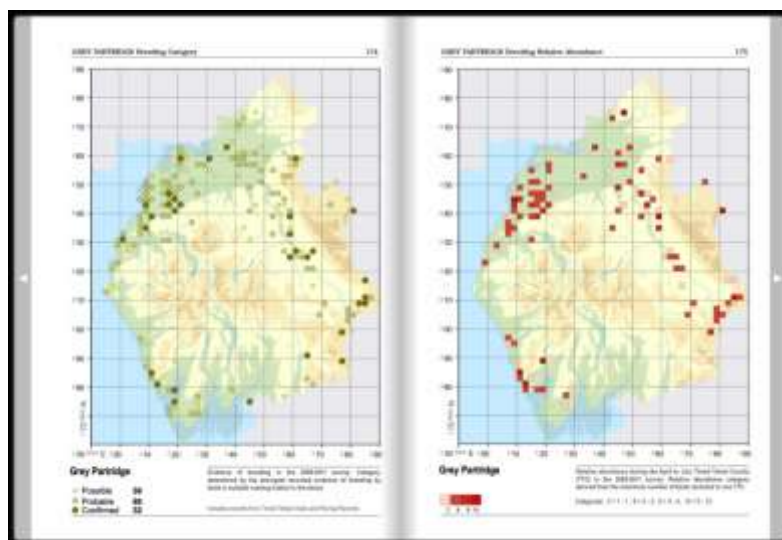


A new Atlas of UK larger moths is planned for publication in 2018. To improve moth recording across the County Cumbria Biodiversity Data Centre’s Recording Officer analysed moth records in each 10km square and marked those with less than 100 species as “grey squares”. Each grey square was then adopted and surveyed by moth group members. By facilitating this approach the Recording Officer ensured that recorders did not restrict their surveys to the species hotspots. The outcome will be greater coverage and more consistent moth recording across Cumbria. The results will be available at the end of 2016.



CUMBRIA BIRD CLUB

The CBDC Data Officer worked with the Cumbria Bird Club to analyse their wintering and breeding bird survey records to produce the Cumbria Bird Atlas 2007-11. Over 640,000 records of 281 bird species were uploaded into the CBDC database. The Data Officer analysed the data, produced the species maps and created an e-book and PDF file to download from the CBDC website.

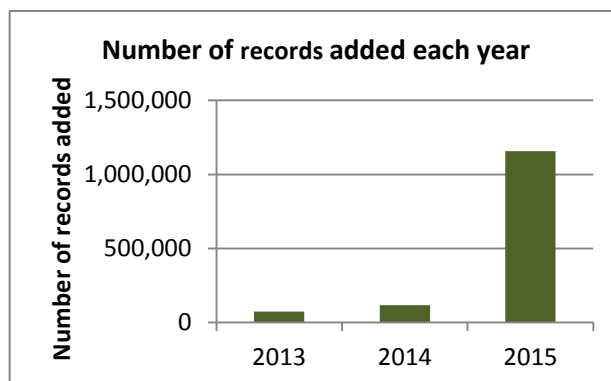
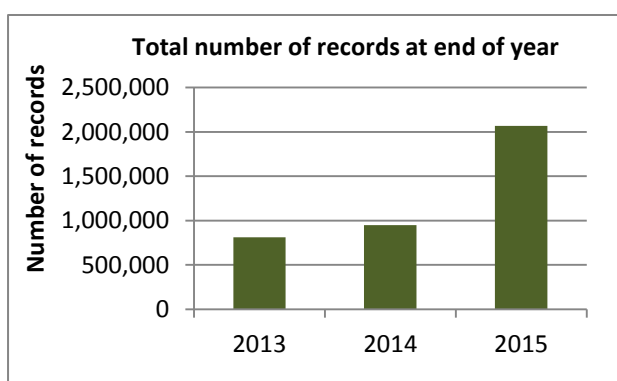


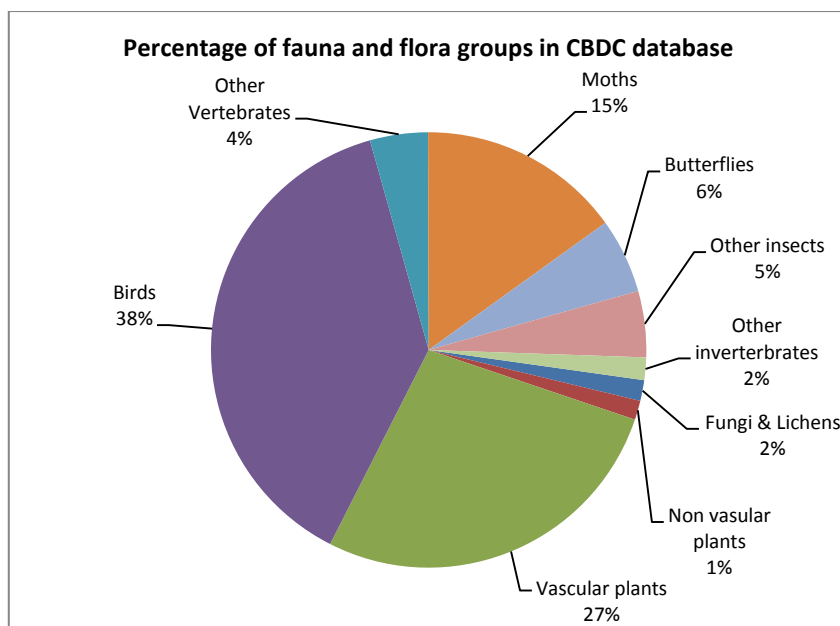
B PROVIDING BIODIVERSITY INFORMATION

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

In 2015 CBDC more than doubled the number of biological records held to over 2 million. This significant increase in our data came from the uploading of two major local data sets. The Cumbria Bird Club Atlas records (642,658) and the Flora of Cumbria records (419,321).



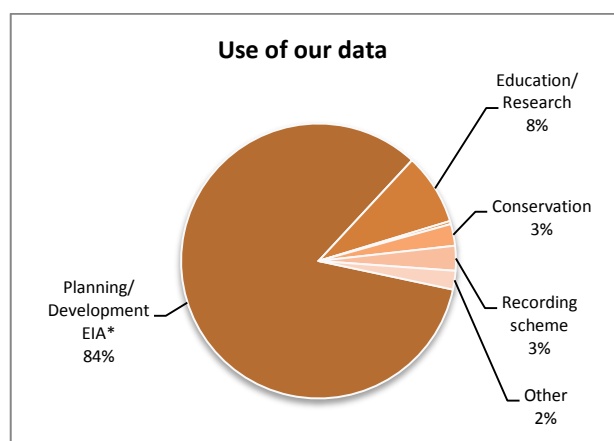
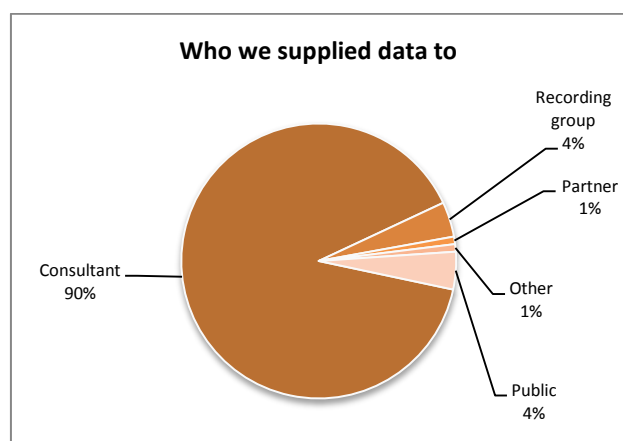


The acquisition of the Flora data significantly increased the percentage of plant records held.

The milestone of 2 million records was reached in 2015 when uploading the breeding bird survey. It was a record of a Great Tit *Parus major* seen on 6th June 2012 by Peter Howard in Lyneholme, nr Brampton.

B.2 REQUESTS FOR INFORMATION

CBDC receives enquiries from consultants and ecologists for planning and development purposes and also provides information to local recorders, researchers and other local record centres either directly or via the NBN Gateway. In 2014 and 2015 over 300 requests for information were received each year.

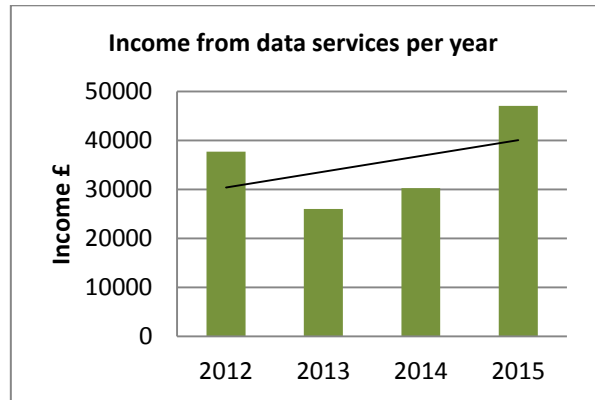
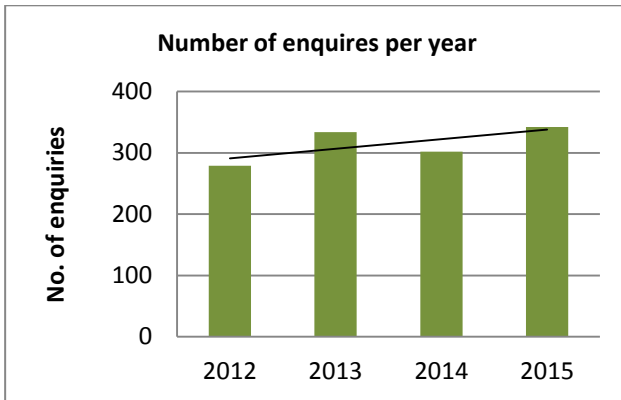


* EIA – Environmental Impact Assessment



B.3 DATA - SEARCHES

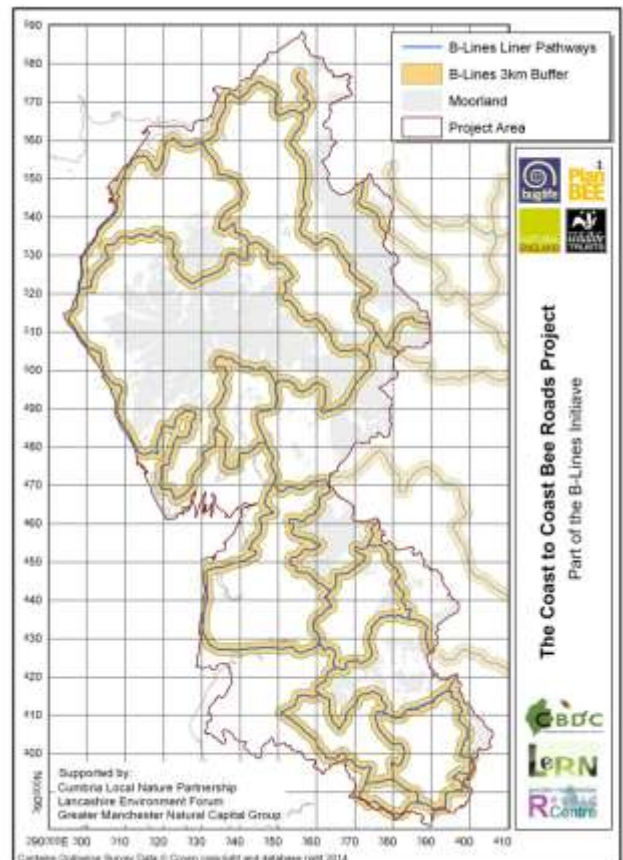
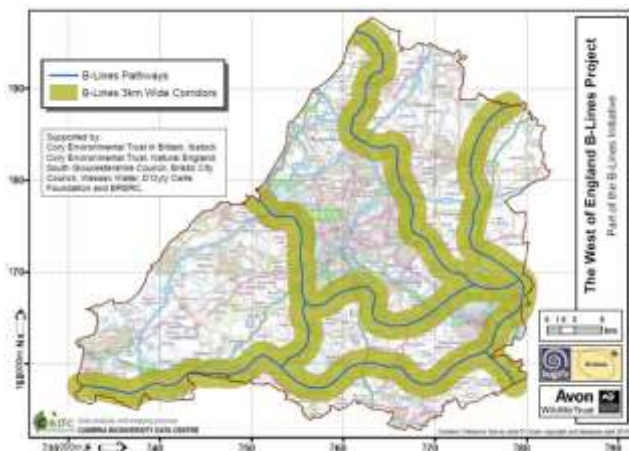
Over the past 4 years CBDC has seen a steady upward trend in the number of enquiries from consultants and ecologists. The income in 2015 is the highest received for this service since the Cumbria Biodiversity Data Centre was established.



B.4 DATA PROJECTS

In addition to general requests the Data Officer is also involved in developing new ways to interpret biodiversity information.

In 2014 CBDC received funding from Buglife to work on the Bee Line Project linking wildflower rich areas in South East England. This built on work previously carried out for Buglife. This work helped establish a methodology to create a national map of bee corridors across England (to be published in 2016).



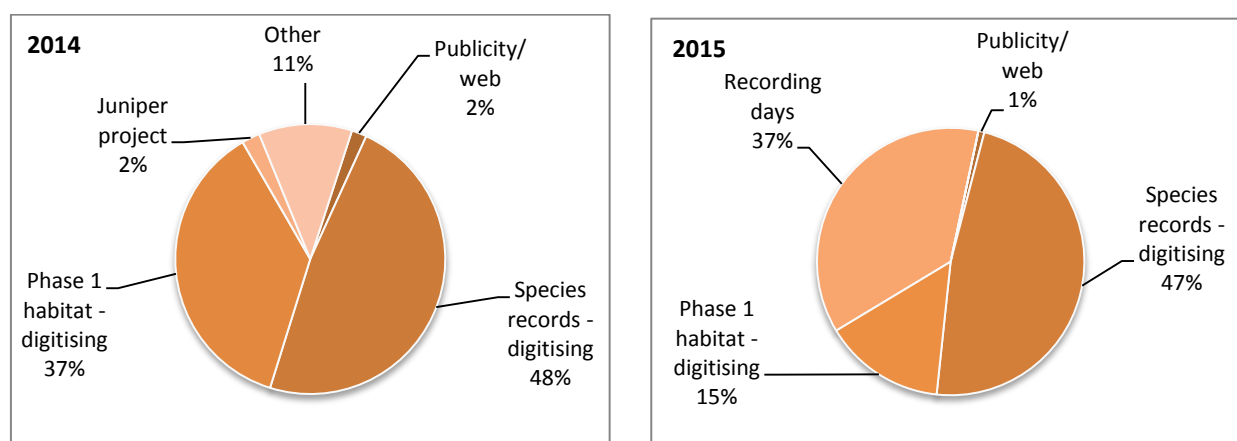


Other projects include: mapping the Nature Improvement Area for Morecambe Bay partnership; Wildwatch mapping and a sites of invertebrate significance scoping report for the North Pennines AONB and mapping bird survey results on Google Earth for the Solway Firth Partnership.

C VOLUNTEERS

The number of volunteers and the support they give to CBDC continues to grow. In 2014, 14 volunteers contributed 553 hours. This increased to 45 volunteers contributing 819 hours in 2015.

The majority of the volunteering takes place in the office and helps with CBDC administration. A key role for volunteers is to input paper based and electronic records received from recorders and members of the public. A significant amount of time is needed to check spelling, species names and grid references. In 2015 the Recording Officer organised 4 recording days over the summer which resulted in 302 volunteer recorder hours and explains the 2015 increase.



How volunteers contributed to the work of CBDC in 2014 and 2015

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.

CBDC has given a number of presentations to University of Cumbria students when they visit the Natural Sciences collection at Tullie House. This has led to new volunteers for CBDC where they have an opportunity to use biological recording and GIS mapping software. They also learn the importance of biodiversity data and how it is used. This is an invaluable experience for any person wish to work in the environmental sector.



December 2014 CBDC volunteers and staff enjoy a walk around Borrowdale



CBDC and Tullie House volunteers record the contents of 2 curatorial freezers

In March 2016 CBDC jointly ran an event with the Tullie House Natural Sciences Curator called “Cold Case Recording and Curating”. Seven volunteers audited the items being stored in Tullie House freezers. The primary purpose was to discover what was in each freezer for the Natural Sciences Curator and glean records for the CBDC. More significantly, the day provided a great chance for volunteers who usually work in different parts of Tullie House and on different days to get together. Processing the specimens enabled the wildlife enthusiasts to compare similar species and share their knowledge with staff and other volunteers. We now know that we have 54 red squirrels, 21 polecats and 24 barn owls along with another 142 specimens of 56 other species of birds and mammals.

D PROMOTING CBDC AND RECORDING

Over the past 2 years the CBDC has focused on publicising its activities electronically through the website and social media, in particular linking with national and local recording group sites. There are now 200 people on the CBDC newsletter mailing list an increase of 38% over the last year.

Facebook likes have increased from 208 to 389 over the past 2 years and engagement has significantly increased with posting “Sighting of the week” items as they tend to be shared by members of species interest groups. Over 1,000 people saw the photograph posted in November 2015 of the very rare Welsh Clearwing moth discovered in Borrowdale. Likewise CBDC Twitter followers have also increased with over 700 people following us. Bioblitzes have proved to be a great way to promote our activities locally. However, the best Tweet was a picture in February 2016 of the sun shining through the wings of a bat nr Crummock Water. This was seen by 4,575 people.

Thanks to our association with Carlisle Natural History Society and Tullie House we are relatively well known amongst recorders in the North of the county but less so elsewhere. Bioblitzes in Allerdale will have increased awareness in West Cumbria and to promote our work in the South East the team shared a tent with Cumbria Wildlife Trust at the Westmorland Show in August 2015. Taking along specimens from Tullie House and equipment to look at live bugs and other insects worked well as a means to engage the public.



CBDC staff enjoy a break at the Westmorland Show



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.

Trading income is derived from the services required by consultants and ecologists when requesting biodiversity data. The data supplied is a statutory requirement linked to development control and planning in the County over which the CBDC has no influence making it difficult to forecast future income. For example income increased as a result of the development of National Grid's new power line across Cumbria but this size of project is rare.

Record Centres like CBDC were established across the UK facilitated by Government and Local Authority funding. Recently there has been a shift in the Government's position to one that will see all biological data freely available on the web.

The CBDC has reserves policy is £50,000 or 1 years' operating costs whichever is the greater. This reflects the fact that trading income is related to new developments and is likely to fluctuate from year to year. Charity income has decreased over the past 2 years as a result of reduced income from local authority service level agreements. There is a Government policy for all environmental data to be available free of charge and this will impact on both charity and trading income. The accounts appear healthy for 2015/16 but this is due to salary savings as a result of the Manager leaving and equipment not being purchased. CBDC needs to develop new services and sources of income over the next two years if it is to remain sustainable.

	Trading		Charity		Combined	
	Actual 15/16	Actual 14/15	Actual 15/16	Actual 14/15	Actual 15/16	Actual 14/15
Income	£ 46,945	£ 41,176	£ 47,874	£ 55,315	£ 94,819	£ 96,491
Expenditure	£ 13,447	£ 13,281	£ 81,071	£ 87,470	£ 94,518	£ 100,751
Surplus /Deficit	£ 33,498	£ 27,895	£ -33,197	£ -32,155	£ 301	£ -4,260
Reserves						
Designated	-	-	£ 57,324	£ 57,324	£ 57,324	£ 57,324
Restricted	-	-	£ 79,138	£ 78,837	£ 79,138	£ 78,837
Total Reserves	-	-	£ 136,462	£ 136,161	£ 136,462	£ 136,161

NB The figures for 2015-2016 are draft and therefore subject to audit and Trustee approval.

2014-16 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 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.

Organisational restructures have seen the members representing Tullie House Museum and Cumbria County Council change over the 2 years of this report.

STEERING GROUP AS AT 31.3.2016

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 (joined Feb 2015)
Graham Jackson-Pitt	Cumbria Wildlife Trust
Andrew Mackay	Tullie House Museum (joined Dec 2014)
Deb Muscat	Cumbria Biodiversity Data Centre (joined Jan 2016)
Ian Slater	Natural England (joined Dec 2014)

MEMBERS WHO SERVED DURING APRIL 2014-MARCH 2016

Martin Allman	Cumbria County Council (left Dec 2014)
Steve Garland	Tullie House Museum (May – Dec 2014)
Steve Hewitt	Tullie House Museum (left Apr 2015)
Judy Palmer	Cumbria County Council (left Dec 2014)

G STAFFING

In November 2015 Teresa Frost CBDC Manager left to join BTO as their WeBS National Organisers and was replaced by Deb Muscat in January 2016. There were no other staff changes.

STAFF AS AT 31.3.2016

CBDC Manager	Deb Muscat
CBDC Biological Data Officer	El-Moustafa Eweda
CBDC Biological Recording Officer	Gary Hedges



APPENDIX 1.

HOW BIODIVERSITY RECORDS ARE MANAGED

Records are collected by volunteers, ecologists and the public.



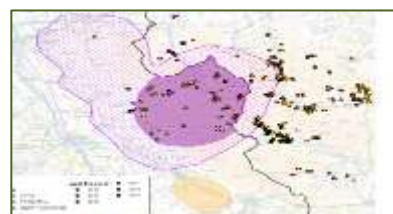
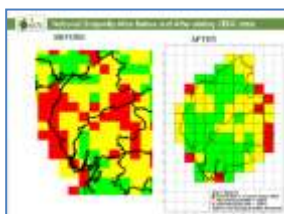
Information sent to CBDC in a variety of formats.

Species	Date	Location	Observer	Count	Notes
Common Nettle	10/05/14	100m N of...	J. Smith	1	...
...

CBDC corrects any errors, validates records and then adds the records to its database



CBDC produces reports and maps of species and habitats in Cumbria.



Data is shared with the NBN. It is available free to the public, students, researchers, ecologists, policy makers and planners.



Data is used to produce local and UK wide information about plants, animals, protected species and habitats.





APPENDIX 2

STRATEGIC PLAN 2012-2015 – REVIEW OF PROGRESS AND ONGOING ACTIONS

Objective	Action	Comment March 2016
1. Free up CBDC Manager time to address urgent objectives below.	1 – Recruit a Biological Recording Officer	Complete.
	2. Recruit effective volunteer workforce on site and remote working	The new offices provide more space for volunteers. 6 regular office based volunteers have assisted with CBDC work in past 4 weeks.
2. Establish a firm organisational & financial structure to support the development of the CBDC.	1 – Sign up partners to CBDC Memorandum of Understanding and Hosting Agreement	MOU agreed March 2016. Hosting Agreement signed 2013. Needs review in 2016.
	2 – Establish effective and complimentary operation of CBDC Steering Group and management team processes.	Completed. However in 2015 both groups failed to meet the required number of times and members have left. Review required in 2016.
	3 – Establish financial procedures with Tullie House	Complete.
	4 – Review and extend charging policies	Complete but will need ongoing review.
	5 – Develop service level agreements with funding partners.	SLAs are at various states. Some local authorities have signed SLA and have ceased supporting CBDC, others have not signed a document recently but continue to contribute to the costs of the CBDC.
	6 – Leads to engage more funding partners and opportunities	No general commitments have been secured.
	7 – Establish relationships with new local nature partnerships	Relationships developed with North Pennines AONB, Solway Firth Partnership, and Morecambe Bay Partnership.
	8 – Increase the proportion of private sector funding.	Achieved. The income from private sector has increased to over 45% in 2015/16.
	9 – Have in place essential policies and protocols (needed to Achieve ALERC accreditation).	Some work has been done towards protocols and procedures. This is currently being reviewed for October 2016 ALERC accreditation submission.
3. Raise the public and professional profile of the CBDC	1 – Develop website content.	Website has been set up and established for a number of years. It should be reviewed in 2016 and updated, if necessary, to ensure that it meets the needs of CBDC



Objective	Action	Comment March 2016
		recorders, partners, the general public and private consultants.
	2 – Develop Technical Products. E.g. online maps, grid reference finder, vice-county boundary, Google Earth downloads, NBN web services.	Named examples completed. This is an area where technology continues to advance quickly. CBDC will need to ensure that it is competitive if it is to charge and retain private sector clients as well as recorders.
	3 – Promotional leaflet published.	Completed.
	4 – Online and off information for ecological consultants.	Online completed.
	5 – Regular updates on social media.	Ongoing.
	6 – Press coverage at least one a year.	Achieved.
	7 – Engage public in one major public event each year.	Achieved.
	8 – Do one public engagement survey a year.	Achieved.
4. Develop relationships with data suppliers and recording community.	4.1 – Annual Recorders conference.	Achieved
	2 – Establish a Recorders Forum.	Not progressed. This action could be introduced and discussed at the Recorders Conference in 2016.
	3 – Complete Rodis online facility export data from Recorder 6.	Completed. Use of Rodis needs to be reviewed in light of new, easier to use packages (eg irecord) used by other recording schemes as there is a threat that we could lose their records.
	4 – Provide technical support to recorders to encourage usage.	Presentations and workshops given to recording groups.
	5 – Trial online verification with 3 county specialists.	Not progressed. Something CBDC could explore with a new online recording system. Need to act quickly as iRecord gathers pace.
	6 – Develop comprehensive recoding forms for different taxa and make available on website.	Partially completed. Butterflies, moths, fungi and bat recording forms are available on the website. Need to



Objective	Action	Comment March 2016
		cover more groups e.g. mammals. Perhaps add new plants from to our website as well?
	7 – Develop enhanced reporting service to county recorders for annual reports and atlases.	Ongoing. CBDC needs to act quickly to make the county reports more available to recorders. Various options and politics.
	8 – Proactively request data updates from CBDC partners and other major gatherers.	We don't request updates from our partners. Beginning to make requests via the NBN gateway.
	9 – Establish data exchange protocols with other LRCs.	Partially in place. Achieved with ERIC and agreement in principle with DGERC. No current exchange with LERN or NEYDEC.
	10 – Analyse data exchange situation with local recorders and national schemes and societies and develop data exchange agreements.	Ongoing.
	11 - Sign data exchange agreements with active existing recorders and recording groups.	Not progressed.
	12 – Gain access to flora data directly or through NBN.	Complete.
	13 – Update data from flora directly or via NBN.	Complete.
	14 – Finish Work on old Cumbria Bird Club records.	Action progressed but still old and new data not received from the Bird Club.
	15 – Complete work on Moth Atlas	On going
5. Improve service provision of CDBC	1 – Develop protocol and then quarterly update to update NBN.	Achieved. Update is currently biannual, not quarterly.
	2 – Continue improvements to data enquiry processes.	Achieved; will need up to date documents of processes for ALERC Accreditation.
	3 –Continue to share best practice and developing joint projects with other LRCs.	Staff attended national ALERC and NFBR conferences. No regional meetings between LRCs in recent times.
	4 – Develop protocol and quarterly updates for CBEB.	Update is currently biannual, not quarterly.



Objective	Action	Comment March 2016
	5 – Develop CBEB content and dissemination to partners.	Not progressed.
6. Projects	6.1 – Wildwatch	Completed.
	2 – County Wildlife Sites	Discussions have taken place and there are some unresolved matters relating to data ownership, software, OS licensing. Data has not been transferred into new database yet. No work is currently being undertaken to review any sites.
	3 – Data verification status	Ongoing.
	4 - Hedgerows	Not progressed.
	5 – Engage with biodiversity organisations to develop joint projects	Ongoing. Important aspect of future income generation strategy if CBDC is to become sustainable.
	6 - B Roads	Completed.
	7 – Avifauna	Completed.
	6.8 – Coldblooded and Spineless	Project ongoing.
	6.9 – Juniper Project	Completed.
	6.10 – Solway Roost Survey	At the final stage.
6.11 – Cumbria Connection	Completed.	

Deb Muscat
18.04.2016

