



British  
Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL

Gateway to the Earth

# **Barcodes, conveyor belts and laser scanners:** putting the contents of the Geological Museum (South Kensington, 1935 - 1985) on the web

**Mike Howe<sup>1</sup>**, Bob McIntosh, Simon Harris & Graham Tulloch  
British Geological Survey,

<sup>1</sup>Head, National Geological Repository, BGS



Museum of Practical Geology, Jermyn Street, London 1851 - 1935

Geological Museum (IGS) Computing Department, 1970s



BGS website Nov 2000



INTERNET ARCHIVE

WayBackMachine

200011180

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917 captures

19 Apr 98 - 16 May 14

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[Publications](#)
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## Welcome to the Geoscience Data Index (GDI)

This is the first version of a new web service providing a map-based index to BGS data holdings. BGS holds unrivalled national collections of geoscience data.

This new element of our free web service is using state-of-the-art web-enabled Geographic Information Systems (GIS) software. Throughout the coming months new dataset indexes will be added to those already available. We will also steadily improve the speed of use and appearance of the site.

Please do not hesitate to e-mail us your comments (both good and bad!) at [acma@bgs.ac.uk](mailto:acma@bgs.ac.uk).  
[See what others have said](#) about the GDI.

Enter the Geoscience Data Index



Geoscience Data Index - Home

/web/20001205031100/http://www.bgs.ac.uk/geoindex/home.html

Last Modified: 06/16/2014 12:32:53

This page is maintained by the [BGS Webmaster](#) ([www.bgs@ua.nk.w.ac.uk](mailto:www.bgs@ua.nk.w.ac.uk))

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## BGS web-based GIS “Geoscience Data Index” 2000



INTERNET ARCHIVE  
WayBackMachine

http://www.bgs.ac.uk/ Go

917 captures  
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18  
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Downloads  
Vacancies  
News/Events  
What's New

INTERNET ARCHIVE  
WayBackMachine

http://www.bgs.ac.uk/geoindex/home.html Go

160 captures

OCT DEC FEB  
5  
2000 2001 2002

Geoscience Data Index - Microsoft Internet Explorer

British Geological Survey: Geoscience Data Index

Change Map Theme  
Boreholes

Legend (Visible Layers)

- Selected\_Features
- Borehole Records
  - 0 - 10m
  - 10 - 30m
  - 30m+
  - Depth Not Available
- Base Map (roads)
  - Grid 10Km
  - Motorway
  - A Road
  - B Road
  - Minor Rd
  - Shoreline
- Base Map (areas)

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OS licence no. GD272191/2000.

Geoscience Data Index

Zoom To	REFERENCE	GRID_REF	PRECISION	NAME	LENGTH
1	SK38NE343/BJ	SK 35812 87071	KNOWN TO NEAREST METRE	POND STREET SHEFFIELD BH 14	14.00000
2	SK38NE342/BJ	SK 35840 87240	KNOWN TO NEAREST METRE	POND STREET SHEFFIELD BH 13	21.00000
3	SK38NE341/BJ	SK 35853 87198	KNOWN TO NEAREST METRE	POND STREET SHEFFIELD BH 12	21.00000
4	SK38NE340/BJ	SK 35807 87188	KNOWN TO NEAREST METRE	POND STREET SHEFFIELD BH 11R	18.00000
5	SK38NE339/BJ	SK 35798 87243	KNOWN TO NEAREST METRE	POND STREET SHEFFIELD BH 10	22.00000
6	SK38NE338/BJ	SK 35769 87243	KNOWN TO NEAREST METRE	POND STREET SHEFFIELD BH 9	22.00000



## National Archive of Geological Photographs

The British Geological Survey houses the National Archive of Geological Photographs (NAGP), comprising in excess of 100,000 fully-described images dedicated to the theme of earth sciences. This image database contains c. 6,400 images digitized almost entirely with grant-in-aid from two sources:

**SCRAN** - The Scottish Cultural Access Network, responsible for the funding for two projects: Quarrying, mining and other extractive industries of Scotland, and The Landscapes of Scotland.

**JIDI** - The JISC Image Digitization Initiative, responsible for funding the image capture of 3,000 images under the theme: Classic areas of British geology. The project titles indicate the scope of the selection in this image database.

The low resolution thumbnail images accompanying each record are derived from very high resolution images, in turn derived from high quality, large format and 35 mm. negatives and transparencies. A wide range of photographic and digital products is available for purchase from BGS. Contact the [Photographic Unit for details](#).

Read an [illustrated history of the collection](#).

[Search the Photographic Archive](#)





[Home](#) →

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[Browse](#)

[Lightbox](#)

[Map-Based Search](#)

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your Lightbox

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## GeoScenic

### National Archive of Geological Photographs

Welcome to GeoScenic, where you can view and download images from the vast collections of geological photographs in BGS.

Download of 1000 x 1000 pixel images is free for all non-commercial use - all we ask in return is for you to acknowledge BGS when using our images. Click our [Terms and Conditions](#) link below for information on acknowledgement text, and to find out about using our images commercially.

All images in this site can be viewed without registering. However, by registering, you can save images to your lightbox for future sessions and download images at your leisure.

You are not currently logged in. [Login](#) or [register](#) here.

Search

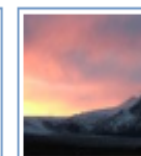
[Advanced search](#)

### Browse Categories:

• [Best of BGS Images \(2126\)](#)

• [Special collections \(21762\)](#)

• [Geoscience subjects \(32017\)](#)



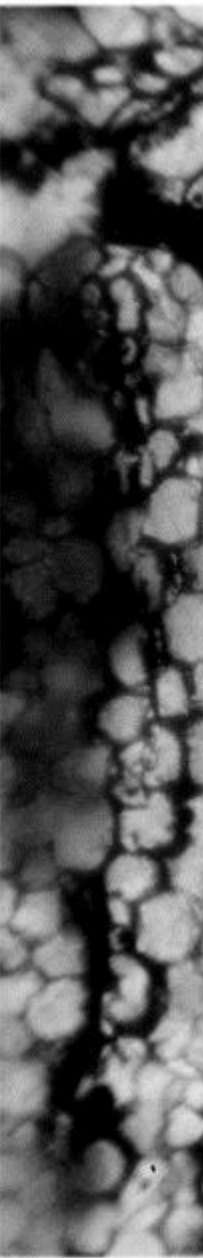
[See all promoted items »](#)

Authors in all Elsevier journals can now include GeoScenic image identifiers from BGS ([www.bgs.ac.uk](http://www.bgs.ac.uk)) into their article on ScienceDirect.

For more information on BGS GeoScenic identifiers and database linking with Elsevier please see <http://www.elsevier.com/databaselinking>

BGS now uses AssetBank™ to manage images inside and outside the organisation as “GeoScenic”. Currently ca. 80,000 images available externally





Scans of original glass plate negatives of the Kidston palaeobotanical collection (3618 images)



Images of the National Building Stone Collection (4301 images)



By 2006, all the main geoscience collections databases were available for online text searching.....

Our data



OpenGeoscience

Map viewers

Apps

Data collections

Index

Borehole materials

Geomagnetic data

GeoIndex

Groundwater level information

Lexicon of rock units

Linked data

PalaeoSaurus

Rock classification scheme

Rock collections

Taxonomy Online

Vocabularies

Data downloads

Scans and photos

Web services

## BGS rock collections - Search form

To search the database, please enter a search term, in one or more fields and press 'Search'.

If you enter 'S12%', the search will return anything that starts 'S12', while 'S1234' will only return that record.

### Search spatially

Use [GeoIndex](#) on the Collections theme to view the collection.

### Text searches

Registration number	<input type="text"/>	e.g. E1234 or MR1245
Rock or mineral name	<input type="text"/>	
Locality	<input type="text"/>	
Collector / donor	<input type="text"/>	e.g. Darwin

### Location searches

<input type="checkbox"/>	Search around a UK 50k map ref	map ref	<input type="text" value="SJ2345"/>	e.g. SJ2345
		distance	<input type="text" value="10"/>	km (1 to 99)
<input type="checkbox"/>	50k sheet name / number	<input type="text" value="Aberaeron (177)"/>		
<input type="checkbox"/>	Country	<input type="text" value="Acension Island [143 samples]"/>		

[National Geological Materials Collections contacts](#)

See also

- ☐ Country List
- ☐ Map Sheet List
- ☐ Search
- ☐ Research



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News and apps



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“Britrocks” – Online mineralogy & petrology database




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[Hosted sites](#)

[Home](#) » [Our data](#) » [OpenGeoscience](#) » [PalaeoSaurus database](#)

## Our data



- OpenGeoscience
- Map viewers
- Apps
- Data collections**
  - Index
  - Borehole materials
  - Geomagnetic data
  - GeoIndex
  - Groundwater level information
  - Lexicon of rock units
  - Linked data
  - PalaeoSaurus**
  - Rock classification scheme
  - Rock collections
  - Taxonomy Online
  - Vocabularies
- Data downloads
- Scans and photos
- Web services

## PalaeoSaurus online collections database

To search the PalaeoSaurus database, please enter a search term in one or more fields and click on "Submit". You may use % as a wildcard symbol.

Taxonomic group :	<input type="text"/>
Genus or subgenus:	<input type="text"/>
Species :	<input type="text"/>
Chronostratigraphy :	<input type="text"/>
Locality :	<input type="text"/>
Collector / donor :	<input type="text"/>
Publication (author) :	<input type="text"/>
Type of specimen :	<input type="text"/>
Specimen registration No :	<input type="text"/>

- Notes about BGS palaeontological registration numbers

The palaeontological collections of the BGS are being entered onto the PalaeoSaurus database, which currently totals over 50 000 samples. Most of the Cambrian – Lower Carboniferous reference specimens (which include type, figured and cited material) have been entered.


The information has been accumulated over more than a century and from many sources, and it contains inconsistencies and imperfections. Many of the identifications were made several decades ago and are in need of updating. Feedback on these is welcomed and should be directed to [Mike Howe](#).

### Enquiries about the fossil collections




Mr Paul Shepherd  
Telephone: 0115 936 3102  
Fax: 0115 936 3437

#### See also




- Collections home
- Palaeontology collections
- Borehole & core collections
- Petrology collections
- GeoScenic photo archive



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#### News and apps


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“PalaeoSaurus” – online palaeontological database

Our data



OpenGeoscience

Map viewers

Apps

Data collections

Index

Borehole materials

Geomagnetic data

GeoIndex

Groundwater level information

Lexicon of rock units

Linked data

PalaeoSaurus

Rock classification scheme

Rock collections

Taxonomy Online

Vocabularies

Data downloads

Scans and photos

Web services

## Onshore borehole material database



The BGS British onshore borehole collections contain approximately 15 000 boreholes, most of which are stored at Keyworth. Borehole material is held in a number of different forms, please see the [borehole material type key](#) for further details.

### Search the database of borehole materials

Bore name	<input type="text"/>	all or first part
50k map sheet	<div> <div>(any)</div> <div>Aberseron (177)</div> <div>Aberdaron and Bardsey Island (133)</div> <div>Aberdeen (77)</div> <div>Aberdeen (Sup) (77)</div> <div>Abergavenny (232)</div> <div>Aberystwyth (163)</div> <div>Abingdon (253)</div> <div>Achentoul (109)</div> <div>Airdrie (31)</div> </div>	<a href="#">sort list by sheet number</a> <a href="#">sort list by sheet name</a>
10k map sheet	<input type="text"/>	enter all e.g. TQ23SE or first part
Depth	<input checked="" type="radio"/> Greater than <input type="radio"/> Smaller than <input type="text"/>	metres
	<input type="button" value="search"/> <input type="button" value="clear"/>	<a href="#">Help using the search</a>

### Database status

The database is complete, except for very recent receipts.

The information has been accumulated over many years and contains some inconsistencies and imperfections. Feedback on these is welcomed and should be directed to [Dr M P A Howe](#).

### Confidential boreholes

Some boreholes, especially recent hydrocarbon wells, are confidential and depths and sample details may not be given. If you require further information about these boreholes, contact [kwcorestore@bgs.ac.uk](mailto:kwcorestore@bgs.ac.uk) for details of the owner. In a few cases, the precise map references are also confidential.

#### See also

- Materials collections
- OpenGeoscience
- Research



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Online “Onshore borehole material database”



# Three major recent high resolution digitisation projects.....

1. 125,000 boxes of UKCS hydrocarbon well core
2. 215,000 petrological thin sections images (including plane & cross polars)
3. 17,500 type UK macro fossils, including stereo-anaglyphs and 2,000 3d digital models (>100,000 images in total)

# BGS UKCS (Offshore) Hydrocarbon Cores

125,000 images - e.g. North Sea Oil Wells

Phase One P45+ camera: an ultra high resolution camera (7216 x 5412 pixels)

Archived RAW and TIFF. Generated JPEG2000 and JPG thumbnails

Box identified by barcode. Metadata written to screen

Image files automatically renumbered with box number

Average 1.25 minutes per box, including 100% audit/condition survey

Financed from sale of core store

BOX NO.: 500142918  
WELL NAME: 42/28a-4  
CUT: 4  
Core Top Depth of Core Run: 10331.00 ft  
Base Depth of Core Run: 10337.00 ft



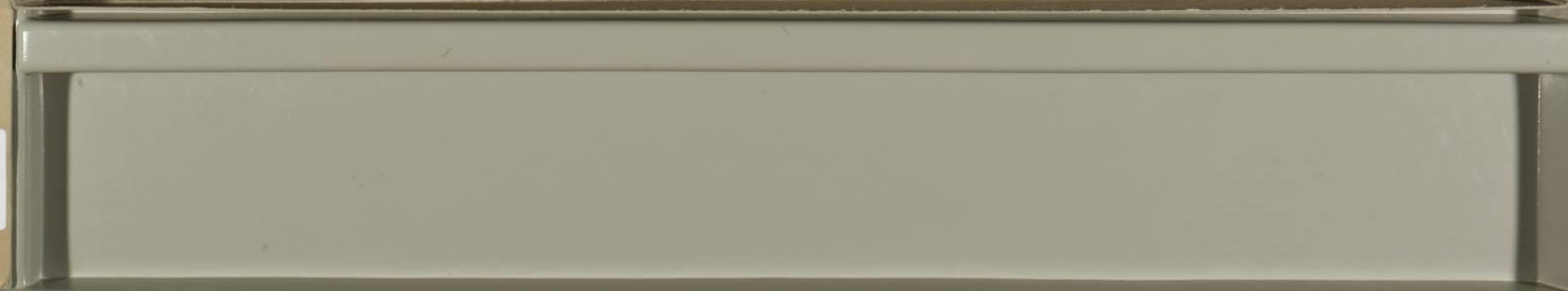
Top 1



Top 2



Top 3





BOX NO.: 500142918  
WELL NAME: 42/28a-4  
CUT: 4  
Core Top Depth of Core Run: 10331.00 ft  
Base Depth of Core Run: 10337.00 ft













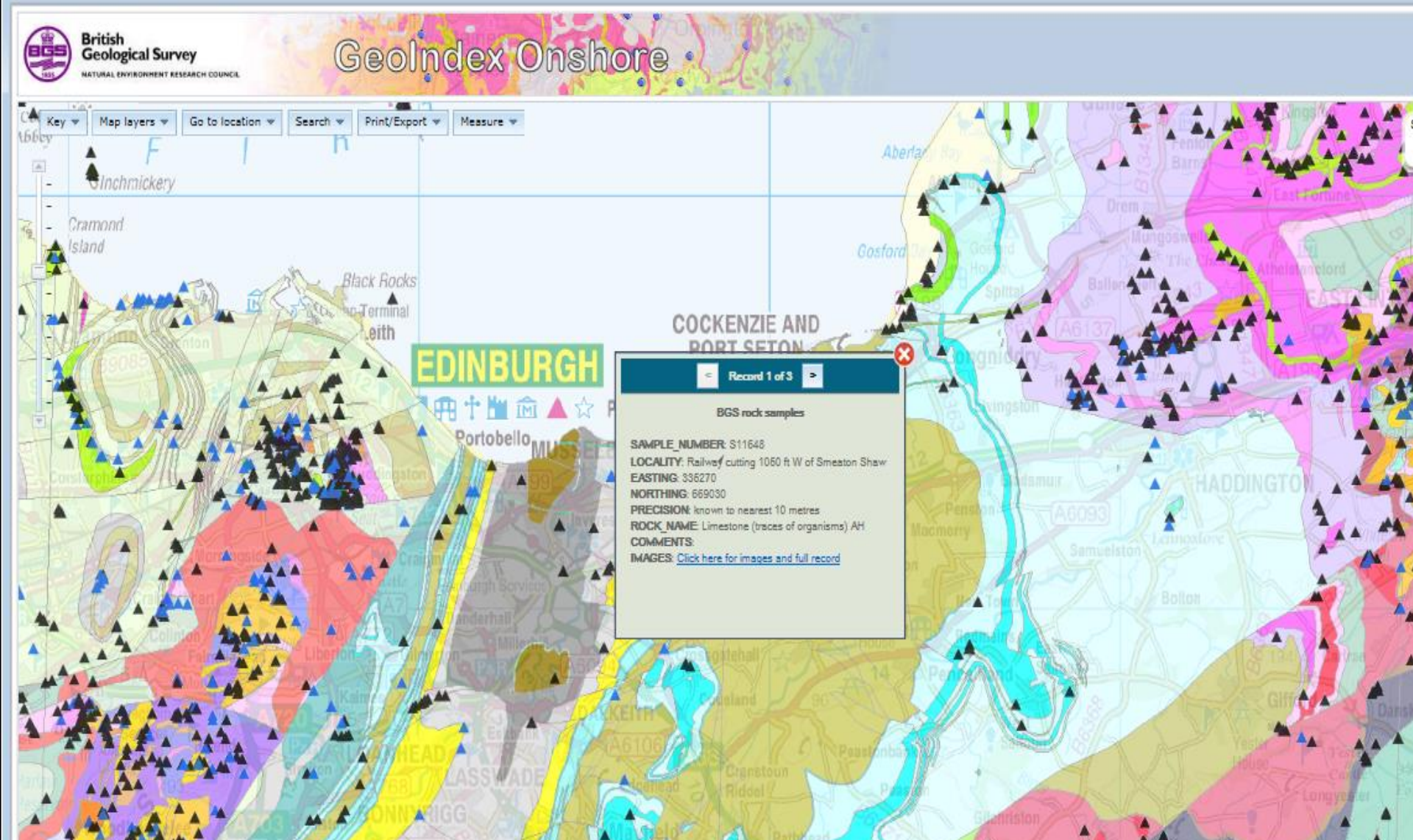


# BGS Thin Section Macrophotography

100,000 Scottish & 7,500 English & Welsh Thin Sections (Plane and Cross Polars) now online as part of Britrocks.

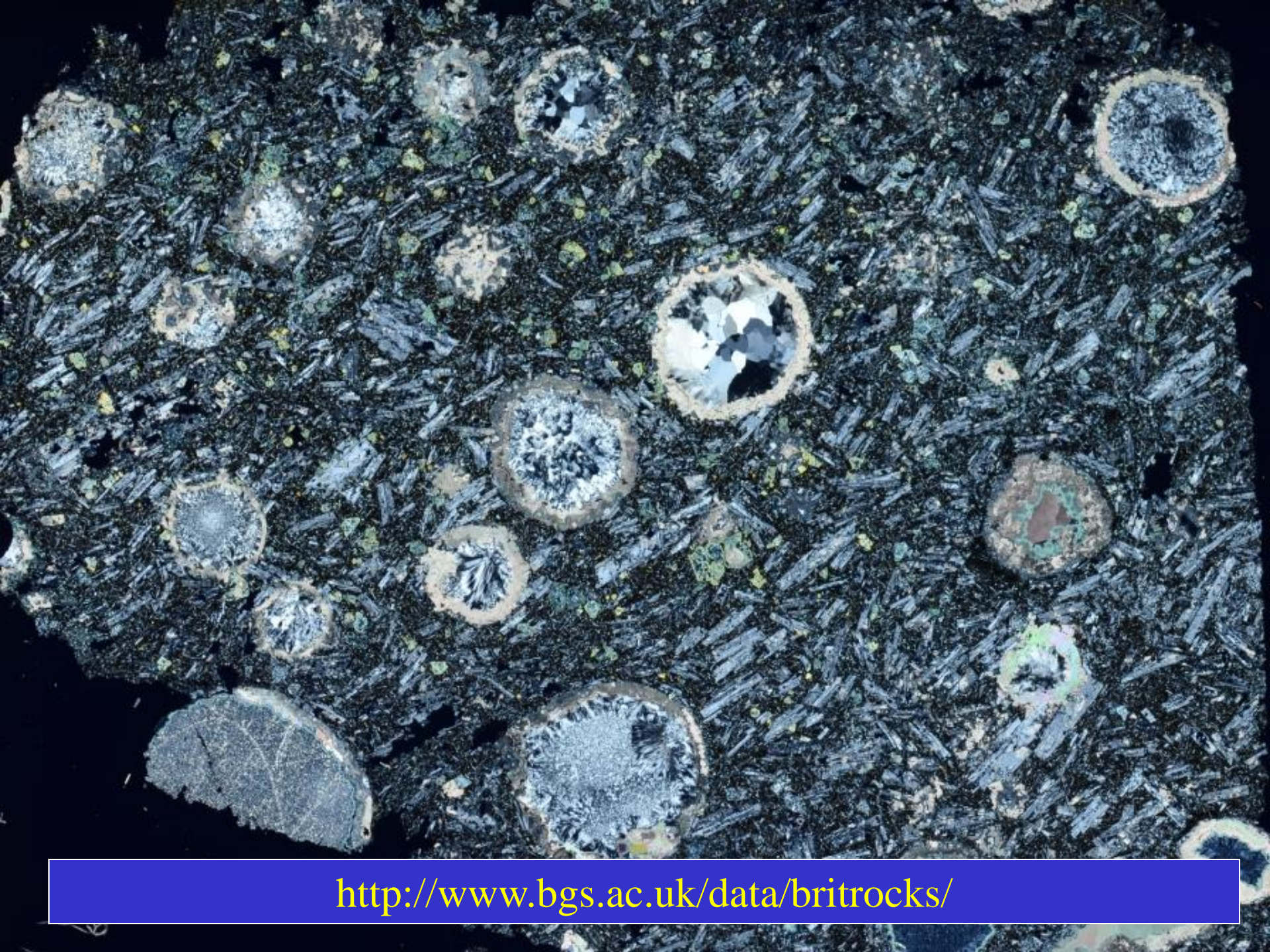
Served as JPEG2000s

Photography and some data entry by volunteers



BGS online GIS “GeoIndex”. Black triangles mark petrological thin sections with  
triangles have no images yet.





<http://www.bgs.ac.uk/data/britrocks/>











# Jisc funded GB3D Fossil Types Online

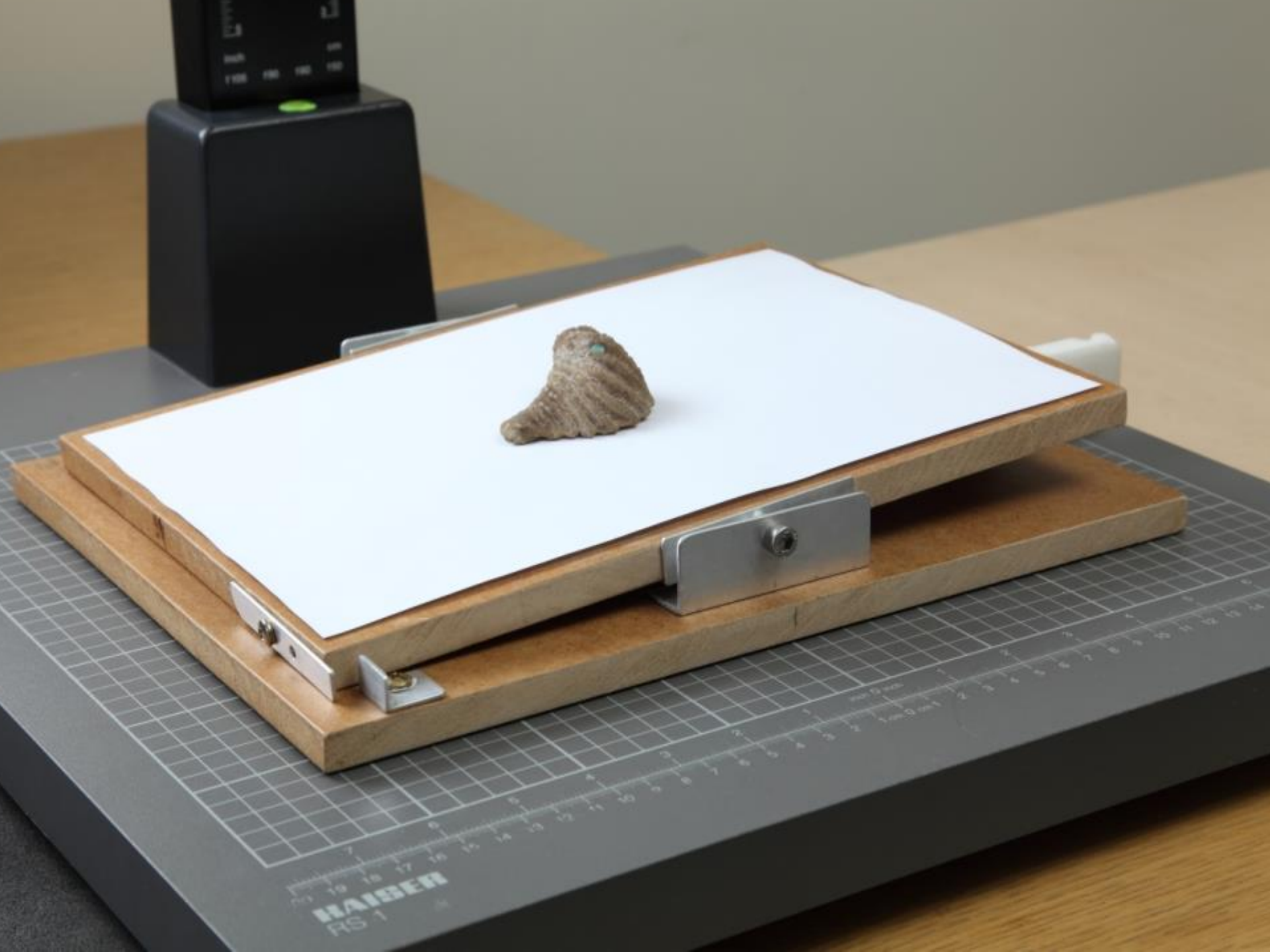
17,500 types, each with HR images, anaglyphs & labels +  
2000 3d digital models

Images served as JPEG2000. Models available as .PLY  
and .OBJ

Partners: British Geological Survey; National Museum  
Wales; The Sedgwick Museum, Cambridge; The University  
Museum of Natural History, Oxford; and the Geological  
Curators' Group, representing a number of national,  
regional and university museums.

**[www.3d-fossils.ac.uk](http://www.3d-fossils.ac.uk)**



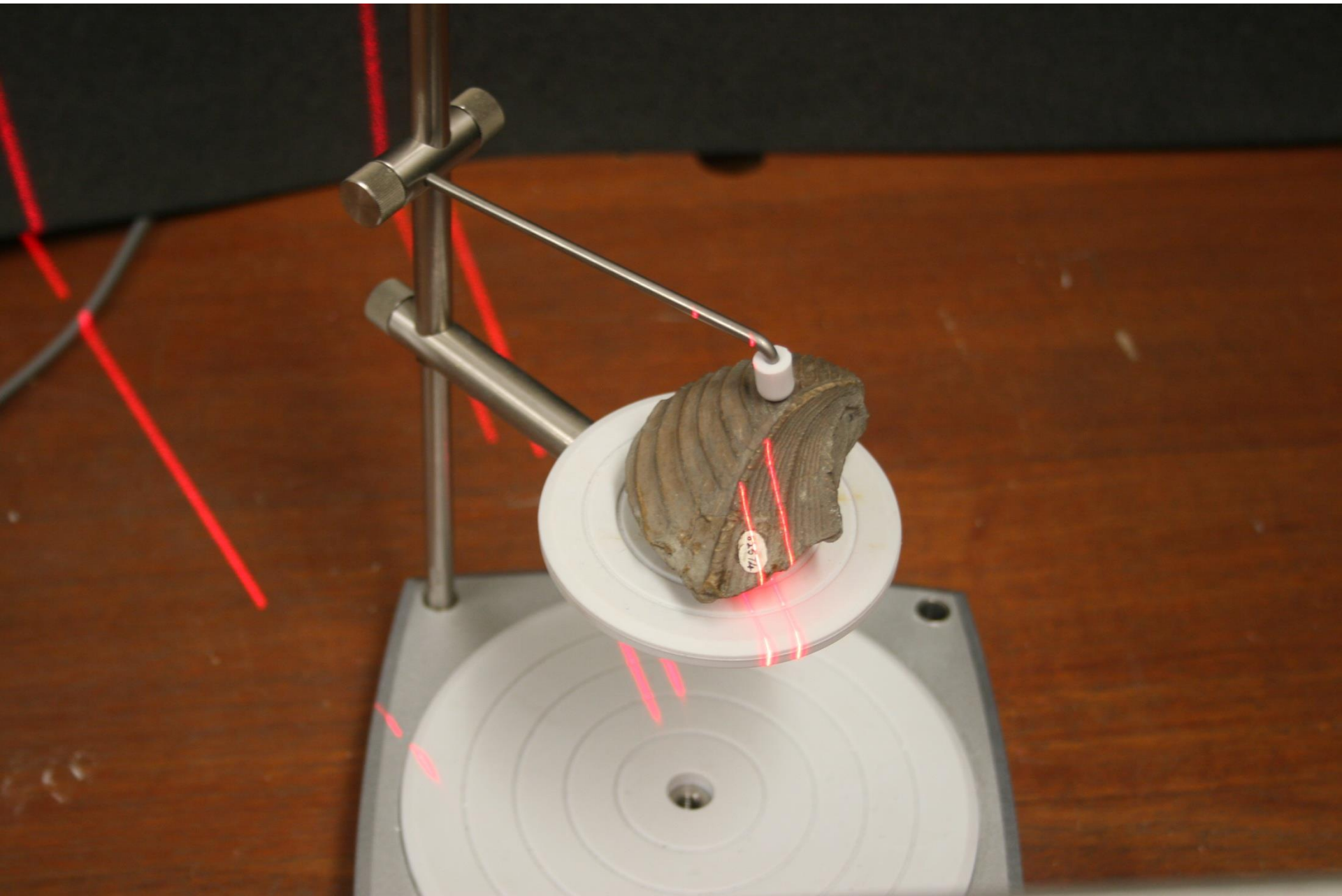















## Database search


Check back regularly as new specimens, photographs and 3D models are being added all the time.

 Basic search

Free text

Free text

Search

 Advanced search

Taxonomic Group

*Not all groups are represented in the database*

Genus

Species

Include old identifications in search

Type Status

{any}

Geological Age

{any}

Rock Unit

Locality

Country

{any}

Institution

Amgueddfa Cymru - National Museum of Wales

Registration No.

Amgueddfa Cymru - National Museum of Wales

2D Photos

Booth Museum of Natural History

Stereo Photos

British Geological Survey

3D Scans

Dinosaur Isle

Enter search criteria using the Basic or Advanced search at left



- (any)
- Amgueddfa Cymru - National Museum of Wales
- Bath Royal Literary and Scientific Institution
- Booth Museum of Natural History
- British Geological Survey
- Buxton Museum and Art Gallery
- Dinosaur Isle
- Dorset County Museum
- Great North Museum: Hancock
- Grosvenor Museum, Chester
- Lyme Regis Museum
- Museums Sheffield
- National Museums of Scotland
- Nottingham Natural History Museum
- Oxford University Museum of Natural History
- Royal Albert Memorial Museum, Exeter
- Sedgwick Museum of Earth Sciences, University of Cambridge
- The Manchester Museum
- The Warwickshire Museum
- University Museum of Zoology, Cambridge

## Database search

Check back regularly as new specimens, photographs and 3D models are being added all the time.

**Basic search**

Free text

Free text

**Advanced search**

Taxonomic Group   
Not all groups are represented in the database

Genus

Species

☐ Include old identifications in search

Type Status

Geological Age

Rock Unit

Locality

Country

Institution

Registration No.

2D Photos ☐ High definition 2D photos available?

Stereo Photos ☐ Stereo photos available?

3D Scans ☐ 3D scans available?

Viewing results 31 - 40 of 200 (max 200 results reached)

Format

Pages           ...

### 31 *Quadratrirhynchia crassimedia depressa* Ager, 1956

	Paratype:	26.135.G236.11	
	Locality:	Thorncombe Beacon, Eype Mouth, Bridport, Dorset	
	Rock Unit:	Layer Px, Beacon Limestone Formation	
	Geological Age:	Pliensbachian Age (Jurassic Period) (183 – 189.6 Ma B.P.)	<a href="#">View full details</a>
	Resources:	 	

### 32 *Quadratrirhynchia crassimedia depressa* Ager, 1956

	Paratype:	26.135.G236.12	
	Locality:	Thorncombe Beacon, Eype Mouth, Bridport, Dorset	
	Rock Unit:	Layer Px, Beacon Limestone Formation	
	Geological Age:	Pliensbachian Age (Jurassic Period) (183 – 189.6 Ma B.P.)	<a href="#">View full details</a>
	Resources:	 	

### 33 *Quadratrirhynchia crassimedia depressa* Ager, 1956

	Paratype:	26.135.G236.13	
	Locality:	Thorncombe Beacon, Eype Mouth, Bridport, Dorset	
	Rock Unit:	Layer Px, Beacon Limestone Formation	
	Geological Age:	Pliensbachian Age (Jurassic Period) (183 – 189.6 Ma B.P.)	<a href="#">View full details</a>
	Resources:	  	


### 34 *Quadratrirhynchia crassimedia depressa* Ager, 1956

## Fossil specimen : NMW 26.135.G236.13 – Paratype

### Taxonomy

<b>Taxonomic Group</b>	Kingdom Animalia Phylum Brachiopoda Class Rhynchonellata Order Rhynchonellida
<b>Fossil Name</b>	<i>Quadratrhyndia crassimedia depressa</i> Ager, 1956
<b>Type Status</b>	Paratype
<b>Name History</b>	<i>Quadratrhyndia crassimedia depressa</i> Ager, 1956 – See Ager (1956): Paratype <i>Quadratrhyndia</i> sp. – See Jackson (1926)

### Provenance

<b>Registration No.</b>	26.135.G236.13
<b>Collector</b>	Name not available
<b>Donor or Associated Person</b>	Jackson, J.F.
<b>Held By</b>	 Amgueddfa Cymru - National Museum of Wales
<b>Comments</b>	

### Location

<b>Country</b>	England
<b>Locality</b>	Thorncombe Beacon, Eype Mouth, Bridport, Dorset
<b>Grid Reference</b>	Available from host institution

### Stratigraphy

<b>Rock Unit</b>	Layer Px, Beacon Limestone Formation
<b>Biozone</b>	spinatum
<b>Geological Age</b>	Pliensbachian Age (Jurassic Period) (183 – 189.6 Ma B.P.)

### References

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### High resolution photographs



### Stereoscopic photographs



### 3D scan

- [View scan in web browser](#) (Requires a web browser able to display HTML5 canvases. Internet Explorer 9+, Firefox, Chrome, and Safari support this. Note that Internet Explorer 8 and earlier versions do not support this functionality)
- [Download zipped .ply file](#) [442 Kb]
- [Download zipped .obj file](#) [1397 Kb]

### Licence



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1cm














Fossil specimen : NMW 26.135.G236.13 – Paratype

## Taxonomy

Taxonomic Group	Kingdom Animalia
	Phylum Brachiopoda
	Class Rhynchonellata
	Order Rhynchonellida
Fossil Name	<i>Quadratirhynchia crassimedia depressa</i> Ager, 1956
Type Status	Paratype
Name History	<i>Quadratirhynchia crassimedia depressa</i> Ager, 1956 – See Ager (1956): Paratype
	<i>Quadratirhynchia</i> sp. – See Jackson (1926)

## Provenance

Registration No.	26.135.G236.13
Collector	Name not available
Donor or Associated Person	Jackson, J.F.
Held By	 Amgueddfa Cymru - National Museum of Wales
Comments	

## Location

Country	England
Locality	Thorncombe Beacon, Eype Mouth, Bridport, Dorset
Grid Reference	Available from host institution

## Stratigraphy

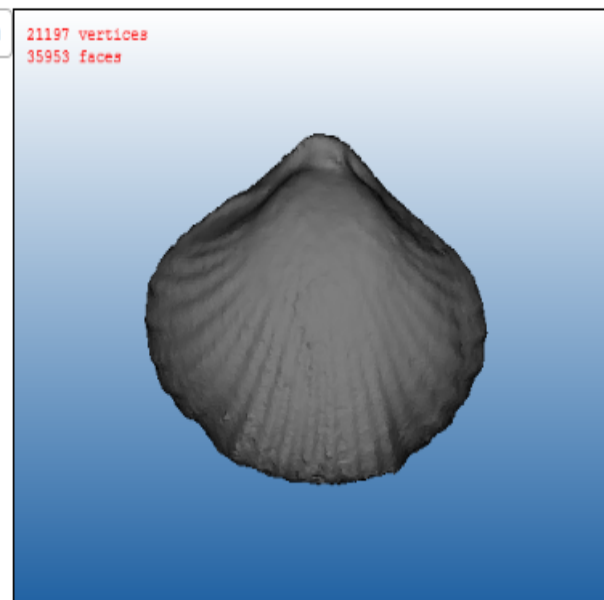


Rock Unit	Layer Px, Beacon Limestone Formation
Biozone	spinatum
Geological Age	Pliensbachian Age (Jurassic Period) (183 – 189.6 Ma B.P.)

## References

References	Ager, D V. 1956. A monograph of the British Liassic Rhynchonellidae, Part 1. Monograph of the
------------	---

## Scan Viewer

☒ Rotate ☐ Zoom

21197 vertices  
35953 faces

Point cloud  

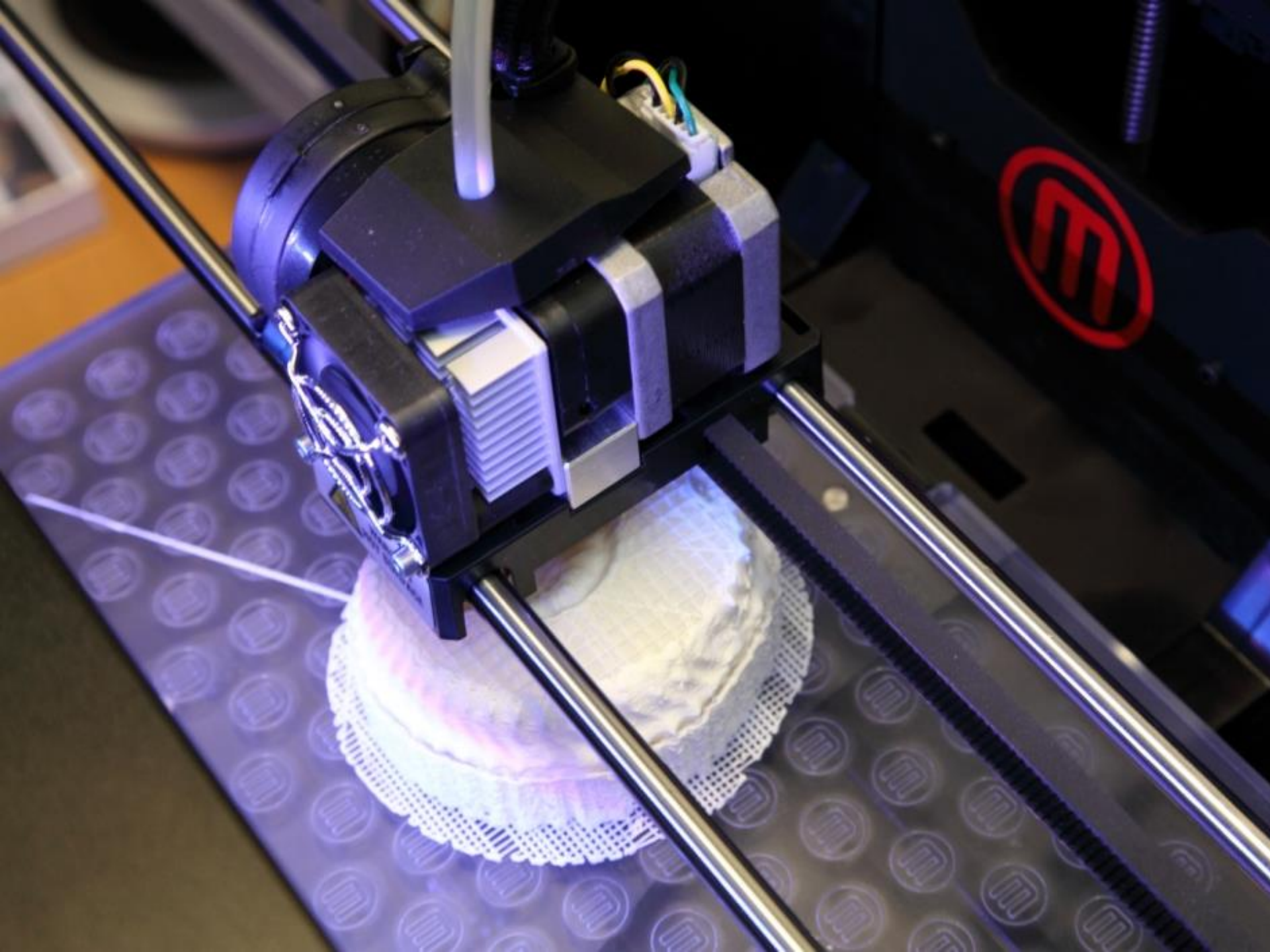
- [Download zipped .ply file](#) [442 Kb]
- [Download zipped .obj file](#) [1397 Kb]

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# Imminent and Future Plans

**API** (requests for beta version now being accepted), **web upload** of new specimens & corrections (manual procedure available now) – contact [GB3D-Fossils@bgs.ac.uk](mailto:GB3D-Fossils@bgs.ac.uk)

HR imaging of **1 million+ onshore borehole** specimens

HR imaging of collection of **225,000 British reference macrofossils**

Extensions to GB3D fossil types online for **microfossil types** and **European fossil types**



# GB3D Fossil Types Online – Live Demonstration – including 3d glasses

## 16:00 at Democamp

[www.3d-fossils.ac.uk](http://www.3d-fossils.ac.uk)

email: [GB3D-Fossils@bgs.ac.uk](mailto:GB3D-Fossils@bgs.ac.uk)