

URANIUM-SERIES AGES FOR SPELEOTHEM AND TUFA DEPOSITS ASSOCIATED  
WITH QUATERNARY MAMMALIAN FOSSIL EVIDENCE IN ENGLAND AND  
WALES

SUPPLEMENTARY MATERIAL

by

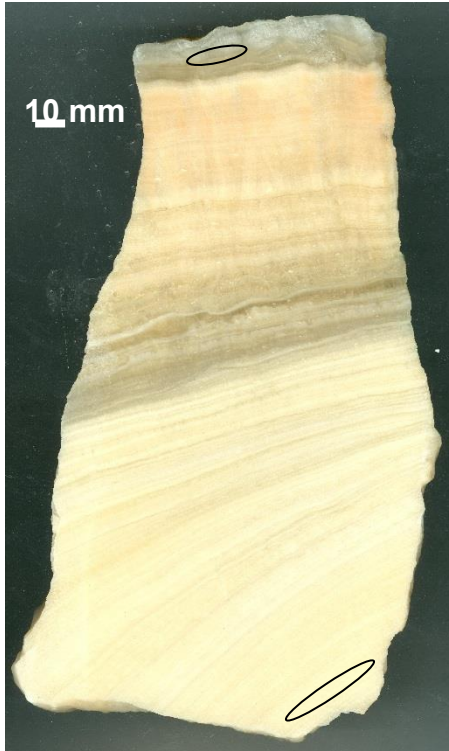
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This document contains additional information about the samples analysed for the publication with the above title published in the *Proceedings* of the University of Bristol Speleological Society, volume **27.1** pp 73-80. This includes, where possible, photographs of the specimens sampled indicating sampling sites.

For details of the results of the analyses, please see the original paper.

## BACON HOLE

- BH-SURFACE



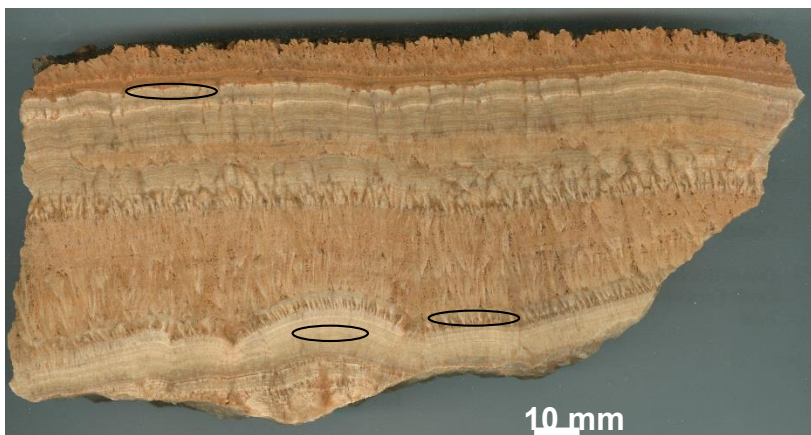
**BIG-UTH-B172**

**$5.6 \pm 0.1$  ka**

**BIG-UTH-B173**

**$8.1 \pm 0.04$  ka**

- BH81-253



**BIG-UTH-B190**

**$91 \pm \begin{smallmatrix} 20 \\ 18 \end{smallmatrix}$  ka**

**BIG-UTH-B175**

**$171 \pm \begin{smallmatrix} 133 \\ 50 \end{smallmatrix}$  ka**

**BIG-UTH-B174**

**$88.4 \pm 3.0$  ka**

**BIG-UTH-B174** and **BIG-UTH-B175** “clean” and “dirty” samples respectively for possible isochron determinations.

**BIG-UTH-B190** sampled later, revealed to be detritally contaminated also.

- BH1981-212

**BIG-UTh-B169**

**103.8 ± 1.2 ka**



**BIG-UTh-B171**

**121.3 ± 1.9 ka**

**BIG-UTh-B170**

**117.5 ± 2.0 ka**

- BH81-250

Sample large (~ 400 mm x 250 mm x 100 mm) conglomerate of limestone clasts cemented with clean white/yellow calcite

Subsamples **BIG-UTh-B177 (94.1 ± 1.2 ka)**, **BIG-UTh-B185 (84.2 ± 1.9 ka)** and **BIG-UTh-B186 (88.7 ± 1.4 ka)** taken from different pieces of thickest calcite accumulations

Subsamples drilled or chipped loose then surface cleaned with drill.

## BLEADON CAVERN



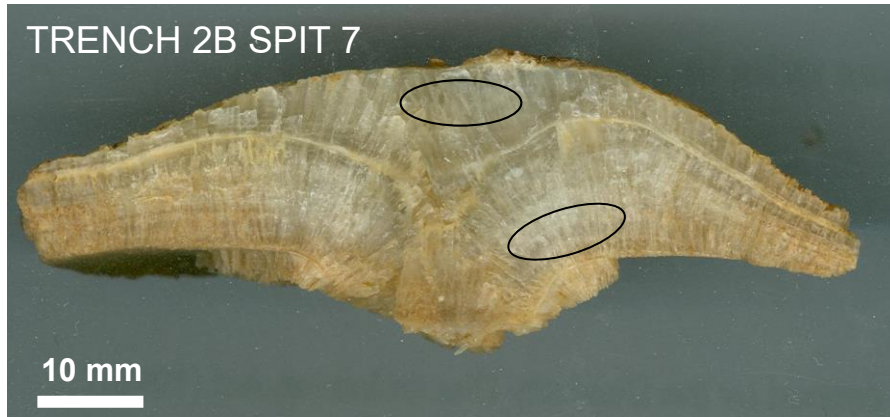
**BIG-UTh-B156**

$224.1 \pm \begin{matrix} 8.0 \\ 7.2 \end{matrix}$  ka

**BIG-UTh-B157**

$229.9 \pm \begin{matrix} 6.5 \\ 6.2 \end{matrix}$  ka

## COYGAN CAVE



**BIG-UTh-B154**

**$67.0 \pm 0.8$  ka**

**BIG-UTh-B155**

**$71.8 \pm 0.9$  ka**



**BIG-UTh-B153**

**$125.1 \pm 2.3$  ka**

**BIG-UTh-B191**

**$124.8 \pm 1.8$  ka**



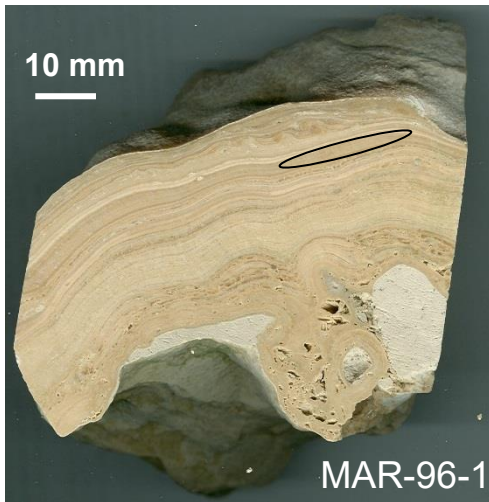
## HINDLOW QUARRY



**BIG-UTh-B178** ( $184.6 \pm 11.1$  ka)

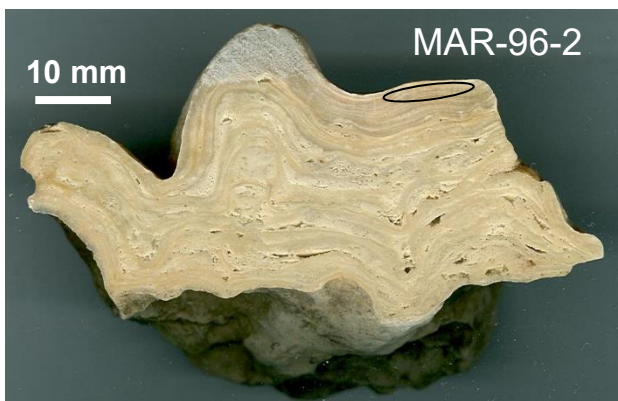
**BIG-UTh-B179** ( $302 \pm 25$  ka)

## MARSWORTH



**BIG-UTh-B192**

**$186.3 \pm 3.6$  ka**



**BIG-UTh-B193**

**$189.7 \pm \begin{matrix} 4.0 \\ 4.1 \end{matrix}$  ka**



**BIG-UTh-B194**

**$185.8 \pm \begin{matrix} 6.2 \\ 5.8 \end{matrix}$  ka**

# MINCHIN HOLE



**BIG-UTh-B148**

**$4.7 \pm 0.3$  ka**

**BIG-UTh-B149**

**$105.3 \pm 3.6/3.5$   
ka**



**BIG-UTh-B146**

**$121.1 \pm \frac{2.4}{2.3}$  ka**

**BIG-UTh-B147**

**$95.4 \pm \frac{1.9}{1.8}$  ka**

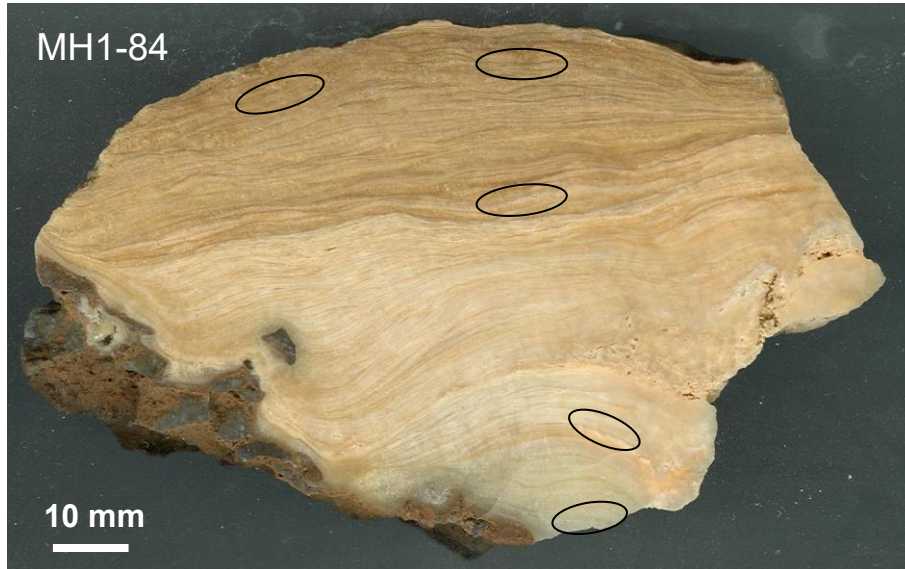


**BIG-UTh-B165**

**$122.6 \pm 1.0$  ka**

**BIG-UTh-B150**

**$115.7 \pm 1.4$  ka**



**BIG-UTh-B166**

**$122.4 \pm 1.9$  ka**

**BIG-UTh-B167**

**$115.9 \pm 5.9$  ka**

**BIG-UTh-B151**

**$81.7 \pm 1.0$  ka**

# PICKENS HOLE



**BIG-UTh-B158**

**$199.9 \pm \begin{matrix} 11.3 \\ 10.7 \end{matrix}$  ka**

**BIG-UTh-B159**

**$237.6 \pm \begin{matrix} 13.4 \\ 12.2 \end{matrix}$  ka**

## SUN HOLE



**BIG-UTh-B162**

$387 \pm \begin{smallmatrix} 29 \\ 24 \end{smallmatrix}$  ka

**BIG-UTh-B163**

$390 \pm \begin{smallmatrix} 158 \\ 67 \end{smallmatrix}$  ka



**BIG-UTh-B180**

$344 \pm \begin{smallmatrix} 21 \\ 17 \end{smallmatrix}$  ka

**BIG-UTh-B181**

$311 \pm \begin{smallmatrix} 13 \\ 12 \end{smallmatrix}$  ka



SNH-52B

**BIG-UTh-B182**

**114.5 ± 1.5 ka**

**BIG-UTh-B183**

**110.1 ± 1.7 ka**

- SNH-44

~30 cm piece of brecciated cave earth with some small clean calcite fragments incorporated. Calcite fragments chipped out and individually drilled clean

3 samples from different parts of breccia taken; SNH-44-A, B and C (**BIG-UTh-B187 (128.6 ± 2.2 ka)**, **BIG-UTh-B188 (122.5 ± 2.7 ka)**, **BIG-UTh-B189 (117.4 ± 1.4 ka)**)



## TORNEWTON CAVE

- TNW-259

Piece of stalagmite ~400 mm long, possibly once part of column. Not scanned due to large size. Subsample **BIG-UTH-B161** ( $254 \pm 9$  ka) taken from top.

- TN-90-6

Piece of flowstone, 50 x 20 x 45 mm. Not scanned due to small size

Subsamples, **BIG-UTH-B142** ( $77.2 \pm 0.5$  ka, uncorrected for initial Th) and **BIG-UTH-B143** ( $98.2 \pm 0.7$  ka), taken from top and base, respectively. Base has fossil material incorporated (including tooth).



**BIG-UTH-B137**

$185 \pm 7$  ka

**BIG-UTH-B138**

$206 \pm 6$  ka



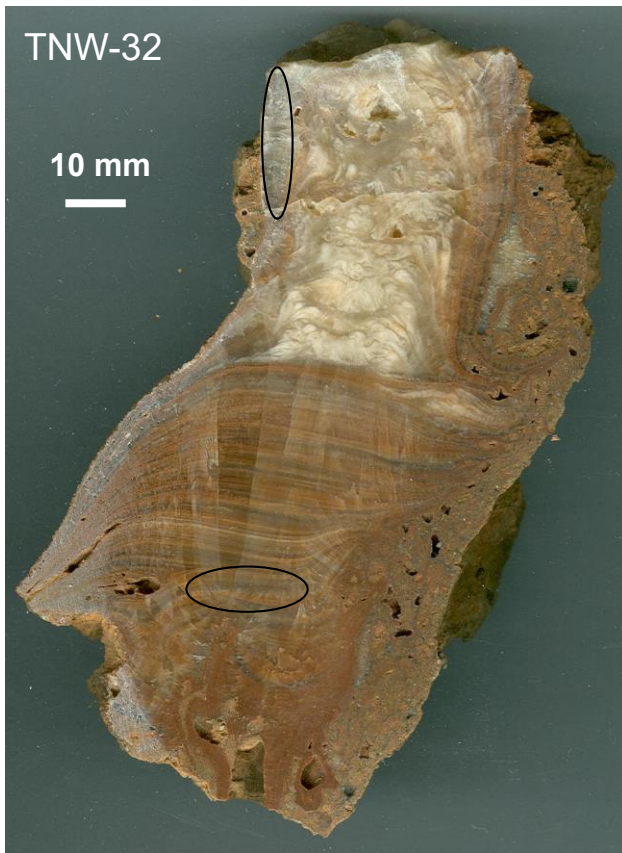
**BIG-UTH-B145**

$102.2 \pm 2.1$  ka

**BIG-UTH-B164**

$117.4 \pm \begin{matrix} 4.3 \\ 4.1 \end{matrix}$  ka





**BIG-UTh-B139**

$271 \pm_{12}^{13}$  ka

**BIG-UTh-B140**

$275 \pm_{40}^{66}$  ka



**BIG-UTh-B141**

$210 \pm_{8}^{9}$  ka