

GEOSUFFOLK TIMES

Welcome to issue no.31 of GeoSuffolk Times – for those who value Suffolk's Geodiversity. Caroline Markham 29.01.17 www.geosuffolk.co.uk

Fibula Thoughts

A few months ago I broke my right fibula – hence my interest. The lower end of this bone forms the outer side of the ankle joint, securing it (fibula, a clasp) by articulation with the side of the astragalus. Unusually for bones it is the lower epiphysis which ossifies first and is the first to unite with the shaft– this is because of early solidity necessary at the ankle.

It is a well-developed bone in humans, united with the tibia only at the extremities. My thoughts turned to fossil fibulae and why there are so few amongst the thousands of bones I have seen. Three of the commonest animals in our local Pleistocene deposits are horses, deer and oxen, and none of them have fibula shafts. Horses have a small splint at the upper part of the tibia, whilst deer and oxen have a small bone articulating with the lower end of the tibia. What comes to mind in the Ipswich Museum collection? Elephants have distinct complete fibulae, considerably enlarged at the lower end, and the collection has fragments from the Norwich Crag of Easton Baven, Reydon and possibly Wangford, and from the interglacial deposit at Brundon. Rhinos have complete and distinct fibulae, and there is a possible fragment from the Devensian at Barham. In dogs the fibula curves towards the tibia with its lower half more or less adjoining – there is a possible fibula from the Holocene of the Gipping Valley near Ipswich. In beavers the fibula is well-developed and separated from the tibia (except in its extremities) by a noticeable space - there is a Holocene beaver skeleton from the Fens on display. Bob Markham (RM)

GeoSuffolk is on Facebook and Twitter – find us at:

<https://www.facebook.com/GeoSuffolk>

<https://twitter.com/geosuffolk>

A New Website for GeoSuffolk

Our website is phone-friendly at last! Launched last week it provides an entry into the special geology of our county, accessible on the move. Packed with information on sites to visit, there are old favourites such as Suffolk's Geo Coast, plus new pages by popular demand - Breckland and the Pliocene Forest, and there are also Gallery and Archive pages. All pages contain a plethora of references and links, not least the Archive - full of GeoSuffolk publications plus a page for the Ipswich Geology Group Bulletins. The Gallery so far has a small population of RM's early photographs – watch this space. A big thank you to Emma Kerridge of WPK Systems Ltd., Hadleigh for designing and hosting the web site and GeoSuffolk's Chris Chapman and Bob Markham for helping me to populate the pages. CM

Clearing the North Face at Rockhall Wood SSSI



On November 24-26 2016 GeoSuffolk cleared the entire north face at this Sutton site, using a digger to refresh the central section linking the two good Coralline Crag exposures at either end of the old quarry. An impressive 150m (approx.) long 'cliff' faces the footpath now – worth viewing! The digger levelled the base, including the old east section and Barry Hall has seeded it with grass, so maintenance should be straightforward. CM

February - Fossil Day & Show and Tell

Wednesday February 15th 2017 - meet GeoSuffolk geologists at Colchester and at Ipswich Museums. Bring your specimens for identification, enjoy the Museum displays and handle some real fossils!

Fossil Day at Colchester Natural History Museum, 10am - 12 noon and 2 - 4pm.

Show and Tell at Ipswich Museum, 11am - 3pm.

In the News:

Snails: Left-spiralling garden snail (*Cornu asperum*, formerly *Helix aspera*) shells were in the news last year. One was found in Raynes Park, SW London by a retired member of the Natural History Museum staff, who brought it to the attention of Dr Angus Davison, an evolutionary geneticist at the University of Nottingham. A call was put out for another and the answer came from Jade Sanchez Melton, a snail enthusiast of Ipswich, who had one. Awaited (hopefully) are left-spiralling youngsters, whose genes can be examined for clues relating to dextrocardia, a rare condition in which the human heart is on the right side of the chest. RM

Coralline Crag: John Grant's article on Sizewell C marine studies includes a diagram featuring the off-shore Coralline Crag at Thorpeness (East Anglian Daily Times 26.12.16). He interviewed Colin Taylor, EDF Energy's Marine Environment Manager, and we also learned that during storm Angus in November, 4m high waves were breaking offshore (rather than onshore) due to the sand banks. RM

Syrian Bitumen at Sutton Hoo

Recent analysis of black organic material found in the Sutton Hoo Anglo-Saxon ship burial excavated in 1939 has shown it to be bitumen. Its composition is close to the Dead Sea family of bitumens, perhaps from seepages which stain rocks in Syria. Details of identification, geochemistry and significance, by research workers at the British Museum and at Aberdeen University, were published in PLOS ONE, 01.12.16. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0166276> Bitumen may be viewed as a semi-solid trace fossil, left behind after naturally occurring petrochemical liquid oil has been consumed by microbial communities. RM

Suffolk Naturalists' Society Publications

The SNS has published all of its Transactions online now at <http://www.suffolkbis.org.uk/SNH>. Starting with Volume 1 (1929-31) most have geological articles. These have been gathered together in a 'stack' for us https://issuu.com/suffolknaturalistsociety/stacks/3275245_1add64d279b8e33a332a80f05 - or enter via the Archive on our new web site! Thank you SNS.

Also online now is CM's article: 'A New Excavation at Knettishall Heath' in SNS White Admiral 94, Summer 2016 <http://www.sns.org.uk/files/pdfs/wad94.pdf> CM

A Hong Kong Stamp

I recently received correspondence from a good friend of GeoSuffolk in Hong Kong. The stamp shows the Kang Lau Shek sea stacks (of thinly laminated siltstone of roughly the same age as our London Clay). It is one of a set of definitive stamps celebrating Hong Kong's UNESCO Global Geopark. RM

Join us at Sutton

Join the Suffolk Coast and Heaths AONB team of volunteers, helping GeoSuffolk with site maintenance at Rockhall Wood SSSI, Sutton on 07.02.17. <http://www.suffolkcoastandheaths.org/assets/Uploads/2016-09-SCH-Vol-Tasks-Poster-Oct-16-to-Mar-2.pdf>

Please register with the AONB.

CM

Gault Formation in Suffolk

Gault Clay enthusiasts were treated to an early Christmas present in the November 2016 issue of the Proceedings of the Geologists' Association. Ramues Gallois, Adrian Morter and Hugh Owen author an article on these c.105-110 million year old mudstones and clays, from their type site at Folkestone, Kent to our Suffolk Gault, here hidden beneath the Chalk. Local sites include the Ely-Ouse water transfer scheme (a specimen from under Mildenhall is illustrated in GeoSuffolk's Breckland leaflet) and a catalogue of the ammonites, bivalves and other fossils from the Gault in a borehole drilled at Stowlangtoft in 1983 by the British Geological Survey. RM

Geo-Anglia

The Essex Rock and Mineral Society is 50 years old: for the story of those years see the article by Ian Mercer in 'Down to Earth' no.97, November 2016.

Their Gem and Mineral Show this year is on Saturday 18.02.17 10am – 4pm at North Romford Community Centre, Collier Row, Romford. Admission £2. <http://www.erms.org/annual-show.html>

Naze Geology Forum 11.01.17: Looking south from Bawdsey or Felixstowe, that distant tower is on the Naze at Walton, Essex. Although a political boundary separates them there is a geological continuity, and GeoSuffolk was pleased to be invited to contribute to the Naze Geology Forum. Ably organised by Ian and Ros Mercer of the ERMS, the Forum reviewed and promoted Naze geological information to help the three local museums/centres complement each other. Walton Maritime Museum sits in Walton Gap, site of the discovery of many large Pleistocene mammals; the Naze Tower affords magnificent views including a bird's eye view of the local land use; the recently opened Naze Education and Visitor Centre of Essex Wildlife Trust offers an education room, activities and all year refreshments and toilets. With the cliff showing London Clay, Red Crag and Ice Age sediments, there was plenty for Gerald Lucy, Bill George, Jeff Saward, Bob Markham, Peter Allen and David Grayston to give talks on. There are already follow-ups planned to this Naze Forum, so thank you Ian and Ros. RM

