

Welcome to issue number 17 of our GeoSuffolk Times - for those who value Suffolk's geodiversity. Caroline Markham 20.07.13

Tjörnes

Although our title shows our commitment to Suffolk, we do of course take an active interest in the wider world and thus on June 9th this year Caroline and I landed by boat at the small town of Húsavík on the northern coast of Iceland. There we hired a vehicle and explored the Tjörnes peninsula. The first stop was to see Pliocene sediments near Ytritunga farm, with *Spisula*, *Arctica* and other shells reminding us that this 'Iceland Crag' is the same age as our Suffolk crag. Then on to Breidavík (Pleistocene sediments), Skeidsöxl (tectonic rifting, and puffins!) and finally, thufur (freeze-thaw hummocks) close to Highway 85. Oh, and by the way, the fossil museum at Hallbjarnarstadir farm closed about six years ago. Bob Markham(RM)

Dama roberti

Research workers from the Natural History Museum in London have named a new species of fallow deer, based on a portion of skull with parts of teeth and antlers attached, in the Norwich Castle Museum collection. *Dama roberti* is named after Robert Mutch of Oulton Broad, who discovered the specimen in the 'Cromer Forest Bed' at Pakefield. The Norfolk Museums and Archaeology Service intends putting the specimen on display this year and the Natural History Museum will be featuring the remains in a major exhibition in 2014 (from the East Anglian Daily Times 14.05.13) RM

The Ipswich and District Natural History Society held its last meeting on 27.04.13.

In 1869 a number of scientifically minded townspeople formed the Ipswich Science Gossip Society, changing its name to the Ipswich Scientific Society in 1875. In 1903 the Ipswich & District Teachers' Field Club was formed, soon changing its name to Ipswich & District Field Club; a journal was published 1908-1921. In 1924 the Scientific Society and Field Club amalgamated to form the Ipswich and District Natural History Society; a journal was published 1925-1935 and a newsletter in more recent years. For more information see Ipswich Geological Group Bulletin no.14 (1975). RM

Have you read? Continuing our review series from *A Celebration of Suffolk Geology...*

Not for the faint-hearted, *Biotic Interaction in the Suffolk Crags* by Dr Elizabeth Harper of Cambridge University, tells a story of assassination and cannibalism amongst the mollusc inhabitants of the ancient Crag seas. Always keeping her eye on the evolutionary driver inherent in these interactions between organisms, Dr Harper leads us through the fossil evidence for symbiosis, parasitism and predation. Predators in particular (e.g. starfish, octopus) do not have a high rate of preservation – that 'imperfect' fossil (which we may be tempted to discard) with a drill hole, or other traces, may give information about a predator species as well as the one the fossil shell represents.

The octopus is an intelligent and effective mollusc predator. Some Crag scallops reveal tiny drill holes in a central position, located precisely for the octopus to inject anaesthetic into the adductor muscle – certain death to the scallop. Crabs have a more 'brute force' approach leaving much evidence in the form of scars inflicted by their claws on *Neptunea* gastropods – possibly the ones that got away!

And the cannibalism? Many Crag '*Natica*' gastropod fossils show drill holes typical of their own genera. These beautiful, circular, countersunk holes represent a slow death – sucked out whilst still alive!

A Celebration of Suffolk Geology, Ed. Dr Roger Dixon is available from Ipswich Museum – see www.geosuffolk.co.uk for more information. CM

Flint Knapper. The EADT 09.03.13 had an article on Will Lord who lives near Bury St Edmunds. He runs courses on flint-knapping and produces about 60,000 gunflints a year (used by Americans for muskets). www.will-lord.co.uk

New leaflet

GeoSuffolk Looks at the London Clay

Available free from Ipswich Museum or download from

www.geosuffolk.co.uk

News: Geodiversity Providers and Owners

Greyfriars Coralline Crag Wall

GeoSuffolk is pleased to note the welcome repairs to the boundary wall of Greyfriars Priory in Dunwich carried out this spring for English Heritage and Suffolk County Council. Much of the east section of this wall is built from Coralline Crag, a Suffolk building stone (sometimes used in medieval buildings), and GeoSuffolk helped to source this for the conservators. CM

GeoSuffolk Looks at the London Clay

A big thank you to Suffolk Coast and Heaths AONB Community and Conservation Fund and the Ipswich Institute for funding GeoSuffolk's new leaflet. Written by Dr Roger Dixon, this leaflet visits five London Clay exposure sites – East Lane, Bawdsey; Nacton Shore; Bawdsey Manor Cliff; Harkstead Shore; Ramsholt Rocks. It also covers landscape features – springs at Newbourne and Christchurch Park, and the use of London Clay mudstone in buildings – Orford Castle; Dunwich Leper Chapel. CM

Under Knettishall Heath

Knettishall Heath CGS was designated for its vegetation stripes – indicating relic periglacial landforms. At the Suffolk Naturalists' Society meeting on 29.06.13 GeoSuffolk, with permission from Suffolk Wildlife Trust and Natural England, dug a 2.8m trench beneath adjacent 'stripes'.

There was 0.45m of fine, wind-blown 'cover sand' above both stripes passing immediately into brecciated chalk beneath the 'calcareous' vegetation stripe - typified by Ladies Bedstraw and Dropwort. Under the 'acid' vegetation stripe, dominated by Silver Hair Grass, the chalk surface dipped steeply down to 0.95m below the surface. This channel or groove in the chalk was filled with medium grained yellow sand containing rounded quartz/quartzite pebbles and frost-shattered flints. CM

CGS Condition Monitoring

In May GeoSuffolk undertook condition monitoring of two Fen-edge CGS - Lakenheath Church and Aspal Close (a Forest Heath DC nature reserve at Beck Row). The church has been designated for its large variety of building stones local to the Suffolk/Cambridgeshire /Norfolk border (see GeoSuffolk Times no.5) and Aspal Close for its 'dips and dells' of periglacial origin (see GeoSuffolk Times no.15). Both were found to be in GOOD condition.

Footnote: All of Suffolk's County Geodiversity Sites are now on the County Council EnCheck GIS database. CM

Lowestoft Museum

Housed in the flint-walled Broad House at Oulton Broad, this museum has four cases devoted to local geology. Highlights include a good variety of fossil mammal remains from the Forest Bed at Pakefield, with several *Megaceros* antlers and a leg bone of *Equus altideus*. A neighbouring case displays teeth of *Mimomys*. These vole teeth are under a magnifier - so you can see them! (See David Mayhew's work on Norwich Crag voles in GeoSuffolk Times no. 15) Happy hunting!

The prize specimen has to be the 75cm Jurassic ammonite, an erratic from the glacial till. Found by Adrian Charlton in 1993, it took three years to retrieve from the beach at Pakefield. And the icing on the cake, a display of wonderful Lowestoft Porcelain upstairs – said to be made from Gunton Clay (possibly from the till or Corton Sands). www.lowestoftmuseum.org CM

GeoAnglia

- 'From mountains to microscope' exhibition at the Sedgwick Museum, Cambridge – displays research on microscopic parts of Cambrian animals of Canada.
- Norfolk Museums and Archaeology Service's *Shine a Light* project will display the West Runton Steppe Mammoth at Gressenhall Farm and Workhouse collections superstore from next summer; it may then be viewed through tours, events and online.
- The East Anglian Daily Times 10.06.13 featured Mike Todd and Walton-on-the-Naze. Mike and his wife Sue and their geology information area are a familiar sight at the Naze. Their *Nazeman Education Trust* provides much free information, photographic guides (small charge) and shows people the geology and wildlife of the Naze. www.nazeman.fsnet.co.uk
- *Deposits* magazine issue 34 (Spring 2013) has a well-illustrated article *The Geology of Essex* by Robert J Williams. www.depositsmag.com

RM