LIVERPOOL GEOLOGICAL SOCIETY

NEWSLETTER

15/102018
We welcomed three new members at our last meeting: Phil Garvey, James Anderson and Kate Foster. There are four new members to be elected at the next meeting. They are: Polly O'Mahone-Webster, Jordyn Crimp-Clarey, Darcey Bower and Anna Sharp

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For new members, we meet informally before the lecture in the foyer of the John Moores University building on Byrom Street and go to the lecture theare about 7.20pm. We will be continuing our 'bring a rock' session in the foyer before the meeting. You are welcome to join (with or without rock!)

Oct 23

Prof Peter Burgess (Liverpool University)

It's all relative: the ups, downs, tilting and rebounds of ancient sea level

Sea level is the elevation of the sea surface across the planet and changing sea level is one, but not the only, factor that controls how shorelines change and move through time. As we pass into a time when sea level is likely to change noticeably and perhaps dramatically on human timescales, understanding the geological history of changing sea level has never been more important. In this talk, we will discuss how we define and measure different aspects of sea level, and how sea level has changed through time. We will cover global changes produced by icecaps growing and shrinking, the the ever-shifting balance between deposition, erosion and sea level changes, and the tectonic bouncing up and down of shorelines and indeed entire continents as viscous mantle rock flows beneath them. Slower than a roller coaster, but in the end much more significant and perhaps a lot more scary, we need to understand the ups and downs of sea level because they may well turn out to determine the ups and downs of societies and perhaps even the human species.

Oct 30

Joint Meeting with the Herdman Geological Society in the Herdman building - University of Liverpool

Rick Brassington (consultant)

Hydrogeology of Beer-

Admission by ticket £3 (50)

Traditional beer is brewed from malted barley, hops, sugar, yeast and water – but not just any old water. Many breweries use groundwater and the type of beer produced, which ranges from traditional English ale to IPA, stout and lagers, depends largely on the groundwater chemistry.
Groundwater is important partly because the ratio of beer produced to the water used ranges between six litres of water to as much as ten litres of water to produce one litre of beer. Water chemistry is a prime factor, and the brewing industry has long since settled on water from the Burton upon Trent area as being the best for the brewing process.
The talk describes the brewing process from traditional breweries to the modern trend for microbreweries and then discusses the effects of different aspects of the water quality on the finished product. The hydrogeology of two brewing areas are examined : Burton upon Trent and Tadcaster in North Yorkshire.

Tickets for this will be available at Professor Peter Burgess's lecture on 23rd October.

Membership cards are now available at each of the meetings. Members who wish to have the card sent to them will need to send a stamped addressed envelope of a suitable size to:

Web Manager
2 Hazelwood
Wirral
CH49 2RQ

Liverpool Geological Society Prizes – October 2018.

Aurianna Najah– Overall Excellence in BSc Geography at Liverpool John Moores University.

Aurianna graduated with First Class Honours Degree in Geography, achieving an impressive 79% overall. Aurianna has always performed to a high level producing excellent work over a range of diverse subjects through her years of study in LJMU. In the final year of her study Aurianna received an internship from CENAPRED (Centro Nacional de Prevención de Desastres - Mexico) to do her project on volcanic hazards from the Popocatépetl Volcano.

Charlotte Copley –Overall Excellence in BSC Geology at the University of Liverpool.

Charlotte has recently started work as a graduate Geo-environmental Engineer with Lithos Consulting Limited in Bradford.
Project – The Geological Evolution of the Llanberis Area: Folding, Faulting and Strain
During the course of the last years, Charlotte has matured to become an excellent young scientist. Always enthusiastic to deepen her understanding of the relationships between observations and fundamental principles (no matter how complex these might be), She has worked with dedication and settled for no less than comprehensive solutions during her project.

Billie Jones –Overall Excellence in BSC Geology and Physical Geography at the University of Liverpool.

Billie Jones did her honours project work at Cross Fell. She achieved the highest mark in the Geology and Physical Geography BSc degree in 2018. From very early on in her degree it was clear that Billie was an exceptional student. She showed dedication to her studies and a determination to succeed that resulted in several impressive results in modules such as: Evolution, Oceans and Climate, and Palaeobiology and Evolution. Billie won several other awards during her time at the University of Liverpool including the Mazurek Microscopy award in her first year and the PalAss Palaeontology award in her second year. Billie has been passionate about continuing her studies in palaeontology and will be starting an MSc in Palaeobiology at the University of Bristol next year.

Will Sparrow -Overall Excellence in BSC Geophysics at the University of Liverpool.

Will has recently started work on the AWE (Atomic Weapons Establishment) graduate scheme working in the department that uses seismics to detect and identify underground explosions as part of the UK's involvement in the Comprehensive Nuclear Test Ban Treaty
Will Sparrow, a student in Geophysics (Physics) gained the highest first class degree in Geophysics this year. His thesis was entitled "Improving field models 1800-1840, the data of Alexander von Humboldt". Alexander von Humboldt did extensive scientific work in South America from 1798 to 1802, including high-quality measurements of the magnetic inclination, occasional declination, and also the first wide-spread survey of the relative changes in magnetic intensity. Only a small fraction of these data have been included in modelling efforts to date, and the data included had a bad systematic error due to mistakes in the mid-1800s in data transcription. Will was able to demonstrate that including these data allows more detail in the models of the field at the core, particularly in the Atlantic hemisphere, and particularly provided initial evidence that will change our interpretation of the initiation of the weak area in the field now called the South Atlantic Anomaly.

PITCHER PRIZES - named in honour of the late Professor Wallace Pitcher –Herdman Professor of Geology at the University of Liverpool, former President of the Society and of the Geological Society of London

Prizes are awarded for work, at a range of levels on the Geology of North West England or North Wales.

The award for work on ‘Salt in Cheshire: Geology, History and Industry’ goes to twins who are both A level students at Calday Grange Grammar School (Wirral).

Our esteemed panel of reviewers commented on a report that was thorough, concisely written and beautifully presented

The prize is awarded jointly to

Julian and Harry Young.

Will members please note that the Field trip to **Crosby** - pencilled in for **21st October** has been cancelled. We apologise for this, but intend to run it in the next session.

CONTACTS
To make contact with officers of the society, please use the addresses given here.
This information is also available on the contacts page of the website at:
www.liverpoolgeologicalsociety.org
and also at:
lgs.website.

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