

Tuesday, 3rd September 2013: 7.15pm

THE SCANNING ELECTRON MICROSCOPE. An evening visit to University of Northampton, Institute for Creative Leather Technologies (ICLT). Led by Laboratory Manager, Tanya Hayes. (Important, numbers are limited, so please let us know beforehand if you want to attend). Park in the student car park and meet outside the Senate building, Park Campus, Boughton Green Road at 7.15pm prompt.

Tuesday, 17th September 2013: 7.30pm

GOOD HOUSEKEEPING Meeting led by Mike Asquith & Mike Gibson. An opportunity to do some microscope maintenance and get your microscope checked over by our experts. Paul Wheatley of Lightscope Services may be available to lend an expert hand. Learn how to clean and adjust your microscope and keep it in good working order.

Tuesday, 1st October 2013: 7.30pm

USE OF PHOTOSHOP FOR IMAGE PRESENTATION by Mike Asquith. How to use Photoshop and Photoshop Elements to 'tidy up' and enhance your images, including the calculation of scale bars and how to add them to the image. (new date)

Tuesday, 15th October 2013: Time TBA.

OUTSIDE VISIT TO THE MICROSCOPY UNIT AT UNILEVER, Colworth House, nr Bedford. See state of the art scanning and transmission Electron Microscopes and confocal light microscopy in an industrial research setting – Late afternoon meeting. Details to follow, but it is important to let us know if you want to attend by the 17th September microscopy meeting, where location and time details will be confirmed. (new date)

Tuesday, 5th November 2013: 7.30pm

"REMEMBER, REMEMBER..." THE MICROSCOPY OF FIREWORKS & GUNPOWDER: This meeting will go with a bang (if you're not careful!) Led by Mike Asquith. Don't forget to bring a microscope – if it's a polarizing scope, so much the better. An opportunity to make your own sulphur melt slide for polarized light viewing.

Tuesday, 19th November 2013: 7.30pm

IN MEMORY OF FRANCIS CRICK : LOOKING AT CHROMOSOMES. Led by Mike Asquith & Mike Gibson. Francis Crick was born and educated in Northampton and, along with his father, was a member of this society before embarking on a career leading to the joint discovery of the structure of DNA. **Looking at Chromosomes:** Using root tip squashes to look for mitotic figures in dividing cells. Bring your compound microscope and an oil immersion lens if you have one, or alternatively use one of ours.

Tuesday, 3rd December 2013: 7.30pm

A VICTORIAN SLIDE EVENING by Mike Gibson. By popular demand, an illustrated talk with an opportunity to examine slides from the NNHS collection. (Optional: Victorian dress code for the occasion). This is a unique opportunity to see a selection of the more exotic, unusual and beautiful slides made by some of Britain's most renowned Victorian slide makers. Don't forget to bring your camera!

Tuesday, 17th December 2013: 7.30pm

CHEERS! THE MICROSCOPY OF BOOZE & RELATED SUBJECTS: Led by Mike Asquith. Microscopy of brewers' yeast (in action), hops, malted barley, residue from the

scrumpy flagon etc. Another chance to use compound microscopes with high power (x40) and oil immersion lenses.

Tuesday, 7th January 2014: 7.30pm

"RHEINBERG FILTRATION AND ASSOCIATED TECHNIQUES" by special guest speaker, Spike Walker. Spike is a professional consultant microscopist and the world's foremost exponent of Rheinberg illumination, a contrast-enhancing technique using coloured filters as patch stops. His stunning micrographs have won many awards, including BOTH Nikon Small Worlds and Olympus Bioscapes competitions, and recognition by the Royal Photographic and Microscopical Societies.

Tuesday, 21st January 2014: 7.30pm

MAKE YOUR OWN RHEINBERG FILTERS. Following on from the last meeting, we now have the chance to make our own Rheinberg filters using pieces of coloured acetate. This can be done on any microscope which has a sub-stage condenser and filter holder.

Tuesday, 4th February 2014: 7.30pm

"ALL FLESH IS GRASS" - AN INTRODUCTION TO THE STRUCTURE OF VASCULAR PLANTS: by Mike Gibson: **PART 1 - THE STEM.** A chance to look at some of the prepared slides in the NNHS collection. Examining in particular the structure and functions of internal plant tissues, such as the xylem and phloem.

Tuesday, 18th February 2014: 7.30pm

PRACTICAL TECHNIQUES FOR PREPARING PLANT MATERIAL FOR MICROSCOPY: This practical evening will include considerations of fixation, a process necessary before staining, dehydration, clearing and finally mounting the specimen to make a permanent slide preparation.

Tuesday, 4th March 2014: 7.30pm

AN INTRODUCTION TO THE STRUCTURE OF VASCULAR PLANTS: by Mike Asquith: **PART 2 - THE LEAF:** Its importance as the main site of photosynthesis and as a food source. A chance to look at a selection of prepared microscope slides of leaves from the NNHS's large collection.

Tuesday, 18th March 2014: 7.30pm

Following on from the previous meeting, a practical examinations of fresh **LEAVES UNDER THE MICROSCOPE.** Bring a selection of leaves. We will prepare them and study their structure and constituent parts under the microscope. Bring low and high power microscopes if you have them.

Tuesday, 1st April 2014: 7.30pm

AN INTRODUCTION TO THE STRUCTURE OF VASCULAR PLANTS: by Mike Asquith: **PART 3 – FLOWERS AND FRUITS.** The reproductive parts of plants contain complex and interesting structures. A chance to look at a selection of prepared microscope slides of Flowers and Fruits from the NNHS's extensive collection.

Tuesday, 15th April 2014: 7.30pm

PRACTICAL EXAMINATIONS OF FRESH FLOWERS AND FRUITS. Following on from the previous meeting, a practical examinations of flowers and fruit under the microscope. Bring a selection of flowers and fruits; we will prepare them and study their structure and various parts under the microscope.

Tuesday, 6th May 2014: 7.30pm

"AN INORDINATE FONDNESS FOR BEETLES" – an illustrated talk by Tim Newton. Tim joins us with a lifetime's experience of work as an amateur and semi-professional Coleopterist. A chance to view some of Tim's amazing collections by eye, and with a microscope, and gain insights into how he goes about collecting, mounting, identifying and preserving beetles of all shapes and sizes.

Tuesday, 20th May 2014: 7.30pm

A PRACTICAL FOLLOW-UP SESSION ON BEETLES – bring your own beetle(s), Tim will explain how to kill them. We will then look at them under a variety of microscopes. Please bring a low power stereo microscope if you have one.

Tuesday, 3rd June 2014: 7.30pm

LOOKING AT BLOOD & BODY PARTS: an illustrated talk by Mike Gibson. Followed by practical activity – bring your own body parts! Amongst other things, you will be shown how to make a blood smear and look at stained blood cells under the microscope using high power and oil immersion lenses. (N.B. No human or animal will be harmed during the evening!)

Sunday, 22nd June 2014: 10.00am -4.00pm

THE ANNUAL EXHIBITION OF MICROSCOPY, Open Day (10am until 4.00pm) A great opportunity to purchase new or second-hand microscopes, slides, books, accessories, and equipment at realistic and affordable prices, and to meet with enthusiasts and experts from other societies all over the country. In the afternoon there will be demonstrations and short talks from our own members and visiting guest lecturers. Important: if you want to book a table either for demonstrations or sales, please email Mike Gibson at stmarysmrg@yahoo.com.

Tuesday, 1st July 2014: 7.30pm

STITCHING & STACKING IMAGES by Mike Asquith. An illustrated talk followed by practical activities. Mike will tell us about the software available (Freeware), and how it can be used to stitch together multiple digital images to create one larger image that is in focus throughout. Techniques are also applicable to general photography subjects.

Tuesday, 15th July 2014: 7.30pm

"PHOTOMICROGRAPHY IN THE RAW" – models included. Led by Mike Asquith and Mike Gibson. Bring your camera and memory stick, everything else provided. More processing techniques using RAW images as the starting point.

Tuesday, 5th August 2014: 7.30pm

DISSECTING OWL PELLETS – once again by popular demand, a practical session. Bring your own low power stereo microscope if you have one. Owl pellets will be provided. Led by Mike Gibson

Tuesday, 19th August 2014: 7.30pm

LIFE IN YOUR POND A practical session led by Mike Gibson. Bring your own samples plus microscope if you have one. Help will be on hand to identify specimens.. Various examples of both microscopic plants and animals will be identified and observed. Advice on collection equipment, biofilm sampling and culturing techniques will also feature as part of this evening's activities, and members will also be able to take samples home for further investigation.