

Leicester Literary and Philosophical Society, Natural History Section

Minutes of meeting held in the New Walk Museum on Wednesday, 16th October, 2019 from 7.00. until 9.30pm. c.25 members and 1 guest.

The meeting was chaired by Hazel Graves.

Hazel thanked Pourn Khodabakhsh for her work on the latest Newsletter. Further ideas about the section's display boards and help with the presentations were requested.

Apologies had been received from Jim and Raita Hayes and John and Sheila Tinning.

Our next meeting, and those of our Parent Body and the Geological Section were trailed.

Exhibits were:

- Mined Plane, *Platanus x hispanica*, leaves. This species of miner seems to be moving north.
- A photograph of a Hornwort, *Anthoceros agrestis*, found during the British Bryological Society AGM in stubble fields at Warren Hills. This is the first record in VC55 since 1914.

Sighting:

Three bats seen by Jenny Harris on her drive in to the meeting.

The evening's main business was **'Plant stories from around the world'**, by Richard Gornall. He was introduced by Hazel:

Dr Richard Gornall, Senior Lecturer, Department of Genetics and Genome Biology at the University of Leicester and Director of the Botanic Garden; Curator of the Herbarium (since 1999). After Reading Botany at St Andrews University Richard gained a PhD on Saxifrage Taxonomy in 1980 from University of British Columbia. I gather he is now one, if not, the world's experts on Saxifrages. His research interests currently include: plant taxonomy, systematics and evolution, with a focus on:

- taxonomic and biosystematic studies of the Saxifragaceae, using morphological, anatomical and molecular data;
- floristic accounts for various genera of the Saxifragaceae for the Flora of North America, Flora of China and Flora of Nepal. Currently writing an account of Saxifraga for the Flora of the Pan-Himalaya
- studies of gene flow, genetic diversity and evolution in aquatic plants (esp. Potamogeton and Callitriche)
- Richard started the highly successful Plant Identification Courses in 2009 with the cooperation of a newly formed local BSBI group. This gave many mature students qualifications in plant ID which has given them the confidence and skills to enable them to take up many volunteer roles in VC 55 Botany especially and also across the UK. VC55 Botany is now on a firm footing. Quite a few of these students are members of our Lit & Phil Natural History Section and I am sure they are all, as I am, very grateful for Richard having set that course up. I did it as "Training for retirement" and it the most important influence on the last few years of my life.
- In 2017 Richard along with Anna Farrell as Research Assistant, began the establishment of a local seedbank (Genebank55) for the conservation of Leicestershire and Rutland's rare and scarce vascular plants.
- And he and Anna are currently also involved in a programme of updating the curation of the Botanic Garden and Arboretum, including surveying, identifying unlabelled specimens, and updating the records and refurbishment.

Richard had chosen 12 plants with connections to Leicester for the talk:

- English Oak, *Quercus robur*. The Spanish race has populated these islands since the last Ice Age. Many of those planted in the National Forest may be from central European stock.
- Saffron, *Crocus sativus*. All populations have the same DNA, so variations in quality are not due to different races.
- Aloe Vera. Now established as originating from Arabia. Very difficult to establish its claimed benefits scientifically.
- Bodhi Tree, *Ficus religiosa*. Strong Buddhist associations. There is a plant growing in our Botanic Garden whose origin can be traced back directly to the plant under which Budha attained enlightenment. It is the species with the oldest documented history.
- Ginkgo. Once palearctic. Known from 100 million year old fossils. Never plant females – the fruits are malodorous.
- Japanese Knotweed, *Reynoutria japonica*. An invasive alien here, but all plants are female. It could be claimed as the biggest female in the world. Biological control being tried.
- Burbidge's Pitcher-plant, *Nepenthes raja*. Grew only on Mount Kinabala in Borneo. Burbidge, the western discoverer, was born in Wymeswold. It attracts and digests mostly insects, but small birds and birds have been caught.
- Wollemi Pine, *Wollemia nobilis*. A major conservation success. Discovered by science in 1994 as a population of less than a hundred just north of Sydney. Now distributed throughout the world.
- Gloriosa Lily, *Gloriosa superba*. Many medicinal uses but highly poisonous.
- Magellan Strait Fuchsia, *Fuchsia magellanica*. Provides the hardiness to all modern hardy hybrids.
- Cactus family, *Cactaceae*. Almost all species are from the New World. They have leafy ancestors but are morphologically adapted for hot, dry climates. They have also evolved a different method of photosynthesis, opening their pores to admit carbon dioxide only at night and storing it for daytime processing.
- Bristlecone Pine, *three species of Pinus*. Some are thought to be five thousand years old. Our Botanic Garden has the biggest specimen in Britain.

Hazel thanked Richard.