

Jo Middleton
Acarology Summer Program, Ohio, USA

Thanks to a £500 Travel Grant from the RSB I flew to Ohio in June 2015 for a course on the taxonomy of mites and ticks (the Acari) and the lab techniques required to study them.



Acarines are diverse, usually very small and often surprisingly beautiful Images: OSU Acarology Lab

The Acari is a hyperdiverse subclass of the Arachnida with over 50,000 species named so far from a total that could reach towards one million. Acarines live in myriad terrestrial and aquatic habitats, have a wide range of behaviour and are involved in important processes such as soil formation and disease transmission. However as a taxon they remain relatively understudied¹.

My postgraduate research and work both concern medical acarology, specifically Lyme borreliosis (transmitted by *Ixodes* ticks) and scabies (an infestation of the mite *Sarcoptes scabiei*). I felt it important that I broaden my acarological knowledge and develop my ability to key out species and so was excited when I found out about the Acarology Summer Programme. These courses have been running for 60 years and are based at Ohio State University which boasts a collection of around 134,000 acarine specimens².

The General Acarology course was an intensive six days, averaging 10 hours a day of training in identification, systematics and biology. As well as learning to key out species accurately (often literally counting hairs on the microscopic leg section of mites) I learned new techniques for field collection, mite dissection and specimen preservation. Like me most participants had come from outside the USA to access skills and knowledge not taught in their own countries.

My intention is to develop a research career focused on acarines and attendance on the course was an important stage in my professional development. It broadened my knowledge base, gave me skills invaluable for my present work and will support my future plans. As an AMRSB the course also contributed towards the CPD required for progression to MRSB.

I am very grateful for the Travel Grant from the RSB that enabled me to attend this training. There are no courses on acarology in the UK and the cost of travel, accommodation and registration was around £1000.

Jo Middleton is an ecology MRes student and research assistant working at Brighton & Sussex Medical School. They have an active interest in medical acarology and the relationships between human and ecosystem health. Find out more on Twitter @MedVetAcarology and online acarology.info

References/further reading

1) Walter DE and Proctor HC. *Mites: Ecology, Evolution and Behaviour*. 2nd edition. Dordrecht: Springer, 2013. 2) OSU Acarology Collection: acarology.osu.edu/collection 3) WHO NTDs: www.who.int/neglected_diseases/diseases/scabies/en/ 4) RSB Travel Grants: www.rsb.org.uk/travelgrants