

STATEMENT OF INTENT

Key Identification Features of some British Spiders, as seen using a Scanning Electron Microscope

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Since first seeing a Scanning Electron Microscope (SEM) at the age of 19, I had always wanted to own one. Many years later I finally have my own home laboratory, complete with SEM and preparation equipment. I have also long been fascinated by spiders and the unique shapes of the male and female sexual organs between species, as revealed under the stereo light microscope. Viewing these, and other key features of spiders, under the SEM, with its much higher resolution and depth of field, adds a whole new layer of interest and beauty to this study.

The first row of the panel shows the arrangement of the eyes and chelicerae (jaws) of various families of spider. The second row illustrates the shapes of the male sexual organs of five species, while the bottom row illustrates some female sexual organs. Preparation, imaging and post-processing have all been carried out by myself.

150 Words (excluding title and author's name)

Technical details and identifications are provided separately.