

This document provides information on how data for the dissertation named **‘Palaeovegetation Records from Phytoliths’** by Greta Micallef was tabulated and analysed.

The excel file, named ‘BIO3110 MICALLEF_Greta Data’ contains **8 sheets**, detailing how two soil samples, 25 and 17, were analysed in terms of their phytolith content.

Sheets 1 and 5, named ‘Sample 25 Counts’ and ‘Sample 17 Counts’ respectively, show the number of phytoliths found per slide for each soil sample. Columns highlighted in yellow are the slide numbers, which are named after the stratigraphic layer they correspond to. For sample 25, stratigraphic layers are A-H, with H being the topmost layer and A being the bottommost layer. Each layer has two slides, thus 25A1 and 25A2 etc. For sample 17, stratigraphic layers are A-F, with A being the topmost layer and F being the bottommost layer. Once again, 2 slides have been produced for each layer, thus 17A1B and 17A2B.

These columns are made up of rows of images taken from the slide when viewed under a light microscope that was equipped with a polariser and an analyser, at a magnification of x400. These images encompass the total area of the slide. Most of these images were taken into consideration, from which the number of phytoliths present in view were counted, in order to calculate the average number of phytoliths on the whole slide (value highlighted in orange) and the standard deviation, SD, (value highlighted in blue). Images which were too densely populated to make out distinct individual phytoliths were listed as ‘250+’, and the value taken for average and SD calculation was 250 (under columns named ‘Additional Notes’).

Sheets 2 and 6, named ‘Sample 25 Forms’ and ‘Sample 17 Forms’ respectively, show the different phytolith forms found per stratigraphic layer. Each form’s appearance in the total number of images taken per slide is counted, in the column named ‘No. of Occurrences’, and highlighted in green. This column’s header also shows the total number of images taken per slide.

Sheets 3 and 7, named ‘Sample 25 Long’ and ‘Sample 17 Long’ respectively, show the phytolith forms present in all stratigraphic layers of the two soil samples, with the percentage abundance calculated from their overall abundance in the images taken (data from sheets 2 and 6).

Sheets 4 and 8, named ‘Sample 25 Different Forms’ and ‘Sample 17 Different Forms’ respectively, list all the different phytolith forms found in the two soil samples, as a final summary.