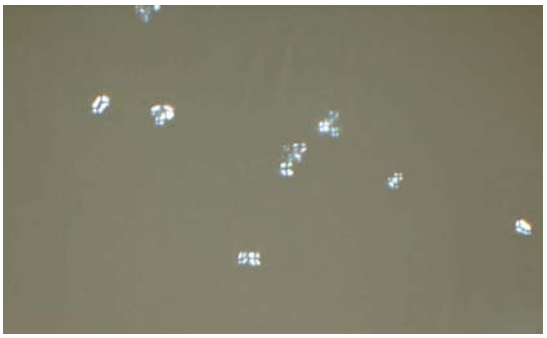
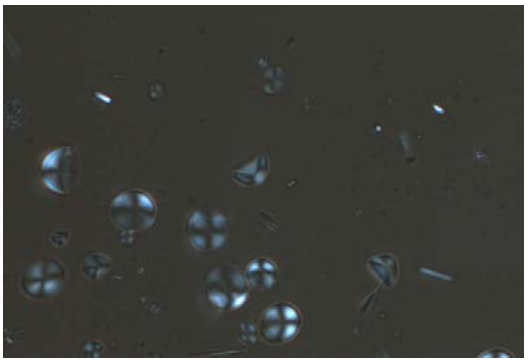
Appendix V: Modern reference starches, followed by modern phytolith and calcium oxalate references.

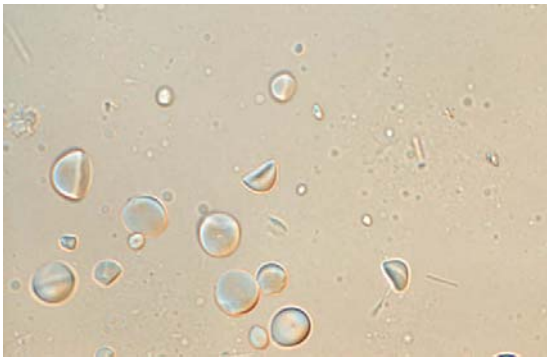


Acorus calamus, polarised, x600.

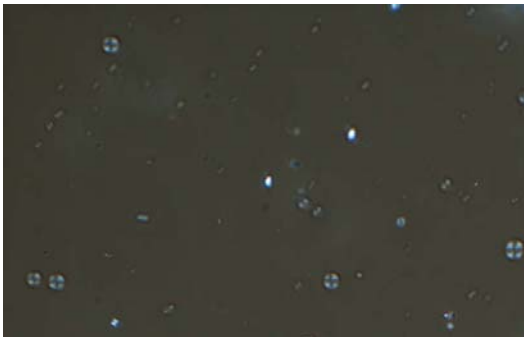
Acorus calamus, brightfield, x600.



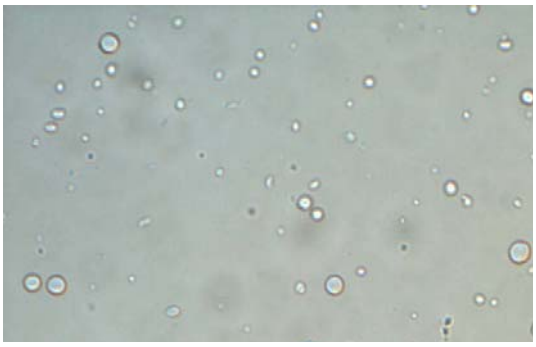
Arum maculatum, polarised, x600.



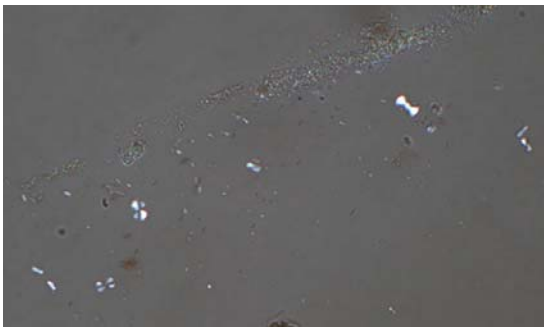
Arum maculatum, brightfield, x600.



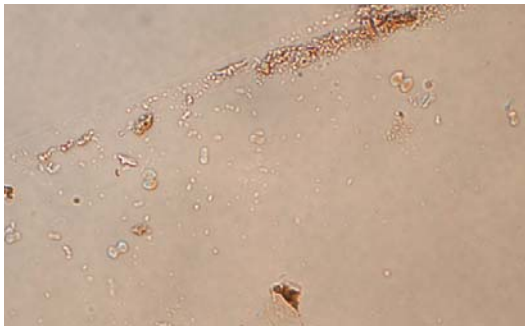
Fagus sp., polarised, x600.



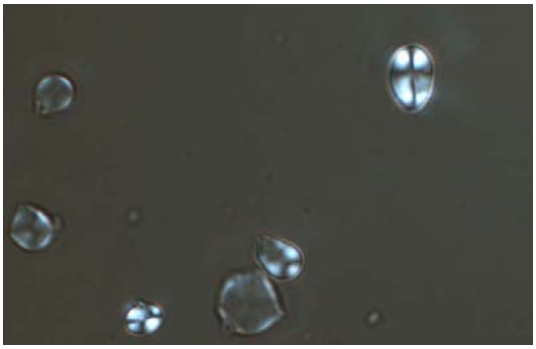
Fagus sp., brightfield, x600.



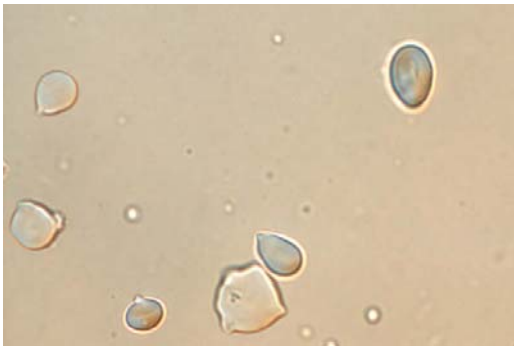
Quercus sp., polarised, x600.



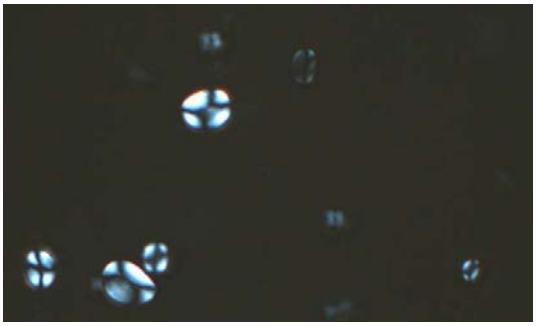
Quercus sp., brightfield, x600.



Cyperus longus, polarised, x600.

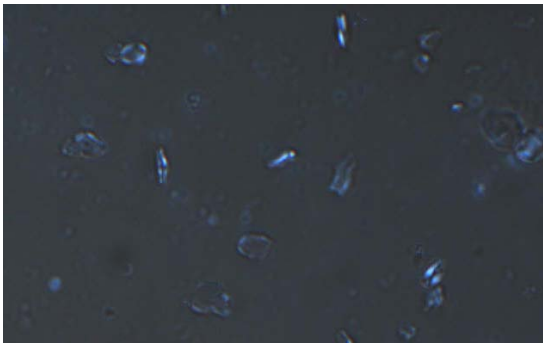


Cyperus longus, brightfield, x600.

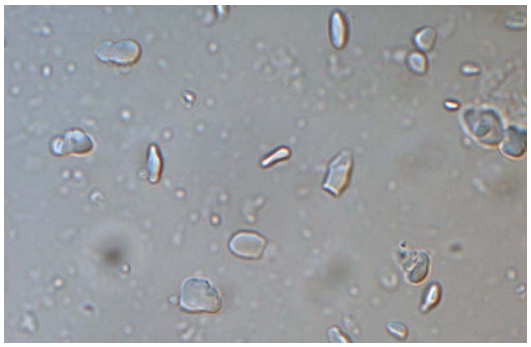


Triticum monococcum, polarised, x600.

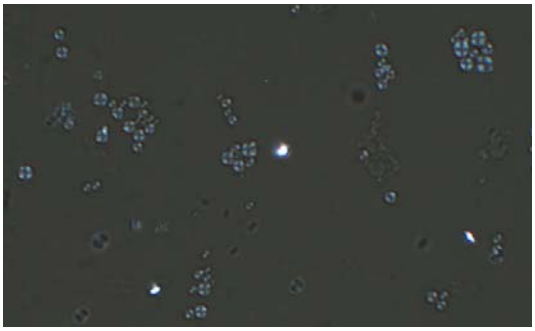
Triticum monococcum, brightfield, x600.



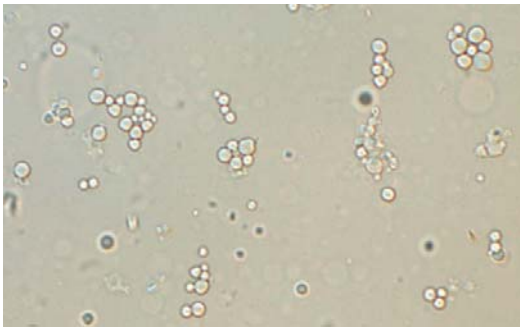
Pteridium sp., polarised, x600.



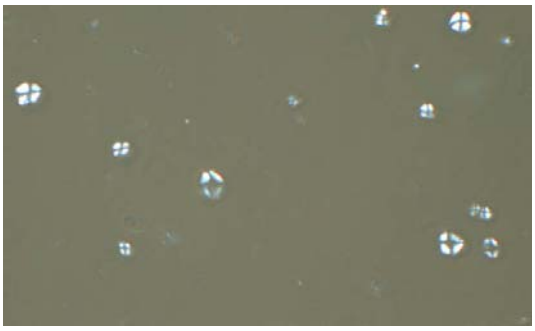
Pteridium sp., brightfield, x600.



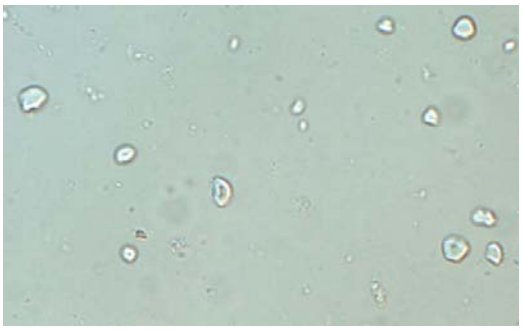
Corylus avellana, polarised, x600.



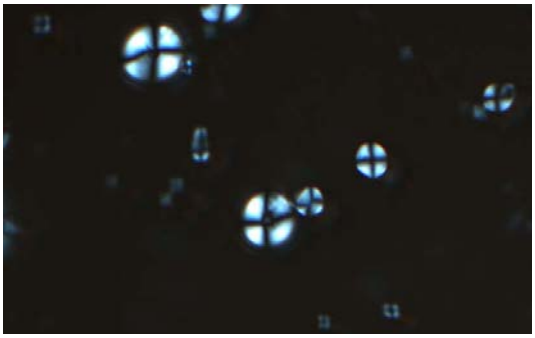
Corylus avellana, brightfield, x600.



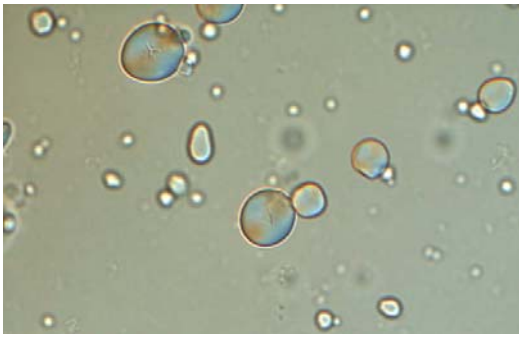
Filipendula ulmaria, polarised, x600.



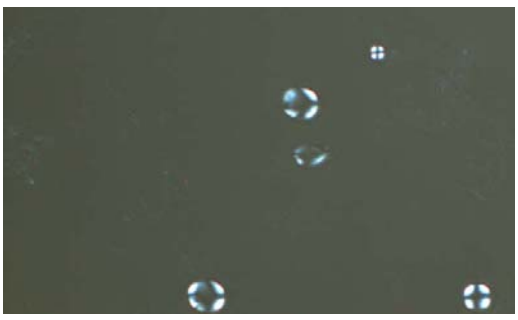
Filipendula ulmaria, brightfield, x600.



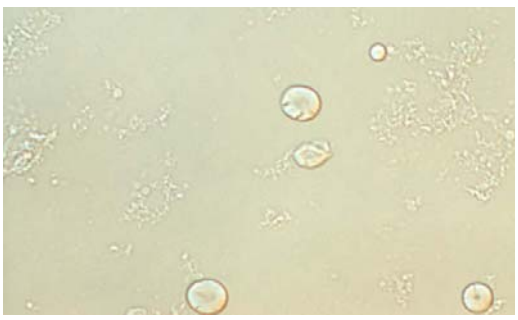
Typha latifolia, polarised, x600.



Typha latifolia, brightfield, x600.

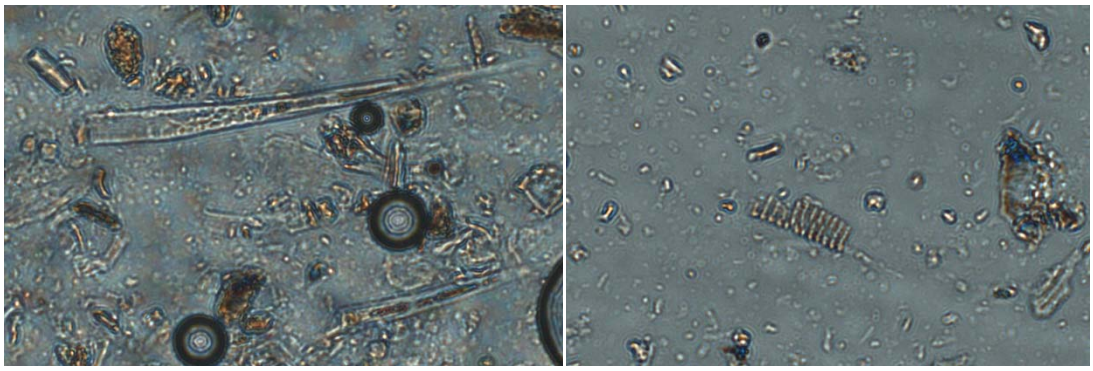


Armoracia rusticana, polarised, x600.

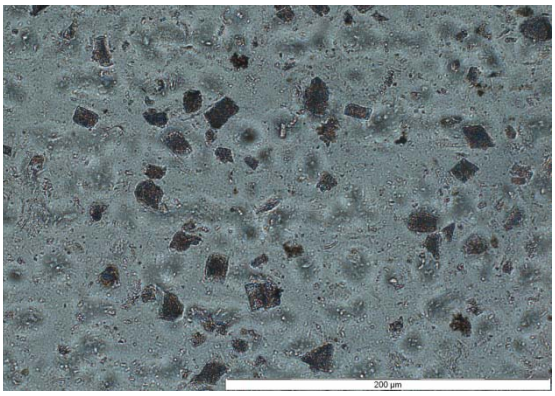


Armoracia rusticana, brightfield, x600.

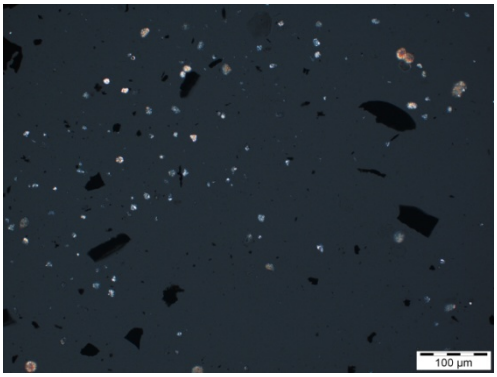
Images of modern phytolith and calcium oxalate references



Nettle (*Urtica dioica*), hair cell phytoliths (left), x200. Tracheid (right), x200.

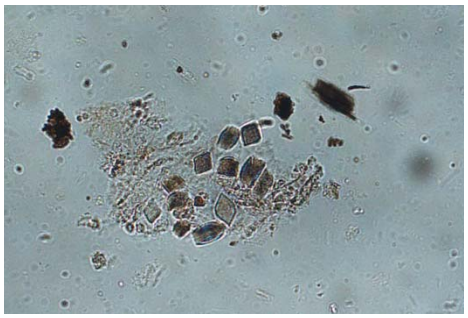


Rowan berries, (*Sorbus aucuparis*), calcium oxalate styloids.

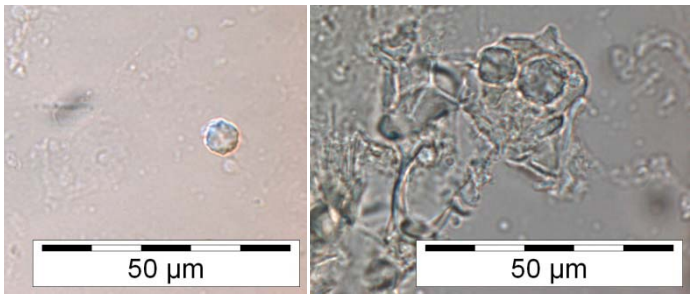


Sloe fruit, (*Prunus spinosa*), calcium oxalate styloids, x200.

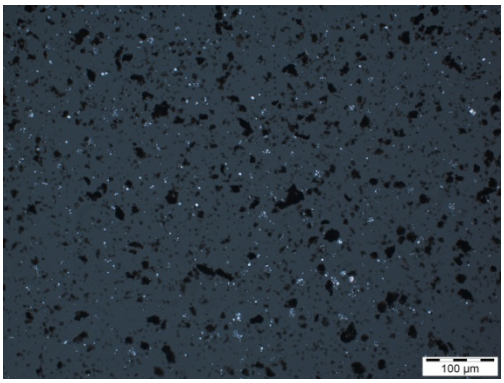
Meadowsweet flowers, (*Filipendula ulmaria*), hair cells, x200.



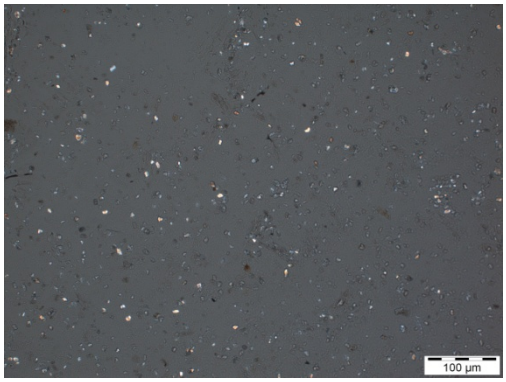
Meadowsweet seeds, (*Filipendula ulmaria*), calcium oxalate styloids, x600.



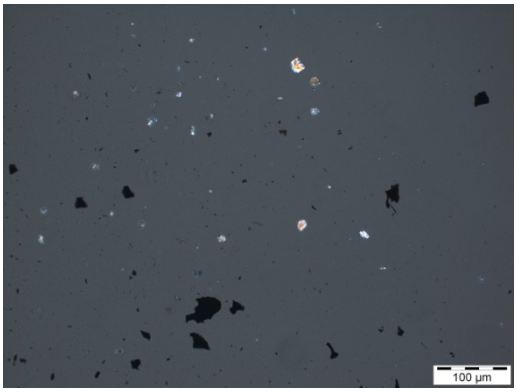
Garlic mustard seed, (*Alliaria petiolata*), ‘globular sinuate’ phytoliths.



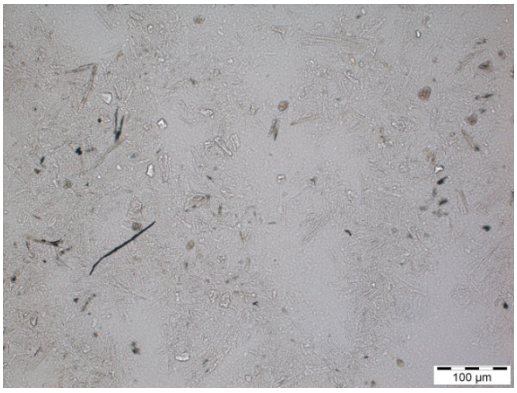
Blackberry fruit, (*Rubus fruticosus*), calcium oxalate crystal sand.



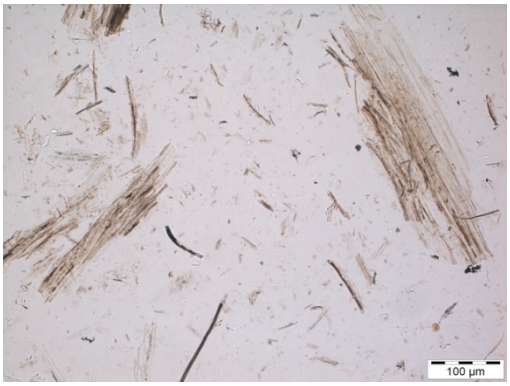
Clover flower (*Trifolium repens*), calcium oxalate crystal sand.



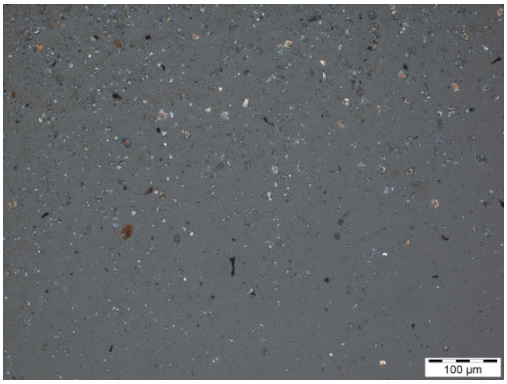
Crab apple (*Malus sylvestris*), minor occurrence of calcium oxalate styloids.



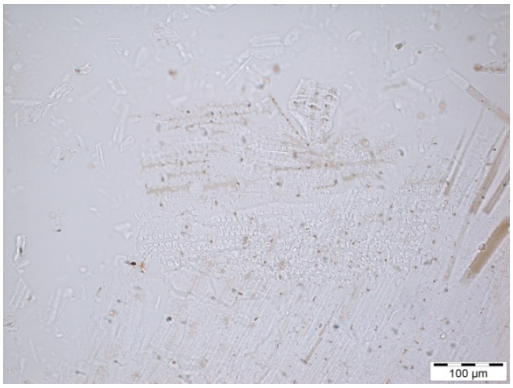
Dandelion flower (*Taraxacum officinale*), silica content of undifferentiated silica sheets.



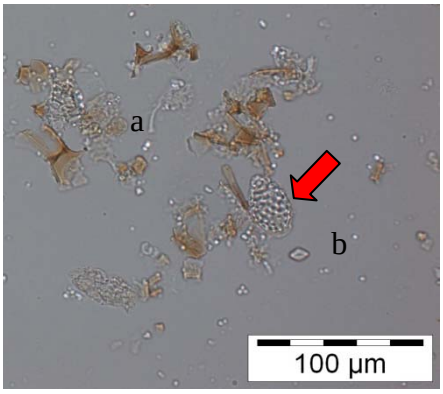
Dandelion leaf (*Taraxacum officinale*), silica content of undifferentiated sheets.



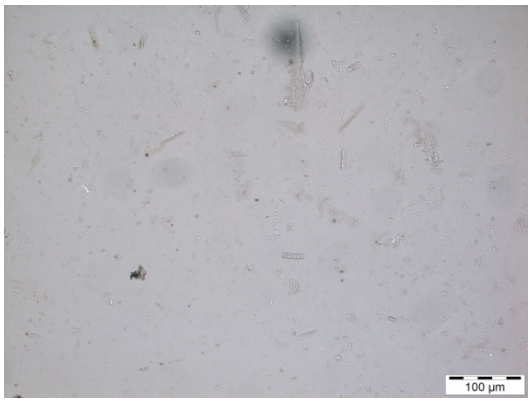
Dog rose leaf (*Rosa canina*), small calcium oxalate styloids are present.



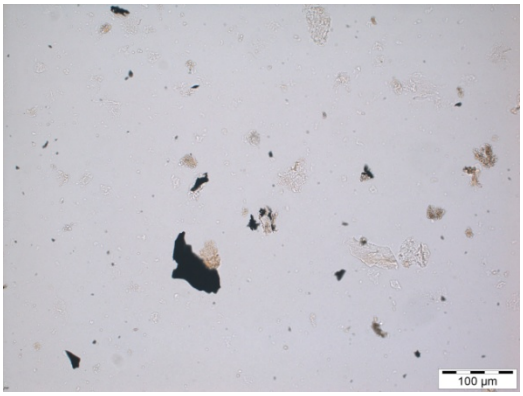
Wheat chaff (*Triticum dicoccum*), high long cell silica content.



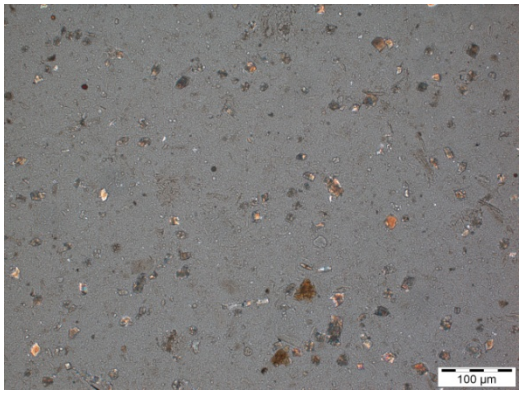
Fennel seed (*Foeniculum vulgare*), silica content is mostly undifferentiated silica sheets (a), but with a minor content of 'ovate granulate' phytoliths: egg-shaped bodies with granular protuberances (b, with arrow).



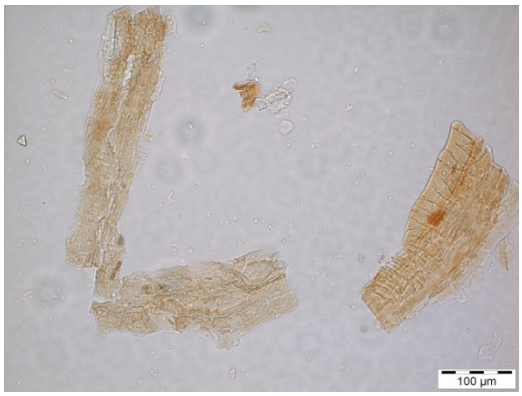
Greater plantain (*Plantago major*), silica content is composed of undifferentiated silica sheets.



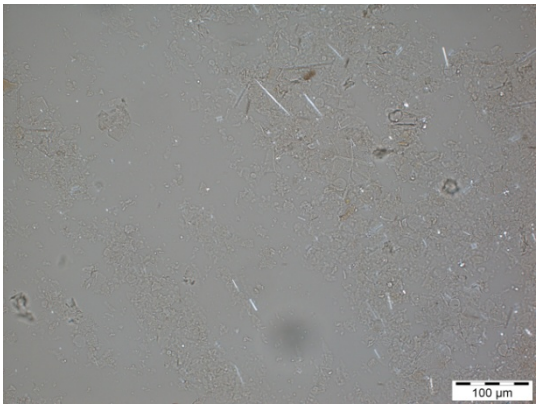
Hawthorn berry (*Cratageus monogyana*), only a minor silica content of undifferentiated silicified epidermis sheets.



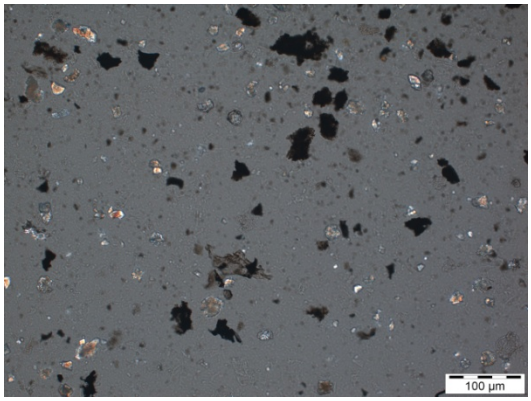
Hawthorn leaf (*Cratageus monogyana*), trapezoidal calcium oxalate styloids.



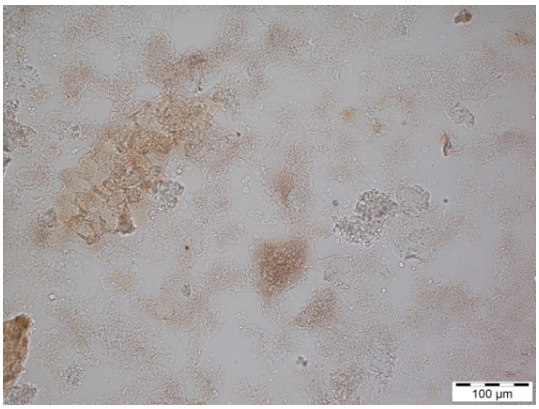
Lovage seed (*Levisticum officinale*), silica content is made up of undifferentiated silicified epidermal sheets.



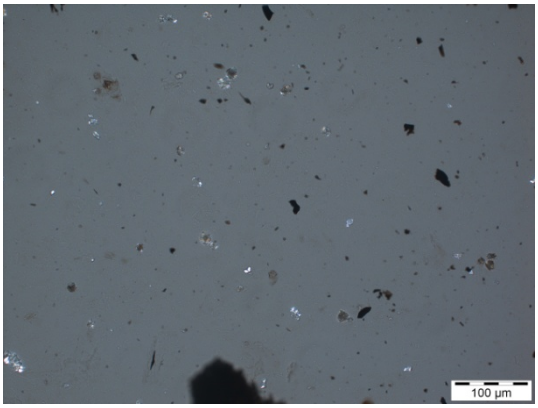
Rosebay willowherb (*Epilobium angustifolium*), Silica content is made up of undifferentiated silicified epidermis, but twith a high content of calcium oxalate raphides.



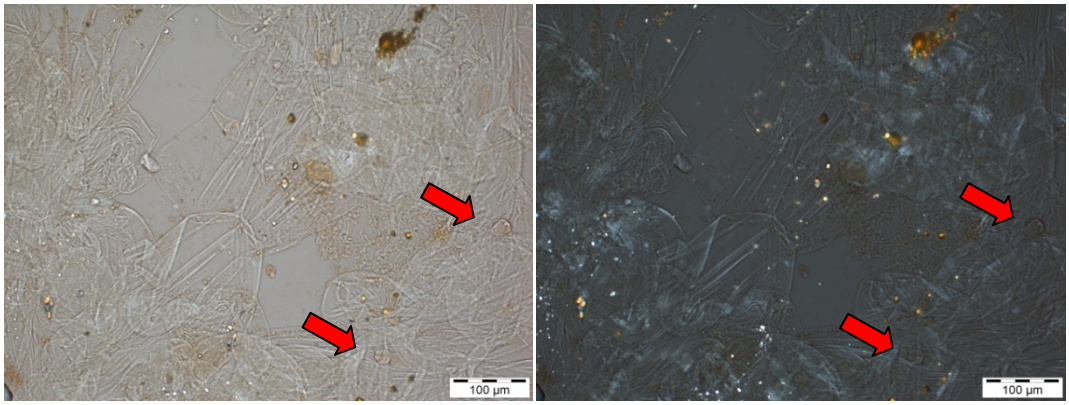
Dog rose fruit (*Rosa canina*), minimal silica content, but a high concentration of calcium oxalate styloids.



Sorrel seed (*Rumex acetosa*), silica content is composed of silicified epidermis sheets.



Strawberry fruit (*Fragaria vesca*), contains a minor content of small calcium oxalate styloids.



Waterlily root (*Nuphar lutea*), phytoliths in waterlily root are indicated by arrows in the brightfield and polarised images above. There is also a content of calcium oxalate crystal sand in the root.