

Manchester Microscopical & Natural History Society

Established 1880 (142nd Year)



What's in the box ?

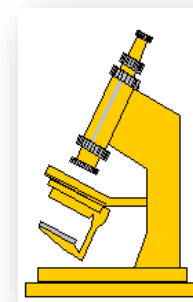


Mike Mahon

17th March, 2022



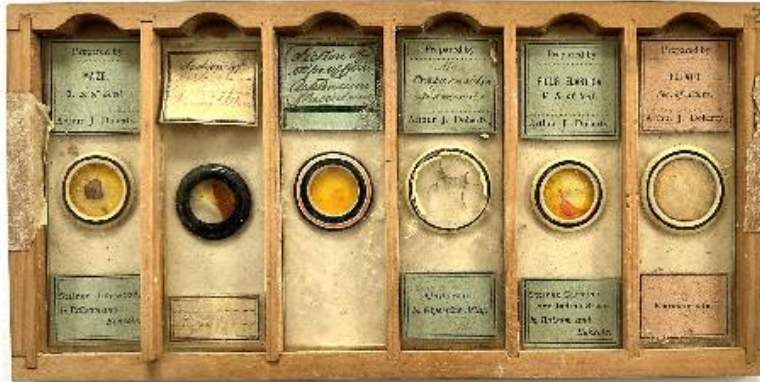
Internet: www.manchestermicroscopical.org.uk





- MMS purchased a set of 60 microscope slides in June 2021 (£130) from David Bullock (Northwich via Keele)
- Historical value to MMS
- Arthur John Doherty (1860-1906) Slide preparer, MMS 1881, (28+ slides) College Microscopical Depot 1884, Prizes Paris 1887





Catalogue (MM 2021)

Doherty slide set			Manchester Microscopical Society	m=60	*June 2021	Editor Mike Mohan	
Trey	Slide	Preparer	Content	Stain	Comments	Images Whole HP	
1	1	Arthur J. Doherty	EQUISETUM ARVENSE	T.S. of Aerial stem	Carmine in Balsam and Benzole	Good	
	2	Arthur J. Doherty	RUBUS FRUTICOSUS	T.S. of Root	Carmine and Iodine Green in Balsam and Benzole	Good	
	3	Arthur J. Doherty	DAUCUS CAROTA	T.S. of Petiole	Carmine and Iodine Green in Balsam and Benzole	Good	
	4	?	? Section of Wood	?paffier	?	Good	
	5	Arthur J. Doherty	RHODOGONDRON PONTICUM	T.S. of Petiole	Carmine in Balsam and Benzole	Good	
	6	Arthur J. Doherty	RETICULATED SEEDS OF POPPY		Mount for Stereo reflected light		
2	1	Arthur J. Doherty	MAIZE	T.S. of Seed	Logwood in Balsam and Benzole	Good	
	2	?	Section of ? Cartilage (Young Man)			poor	
	3	?	Section of Stipe of Fern (Asplenium Secundum)				
	4	Arthur J. Doherty	Alga Desmarestia glomerata		Unstained in glycerine jelly	?	
	5	Arthur J. Doherty	FICUS ELASTICA	V.S. of Leaf	Carmine and Iodine Green in Balsam and Benzole	Good	
3	1	Arthur J. Doherty	POTATO	Sec. of Tuber	Starch in situ	?	
	1	Cole 1867	Row of Lufuit	Hor. Section	Prize Medal Paris 1867	Good	
	2	Dec 1884	Brownian Movement	Gamboge + Water		?	
	3	No Slide X					
	4	Fred Enoch	Tenacora reticulata (Insect)	? Marsh Fly Paraboloid			
	5	Arthur J. Doherty	Borago xylenica		To show hairs on leaf - stereo, reflected light	?	
4	6	Cole 1867	Ovary of Poppy	Trans. Section stained Logwood, Canad balsam, 12/14	Prize Medal Paris 1867	?	
	1	?	Section Stem of Rose Canina		Stained	?	
	2	Arthur J. Doherty	DUCODENUM OF CAT	Tr. Sec.	Injected and stained	Good	
	3	Arthur J. Doherty	Winter Bud of Ash	Lg. Section	Carmine and Iodine Green in Balsam and Benzole	Good	
	4	Arthur J. Doherty	PINUS SYLVESTRIS	T.S. of Leaf	Carmine and Iodine Green in Balsam and Benzole	?	
	5	?	Bay Leaved Willow			Good	
	6	?	Nymphs of Lotus	Transverse section of Stem		?	
	5	1	CVS	Long section of seed of Wheat		Stained	Good
		2	Arthur J. Doherty	TARAXACUM OFFICINALE	T.S. of Root	Logwood in Balsam and Benzole	Good
		3	Arthur J. Doherty	Philumia globulifera	T.S. sporecapo	Unstained in Balsam and Benzole	Good
4		CVS	Silicous Cuticle of Flye		Polariscope 1 inch	?	
5		Arthur J. Doherty	Ovary of Tulip	Transverse section	Carmine in Balsam and Benzole	Good	
6		CVS	ANGIOSPERMIA Fam Umbelliferae Hemlock	Tr Sect of Fruit	Stained	?	
6	1	Arthur J. Doherty	Silicified wood Kauri Pine Macquarie Plains Tasmania			?	
	2	CVS	Aluminae Grains in section of Endosperm of Ricinus communis		Sachs Botany Fig 50	?	
	3	X No Slide X					
	4	X No Slide X					
	5	X No Slide X					
	6	X No Slide X					
7	1	X No Slide X					
	2	X No Slide X					
	3	Arthur J. Doherty	Elaeagnus Setivus	To show stellate hairs	For Stereo reflected light	?	
	4	Arthur J. Doherty	Glechard officinale	Scales and spores	For Stereo reflected light	?	
	5	Arthur J. Doherty	ELAEAGNUS MACROPHYLLA	To show stellate hairs		?	
	6	7 L or F ES	Clematis vitalba	T. section	Double stained	Good	
8	1	?	Tous les mots starch			?	
	2	?	Pollen of Ailanthus?		For Stereo reflected light		
	3	?	Vert. Section of H..... ?				
	4	Arthur J. Doherty	RUBUS FRUTICOSUS	T.S of Stem	Carmine and Iodine Green in Balsam and Benzole	Good	
	5	X No Slide X					
	6	X No Slide X					

A.J. Doherty (Brian Stevenson 2012)

Arthur John Doherty, 1860 – 1906

by Brian Stevenson, Kentucky, USA

Plant Double staining (Rothrock 1879)

THE UNIVERSITY OF CHICAGO PRESS JOURNALS

Staining and Double Staining of Vegetable Tissues
Author(s): Z. T. Rothrock
Source: Botanical Gazette, Sep., 1879, Vol. 4, No. 9 (Sep., 1879), pp. 201-206
Published by: The University of Chicago Press
Stable URL: <https://www.jstor.org/stable/2991176>

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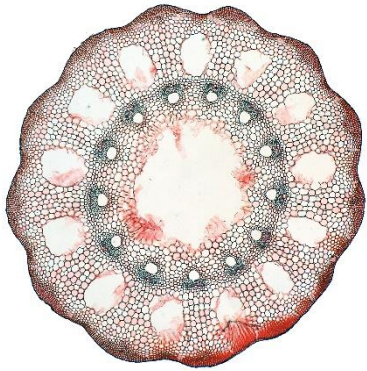
A professional microscope slide maker, Arthur J. Doherty opened the College Microscopical Depot in Manchester, England in approximately 1884. The shop was adjacent to Victoria University (now the University of Manchester), where he likely did good business with the students. Doherty began making slides while in his teens, opening the business while in his early twenties. He continued slide making and selling until about 1900. Doherty mounted a wide variety of specimens, animal, vegetable and mineral. His slides are generally of very high quality, both in specimen preparation and finish (Figure 1). Doherty also wrote authoritatively on aspects of specimen preparation and slide making, including injecting animals and tissues with dyes. His widely-cited protocol for double-staining plant tissues is reproduced at the end of this essay.



Figure 1. Representative microscope slides produced by Arthur J. Doherty. He mounted a wide range of materials. Illustrated specimens include human histology, a sectioned sea urchin spine, plant sections and polycistina.

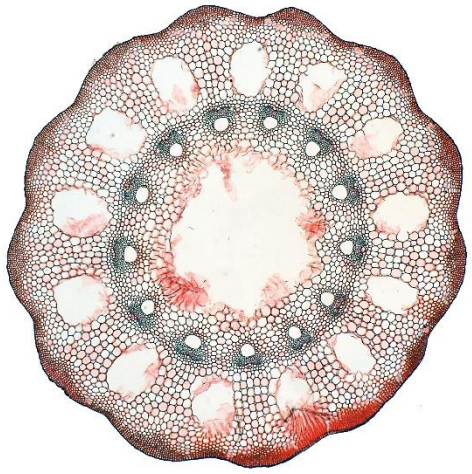
Arthur John Doherty was born during July, 1860, in Chorlton on Medlock (now part of Manchester), Lancashire, England. He was the second child, and eldest son, of Joseph and Mary Doherty Arthur did not marry until late in life, and appears to have lived with his parents for much of their lives. The 1895 Slater's Manchester and Salford Directory recorded that father Joseph operated a tailoring business from the same location as Arthur's microscopy shop.

The Doherty family lived at 26 Leamington Street from at least 1871 until the early 1880s. The 1881 census reported that Arthur worked as a "shorthand writer".

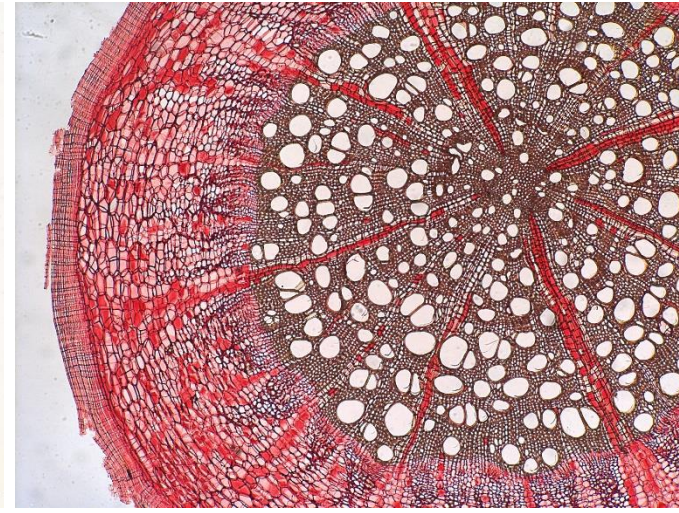
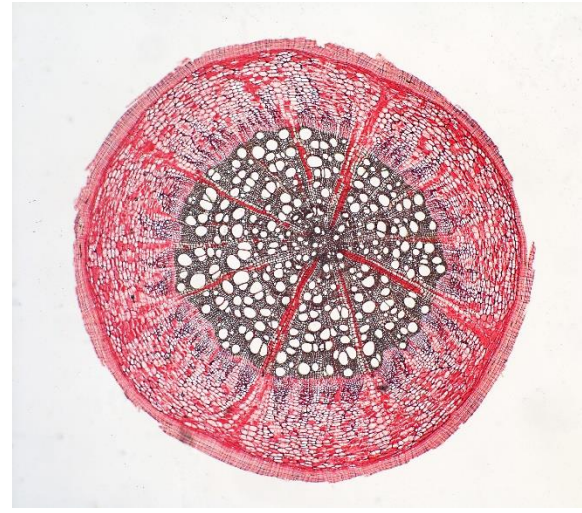


- Photomicrography (MM)
- Olympus BH2
- x1, x2, x4, x10
- Jenoptik 5mp camera
- Edited with Adobe Photoshop
- + a few stereomicroscope images





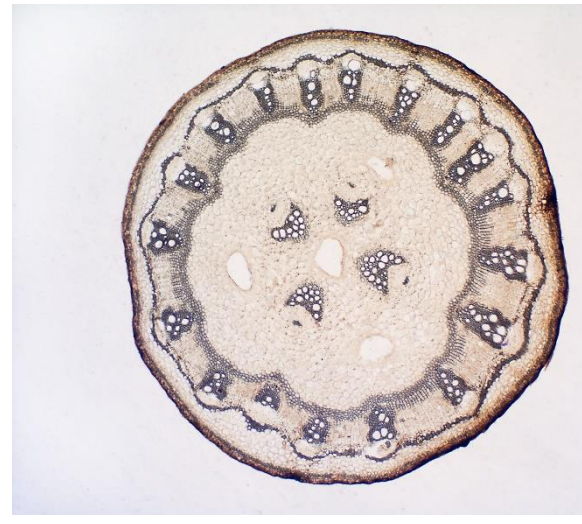
1.1 *Equisetum arvense*, TS stem, (Carmines) Doherty
Horsetail



1.2 *Rubus fruticosus*, TS root, (Carmines & Iodine Green) Doherty
Blackberry



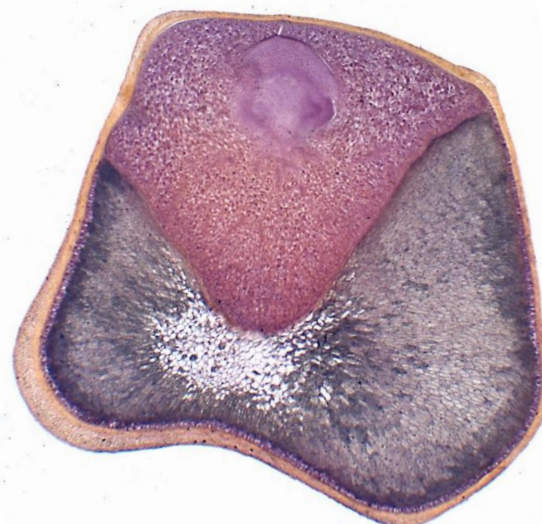
1.3 *Daucus carota*, TS petiole, (Carmines & Iodine Green) Doherty
Wild Carrot



1.4 Section of wood, Pepper ? Doherty

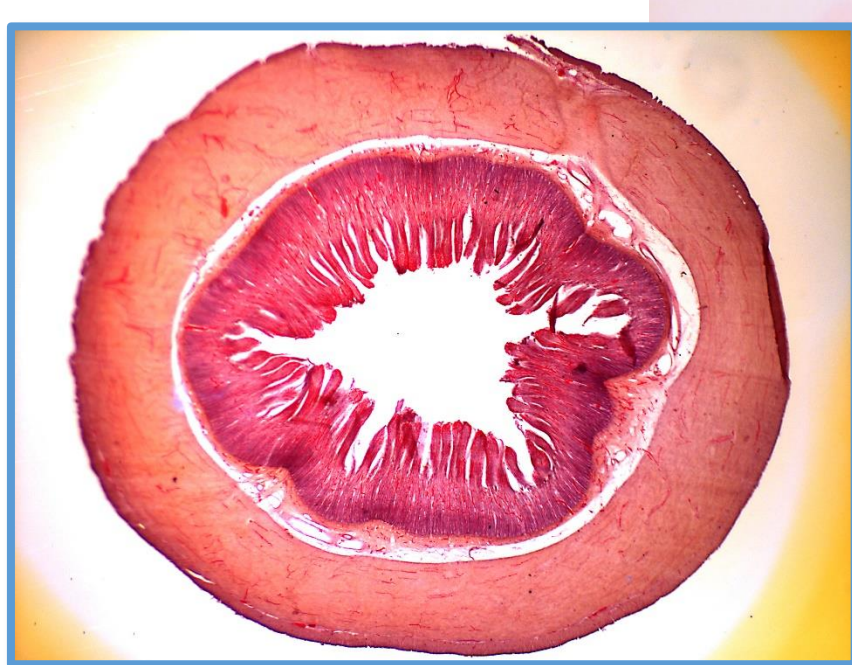


1.5 *Rhododendron ponticum*, TS petiole, (Carmine) Doherty

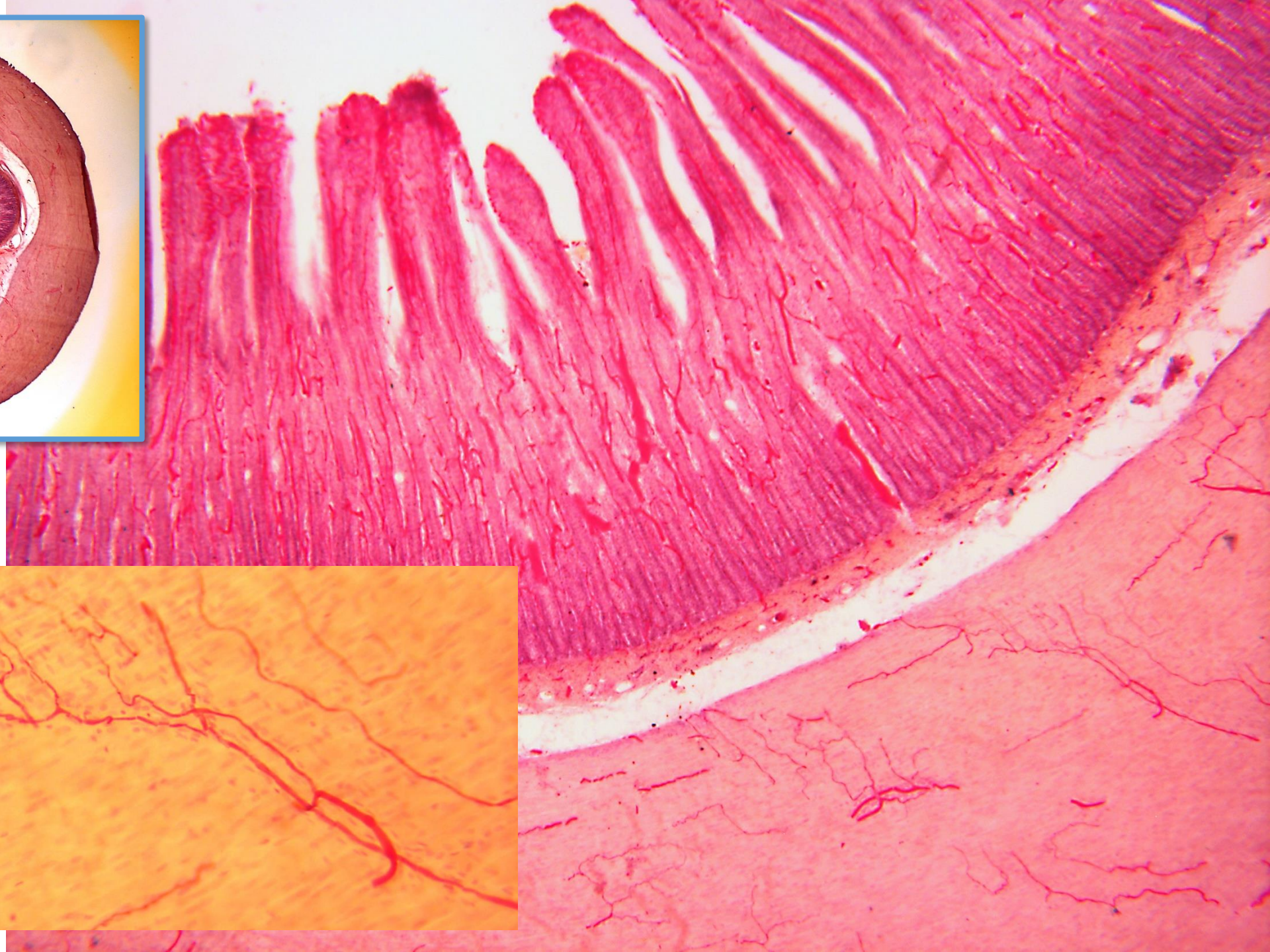


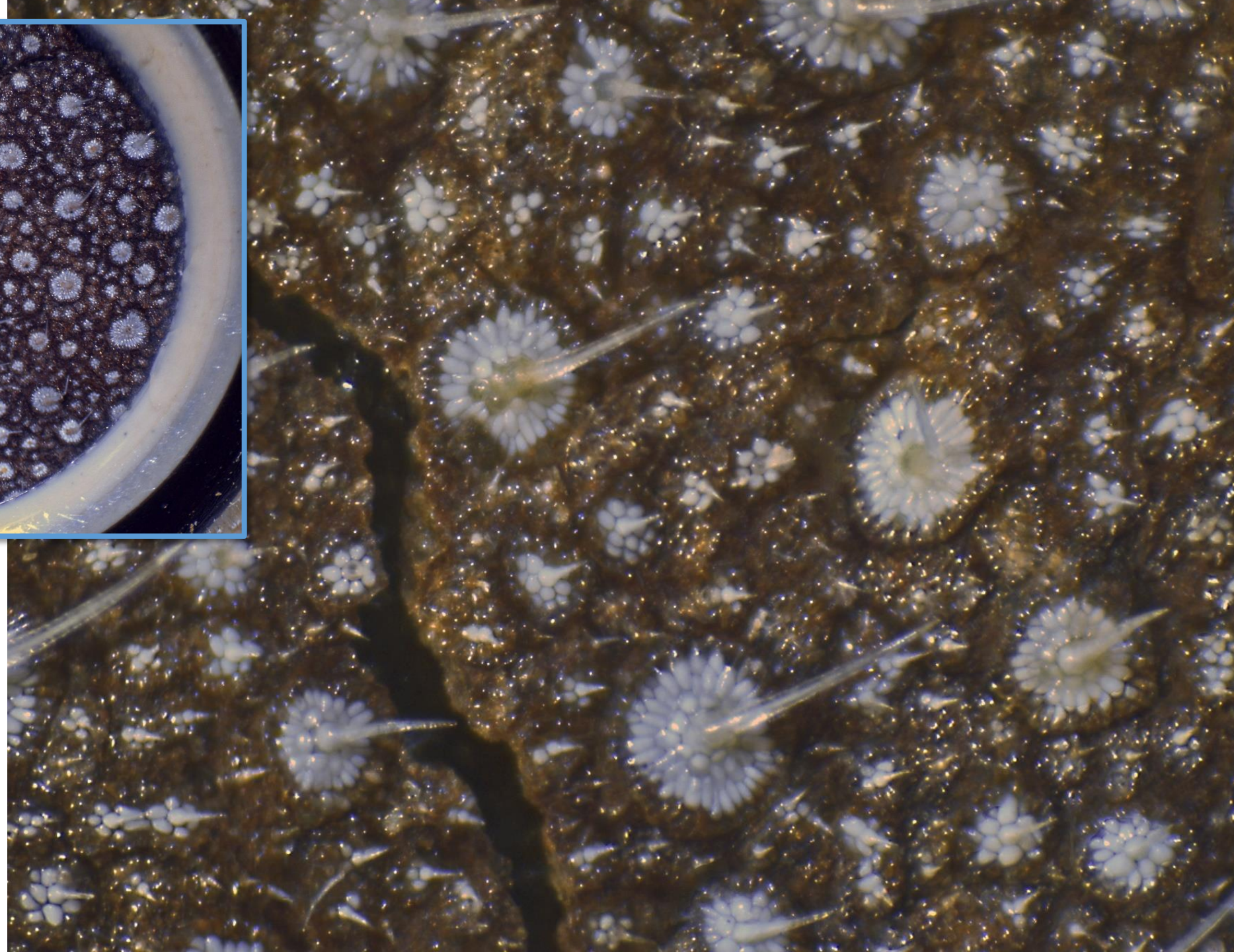
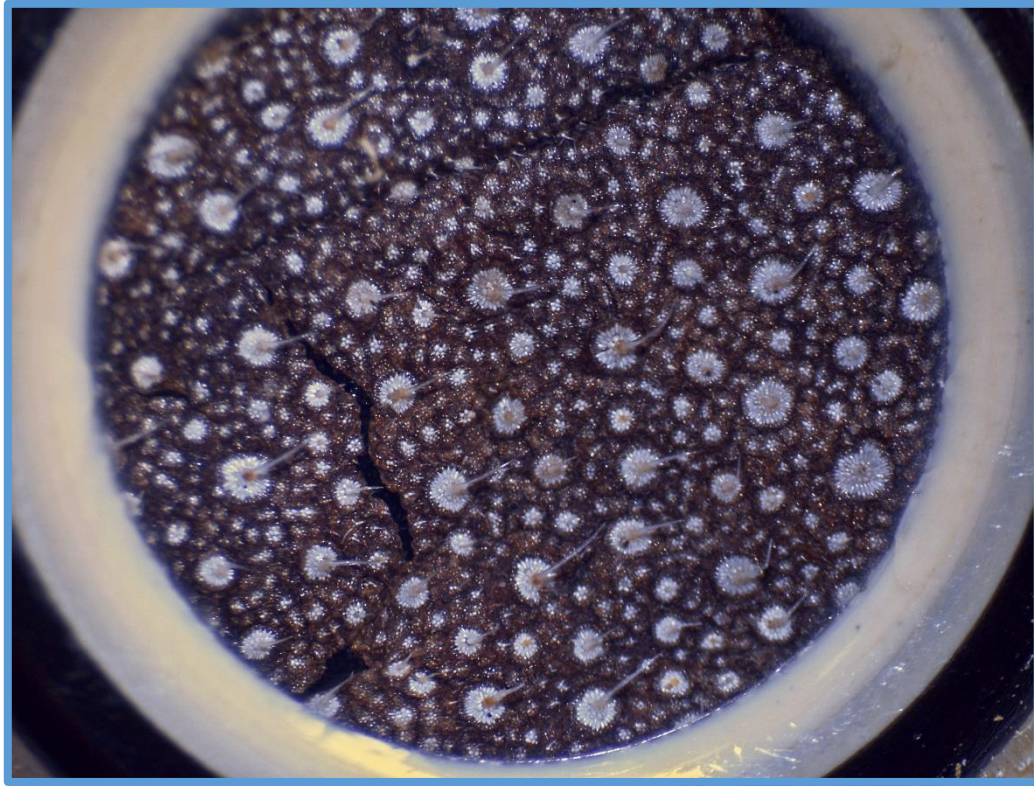
2.1 Maize, TS seed (Logwood) Doherty





4.2 Cat 'duodenum', TS,
(Injected & Stained) Doherty





3.5 *Borago zeylanica*,
Whole Mount, Doherty
Northern Bluebell

Other Slides (32)

N=1 Frederick Enock (1845-1916), Manchester, Birmingham, London, Microscopist, illustrator, Naturalist, famous Edwardian mounter of insects (The Times 6/7/2020)

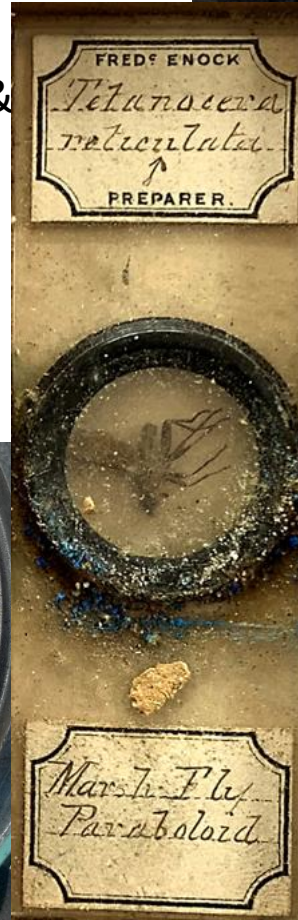
N=4 Arthur C Cole (1821-1900) [Cole Deum], Liverpool, especially Paris 1867 Prize slides

N=4 Charles Henry Vance Smith (1845-1885) [CVS] Yorkshire & Camarthen, Quekett & Postal Society member

N=1 H.P. Aylward, Manchester, Microscopes & Ringing tables

N=22 Unknown preparer (including 2xL.ES, 1 xJB)

[More
Images](#)





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