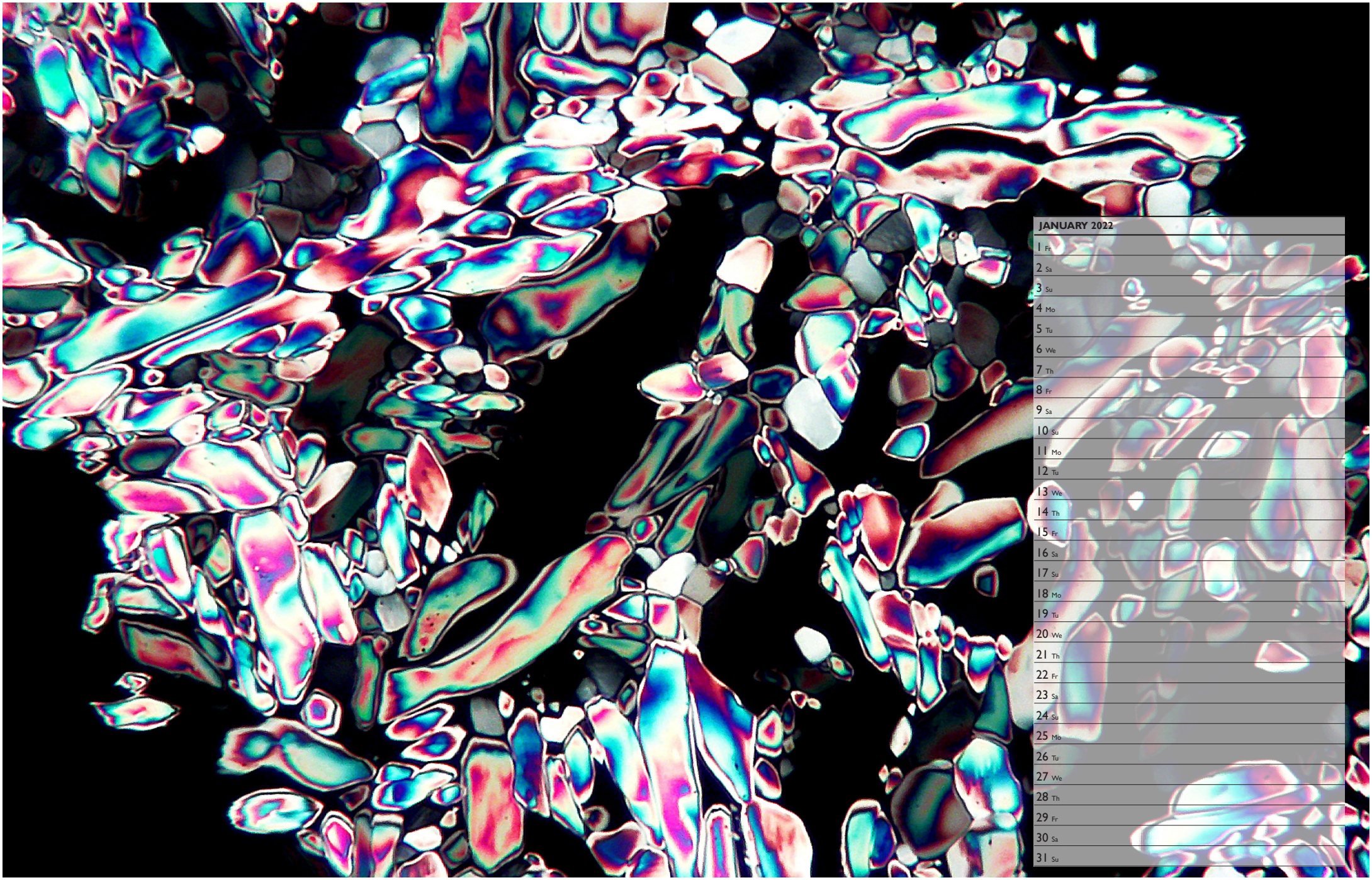
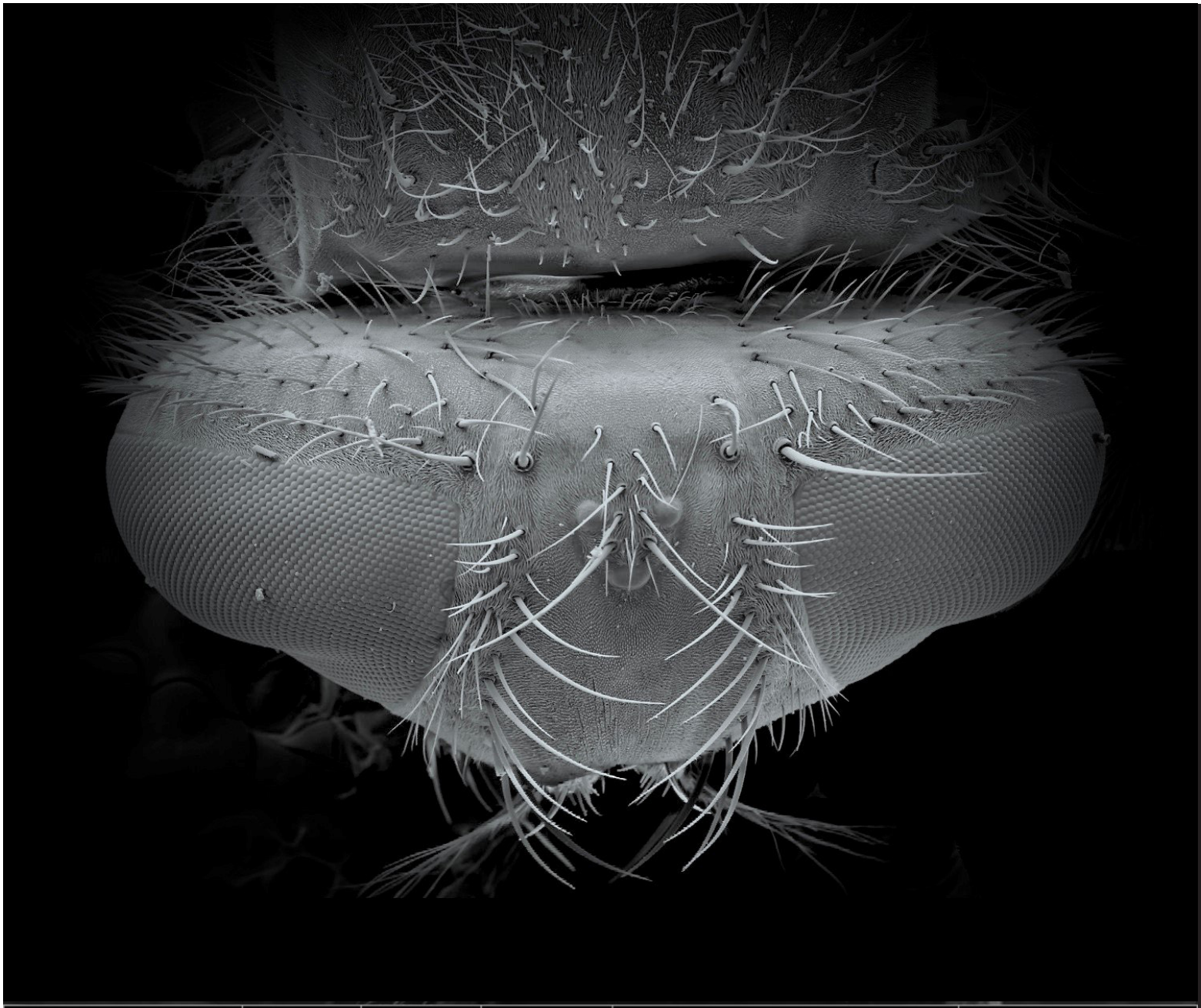



**Crystals of Urea**

Photo from a prepared 'Biosil slide'; viewed under transmitted polarised light. (Wild M20 Research Microscope with a x6 plan fluotar objective. Camera used: Canon EOS 450D)

*Michael R. Gibson, Northamptonshire Natural History Socety & the Quekett Microscopical Club*




**FEBRUARY 2022**

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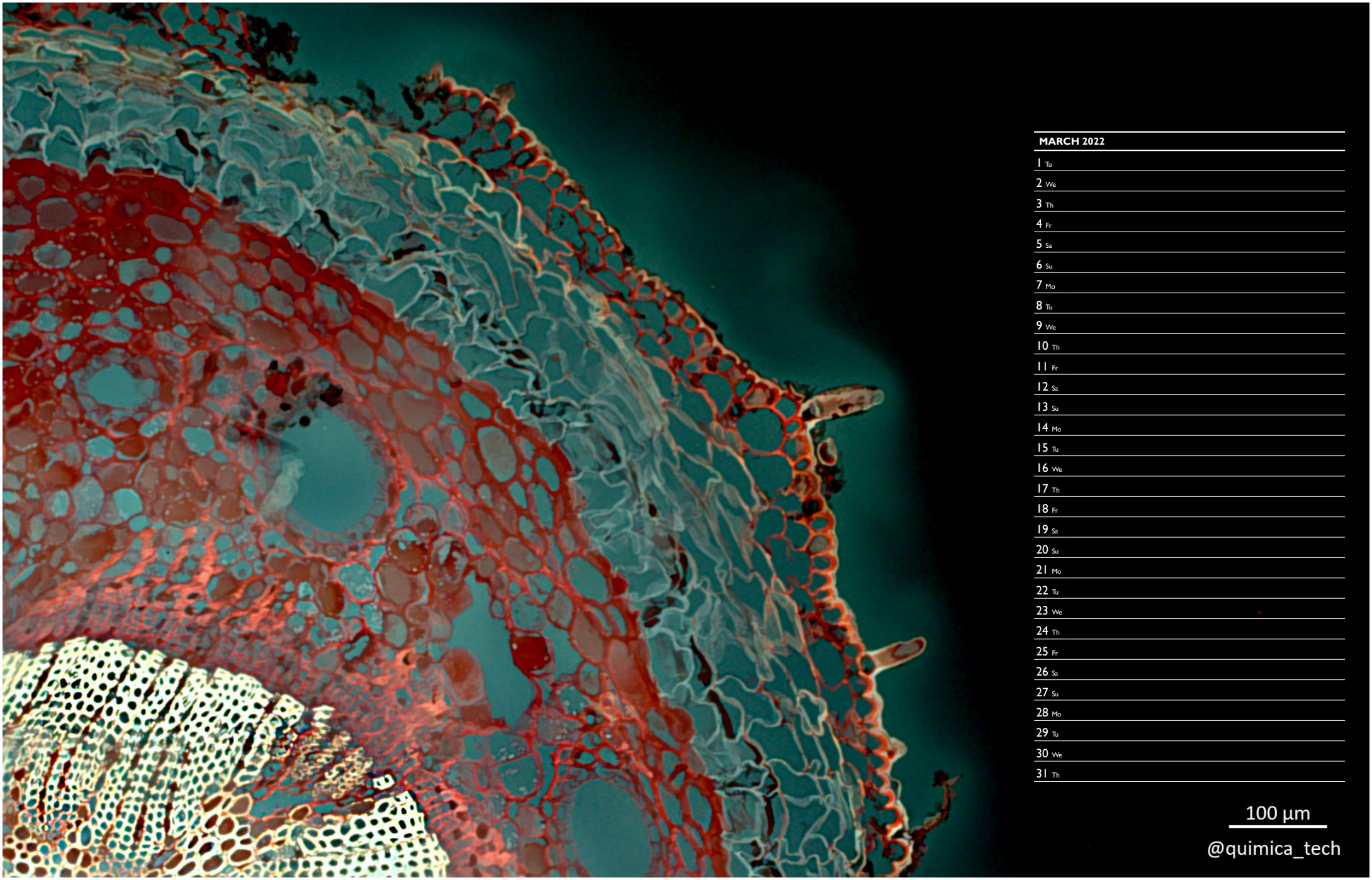
**Fly Head**

Fly head using VP functionality. (EmCrafts Cube II TT-SEM)

*Trevor Groves, Lambda Photometrics Ltd*

Lambda

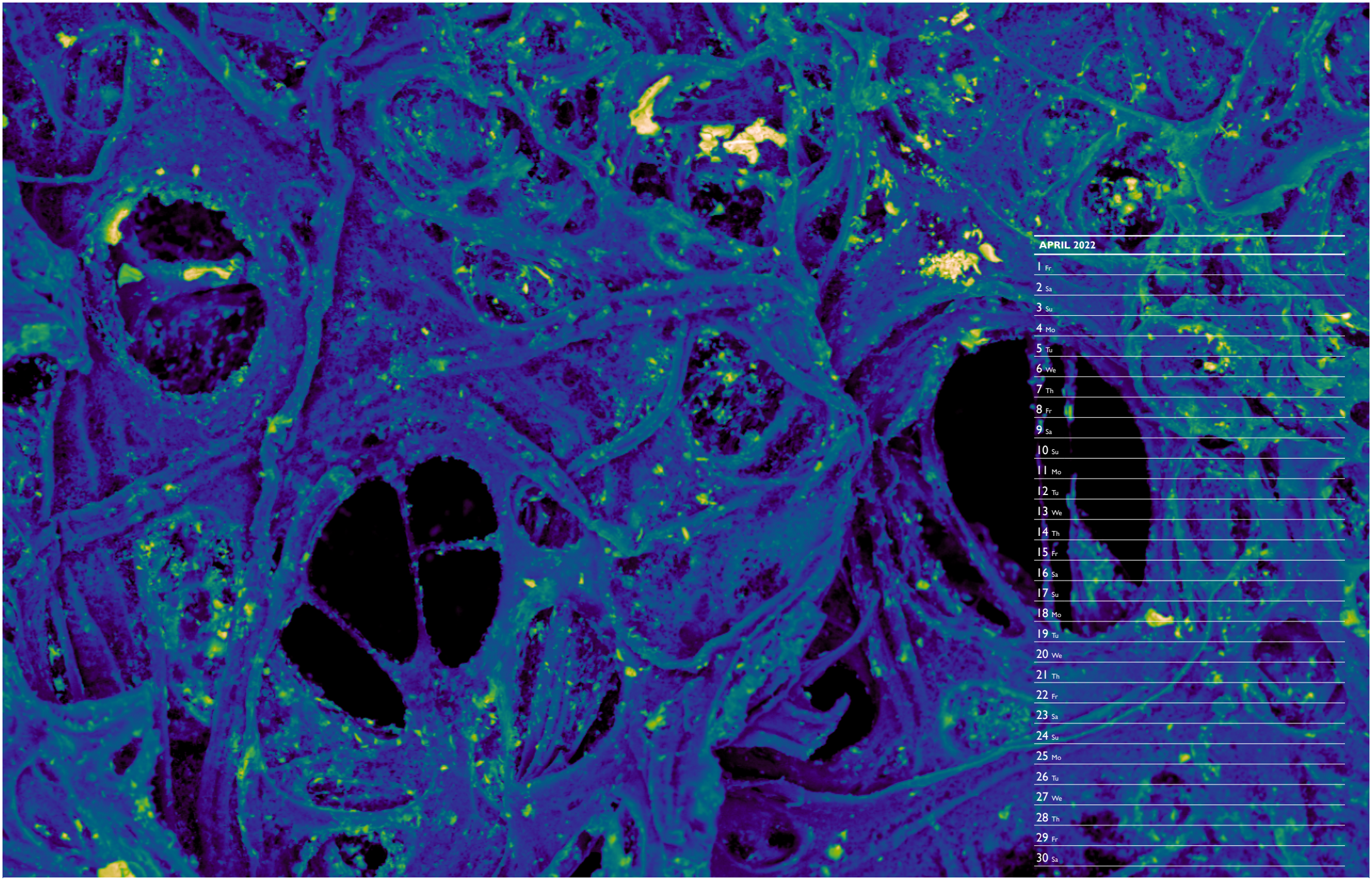
RMS




**Pine Stem**

This is a Z-Stack of 3 images of a Pine Stem in fluorescence. The image represent a area of 1.4X1.05 mm. (10x/0.3 objective fluorescence filter set of Em400-440, BS460, Ex LP470)

*Jose Manuel Martinez Lopez, Quimica Tech*



**APRIL 2022**

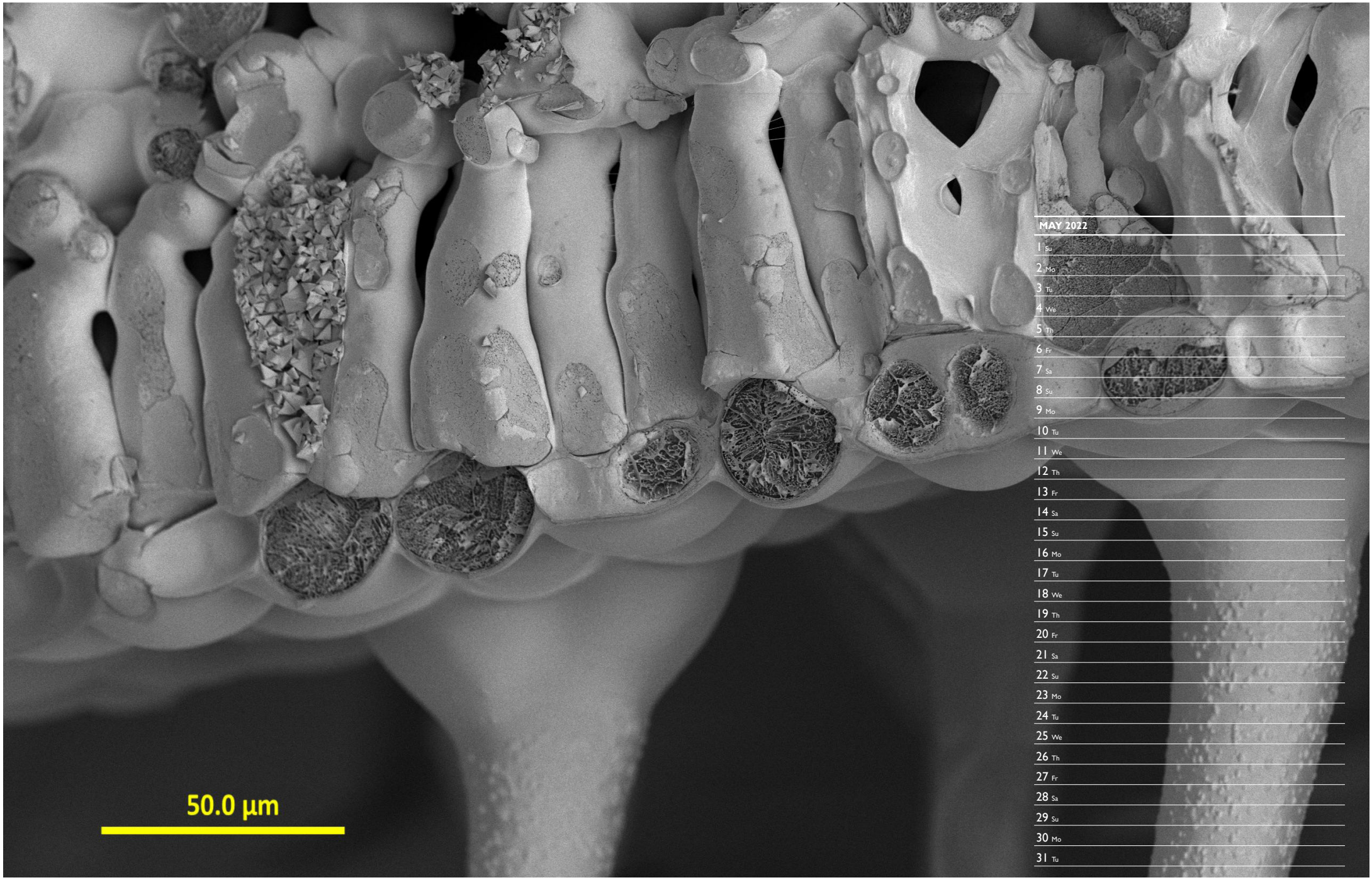
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**PEARL-fect Membrane**

The Phosphate Elimination And Recovery Lightweight (PEARL) membrane, a reusable nanocomposite material, can be used to selectively sequester phosphate ions from polluted waters. From this false colored scanning electron microscope image, we can see the porous and hierarchical nature of the PEARL membrane, which leads to its effective remediation performance. (Hitachi S-3400 SEM)

*Stephanie Ribet & Vinayak Dravid, Northwestern University*

RMS




MAY 2022

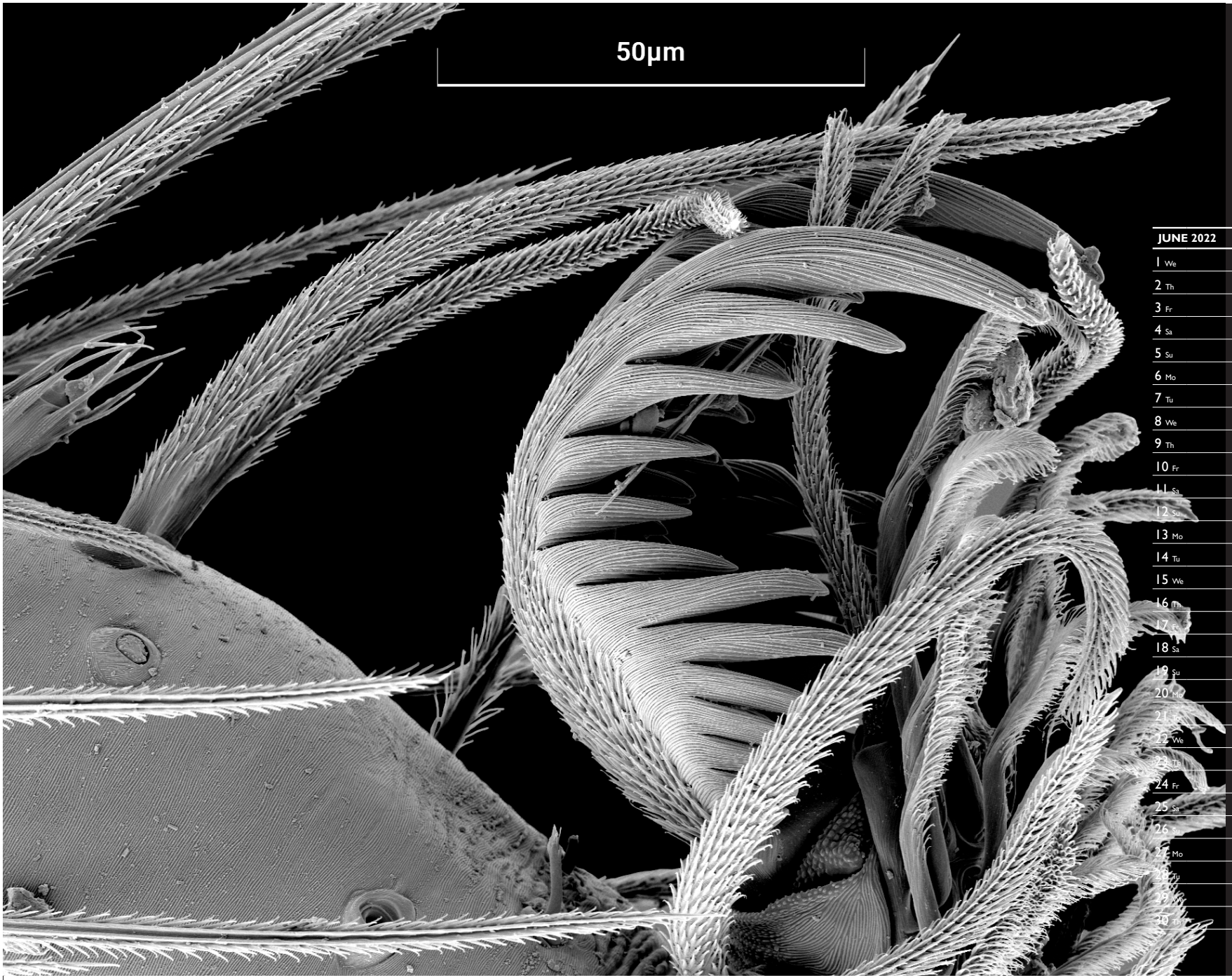
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**Cryo-SEM Micrograph of a Fractured Tomato Leaf (mesophyll)**

Micrograph shows the inner tissue cells (parenchyma) containing the chloroplast organelle sites for photosynthesis, the upper epidermis and the trichome epidermal site cells for microbial aphid and pest protection. (Hitachi SU8230 FE SEM with Quorum PP3010 prep-stage)

*Dr Mark Taylor, Quorum Technologies*

Quorum RMS




**JUNE 2022**

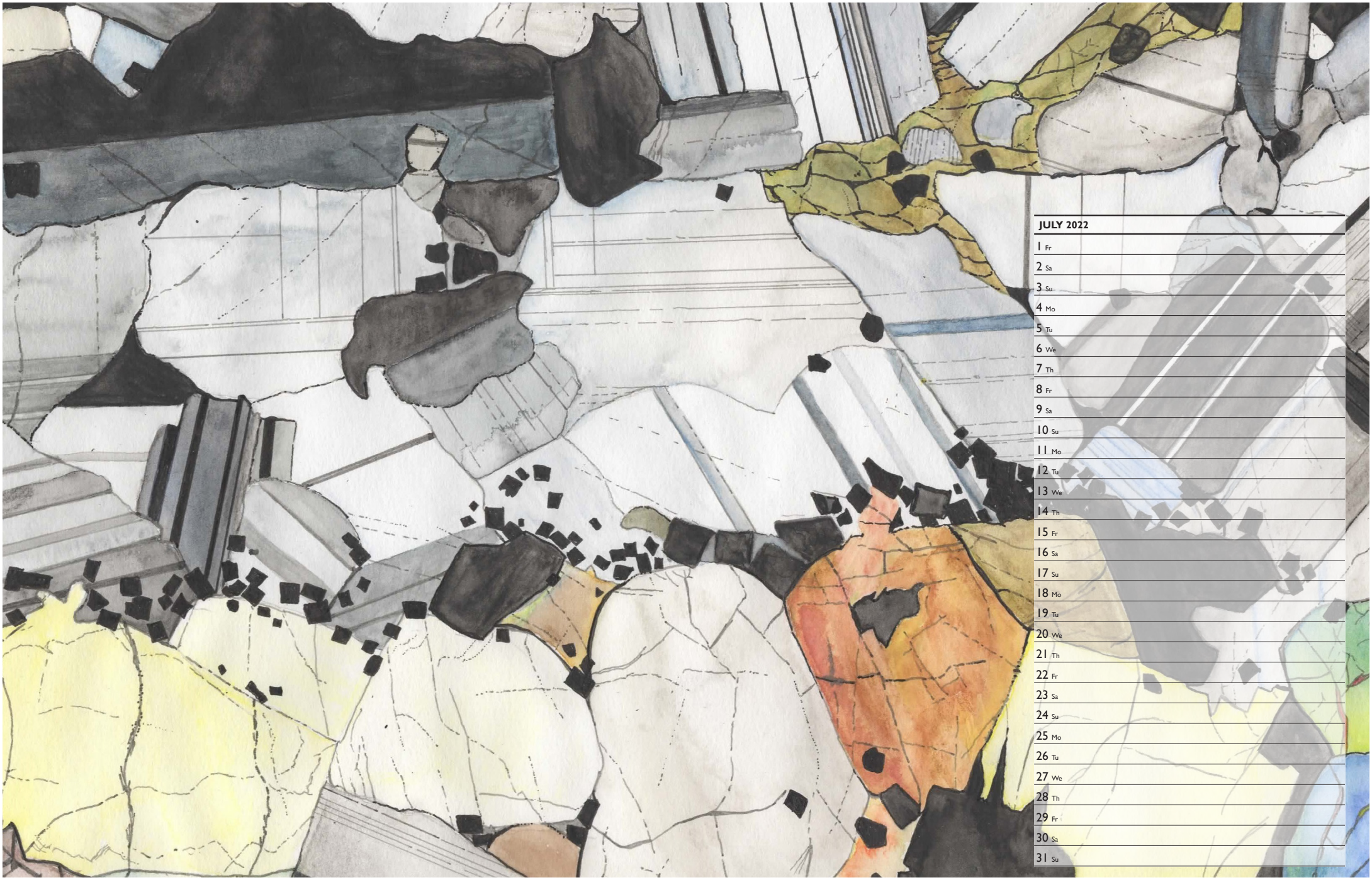
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**Tarsus of Spider Orsolobus sp.**

This is an image of the tarsal claw (right) and tarsal organ of this newly identified species, found only in the Falkland Islands. The squid-like tarsal organ (at centre left of the image) is unique to this genus. (Taken on a TESCAN MIRA 4 SEM using the in-chamber secondary electron detector. The stub was sputter coated in gold/palladium alloy using a Quorum Q150R S coater)

*Jeremy Poole, Postal Microscopical Society*

RMS



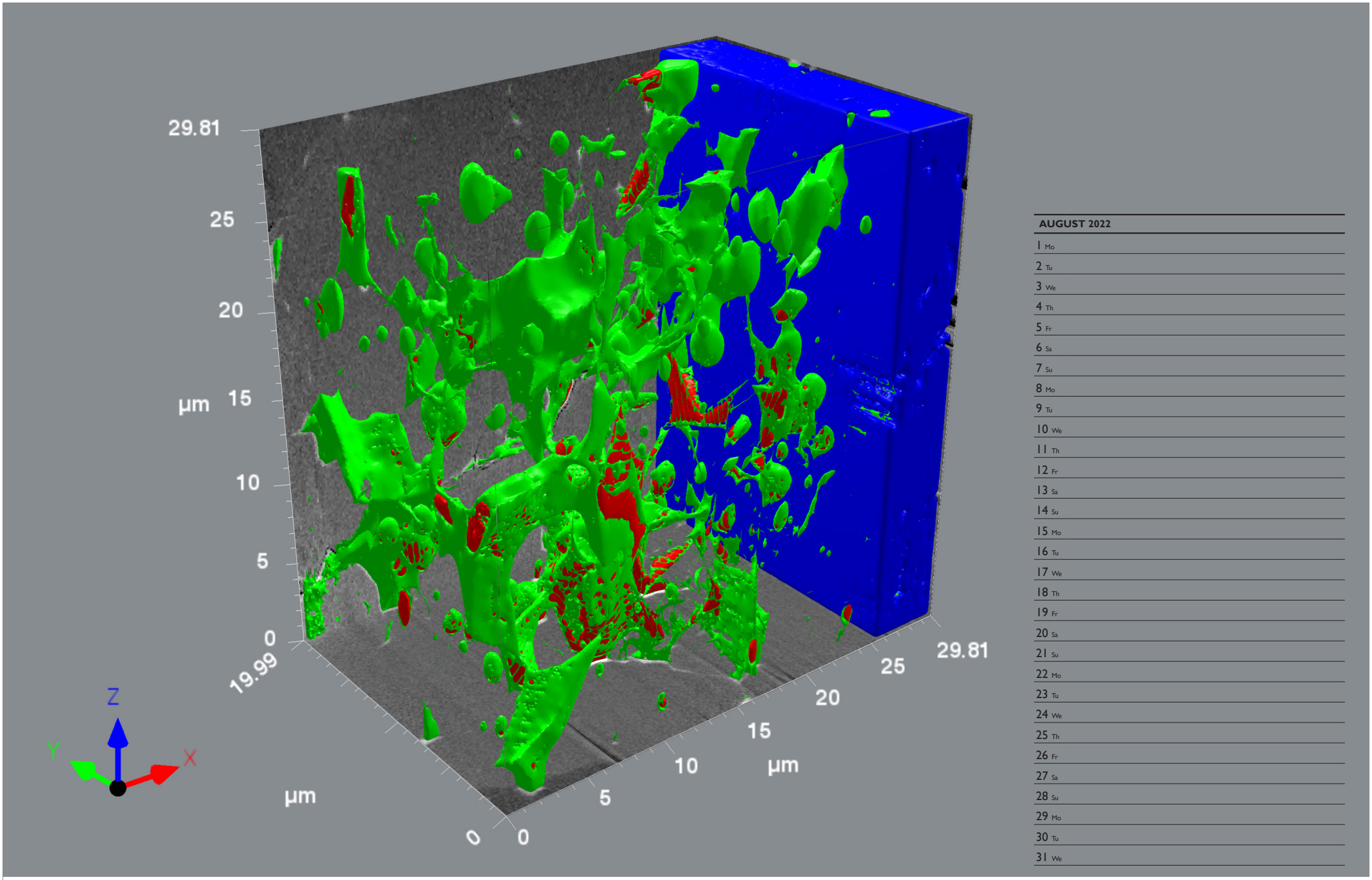
**JULY 2022**

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**Troctolite Gabbro - Isle of Rum**

A watercolour and ink painting of the view down the microscope from the Eastern Layered Intrusion on the Isle of Rum, Inner Hebrides, Scotland, providing a view into the magma chamber of Rum volcano. Colourful olivine minerals dominate the base (Peridotite), with plagioclase-feldspar dominating the top (Anorthosite), with a chromite band sandwiched in between. Field of view = 6mm. (Light microscopy with thanks to the Hunterian Museum Collection at the University of Glasgow. The image was painted using watercolour and ink on watercolour paper) *Pamela Campbell, University of Glasgow | www.Pamela.Campbell.scot*

RMS




AUGUST 2022

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**Cubed In**

Full 3D image of the chemical composition of a DC vehicle motor magnet, the cube was generated from a series of BSE images. (SEM FIB JEOL JIB-4700F and SMILEView™ Map software, powered by Mountains®)

*Digital Surf & JEOL (Europe) SAS, Digital Surf*

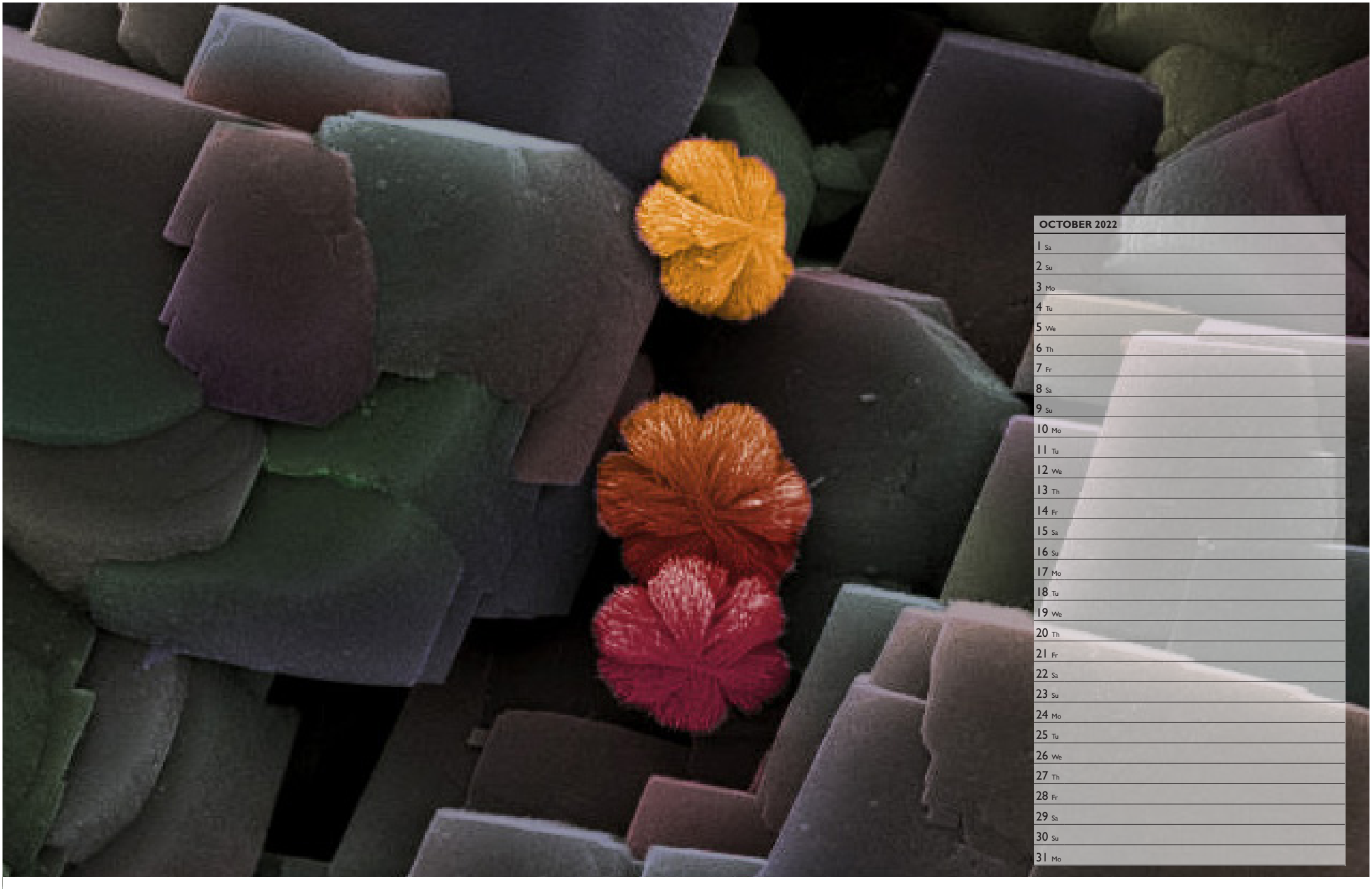
Digital Surf RMS




**The Wings of a Phoridae Fly**

This number of colours is due to the light interference effect in thin films, which is why this picture is called wing interference pattern. The pattern on the wings is not random and is different for different insects. Taxon-specific patterns are formed by different thickness of the wing membrane, venation, and placement of villi. These patterns are inherited, and their meaning lies in visual signaling. (Microscope: Biomed 4pr, camera: Panasonic jx 880) *Andrei Savitsky*

RMS



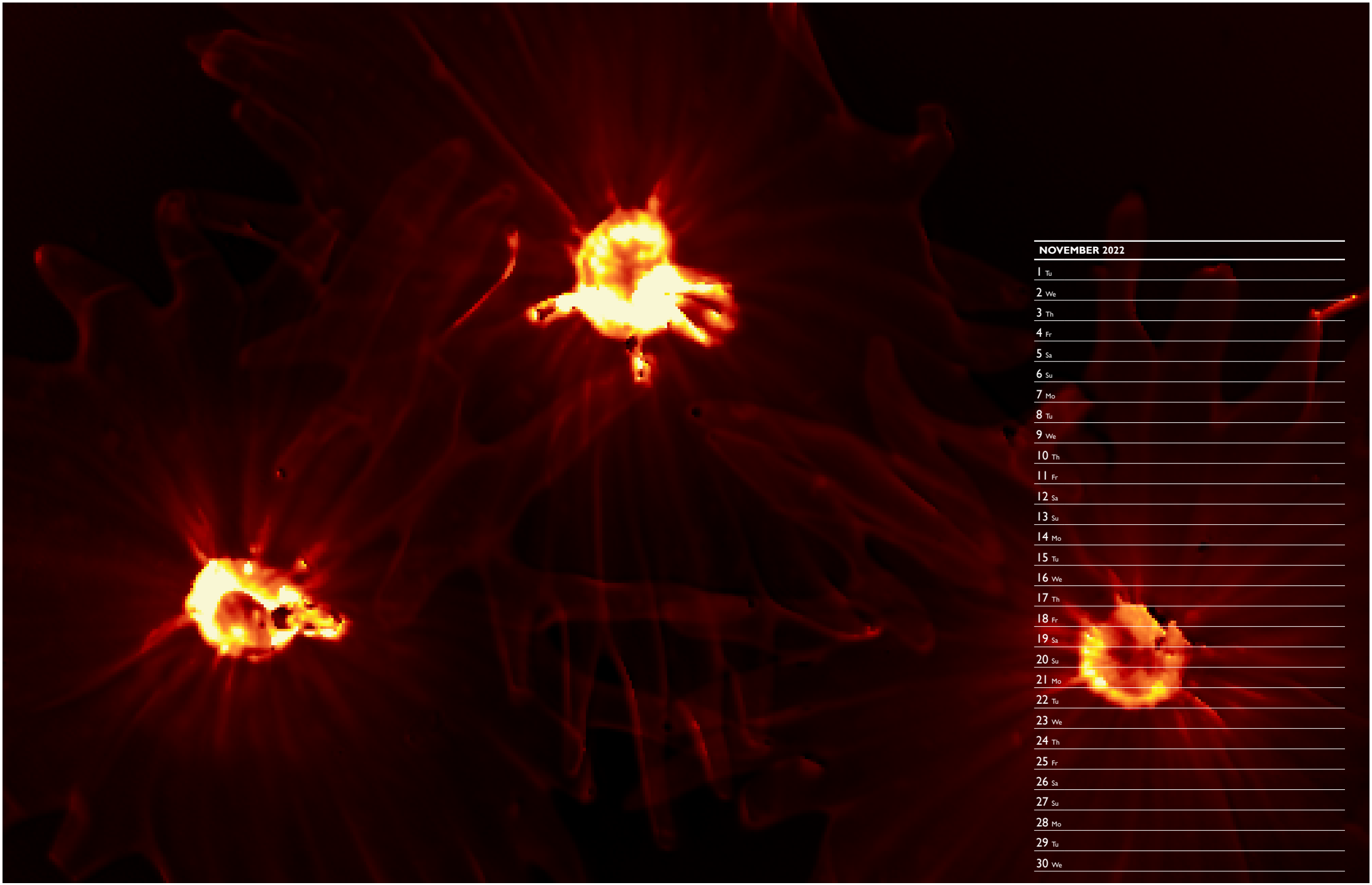
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**Micro Blooms**

Mineralogy and geochemistry studies of Zagros mountain. (The micrograph is edited with cooperation of Afrooz Rafatmah). (TESCAN Vega3)

*Elmira Rafatmah, Shiraz University*

RMS



**NOVEMBER 2022**

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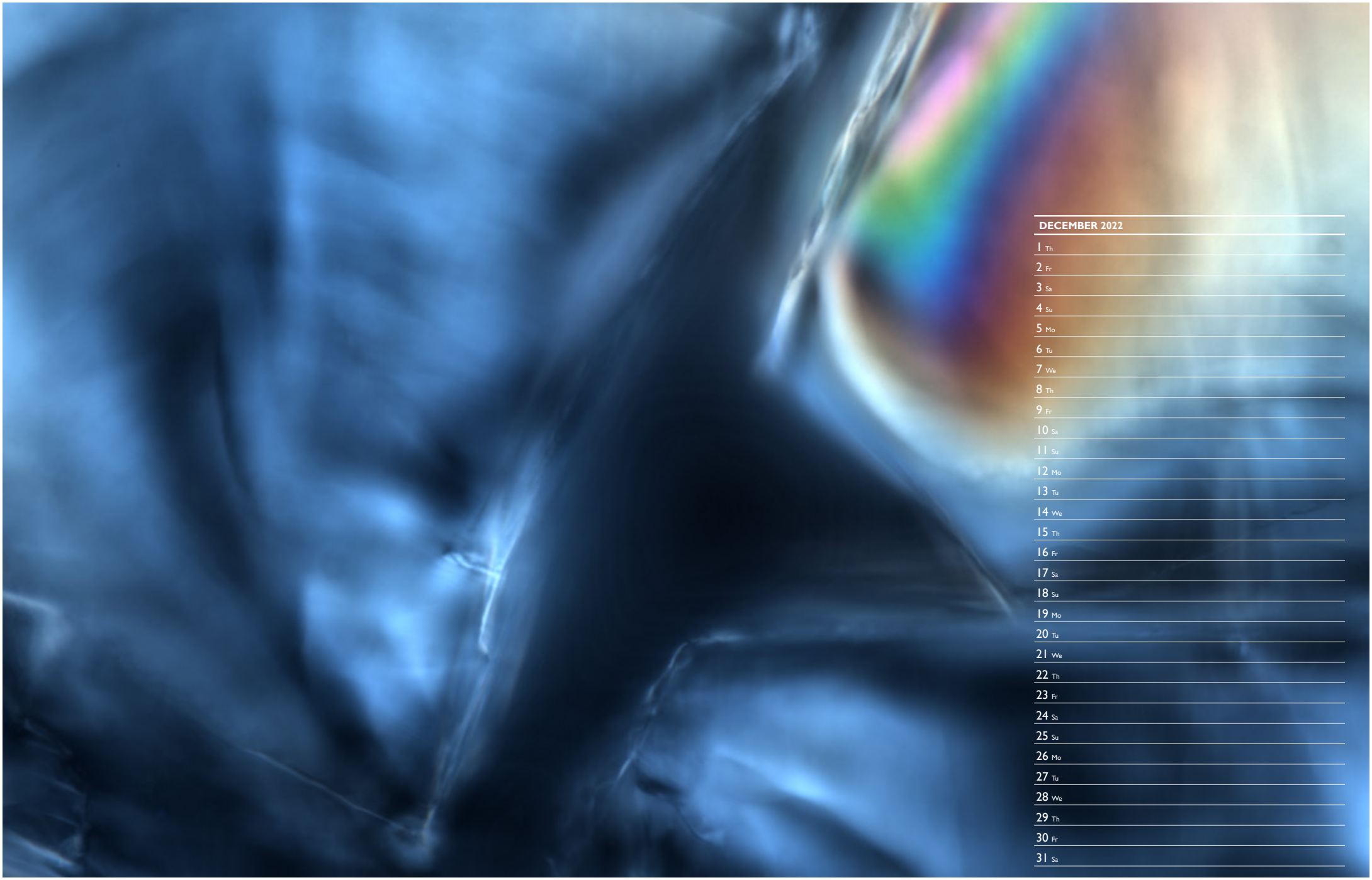
**Volcanoes**

Olive tree leaf trichomes, 10x magnification, Quantitative phase image (QPI). Pseudo-colour represents the cell dry mass density. (Telight Q-Phase)

*Zuzana Novakova, TELIGHT*

telight

RMS




**Don't Stress Me Out**

This image shows mechanical stress induced birefringence in Nafion polymer particles. These particles have been freeze fractured and imaged using differential interference contrast (DIC) microscopy, revealing areas of high mechanical stress in the form of beautiful spectral patterns. (Nikon Ti2 in DIC mode)

*Jordan Murray, University of Strathclyde*

RMS