# MICROSCOPICAL EXPLORATION

## **FORTY ONE (ME41)**

# CLOSE-UP OBSERVATION OF LICHENS ON DISPLACED BITS OF TREE

Following the passage of the named January storm Éowyn over the UK, I noticed that many small twigs and pieces of bark had been dislodged from trees in the green spaces of my neighbourhood. Almost without exception these bits and pieces of tree were, I noticed, populated by lichens of various colours and forms, which I thought might prove worthy of closer inspection. To that end I gathered a few specimens, which are shown in the first image below.



Although my whole working life was spent in various branches of science, mycology, with its sub-branch lichenology, was not one of my specialisms. But, as a lifelong amateur naturalist with an interest in all of the natural world, I do know that lichens are fungi and algae/cyanobacteria "living in perfect harmony", to use the words of Paul McCartney and Stevie Wonder from their beautiful song 'Ebony and Ivory'.

Given my rather sketchy knowledge of lichen morphology, I am happy to embrace the 21<sup>st</sup> century, and to enlist the help of my iPhone Lichen Identifier app to decide which lichens are actually the subjects of ME41.

To observe the specimens and to capture images I used my old Olympus VA-II stereomicroscope fitted with my HY-500C 5Mpx eyepiece camera and a 0.5x reduction lens. The specimens were illuminated from above by a ring light as shown in the next image.

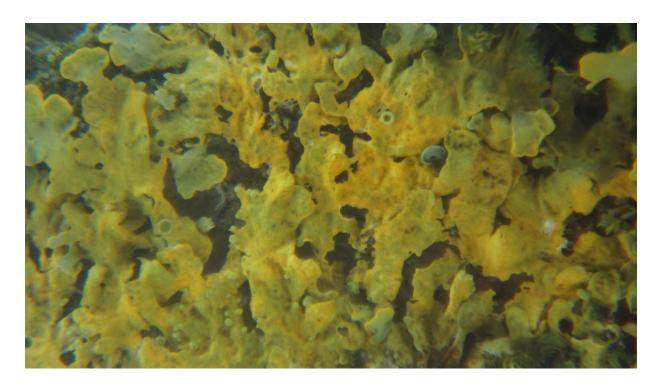


Using my Swift Imaging 3.0 software and a stage micrometer slide, the on-screen magnification was calculated to be x23

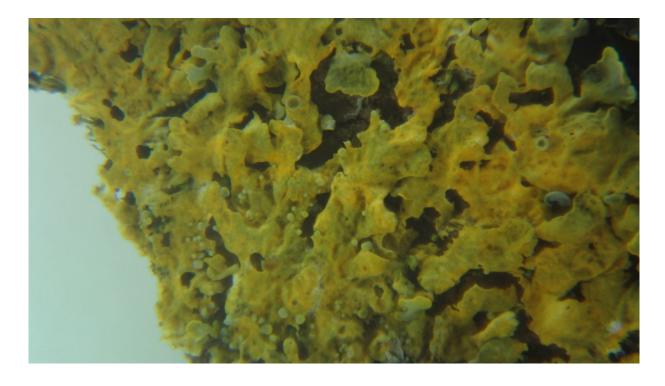
#### **THE SPECIMENS**

Each of the following images comprises a stack of up to ten, made by the use of Helicon8 image stacking software.

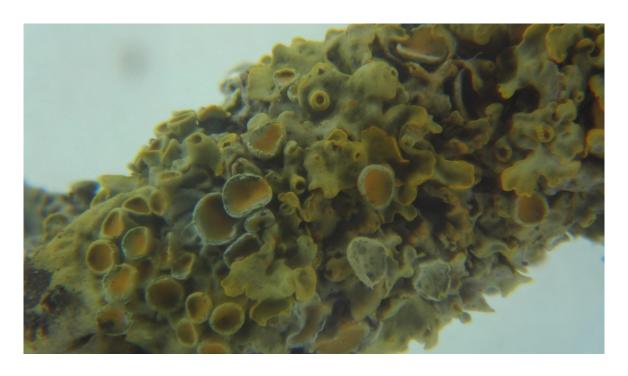




Flavoparmelia caperata 2



### Flavoparmelia caperata 3



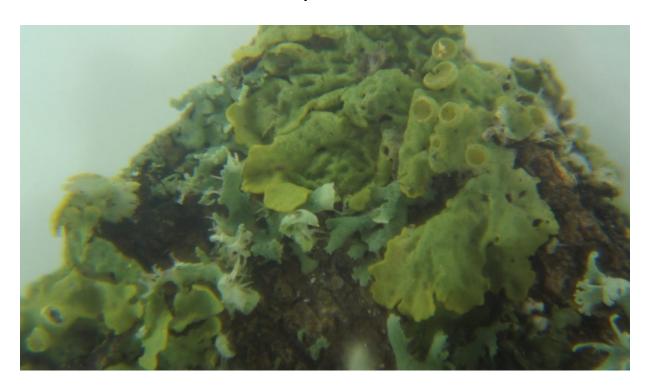
Leconara muralis 1



#### Leconara muralis 2



Lobaria pulmonaria 1



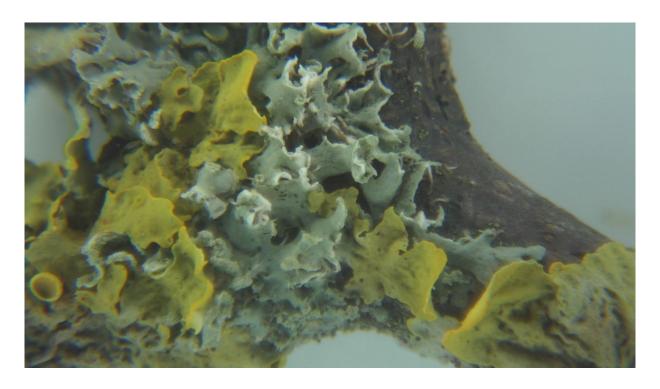
### Lobaria pulmonaria 2



Lobaria pulmonaria 3



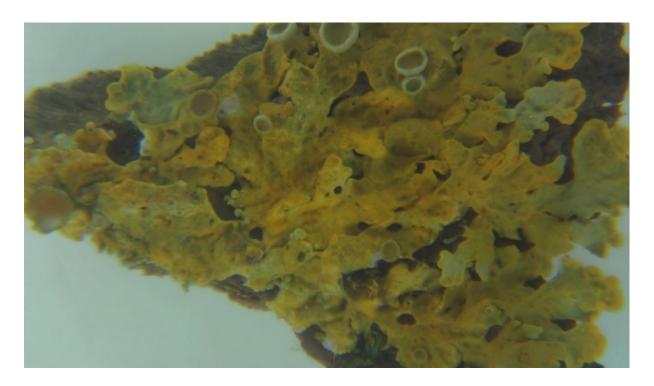
#### Lobaria pulmonaria 4



Peltigera membranacea



#### Rinodina sophodes



That last specimen, identified by the app as *Rinodina sophodes*, look suspiciously similar to *Flavoparmelia caperata* to me. But on that, you dear reader can make up your own mind. A good place to find out more about lichens is <u>Here</u>.

As we say here in Cumbria:

'Ave a go yersel'!

Comments, gratefully received, to:

stewartr178ATyahooDOTcoDOTuk

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