### THE USE OF A CAMCORDER FOR MAKING VIDEO AND PHOTOS WITH A MICROSCOPE.

## By: ALEJANDRO ARIEL GARCIA ARRIAGA COACALCO DE BERRIOZÁBAL ESTADO DE MÉXICO MÉXICO,

#### INTRODUCTION:

I love to use the resources at hand and apply them to microscopy. I also love to share the experiences with other microscopists who may wish to use them or as in my case explore simply for pleasure. As an example, in a <u>previous article published in June 2016 in Micscape</u>, I explored the possibility of adapting a conventional camera to the microscope. At that time I created a support and used the camera with the eyepiece in place to effectively 'see' through it with the camera.

I tried to do the same with my camcorder but it was not possible, or at least not with mine. The image was blurred even after trying zooming in, so I tried another way of adapting it to the microscope and it worked, see below.

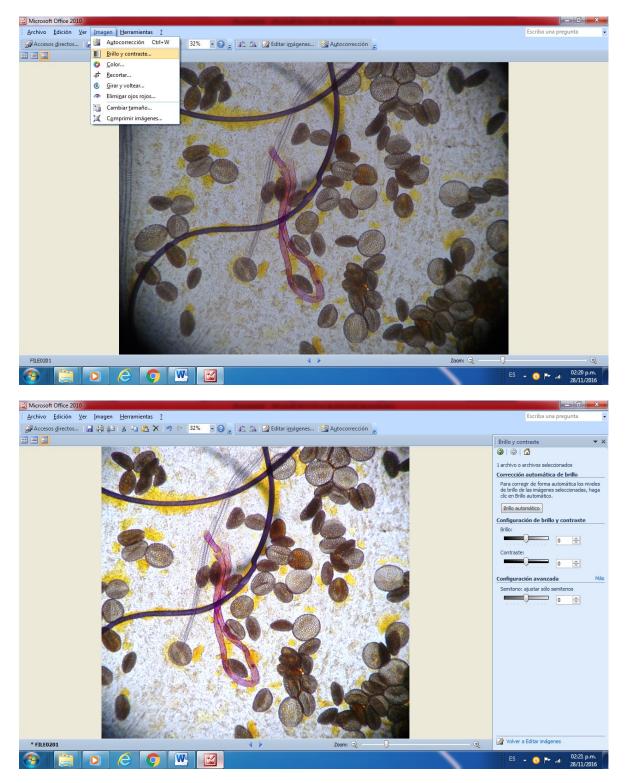
#### DEVELOPMENT:

For adapting the camcorder to the microscope I removed the head of the microscope and just placed the camera upside down in the place of this head and zoomed the image for both modes of operating, either video or photo, depending what I wanted to do.

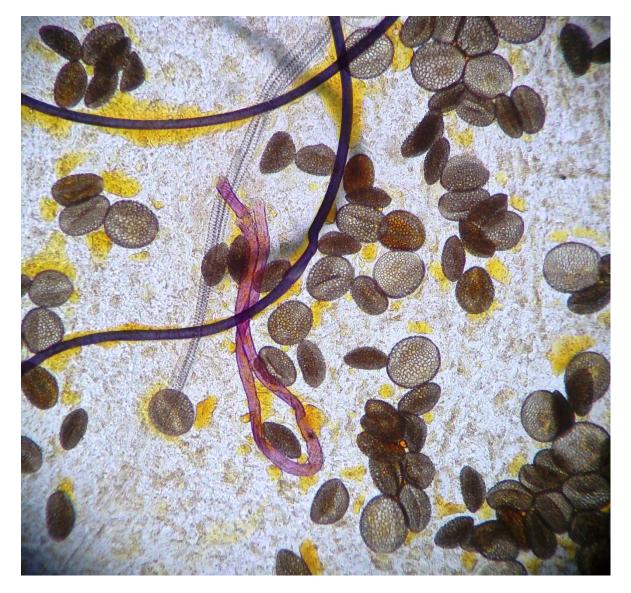


That made it possible to take photos of some samples as I constantly have the camcorder with me. I did not take video for the moment because I did not have a sample in movement.

Once the photo or video is taken it can be edited with any program for photo or video editing; at hand for example using Microsoft Picture Manager.



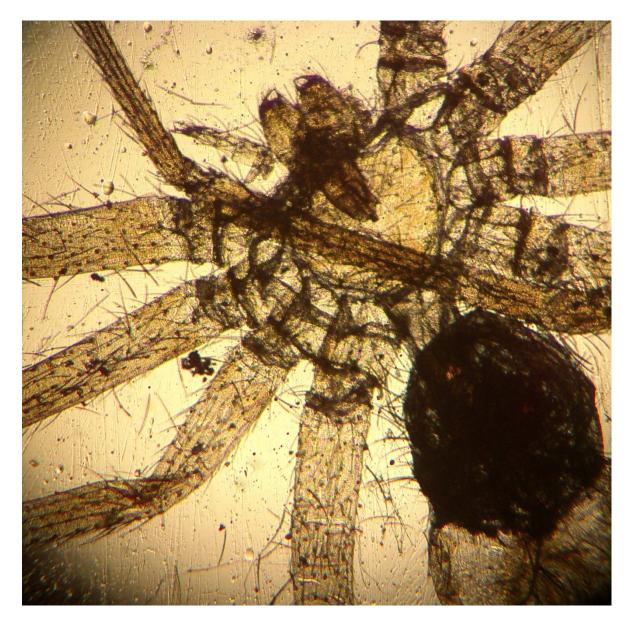
# **RESULTS:**



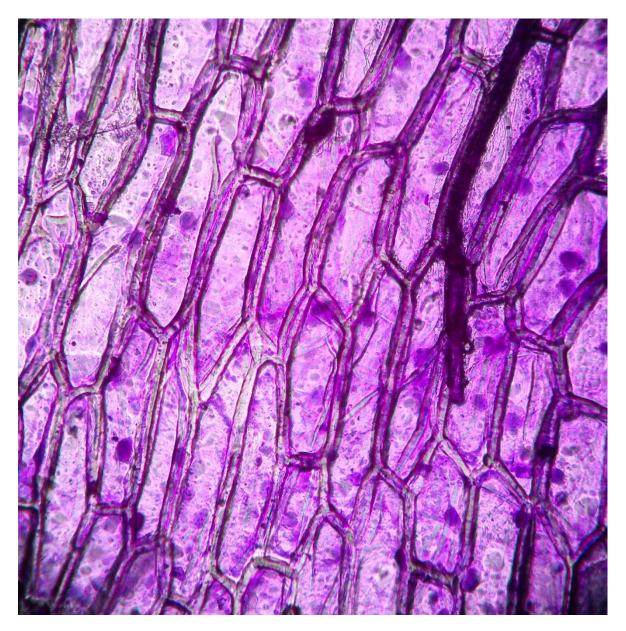
Lily pollen 4x brightfield illumination



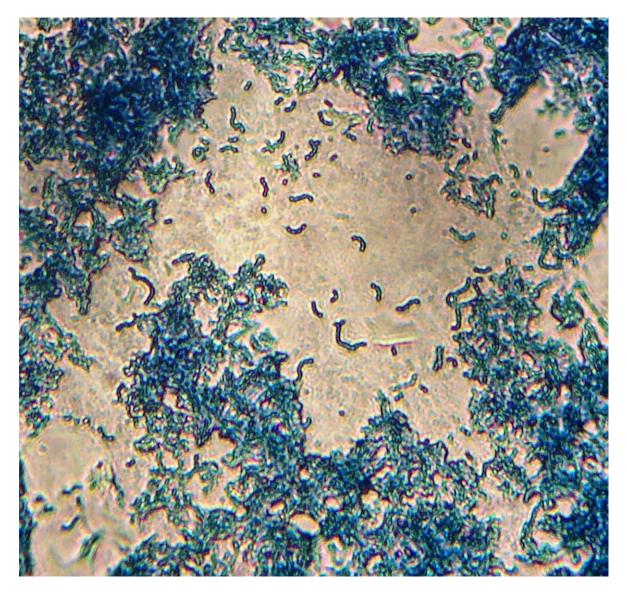
Mosquito 4x brightfield illumination



Spider 4x brightfield illumination



Onion stained with gentian violet 10x brightfield illumination



Yogurt streptococcus stained with methylene blue 40x brightfield illumination



Daphnia 4x brightfield illumination

CONCLUSION:

Any resource at hand to record our observations is valuable and could be used to enjoy the amazing micro world. The camcorder is such a resource to take video or pictures and is available in many homes. It could be used with any illumination type, darkfield, brightfield, Rheinberg, epiillumination etc.

Email author: doctor2408 AT yahoo DOT com DOT mx

(Above in anti-spam format. Copy string to email software, remove spaces and manually insert the

capitalised characters.)

Published in the December 2016 issue of *Micscape* magazine.

www.micscape.org