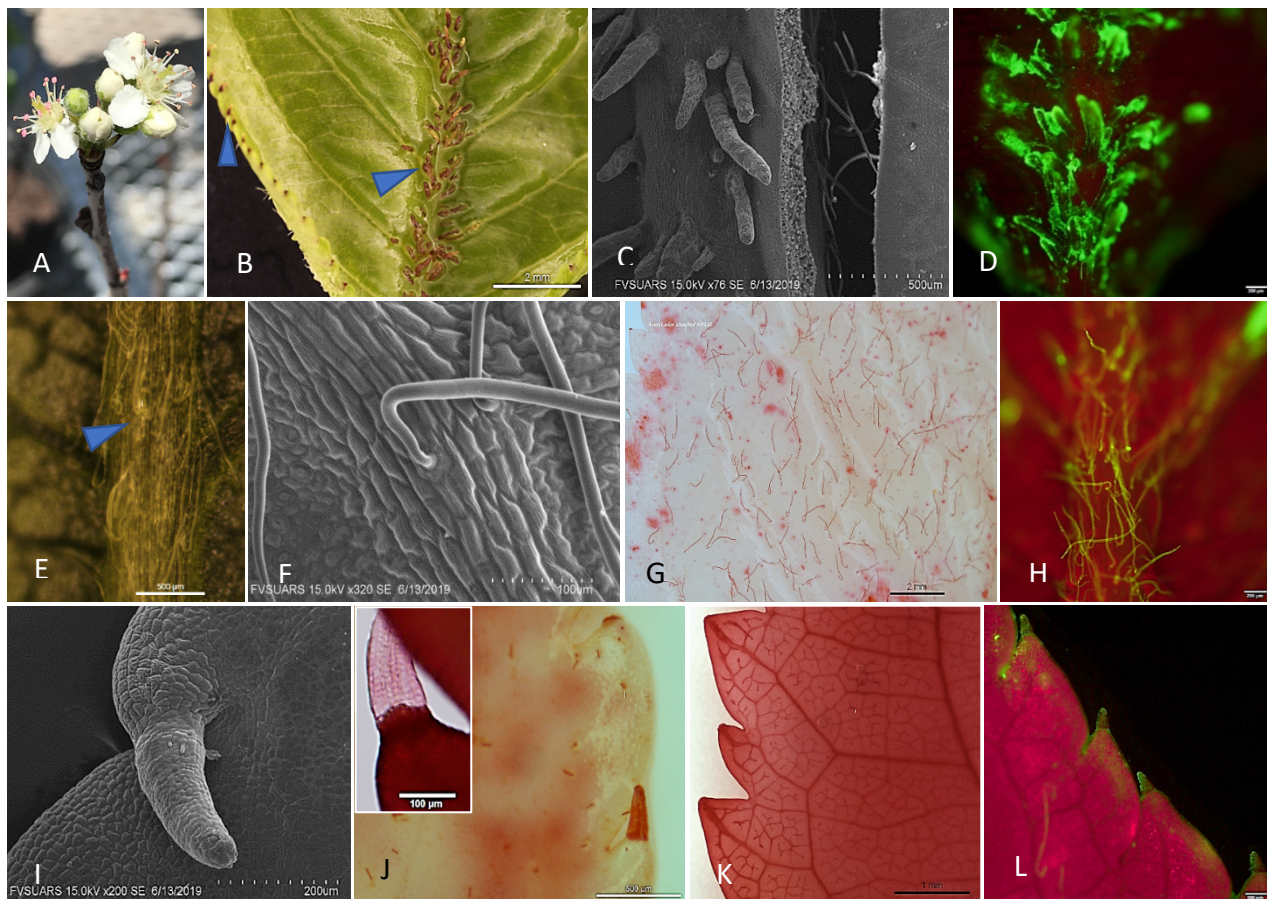


About the Cover



Shahin et al., 2019. Chokeberry (*Aronia* species) is native to north America and in the US they predominantly occur in the North East states that stretches in the south up to north Georgia. In the first half of the 20th century, black chokeberry cultivars were introduced to the Soviet Union and other European countries for their fruits and further reached the Central and Eastern European countries as a commercial crop. *Aronia* berries contain anthocyanins and procyanidins, well known for high antioxidative capacity leading to antibacterial, anticancer, antidiabetic, anti-inflammatory, antimutagenic, antiviral, cardioprotective, gastroprotective, hepatoprotective, immunomodulatory and radioprotective activities.

Aronia melanocarpa cv. Viking. This image was obtained using a light and fluorescent microscopy and stained with Diphenyl boric acid- β -ethylamino ester (DPBA). A. Flowering inflorescence in a greenhouse plant. B. *Aronia* leaf showing specialized trichomes on the adaxial midvein and serrated margin under light microscope. C. A fractured leaf under SEM to show thick, short trichomes on the adaxial and thin long trichomes on the abaxial surface. D. Fluorescent staining of adaxial trichomes present on the midvein for the presence of flavonoids, E- F. Long, thin, and smooth trichomes on the abaxial surface of the leaf under light, scanning electron microscope. G. Leaves were cleared and stained with safranin to reveal the structure of abaxial trichomes, H. Abaxial trichomes stained with DPBA, I. Magnified SEM view of trichomes on the leaf margin. J. Same as in I but in a cleared leaf, inset picture showing intricate sculpturing on the trichome surface, K. Cleared and safranin stained leaf margin showing veins ending at each serration with wide lumen, and L. Presence of secondary metabolites in trichomes present at the leaf margin. Arrows indicate three types of trichomes that are present on *Aronia* leaves.