



MORPHO-ANATOMICAL CHARACTERISTICS OF THE CORK OF *DRACAENA DRACO* L. TREE REGARDING THE PRODUCTION OF DRAGON'S BLOOD

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The monocotyledonous plant *Dracaena draco* L. belongs to so called dragon blood trees producing deep red resin (dragon's blood) that has been used as a famous traditional medicine since ancient times by many cultures. Although resin's chemistry and its diverse medical application have received much attention, our knowledge of the anatomical basis of the dragon's blood secretion is scarce when compared with resin/sap secretion of gymnosperms and other angiosperms. The focus of our studies is to look at the structure of the stem secondary protective tissue of *D. draco* to detect anatomical features of the ducts which are responsible for the process of secretion.

The studies were carried out with material collected from the stem of *D. draco* plants growing in the greenhouses of the Polish Academy of Sciences Botanical Garden – CBDC in Powsin and the Warsaw University

Botanic Garden. Hand-cut sections of a fresh material as well as microtome sections of the samples embedded in paraffin wax and epon resin were used for the analysis. The sections were examined under the light microscope and in UV light.

Characteristics of the cork tissue of the stems at different age were elucidated. In young stems of *D. draco* the cork cells form radial arrangement similar to that of 'storied cork'. However, as the stems become older, the groups of cork cells of a common origin are difficult to distinguish. The cells are tangentially stretched and more or less crushed due to the tension of radial growth. The areas that contain red secretory products were detected and anatomically described. Our results are discussed in relation to the anatomy of secondary protective tissues and the secretion structures in coniferous and broadleaved trees.