

## A new chapter in the legend of *Ferula silphion*

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Silphion is a well known ancient medicinal resin; Dioscorides dedicates a comprehensive monograph in his “De Materia Medica” to this drug. In addition to the description of the plant source of Silphion, he provides a detailed documentation of its medicinal uses for the treatment of many diseases such as goitre, sciatica, tooth ache, intestinal disorders, hormonal disorders, epilepsy, tetanus, polyps, malignant tumors in his monograph (Osbaldeston and Wood, 2000). According to some medicinal historians, Silphion was also used as an aphrodisiac (Koerper and Kolls, 1999) and as a powerful contraceptive (Riddle and Worth Estes, 1992). Probably due to these virtues, the source plant of Silphion was over harvested and became extinct in the 1<sup>st</sup> century AD (Kiehn, 2006).

Unfortunately, no specimen of the source plant of Silphion exists to confirm its genus or family, but analogue descriptions provided by Dioscorides in his monograph and descriptions of the other ancient authors strongly suggest that the genus of this plant is *Ferula* (Osbaldeston and Wood, 2000; Kiehn, 2014). An extremely rare endemic species of *Ferula* growing in Central Anatolia resembles the description and numismatic figures of this plant. Furthermore, the organoleptic qualities of its oleo-gum-resin exudate are also in close agreement with the description of Dioscorides. Preliminary phytochemical analyses of this plant species yielded highly complex sesquiterpenoid and coumarin compounds with unique novel structures but also some known compounds that were previously described from other well known medicinal plants such as *Acorus calamus* (i.e., Sweet Flag). The biological activities of some of these compounds also corroborates the medicinal uses mentioned by Dioscorides in his Silphion monograph.

Only a limited number of living specimens of this plant species exist in two locations; a conservation study has been initiated to preserve and propagate this species. The details of the conservation studies and the training of local villagers to protect this plant species, while providing them with an extremely valuable source of income, will be discussed.

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