



## THE NECTARY STRUCTURE AND NECTAR PRODUCTION IN FLOWERS OF *DAPHNE MEZEREUM* L.

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The genus *Daphne* L. comprises 100 plant species. This name is derived from the name of a nymph, one of the daughters of the rivergod Pineios, who was transformed into a laurel tree to escape the amorous Apollo. Two species, *D. mezereum* L. and *D. cneorum* L., grow in the wild in Poland. *D. mezereum* is more common, but it is rarely found in the whole country. *D. cneorum* grows in the Małopolska Upland and in the Lublin region. These taxa are fully protected in Poland. Various plant species of the genus *Daphne* are considered to be ornamental, medicinal, poisonous and bee plants. In the bark of *D. mezereum* and in leaf buds of *D. odora* Thunb., there is a high content of daphnin and more than 20% of coumarins. Plants of the genus *Daphne* are poisonous and contain harmful substances, among others a glycoside daphnin and a resinous substance mezerein. The nectaries in flowers of the family Thymelaeaceae are classified as annular or intrastaminal.

The aim of this study was to analyse the location and structure of the floral nectaries

as well as nectar production in flowers of *D. mezereum*.

*D. mezereum* belongs to the earliest flowering (I-V) melliferous plants. Densely packed flowers are borne in clusters of 2-3 in the axils of already fallen leaves. A pink corolla with fused petals has a diameter of 1-1.5 cm. Eight stamens are attached to the corolla tube. In *Daphne* flowers, the nectary surrounds a superior ovary borne on a gynophore. In *D. merezeum*, this gland forms a ring around the base of the ovary.

In *Daphne* flowers, the stomata secrete nectar onto the nectary surface. The parenchyma cells of the nectary (longitudinal section) consist of 4-7 layers. The vascular tissue supplying the nectary reaches the subnectariferous parenchyma, while the branches of phloem elements reach the base of the nectariferous parenchyma. Flowers of *D. mezereum* produce nectar in abundance. The colourful corolla filled with nectar attracts bees and butterflies.