

POSTER PRESENTATIONS

PHENOLIC COMPOUNDS OF THE AERIAL PARTS *Cyperus longus*

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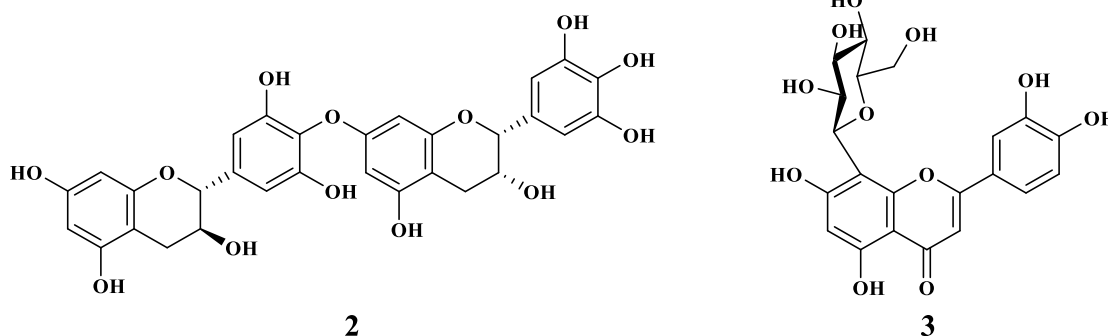
Cyperus longus L. (long-stalked sedge) is a perennial herbaceous plant of the family *Cyperaceae*, widely distributed across various climatic zones, including temperate, tropical and subtropical regions. This family comprises 5500 species grouped into 90 genera, of which the genus *Cyperus* is one of the largest, comprising over 700 species. Nine species are found in Uzbekistan.

C. longus and *C. rotundus* (round sedge) are closely related plants whose roots are widely used in traditional medicine due to their antiseptic, diuretic and antispasmodic properties.

In this paper, we present the results of a phytochemical study of the aerial parts of *C. longus* collected in the Tashkent region.

The air-dried, ground aerial parts of *C. longus*, collected during the flowering phase in June 2025, were extracted six times with methanol at room temperature. The combined alcohol extract was concentrated under vacuum, diluted with water and sequentially extracted with petrol, chloroform, ethyl acetate and *n*-butanol.

The ethyl acetate fraction obtained was loaded onto a chromatographic column packed with KSK silica gel using a chloroform–methanol (100:0–70:30) solvent gradient, with a fraction volume of 500 ml. By re-chromatography of the individual eluates on Sephadex LH-20 in methanol, three distinct phenolic compounds were isolated: (+)-catechin (**1**), gallo catechin – (4'→O→7) – epigallocatechin (**2**) and orientin (**3**).



The chemical structures of the isolated phenolic compounds were determined by analysing their spectral data (¹H and ¹³C NMR, as well as HSQC and HMBC) and subsequently comparing these with data reported in the literature for the compounds in question.

Compounds **2** and **3** were isolated for the first time from the aerial parts of *C. longus* growing in Uzbekistan.

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