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Растровая электронная микроскопия в анализе просвирника низкого травы

А. А. Гудкова, А. П. Лычагин, К. А. Дубровина, А. А. Горохова

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На странице 18 в исходную версию статьи редакция внесла изменение в английский заголовок статьи.

Вместо:

Scanning electron microscopy in the analysis of a low-level prosvirnik

Исправлено на:

Scanning electron microscopy in the analysis of *Malva pusilla* Sm.

На этой же странице в исходную версию статьи редакция внесла изменение в Abstract.

Вместо:

Introduction. As an additional method to clarify the topography and structural features of structures that are important in assessing the authenticity of a plant object, modern high-precision methods have recently been resorted to, which include scanning electron microscopy.

Aim. The purpose of the work was to analysis of the morphology of the surface of the *Málva pusilla* by scanning electron microscopy.

Materials and methods. The study was conducted the *Málva pusilla*, an herb growing in the Voronezh Region and harvested during mass flowering in 2023. The morphology of the surface of the *Málva pusilla*, after spraying a graphite nanofilm on it in vacuum with a carbon filament, was performed by scanning electron microscopy (JSM-6510LV JEOL electron microscope, Japan).

Results and discussion. Scanning electron microscopy made it possible to study the surface relief of the object under study. The topography of the trichomes of the upper side of the leaf and the structure of the base, consisting of a rosette of epidermal cells slightly elevated above the epidermis, have been clarified. On the underside of the leaf, the presence of numerous glandular trichomes was revealed, including a single or bicellular pedicle and a multicellular head, the cells of which collapse during drying of plant raw materials. The epidermal cells of the sepals are strongly sinuous, and the cell walls have clearly visible thickenings. The stomata are large, numerous, and occur on both sides of the leaf and the sepals of the provender low. With the help of microregenstructural analysis, it was established that potassium and calcium are the major elements. Potassium and magnesium are mainly localized in the tissues of the upper side and petals of the calyx, calcium and sulfur in the tissues of the lower side of the leaf, phosphorus in the tissues of the petals of the calyx.

Conclusion. The paper clarifies and supplements the description of morphological features, and also presents for the first time the results of a study of the *Málva pusilla* grass using scanning electron microscopy. Thanks to the use of a high-precision analysis method, the main morphological features of the *Málva pusilla* have been visualized and topographed, and the structure of diagnostically significant structures has been clarified. Microroentgenstructural analysis in a specific area of the facility made it possible to identify the composition of the main macro- and microelements and establish the prevailing amount of potassium and calcium.

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На 18 странице в исходную версию статьи редакция внесла изменение в Keywords.

Вместо:

Keywords: *Málva pusilla*, morphological features, scanning electron microscopy, authenticity, microrentgenstructural analysis

Исправлено на:

Keywords: *Malva pusilla* Sm., morphological features, scanning electron microscopy, authenticity, micro-X-ray structural analysis

На 18 странице в исходную версию статьи редакция внесла изменение в For citation.

Вместо:

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Внесение исправление не повлияло на содержание статьи.

Обновлена онлайн-версия статьи на сайте журнала.

Scanning electron microscopy in the analysis of *Malva pusilla* Sm.

Alevtina A. Gudkova, Alexey P. Lychagin, Ksenia A. Dubrovina, Arina A. Gorokhova

Herbarium. 2025;2(4):17–23. (In Russ.) <https://doi.org/10.33380/3034-3925-2025-2-4-53> Published: 10.10.2025.

On page 18 of the original version of the article, the editors made a change to the English title of the article.

Instead:

Scanning electron microscopy in the analysis of a low-level prosvirnik

Corrected to:

Scanning electron microscopy in the analysis of *Malva pusilla* Sm.

On the same page, the editors made a change to the Abstract in the original version of the article.

Instead:

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On page 18 of the original version of the article, the editors made a change to For citation.

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The correction did not affect the content of the article.

The online version of the article on the journal's website has been updated.