

عنوان مقاله:

Contribution to the diversity of leaf miners of silver birch, *Betula pendula* Roth in North-Eastern Kazakhstan

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خلاصه مقاله:

To date, Kazakhstan is an underexplored territory regarding the study of leaf miners. This article aims to present new data on the defoliators of silver birch (*Betula pendula* Roth) in cultivated plants of North-Eastern Kazakhstan (the Pavlodar Region). Occurrence of *Fenusa pumila* Leach, ۱۸۱۷, as well as additional new data on the previously known leafminer species are presented for the first time for the Pavlodar Region. Groups of birch-defoliating insects were chosen as model objects. The research conducted in the territory of the Pavlodar Region revealed six species of leaf miners belonging to three genera *Stigmella* Schrank, ۱۸۰۲, *Phylloporia* Heinemann, ۱۸۷۰, and *Fenusa* Leach, ۱۸۱۷. All representatives are obligate miners that develop at the larval stage in the mesophyll of birch leaves. This group of insects harmfully affects plants, often causing their death, which in turn proves the importance of studying them.

کلمات کلیدی:

Central Asia, conservation, defoliators, forest, invasive species

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