

SibFU scientist becomes a co-author of the chapter on leaf-mining insects

Senior researcher at the School of Ecology and Geography of Siberian Federal University and V. N. Sukachev Institute of Forest (KRC SB RAS) Natalia Kirichenko [co-authored](#) a review chapter in an international methodological book ([Springer](#) publishing house) on new and previously known approaches to the study of leaf-mining.



"This large systematic work was carried out together with our partners from France and Japan. We have summarized the available knowledge and presented the latest data on methods of studying the diversity, biology and ecology of leaf-miners. These data can be used in research in any ecosystems of the planet," explains **Natalia Kirichenko**.



The scientists focused on insects from four taxonomic orders – Lepidoptera, Diptera, Coleoptera and Hymenoptera – whose larvae live in and feed inside the leaves of their host plants, forming characteristic cavities, the so-called leaf mines. In addition to the leaf blade (including needles of conifers), some species can settle the petioles and veins of leaves, shoots, stems, or even in the skin of young fruits and in seed coats.

Some species of leaf-mining insects are considered serious pests of crops and woody plants in gardens, parks, and forests. Although their life cycles are very specific (the larvae of such insects are forced to stay in a confined space limited by the tissues of the leaf, petiole, or shoot), and these insects are economically significant, scientists still know little about the species diversity of this ecological group of insects, especially in the tropics.

"My colleagues and I summarized detailed instructions for finding, collecting, cultivation, and storing leaf miner specimens, with a focus on the smallest Lepidoptera. I believe that our contribution to this international book will be useful, and the book will appeal to both professionals – biologists (in particular, entomologists), and all those who are interested in grey eminences who secretly (or obviously, when they are abundant) affect plants in different regions of our planet, including Siberia," said **Natalia Kirichenko**.



The scientist's research was supported by the Russian Foundation for Basic Research (Project 19-04-0102-a).

12 february 2021

© Siberian federal university. Website editorial staff: +7 (391) 246-98-60, info@sfu-kras.ru.

Web page address: <https://news.sfu-kras.ru/node/24275>