

Seasonal Cycles of Lichen Moths (Lepidoptera, Lithosiidae) Inhabiting the Forest-Steppe Zone of Russia

A. Kh. Saulich, S. V. Balashov, and N. V. Filatova

Biological Research Institute, St. Petersburg State University, Peterhoff, Russia

Received May 30, 2002

Abstract—An experimental study aimed to clarify the seasonal cycle of three species of lichen moths was conducted in field and laboratory. *Mitochrista miniata* and *Lithosia lurideola* possess the larval winter diapause, whereas *L. sororcula* overwinters as pupae. In all the three species, the diapause is controlled by day length. The tendency to diapause induction is very strong under all photoperiodical conditions. In correspondence with the experimentally determined parameters of the photoperiodical reaction (PhPR), short-day conditions occur already in July and larvae develop under short-day conditions throughout a large part of their life. This circumstance results in the monovoltinic cycle, characteristic of all the species, despite the PhPR.