New species of lichenicolous fungi on *Solorina*

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Three species of lichenicolous fungi growing on *Solorina* are described as new to science: *Acaroconium lavrinenkoae*, with pale orange, superficial pycnidia with a medium brownish orange ostiolar area, and light or greyish orange, comparatively long, mainly oblong conidia, occasionally truncated at one end; *Didymellopsis solorinae*, with 2(-4)-spored asci; and *Thamnogalla episolorina*, with fusiform to subcylindrical, comparatively long ascospores. Additionally, one discocarpous and two pyrenocarpous ascomycetes found on *Solorina* are informally described.


Drei Arten auf *Solorina* wachsender lichenicoler Pilze werden neu für die Wissenschaft beschrieben: *Acaroconium lavrinenkoae*, mit blass orangenen, mehr oder weniger aufsitzenden Pyknidien, mit einer mittelbraun-orangen Ostiolarregion und hell- oder grauorangenen, relativ langen, ländlichen Konidien, die teilweise an einem Ende gestutzt sind; *Didymellopsis solorinae*, mit 2(-4)-sporigen Asci; und *Thamnogalla episolorina*, mit fusiformen bis subzylindrischen und relativ langen Ascosporen. Zusätzlich werden ein discokarper und zwei pyrenopkarpe Ascomyceten, die auf *Solorina* gefunden wurden, informell beschrieben.

**Key words:** Arctic, Asia, Europe, Kyrgyz Republic, lichen parasites, taxonomy.

**Introduction**

The genus *Solorina* Ach. (Peltigeraceae) includes 10 species of foliose lichens growing on soil mainly in arctic-alpine and boreal environments (Thomson 1984, Gilbert 2009, Lücking et al. 2016). To date, 29 species of lichenicolous fungi have been known to grow on lichens of this host genus; information on these species is presented in a key for their identification (Zhurbenko 2020). A revision of the samples of lichenicolous fungi on this host genus from the Holarctic available to us revealed six additional species, three of them are described here as new to science, and three species, presented with too sparse material, are informally described.

**Materials and Methods**

The material used for this study is deposited in the mycological herbarium of the V. L. Komarov Botanical Institute in St. Petersburg, Russia (LE). Microscopic examinations and photography were carried out using a Zeiss Stemi 2000-CS dissecting microscope, fitted with an AxioCam MRc 5 digital camera, a Zeiss Axio Zoom.V16 microscope, and a Zeiss Axio Imager A1 compound microscope equipped with Nomarski differential interference contrast optics, fitted with an Axiocam 506 digital camera. Microscopic characters were studied using razor blade cut sections mounted in water, 10% potassium hydroxide (K), and Lugol’s iodine directly (I) or after a K pre-treatment (K/I). Measurements were taken from water mounts, unless otherwise indicated, and rounded to the nearest 0.5 µm. The length,