

## THE GENUS *Leveillula* ON ASTERACEAE IN IRAN\*

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### Abstract

Numerous newly collected and herbarium specimens belonging to the genus *Leveillula* on Asteraceae were examined using light microscopy. A total of six species including *L. guilanensis*, *L. lactucae-serriolae*, *L. lactucarum*, *L. picridis*, *L. simonianii* and *L. taurica* s.lat. were identified. It was found that, *Lactuca* spp. in Iran are infected at least with two different *Leveillula* species (*L. lactucae-serriolae* and *L. lactucarum*). Examination of several specimens belonging to *L. taurica* s.l. from Asteraceae showed that these taxa possess different conidial morphology. However, most of them are not differentiable from already described species. According to conidial morphology, *L. taurica* on Asteraceous plants can be categorized at least into three morphological groups. Specimens with lanceolate to more or less ellipsoid primary conidia. *L. taurica* on *Carthamus*, *Crepis*, *Gundellia*, *Helianthus*, *annuus* *Taraxacum* are categorized in this group. Second group includes specimens with more or less ellipsoid to ovoid primary conidia. *L. taurica* on *Anthemis*, *Cirsium*, *Cousinia*, *Echinops* spp. showed this type of conidia. Third group includes specimens with subcylindric primary conidia which are pointed at apex. Lanceolate primary conidia were also present in this group. Specimens on *Acroptilon*, *Artemisia*, *Centurea*, *Launaea* and *Helianthus* are categorized in this group. It is mentionable that sunflower (*Helianthus annuus*) in Iran is infected at least with two morphologically different groups of *Leveillula*.

**Keywords:** Powdery mildew, *Helianthus annuus*, conidium morphology, taxonomy, fungi.

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