**Title:**  Identification and ecological survey of some taxa belonging to the genus *Ramularia* in Iran

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**Introduction**

Many species of the genus *Ramularia* Unger are phytopathogenic, causing leaf spots on various host plants and have sexual morphs belonging to the genus *Mycosphaerella* Johanson s. str. The genus *Ramularia*, published in 1833,is older than *Mycosphaerella*, introduced in 1884, and has been proposed as preferred name, i.e., *Mycosphaerella* is now a younger heterotypic synonym of *Ramularia*. *Ramularia* species are characterized by having colorless structures, solitary to fasciculate conidiophores forming small to sporodochial fascicles and solitary to catenate conidia with high morphological variation. A combination of morphological features including shape, size and septation of conidia and conidiophores, and conidiogenous loci have been used to identify *Ramularia* species. Little is known about *Ramularia* species in Iran. Scattered reports including 23 species were published between 1941 and 2009 in Iran by several mycologists. In recent years, increasing attempts to examine cercosporoid and ramularioid fungi (*Mycosphaerellaceae*) in Iran have been made, which led to more than 50 first records of such ascomycetes for this country. In this paper, a new species of *Ramularia* based on Iranian material is described, and new observations on some *Ramularia* species with a record of a new host plant for a species previously reported from this country are listed.

**Methods**

Leaves affected by *Ramularia* spp. have been collected in 2013 and 2014 in various parts of Iran. All specimens examined have been deposited in the herbarium of the Iranian Research Institute of Plant Protection (IRAN, Iran) and the herbarium of Halle (Saale) University (HAL, Germany). Portions of infected plants and fungal structures were mounted in lactic acid (50%). Characters such as presence or absence of stromata and their characters, shape and dimension of conidiophores and conidia, sporulation patterns (solitary, simple chain, branched chain), thickness and darkness of conidiogenous loci (scars) and hila were examined using standard light microscopy (Olympus CH40). Fifty conidia and conidiophores per specimen were randomly selected and measured. Drawings were made using a drawing tube attached to the microscope.

**Results**

*Ramularia ranunculicola* sp. nov. (*Mycosphaerellaceae*) is described from Iran on *Ranunculus muricatus* and compared with other species reported on *Ranunculus* spp. *Ramularia carletonii* on *Lactuca tuberosa* and *R. nagornyi* on *Centaurea solstitialis* are newly reported from Iran, and *Picris strigosa* is a new host for *R. picridis* (= *R. inaequalis* s. lat.). The species are described and listed in alphabetical order. An identification key is provided for *Ramularia* species occurring on *Ranunculus* spp.