NEW RECORDS OF THE LICHEN SPECIES FROM IRAN

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Three lichen species, *Cryptothecia striata*, *Lecanographa lyncea* and *Caloplaca citrina* are reported from Iran for the first time. The genera *Cryptothecia* and *Lecanographa* are also first reports for Iran. *Opegrapha vulgata* is new record for Golestan province.

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گزارش‌هاي جديدي از گونه‌هاي گلسنگ‌ها در ايران

ساره سادات كاظمي،كارشناس هرباريوم گلسنگ در مؤسسه تحقيقات جنگلها ومراتع كشور.

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گونه‌های جديدی از گلسنگ‌ها شامل *Crytpothecia striata*، *Lecanographa lyncea* و *Caloplaca citrina* برای اولين بار از ايران گزارش می‌شوند، جنس‌های *Crytpothecia* و *Lecanographa* برای اولين بار از ايران گزارش می‌شوند. گونه *Opegrapha vulgata* به عنوان گزارش جديدی از استان گلستان ذكر می‌شود.

Introduction

Lichen specimens have been collected from Toskaestan and Garmabdasht area in Golestan province, this area is located between 54° 44′ 36″ to 54° 30′ 32″ longitude and 37° 37′ 36″ to 36° 41′ 27″ latitude with an area of about 180 km^2. It is counted as a part of cold and semi humid climate. Some of the more interesting discoveries are presented here with short characteristics, exact collecting locality and habitat information.

Material and methods

Morphological characters of the lichen samples were investigated by stereomicroscope following identification keys (Sipman 2003, Brodo & al. 2001). Sexual and asexual reproductive structures were studied in order to observe their development by means of light microscope. Afterwards the samples were identified on the basis of morphological and anatomical analyses and chemical spot tests in 2004, using the literature listed below. The identifications were approved by Dr. M. Schultz (Hamburg, Germany) in 2005. The material is deposited in the lichen herbarium of the Research Institute of Forests and Rangelands, Tehran; duplicates are in HBG.

Results

1) Cryptothecia striata Thor (*Arthoniales*)

Crustose lichen with thick thalli and a zoned margin caused by a conspicuous prothallus developing at the periphery. Photobiont green (*Trentepohlia*). Clearly defined fruiting bodies are not formed, because the asci develop scattered or sometimes in groups within the thallus. Chemistry: thallus K-, KC+ red, C+ red. For further details see Brodo & al. (2001).

On *Alnus* species bark.

Examined specimen. Gorgan: Toskaestan, c. 22 km on the main road to Saraliabad, 1000 – 1200 m, 27.05.2004, S. Kazemi 2874 (HBG, TARI).

2) Lecanographa lyncea (Sm.) Egea & Torrente (*Arthoniales*)

Thallus crustose, chalky white, with a heavy pruina. Photobiont green (*Trentepohlia*). Apothecia round and disk-like or elongated and script-like; usually heavily

pruinose. Chemistry: Cortex usually K-, KC+ red, C+ red. For further details see Brodo & al. (2001).

On rocks and *Quercus* species trees.

Examined specimens. Gorgan: Toskaestan, c. 15 – 20 km on the main road to Saraliabad, 1000 – 1200 m, 22.04.2004, S. Kazemi 2826, 2865 (HBG, TARI); c. 22 km on the main road to Saraliabad, 1000 – 1200 m, 27.05.2004, S. Kazemi 2886 (HBG, TARI).

3) Caloplaca citrina (Hoffm.) Th. Fr. (*Teloschistales*)

Thallus crustose, dark yellow to yellow – orange, consisting of irregularly shaped areoles that become granular-sorediate starting at the edges, often the entire thallus turning into a leprose crust. Apothecia not seen in this specimen, with sorediate margins. Chemistry: Soredia K+ violet – red. For further details see Purvis & al. (1992).

Frequent on all kinds of trees and on soil, at times overgrowing mosses and dead herbs.

Examined specimen. Gorgan: Toskaestan, c. 15 - 20 km on the main road to Saraliabad, 1000 – 1200 m, 22.04.2004, S. Kazemi 2823, 2872 (HBG, TARI).

4) Opegrapha vulgata (Ach.) Ach. (*Arthoniales*)

Thallus crustose, thin, sometimes effuse or conspicuous, smooth or rimose, white, grey, pale or deep brown, often with an olive tinged. Apothecia very variable, sessile or semi-immersed, elongate, sinuate, simple or often furcate, sometimes stellate or forming an interlinked network; disk persistently slit-like, only rarely partially exposed in older apothecia. Chemistry: all reactions negative. For further details see Purvis & al. (1992).

On smooth bark of a wide range of tree species.

Examined specimen. Gorgan: Toskaestan, c. 22 km on the main road to Saraliabad, 1000 – 1200 m, 27.05.2004, S. Kazemi 2887 (HBG, TARI).

Opegrapha vulgata was recorded before from Mazandaran province (Sari, from Vanamak to Sarta, 400 – 1000 m, 20.12.2003, Maassoumi 2801 (B, TARI) by Seaward & al. (2004).

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