

RUST MYCOBIOTA OF CENTRAL ALBORZ, NORTHERN IRAN *

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(Received: 28.6.2011; Accepted: 28.12.2011)

Abstract

Central Alborz region has been explored since 18th century by different botanists and mycologists. The results of all these expeditions are several publications about flora and mycobiota of the region. Literature review of publications about Central Alborz showed no special publication about rust mycobiota of this region. The lack of information about rust mycobiota of Central Alborz was the main reason for doing this research. During our study, several rusted specimens were collected and identified, thirteen of which belonged to genera *Phragmidium*, *Puccinia* and *Uromyces* reported here. Among the studied taxa, *Phragmidium asiae-mediae*, *Ph. tranzschelianum* on *Geum kokanicum* and *Rosa iberica*, respectively; *Puccinia hieracii* var. *piloselloidarum* on *Hieracium woronowianum*, *Uromyces geranii* on *Geranium* spp. and *Ur. eurotiae* on *Krascheninnikovia ceratoides* are newly reported from Iran. Uredinial state of *Ph. asiae-mediae* and *Ur. bupleuri* are reported here for the first time. *Puccinia monopora* is reported on *Asperula glomerata* for the second time since 1901. New rust taxa for Central Alborz and new hosts for Iranian rust mycobiota are also reported.

Keywords: Biodiversity, Mycobiota, Mycology, Iran, Plant pathology.

See Persian text for figures and tables (Pages).

*: A Part of MSc. Thesis of the First Author, Submitted to College of Agric. and Natur Resour. Islamic Azad University, Science and Research Branch, Tehran, Iran.

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Enumeration of taxa:

- *Phragmidium asiae-mediae* L.I. Vassiljeva, Vesci Akademii Navuk Belaruskai SSR 1: 45 (1957)

On *Geum kokanikum* Regel & Schmalh.

Dizin, Peikamar, alt: 2750 m, 22.06.1982, Moussavi, M. et al., (IRAN 8627 F), II+III- Karaj-Chalus road, Khor, after waterfall, 06.1998, A. Malhipour, (IRAN 14993 F), I+II+III.

Uredinial state of above species is newly described here. Uredinia white to yellow, hypophyllous, mostly surrounded by telia; urediniospores more or less globoid, ellipsoid and obovoid, 19-25 x 15-21 µm, wall hyaline, 1.5-2 µm thick, with 6-8 scattered germ pores.

- *Phragmidium tranzschelianum* L.I. Vassiljeva, Vesci Akademii Navuk Belaruskai SSR 1: 45 (1957)

On *Rosa iberica* Steven

Shahrestanak, between village and Gilkola spring, alt: 2100 m, M. Abbasi & H. Falsafi, 07.08.1996, (IRAN 14994 F), (I)+II+III.

This species is newly reported from Iran.

- *Puccinia centaureae-virgatae* Vienn.-Bourg. Ann. Inst. Rech. Agron. Ser. C (Ann. Epiphyt.), 9: 128 (1958).

On *Centaurea virgata* Lam.

Karaj road towards Chalus, Kandovan defile, alt: 2400 m, 22.08.1996, M. Abbasi & Z. Ghanbari, (IRAN 11808 F), (II)+III.

- *Puccinia chaerophylli* Purton, British Plants 3: no. 1553 (1821)

On *Chaerophyllum macropodium* Boiss.

Azadbar, alt: 2340 m, M. Abbasi & H. Falsafi, (IRAN 11809 F), (II)+III.

- *Puccinia gundeliae* Cooke, Grevillea, 9: 14 (1880).

On *Gundelia tournefortii* L.

Fashand road, 3 km of village, alt: 1470 m, 16.06.1998, M. Abbasi et al., (IRAN 11594 F), II+III.

- *Puccinia hieracii* var. *piloselloidarum* (Probst) Jørst., Kgl. norske vidensk. Selsk. Skr. 38: 27 (1936) [1935]

On *Hieracium woronowianum* Zahn

Karaj-Chalus road, near Gachsar, Azadbar road, 2 km of village, alt: 2300 m, 07.08.1996, M. Abbasi & H. Falsafi, (IRAN 10607 F), II+III.

This taxa is new to the Iranian rust mycobiota.

- *Puccinia liliacearum* Duby, Bot. Gall., Edn 2 (Paris) 2: 891 (1830)

On *Ornithogalum orthophyllum* Ten.

Karaj-Chalus road, Siahbisheh, alt: 1990 m, 10.05.1998, Z. Ghanbari, (IRAN 10533 F), O+III.

- *Puccinia monopora* Lindr., Meddn Stockholms Högskolas Bot. Inst.: 6 (1901)

On *Asperula glomerata* (M.Bieb.) Griseb.

Khor ski slope, near Abharak, alt: 1650 m, 25.08.1996, M. Abbasi & Mesbah, (IRAN 10608 F), (II)+III-Vardeh, 15.08.1998, Khodaparast, A., (IRAN 11175 F), (II)+III.

- *Puccinia plicata* Kom., Scripta Bot. Horti Univ. Imper. Petrop. 4: 28 (1895)

On *Prangos ferulacea* Lindl.

Tochal mountain, between Osoun valley and 5th Station, alt: 2900 m, 24.06.1999, M. Abbasi & M. Badiçi, (IRAN 10585 F), III.

On *Prangos* sp.

Tochal mountain, northern slope of Kolakchal peak, 01.07.1999, M. Abbasi & M. Badiei, (IRAN 10736 F), III.

- ***Puccinia ziziphorae* P. Syd. & Syd., Monogr. Uredin. (Lipsiae) 1(2): 304 (1902) [1904]**

On *Ziziphora clinopodioides* Lam. subsp. *rigida* (Boiss.) Rech.f.

Taleghan, Darreh Pey, Garab, Garab mountain, alt: 2200-2450 m, 13.08.1991, F. Termeh et al., (IRAN 15007 F), I+II- Khor slope road, after Abharak, alt: 1700 m, 25.08.1996, M. Abbasi & Mesbah, (IRAN 10604 F), II.

- ***Uromyces geranii* (DC.) G.H. Oth & Wartm., Annls Sci. Nat., Bot., sér. 3 8: 371 (1847)**

On *Geranium* sp.

Haraz road, Nava village, collected I August, before 1978, Navaii & Shahidi, (IRAN 14995 F), II+III.

On *Geranium pyrenaicum* Burm.f.

Kelardasht, Takht-e Soleiman, alt: 3200 m, 15.09.1970, F. Termeh, (IRAN 14996 F), II+III- Deilaman road towards Siahkal, between Abinam and Espili, 10.10.1990, M. Abbasi, (IRAN 14997 F), II+III- Kelardasht, Rudbarak, Vandarbon towards Sarchal, 18.08.1992, M. Abbasi & J. Fatehi, (IRAN 14998 F), II+III.

Uromyces geranii is a new member for Iranian rust mycobiota.

- ***Uromyces bupleuri* Magnus in Verh. Zool.-Bot. Ges. Wien, 49: 90 (1899)**

On *Bupleurum exaltatum* M.B.

Shahrestanak, between Gilkola spring and village, around the road, 07.08.1996, M. Abbasi & H. Falsafi, (IRAN 11684 F), (II)+III.

Urediniospores in telia, more or less globoid, ellipsoid or obovoid, with truncate base, wall verrucose, golden brown, 2-3 μm thick, with 3-5 equatorial or scattered germ pores, 24-29 x 21-24 μm . Urediniospores of *Ur. bupleuri* is newly described here.

- ***Uromyces eurotiae* Tranzschel, Annls mycol. 5(6): 549 (1907)**

On *Krascheninnikovia ceratoides* (L.) Gueldenst.

Haraz road towards Baladeh, 14.11.1996, M. Abbasi, (IRAN 14999 F), II+III.

This rust species is a new member for Iranian rust mycobiota.

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