

# New chorological records of vascular plants for the Western Rhodopi Mountains

Svetlana Bancheva, Malina Delcheva & Sonya Tzoneva

Institute of Botany, Bulgarian Academy of Sciences, Acad. G. Bonchev St., bl. 23, 1113 Sofia, Bulgaria, e-mail: bancheva@bio.bas.bg

Received: March 17, 2003 ▷ Accepted: May 5, 2003

**Abstract.** New locations of 14 vascular plants for the flora of Western Rhodopes are reported: *Allium pallens* subsp. *pallens*, *Astragalus monspessulanus* subsp. *monspessulanus*, *Cerastium fontanum* subsp. *vulgare*, *Erodium hoeftianum* subsp. *hoeftianum*, *Gladiolus illyricus*, *Hypochaeris glabra*, *Linum bienne*, *Lotus angustissimus*, *Minuartia viscosa*, *Muscari comosum*, *Phleum graecum*, *Soldanella chrysosticta*, *Tragopogon dubius*, *Tragopogon orientalis*. The distribution of *Linaria pelisseriana* and *Plantago gentianoides* is confirmed.

**Key words:** chorology, vascular plants, Western Rhodopi Mts

In the period 2001–2002, field investigations were carried out with the aim of establishing the biological diversity and conservational importance of the territory of Western Rhodopes. Consequently, some new vascular plant taxa were identified and the distribution of others was confirmed.

The present paper reports 11 new taxa for the flora of the Western Rhodopes. *Cerastium fontanum* subsp. *vulgare*, *Soldanella chrysosticta* and *Allium pallens* are reported for the first time for the Rhodopes. Distribution of *Linaria pelisseriana* and *Plantago gentianoides* in the Western Rhodopes is confirmed.

## List of the taxa

### *Allium pallens* L. subsp. *pallens*

Rhodopi Mts (Western): above Satovcha village, Orlov Kamuk locality, 1142 m, with flowers, 29.06.2002, GM-41, 41°37'36"N; 23°59'06"E, SC (SB, MD & STz), SOM 157925.

### *Astragalus monspessulanus* L. subsp. *monspessulanus*

Rhodopi Mts (Western): in the rocks on the left side of the road between Rakitovo village and Kachakov Chark locality, 1111 m, with flowers, 07.05.2002, KG-55, 41°55'N; 24°02'E, SC (SB, MD & STz), SOM 157915.

### *Cerastium fontanum* Baumg. subsp. *vulgare* (Hartm.) Greuter & Burdet

Rhodopi Mts (Western): above Satovcha village, Orlov Kamuk locality, 1142 m, with fruits, 29.06.2002, GM-41, 41°37'36"N; 23°59'06"E, SC (SB, MD & STz), SOM 157912.

### *Erodium hoeftianum* C. A. Mey. subsp. *hoeftianum*

Rhodopi Mts (Western): to the northwest of Zhizhevo village, 897 m, with flowers and fruits, 26.06.2002, KG-50, 41°33'13"N; 24°01'53"E, SC (SB, MD & STz), SOM 157917.

There is also a herbarium specimen deposited in SO 34645 (Belovo – Rhodopi Mts, 12.04.1889, leg. S. Georgiev).

*Gladiolus illyricus* W. D. J. Koch

Rhodopi Mts (*Western*): 3 km off the road branch to Kochan village, Dautov Grob locality, 1125 m, with flowers, 24.06.2002, KG-50, 41°35'44" N; 24°00'20" E, SC (SB & MD), SOM 157927.

There are also herbarium specimens deposited in SOM 14217 (above Satovcha village, 22.07.1933, leg. B. Ahtarov) and in SOA 04312, 04313 (Satovcha village, 13.07.1966, leg. D. Delipavlov).

*Hypochaeris glabra* L.

Rhodopi Mts (*Western*): above Satovcha village, Orlov Kamuk locality, 1142 m, with flowers, 25.06.2002, GM-41, 41°37'36" N; 23°59'06" E, SC (SB, MD & STz), SOM 157922.

*Linaria pelisseriana* (L.) Mill.

Rhodopi Mts (*Western*): to the north-west of Zhizhevo village, 897 m, with flowers and fruits, 26.06.2002, KG-50, 41°33'13" N; 24°01'53" E, SC (SB, MD & STz), SOM 157920.

This species was reported by Kitanov (1943) for the Western Rhodopes, but was not indicated by Petrova (1992), Delipavlov & Popova (1995). There are herbarium specimens deposited in SOM 66703 (Southern Rhodopes, above Palas village (Rudozem), 1914, leg. B. Davidov) and SO 81557 (Western Rhodopes, surrounding of Velingrad town, 06.07.1976, leg. Y. Koeva). With the present communication we confirm the distribution of this species in the Western Rhodopes.

*Linum bienne* Mill.

Rhodopi Mts (*Western*): to the north-west of Zhizhevo village, 897 m, with fruits, 26.06.2002, KG-50, 41°33'13" N; 24°01'53" E, SC (SB, MD & STz), SOM 157918.

*Lotus angustissimus* L.

Rhodopi Mts (*Western*): 3 km off the road branch to Kochan village, Daoutov Grob locality, 1125 m, with flowers and fruits, 24.06.2002, KG-50, 41°35'44" N; 24°00'20" E, SC (SB, MD & STz), SOM 157916.

*Minuartia viscosa* (Schreb.) Schinz & Thell.

Rhodopi Mts (*Western*): 3 km off the road branch to Kochan village, Daoutov Grob locality, 1125 m, with flowers and fruits, 24.06.2002, KG-50, 41°35'44" N; 24°00'20" E, SC (SB, MD & STz), SOM 157913.

There is a herbarium material from the Western Rhodopes deposited in SOM 130001 (among Zmeitsa village and Dospat town, 22.06.1971, leg. P. Panov).

*Muscari comosum* (L.) Mill.

Rhodopi Mts (*Western*): above Satovcha village, Orlov Kamuk locality, 1142 m, with flowers, 25.06.2002, GM-41, 41°37'36" N; 23°59'06" E, SC (SB & MD), SOM 157926.

There is a herbarium material in SO 32883 (Bedenski Bani, 13.06.1972, leg. O. Petkova).

*Phleum graecum* Boiss. & Heldr.

Rhodopi Mts (*Western*): to the north-west of Zhizhevo village, 897 m, with flowers, 26.06.2002, KG-50, 41°33'13" N; 24°01'53" E, SC (SB, MD & STz), SOM 157931.

There is a herbarium specimen deposited in SO 86675 (Velingrad town, 05.07.1978, leg. Gusseva & Georgiev).

*Plantago gentianoides* Sibth. & Sm.

Rhodopi Mts (*Western*): Chakmakli locality, 1577 m, with flowers, 07.08.2001, KG-55, 41°50' N; 24°06' E, SC (SB, MD, RN & ZM), SOM 157921.

This species was not reported by Petrova (1992, 1995) for the Rhodopes. On the turn of the 20th century Urumov (1906, 1908) reported it for the Western Rhodopes. There is a specimen of *Plantago gentianoides* deposited in SOA 41119 (Yundola locality, 04.09.1980, leg. D. Delipavlov, M. Popova & I. Cheshmedzhiev, sub *Plantago major*, 20.04.1989, rev. A. Petrova).

*Soldanella chrysosticta* Kress (*S. hungarica* Simonk.)

Rhodopi Mts (*Western*): Kartela locality, 1681 m, with flowers, 16.04.2002, KG-63, 41°52' N; 24°09' E, SC (SB, MD & STz), SOM 157919.

There is a herbarium specimen deposited in SOM 57107 (Yundola locality, 1912, leg. I. Urumov, sub *S. hungarica* and rev. 1985 by A. Kress).

*Tragopogon dubius* Scop.

Rhodopi Mts (*Western*): to the northwest of Zhizhevo village, 897 m, with flowers, 26.06.2002, KG-50, 41°33'13" N; 24°01'53" E, SC (SB, MD & STz), SOM 157923.

*Tragopogon orientalis* L.

Rhodopi Mts (*Western*): 3 km off the road branch to Kochan village, Dautov Grob locality, 1125 m, with

flowers, 25.06.2002, KG-50, 41° 35' 44" N; 24° 00' 20" E, SC (SB, MD & STz), SOM 157924; above Satovcha village, Orlov Kamuk locality, 1142 m, with flowers, 25.06.2002, GM-41, 41° 37' 36" N; 23° 59' 06" E, SC (SB, MD & STz), SOM 157924.

There are two herbarium specimens deposited in SOM 156349 (Shiroka Luka village, Rhodopi Mts, 30.07.1997, leg. E. Bergmeierdet & al., det. V. Vladimirov); 87379 (Krichim village, 25.06.1967, leg. I. Mrkvichka).

**Acknowledgements.** The authors are grateful to the National EcoFund Trust and BSBCP for the financial support extended to this study.

## References

- Delipavlov, D. & Popova, M.** 1995. *Linaria* Mill. – In: **Kozuharov, S.** (ed.), Fl. Reipubl. Bulgaricae. Vol. 10, pp. 111-124. Editio Acad. “Prof. Marin Drinov”, Serdicae (in Bulgarian).
- Kitanov, B.** 1943. Floristische Notizen. – Izv. Bulg. Bot. Druzh., 9: 88-93 (in Bulgarian).
- Petrova, A.** 1992. *Plantago* L.; *Linaria* Mill. – In: **Kozuharov, S.** (ed.), Field Guide to the Vascular plants in Bulgaria, pp. 560-562; 737-738. Naouka & Izkoustvo, Sofia (in Bulgarian).
- Petrova, A.** 1995. *Plantago* L. – In: **Kozuharov, S.** (ed.), Fl. Reipubl. Bulgaricae. Vol. 10, pp. 111-124. Editio Acad. “Prof. Marin Drinov”, Serdicae (in Bulgarian).
- Urumov, I.** 1906. Sixth contribution to the Bulgarian flora. – Sborn. Nar. Umotv. Naouka Knizhn., 22: 1-126 (in Bulgarian).
- Urumov, I.** 1908. Ninth contribution to the Bulgarian flora. – Sborn. Nar. Umotv. Naouka Knizhn., 24: 1-113 (in Bulgarian).

